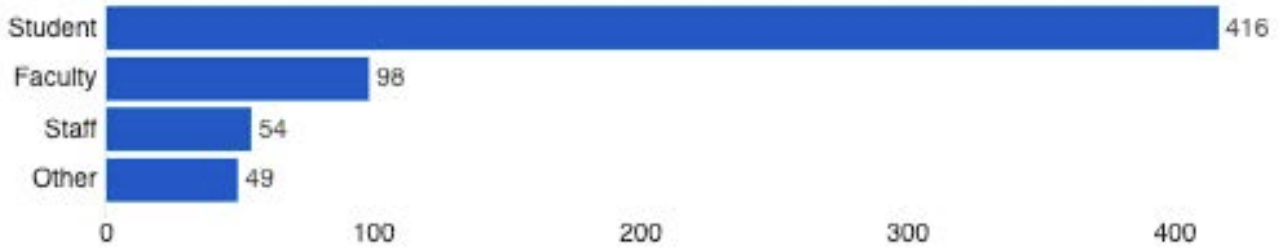


Affiliation



Affiliation: Other Text

Other - Text

community

Co-chair of the BFA Climate Science and Education Committee

community

Co-chair of the BFA Climate Science and Education Committee

Co-chair of the BFA Climate Science and Education Committee

community member

community member

Community member

PHD candidate and work for CU

PhD Candidate

Community member who has taken classes at CU

Community member who has taken classes at CU

Community member who has taken classes at CU

Community member who has taken classes at CU

Community member who has taken classes at CU

community

Community Member

Draft Climate Action Plan Comments – University of Colorado Boulder

Core Goals and Guiding Principles

I would like to ask the CAP steering committee live up to the stated values of transparency and accountability by formally committing to follow all Science-Based Target Initiative (SBTi) rules and submit targets for validation, investigating past failures to meet the 2020 target, and avoiding overstatement of climate benefits.

¶The CAP Steering Committee should consult the University Legal Counsel office regarding climate washing liability for representations concerning SBTi alignment. As noted above, while the current CAP prominently claims alignment with SBTi (see, e.g., Executive Summary, p. 16), low-visibility footnotes qualify that statement in ways that make it incorrect and misleading (p. 49, note 29; p. 72). We believe that the CAP must fully commit to following SBTi rules and submit its targets for validation. However, if the CAP is not willing to truly commit to SBTi, it must remove all references to SBTi to avoid climate washing. The only organizations allowed to state their alignment with SBTi are those that formally commit on the SBTi website and undertake to submit their targets for technical validation within 2 years as required by the rules. If CU Boulder is not willing to commit to SBTi at this point, it must remove all language regarding SBTi alignment or risk legal liability for climate washing. The CAP Steering Committee should urgently consult the University Legal Counsel's office regarding climate washing liability. Sources of legal liability include unfair and deceptive practices and fraudulent misrepresentation.

In the event the university chooses not to commit to SBTi at this point, we also request that the CAP Steering Committee clarify in the CAP why the commitment to SBTi was dropped, despite initial promises. We note that organizations have 2 years to submit their targets for validation, and the university should have ample time to ensure compliance with SBTi criteria during this period.

CU Boulder cannot climate to be a climate leader without more transparency and acknowledgement of missing our own targets. it is not enough to have climate scientists, world class architectural engineers etc. - we need to listen to them

It is incredibly important that CU Boulder puts an emphasis on justice and equity. Creating solutions to environmental problems in plans such as the Climate Action Plan can greatly benefit our school, city, state and world. But if these plans are not executed with everyone being thought of, significant problems with unequal representation can arise. To make sure that the strategies and actions described in the plan prioritize the needs of disadvantaged populations and address existing imbalances, the plan should commit to undertaking an equity evaluation. By having these evaluations frequently, this plan can be held accountable by making sure it is keeping up with its promises. Additionally, the necessity of integrating a variety of stakeholders in the decision-making process, such as members of the community, students, professors, staff, and neighborhood groups, should be emphasized in the plan. This can entail holding community forums or forming advisory groups to get

Draft Climate Action Plan Comments – University of Colorado Boulder

opinions and suggestions. Finally, initiatives to offer resources, instruction, and training should be part of the strategy in order to enable underprivileged populations to take up climate change action and engage in political processes. This might entail creating outreach initiatives, workshops, and educational programs that are specific to the goals and requirements of certain groups. With all of these ideas incorporated into the CAP, CU Boulder can achieve its goal of ensuring that equity, community health, and resilience are an important lens through which recommendations made in the CAP can be evaluated.

As a CU-educated journalist and almost-lawyer, I know how important transparency is to hold ourselves and each other accountable on critical issues, including climate action. My primary concern with the CAP is that it fails to explain why CU Boulder missed the 2020 emissions-reduction goal (by 3X!) or how we're going to ensure we don't repeat that failure going forward. CU should make publicly available the reason we fell short of that goal. We can't learn from failure until we acknowledge that it happened and accurately document what went wrong. Ultimately: CU needs to commit to Science-Based Target Initiative (SBTi) rules and submit targets for validation to ensure the program is at all accountable, honest, and trustworthy.

Formally commit to follow all Science-Based Target Initiative (SBTi) rules and submit targets for validation, investigate past failures to meet the 2020 target, and avoid overstatement of climate benefits.

Formally commit to SBTi, submit targets for validation, and remove all misleading, inaccurate, and outdated references to SBTi guidance. The CAP has backed off its original intentions of aligning with SBTi, the leading standards for corporate climate action, and consistently misrepresents SBTi guidance. Please follow goals based in well-researched science!!

Fully acknowledge the university's failure to meet its 2020 target and conduct an independent study of the causes of that miss; use the insights from this study to inform the current CAP. Publish the independent study in the public domain and publicize it!!

Remove, or correct and substantiate misleading statements to avoid climate-washing and commit to transparency with the CU Boulder community. The CAP overstates the university's past climate record and leadership.

Implementing Bodies such as stakeholders and energy & transportation bodies, although reporting on the Chancellor's Office, has larger autonomy to fulfill CAP goals than the CAP implies. I believe despite the tier level used in the CAP, implementing bodies hold a large role in governance implementation with cooperation with the CAP.

Draft Climate Action Plan Comments – University of Colorado Boulder

CU Boulder missed its previous 2020 emissions reduction goal by a factor of nearly three, but the CAP downplays this miss and does not explain why it occurred. CU overspent its cumulative carbon budget, so it should account for these excessive emissions in its new targets. Live up to the stated values of transparency and accountability by formally committing to follow all Science-Based Target Initiative (SBTi) rules and submit targets for validation, investigating past failures to meet the 2020 target, and avoiding overstatement of climate benefits.

If certain goals are not met by 2050 and offsets are not being purchased. Are there more aggressive acts that will take place in hopes of a quicker reduction in GHG and carbon emissions.

Formally commit to SBTi, submit targets for validation, and remove all misleading, inaccurate, and outdated references to SBTi guidance. Fully acknowledge the university's failure to meet its 2020 target and conduct an independent study of the causes of that miss; use the insights from this study to inform the current CAP. CU Boulder missed its previous 2020 emissions reduction goal by a factor of nearly three, but the CAP downplays this miss and does not explain why it occurred. CU overspent its cumulative carbon budget, so it should account for these excessive emissions in its new targets. Remove, or correct and substantiate misleading statements to avoid climate-washing and commit to transparency with the CU Boulder community.

P8. According to the Paris Agreement, global GHG emissions need to be reduced 50% by 2030 with a linear reduction to 100% by 2050. This Climate Action Plan (CAP) establishes a course for the University of Colorado's Boulder campus (CU Boulder) to achieve these targets for its own emissions.

Greenhouse Gas (GHG) emissions are cumulative, meaning that the sooner reductions are made, the greater the impact and the less difficult it is to make reductions in the future. Spell out GHG for 1st use of the acronym. Also specify what year is used as the baseline for the reduction calculations.

P8. Greenhouse Gas (GHG) emissions are cumulative, may want to be more specific: CO2 equivalent GHG emissions are cumulative

P8. Greenhouse Gas (GHG) emissions are cumulative, meaning that the sooner reductions are made, the greater the impact and the less difficult it is to make reductions in the future. What is the logic for this statement? Some sectors will be easier to electrify for example than others so it is not clear that early reductions of total GHG emissions will translate into less difficult further reductions.

Draft Climate Action Plan Comments – University of Colorado Boulder

P8-9. A lot of buzz words and definitions re. guiding principles but not enough substance re. the planned actions to meet the GHG emission reduction and equity goals even though this is a call for action. The climate call for action with co-benefit vision can be summarized in one or two paragraphs but then you need to explain how CU will get there: help the reader see the path forward, not just the 2030 and 2050 goals. Especially given that the previous CU climate action plan was not fully implemented. What will make things different this time around? How is this complex effort organized and how will emissions and emissions reductions be tracked and reported?

P8. CU Boulder has positioned itself as a global leader. Maybe a somewhat presumptuous statement at this time. Actions will speak, and time will tell. Maybe use language that is more modest given the long road ahead and the big ambitions.

P8-9. Adaptation and resilience should be a part of this plan but are not mentioned so far.

Core goals - P10

1. Explain a detailed emission inventory has been done: for which years and emissions are categories into 3 scopes. More work is needed to refine some categories, especially Scope 3.
2. Need to define Scopes 1,2,3 GHG emissions for the reader and explain why Scope 3 is handled differently from Scopes 1 and 2.
3. Indicate what % of total emissions each scope represents, for the baseline year or most recent year in an executive summary. The Table 1 on p 11 should be before the list of core goals that use the scope 1,2,3 language. It would be nice to have a good visual/graphic to explain these categories for people who are more visual and non expert.
4. Achieve a 50% reduction from 2019 by 2030 for those Scope 3 emissions where accurate estimates can be established and which are within the University's influence and control. This seems like a loophole. Are Scope 3 emissions going to be zero by 2050? Yes or no? If not, what sources/emissions may be impossible to tackle?
5. Use climate action to deliver to the CU Boulder community the co-benefits of equity, health, and resilience. This is a very good framework and goal. Making sure accessibility and inclusion support individuals with different needs and means.
6. Accountability is important. Will need to read the document to see what it means concretely.
7. Build a Community Engagement Strategy to integrate communication, feedback, and reporting and increase transparency with campus and the broader community. Need to include not just feedback but support for initiatives and pilot programs for solutions that emerge from this major transition and that align and can accelerate the CAP achievements.

Draft Climate Action Plan Comments – University of Colorado Boulder

P 12

8. This section title may be more descriptive with a few more words: GHG emissions: baseline, forecasts and reduction targets.

9. Baseline: explain what methodology was used to compute emissions and if there was an independent review.

10. In footnote: The figure here was created by a proprietary software called Climate and Energy Scenario Analysis, or CESA. CU Boulder will retain the CESA model that has been specifically designed for the campus. How good is the CESA model ? Is it peer-reviewed and getting updated? Why was it chosen and is there any drawback in using it?

P 13

11. For Table 2: it would be useful to get a sense of how well the various emission estimates are known/quantified. Do you explain why you chose 2019 as your baseline year. Is CU Boulder going to stick with this baseline from now on?

12. Who/what is included in the campus emission inventory under scope 1 and 2? : campus buildings: dorms, teaching spaces, research labs, rec facilities, campus food services, campus transportation. What about off campus research and facilities?

P 14

13. Do you want to number the figures? This figure is missing Figure 1 in front of the caption. Figure 2 is numbered so I assume you want to number all figures.

14. Under the pie chart figure 1: Scope 3 consists of 15 distinct categories of emissions as defined by the GHG Protocol. What is the GHG protocol? The document needs to be explicit about why the committee chose certain methods and protocols.

15. Eight of the categories have been included in CU Boulder's first Scope 3 inventory, some using significant assumptions given the lack of available data. What do you mean by significant , does it mean there are large uncertainties ?

16. The seven categories that include targets together represent about 67%, or approximately two thirds, of the calculated scope 3 emissions. Capitalize the S for scope 3 as it seems to be the norm in the document.

17. If not all true Scope 3 emissions can be managed and reduced by the CU Boulder CAP, maybe it is misleading and Scope 3 emissions should be further qualified to reflect that fact.

P 15

Draft Climate Action Plan Comments – University of Colorado Boulder

18. Since Scope 3 emissions are 55% of the total accounted emissions, why not be straightforward and give the breakdown in Table 3? Replace the Y with the actual estimates.

P 16

19. CU Boulder's 2022 Energy Master Plan¹⁴ Provide website link in footnote. There should be a central permanent publicly accessible web repository for non-confidential relevant references for the CAP.

20. ... while their GHG impact, and various financial performance indicators were evaluated in an Excel-based software model called the Climate and Energy Scenario Analysis tool (CESA).¹⁵

- How expensive was this?
- How tested has this model been?
- How does the optimization work?
- Does CU need to pay every time to modify or update the model?
- How do you do track changes in Excel?

20. the CAP Steering Committee developed three carbon reduction scenarios Do you have short names for the scenarios ? The numbered scenarios are not memorable. Scenario 1 could be 20 or 30 yard line. Scenario 2 would be something else and Scenario 3 is touch down. Brand the CAP to leverage what is driving CU Boulder's fame these days. Maybe check/do necessary networking to make sure it is okay first but it seems a no brainer to try and do something like that.

21. established Science Based Targets for CU Boulder. The concept of Science Based Targets is jargony and won't be much for most people. What is this based on and why was it chosen?

P 18

22. Is the gray insert on zero and neutral C emissions really necessary?

P 19

23. Figure 3 shows the GHG reductions expected by decade, along with Figure 3 that visualizes the initial... The second Figure 3 should be Figure 4.

24. Figure 4 is dropped with no context or introduction to Figure 4 re. how the \$ estimates are derived... what are key assumptions for these costs and should they be ranges given that who knows how much things will cost in 5-30 years.. So these numbers are all today US \$?

25. I do not see the renewable investment (green?) in Figure 4.

25. Table 4: too many significant digits in the numbers in table 4 and the text above, given that there are some uncertainties? Also remove the unit from each table cell where it appears and mention it in the caption.

Draft Climate Action Plan Comments – University of Colorado Boulder

26. Figure 3 belongs right under table 4, save space and provide visual and numbers since they should be the same.

P 20

27. Content dives more into the Financials here with very little background information on how you got these estimates. I am familiar with emission inventories so it did not strike me as much but for both emissions and investment estimates, what they are based on is not explained enough. You do not need details but you need to explain emission factors are from ..., activity data are from ... , etc. The model(s) should not be a complete black box. That could be put in a side text box or a special/recognizable content format.

28. You use strategy and project interchangeably it seems in text and tables. Is that intentional? P16, 1 paragraph, you have this text Projects were identified under four primary categories: building efficiency and electrification, decarbonization of the campus heating system, onsite and offsite renewable energy, and fleet conversion to electric vehicles. So the categories are now called strategies. What do you mean by projects ?

29. Table 5. Is there a more detailed breakdown for the NPV calculation later in the report? Could that be mentioned in the footnote? So positive NPV means costs > benefits. What value do you assume for the social cost of carbon?

P 22-23

30. Can you include some co-benefits for employees and staff?

31. Who is included when you mention the CU Boulder community? Students and employees rely on services in the city of Boulder and beyond.

32. The main energy efficiency mentioned explicitly it seems has to do with building efficiency. What other strategies to reduce energy consumption could be implemented ? For ex., how could the electricity load be reduced during peak demand to shave some of the peak and reduce the need for the central gas power plant to be operating?

33. Extreme heat is briefly discussed but there are also recent examples of extreme cold episodes causing repeated issues with frozen pipes in some buildings on campus. Have all buildings been audited to maximize their resilience?

34. Do we know the energy profile of CU Housing and privately owned rentals used by the community? Should there been more local/state regulations on rental properties to reduce energy consumption and utility bills for students and employees ? Can CU do and publish research on energy efficiency gains and improved resilience on campus and in the larger community?

35. Table 6: Increases Campus Resilience (infrastructure, operations, programs, people) to Climate Events . is Climate Events a terminology

Draft Climate Action Plan Comments – University of Colorado Boulder

widely used ? What about extreme weather events. The current caption states it is a summary but it may not be exhaustive at this time, maybe it is more a list of co-benefits and their symbol/key as identified in this CAP.

P 24

36. The implementation is still not very concrete. It seems that the first action will be to have leadings teams for each strategy that will draft more detailed plans and finalize a project plan. How will decisions at various levels be made ? How centralized will the planning and financing be? Who will be in charge of the data gathering, record keeping, QA/QC and reporting? It seems that the first action will be to have concrete plans for the various strategies. Who will have the authority to approve or change a plan?

P 25

37. Text should refer to Table 7 in this sentence: As a possible example of a capital expenditure plan, Table 6 outlines the planned investment totals required in the next ten years (2024-2034). Maybe either remind reader core goal 1 was described on p10 or remove that reference. You have stated earlier that all strategies were chosen as they serve to achieve the CAP GHG reduction timeline. You maybe want to add a good visual for your core goals. It will take a bit of time for a reader not steeped in the CAP to remember the CAP various core goals, strategies etc...

P 27

38. The conclusion reads a bit like a disclaimer... it is not very energizing or engaging. Do you mention anywhere that inactions and not investing in several strategies have a cost too in current and future vulnerability and damages and loss of attractiveness for future students and employees and maybe grants and sponsors.

P 28

39. Table 8 is not introduced in the text it seems. It seems important so it would be good to have it referenced earlier p24-25 to make the implementation projects piece more concrete.

CU claims to be a school with values and care for its students but it is killing the world that its students live in for them and their children and every child after them. CU has missed its previous 2020 emissions reduction goal by almost 3x, but the CAP downplays this miss and does not explain why it occurred. CU overspent its cumulative carbon budget, so it should account for these excessive emissions in its new targets and reduce more than it plans to. No student wants their thousands upon thousands of tax dollars to go to the destruction of the planet. You are

Draft Climate Action Plan Comments – University of Colorado Boulder

using our money to destroy our world. Wealth is temporary but CUs actions taken in order to gain wealth will have horrifying, permanent consequences. Please, please stop. You have the power to help us. You, reading these words right now. DIVEST!

The Climate Action Plan (CAP) outlined for CU Boulder demonstrates a commendable commitment to addressing climate change while integrating principles of equity and community engagement. The core goals set forth, including ambitious emissions reduction targets and the recognition of the intersectionality between climate action and social equity, highlight the university's proactive stance in combating the climate crisis. However, there are areas where the plan could be strengthened. While the CAP outlines ambitious emissions reduction targets, it may benefit from more specific and actionable strategies for achieving these goals, particularly regarding Scope 3 emissions. Additionally, the plan could provide more detailed guidance on how equity considerations will be integrated into decision-making processes and how the university plans to address potential barriers to participation in climate action initiatives.

Live up to the stated values of transparency and accountability by formally committing to follow all Science-Based Target Initiative (SBTi) rules and submit targets for validation, investigating past failures to meet the 2020 target, and avoiding overstatement of climate benefits.

Live up to the stated values of transparency and accountability by formally committing to follow all Science-Based Target Initiative (SBTi) rules and submit targets for validation, investigating past failures to meet the 2020 target, and avoiding overstatement of climate benefits.

I see that one of the core goals of the action plan is to Ensure that community health, equity, and resilience are an important lens through which recommendations made in the CAP can be evaluated. The section on these co-benefits prioritizes equity.

Nevertheless, only slightly more than 25% of the strategies have equity co-benefits, and of these only one explicitly names a step toward equity. The rest assume that equity will happen, but evidence points to many of these strategies as being inequitable and/or simply insufficient to address the structural barriers that cause inequity.

Let's start with a Transportation Demand Management Pan. The CAP states that transportation and mobility plans can provide heightened access to underserved students. I agree, it CAN, but it is not necessarily so. For instance, the transportation strategies later listed as equitable include affordable EV charging and an EV sharing program. However, EVs themselves are not affordable, so more affordable charging will disproportionately benefit students who have a great deal of money to begin with. An EV sharing program MIGHT alleviate this, but is unlikely to be a big enough fleet to actually do so. And production of EVs themselves is incredibly

Draft Climate Action Plan Comments – University of Colorado Boulder

inequitable and causes environmental havoc in low-income, Indigenous, and other POC communities around the world. See--
<https://www.theguardian.com/us-news/2023/jan/24/us-electric-vehicles-lithium-consequences-research>

Rather, mode shifting should be the focus, especially increasing bus service and reliability around campus, improving access to East campus by bus, allowing bicycles onto campus buses, and reducing student fees related to transit. These are strategies that have been shown to benefit low-income folks by reducing STRUCTURAL barriers and costs.

A culinary recovery program and campus reuse center are well intentioned and may have some small impact, but they do not address structural barriers.

Providing bikes (they do not need to be e-bikes) to students facing social burdens such as poverty and racism is the only stipulation in this plan that explicitly addresses equity. This is because services must be intentionally directed toward burdened populations or they will not be effective at alleviating inequity. This has been shown time and again in environmental justice research. Unfortunately, this strategy is only being considered and is not a set part of this plan.

Ultimately, the equity portion of this plan is entirely insufficient, as best evidenced by the plan's own description of the equity co-benefit, which does not mention which communities experience disproportionate impacts or how these specific communities will be targeted for benefits from this plan. Besides the initial quote from this section, which says underserved students CAN be benefitted by mobility improvements, but doesn't provide a clear way in which they WILL be benefitted, the rest of the examples are described as making everyone's living space nicer and more resilient, but take no explicit steps for those who most need support. In addition, the plan does not specify what steps have been taken to reach out to disproportionately impacted communities for their input on this plan. The plan is correct that this takes work, and likely requires paying people who know how to do this work and are already connected to these communities in the local area. This is a rare expertise and should be remunerated.

Some suggestions to incorporate equity more explicitly in this plan:

--Name that the inequities being discussed here are environmental racism and classism, and that BIPOC communities are most impacted by climate inequities.

--Create a (paid) advisory council of members of local communities that are disproportionately impacted by environmental harms to provide expertise on how this plan can benefit these communities

--Address structural barriers by increasing access to free, public transport and/or bikes for students who experience racism and classism.

--Admit more in-state students at lower tuition rates in order to reduce air travel AND support attendance of low-income populations at CU Boulder

Draft Climate Action Plan Comments – University of Colorado Boulder

--Hire workers from and/or collaborate with sustainable job training programs at local community colleges for electrification upgrades; use these connections to enroll students from these programs into CU Boulder.

--Divest from fossil fuels and engage with utilities to encourage reduction in fossil fuel useage as well as climate equity initiatives

--Reduce consumption first rather than only focusing on buying/upgrading or post-consumption recovery. Many sustainable technology upgrades come at a great cost to impoverished and/or BIPOC communities globally. Sustainability locally that is exploitation and destruction elsewhere isn't true sustainability.

Include at least six students on the body that will implement the CAP, the Sustainability Executive Council. This Council should commit to transparency, including posting data, allowing students to report on meeting minutes, and hosting public progress reports. Decarbonize and electrify CU Boulder's heating system by 2035 and incorporate all future capital projects into the emissions inventory of the CAP. Complete a full inventory of Scope 3 emissions, in accordance with the Science Based Targets Initiative (SBTi) rules, and lay out concrete strategies and timelines to reduce Scope 3 emissions to meet the targets. Live up to the stated values of transparency and accountability by formally committing to the Science-Based Climate Initiative (SBTi), investigating past failures to meet the 2020 target, and avoiding overstatement of climate benefits. Develop and fund specific climate justice strategies that tangibly benefit marginalized communities.

Formally commit to SBTi, (this includes meeting ALL goals associated with SBTi and not only a percentage). Additionally these goals should NOT be updated to better represent current progress but must be met with more rigorous actions if the outlined actions are falling short. This also includes full transparency throughout the process of working towards the SBTi.

As a graduate student studying atmospheric science, I am constantly reminded how important it is to meet emission reduction goals for our nation and for individual institutions, like CU. To better empower the voices of CU students like me, CU should actively listen to the CU Undergraduate and Graduate Student Governments, and specifically call for six student representatives on the Sustainability Executive Council. The representatives would be nominated by these bodies and would include at least one student working on environmental justice research or implementation.

Draft Climate Action Plan Comments – University of Colorado Boulder

CU needs to formally commit to follow all Science-Based Target Initiative rules and submit targets for validation, investigate past failures to meet the 2020 target, and avoid overstatement of climate benefits.

I think it is very important for the CAP executive committee to include multiple student members who have voting and decision making power equal to that of other committee members. Students are directly impacted by the sustainability reputation of CU, and are extremely dedicated to ensuring a thrivable future for the planet. The CAP should also increase transparency and accountability of the University to the set goals by having public meetings and sharing data associated with the CAP with the campus community.

The university's commitment to equity is honorable and well intentioned, however, the way the Climate Action Plan is outlining how the university should handle the issues of environmental justice is falling short of any feasible way to bring about equity. First of all, the outlined considerations in the equity portion of the document are politically correct but meaningless in practice. All of the considerations are broad statements that are immeasurable. Even the use of the word considerations to represent CU's plan to address equity is weak and provides the university with a way to weasel themselves out of enacting any kind of meaningful change. One example of a broad and immeasurable statement is ensuring inclusive representation along with equitable compensation. Who is enforcing this? What is inclusive representation? How will this be measured? What steps does the university have to take to ensure that this happens? This plan fails to go into detail regarding this issue- which is, in my opinion, a failure in constructing an effective plan.

Further, CU Boulder needs to enact structural change within the institution to address equity. The plan should have discussed ways in which the university is falling short to provide a diverse and equitable environment for all people and should propose solutions to these problems of structural racism and prejudice. There is one black person (Wanda James, who is the first black woman elected to the board in over 44 years) on the board of regents. The rest of the board is white people. If the university is committed to equity, there needs to be more marginalized voices at the table of the university's governing authority. At the very least, the university should mention this issue within the climate action plan. It should be essential that marginalized groups have a voice in all the decision making processes addressing the plan.

I am concerned about the consistent misrepresentation of SBTi targets in the report. The lack of acknowledgment of CU Boulder's failure to meet the 2020 targets is also concerning. Why were these targets not met? What is going to change going forward in order to ensure that the targets outlined in this report is met?

Draft Climate Action Plan Comments – University of Colorado Boulder

I ask that CU formally commit to following all Science Based Target Initiative rules and submit targets for validation. This will help CU remain accountable and to achieve our goals. We failed to meet the goals set for 2020, this will help ensure this does not happen again. It is imperative that we meet these goals in a timely fashion for the safety and wellbeing of our community.

Create courses where students can collect and analyze emissions data and develop CAP strategies. Integrating classroom learning with development of campus strategy is a core aspect of the living laboratory principle in higher ed. sustainability. This proposal would allow a large number of students to actively engage with the CAP, while supporting campus efforts for strategic planning. Many Scope 3 strategies remain vague, in part because of a lack of data. Students could gain critical skills by helping develop Scope 3 emissions reduction strategies. Similarly, students will gain key skills by engaging in the planning process for campus heating district reform and energy efficiency. We recommend that the university will begin offering the proposed applied CAP courses starting Fall 2024. Topics for these courses will include: (1) campus supply chain emissions (2) campus emissions from ground and air transportation (3) campus investment emissions (4) the campus heating district system (5) campus energy efficiency and embodied carbon (6) campus waste emissions (7) campus planning for climate equity (8) a course on financial aspects of the CAP. The BFA and CUSG can solicit interest from faculty and coordinate the development of this curriculum.

CU's CAP should formally commit to follow the Science Based Targets Initiative (SBTi) and submit its targets for validation. The current CAP claims to follow SBTi guidance but is really a patchwork of different strategies, of which only a fraction follow up-to-date SBTi standards. The CAP must make a full commitment to SBTi and submit its targets for validation as required by the rules.

This is especially relevant given CU's hypocrisy regarding SBTi. Specifically, commitments sponsored by CU at COP28 explicitly require universities to adopt SBTi targets and the contract for the CAP consultant (Blue Strike) also included a requirement for the CAP to be aligned with SBTi.

CU's use of SBTi language in the CAP and other public statements but lack of commitment to actual SBTi principles may open the university to legal action regarding climate washing (e.g. US FTC's green guides). In short, the expectations conveyed by CU Boulder's public materials must match the action of the university itself.

Remediate excess emissions due to the 2020 missed targets by adding them to the new 2030 target.

Draft Climate Action Plan Comments – University of Colorado Boulder

Include direct and indirect emissions resulting from CU's involvement in the construction and operation of the Limelight conference center. Emissions should include but not be limited to: embodied carbon from construction, emissions resulting from operations (scopes 1-3, incl. air travel from conference attendees).

Correct or remove misleading statements that overstate the university's past climate action. The CAP contains several statements that contradict its stated goals of increasing transparency with campus and ensuring accountability by overstating its past and current climate leadership.

P. 8 - With the announcement of the Right Here, Right Now Human Rights Climate Commitments, CU Boulder has positioned itself as a global leader in advancing human rights as we address the climate crisis. Please qualify the claim by noting that CU Boulder has not yet met the Human Rights Climate Commitments it sponsored, which, among other things, specify that targets must be in accordance with an accepted science-based methodology consistent with technical criteria of the SBTi Corporate Net-Zero Standard, and that universities must manage their investment emissions.

P. 30 The University of Colorado's Boulder campus has long been a leader in pursuing climate action. The evidence following this statement refers to unimplemented plans, missed targets, and joining initiatives. It does not substantiate the claim that the university has been a leader in pursuing climate action.

I grew up in Colorado, attended CU Boulder as an undergraduate student, have worked at CU Boulder for the last several years, and am now a current Masters of the Environment student. My focus is on Environmental and Natural Resources Policy, so therefore climate adaptation planning, climate policy, using the best available science, and transparency of are utmost importance to me. The greatest change comes with the most effective policy, so CU's Climate Action Plan (CAP) must be completed to the best of it's potential to both establish CU as an important leader on climate action in Colorado and avoid the worst effects of climate change. I would like to submit the following comments on CU's CAP:

As part of CU Boulder's Climate Action Plan (CAP), CU needs to live up to the stated values of transparency and accountability by formally committing to follow all Science-Based Target Initiative (SBTi) rules and submit targets for validation, investigating past failures to meet the 2020 target, and avoiding overstatement of climate benefits.

Specifically, CU needs to:

- 1) Formally commit to SBTi, submit targets for validation, and remove all misleading, inaccurate, and outdated references to SBTi guidance. The CAP has backed off its original intentions of aligning with SBTi, the leading standards for corporate climate action, and consistently misrepresents SBTi guidance.

Draft Climate Action Plan Comments – University of Colorado Boulder

2) Fully acknowledge the university's failure to meet its 2020 target and conduct an independent study of the causes of that miss; use the insights from this study to inform the current CAP. CU Boulder missed its previous 2020 emissions reduction goal by a factor of nearly three, but the CAP downplays this miss and does not explain why it occurred. CU overspent its cumulative carbon budget, so it should account for these excessive emissions in its new targets.

3) Remove, or correct and substantiate misleading statements to avoid climate-washing and commit to transparency with the CU Boulder community. The CAP overstates the university's past climate record and leadership, which does not align with a leader in pursuing climate action as CU states it intends to be in the CAP.

The building efficiency sections for core goal 1 focuses only on efficiency advances that can be made at the building level (infrastructure changes and tuning) and misses the opportunity to recognize the importance of efficiency advances that can be achieved from campus efforts focused on engagement, best practice education, and system changes which influence choices being made by campus members.

Particularly in lab buildings, decisions by researchers about the ways research is conducted, what equipment is purchased, what equipment is shared, how labs space is utilized, and optimized use of fume hood space can all have collective and large impact on the building energy performance. Decisions for efficiency can also have large impact on avoided future consumption. A section on efforts for engagement, best practice education, and system changes influencing campus member decisions could be included in the building efficiency section or it could be a separate section elsewhere, but in my opinion, it should be called out somewhere in the CAP document. [Note: there is an engagement section in the document, but this is addressing continuing to keep the campus community informed and engaged in the CAP process - this is different than need I am raising.]

a. On page 51, the second paragraph mentions The campus will work towards upgrading existing buildings by implementing the CU Boulder Energy Master Plan. This includes lighting retrofits, envelop efficiency projects, retro-commissioning, and HVAC system upgrades. In support of my point above about the need to include in the CAP an engagement, best practice education, and system changes influencing campus member decisions, the EMP includes more than items listed in the quoted text from the CAP and recognizes the importance of Outreach, Education, and Engagement (section 1G of the EMP) as part of its strategies and the EMP even includes language like avoiding additional consumption where possible through optimized use of space and infrastructure and engaging the campus community in a culture of energy conservation in the Table 1 (on page 10 of the EMP) which is the overarching summary table of the goals of the EMP. The EMP also includes sections on Campus Energy Policy (section 10), Space Optimization (1M), and A Culture of Efficiency and Avoided Consumption through Outreach and Education on EMP page 87.

Draft Climate Action Plan Comments – University of Colorado Boulder

On p84 and p85 (table) under core goal #2 of reducing scope 3 emissions, it is great that the CAP includes amending offer letter language for new researchers includes to encourage sustainable practices and sharing lab equipment. This most definitely will have impact. This action would also provide benefits to progress for core goal 1 on achieving 50% reduction in scope 1 and 2 and thus could be mentioned under core goal 1. For example, equipment sharing avoids unnecessary equipment duplication which benefits Scope 3. It also avoid the energy footprint caused by unnecessary equipment duplication which leads to inefficient use of electricity and lab space to house the equipment (labs space is energy-intensive due to ventilation needs). Shared research equipment core facilities also benefits equity in research by enabling more inclusive access to those resources than if they were housed in individual labs.

On p101, it is great to see action for policy and training included in Table 21 of the CAP including offer training for lab users and graduate student orientation on sustainable practices annually. This section though, on Core Goal 5, while important on continuing to engage, communicate, report to and achieve transparency with the community about progress on the CAP, it is not about implementing behaviors and culture that will help save resources and avoid consumption. The CAP in general is missing the inclusion of system changes and efforts/actions to engage and educate campus members on best practices to minimize resource consumption on campus and thus help campus achieve efficiencies for the CAP.

Why are we only focusing on carbon emissions? Sustainability of an organization should be comprehensive. I's there any plans to look at overall carbon footprint (which includes more than emissions)?

Reasons for the failure of the 2009 plan should be incorporated into the CAP to ensure this new plan will be successful.

CU Boulder should make good on transparency and accountability by formally committing to follow all Science-Based Target Initiative (SBTi) rules. CU should submit targets for how they will verify the achievement of targeted reductions, investigate past failures to meet the 2020 target, and avoiding overstatement of climate benefits.

Live up to the stated values of transparency and accountability by formally committing to follow all Science-Based Target Initiative (SBTi) rules and submit targets for validation, investigating past failures to meet the 2020 target, and avoiding overstatement of climate benefits.

Formally commit to SBTi, submit targets for validation, and remove all misleading, inaccurate, and outdated references to SBTi guidance.

Draft Climate Action Plan Comments – University of Colorado Boulder

ully acknowledge the university's failure to meet its 2020 target and conduct an independent study of the causes of that miss; use the insights from this study to inform the current CAP.

Remove, or correct and substantiate misleading statements to avoid climate-washing and commit to transparency with the CU Boulder community. The CAP overstates the university's past climate record and leadership.

Please formally commit to follow the Science Based Targets Initiative (SBTi) and submit its targets for validation. While the current CAP prominently claims alignment with SBTi (see, e.g., Executive Summary, p. 16), low-visibility footnotes qualify that statement in ways that make it incorrect and misleading (p. 49, note 29; p. 72). I believe that the CAP must fully commit to following SBTi rules and submit its targets for validation. However, if the CAP is not willing to truly commit to SBTi, it must remove all references to SBTi to avoid climate washing. The only organizations allowed to state their alignment with SBTi are those that formally commit on the SBTi website and undertake to submit their targets for technical validation within 2 years as required by the rules.

Please formally acknowledge the 2020 emissions miss, and study why CU missed so that we can avoid this in the future.

Please remediate excess emissions due to the 2020 missed targets by adding them to the new 2030 target.

Please remove or correct incorrect statements, or statements that overstate the climate benefits of any given action, in the CAP.

Hello,

I have five primary concerns relating to the CAP. I address them below, along with recommendations for how to alleviate said concerns.

1. Governance: Put six students on the Sustainability Executive Council, which will implement the CAP.

à The draft currently includes no students on this decision-making body.

2. Heating: Decarbonize and electrify CU's heating system by 2035.

à CU's peers have a much faster timeline for decarbonizing than we do.

3. Strategies: Collect data and make concrete plans to reduce emissions from Scope 3 emissions categories (flights, purchased goods and services, waste, commuting) by January 1, 2025.

à The draft includes only plans to make plans to reduce these categories. It leaves out or undercounts Scope 3 categories like investments, athletics, and purchased goods and services.

Draft Climate Action Plan Comments – University of Colorado Boulder

4. Transparency: Formally commit to meeting Science-Based Targets Initiative standards, and acknowledge that CU missed its 2020 emissions reductions target.

5. Equity: Incorporate strategies specifically requested by historically marginalized communities, including funding the Tribal Climate Leaders program and increasing affordable housing options near campus.

Top asks: Value transparency over public image AND formally commit to the SBTi framework.

- Please acknowledge that the university did not meet it's 2020 targets.
- Please investigate and publicly report on WHY the university severely missed it's 2020 targets, so that the issues are not repeated.
- Please publicly acknowledge that the progress made towards the 2020 targets were mainly thanks to Excel's energy grid decarbonization, and not university action.
- Please evaluate existing and future university publications / websites against the criteria from the Federal Trade Commission's Green Guides. Many of the claims on the university website pages and flyers are legally considered greenwashing under this framework.

Live up to the stated values of transparency and accountability by formally committing to follow all Science-Based Target Initiative (SBTi) rules and submit targets for validation, investigating past failures to meet the 2020 target, and avoiding overstatement of climate benefits.

Please formally commit to using the current SBTi guidance and be a leader in the climate action space.

Without a fully accounting of what happened in the 2020 emissions goal miss, we are doomed to repeat past failures. Please complete a study of the root causes of that failure and use those insights to inform the decisions in the current CAP.

The plan in its current state is green-washing at its finest. Please remove or correct misleading statements related to SBTi, GHG accounting protocol, etc. unless you plan on following those guidelines.

In accordance with legislation moving through CUSG and GPSG:

Seat six students on the Executive Sustainability Council: 1) a CUSG Tri-Executive or their designee; 2) the CUSG Sustainability Chair or designee; 3) a GPSG appointee; 4) the Legislative Council President or designee; 5) a CUSG Environmental Board Co-Chair or their designee; and

Draft Climate Action Plan Comments – University of Colorado Boulder

6) at least one at-large representative studying environmental justice, to be appointed jointly by CUSG and GPSG.

Give these students an equitable degree of decision-making authority on the Council.

Allow students to take meeting minutes and report these back to their constituent organizations.

Seat the Director of the Environmental Center as a member of the Executive Council.

Host quarterly Q&A public progress updates.

The Governance Organizational Chart (p.98), shows the Sustainability Council and the Sustainability Executive Council are of equal importance. This is further expanded upon on p. 96, Implementation of the CAP will be overseen by the ... Sustainability Council and supported by an ongoing CAP Steering Committee composed of staff, faculty, and students...The Executive Council on Sustainability...will also play a key role. This language belies the true structure of the Executive Council, which includes no students, and places the Sustainability Council on the lowest rung on its decision-making hierarchy. Further, p.97 language reveals that the Sustainability council will only receive a briefing three times each year, which is quite a bit different than the statement above from p.96. Per the recent FAQ posted on the CAP, we further note that student representation in the Engagement Working Group is insufficient, and in no way meets the need for student seats on the Executive Council itself.

Create courses where students can collect and analyze emissions data and develop CAP strategies. Integrating classroom learning with development of campus strategy is a core aspect of the living laboratory principle in higher ed. sustainability. This proposal would allow a large number of students to actively engage with the CAP, while supporting campus efforts for strategic planning. Many Scope 3 strategies remain vague, in part because of a lack of data. Students could gain critical skills by helping develop Scope 3 emissions reduction strategies. Similarly, students will gain key skills by engaging in the planning process for campus heating district reform and energy efficiency. We recommend that the university will begin offering the proposed applied CAP courses starting Fall 2024. Topics for these courses will include: (1) campus supply chain emissions (2) campus emissions from ground and air transportation (3) campus investment emissions (4) the campus heating district system (5) campus energy efficiency and embodied carbon (6) campus waste emissions (7) campus planning for climate equity (8) a course on financial aspects of the CAP. The BFA and CUSG can solicit interest from faculty and coordinate the development of this curriculum.

The CAP should formally commit to follow the Science Based Targets Initiative (SBTi) and submit its targets for validation. SBTi is a target setting body that provides a detailed rule framework for corporate climate targets. SBTi rules are meant to reduce the risk of climate

Draft Climate Action Plan Comments – University of Colorado Boulder

washing in targets. The Human Rights Climate Commitments that CU Boulder sponsored in COP28 explicitly requires universities to adopt SBTi targets ... consistent with the technical criteria of the SBTi Corporate Net-Zero Standard. The contract for the CAP consultant (Blue Strike) also included a requirement for the CAP to be aligned with SBTi.

The CAP draft prominently represents alignment with SBTi as a core goal of the CAP in the Executive Summary (p. 16). However, later in the document, the CAP mentions, in a low-visibility footnote, that the CAP does not in fact commit to follow all SBTi rules and does not commit to following the GHG Accounting Protocol (Scope 3 Standard) on which SBTi rules are based (see p. 49, note 29; p. 72). The CAP will also not submit the targets for SBTi validation, which is a critical requirement of SBTi rules.

SBTi is a package of rules that organizations may adopt, or not, on a take-it-or-leave-it basis. An organization cannot claim to be aligned with SBTi unless it makes a formal commitment on SBTi's website and submits its targets for technical validation within 2 years from the commitment date. Indeed, the CAP draft demonstrates that the university's lack of compliance with SBTi rules (especially on Scope 3) led to exclusion of large sources of emissions. It is inconceivable that CU Boulder promotes climate commitments to other universities in COP28 but does not follow these commitments itself. The CAP must make a full commitment to SBTi and submit its targets for validation as required by the rules.

The CAP Steering Committee should consult the University Legal Counsel office regarding climate washing liability for representations concerning SBTi alignment. As noted above, while the current CAP prominently claims alignment with SBTi (see, e.g., Executive Summary, p. 16), low-visibility footnotes qualify that statement in ways that make it incorrect and misleading (p. 49, note 29; p. 72). We believe that the CAP must fully commit to following SBTi rules and submit its targets for validation. However, if the CAP is not willing to truly commit to SBTi, it must remove all references to SBTi to avoid climate washing. The only organizations allowed to state their alignment with SBTi are those that formally commit on the SBTi website and undertake to submit their targets for technical validation within 2 years as required by the rules. If CU Boulder is not willing to commit to SBTi at this point, it must remove all language regarding SBTi alignment or risk legal liability for climate washing. The CAP Steering Committee should urgently consult the University Legal Counsel's office regarding climate washing liability. Sources of legal liability include unfair and deceptive practices and fraudulent misrepresentation.

Draft Climate Action Plan Comments – University of Colorado Boulder

In the event the university chooses not to commit to SBTi at this point, we also request that the CAP Steering Committee clarify in the CAP why the commitment to SBTi was dropped, despite initial promises. We note that organizations have 2 years to submit their targets for validation, and the university should have ample time to ensure compliance with SBTi criteria during this period.

Adopt the following acknowledgment of the 2020 target miss. The 2024 CAP should adopt the acknowledgement linked below regarding CU Boulder's miss of the 20%-by-2020 Scope 1-2 target and insert it on p. 6 of the current draft. Our proposed acknowledgement includes key facts about the 2020 target miss together with supporting data. The community deserves to know these facts.

We further request that the CAP Steering Committee make clear that it did not review the causes that led to the 2020 miss and the lack of implementation of the university's 2009 Conceptual Plan for Carbon Neutrality.

Lastly, we note that the FAQ website, while seeming to address the 2020 miss in the first question, continues to make incorrect and misleading claims. We request that specific corrections will be made to the response to the first question. The requested corrections are also linked below.

Our proposed acknowledgment and supporting data is available here:

https://o365coloradoedu-my.sharepoint.com/:w:/g/personal/naor2878_colorado_edu/EWmip2roATRBh3_B5kLw4rQBYSGpXrzZ05aXbo_QUGc9lg?e=yuhAcL

The corrections we request to the CAP FAQs page are available here:

https://o365coloradoedu-my.sharepoint.com/:w:/g/personal/naor2878_colorado_edu/EYIf9RVNdGtEi4h_JnC6qYEBSR6l8Z-gxUVNW0brq3Lcaw?e=ErksrW

Remediate excess emissions due to the 2020 missed targets by adding them to the new 2030 target. As documented in our Proposed Acknowledgement (linked below), CU Boulder's miss of the 2020 target resulted in 306,683 tCO₂e of excess emissions relative to the target curve. Further, the higher baseline used for the new targets because of the 2020 miss makes the new targets less restrictive by 117,150 tCO₂e relative to counterfactual where CU met the 2020 targets (virtually the entire difference accrues before 2030). The CAP Steering Committee should incorporate 423,833 tCO₂e as additional reductions required under the new 2030 target.

For data, see here:

Draft Climate Action Plan Comments – University of Colorado Boulder

https://o365coloradoedu-my.sharepoint.com/:w:/g/personal/naor2878_colorado_edu/EWmip2roATRBh3_B5kLw4rQBYSgpXrzZ05aXbo_QUGc9lg?e=yuhAcL

Conduct an independent study of the 2020 target miss. The CAP should commit the university to commission an independent study of the reasons that led to the 2020 miss. Such a study is necessary to draw meaningful lessons that can be applied to the 2024 CAP (pertaining to technical aspects as well as to governance and implementation provisions). The study is also necessary to provide transparency and build trust in the community following the university's repeated understatement of the miss and its significance (including the CAP's own FAQ).

This study should be published no later than Jan 1, 2025. The CAP should be revised to state how each of the specific lessons from the study will be addressed in the new CAP.

Provide transparency regarding Limelight project. Despite repeated requests, the university has not disclosed the nature of its agreement with the Limelight Conference Center and Hotel. The project will result in considerable GHG emissions. Those include several 10k of MTCO₂e of air travel emissions (as stated on Pg 17, Appendix D). They also include embodied carbon from construction and S1-2 emissions from ongoing operations. There is concern that the Limelight project has been inappropriately excluded from the university's GHG inventory. The CAP should (1) provide the legal documentation between the university and Aspen Hospitality and (2) explain whether and how the Limelight project has been included in its GHG inventory, and if it has not been included, why.

Establish clear and publicly available policies to terminate the receipt of donations and other funding from fossil fuel companies and related entities. This quote is taken from the Human Rights Commitments sponsored by CU Boulder in COP28. The CAP should recommend that the Office of Advancement releases guidelines prohibiting the receipt of donations from fossil fuels companies and related entities by September 2024, and those guidelines enter into force no later than January 2025.

Disclose past donations received from fossil fuel companies and related entities starting in 2020. Here as well, the language is quoted from the Human Rights Climate Commitments sponsored by CU Boulder in COP28. The CAP should recommend that this disclosure be completed by September, 2024 and posted on the CAP website.

Adjust BAU to account for campus growth. The CAP should clarify whether and how expected campus growth (student number and gross square footage) has been factored into business-as-usual scenarios for Scopes 1-2 and Scope 3. Where growth has not been factored adequately, the CAP should incorporate realistic growth in the BAU scenarios.

Draft Climate Action Plan Comments – University of Colorado Boulder

Correct or remove misleading statements that overstate the university's past climate action. The CAP contains several statements that contradict its stated goals of increasing transparency with campus and ensuring accountability by overstating its past and current climate leadership.

P. 8 - With the announcement of the Right Here, Right Now Human Rights Climate Commitments, CU Boulder has positioned itself as a global leader in advancing human rights as we address the climate crisis. Please qualify the claim by noting that CU Boulder has not yet met the Human Rights Climate Commitments it sponsored, which, among other things, specify that targets must be in accordance with an accepted science-based methodology consistent with technical criteria of the SBTi Corporate Net-Zero Standard, and that universities must manage their investment emissions.

P. 30 The University of Colorado's Boulder campus has long been a leader in pursuing climate action. The evidence following this statement refers to unimplemented plans, missed targets, and joining initiatives. It does not substantiate the claim that the university has been a leader in pursuing climate action.

This comment relates to CAP governance.

I ask that the CAP be revise In accordance with legislation moving through CUSG and GPSG to:

1. Seat six students on the Executive Sustainability Council: 1) a CUSG Tri-Executive or their designee; 2) the CUSG Sustainability Chair or designee; 3) a GPSG appointee; 4) the Legislative Council President or designee; 5) a CUSG Environmental Board Co-Chair or their designee; and 6) at least one at-large representative studying environmental justice, to be appointed jointly by CUSG and GPSG.
2. Give these students an equitable degree of decision-making authority on the Council.
3. Allow students to take meeting minutes and report these back to their constituent organizations.
4. Seat the Director of the Environmental Center as a member of the Executive Council.
5. Host quarterly Q&A public progress updates.

Some context for this ask: The Governance Organizational Chart (p.98), shows the Sustainability Council and the Sustainability Executive Council are of equal importance. This is further expanded upon on p. 96,

Draft Climate Action Plan Comments – University of Colorado Boulder

Implementation of the CAP will be overseen by the ... Sustainability Council and supported by an ongoing CAP Steering Committee composed of staff, faculty, and students...The Executive Council on Sustainability...will also play a key role. However, the language in the CAP seems inconsistent with the actual workings of the CAP's governance mechanism. In reality, the Executive Council, includes no students, and places the Sustainability Council on the lowest rung on its decision-making hierarchy. Further, p.97 language reveals that the Sustainability council will only receive a briefing three times each year, which differs considerably from the statement above in p.96.

Per the recent FAQ posted on the CAP, it bears noting that student representation in the Engagement Working Group is insufficient, and in no way meets the need for student seats on the Executive Council itself.

This ask concerns CAP implementation and the living laboratory principle.

I ask that the CAP initiate the creation of courses where students can collect and analyze emissions data and develop CAP strategies. Integrating classroom learning with development of campus strategy is a core aspect of the living laboratory principle in higher ed. sustainability. This proposal would allow a large number of students to actively engage with the CAP, while supporting campus efforts for strategic planning.

Under the current CAP, many Scope 3 strategies remain under-specified, in part because of lack of data. Students could gain critical skills by helping develop Scope 3 emissions reduction strategies. Similarly, students will gain key skills by engaging in the planning process for campus heating district reform and energy efficiency. The ask is that the university will begin offering the proposed applied CAP courses starting Fall 2024. Topics for these courses will include: (1) campus supply chain emissions (2) campus emissions from ground and air transportation (3) campus investment emissions (4) the campus heating district system (5) campus energy efficiency and embodied carbon (6) campus waste emissions (7) campus planning for climate equity (8) a course on financial aspects of the CAP. The BFA and CUSG can solicit interest from faculty and coordinate the development of this curriculum.

This comment concerns the role of the Science-Based Initiative under the CAP.

The CAP should formally commit to follow all technical criteria by the Science Based Targets Initiative (SBTi) and submit its targets for validation. SBTi is a target setting body that provides a detailed rule framework for corporate climate targets. SBTi rules are meant to reduce the risk of climate washing in targets. The Human Rights Climate Commitments that CU Boulder sponsored in COP28 explicitly requires universities to adopt SBTi targets ... consistent with the technical

Draft Climate Action Plan Comments – University of Colorado Boulder

criteria of the SBTi Corporate Net-Zero Standard. The contract for the CAP consultant (Blue Strike) also included a requirement for the CAP to be aligned with SBTi.

The CAP website and draft prominently represents alignment with SBTi as a core goal of the CAP in the Executive Summary (p. 16). However, later in the document, the CAP mentions, in a low-visibility footnote, that the CAP does not in fact commit to follow all SBTi rules and does not commit to following the GHG Accounting Protocol (Scope 3 Standard) on which SBTi rules are based (see p. 49, note 29; p. 72). According to the draft, the CAP will also not submit the targets for SBTi validation, which is a critical requirement of SBTi rules.

SBTi is a package of rules that organizations may adopt, or not, on a take-it-or-leave-it basis. An organization cannot claim to be aligned with SBTi unless it makes a formal commitment on SBTi's website and submits its targets for technical validation within 2 years from the commitment date. Indeed, the CAP draft demonstrates that the university's lack of compliance with SBTi rules (especially on Scope 3) led to exclusion of large sources of emissions. It is problematic that CU Boulder promotes climate commitments to other universities in COP28 but does not follow these commitments itself. The CAP must make a full commitment to SBTi and submit its targets for validation as required by the rules.

This comment concerns risk of climate washing and legal liability in the current CAP draft.

The CAP Steering Committee should consult the University Legal Counsel's office regarding climate washing liability for representations concerning SBTi alignment. As noted in a separate comment, while the current CAP prominently claims alignment with SBTi (see, e.g., website + Executive Summary, p. 16), low-visibility footnotes qualify that statement in ways that make it incorrect and misleading (p. 49, note 29; p. 72).

In a separate ask, I recommended the CAP fully commit to following SBTi rules and submit its targets for validation. However, if the CAP is not willing to truly commit to SBTi, it must remove all references to SBTi to avoid climate washing. The only organizations allowed to state their alignment with SBTi are those that formally commit on the SBTi website and undertake to submit their targets for technical validation within 2 years as required by the rules. If CU Boulder is not willing to commit to SBTi at this point, it must remove all language regarding SBTi alignment or risk legal liability for climate washing.

The CAP Steering Committee should urgently consult the University Legal Counsel's office regarding climate washing liability. Sources of legal liability include unfair and deceptive practices and fraudulent misrepresentation.

In the event the university chooses not to commit to SBTi at this point, the CAP Steering Committee should clarify in the CAP why the commitment

Draft Climate Action Plan Comments – University of Colorado Boulder

to SBTi was dropped, despite initial promises. Note that organizations have 2 years to submit their targets for validation, and the university should have ample time to ensure compliance with SBTi criteria during this period.

This comment concerns transparency regarding the university's 2020 target miss.

The ask is that the 2024 CAP adopt the acknowledgement linked below regarding CU Boulder's miss of the 20%-by-2020 Scope 1-2 target, and insert it on p. 6 of the current draft. The proposed acknowledgement includes key facts about the 2020 target miss together with supporting data. The community deserves to know these facts.

It is further requested that the CAP Steering Committee make clear that it did not review the causes that led to the 2020 miss and the lack of implementation of the university's 2009 Conceptual Plan for Carbon Neutrality.

Lastly, it bears noting that the FAQ website, while seeming to address the 2020 miss in the first question, continues to make incorrect and misleading claims. I request that specific corrections will be made to the response to the first question. The requested corrections are also linked below.

The proposed acknowledgment and supporting data is available here:

https://o365coloradoedu-my.sharepoint.com/:w:/g/personal/naor2878_colorado_edu/EWmip2roATRBh3_B5kLw4rQBYSGpXrzZ05aXbo_QUGc9lg?e=yuhAcL

The corrections we request to the CAP FAQs page are available here:

https://o365coloradoedu-my.sharepoint.com/:w:/g/personal/naor2878_colorado_edu/EYIf9RVNdGtEi4h_JnC6qYEBSR6l8Z-gxUVNW0brq3Lcaw?e=ErksrW

This ask concerns the practical implications of the 2020 target miss for targets under the new CAP.

The ask is that the 2024 CAP remediate excess emissions due to the 2020 missed targets by adding them to the new 2030 target. As documented in the Proposed Acknowledgement of the 2020 Miss (linked below), CU Boulder's miss of the 2020 target resulted in 306,683 tCO_{2e} of excess emissions relative to the target curve. Further, the higher baseline used for the new targets because of the 2020 miss makes the new targets less restrictive by 117,150 tCO_{2e} relative to counterfactual where CU met the 2020 targets (virtually the entire difference accrues before 2030).

Draft Climate Action Plan Comments – University of Colorado Boulder

The CAP Steering Committee should incorporate 423,833 tCO₂e as additional reductions required under the new 2030 target.

For supporting data, see the Proposed Acknowledgement available here:

https://o365coloradoedu-my.sharepoint.com/:w:/g/personal/naor2878_colorado_edu/EWmip2roATRBh3_B5kLw4rQBYSgpXrzzO5aXbo_QUGc9lg?e=yuhAcL

This ask is for the 2024 CAP to conduct an independent study of the 2020 target miss.

The CAP should commit the university to commission an independent study of the reasons that led to the 2020 miss. Such a study is necessary to draw meaningful lessons that can be applied to the 2024 CAP (pertaining to technical aspects as well as to governance and implementation provisions). The study is also necessary to provide transparency and build trust in the community following the university's repeated understatement of the miss, its significance, and the causes that led to it (including the CAP's own FAC page).

This study should be published no later than Jan 1, 2025. The CAP should be revised to state how each of the specific lessons from the study will be addressed in the new CAP

This ask concerns the need for completeness and transparency regarding the university's GHG accounting inventory.

The ask is that the CAP provide transparency regarding Limelight project. Despite repeated requests, the university has not disclosed the nature of its agreement with the Limelight Conference Center and Hotel. The project will result in considerable GHG emissions. Those include several 10k of MTCO₂e of air travel emissions (as stated on Pg 17, Appendix D). They also include embodied carbon from construction and S1-2 emissions from ongoing operations. There is concern that the Limelight project has been inappropriately excluded from the university's GHG inventory.

The CAP should (1) post on its website the legal documentation between the university and Aspen Hospitality and (2) explain whether and how the Limelight project has been included in its GHG inventory, and if it has not been included, why.

The CAP should Establish clear and publicly available policies to terminate the receipt of donations and other funding from fossil fuel companies and related entities. This quote is taken from the Human Rights Commitments sponsored by CU Boulder in COP28.

The CAP should recommend that the Office of Advancement releases guidelines prohibiting the receipt of donations from fossil fuels

Draft Climate Action Plan Comments – University of Colorado Boulder

companies and related entities by September 2024, and those guidelines enter into force no later than January 2025.

Disclose past donations received from fossil fuel companies and related entities starting in 2020. This language is quoted from the Human Rights Climate Commitments sponsored by CU Boulder in COP28.

The CAP should recommend that this disclosure be completed by September, 2024 and posted on the CAP website.

The CAP should adjust BAU to account for campus growth.

The CAP should clarify whether and how expected campus growth (student number and gross square footage) has been factored into business-as-usual scenarios for Scopes 1-2 and Scope 3. Where growth has not been factored adequately, the CAP should incorporate realistic growth in the BAU scenarios.

This comments concerns the need for transparency and accuracy in the CAP.

The CAP should correct or remove misleading statements that overstate the university's past climate action. The CAP contains several statements that contradict its stated goals of increasing transparency with campus and ensuring accountability by overstating its past and current climate leadership.

P. 8 - With the announcement of the Right Here, Right Now Human Rights Climate Commitments, CU Boulder has positioned itself as a global leader in advancing human rights as we address the climate crisis. Please qualify the claim by noting that CU Boulder has not yet met the Human Rights Climate Commitments it sponsored, which, among other things, specify that targets must be in accordance with an accepted science-based methodology consistent with technical criteria of the SBTi Corporate Net-Zero Standard, and that universities must manage their investment emissions.

P. 30 The University of Colorado's Boulder campus has long been a leader in pursuing climate action. The evidence following this statement refers to unimplemented plans, missed targets, and joining initiatives. It does not substantiate the claim that the university has been a leader in pursuing climate action.

It is critical that CU Boulder live up to the stated values of transparency and accountability by formally committing to follow all Science-Based Target Initiative (SBTi) rules and submit targets for validation.

CU Boulder failed to meet its 2020 target, and is likely to do so again if it does not investigate its failures and holds itself accountable.

Draft Climate Action Plan Comments – University of Colorado Boulder

Setting lofty long-term goals and then not taking sufficient action to achieve them is easily discerned by us students as greenwashing.

In accordance with legislation moving through CUSG and GPSG:

-Seat six students on the Executive Sustainability Council: 1) a CUSG Tri-Executive or their designee; 2) the CUSG Sustainability Chair or designee; 3) a GPSG appointee; 4) the Legislative Council President or designee; 5) a CUSG Environmental Board Co-Chair or their designee; and 6) at least one at-large representative studying environmental justice, to be appointed jointly by CUSG and GPSG.

-Give these students an equitable degree of decision-making authority on the Council.

-Allow students to take meeting minutes and report these back to their constituent organizations.

-Seat the Director of the Environmental Center as a member of the Executive Council.

-Host quarterly Q&A public progress updates.

The Governance Organizational Chart (p.98), shows the Sustainability Council and the Sustainability Executive Council are of equal importance. This is further expanded upon on p. 96, Implementation of the CAP will be overseen by the ... Sustainability Council and supported by an ongoing CAP Steering Committee composed of staff, faculty, and students...The Executive Council on Sustainability...will also play a key role. This language belies the true structure of the Executive Council, which includes no students, and places the Sustainability Council on the lowest rung on its decision-making hierarchy. Further, p.97 language reveals that the Sustainability council will only receive a briefing three times each year, which is quite a bit different than the statement above from p.96. Per the recent FAQ posted on the CAP, we further note that student representation in the Engagement Working Group is insufficient, and in no way meets the need for student seats on the Executive Council itself.

Create courses where students can collect and analyze emissions data and develop CAP strategies. Integrating classroom learning with the development of campus strategy is a core aspect of the living laboratory principle in higher ed. sustainability. This proposal would allow a large number of students to actively engage with the CAP while supporting campus efforts for strategic planning. Many Scope 3 strategies remain vague, in part because of a lack of data. Students could gain critical skills by helping develop Scope 3 emissions reduction strategies. Similarly, students will gain key skills by engaging in the planning process for campus heating district reform and energy efficiency. We recommend that the university will begin offering the proposed applied CAP courses starting Fall 2024. Topics for these courses will include: (1) campus supply chain emissions (2) campus emissions from ground and air transportation (3) campus investment emissions (4) the campus heating

Draft Climate Action Plan Comments – University of Colorado Boulder

district system (5) campus energy efficiency and embodied carbon (6) campus waste emissions (7) campus planning for climate equity (8) a course on financial aspects of the CAP. The BFA and CUSG can solicit interest from faculty and coordinate the development of this curriculum.

The CAP should formally commit to follow the Science Based Targets Initiative (SBTi) and submit its targets for validation. SBTi is a target-setting body that provides a detailed rule framework for corporate climate targets. SBTi rules are meant to reduce the risk of climate washing in targets. The Human Rights Climate Commitments that CU Boulder sponsored in COP28 explicitly requires universities to adopt SBTi targets ... consistent with the technical criteria of the SBTi Corporate Net-Zero Standard. The contract for the CAP consultant (Blue Strike) also included a requirement for the CAP to be aligned with SBTi.

The CAP draft prominently represents alignment with SBTi as a core goal of the CAP in the Executive Summary (p. 16). However, later in the document, the CAP mentions, in a low-visibility footnote, that the CAP does not in fact commit to follow all SBTi rules and does not commit to following the GHG Accounting Protocol (Scope 3 Standard) on which SBTi rules are based (see p. 49, note 29; p. 72). The CAP will also not submit the targets for SBTi validation, which is a critical requirement of SBTi rules.

SBTi is a package of rules that organizations may adopt, or not, on a take-it-or-leave-it basis. An organization cannot claim to be aligned with SBTi unless it makes a formal commitment on SBTi's website and submits its targets for technical validation within 2 years from the commitment date. Indeed, the CAP draft demonstrates that the university's lack of compliance with SBTi rules (especially in Scope 3) led to the exclusion of large sources of emissions. It is inconceivable that CU Boulder promotes climate commitments to other universities in COP28 but does not follow these commitments itself. The CAP must make a full commitment to SBTi and submit its targets for validation as required by the rules.

The CAP Steering Committee should consult the University Legal Counsel office regarding climate washing liability for representations concerning SBTi alignment. As noted in a previous comment, while the current CAP prominently claims alignment with SBTi (see, e.g., Executive Summary, p. 16), low-visibility footnotes qualify that statement in ways that make it incorrect and misleading (p. 49, note 29; p. 72). We believe that the CAP must fully commit to following SBTi rules and submit its targets for validation. However, if the CAP is not willing to truly commit to SBTi, it must remove all references to SBTi to avoid climate washing. The only organizations allowed to state their alignment with SBTi are those that formally commit on the SBTi website and undertake to submit their targets for technical validation within 2 years as required by the rules. If CU Boulder is not willing to commit to SBTi at this point, it must remove all language regarding SBTi alignment or risk legal liability for climate washing. The CAP Steering Committee should urgently consult the University Legal Counsel's office regarding climate washing liability.

Draft Climate Action Plan Comments – University of Colorado Boulder

Sources of legal liability include unfair and deceptive practices and fraudulent misrepresentation.

In the event the university chooses not to commit to SBTi at this point, we also request that the CAP Steering Committee clarify in the CAP why the commitment to SBTi was dropped, despite initial promises. We note that organizations have 2 years to submit their targets for validation, and the university should have ample time to ensure compliance with SBTi criteria during this period.

Adopt the following acknowledgment of the 2020 target miss. The 2024 CAP should adopt the acknowledgment linked below regarding CU Boulder's miss of the 20%-by-2020 Scope 1-2 target and insert it on p. 6 of the current draft. Our proposed acknowledgement includes key facts about the 2020 target miss together with supporting data. The community deserves to know these facts.

We further request that the CAP Steering Committee make clear that it did not review the causes that led to the 2020 miss and the lack of implementation of the university's 2009 Conceptual Plan for Carbon Neutrality.

Lastly, we note that the FAQ website, while seeming to address the 2020 miss in the first question, continues to make incorrect and misleading claims. We request that specific corrections will be made to the response to the first question. The requested corrections are also linked below.

Our proposed acknowledgment and supporting data are available here:

https://o365coloradoedu-my.sharepoint.com/:w:/g/personal/naor2878_colorado_edu/EWmip2roATRBh3_B5kLw4rQBYSGpXrzZ05aXbo_QUGc9lg?e=yuhAcL

The corrections we request to the CAP FAQs page are available here:

https://o365coloradoedu-my.sharepoint.com/:w:/g/personal/naor2878_colorado_edu/EYIf9RVNdGtEi4h_JnC6qYEBSR6l8Z-gxUVNW0brq3Lcaw?e=ErksrW

Remediate excess emissions due to the 2020 missed targets by adding them to the new 2030 target. As documented in our Proposed Acknowledgement (linked below), CU Boulder's miss of the 2020 target resulted in 306,683 tCO₂e of excess emissions relative to the target curve. Further, the higher baseline used for the new targets because of the 2020 miss makes the new targets less restrictive by 117,150 tCO₂e relative to counterfactual where CU met the 2020 targets (virtually the entire difference accrues before 2030). The CAP Steering Committee should incorporate 423,833 tCO₂e as additional reductions required under the new 2030 target.

For data, see here:

Draft Climate Action Plan Comments – University of Colorado Boulder

https://o365coloradoedu-my.sharepoint.com/:w:/g/personal/naor2878_colorado_edu/EWmip2roATRBh3_B5kLw4rQBYSgpXrzZ05aXbo_QUGc9lg?e=yuhAcL

Conduct an independent study of the 2020 target miss. The CAP should commit the university to commission an independent study of the reasons that led to the 2020 miss. Such a study is necessary to draw meaningful lessons that can be applied to the 2024 CAP (pertaining to technical aspects as well as to governance and implementation provisions). The study is also necessary to provide transparency and build trust in the community following the university's repeated understatement of the miss and its significance (including the CAP's own FAQ).

This study should be published no later than Jan 1, 2025. The CAP should be revised to state how each of the specific lessons from the study will be addressed in the new CAP.

1. Provide transparency regarding the Limelight project. Despite repeated requests, the university has not disclosed the nature of its agreement with the Limelight Conference Center and Hotel. The project will result in considerable GHG emissions. Those include several 10k of MTCO₂e of air travel emissions (as stated on Pg 17, Appendix D). They also include embodied carbon from construction and S1-2 emissions from ongoing operations. There is concern that the Limelight project has been inappropriately excluded from the university's GHG inventory. The CAP should (1) provide the legal documentation between the university and Aspen Hospitality and (2) explain whether and how the Limelight project has been included in its GHG inventory, and if it has not been included, why.

2. Establish clear and publicly available policies to terminate the receipt of donations and other funding from fossil fuel companies and related entities. This quote is taken from the Human Rights Commitments sponsored by CU Boulder in COP28. The CAP should recommend that the Office of Advancement releases guidelines prohibiting the receipt of donations from fossil fuels companies and related entities by September 2024, and those guidelines enter into force no later than January 2025.

3. Disclose past donations received from fossil fuel companies and related entities starting in 2020. Here as well, the language is quoted from the Human Rights Climate Commitments sponsored by CU Boulder in COP28. The CAP should recommend that this disclosure be completed by September, 2024 and posted on the CAP website.

4. Adjust BAU to account for campus growth. The CAP should clarify whether and how expected campus growth (student number and gross square

Draft Climate Action Plan Comments – University of Colorado Boulder

footage) has been factored into business-as-usual scenarios for Scopes 1-2 and Scope 3. Where growth has not been factored adequately, the CAP should incorporate realistic growth in the BAU scenarios.

5. Correct or remove misleading statements that overstate the university's past climate action. The CAP contains several statements that contradict its stated goals of increasing transparency with campus and ensuring accountability by overstating its past and current climate leadership.

P. 8 - With the announcement of the Right Here, Right Now Human Rights Climate Commitments, CU Boulder has positioned itself as a global leader in advancing human rights as we address the climate crisis. Please qualify the claim by noting that CU Boulder has not yet met the Human Rights Climate Commitments it sponsored, which, among other things, specify that targets must be in accordance with an accepted science-based methodology consistent with technical criteria of the SBTi Corporate Net-Zero Standard, and that universities must manage their investment emissions.

P. 30 The University of Colorado's Boulder campus has long been a leader in pursuing climate action. The evidence following this statement refers to unimplemented plans, missed targets, and joining initiatives. It does not substantiate the claim that the university has been a leader in pursuing climate action.

I would like 6 students on the executive council please

please update your CAP to align with the urgency and ambition shown by other universities.

Commit to follow all Science-Based Target Initiative (SBTi) rules and submit targets for validation to ensure accurate and honest representation of climate action. Further, an investigation of the abject failure to meet the 2020 target must be conducted to ensure the same issues do not arrives.

While I appreciate that the CAP is a living document that can be amended and strengthened, this means little if we do not adopt concrete measures that make it clear how we as the CU Boulder community can have a voice in shaping this living document and how key elements that are recognized to be deficient will be improved.

First, the CAP should commit to transparency, equity, and accountability in governance by including at least six students on the key governing/implementation body for the CAP, in accordance with legislation passed by CUSG and GPSG. Students have significant critiques of the

Draft Climate Action Plan Comments – University of Colorado Boulder

current CAP and strong collective self-interest in climate change mitigation; many of CU Boulder's greatest environmental achievements have been attributed to the grassroots efforts of students and therefore they should be included in decision-making. The current setup excludes students from the Sustainability Executive Council, to my understanding relegating them to a working group of the Sustainability Council (by the way, it's extremely confusing to have two bodies that essentially seem to be doing the same thing—why not just have one?). Furthermore, the Executive Sustainability Council should have a clear decision-making process (such as voting by majority for major changes to the CAP or implementation plan), and students should have voting power. Students and faculty should also receive protections from retaliation and the Council should make meeting notes publicly available, and allow students to take meeting notes and report back to constituent organizations.

Second, the CAP should formally commit to follow the Science Based Targets Initiative (SBTi) and submit its targets for validation. SBTi is a target setting body that provides a detailed rule framework for corporate climate targets. SBTi rules are meant to reduce the risk of greenwashing in targets. The notable gaps in data and misrepresentation of CU Boulder's Scope 3 GHG inventory speak to the importance of submitting targets to be independently verified. The Human Rights Climate Commitments that CU Boulder sponsored in COP28 explicitly requires universities to adopt SBTi targets ... consistent with the technical criteria of the SBTi Corporate Net-Zero Standard. The contract for the CAP consultant (Blue Strike) also included a requirement for the CAP to be aligned with SBTi. The CAP draft prominently represents alignment with SBTi as a core goal of the CAP in the Executive Summary (p. 16). However, later in the document, the CAP mentions, in a low-visibility footnote, that the CAP does not in fact commit to follow all SBTi rules and does not commit to following the GHG Accounting Protocol (Scope 3 Standard) on which SBTi rules are based (see p. 49, note 29; p. 72). The CAP will also not submit the targets for SBTi validation, which is a critical requirement of SBTi rules. SBTi is a package of rules that organizations may adopt, or not, on a take-it-or-leave-it basis. An organization cannot claim to be aligned with SBTi unless it makes a formal commitment on SBTi's website and submits its targets for technical validation within 2 years from the commitment date. The CAP draft demonstrates that the university's lack of compliance with SBTi rules (especially on Scope 3) led to exclusion of large sources of emissions. It is shameful that CU Boulder promotes climate commitments to other universities in COP28 but does not follow these commitments itself.

Third, the CAP should fully acknowledge that CU Boulder missed its previous 2020 Scope 1-2 target by a wide margin; due to the temporary emissions reduction impact of the pandemic and for consistency CU Boulder should measure its 2020 target miss using 2019 data, the baseline for the new CAP. When discussing the 2020 miss in the current draft, the CAP should acknowledge that CU Boulder's ceasing of using the cogeneration plant for electricity resulted in increased emissions, has failed to implement recommendations from its 2009 Plan for Carbon Neutrality, and that Xcel's decarbonization actions contributed significantly to any emissions reductions seen at all. Fully acknowledging past failures is essential to the principle of transparency and after such acknowledgement

Draft Climate Action Plan Comments – University of Colorado Boulder

the CAP should review the causes of this miss and specifically outline how this time will be different.

Fourth, the CAP should provide transparency regarding the Limelight Hotel project. Despite repeated requests, the university has not disclosed the nature of its agreement with the Limelight Conference Center and Hotel. The project will result in considerable GHG emissions. Those include several 10k of MTCO_{2e} of air travel emissions (as stated on Pg 17, Appendix D). They also include embodied carbon from construction and S1-2 emissions from ongoing operations. There is concern that the Limelight project has been inappropriately excluded from the university's GHG inventory. The CAP should (1) provide the legal documentation between the university and Aspen Hospitality and (2) explain whether and how the Limelight project has been included in its GHG inventory, and if it has not been included, why.

Finally, related to all previous comments, the CAP should correct or remove misleading statements that overstate the university's past climate action. The CAP contains several statements that contradict its stated goals of increasing transparency with campus and ensuring accountability by overstating its past and current climate leadership. For example: P. 8 - With the announcement of the Right Here, Right Now Human Rights Climate Commitments, CU Boulder has positioned itself as a global leader in advancing human rights as we address the climate crisis. Please qualify the claim by noting that CU Boulder has not yet met the Human Rights Climate Commitments it sponsored, which, among other things, specify that targets must be in accordance with an accepted science-based methodology consistent with technical criteria of the SBTi Corporate Net-Zero Standard, and that universities must manage their investment emissions. See also: P. 30 The University of Colorado's Boulder campus has long been a leader in pursuing climate action. The evidence following this statement refers to unimplemented plans, missed targets, and joining initiatives. It does not substantiate the claim that the university has been a leader in pursuing climate action.

I want to start by thanking the Infrastructure and Sustainability Leadership Team and the rest of the CAP steering committee for dedicating their time, effort, and expertise to developing the current Draft of the CAP, and also I would like to applaud the committee for being open to receiving feedback. My main concern for the success of the CAP and ensuring that accountability exists in a serious capacity. I am requesting that students are added to the Chancellors Executive Sustainability Council to ensure that one of the campus's largest stakeholders get a voice on the decision-making council. This will be accomplished by having shared governance groups like GPSG and CUSG appoint representatives that have sustainability expertise. Students should be involved in the decision making process for many reasons but I would defer to 100 LCR 01 passed through CUSG.

WE NEED MORE ACCOUNTABILITY. CU Boulder must do better with this CAP than the previous one, as the climate crisis is only continuing to worsen, and our collective future is at stake. One of the main pitfalls with the last

Draft Climate Action Plan Comments – University of Colorado Boulder

CAP was lack of accountability in the implementation of the plan. I'm asking you to fully acknowledge the university's failure to meet its 2020 target and conduct an independent study of the causes of that miss; use the insights from this study to inform the current CAP.

As a student who is a part of a younger generation that will be highly impacted by climate change, I believe that at least six students on the body should be included to implement the CAP to form the Sustainability Executive Council. This council should be transparent in posting data, allowing students to report on meeting minutes, and hosting public progress reports.

2,,Scopes 1 and 2 Targets and Strategies

2,,Carbon emissions from natural gas for heating currently accounts for about 19% of the campus' current greenhouse gas emissions (p 54). Given the disproportionately large share of this single Scope 1 item in the university's emissions portfolio (and its even larger share of the emissions that the university actually plans to reduce), it is unacceptable that (p. 55) the study for heating decarbonization is being implemented separately from the climate action plan. this indicates that the campus has not seriously integrated climate into its sustainability and operations. The climate action plan should not be finalized until this study is completed and integrated into the plan because without it, many of the projections and calculations are simply incorrect.

Scopes 1 and 2 Targets and Strategies

p. 59 states that the business case for [solar] development has become more challenging and thus rather than installing the amount of PV on campus indicated by the Campus Master Energy Plan, the CAP is recommending less be developed. This is quite difficult to understand.

The one concern that I have with this is: How do we make sure that all this is being accounted for. In order to execute a plan, accountability is needed, but for accountability to happen, there needs to be transparency, so that we can see the data and hold any deviations to account. Because this happened before, and if it happens again, the climate crisis will only get worse. This requires immediate action, and a full implimentation of any change.

To that end, I am asking for all forseeeable projects to be accounted for in the data. Otherwise, they won't be accounted for the same as everything else, which could only nullify efforts elsewhere in this plan. This plan is essential to saving the climate. It's a step in the right direction. Let's keep moving that way.

Accelerate heating system upgrades (HSU). The current CAP draft acknowledges that decarbonizing the campus' energy infrastructure is one of the most critical actions that CU can take (page 69). However, the design and funding of the main campus HSU project is left to future work (page 57). Instead, CU only commits to the longest possible HSU timeline

Draft Climate Action Plan Comments – University of Colorado Boulder

consistent with a net-zero 2050. While final HSU timing should certainly pend the results of the ongoing implementation and financing studies, the 2050 HSU timeline is still far too long. Other education institutions implementing comparable heating system upgrades report completion times of 3-10 years (see attached Table). Full URL: https://o365coloradoedu-my.sharepoint.com/:w:/g/personal/naor2878_colorado_edu/EYVD18KylstNrsdvXGZ9AV4BNKwBkVXRhmdt_A4IxD3PEg?e=eIbOv6. Given that the HSU infrastructure and financing plans will be complete by 2025 (CAP pg. 57), please commit to completion of the HSU project no later than 2035.

Provide documentation of preliminary heating system upgrades (HSU) cost estimate. Even though the final HSU investment cost estimate is pending the results of an in-depth study, the stand-in value (\$500m-\$1,250m) still requires proper documentation in the CAP (pg. 65). Please provide an itemized justification for this estimate (e.g. piping costs, boiler replacement, building-level modifications). If no such justification is available, please provide an explanation of the reported cost range. Additionally, please reconcile the reported HSU cost ranges reported on CAP pages 17, 56, and 65. They differ substantially (pg. 56: \$650m-1250m, pg. 65: \$500m-1250m, pg. 190/Appendix pg. 17: \$600m-1000m).

We performed a simple estimate of the HSU investment cost using cost and piping length estimates provided by 3 other educational institutions (see attached Table). Full URL: https://o365coloradoedu-my.sharepoint.com/:w:/g/personal/naor2878_colorado_edu/EYVD18KylstNrsdvXGZ9AV4BNKwBkVXRhmdt_A4IxD3PEg?e=eIbOv6 While certainly a rough estimate, this method indicated a drastically lower total upfront investment cost range of \$69m-\$109m. Please explain the order-of-magnitude difference in these projected investment costs for the HSU project.

Provide a timeline for electrifying decentralized portions of campus. The CAP states that heating for decentralized buildings can be electrified independently of main campus upgrades (pg. 55), but the CAP commits to no timeline. Please amend CAP pg. 57 to include a timeline for both pilot studies AND the full electrification of East Campus, Williams Village, and any remaining decentralized buildings. Given the CAP's acknowledgement that such work can be feasibly implemented prior to 2030 (pg. 55), suggested timelines are: 2025 complete pilot studies, 2026 complete financial studies, 2029 complete electrification.

Additionally, please provide justification for the cost, NPV, and emissions reduction figures provided for East Campus and Williams Village electrification in Table 13.

Adopt a strategy to adjust HVAC set-points. The over-heating of campus buildings in winter, and over-cooling in summer wastes energy and causes unnecessary GHG emissions. It also causes considerable waste of financial resources. The 2024 CAP should include a formal strategy to adjust set-points in building thermostats to the levels recommended by the

Draft Climate Action Plan Comments – University of Colorado Boulder

International Energy Agency's Net-Zero by 2050 scenario. Those temperatures are 68°F for warming and 77° for cooling (see IEA NZE 2050, p. 70). Emissions reductions and financial savings from this new strategy should be incorporated into the Scope 1-2 scenarios. For implementation monitoring, the university's climate dashboard should include a spreadsheet with set-points for all campus buildings. The strategy should be implemented by Sept. 2024.

Provide the data underlying the Scope 1-2 scenario space. The scenario space for Scope 1-2 (first presented in p. 17, Figure 2) is central to the university's overall planning. However, the relevant activity data underlying that space has not been provided in the CAP or its appendices. For each year in the Scope 1-2 scenario space (2019-2050), and for each one of the three scenarios and the BAU, please provide a spreadsheet with activity data (kWh consumed and MMBtu of gas used) and corresponding emission factors.

Correct double-counting in Scope 1-2 scenarios. The current Scope 1-2 scenario space (p. 17) overestimates emission reductions. Specifically, the scenario space double-counts emissions reductions through the simple addition of Scenario 1 (Energy Efficiency, EE) and Scenario 2 (Heating System Upgrades, HSU) into the combined Scenario 3. However, Scenarios 1 and 2 are not fully additive. EE reductions will substantially reduce the university's natural gas usage, so these emissions cannot be reduced again under HSU. The CAP should (1) explain the assumptions under which Scenarios 1-2 were combined; (2) review all scenario space assumptions for double counting.

Incorporate WDEP and RECs into scenario space. The current Scope 1-2 scenario space (p. 17) does not reflect two key developments in CU Boulder's emissions: (1) the decision to re-commission WDEP, which will considerably increase the university's emissions relative to the business-as-usual scenario and (2) the intended use of bundled RECs by the university to reduce its Scope 2 emissions. The CAP should demonstrate the impacts that each of these developments would have on the university's emissions. Please provide all relevant figures and explanations of assumptions used in future scenarios. Specifically: a. How often will the WDEP be operated as a peaker in future scenarios and what is the assumed emissions rate? b. Will the WDEP be used outside of peaker operations to reduce emissions relative to XCEL prior to the reported 2030 (2027) emissions intensity parity point? If so, how often as a function of year? c. Provide a timeline of the assumed bundled RECs purchases and corresponding S2 emissions offsets.

*Electrification of the heating system is the single most important thing we can do to reduce emissions. Not tackling this until 2050 is frankly pathetic. Our neighbors and businesses are already doing this aggressively.

Draft Climate Action Plan Comments – University of Colorado Boulder

*Future projects must be considered and evaluated in the context of the Climate Action Plan. New buildings and facilities will ADD to emissions if they aren't designed to lower rather than grow emissions. this also costs much less at the construction phase than it does later on.

Hello, Thank you for a very thorough report. A few questions came up during my review.

1. Pg 20, table 5: This table shows a NPV of -168.2 for the heating system upgrades. Does this value include business as usual deferred maintenance savings that would be avoided? I suspect that a large portion of steam/condensate pipe, traps, valves, converters are/will need replacement within the next 30years. With a centralized hot water system, direct connected buildings' chemical treatment would be centralized.

2. Pg 52, table 12: Roughly what percentage of campus lighting is not LED? Is there really an opportunity to make a significant impact in emissions by replacing the remaining non-LEDs with LEDs? Does this include light control upgrades too? I had heard there were not significant lighting retrofit opportunities with a reasonable payback.

3. Pg 52, table 12: I am confused with the % of 2050 Emissions column. Electrical savings in the year 2050 will not contribute to carbon savings because Xcel's grid is promised to be carbon neutral by then. Is this column the percentage of total emissions saved with respect to the designated strategy from now until 2050?

4. Pg 60, Resilience Connection: It is correct statement that there is a redundant electrical feeder to campus. It is most likely that with the proposed increase of the electrification of the heating system with heat pumps, that the campus peak electrical demand will require all three feeds (depends on other electrical savings through other ESMS). If this occurs, we would then lose our electrical redundancy. The consideration of an additional feeder, or more dispatchable power such as the cogeneration turbines may be required for future electrical resiliency. Onsite batteries, Hydrogen storage paired with the new turbines could also be considered.

5. Pg 92, Demand Response and Resiliency: Bullet point recommendation states when called to deliver peak power, CU should continue to deliver to the grid. Does this refer to cogeneration? Should not-typical operations (such as cogen demand response or fuel oil/diesel backup systems) be targeted to be carbon neutral as well? Should alternative fuels and on campus energy storage be studied to replace these backup, resilient systems?

6. Pg 173, PVT pricing: Where are the results and analysis for the modelled PVT? Was this looked at to balance the load of the district heating system?

7. Scope 3 Question: Is there any discussion about lower carbon food selection (especially around more carbon intensive beef) and how to weigh this against students' preferred diets?

Draft Climate Action Plan Comments – University of Colorado Boulder

Thank you and I look forward to your responses.

It is essential for CU to speed up the process of decarbonizing its electrical system. CU Boulder uses natural gas for its heating; decarbonizing the heating system is the single most impactful strategy the university can take to reduce its direct emissions. The CAP draft's timing for decarbonization is too slow, taking until 2050. The longer CU waits to reduce its emissions, the worse for the climate. CU's peer institutions, like CSU, will decarbonize their heating within the next ten years.

CU needs a more transparent and honest evaluation of future energy projects within the CAP. The CAP draft purports to do an honest accounting of CU's future Scope 1-2 emissions, but fails to incorporate or even mention several planned capital investments that will increase CU's emissions. Notably, this includes a \$45 million investment to extend the life of CU's natural gas heating system by 20-25 years, which belies the CAP's stated goal of decarbonizing CU's heating. The CAP also fails to account for planned growth, like the South Campus expansion.

Decarbonize and electrify CU Boulder's heating system by 2035 and incorporate all future capital projects into the emissions inventory of the CAP.

CU should decarbonize and electrify its heating system by 2035. Currently, CU Boulder uses natural gas for its heating; decarbonizing the heating system is the single most impactful strategy the university can take to reduce its direct emissions. The CAP draft's timing for decarbonization is too slow, taking until 2050. The longer CU waits to reduce its emissions, the worse for the climate. CU's peer institutions, like CSU, will decarbonize their heating within the next ten years. CU should also specifically include contributions from the decarbonization of Xcel's grid to their emissions reductions.

CU should incorporate all capital projects it foresees into the CAP, including projects that are currently omitted and that will emit heavily. The CAP draft purports to do an honest accounting of CU's future Scope 1-2 emissions, but fails to incorporate or even mention several planned capital investments that will increase CU's emissions. Notably, this includes a \$45 million investment to extend the life of CU's natural gas heating system by 20-25 years, which goes against the CAP's stated goal of decarbonizing CU's heating. The CAP also fails to account for planned growth, like the South Campus expansion.

According to the CU Boulder Climate Action Plan, the combustion of natural gasses to heat buildings is a major portion of CU's Scope 1

Draft Climate Action Plan Comments – University of Colorado Boulder

emissions. I think that implementing a timeline to transition to electric heating would be a great process to add to the next Climate Action Plan because there are models from other universities that have begun transitioning and this would eliminate a major contributor to CU's greenhouse gas emissions. Some of the schools who have already begun transitioning include Stanford, UC Berkeley, and MIT. In the first year of electric heating at Stanford, greenhouse gas emissions were reduced by 68% from peak levels and the campus saved 18% of the campus's potable water. The Stanford Energy System Innovations (SESI) project began in 2012 and was completed in 2015. The implementation of SESI involved the design and construction of a 22 mile long hot water pipe, conversion of 155 buildings to receive hot water instead of steam and installation of the Central Energy Facility (CEF) and the new campus high voltage substation. This work was carefully timed to minimize disruption to classes. As each phase of piping and building transition was completed that section of campus was converted from steam to hot water via a regional heat exchanger that converts steam from the existing cogeneration plant to hot water at a district level. Considering that Stanford has a large campus, like CU, it is feasible that CU could electrify its heating along a similar timeline. With this approach, CU Boulder can successfully transition to electric heating systems, reduce its carbon footprint and contribute to a more sustainable campus environment.

We want students as voting members of the board

The targets need to be more aggressive. If the school is going to accept failure—as it has with its 2020 goals—let's at least aim high and miss high. The school should not build one more structure that is not fully decarbonized. Nor should any renovations be approved that continue the existing structure's reliance on carbon-based energy. The transition of existing buildings from natural gas to electric heating can and must happen faster than outlined in this plan.

Please also put solar panels on every roof. The red terracotta is nice, but who cares.

The number one way CU can reduce its direct emissions is by electrifying its heating systems instead of using natural gas. We simply do not have time to wait until 2050 to fully decarbonize. The climate crisis is an emergency that requires swift action. Decarbonize and electrify CU Boulder's heating system by 2035 and incorporate all future capital projects into the emissions inventory of the CAP.

Clarify implementation of the Energy Master Plan's 10% goal. What is the total campus electric demand used to calculate the goal on page 59, and is that demand indexed to future campus growth? Please provide the numerator (total amount of onsite electric capacity) and denominator

Draft Climate Action Plan Comments – University of Colorado Boulder

(total campus electric demand) to clarify whether capacity 10% goal will be met under the CAP. I see the CAP FAQ addressed this question. Please integrate the information on page 59.

Please provide the following information on the use and reporting of renewable energy credits (RECs): 1) Please specify in the CAP Executive Summary that RECs will not be used to reduce Scope 3 emissions and only used to reduce Scope 2 emissions; 2) If RECs are sold to Xcel, please provide that reporting and ensure emissions reduction from RECs are not double-counted in the CAP; 3) Provide reporting in the public dashboard and subsequent reports about RECs and how much of CUB emissions are being offset by RECs; 4) The original CAP proposal ask for solutions without RECs and virtual net metering. Please provide information on why that condition was changed.

I do not oppose RECs, it's more about just tracking the information.

CU should decarbonize and electrify its heating system by 2035. Currently, CU Boulder uses natural gas for its heating; decarbonizing the heating system is the single most impactful strategy the university can take to reduce its direct emissions. The CAP draft's timing for decarbonization is too slow, taking until 2050. The longer CU waits to reduce its emissions, the worse for the climate. CU's peer institutions, like CSU, will decarbonize their heating within the next ten years. CU should incorporate all capital projects it foresees into the CAP, including projects that are currently omitted and that will emit heavily. The CAP draft purports to do an honest accounting of CU's future Scope 1-2 emissions, but fails to incorporate or even mention several planned capital investments that will increase CU's emissions. Notably, this includes a \$45 million investment to extend the life of CU's natural gas heating system by 20-25 years, which belies the CAP's stated goal of decarbonizing CU's heating. The CAP also fails to account for planned growth, like the South Campus expansion.

Seems like adding solar to roofs using solar tiles or to windows using solar film might help CU Boulder generate more electricity & be less reliant on other sources. Could this be less expensive than the car ports that were determined to be too costly?

Also, what about carbon removal via greenery? CU Boulder has cut down a lot of trees to build new buildings, but they're not relocated or replaced. I wonder whether roof-top gardens/green space could be included in the design of new buildings, and added to the buildings with flatter rooftops. This may not be compatible with the prevalent Tuscan style, there are CU Boulder Buildings that already aren't. Adding green among the red rooftops could be more attractive and contribute to cleaner environment.

I think that focusing on networked geothermal to provide both heat and potentially electricity for the campus is a huge opportunity for CU Boulder, and has the potential to play a powerful role in the energy

Draft Climate Action Plan Comments – University of Colorado Boulder

transition. I think that going forward with a geothermal study with Eavor is a fantastic idea. Eavor is an enhanced geothermal company with a huge amount of potential and proven technology, and what they need now is an opportunity to scale their technology and bring down costs. I think that getting to net zero emissions as rapidly as possible should be a huge priority for CU Boulder, and going forward with enhanced geothermal is a fantastic opportunity for reaching these decarbonization goals - both for heating and electricity.

I am an advocate for Scenario 3, in which Scenarios 1 and 2 are combined.

1) It is absolutely outrageous that a university governing body would not have any students on it. Our democracy is built on the people appointing representatives that act in their best interest, and without student representatives, how can the CAP executive council be considered good governance?

2) It should be CU's second highest priority to set an example for the rest of the country for alternative energy standards and should switch to electric heating by 2035.

Decarbonize and electrify CU Boulder's heating system by 2035 and incorporate all future capital projects into the emissions inventory of the CAP. We can do so much better than carbon neutral by 2050.

Thank you for the opportunity to provide comments. I would like to commend the Climate Action Plan Steering Committee for the time and effort that was put into this detailed document. Scope 1 and 2 require the reduction of use of natural gas resources and references switching to mostly electric. I realize the plan is fluid but may need to be even more so based on new technologies and regulations that may be put in place prior to the 2030 goal of reducing emissions by 50%. EPA has proposed a rule to reduce Greenhouse Gas Emissions from Fossil Fuel-Fired Electric Generating Units. This may require industry to meet these goals quicker than 2030. Also, CU should consider technologies using Green Hydrogen since they are becoming more available and could ultimately be an option for zero emissions as well. Thank you for this opportunity to comment.

The right way to modernize the campus heating system, especially in regard to the new Residence Halls 1 and 2, is to install ground-coupled heat pumps to efficiently utilize Xcel's low-carbon electricity. This is what other Colorado universities have done (Colorado Mesa University, CSU, and Colorado College). This will not only provide a heating season average coefficient of performance (COP) of 4 or higher, but it will also greatly reduce electricity demand for summer cooling. However, if CU is adamant about continuing to expand its legacy district steam system, industrial heat pumps that can provide steam, such as that being developed by AtmosZero of Fort Collins, could be considered. Depending on

Draft Climate Action Plan Comments – University of Colorado Boulder

the final steam temperature, a COP on the order of 2 is potentially possible. The AtmosZero technology is covered in a recent article in The Economist (see <https://www.economist.com/briefing/2024/02/15/first-electric-cars-next-electric-factories>). I had a number of conversations with AtmosZero principals about this back in November, and they expressed a strong interest in meeting with CU. I communicated these communications and contact information to some members of the CAP, but I did not receive a response.

- Considering that CU Boulder missed its 2020 greenhouse gas emissions target by 13% (using 2019 numbers), the current plan for accountability is not adequately strong for campus members to feel confident that the new targets will be met.
- According to the CAP, carbon emissions from natural gas for heating currently accounts for 17-19% of the campus' current greenhouse gas emissions. Given the disproportionately large share of this single Scope 1 item in the university's emissions more generally portfolio, it is unacceptable that (p. 55) the study for heating decarbonization is being implemented separate from and after the climate action plan process.
- The timeline for heating decarbonization (completion by 2050) is unacceptably slow and out of step with the much more rapid pace being taken by campuses across the country as well as in Colorado. Cumulative greenhouse gas emissions matter more than specific target dates; CU must bring its emissions down much sooner than the current plan by accelerating heating decarbonization.
- The rationale provided for excluding the emissions from the university's investments in fossil fuels is unconvincing and not in accordance with carbon accounting standards. This is particularly important given the size of those emissions relative to Scopes 1 and 2, as documented in the report.
- Students and faculty expertise are excluded from meaningful participation in the current governance structure for implementing the plan (executive sustainability council).
- The solar energy plan presented in this Climate Action Plan is less ambitious than the campus's own Master Energy Plan. This seems to be going in the wrong direction.

CU bookstore sales and items are not included in Table 10/Scope 3 calculations.

Figure 11 is shown where Figure G is referenced. Table 12 estimates 141.6 \$M between now and 2030, but the text on sheet 53 estimates 104 \$M between now and 2040. None of the sheets expressed how the scenarios will feasibly be phased and interact with each other, i.e., electrification of the fleet (despite not happening all at once) should not precede reducing GHG production for creation of electricity. The building certification processes described on sheet 54 are expensive and do not exceed the requirements of the standards that CU already requires for construction. ILFI Net Zero certification requires 100% onsite renewable energy, WELL Building standards defer to the GBCI for testing standards, the director of the LEED program. These external certifications do not provide a resource to our community other than good optics. Sheet 58 describes CU

Draft Climate Action Plan Comments – University of Colorado Boulder

participating in Xcel's Solar Rewards program to increase the onsite production, however, Xcel uses this program to increase its REC count used to meet the 2030 and 2050 goals. This is a process that CU denounces in the intent of the CAP, yet footnote 42 describes retaining these RECs as part of our Solar PV analysis. The data in Table 17 would be more beneficial in the context of Table 16, also the cost of combining Scenario 1 with Scenario 2 exceeds the estimated cost of Scenario 3. Figure 15 seems to provide the data stated in Figure G earlier. Figure 17 is missing column headers. The strategies included at the bottom of Table 18 (namely New Building Design Standards and Existing Building Space Optimization) are shown to come at no cost, but these will be expensive ventures that will take time and design input from various stakeholders and will need to precede much of the ensuing projects to ensure a holistic approach.

CU should decarbonize and electrify its heating system by 2035. Also the estimated cost for the steam to hot water tunnel conversion seems completely off compared to other institutions. Finally, CU should incorporate all capital projects it foresees into the CAP, including projects that are currently omitted and that will emit heavily.

Overall, I think the plan is comprehensive and impressive. Thank you for the opportunity to review it and ask questions. The questions that came to my mind:

- 1 - If we move towards more electric power, won't Scope 2 increase?
- 2 - It is already 2024 and there are several capital projects underway that have not applied these targets or strategies so the buildings will be behind as soon as they open. How does campus plan to bridge the gap between its targets and the realities of project schedules and budgets? And how is that gap reflected in the timelines?
- 3 - What validates the phased heating conversion outlined in scenario 2 if the suggested upgrades in it are currently being studied? In other words, how do we know it will work and within the timeline shown?
- 4 - Where will the funding for upgrades come from? Does campus plan to help fund projects (big or small) whose scope has the potential to help meet the goals?
- 5 - These expectations will be placed largely on FacMan, however, to achieve the goals all campus clients need to be onboard. How does leadership plan to message and enforce this need to project clients, especially those with limited funding?
- 6 - Are proactive steps being taken to prepare for the need to take buildings offline for upgrades? For example, building, renting, or preparing swing space.

CU should decarbonize and electrify its heating system by 2035. While this is seemingly a tall task, peer institutions are planning to decarbonize their heating systems in a much shorter time window (CSU plans to decarbonize their heating system in the next ten years). Additionally, by completing this task by 2035, we will shave off 15 years of extra emissions using our current natural gas heating plant. This upgrade will save huge amounts of carbon.

Draft Climate Action Plan Comments – University of Colorado Boulder

We must decarbonize and electrify CU Boulder's heating system by 2035. All future capital projects must be incorporated into the emissions inventory of the CAP.

As a CU law student studying climate change issues, I believe CU should decarbonize and electrify its heating system by 2035. Decarbonizing the heating system is the single most impactful strategy the university can take to reduce its direct emissions. The CAP draft's timing for decarbonization is too slow, taking until 2050. The longer CU waits to reduce its emissions, the worse for the climate. CU's peer institutions, like CSU, will decarbonize their heating within the next ten years. CU should incorporate all capital projects it foresees into the CAP, including projects that are currently omitted and that will emit heavily. The CAP draft purports to do an honest accounting of CU's future Scope 1-2 emissions, but fails to incorporate or even mention several planned capital investments that will increase CU's emissions. Notably, this includes a \$45 million investment to extend the life of CU's natural gas heating system by 20-25 years, which belies the CAP's stated goal of decarbonizing CU's heating. The CAP also fails to account for planned growth, like the South Campus expansion.

From ECenter Instagram CAP post on 2/16/24: ka.ilyn328 asks what type of heat pumps are the plan for scope 2? air? ground or water source?

Decarbonizing the heating system is the single most impactful strategy the university can take to reduce its direct emissions. The CAP draft's timing for decarbonization is too slow, taking until 2050. The longer CU waits to reduce its emissions, the worse for the climate. There are heat pumps; solar; and the technology is available for CU to exhibit leadership among universities around the world as well as schools & businesses in Boulder County. Do not delay!

CU needs to have a closer deadline on this plan. CU should decarbonize and electrify its heating system by 2035, 2050 is much too late.

The CAP should commit to decarbonize and electrify CU Boulder's heating system by 2035 -- not wait until 2050 -- and incorporate all future capital projects into the emissions inventory of the CAP. Notably, CU's continued investment into its natural gas heating system is appalling and runs counter to the CAP's stated commitments to robust climate action. CU needs to aggressively drop its reliance on fossil fuels, not continue to invest in them.

Draft Climate Action Plan Comments – University of Colorado Boulder

CU Boulder should decarbonize and electrify its heating system by 2035 and incorporate all future capital projects into the emissions inventory of the CAP.

Currently, CU Boulder uses natural gas for its heating; decarbonizing the heating system is the single most impactful strategy the university can take to reduce its direct emissions. The CAP draft's timing for decarbonization is too slow, taking until 2050. The longer CU waits to reduce its emissions, the worse for the climate. CU's peer institutions, like CSU, will decarbonize their heating within the next ten years. The CAP draft purports to do an honest accounting of CU's future Scope 1-2 emissions, but fails to incorporate or even mention several planned capital investments that will increase CU's emissions. Notably, this includes a \$45 million investment to extend the life of CU's natural gas heating system by 20-25 years, which belies the CAP's stated goal of decarbonizing CU's heating. The CAP also fails to account for planned growth, like the South Campus expansion.

This section (and probably other sections) could use better headings.

Core Goal 1 on page 50 is large font, clearly the start of a section. Then there are four itemized sections below, starting with Buildings. I'm still with you.

But then you lose me with Action Categories on page 51. Seeing that Buildings is the next heading, I assume that the following paragraphs will follow the itemized list on page 50. Nope. The next heading is Co-Benefits, which was not itemized on page 50.

The next heading on page 52 is Analysis. OK, a section analyzing... what? Analyzing Action Categories, the large-font heading on page 51? Or analyzing Core Goal 1 in a puzzlingly similar large font on page 50?

Two sections later on page 56, we're back to Analysis in the same font. Analysis of WHAT??

Eventually, I realize that each Analysis belongs to the preceding section, but it is not clear or readily apparent, because all headings seem to be the same font, size, and color. By contrast, I was able to discern that the smaller Co-Benefits heading on page 61 related to the preceding and larger-font Fleet Electrification heading on the preceding page. However, emphasizing my confusion, Analysis came right after the clear Co-Benefits heading, again in the same size font of Fleet Electrification. Simply making Analysis smaller font throughout would make the document easier for the reader to follow.

But that's not what I'm here. I have heard from several faculty and community members that the University intends to build a new garage at northeastern edge of Main Campus, presumably to accommodate traffic to the nearby athletic facilities. Doing so will only encourage more driving to campus - directly contradicting the many important objectives of the

Draft Climate Action Plan Comments – University of Colorado Boulder

Climate Action Plan. How can the University on one hand push for fleet electrification, GHG reduction, building efficiencies, and green energy production on one hand and then invite more traffic through our neighboring walkable downtown on the other?

Please don't pursue a new garage near campus. Boulder is a model for multimodal transportation, including the City's and the University's complementary investments in EcoPass, B-Cycle, and supportive infrastructure that invite clean and healthy mobility. Please do not compromise or diminish these important and admirable characteristics to accommodate climate-threatening automobiles in spite of this document's good intentions.

Accelerate heating system upgrades (HSU). The current CAP draft acknowledges that decarbonizing the campus' energy infrastructure is one of the most critical actions that CU can take (page 69). However, the design and funding of the main campus HSU project is left to future work (page 57). Instead, CU only commits to the longest possible HSU timeline consistent with a net-zero 2050. While final HSU timing should certainly pend the results of the ongoing implementation and financing studies, the 2050 HSU timeline is still far too long. Other education institutions implementing comparable heating system upgrades report completion times of 3-10 years (see attached Table). Full URL: https://o365coloradoedu-my.sharepoint.com/:w:/g/personal/naor2878_colorado_edu/EYVD18KylstNrsdvXGZ9AV4BNKwBkVXRhmdt_A4IxD3PEg?e=eIbOv6. Given that the HSU infrastructure and financing plans will be complete by 2025 (CAP pg. 57), please commit to completion of the HSU project no later than 2035.

Provide documentation of preliminary heating system upgrades (HSU) cost estimate. Even though the final HSU investment cost estimate is pending the results of an in-depth study, the stand-in value (\$500m-\$1,250m) still requires proper documentation in the CAP (pg. 65). Please provide an itemized justification for this estimate (e.g. piping costs, boiler replacement, building-level modifications). If no such justification is available, please provide an explanation of the reported cost range. Additionally, please reconcile the reported HSU cost ranges reported on CAP pages 17, 56, and 65. They differ substantially (pg. 56: \$650m-1250m, pg. 65: \$500m-1250m, pg. 190/Appendix pg. 17: \$600m-1000m).

We performed a simple estimate of the HSU investment cost using cost and piping length estimates provided by 3 other educational institutions (see attached Table). Full URL: https://o365coloradoedu-my.sharepoint.com/:w:/g/personal/naor2878_colorado_edu/EYVD18KylstNrsdvXGZ9AV4BNKwBkVXRhmdt_A4IxD3PEg?e=eIbOv6 While certainly a rough estimate, this method indicated a drastically lower total upfront investment cost range of \$69m-\$109m. Please explain the order-of-magnitude difference in these projected investment costs for the HSU project.

Provide a timeline for electrifying decentralized portions of campus. The CAP states that heating for decentralized buildings can be electrified independently of main campus upgrades (pg. 55), but the CAP commits to no

Draft Climate Action Plan Comments – University of Colorado Boulder

timeline. Please amend CAP pg. 57 to include a timeline for both pilot studies AND the full electrification of East Campus, Williams Village, and any remaining decentralized buildings. Given the CAP's acknowledgement that such work can be feasibly implemented prior to 2030 (pg. 55), suggested timelines are: 2025 complete pilot studies, 2026 complete financial studies, 2029 complete electrification.

Significant emissions reductions can be achieved by modifying HVAC set points for heating and cooling. The 2024 CAP should include a formal strategy to adjust set-points in building thermostats to the levels recommended by the International Energy Agency's Net-Zero by 2050 scenario. Those temperatures are 68°F for warming and 77° for cooling (see IEA NZE 2050, p. 70).

Please provide the data underlying the Scope 1-2 scenario space. The scenario space for Scope 1-2 (first presented in p. 17, Figure 2) is central to the university's overall planning. However, the relevant activity data underlying that space has not been provided in the CAP or its appendices. For each year in the Scope 1-2 scenario space (2019-2050), and for each one of the three scenarios and the BAU, please provide a spreadsheet with activity data (kWh consumed and MMBtu of gas used) and corresponding emission factors.

Combining the proposed scenario 1 and scenario 2 emissions reductions to scenario 3 involves interactions between energy efficiency upgrades and heating emissions. E.g. More efficient insulation reduces heating demand. Please describe how these interactions are handled in the modeling of scenario 3.

Incorporate WDEP and RECs into scenario space.

The current Scope 1-2 scenario space (p. 17) does not reflect two key developments in CU Boulder's emissions: (1) the decision to re-commission the WDEP, which will considerably increase the university's emissions relative to the business-as-usual scenario and (2) the intended use of bundled RECs by the university to reduce its Scope 2 emissions. The CAP should demonstrate the impacts that each of these developments would have on the university's emissions. Please provide all relevant figures and explanations of assumptions used in future scenarios. Specifically: a. How often will the WDEP be operated as a peaker in future scenarios and what is the assumed emissions rate? b. Will the WDEP be used outside of peaker operations to reduce emissions relative to XCEL prior to the reported 2030 (2027) emissions intensity parity point? If so, how often as a function of year? c. Provide a timeline of the assumed bundled RECs purchases and corresponding S2 emissions offsets.

Proposed scope 1 and 2 - specifically scope 1 emission reductions are not nearly as aggressive as comparable institutions. The current climate action plan does not go far enough in laying out a plan for decarbonizing

Draft Climate Action Plan Comments – University of Colorado Boulder

electricity and heating and is not nearly as ambitious as peer institutions.

I appreciate that Optimize Existing building Space is included in Table 8: Summary of all Strategies on p28. I also appreciate that on p54, Optimize Existing Building Space Utilization is called out with a bold title and that labs are called out as a space that will be included in this optimization. It would be good if this section on p 54 included more content such as how this will be accomplished perhaps through periodic assessments of activity in spaces and reallocation of existing spaces to meet changing needs for example.

As someone who attended the zoom info session where the Council presented the CAP and answered some of the questions, I left feeling that they really did not sufficiently answer why CU, the flagship institution in the state, is so far behind other peer institutions in its decarbonization goals. CU needs to be more aggressive in its goal setting to decarbonize by 2035-- 2050 is not sufficient. And, it undermines CU's place as a leader on climate, with CSU ready to take that torch (they are already beating us on large grants and getting more recognition with regional partners).

The suggestion of decarbonizing the heating system appears very necessary for the CAP to succeed, but the description of the phased plan for decarbonization starting at a much later date does not seem like a firm commitment or well-thought plan. Please consider shortening the timeline for decarbonization (10 years seems reasonable), starting it at a sooner date, and committing to a more detailed plan.

Building decarbonization should be a top priority, CU should electrify all heating by 2035. Heat pump technology is available, reliable, and frequently more cost-effective than gas heating, not to mention much healthier.

CU should be ambitious to make good on its professed climate leadership -- decarbonize and electrify the heating system by 2035. The longer we wait, the worse the impacts will be. Mid-century targets do not take into account the urgency of the present crisis.

Additionally, CU must incorporate emissions from planned additions -- e.g., new emissions from planned South Campus construction and usage AS WELL AS plans to extend the life of our natural gas heating system by 20-25 years.

Decarbonize and electrify CU Boulder's heating system by 2035 and incorporate all future capital projects into the emissions inventory of the CAP.

Draft Climate Action Plan Comments – University of Colorado Boulder

CU should decarbonize and electrify its heating system by 2035.

CU should incorporate all capital projects it foresees into the CAP, including projects that are currently omitted and that will emit heavily.

CU needs to move faster to electrify its heating. We know that we need to be moving in that direction anyway and it makes no sense to invest \$ in upgrading our natural gas system. Our peers are already moving towards electrifying their heating. We don't want to be left behind.

Berkeley plans to electrify their heating system by 2028.

<https://www.universityofcalifornia.edu/news/how-three-uc-campuses-are-phasing-out-fossil-fuels#:~:text=The%20plume%20of%20steam%20from,electrical%20heating%20system%20by%202028.>

The University of Washington? 2035

https://sustainability.uw.edu/files/plan/uw_energy_strategy_for_website.pdf

The University of Michigan? 2040

<https://planetblue.umich.edu/campus/uploads/fy22-climate-action-report-digital.pdf>

CSU plans to be ENTIRELY carbon neutral by 2040, heating and all

<https://betterbuildingssolutioncenter.energy.gov/partners/colorado-state-university>

Please accelerate heating systems upgrades, and decarbonize heating by 2035. This is the most important thing CU can do to reduce its Scope 1-2 emissions, and it is critical that we do this as soon as possible. Speed is so, so important for reducing our emissions. Our peer institutions are decarbonizing their heating systems so much faster than we are, including CSU, and we are far behind them.

Additionally, the CAP mentions many different financial ranges for what it would take to decarbonize our heating systems. Please publicize accurate estimates for how much this would cost.

Please provide the underlying data for Scopes 1-2 scenario spaces. As was mentioned in one of the town halls, it appears that Scenario 3 double counts benefits from decarbonizing our heating. This is the only Scenario space that reduces emissions to near zero by 2050, so it is alarming that it appears to be incorrect.

Please incorporate WDEP and RECs into the Scenario spaces. CU is planning on investing \$45 million dollars into WDEP, which will increase the air pollution around campus, and which has a lifespan upwards of 20 years. This investment belies commitments that the CAP makes to switching to decarbonize our heating as fast as possible. Please severely limit WDEP generation after parity with Xcel.

Draft Climate Action Plan Comments – University of Colorado Boulder

Top asks: Decarbonize and electrify CU Boulder's heating system by 2035 AND incorporate all future capital projects into the emissions inventory of the CAP.

- CU's current plan of stretching out the electrification of it's heating system until 2050 is extremely detrimental. There is no reason to wait - R1 universities across the country, along with CU's neighbor CSU, are electrifying heating today and will finish in 2035.

- There are current projects, including a \$45 million investment to extend the life of CU's natural gas heating system by 20-25 years, which counteract the CAP's stated goal of decarbonizing CU's heating. The CAP also fails to account for planned growth, like the South Campus expansion. These should be included in forward facing modeling in the CAP.

I recommend keeping the 2005 baseline as the measurable baseline for scope one and two emissions. The CAP committee should set more aggressive science-based targets for implementation into the CAP for our short and long-term decarbonization goals. Additionally, aligning with a 2005 baseline keeps us aligned with the State of Colorado, Xcel, and other large organizations.

The CAP needs to push harder and make more progress on use behavior modification. The CAP must quickly add strategies and actions for temperature band evaluation and adjustments. The CAP steering committee and the campus must move our GHG emissions curve in the next six years, and to do this with minimal available capital, we must look at use and behavior adjustments to meet our goals in the near term. Additionally, the sooner we adjust our use habits, the more we obtain multiplied yearly savings as we improve our reduction strategies.

Decarbonize and electrify CU Boulder's heating system by 2035 and incorporate all future capital projects into the emissions inventory of the CAP. The current plan is too slow, and our peer institutions have been able to do it much faster and at less of an expense than what is currently estimated in the CAP.

The CAP draft should include all current and future capital projects within the CAP. These S1-2 emissions must be included per GHG accounting protocol / science based targets initiative that you purport to use when it is convenient.

Accelerate heating system upgrades (HSU). The current CAP draft acknowledges that decarbonizing the campus' energy infrastructure is one

Draft Climate Action Plan Comments – University of Colorado Boulder

of the most critical actions that CU can take (page 69). However, the design and funding of the main campus HSU project is left to future work (page 57). Instead, CU only commits to the longest possible HSU timeline consistent with a net-zero 2050. While final HSU timing should certainly pend the results of the ongoing implementation and financing studies, the 2050 HSU timeline is still far too long. Other education institutions implementing comparable heating system upgrades report completion times of 3-10 years (see attached Table). Full URL: https://o365coloradoedu-my.sharepoint.com/:w:/g/personal/naor2878_colorado_edu/EYVD18KylstNrsdvXGZ9AV4BNKwBkVXRhmDt_A4IxD3PEg?e=eIbOv6. Given that the HSU infrastructure and financing plans will be complete by 2025 (CAP pg. 57), please commit to completion of the HSU project no later than 2035.

Provide documentation of preliminary heating system upgrades (HSU) cost estimate. Even though the final HSU investment cost estimate is pending the results of an in-depth study, the stand-in value (\$500m-\$1,250m) still requires proper documentation in the CAP (pg. 65). Please provide an itemized justification for this estimate (e.g. piping costs, boiler replacement, building-level modifications). If no such justification is available, please provide an explanation of the reported cost range. Additionally, please reconcile the reported HSU cost ranges reported on CAP pages 17, 56, and 65. They differ substantially (pg. 56: \$650m-1250m, pg. 65: \$500m-1250m, pg. 190/Appendix pg. 17: \$600m-1000m).

We performed a simple estimate of the HSU investment cost using cost and piping length estimates provided by 3 other educational institutions (see attached Table). Full URL: https://o365coloradoedu-my.sharepoint.com/:w:/g/personal/naor2878_colorado_edu/EYVD18KylstNrsdvXGZ9AV4BNKwBkVXRhmDt_A4IxD3PEg?e=eIbOv6 While certainly a rough estimate, this method indicated a drastically lower total upfront investment cost range of \$69m-\$109m. Please explain the order-of-magnitude difference in these projected investment costs for the HSU project.

Provide a timeline for electrifying decentralized portions of campus. The CAP states that heating for decentralized buildings can be electrified independently of main campus upgrades (pg. 55), but the CAP commits to no timeline. Please amend CAP pg. 57 to include a timeline for both pilot studies AND the full electrification of East Campus, Williams Village, and any remaining decentralized buildings. Given the CAP's acknowledgement that such work can be feasibly implemented prior to 2030 (pg. 55), suggested timelines are: 2025 complete pilot studies, 2026 complete financial studies, 2029 complete electrification.

Additionally, please provide justification for the cost, NPV, and emissions reduction figures provided for East Campus and Williams Village electrification in Table 13.

Adopt a strategy to adjust HVAC set-points. The over-heating of campus buildings in winter, and over-cooling in summer wastes energy and causes unnecessary GHG emissions. It also causes considerable waste of financial resources. The 2024 CAP should include a formal strategy to adjust set-

Draft Climate Action Plan Comments – University of Colorado Boulder

points in building thermostats to the levels recommended by the International Energy Agency's Net-Zero by 2050 scenario. Those temperatures are 68°F for warming and 77° for cooling (see IEA NZE 2050, p. 70). Emissions reductions and financial savings from this new strategy should be incorporated into the Scope 1-2 scenarios. For implementation monitoring, the university's climate dashboard should include a spreadsheet with set-points for all campus buildings. The strategy should be implemented by Sept. 2024.

Provide the data underlying the Scope 1-2 scenario space. The scenario space for Scope 1-2 (first presented in p. 17, Figure 2) is central to the university's overall planning. However, the relevant activity data underlying that space has not been provided in the CAP or its appendices. For each year in the Scope 1-2 scenario space (2019-2050), and for each one of the three scenarios and the BAU, please provide a spreadsheet with activity data (kWh consumed and MMBtu of gas used) and corresponding emission factors.

Correct double-counting in Scope 1-2 scenarios. The current Scope 1-2 scenario space (p. 17) overestimates emission reductions. Specifically, the scenario space double-counts emissions reductions through the simple addition of Scenario 1 (Energy Efficiency, EE) and Scenario 2 (Heating System Upgrades, HSU) into the combined Scenario 3. However, Scenarios 1 and 2 are not fully additive. EE reductions will substantially reduce the university's natural gas usage, so these emissions cannot be reduced again under HSU. The CAP should (1) explain the assumptions under which Scenarios 1-2 were combined; (2) review all scenario space assumptions for double counting.

Incorporate WDEP and RECs into scenario space. The current Scope 1-2 scenario space (p. 17) does not reflect two key developments in CU Boulder's emissions: (1) the decision to re-commission WDEP, which will considerably increase the university's emissions relative to the business-as-usual scenario and (2) the intended use of bundled RECs by the university to reduce its Scope 2 emissions. The CAP should demonstrate the impacts that each of these developments would have on the university's emissions. Please provide all relevant figures and explanations of assumptions used in future scenarios. Specifically: a. How often will the WDEP be operated as a peaker in future scenarios and what is the assumed emissions rate? b. Will the WDEP be used outside of peaker operations to reduce emissions relative to XCEL prior to the reported 2030 (2027) emissions intensity parity point? If so, how often as a function of year? c. Provide a timeline of the assumed bundled RECs purchases and corresponding S2 emissions offsets.

Severely limit WDEP electricity generation after parity with Xcel.

Once the emissions factor associated with electricity generation at WDEP is greater than the emissions factor from electricity purchased from Xcel, do not use WDEP for electricity generation outside of those times

Draft Climate Action Plan Comments – University of Colorado Boulder

when it is needed to reduce output from Xcel's peaker generators. Page 60 of the CAP should be revised to provide an explicit commitment that WDEP will not be used for baseload generation once the grid is cleaner.

Clarify implementation of the Energy Master Plan's 10% goal. What is the total campus electric demand that is used to calculate the goal on p. 59, and is that demand indexed to future campus growth? Please provide the numerator (total amount of onsite electric capacity) and denominator (total campus electric demand) to provide transparency on whether capacity 10% goal will be met under the CAP.

Clarify Fleet Electrification Timeline, include electric vehicle (EV) and internal combustion engines (ICE) vehicle purchases in the public dashboard: 1) There are two different timelines in the CAP and the Appendix, 2037 and 2050. Please clarify the timeline and preferably choose the earlier timeline of 2037; 2) Include EV and ICE vehicle purchases in the public dashboard.

For Fleet Electrification, Add Financing Options in the same section of the CAP, and Add Additional NPV Cost Calculations with Tax Credits and Incentives: 1) Add additional NPV cost estimates to include tax credits and incentives that are certain under the IRA or state level; 2) Add these additional NPV figures into the body of the CAP; and 3) Electrification will require money, but not providing the financing options direct next to the fleet electrification cost will give readers a skewed perception of the true cost. Many readers may not be aware that financing options are on PDF pages 105 and 214. Please add the electric vehicle and charging infrastructure financing options on pages 60-64 and at the beginning of the Fleet Electrification Appendix

Please provide the following information on the use and reporting of renewable energy credits (RECs): 1) Please specify in the CAP Executive Summary that RECs will not be used to reduce Scope 3 emissions and only used to reduce Scope 2 emissions; 2) If RECs are sold to Xcel, please provide that reporting and ensure emissions reduction from RECs are not double-counted in the CAP; 3) Provide reporting in the public dashboard and subsequent reports about RECs and how much of CUB emissions are being offset by RECs; 4) The original CAP proposal ask for solutions without RECs and virtual net metering. Please provide information on why that condition was changed.

The CAP should accelerate heating system upgrades (HSU).

The current CAP draft acknowledges that decarbonizing the campus' energy infrastructure is one of the most critical actions that CU can take (page 69). However, the design and funding of the main campus HSU project is left to future work (page 57). Instead, CU only commits to the longest possible HSU timeline consistent with a net-zero 2050.

Draft Climate Action Plan Comments – University of Colorado Boulder

While final HSU timing should certainly pend the results of the ongoing implementation and financing studies, the 2050 HSU timeline is still far too long. Other education institutions implementing comparable heating system upgrades report completion times of 3-10 years (a table with data will be sent seperately to the CAP SC). Given that the HSU infrastructure and financing plans will be complete by 2025 (CAP pg. 57), please commit to completion of the HSU project no later than 2035.

The CAP should provide documentation of preliminary heating system upgrades (HSU) cost estimate.

Even though the final HSU investment cost estimate is pending the results of an in-depth study, the stand-in value (\$500m-\$1,250m) still requires proper documentation in the CAP (pg. 65). Please provide an itemized justification for this estimate (e.g. piping costs, boiler replacement, building-level modifications). If no such justification is available, please provide an explanation of the reported cost range.

Additionally, please reconcile the reported HSU cost ranges reported on CAP pages 17, 56, and 65. They differ substantially (pg. 56: \$650m-1250m, pg. 65: \$500m-1250m, pg. 190/Appendix pg. 17: \$600m-1000m).

Our team performed a simple estimate of the HSU investment cost using cost and piping length estimates provided by 3 other educational institutions (data table will be sent seperately). While certainly a rough estimate, this method indicated a drastically lower total upfront investment cost range of \$69m-\$109m. Please explain the order-of-magnitude difference in these projected investment costs for the HSU project

The CAP should provide a timeline for electrifying decentralized portions of campus.

The CAP states that heating for decentralized buildings can be electrified independently of main campus upgrades (pg. 55), but the CAP commits to no timeline. Please amend CAP pg. 57 to include a timeline for both pilot studies AND the full electrification of East Campus, Williams Village, and any remaining decentralized buildings. Given the CAP's acknowledgement that such work can be feasibly implemented prior to 2030 (pg. 55), suggested timelines are: 2025 complete pilot studies, 2026 complete financial studies, 2029 complete electrification.

Additionally, please provide justification for the cost, NPV, and emissions reduction figures provided for East Campus and Williams Village electrification in Table 13.

The CAP should adopt an energy conservation strategy to adjust HVAC set-points.

Draft Climate Action Plan Comments – University of Colorado Boulder

The over-heating of campus buildings in winter, and over-cooling in summer wastes energy and causes unnecessary GHG emissions. It also causes considerable waste of financial resources. The 2024 CAP should include a formal strategy to adjust set-points in building thermostats to the levels recommended by the International Energy Agency's Net-Zero by 2050 scenario. Those temperatures are 68°F for warming and 77° for cooling (see IEA NZE 2050, p. 70). Emissions reductions and financial savings from this new strategy should be incorporated into the Scope 1-2 scenarios. For implementation monitoring, the university's climate dashboard should include a spreadsheet with set-points for all campus buildings. The strategy should be implemented by Sept. 2024.

The CAP should provide the data underlying the Scope 1-2 scenario space.

The scenario space for Scope 1-2 (first presented in p. 17, Figure 2) is central to the university's overall planning. However, the relevant activity data underlying that space have not been provided in the CAP or its appendices. For each year in the Scope 1-2 scenario space (2019-2050), and for each one of the three scenarios and the BAU, please provide a spreadsheet with activity data (kWh consumed and MMBtu of gas used) and corresponding emission factors.

We request this data be posted on the CAP website by April 5, 2024.

The CAP should correct double-counting in Scope 1-2 scenarios.

The current Scope 1-2 scenario space (p. 17) seems to over-estimate emission reductions. Specifically, the scenario space seems to double-count emissions reductions through simple addition of Scenario 1 (Energy Efficiency, EE) and Scenario 2 (Heating System Upgrades, HSU) into the combined Scenario 3. However, Scenarios 1 and 2 are not fully additive. EE reductions will substantially reduce the university's natural gas usage, so these emissions cannot be reduced again under HSU. The CAP should (1) explain the assumptions under which Scenarios 1-2 were combined; (2) review all scenario space assumptions for double counting.

The CAP should Incorporate WDEP and RECs into scenario space.

The current Scope 1-2 scenario space (p. 17) does not reflect two key developments in CU Boulder's emissions: (1) the decision to re-commission WDEP, which will considerably increase the university's emissions relative to the business-as-usual scenario and (2) the intended use of bundled RECs by the university to reduce its Scope 2 emissions.

The CAP should demonstrate the impacts that each of these developments would have on the university's emissions. Please provide all relevant figures and explanations of assumptions used in future scenarios. Specifically: a. How often will the WDEP be operated as a peaker in future scenarios and what is the assumed emissions rate? b. Will the WDEP be used outside of peaker operations to reduce emissions relative to XCEL prior to the reported 2030 (2027) emissions intensity parity point? If so,

Draft Climate Action Plan Comments – University of Colorado Boulder

how often as a function of year? c. Provide a timeline of the assumed bundled RECs purchases and corresponding S2 emissions offsets.

If the university decides to follow the WDEP upgrade plan, the CAP should commit to limiting WDEP cogeneration after parity with Xcel.

Page 60 of the CAP should be revised to provide an explicit commitment that WDEP will not be used for baseload generation once the grid is clean. Specifically, the CAP should commit the university that once the emissions factor associated with cogeneration at WDEP is greater than the emissions factor Xcel + standalone generation, the university will not use WDEP for cogeneration unless for peaking purposes or while other equipment is being fixed. The CAP should provide transparency and documentation as to when that parity point will occur.

The CAP should clarify implementation of the Energy Master Plan's 10% goal.

What is the total campus electric demand that is used to calculate the goal on page 59, and is that demand indexed to future campus growth? Please provide the numerator (total amount of onsite electric capacity) and denominator of (total campus electric demand) to provide transparency whether capacity 10% goal will be met under the CAP

The CAP should clarify the Fleet Electrification Timeline, and include electric vehicle (EV) and internal combustion engines (ICE) vehicle purchases in the public dashboard.

At present, there are two different timelines in the CAP and the Appendix, 2037 and 2050. Please clarify the timeline and preferably choose the earlier timeline of 2037.

This ask concerns fleet electrification and financing options.

For Fleet Electrification, the CAP should add financing options in the same section of the CAP, and add additional NPV Cost Calculations with Tax Credits and Incentives. Specifically, please:

1) Add additional NPV cost estimates to include tax credits and incentives that are certain under the IRA or state level;

2) Add these additional NPV figures into the body of the CAP; and

3) Electrification will require funding, but not providing the financing options directly next to the fleet electrification cost will give readers a skewed perception of the true cost. Many readers may not be aware that financing options are on PDF pages 105 and 214. Please add the electric vehicle and charging infrastructure financing options on pages 60-64 and at the beginning of the Fleet Electrification Appendix.

Draft Climate Action Plan Comments – University of Colorado Boulder

The CAP should provide the following information on the use and reporting of renewable energy credits (RECs): 1) Please specify in the CAP Executive Summary that RECs will not be used to reduce Scope 3 emissions and only used to reduce Scope 2 emissions; 2) If RECs are sold to Xcel, please provide that reporting and ensure emissions reduction from RECs are not double-counted in the CAP; 3) Provide reporting in the public dashboard and subsequent reports about RECs and how much of CUB emissions are being offset by RECs; 4) The original RFI for the CAP consultant was for specifically solutions without RECs and virtual net metering. Please provide information on why that condition was changed.

Natural gas is not a sustainable fuel. Methane leaks are significant in their climate warming effect and burning natural gas releases CO₂ and other air pollutants. CU Boulder should decarbonize and electrify its heating system by 2035 and incorporate all future capital projects into the emissions inventory of the CAP. The plan should obviously account for future planned development, and not excuse the \$45 million investment to extend CU's natural gas heating infrastructure.

1. Accelerate heating system upgrades (HSU). The current CAP draft acknowledges that decarbonizing the campus' energy infrastructure is one of the most critical actions that CU can take (page 69). However, the design and funding of the main campus HSU project is left to future work (page 57). Instead, CU only commits to the longest possible HSU timeline consistent with a net-zero 2050. While final HSU timing should certainly pend the results of the ongoing implementation and financing studies, the 2050 HSU timeline is still far too long. Other education institutions implementing comparable heating system upgrades report completion times of 3-10 years (see attached Table). Full URL:

https://o365coloradoedu-my.sharepoint.com/:w:/g/personal/naor2878_colorado_edu/EYVD18KylstNrsdvXGZ9AV4BNkWBkVXRhmDt_A4Ix3PEg?e=eIbOv6.

Given that the HSU infrastructure and financing plans will be complete by 2025 (CAP pg. 57), please commit to completion of the HSU project no later than 2035.

2. Provide documentation of preliminary heating system upgrades (HSU) cost estimate. Even though the final HSU investment cost estimate is pending the results of an in-depth study, the stand-in value (\$500m-\$1,250m) still requires proper documentation in the CAP (pg. 65). Please provide an itemized justification for this estimate (e.g. piping costs, boiler replacement, building-level modifications). If no such justification is available, please provide an explanation of the reported cost range. Additionally, please reconcile the reported HSU cost ranges

Draft Climate Action Plan Comments – University of Colorado Boulder

reported on CAP pages 17, 56, and 65. They differ substantially (pg. 56: \$650m-1250m, pg. 65: \$500m-1250m, pg. 190/Appendix pg. 17: \$600m-1000m).

We performed a simple estimate of the HSU investment cost using cost and piping length estimates provided by 3 other educational institutions (see attached Table). Full URL: https://o365coloradoedu-my.sharepoint.com/:w:/g/personal/naor2878_colorado_edu/EYVDl8KylstNrsdvXGZ9AV4BNKwBkVXRhmDt_A4Ix3PEg?e=eIbOv6 While certainly a rough estimate, this method indicated a drastically lower total upfront investment cost range of \$69m-\$109m. Please explain the order-of-magnitude difference in these projected investment costs for the HSU project.

3. Provide a timeline for electrifying decentralized portions of campus. The CAP states that heating for decentralized buildings can be electrified independently of main campus upgrades (pg. 55), but the CAP commits to no timeline. Please amend CAP pg. 57 to include a timeline for both pilot studies AND the full electrification of East Campus, Williams Village, and any remaining decentralized buildings. Given the CAP's acknowledgment that such work can be feasibly implemented before 2030 (pg. 55), suggested timelines are: 2025 complete pilot studies, 2026 complete financial studies, 2029 complete electrification.

Additionally, please justify the cost, NPV, and emissions reduction figures provided for East Campus and Williams Village electrification in Table 13.

4. Adopt a strategy to adjust HVAC set-points. The over-heating of campus buildings in winter, and over-cooling in summer wastes energy and causes unnecessary GHG emissions. It also causes considerable waste of financial resources. The 2024 CAP should include a formal strategy to adjust set-points in building thermostats to the levels recommended by the International Energy Agency's Net-Zero by 2050 scenario. Those temperatures are 68°F for warming (winter) and 77° for cooling (summer) (see IEA NZE 2050, p. 70). Emissions reductions and financial savings from this new strategy should be incorporated into the Scope 1-2 scenarios. For implementation monitoring, the university's climate dashboard should include a spreadsheet with set-points for all campus buildings. The strategy should be implemented by Sept. 2024.

Provide the data underlying the Scope 1-2 scenario space. The scenario space for Scope 1-2 (first presented in p. 17, Figure 2) is central to the university's overall planning. However, the relevant activity data underlying that space has not been provided in the CAP or its appendices. For each year in the Scope 1-2 scenario space (2019-2050), and for each one of the three scenarios and the BAU, please provide a spreadsheet with activity data (kWh consumed and MMBtu of gas used) and corresponding emission factors.

Draft Climate Action Plan Comments – University of Colorado Boulder

Correct double-counting in Scope 1-2 scenarios. The current Scope 1-2 scenario space (p. 17) overestimates emission reductions. Specifically, the scenario space double-counts emissions reductions through the simple addition of Scenario 1 (Energy Efficiency, EE) and Scenario 2 (Heating System Upgrades, HSU) into the combined Scenario 3. However, Scenarios 1 and 2 are not fully additive. EE reductions will substantially reduce the university's natural gas usage, so these emissions cannot be reduced again under HSU. The CAP should (1) explain the assumptions under which Scenarios 1-2 were combined; (2) review all scenario space assumptions for double counting.

1. Incorporate WDEP and RECs into scenario space. The current Scope 1-2 scenario space (p. 17) does not reflect two key developments in CU Boulder's emissions: (1) the decision to re-commission WDEP, which will considerably increase the university's emissions relative to the business-as-usual scenario and (2) the intended use of bundled RECs by the university to reduce its Scope 2 emissions. The CAP should demonstrate the impacts that each of these developments would have on the university's emissions. Please provide all relevant figures and explanations of assumptions used in future scenarios. Specifically:

- How often will the WDEP be operated as a peaker in future scenarios and what is the assumed emissions rate?
- Will the WDEP be used outside of peaker operations to reduce emissions relative to XCEL before the reported 2030(2027) emissions intensity parity point? If so, how often as a function of year?
- Provide a timeline of the assumed bundled RECs purchases and corresponding S2 emissions offsets.

2. Severely limit WDEP electricity generation after parity with Xcel.

Once the emissions factor associated with electricity generation at WDEP is greater than the emissions factor from electricity purchased from Xcel, do not use WDEP for electricity generation outside of those times when it is needed to reduce output from Xcel's peaker generators. Page 60 of the CAP should be revised to provide an explicit commitment that WDEP will not be used for baseload generation once the grid is cleaner.

1. Clarify Fleet Electrification Timeline, and include electric vehicle (EV) and internal combustion engines (ICE) vehicle purchases in the public dashboard: 1) There are two different timelines in the CAP and the Appendix, 2037 and 2050. Please clarify the timeline and preferably choose the earlier timeline of 2037; 2) Include EV and ICE vehicle purchases in the public dashboard.

2. For Fleet Electrification, Add Financing Options in the same section of the CAP, and Add Additional NPV Cost Calculations with Tax Credits and Incentives: 1) Add additional NPV cost estimates to include tax credits and incentives that are certain under the IRA or state level; 2) Add

Draft Climate Action Plan Comments – University of Colorado Boulder

these additional NPV figures into the body of the CAP; and 3) Electrification will require money, but not providing the financing options direct next to the fleet electrification cost will give readers a skewed perception of the true cost. Many readers may not be aware that financing options are on PDF p. 105 and p. 214. Please add the electric vehicle and charging infrastructure financing options on pp. 60-64 and at the beginning of the Fleet Electrification Appendix.

3. Please provide the following information on the use and reporting of renewable energy credits (RECs): 1) Please specify in the CAP Executive Summary that RECs will not be used to reduce Scope 3 emissions and only used to reduce Scope 2 emissions; 2) If RECs are sold to Xcel, please provide that reporting and ensure emissions reduction from RECs are not double-counted in the CAP; 3) Provide reporting in the public dashboard and subsequent reports about RECs and how much of CUB emissions are being offset by RECs; 4) The original CAP proposal ask for solutions without RECs and virtual net metering. Please provide information on why that condition was changed.

Just tell us why we're throwing ~\$50 million at the Central Utility Plant. I imagine (/hope!) there's a good reason, so be transparent with it!

I urge CU to decarbonize its heating and electric systems by 2035, not 2050 as stated in the draft plan. Converting away from natural gas for heating and electric is one of the most effective things we can do to slow down the climate catastrophe. We don't have time for such a long implementation. As a parent, I am very concerned that my children have a habitable planet in their future.

Goals related to Scopes 1 and 2 emissions should be more ambitious, and focus on a deadline for carbon neutrality of no later than 2035. The current proposed timeline of 2050 is embarrassingly far behind (~20 years) most other peer institutions. Climate action needs to be aggressive and rapid.

The lack of information about capital projects in the CAP is disappointing. These represent important emission sources that need to be factored into planning and enacting emission reductions. No mention of major campus expansions, such as CU South, obscures the truth of future emissions.

The CAP must accelerate heating system upgrades (HSU). Decarbonizing the heating system is the single most impactful strategy the university can take to reduce its direct emissions. The current CAP draft acknowledges as much (page 69). The CAP should also include a timeline for electrifying decentralized portions of campus, provide data for the Scope

Draft Climate Action Plan Comments – University of Colorado Boulder

1-2 scenario model (p. 17, figure 2) and correct apparent double-counting issues in that model (accounting for the ways in which energy efficiency upgrades will reduce natural gas usage).

The CAP should also incorporate all capital projects it foresees, including projects that are currently omitted and that will emit heavily, such as the \$45 million investment to extend the life of CU's natural gas heating system by 20-25 years (which belies the goal of decarbonization) and the South Campus expansion.

CU needs to speed up it's decarbonization plan for scope 1 and 2 emissions to protect the future of it's students and this city, such as making the deadline to decarbonize and electrify CU Boulder's heating system 2035, not 2050, making sure that the current planned projects like res 1 and 2 are electric and source from renewable energy from the start instead of vague eventual plans to decarbonize them (as it will be more cost efficient and easy to just do it initially!), and not going forward with the \$45 million dollar update to CU's natural gas plant, which goes directly against the goal of decarbonization.

CU should decarbonize and electrify its heating system by 2035. Currently, CU Boulder uses natural gas for its heating; decarbonizing the heating system is the single most impactful strategy the university can take to reduce its direct emissions. The CAP draft's timing for decarbonization is too slow, taking until 2050. The longer CU waits to reduce its emissions, the worse for the climate. CU's peer institutions, like CSU, will decarbonize their heating within the next ten years.

CU's heating system must switch entirely to electric heating by 2035.

Scope 1 being the most actionable metric for CU boulder to act on as it is within their direct control and the best you could come up with is EV fleet replacement, 7MW/10MW for on site solar, and energy efficiency upgrades.

There needs to be more emphasis on Scope 1 emissions there is much more that CU could address within its scope 1. Such as simply having more specific actionable plans for these projects. It seems like the only thing that was researched was the EV fleet replacement because it takes up pages 118-174 of the 218 page report.

For scope 2 how are you going to take responsibility for the emissions that get pushed downstream as you start to electrify everything pushing it onto Xcel's energy grid and therefore transferring the responsibility to someone else.

Also what is the deal with the solar garden project that is proposed, if you are proposing that CU lease a plot of land for PV development and then that gets leased out to residents in boulder at a subscription

Draft Climate Action Plan Comments – University of Colorado Boulder

price, why doesn't CU just invest in their own solar rather than just capitalizing on residents of boulder for a random solar garden. Seems kind of profit oriented if CU is just renting out solar.

CU Boulder needs to decarbonize their heating system. They are currently to meet their carbon emission cut goals, but have recently invested in more long term natural gas heating. I personally hate that CU pushes such an environmentally friendly image while continuing to invest in fossil fuels and fail on commitments. It's a punch in the face for students here, especially since CU is taking an active role in curbing their commitments to sustainability.

I strongly support CU Boulder decarbonizing and electrifying its heating systems by 2035. The clock is ticking on climate change, and CU Boulder must lead by taking decisive actions.

Decarbonizing the heating system is a way we can lead by example. With regional institutions like CSU already on track to decarbonize within a decade, CU Boulder cannot afford to lag behind. Electrification by 2035 is ambitious, but absolutely necessary for significant emissions reductions here on campus.

The last strategy is Existing Building Space Optimization (page 70) and there is very little included about optimizing the usage of our existing buildings on campus, only that CAP recommends a campus-wide space optimization program (page 54). Using our current space more efficiently will greatly impact the climate impact of the campus by reducing the need to build as many new buildings among other things. There are especially opportunities with the shift to more hybrid and remote work at the university for more efficient use of the space we have on campus to reduce our carbon footprint.

In regards to the table on page 56, there are building efficiency benchmarks explained for the preexisting buildings on main campus, east campus, and Williams Villiage. Why are there no comments on future developments on these campuses or for a place such as the South Boulder campus? Will new buildings already be retrofitted with the heating system upgrade? None of this is addressed.

3,,Correct or remove Scope 3 scenario space. A scenario space is a graph presenting the trajectory of emissions under strategies that an organization is planning to pursue. The scenario space included for Scope 3 emissions (pp. 21, 81-82, 212-214) is misleading in its current form and should be corrected. The graph and discussion of assumptions suggest that the university has a quantitative plan to meet Scope 3 targets, which is incorrect.

The assumptions underlying the percentage reductions are unsupported by data. These assumptions rely on future planning efforts that may take years before they result in reductions, but emissions reductions are

Draft Climate Action Plan Comments – University of Colorado Boulder

modeled to begin in 2024 (e.g., the strategy to facilitate discussion on options to reduce business travel emissions., p. 106). In one case (Commuting), the percentage reduction is based on a misunderstanding of the EV adoption rate (that rate applies to newly sold vehicles, rather than to all vehicles on the road, see p. 82). That mistake results in an overestimation of the reduction rate by a factor of about ten. In all categories, the scenario space seems to ignore campus growth. Campus growth will result in an increase of activity levels that should have been modeled in the business-as-usual scenario. A list of specific concerns with the reduction rates assumed in the Scope 3 space is linked below.

The CAP should correct the Scope 3 scenario space so that it relies on reliable data and strategies. In a separate comment, we asked for these revisions to be completed no later than Jan. 1, 2025. Until these revisions are completed, the current Scope 3 scenario space should be removed given its shortcomings.

Specific concerns with reduction rates in the Scope 3 scenario space:

https://o365coloradoedu-my.sharepoint.com/:w:/g/personal/naor2878_colorado_edu/Ebo8Leo2gL1Dj4tnvKHj6cEBIY-nohrHLM3xnNXxfawCw?e=pe2rTK

Include all Scope 3 emissions in the denominator of total emissions, or remove 67% figure. When calculating its total Scope 3 emissions, CU Boulder is currently excluding a large portion of its emissions—notably athletics, investments, and a significant amount of purchased goods and services—as mentioned above and detailed below. The CAP’s claim that 67% of Scope 3 emissions are covered by the target in accordance with SBTi criteria (P14, P41, P73, P80) is therefore incorrect and misleading. SBTi requires companies to complete a full Scope 3 inventory before creating targets that cover at least two-thirds of emissions (see SBTi Criteria and Recommendations, 2023); CU Boulder has not done this.

The CAP should choose one of the following options: (1) Revise the denominator of the 67% calculation to include, at a minimum: (a) Category 15 Investment emissions; (b) full accounting of Purchased Goods and Services emissions; (c) Athletics department emissions. (2) If the CAP does not include the above emissions, it should delete the claim that 67% of Scope 3 emissions are covered by the target. Details about each of these options are provided below.

Scope 3 Targets and Strategies

Correct misleading language around Scope 3 targets and SBTi requirements. It appears that the CAP is relying on, and further mischaracterizing, an outdated version of SBTi guidance from 2020 in a way that undermines the importance and specificity of Scope 3 targets.

Draft Climate Action Plan Comments – University of Colorado Boulder

Please remove the statement Scope 3 targets generally need not be science-based (p. 80, Appendix D, p. 6). This is not accurate according to current SBTi guidance which stipulates that Scope 3 targets should be consistent with limiting global warming to 2 degrees Celsius above pre-industrial levels (see SBTi Criteria, 2023, Category 18, p. 13).

Please remove the statement SBTi does not provide a specific percentage reduction target for Scope 3 emissions. Instead, it advocates for setting targets that are 'ambitious and measurable. (p 80) This is incorrect; SBTi does provide a specific percentage reduction target for Scope 3 emissions. See Target Validation Protocol for Near-term Targets, Version 3.1 March 2023, pg. 39. For near-term Scope 3 targets, the minimum ambition is a 2.5% annual reduction between the base year and the target year.

Include investment emissions in the Scope 3 inventory and subject them to targets. Emissions from Investments are Scope 3 emissions, and as such, should be included in the GHG inventory and made subject to targets. The CAP's exclusion of those investment emissions from the GHG inventory is in material non-compliance with SBTi. It is also in material non-compliance with the Human Rights Climate Commitments for universities that CU Boulder itself sponsored in COP28. These commitments require signatories to: Establish clear and publicly available policies to align with science-based climate targets any of the institution's investments associated with emissions. The same Commitments also require that the university Maintain clear and publicly available policies of exclusion of investments that are inconsistent with respect for human rights and with the goals of the Paris Agreement. At a minimum, these policies should exclude investments in companies that engage in new exploration and development of coal and oil; extract resources from vulnerable ecosystems; or that otherwise are found to have made substantial historical and ongoing contributions to the violation of the right to a healthy environment. It is unacceptable that CU Boulder is failing to meet the commitments that it is promoting to other institutions.

The repeated claim in the CAP that CU Boulder's investments are ... not within the authority or Scope of the CU Boulder CAP (e.g., pp. 42, 73) is incorrect and should be deleted. The CAP should include the 372,000 tCO_{2e} from fossil fuel investments (p. 211) in its inventory and perform additional analysis to quantify emissions not included in that figure. The CAP's claims are incorrect for several reasons. First, CU Boulder's role as a large beneficiary of the CU Endowment means that emissions financed by the CU Endowment are indeed within CU Boulder's accounting boundary under GHG accounting rules (in proportion to CUB's share of the benefit).

Second, even under CUB's (incorrect) claim that formal legal ownership is necessary, CUB is in fact the legal owner of about \$1.2 billion in current investments (see CU System 2022 financial report, pdf pp. 11, 15,

Draft Climate Action Plan Comments – University of Colorado Boulder

see link below)). The CAP should quantify any and all balance sheet emissions, include them in the Category 15 Investment Inventory, and subject them to targets.

Lastly, we request that the language regarding the 372,000 tCO₂e figure being a very rough indicative estimate be removed (pp. 42, 72, 196). This figure is calculated in much the same way as other Scope 3 categories that were included in the inventory, namely, by taking activity data and multiplying it by an aggregated emissions factor. In fact, the Investments figure is likely more precise than calculations for categories like goods and services (where activity data is missing), and downstream transportation (where activity data was modeled). Please make sure to remove the very rough indicative estimate language which is incorrect.

Until Investment emissions are included in the inventory, the CAP should acknowledge in the Executive Summary (pp. 14-15) that Investment emissions, which account for the majority of CU Boulder's emissions, have been excluded from the Scope 3 inventory.

Link to CU financial statements:

<https://www.cu.edu/doc/supplementals-fy2022-optimizedpdf-1>

Link to CU Foundation financial statements:

<https://giving.cu.edu/sites/default/files/pdfs/cuf-audited-financial-statements-fy-2023.pdf>

Take the following concrete actions on Scope 3 emissions from Investments.

By May 2024, provide public notice to the CU Board of Regents regarding Scope 3 investment emissions. The notice will clarify that (1) CU Endowment Emissions affect CU Boulder's GHG inventory, and (2) that CU Boulder will not be able to comply with SBTi rules unless these emissions are managed in accordance with SBTi targets.

By May 2024, make a formal request to the CU Foundation to disclose its portfolio so that GHG emissions from that CU Boulder can quantify emissions from that portfolio by September 2024. Emissions will be quantified using the GHG Protocol Partnership For Carbon Accounting (PCAF) standard.

Draft Climate Action Plan Comments – University of Colorado Boulder

By September, 2024, complete a carbon audit of CU Boulder's on balance-sheet investments (\$1.2 billion in short-term investments as of 2022) under the PCAF standard.

By September 2024, have the CU Boulder Chief Financial Officer issue official guidelines for the CU Boulder's own investment policy (including cash management) regarding assets with risk exposure to fossil fuels.

These requests are all made in the spirit of a broad-based campaign by the campus community for divestment from fossil fuels, and formal requests and resolutions by BFA, CUSG, and Fossil Free CU.

Complete purchased goods category, which appears to be substantially under-reported. The Purchased Goods and Services (PG&S) Category (Scope 3) appears to be considerably under-reported, and accounts for only a small fraction of emissions reported by peer institutions. The CAP should require this category's completion no later than September 2024. The completion will require three distinct actions:

First, only 5 purchase categories were included in the inventory, which the university recognizes may lead to significant under-measurement (p. 199). The university should collect all relevant purchase categories.

Second, instead of using emissions data from actual suppliers, the university used aggregated emissions factors, which are of little use to planning reductions (p. 200). The university should immediately work with a vendor like Sievo Procurement Analytics to obtain actual emissions factors. The CAP Steering Committee should have contracted such a vendor when beginning its work in Sept. 2023.

Third, the CAP excluded Athletics, which is likely a large and rapidly growing source of PG&S emissions from the inventory. Athletics needs to be incorporated into the inventory.

The resulting PG&S inventory in the CAP is so incomplete that the purchased goods and services category is practically absent from the inventory. The CAP reported figure of 12,216 tCO₂e in emissions is under 3% of the 402,153 tCO₂e reported by Stanford. PG&S emissions by other universities like Cornell and Yale (270,261 and 164,766 tCO₂e respectively) further suggest that CU Boulder's inventory is incomplete for purposes of SBTi and the GHG Protocol Scope 3 Standards. All three universities have a smaller number of students than CU Boulder (Cornell

Draft Climate Action Plan Comments – University of Colorado Boulder

being the largest with 22,000 students compared to CU Boulder's 33,000 students in 2019). All STARS reports including the data are linked below.

The under-reporting of one of the largest Scope 3 categories undermines the completeness of the Scope 3 inventory more generally. Until the CAP provides an appropriate the PG&S inventory, the CAP should acknowledge in the Executive Summary (pp. 14, 15) that At this point, the Purchased Goods & Services category is materially incomplete.

Links:

Stanford-- <https://reports.aashe.org/institutions/stanford-university-ca/report/2022-03-03/OP/air-climate/OP-1/>

Cornell -- <https://reports.aashe.org/institutions/cornell-university-ny/report/2022-03-03/OP/air-climate/OP-1/>

Yale -- <https://reports.aashe.org/institutions/yale-university-ct/report/2022-06-29/OP/air-climate/OP-1/>

Provide transparency around lifecycle assessments (LCAs) for new construction and other capital goods. LCAs are highly variable and can provide inaccurate results depending on several factors. To ensure accuracy, state the standard used for LCAs (does it follow applicable ISO guidelines?), state the scope and boundary of LCAs (i.e. just upfront embodied or full lifecycle, what omissions and assumptions are being made, where is the data sourced and what is its quality?), make LCAs publicly available, state which third party is verifying the LCAs, and state how results and recommendations will be handled.

Repurpose space to reduce new construction. The most effective way to reduce embodied carbon from new construction is to reduce the need for new construction. Many campus buildings are observed to have underutilized space including classrooms, offices, and laboratories. To take advantage of this space, commit to analyzing space utilization and use this analysis to create a plan by the end of 2024 to reduce new construction by a certain percentage relative to BAU over the next 10 years. By reducing the need for new construction, excess capital will be available for pending energy efficiency and heating system upgrade retrofits.

Draft Climate Action Plan Comments – University of Colorado Boulder

Use flight-specific emissions factors. The 2024 CAP quantifies Scope 3 Business Travel emissions using a single emissions factor for miles travelled, which can be highly inaccurate due to, e.g., take-off and landing yielding the largest portion of flight emissions. Instead, the CAP should use flight-specific emissions factors which are already readily available in the Concur system used by the university. The use of individual emissions factors will enable the university to more accurately assess its emissions and pursue lower emission flight options like minimizing connections.

Clarify the RFI used to calculate flight emissions; use an RFI of 2.7. Please clarify whether the CAP uses an RFI of 2.4 or 2.7. As the CAP states, the IPCC and Stanford recommend a value of 2.7 (Appendix D, p. 13). However, the table on Appendix D, p. 21 states an RFI of 2.4. But, the university's calculated 32,041 Mt CO₂e appears closer to the recommended RFI of 2.7.

Example calculations:

56.7 million miles * 0.209 kg/mile * 2.4 RFI * 1000 kg/ton = 28440 MTCO₂e
(which is close to the reported 28,400 value on Appendix D, p. 13)

56.7 million miles * .209 kg/mile * 2.7 * 1000 kg/ton = 32,000 Mt CO₂e
(which is close to the figure actually reported for Category 6, business travel, emissions)

Ensure that all business air travel is booked through Concur or develop a system to account for outside booking. The CAP is unclear how significant the amount of business travel that occurs outside of the Concur platform (p.75: (Table 19) reports: High level data were available through CU travel booking partner; no survey for outside booking.) The CAP should either (1) mandate that all business travel must occur through Concur for all cases or (2) develop a specific way to account for outside booking. It would also be necessary to quantify off-Concur travel for 2019 baseline setting.

Include a breakdown of miles flown by branch (administrative, faculty, athletics, student, etc.) and department. Such granular flight-level data should be readily available from Concur, and is necessary to identify and prioritize emissions reductions from air travel.

accelerate the timeline for accurately measuring Category 9, student travel. Given that this is the university's largest estimated Scope 3 category and that current estimates are rough and imprecise, it is

Draft Climate Action Plan Comments – University of Colorado Boulder

unacceptable not to even begin surveying students and families on their travel emissions until 2027 (p. 106). A comprehensive methodology for estimating these emissions has already been developed by Stanford University and the CAP should schedule its distribution to students no later than Fall 2024. The university should also include in-state students in this survey, since car trips to and from campus also produce emissions.

A white paper describing the Stanford methodology is available below:

https://sustainable.stanford.edu/sites/g/files/sbiybj26701/files/media/file/scope-3-emissions-from-student-travel_public-11-2023.pdf

Include specific strategies to address Scope 3, Category 9 (out of state student and parent travel). The strategies included for this category on pg. 28 amount to plans for unnecessarily delayed data collection (initiate surveys... and vague ideas (educate students and parents; explore options).

Specific strategies to reduce student travel have already been suggested on numerous occasions and should be adopted by this CAP. This includes but is not limited to:

End Fall Semester before Thanksgiving Break or go fully remote following Thanksgiving Break (which the Law School has already implemented);.

Offer video participation in commencement and other key events, starting Spring 2025.

Create a Spring Break in Colorado program to disincentivize air travel during this time starting Spring 2025.

Offer robust and targeted education to students and families about the climate impacts of air travel emissions starting with the Fall 2024 orientation.

Fix the calculation on Figure 19, p.77 of the CAP to properly account for increased flight demand. Demand for flights is likely to go up sharply in the future; therefore, if we plan to only reduce from our current baseline we will miss the target by 2050. In Figure 19 (p.77), the projected business travel emissions curves, the business as usual (BAU, orange) line [i.e., the expected 4% linear increase from 2019 levels, meaning over double by 2050] is where the business travel with Reductions (green) line should be subtracted from, not the baseline. Unless the university plans on mandating a baseline cap on business travel, it should fix this calculation to correct the inaccurate reductions estimate.

Draft Climate Action Plan Comments – University of Colorado Boulder

Provide the necessary reductions to meet the embodied carbon target on Figure 4, p.10 of the Scope 3 Measurements, Targets, and Future Plans section in the CAP, including properly accounting for increased demand in capital goods from BAU. Figure 4 (p.10): An embodied carbon reduction target line is necessary to show what must be done to meet the embodied carbon target line. These reductions will be greater than the distance between the baseline and the target line due to the BAU line (orange). The Business as Usual (orange) line [~40% linear increase between 2034 and 2050] is where the proposed embodied carbon reduction line should be subtracted from, not the baseline, as was done with business travel reductions on fig. 19 (p. 77). In other words, greater reductions will be necessary in years where the BAU diverges upwards from the baseline (~2034-2050).

Incorporate the following specific strategies to reduce business travel. The CAP does not provide concrete strategies to reduce paid business travel (see, e.g., p. 82). The voluntary programs suggested are highly unspecified. Further, the suggested prioritization of airlines with sustainable fuel use (SAF) can only lead to limited reductions, which have not been quantified by the CAP. We are concerned that a focus on SAF will lead the university to neglect the critical reductions necessary in activity levels, i.e., miles travelled. In addition, so called sustainable aviation fuels have highly determinantal land-use outcomes. Instead, we suggest the CAP should adopt the following strategies:

Adopt air travel reduction targets at a departmental level by Spring 2025. Targets will be set using historical averages as baseline (say, starting 2018, and excluding 2020-1 for COVID-19) of flights by each department and admin unit (including Athletics). The Executive Sustainability Council can adjust these budgets up or down according to mission-critical needs (e.g., travel required for grant work). The Executive Sustainability Council will also issue guidelines about prioritization of graduate students and early career faculty for whom travel has greater professional significance. Department chairs and heads of units will be responsible to stay within targets.

Central administration will create a program to help organize remote conferences, and train departmental staff in how to organize those conferences. The program will begin operations no later than Spring 2025.

To reduce flight emissions intensity, adopt a policy to limit the use of connecting flights by Spring 2025. This strategy would require a transition to flight-specific emissions data which is readily available on Concur (see separate comment).

There are several sources of emissions that are not disclosed. Hiding these is not productive and greatly diminishes the values of the plan. Some of our peer institutions are divesting their investments, athletics and purchased goods and services are also significant and not well reported.

Draft Climate Action Plan Comments – University of Colorado Boulder

I feel as if Scope three should actually be integrated into the other two. If we proactively approach who we do business with and get them onboard with our sustainability goals, it would benefit the vendor and could expedite our timeline by as much as 3-5 years.

I am concerned about the lack of specificity in addressing Scope 3 emissions. CU needs to communicate with their partners to ensure proper measuring and addressing of Scope 3 emissions. Increased clarity about timelines will ensure actual action taken for this incredible high amount of emissions. I am particularly concerned about food purchasing and agriculture's impact on climate change and emissions. I would like to see CU be more specific about how they will be ensuring their food purchases reduce their Scope 3 emissions moving forward. CU should have a specific timelines for researching Scope 3 emissions and make these changes before 2025. More specifics should be provided on how suppliers will be assessed moving forward and how CU will increase their local purchasing of food. Students should be a part of this process and have a say in the research and action planning related to Scope 3 emissions.

The university needs to include all emissions an institution is responsible for outside of its own walls, like commuting, flights, waste, and investments. Scope 3 emissions are crucial, as they often constitute the vast majority of a company's emissions. The Science Based Targets Initiative (SBTi) requires companies to inventory all Scope 3 emissions and implement a science-based target for them. Yet three key emissions sources were excluded or severely underreported in CU Boulder's inventory and targets:

- 1) Investment emissions, which constitute more than all reported emissions combined;
- 2) Athletics;
- 3) Purchased goods and services, which were reported at a fraction of peer institutions

CU needs to conduct a comprehensive survey on student travel (Category 9), breaking down air miles by department and flight length (Category 6), providing accounting for purchased goods and services (Category 1), and transparency around Life Cycle Assessments (Category 2).

Complete a full inventory of Scope 3 emissions, in accordance with the Science Based Targets Initiative (SBTi) rules, and lay out concrete strategies and timelines to reduce Scope 3 emissions to meet the targets.

Include emissions from investments, CU Athletics, and a full accounting of purchased goods and services. Disclose the university's stake in the Limelight Hotel and include its emissions if required by emissions reporting rules. Develop actionable plans for reducing emissions to zero from the above listed sources by 2050.

Draft Climate Action Plan Comments – University of Colorado Boulder

Complete an inventory of Scope 3 by conducting relevant surveys, models, and incorporating all available data into the CAP and public-facing emissions inventory by no later than Jan 1, 2025.

This includes: conducting a comprehensive survey on student travel (Category 9), breaking down air miles by department and flight length (Category 6), providing accounting for purchased goods and services (Category 1), and transparency around Life Cycle Assessments (Category 2).

By no later than Jan 1, 2025, develop concrete, actionable, time-bound, and budgeted emissions reductions strategies for every Scope 3 category, including investments, Athletics, and more accurate purchased goods & services, and model these strategies' abilities to meet the targets. CU should allow students to assist in collecting data and establishing strategies.

I would like to offer an idea regarding Scope 3 emissions. I do not believe I am the first person to come up with this idea, but I would like to echo it, nonetheless. According to Figure 2, Scope 3 emissions by sector, page 198, 35% of all Scope 3 emissions come from Downstream Transportation and Distribution: including out of state travel. Most CU Boulder students have to travel in some capacity to get to campus throughout the year. Many of these students are traveling far national/international distances, which require travel by plane. Considering travel for Thanksgiving Break, Winter Break, Spring Break and Summer Break, some students may be taking around 8 flights a year, not even considering weekend trips. I think that out of state travel emissions could be significantly reduced if classes were made remote during certain parts of the semester. For example, instead of having students return after Thanksgiving and Spring Breaks, CU could make classes remote for the remainder of the semester. There is usually a month or less left of classes, so it seems unnecessary for students to fly back and fourth for such short amounts of time. Trying this could mean that students are taking half as many flights as they are now with the current break schedule. Making classes remote would not only decrease emissions from out of state travel, but could possibly increase student attendance to classes. Zooming into lectures and digital learning offers students a flexibility that would limit disruptions from inclement weather and travel delays. It would also save many students and families money, stress and time. I hope that CU Boulder can consider this idea.

Three key emission sources are excluded or underreported in CU Boulder's inventory and targets: investment emissions, athletics, and purchased goods and services. This dilutes the targets set in the plan, which we simply cannot afford to do. We must be fully comprehensive and ambitious in the ways we move to address climate impacts. Complete a full inventory of Scope 3 emissions, in accordance with the Science Based Targets

Draft Climate Action Plan Comments – University of Colorado Boulder

Initiative (SBTi) rules, and lay out concrete strategies and timelines to reduce Scope 3 emissions to meet the targets.

Include emissions from investments, CU Athletics, and a full accounting of purchased goods and services. Disclose the university's stake in the Limelight Hotel and include its emissions if required by emissions reporting rules. By excluding such large categories of emissions, CU is heavily diluting the ambition of its targets. Complete the Scope 3 inventory by conducting relevant surveys, models, and incorporating all available data into the CAP and public-facing emissions inventory by no later than Jan 1, 2025. This includes: conducting a comprehensive survey on student travel (Category 9), breaking down air miles by department and flight length (Category 6), providing accounting for purchased goods and services (Category 1), and transparency around Life Cycle Assessments (Category 2). By no later than Jan 1, 2025, develop concrete, actionable, time-bound, and budgeted emissions reductions strategies for every Scope 3 category and model these strategies' abilities to meet the targets. CU should allow students to assist in collecting data and establishing strategies.

Accurate records of indirect emissions should be included and addressed as a part of the CAP. Indirect emissions, such as those created from commuting to and from campus, make up a significant portion of CU's total emission output. It is no secret that the population of Boulder grows every morning as the result of employees and students commuting to campus from out of town. If CU is to seriously consider how it is going to reduce its carbon footprint, then it must acknowledge that a part of that carbon footprint is the emissions created by its individual employees and students outside of the university walls. Moreover, it must take action to reduce these emissions as a part of the CAP.

I have 2 main comments regarding our Scope 3 emissions, which are obviously the largest emissions sources. Regarding business travel, I think it is telling that in 2020 and 2021 our emissions were so low due largely to a halt in business travel. Business travel can still be greatly reduced by using technology to meet virtually with far off partners and by pushing ground travel as opposed to air for staff or faculty attending the occasional conference or work meeting. Currently, our travel booking platform Concur makes booking Amtrak or Greyhound trips far more difficult than searching and comparing many more airlines for a given trip. Our staff are also encouraged to fly (which emits more CO2 for most trips AND emits non-CO2 emissions that cause far more warming impact because of their altitude) by partnerships with airlines and advertisements at official CU events. We need to start treating airlines like the fossil fuel companies that they really are and figuring out our own way to discourage frequent flying while the federal regulations lag sadly behind in this area.

Another large emission area that it seems to me can be very simply and cost effectively curbed is in the purchased goods area of food. The

Draft Climate Action Plan Comments – University of Colorado Boulder

current plan draft seems to treat plant-based food as an afterthought, something we can look into or create more options for, and always after the mention of locally sourced food. While local food can be a wonderful way to strengthen a communities food sovereignty, it actually has little impact on the overall carbon emissions of our diet. Local beef emits over 60times as much CO2 as vegan pea protein, used in many alternative patty options, regardless of how far we ship that pea protein. Plant-based diets are also cheaper than animal based and more culturally inclusive - think of the over 2/3 of humans who cannot absorb or digest lactose after infancy. Sourcing an entirely plant-based dining hall and events menu is perfectly feasible and will have benefits not only to our CO2 budget but also to our community health and catering to religious and medical dietary restrictions. We can be leaders in the US on this front, following the example of Scotland's University of Stirling. There is no reason to still be purchasing and serving carbon intensive animal products that, through farming, are drying up our river, inflicting pain on non-human animals, creating some of the worst worker conditions for humans in this country, and clogging our arteries and contributing to the chronic disease syndemics we currently face. Simply go plant-based on all of campus the same way we went smoke free on campus.

There needs to be a much greater emphasis on switching to and promoting a plant-based diet. The research on the environmental and climate change impacts of animal agriculture are crystal clear, as are the health benefits of a whole foods plant-based diet. Addressing fossil fuels is not enough. I strongly encourage CU Boulder to strive to become the first 100% plant-based university in the U.S. There are already 2 universities in the UK that have done this. This would show true leadership on this issue.

I was pleased that there was some mention of providing more plant-based meals, but the plan does not go far enough in addressing emissions from this sector. Furthermore, a drastic reduction in methane emissions of animal ag. will have huge and immediate climate benefits. The plan also mentions focusing on local foods. This is great, but only if they are plant-based. Let's be very clear: local beef and dairy are still far worse than non-local plant foods. I encourage the CAP team to read some key research on this topic such as:

Poore and Nemecek, 2018, *Science*, Reducing food's environmental impacts through producers and consumers.

Willett et al., 2019, *The Lancet*, Food in the Anthropocene: the EAT-Lancet Commission on healthy diets from sustainable food systems

Clark et al. 2020, *Science*, Global food system emissions could preclude achieving the 1.5° and 2°C climate change targets

Eisen and Brown, 2022, *PLOS Climate*, Rapid global phaseout of animal agriculture has the potential to stabilize greenhouse gas levels for 30 years and offset 68 percent of CO2 emissions this century

Depending on the length of the commute, the severity of carbon emissions must differ. For instance, I have an hour commute twice a week. Compared to an individual who commutes 10 minutes to work. The carbon emissions

Draft Climate Action Plan Comments – University of Colorado Boulder

could be measured and exemplified as standards of how to act towards climate change.

Solution: Allow 1 hour + more commuters to work fully remote.

1. It isn't clear in the publicly released report how the baseline for Scope 3 embodied carbon in building projects was developed. The text suggests that an average amount of embodied carbon found in building projects over the past 17 years and that this was reliable data. I'm not aware that CU has data on embodied carbon of our past building projects, and am extremely concerned that the baseline will not align with current BAU. It could be higher, and it could be lower. Neither scenario would result a plan that is both achievable and impactful.

While I'm proud that my university is taking steps towards carbon neutrality, I feel that the Climate Action Plan is pushing off many targets until later, so that they don't need to be addressed soon. More specifically, I believe that the electrification of the heating on campus could start to be addressed as soon as this year, when CU is planning on having Residences 1 and 2 underway. Why not implement heat pumps in these residences when they are built, instead of waiting to shift their infrastructure later? Since the heating system upgrade is expected to be very expensive, wouldn't it be a waste of money to not implement a more sustainable heating system for these residences from the start? Additionally, various Scope 3 elements are undervalued or not valued at all since CU is currently only evaluating five elements that exist among many others. For example, the university has no current information regarding our purchases of landscaping materials or services. Making real estimates of how much our university is emitting in Scope 3 is the first step in learning how we can build toward a more sustainable campus; in order to reduce our environmental footprint, we need to know what our actual GHG emissions are. I think it is of equal importance to invest in renewable energies as soon as possible, so that CU's full transition to renewable energy can happen sooner rather than later. There is no reason to wait until 2049 to make our 2050 goals happen if we can work towards them right now - let's not miss another target, if we can help it.

Before diving into two specific comments on Scope 3 emissions, I have a general note. While I admire the overall breadth and ambition of the document, and recognize that it will not be easy to pull off even as written, I think CU should set itself a faster timeline. Net zero emissions by 2050 is a commonly promoted climate goal, necessary to give a decent chance of keeping warming below 1.5 degrees C. Aiming for this goal puts CU in line with these goals, but it certainly doesn't make us a leader. If a wealthy and environmentally minded institution such as CU Boulder can't go any faster than that, then what hope is there for poorer countries and institutions who lack our resources to reach the 2050 goal? As part of a country responsible for a highly disproportionate emissions share, we have an obligation to aim for deeper, faster cuts. The roadmap on page 106 can be significantly improved. To that end, my more specific

Draft Climate Action Plan Comments – University of Colorado Boulder

comments below have some ideas for how we might go faster in two areas: aviation and food.

I will start with aviation. Between business travel and travel by out-of-state students and their families, categories driven by air travel account for more than half of scope 3 emissions (p. 198), which is more than all scope 2 emissions. This is huge! As such, it's perplexing that educating students and parents on aviation emissions, along with other strategies to reduce downstream out-of-state travel emissions, aren't slated to begin until 2027 (p. 106). It should be a higher priority to put together a survey and start an education plan around one of our largest emissions categories.

With respect to business travel, I'm concerned that the only concrete suggestion (other than engaging faculty to develop strategies) is to provide incentives for traveling with airlines that promote sustainable fuel use, starting in 2026. Currently, no airline does this on any meaningful scale, and airlines have repeatedly failed to meet their own climate commitments. Plus, there are concerns about some of these fuels in terms of land or electricity use—which fuels would count for CU's proposed incentives policy? How much sustainable fuel would an airline have to use to qualify? While these questions may have to be addressed down the line, in the short term it seems far easier to incentivize the use of rail, bus, or EV alternatives for travel planned through CU, and educate students about these alternatives as well. Yet these alternatives are not currently mentioned in the climate plan's discussion of air travel.

Not only are trains, buses, and cars easier to decarbonize than planes, but for the most part they are cleaner already. Coach buses are much better for the climate than planes, and rail is better as well for most trips. Carpool road trips, especially in an EV, would also reduce GHG emissions. I appreciate that the plan encourages less travel overall, the most sustainable option, and I support creative solutions such as changing the academic calendar and break schedule. But when students and faculty do choose to travel, we should be incentivizing non-plane options. And again, it would seem CU could begin such a strategy almost immediately, at little extra cost. Yet today, when business travel is planned through the university, flight is assumed as the default while scheduling rail/bus trips is more of a hassle. Alternatives to flight deserve explicit mention and higher priority in the CAP, considering aviation's outsized impact on campus emissions.

Relatedly, while it represents a far smaller share of CU emissions, I was frustrated by the vague framing of dietary change. At several points in the plan, it is recommended that CU increase its percentage of both locally grown and plant-based foods. However, this is apparently not meant to start until 2029 (p.106), and it is never clarified what the goal percentage is. Increase percentage by how much? Is there any reason we should not aim for 100% plant-based foods? And why can't we do this sooner? It is also important to note that while increasing local foods is a worthwhile goal, the emissions associated with food miles pale in comparison to the emissions of animal agriculture. In fact, CU ENVIS professor Pete Newton did a Tedx Talk about this

Draft Climate Action Plan Comments – University of Colorado Boulder

(https://www.youtube.com/watch?v=sfBzwBx1-zQ&ab_channel=TEDxTalks). Again, I also support locally sourced food, but it concerns me that every reference to plant-based food in the climate action plan comes in the same sentence as, and is preceded by, references to locally sourced food. Increasing the percentage of plant-based food should be its own priority, not secondary to local foods—and the goal should be 100%.

Lastly, I want to highlight that both of these suggestions also advance CU's environmental justice co-benefit goals. Flight is disproportionately an activity of the wealthy—12% of Americans account for two-thirds of US commercial passenger flights, while more than 80% of humans worldwide have never flown—and yet the air and noise pollution associated with flight (not to mention climate impacts) can be harmful to the communities of color who live in and work around airports. Animal agriculture, too, is responsible for air and water pollution affecting the poor and communities of color across the country.

A general note: Compared to the two other universities I've attended, Princeton and UC Berkeley, CU (at least from what I can tell through my own experience) has more on-campus parking as well as more car traffic on roads that run through campus. Along with policies that make alternative transport easier (more Stampede buses, expanded ebike share, etc.), I think we also need to make driving harder, whether that's through increased parking costs, reduced parking availability, car-free zones, limited permits to have a car on campus, etc. (I put this in Scope 3 because it's primarily about commuting but it also could affect some scope 1 emissions.)

It's truly suspect that CU 's (Scope 3 appendix, Figure 2) its Procured Goods and Services to be only 7% of its S3 emissions, whereas other universities such as Stanford have procurement accounting for 40% or even more of S3. The plan does acknowledge that only 5 categories (out of many) were assessed which may result in significant undermeasurement. Indeed, that is certainly the case, along with the aggregates underestimating the emissions factor. The standard answer to this question has been 'it's a living document.' But my question is - why was this never done by the consultants or anyone else during the long process of developing a draft plan? With such aggregated categories, there are no levers for change in S3. To use a classroom analogy, this S3 part of the plan doesn't seem like an A level effort.

There is something very wrong with the University of Colorado when the largest, flagship university is stating that it cannot get data from the system and the foundation that manages its assets. Clearly the embedded emissions in investments are far higher than other categories - including Scopes 1 and 2 combined - and it should therefore be the top priority to divest from fossil fuel holdings. The sense is that this is above the paygrade of the CAP - okay, but what about campus leaders? Can they not talk to the president and the treasurer, and the regents? Everyone (treasurer, regents) claims its not their responsibility (much like with concealed carry). If it's truly the case that CU Boulder can

Draft Climate Action Plan Comments – University of Colorado Boulder

do nothing about this very large percentage of Scope 3 emissions then that should be on the cover of the CAP and the issue brought to light on campus and to the public.

A full inventory of Scope 3 emissions is needed. We must include emissions from investments, CU Athletics, and a full accounting of purchased goods and services. It is unacceptable to ignore these contributions.

The plan to reduce scope 3 emissions is too abstract and intangible. To address this, CU should complete a full inventory of scope 3 emissions in accordance with the Science Based Targets Initiative rules and then we will be able to form a more concrete and time sensitive plan to reduce these emissions.

As talked about in the climate plan, vehicle miles traveled (VMT) for commuting is a big emitter of GHGs. I think this is something that should be easier to reduce than other problems. The biggest issue is the lack of affordable housing and quality public transportation. It seems in the goals and reduction section of the paper for transportation EV vehicles and scooters are talked about a lot. I feel as if these are band aid solutions that will not be affordable to most people. While this is a lofty goal, I feel as if CU should try and leverage its influence over the state of Colorado to build some kind of light rail to connect the front range. This would drastically decrease community emissions and the schools would be able to give out passes for students allowing for this transportation to be accessible to everyone. The heavy use of cars in Colorado/America is why places like UCPH are so ahead of US in slowing scope 3 emissions. Cars are not as necessary to a great society as people think they are.

Include emissions from investments, CU Athletics, and a full accounting of purchased goods and services. Disclose the university's stake in the Limelight Hotel and include its emissions if required by emissions reporting rules.

Complete the Scope 3 inventory by conducting relevant surveys, models, and incorporating all available data into the CAP and public-facing emissions inventory by no later than Jan 1, 2025.

Please provide the following information on the use and reporting of renewable energy credits (RECs): 1) Please specify in the CAP Executive Summary that RECs will not be used to reduce Scope 3 emissions and only used to reduce Scope 2 emissions; 2) If RECs are sold to Xcel, please provide that reporting and ensure emissions reduction from RECs are not double-counted in the CAP; 3) Provide reporting in the public dashboard

Draft Climate Action Plan Comments – University of Colorado Boulder

and subsequent reports about RECs and how much of CUB emissions are being offset by RECs; 4) The original CAP proposal ask for solutions without RECs and virtual net metering. Please provide information on why that condition was changed.

Complete adequate measurement and strategies for all Scope 3 strategies. The reduction of 50% in Scope 3 emissions by 2030 is listed as a core goal of the CAP (p. 10). However, the university's Scope 3 inventory is still highly incomplete. Major sources of emissions have been inappropriately excluded from the Scope 3 target: Investments, and the lion's share of the Purchased Goods and Services category. All Scope 3 emissions from Athletics have been excluded as well. In some cases, data that should have already been collected remains missing (student air travel). Scope 3 strategies remain at an extremely preliminary stage, lacking timelines, budgets, assigned responsibilities, or even meaningful backing of reduction potential. Many of the strategies are explicitly plans to make further plan (initiate a discussion initiate surveys, p. 85).

With 2030 approaching rapidly, the university must concretize its plans before the end of the year. The CAP should urgently

(1) complete a full Scope 3 inventory by no later than Jan 1, 2025. This would require immediately getting to work on collecting any missing data and establishing relationships with vendors (see our separate comments in these areas).

(2) develop appropriate Scope 3 strategies, including timelines, budgets, assigned responsibilities, and quantified reduction potential by no later than Jan 1, 2025. Our comments include suggestions for strategies in most large Scope 3 categories.

Correct or remove Scope 3 scenario space. A scenario space is a graph presenting the trajectory of emissions under strategies that an organization is planning to pursue. The scenario space included for Scope 3 emissions (pp. 21, 81-82, 212-214) is misleading in its current form and should be corrected. The graph and discussion of assumptions suggest that the university has a quantitative plan to meet Scope 3 targets, which is incorrect.

The assumptions underlying the percentage reductions are unsupported by data. These assumptions rely on future planning efforts that may take years before they result in reductions, but emissions reductions are modeled to begin in 2024 (e.g., the strategy to facilitate discussion on options to reduce business travel emissions., p. 106). In one case (Commuting), the percentage reduction is based on a misunderstanding of the EV adoption rate (that rate applies to newly sold vehicles, rather than to all vehicles on the road, see p. 82). That mistake results in an overestimation of the reduction rate by a factor of about ten. In all categories, the scenario space seems to ignore campus growth. Campus

Draft Climate Action Plan Comments – University of Colorado Boulder

growth will result in an increase of activity levels that should have been modeled in the business-as-usual scenario. A list of specific concerns with the reduction rates assumed in the Scope 3 space is linked below.

The CAP should correct the Scope 3 scenario space so that it relies on reliable data and strategies. In a separate comment, we asked for these revisions to be completed no later than Jan. 1, 2025. Until these revisions are completed, the current Scope 3 scenario space should be removed given its shortcomings.

Include all Scope 3 emissions in the denominator of total emissions, or remove 67% figure. When calculating its total Scope 3 emissions, CU Boulder is currently excluding a large portion of its emissions—notably athletics, investments, and a significant amount of purchased goods and services—as mentioned above and detailed below. The CAP’s claim that 67% of Scope 3 emissions are covered by the target in accordance with SBTi criteria (P14, P41, P73, P80) is therefore incorrect and misleading. SBTi requires companies to complete a full Scope 3 inventory before creating targets that cover at least two-thirds of emissions (see SBTi Criteria and Recommendations, 2023); CU Boulder has not done this.

Include Athletics in the Scope 3 inventory. In a low-visibility footnote on p. 193, the university discloses for the first time that This inventory does not include CU Athletics, which is a separate organization from CU Boulder Campus. That exclusion is inconsistent with GHG accounting rules because the university has clear operational control over CU Athletics. The fact that Athletics is a separate organization does not exclude it from the accounting boundary. Indeed, the university did not attempt to exclude other auxiliary enterprises like housing and dining from its GHG inventory. CU Athletics is a large actor with potentially significant Scope 3 emissions in purchased goods and services, business travel, and franchises. The 2024 CAP should incorporate Athletics into the accounting boundary before the publication of the CAP, or no later than revision for Sept. 2024.

Complete purchased goods category, which appears to be substantially under-reported. The Purchased Goods and Services (PG&S) Category (Scope 3) appears to be considerably under-reported, and accounts for only a small fraction of emissions reported by peer institutions. The CAP should require this category's completion no later than September 2024.

Create a framework for accurately estimating emissions from business travel.

Specifically: The Concur system already estimates emissions for purchased flights in a more sophisticated method than currently used (a flat emissions factor the is independent of flight duration). Concur or a similar tool should be used to estimate business travel emissions. This will allow the university to create specific actions for reducing

Draft Climate Action Plan Comments – University of Colorado Boulder

emissions resulting from flights. i.e. Reduce regional flights by X%, reduce international flights by Y%, etc.

Accounting of scope 3 emissions is extremely qualitative. A more thorough analysis, breakdown, and exploration of potential scope 3 emission reduction scenarios is necessary in the final iteration of the CAP.

Scope 3 category 1 should include a specific figure of what percentage of meals are going to be plant-based. The variety and options of plant-based meals should also be increased, not just the percentage that are plant-based.

The Climate Action Plan should include more complete calculations of S3 emissions. The new Climate Action Plan may include more categories in the calculation of S3 emissions, but there are still some discrepancies in the share of emissions at CU versus universities with more complete S3 data, such as Stanford. S3 emissions make up a share of total emissions that may be an underestimate. CU should provide more information on how S3 emissions and the emissions of individual categories are measured. Purchased goods and services also appear like it may be an underestimate because its share of S3 emissions is lower than at other universities. The numbers and methods for calculating emissions should be made public, and students should be able independently review these numbers for possible discrepancies. CU students should also be included on the committees that inform the Climate Action Plan to provide a more complete perspective on climate issues at our university.

Right now the Scope 3 emissions lacks a full, adequate inventory and this undermines the targets and strategies. To rightsize the inventory, CU needs to account for emissions from investments, CU Athletics, fully incorporate purchased goods, and include better data about student community, air travel distances, and Life Cycle Assessments.

I like how in the Scope 3 Reduction Strategies section, there is commentary about how transportation emissions will be lowered. I can really appreciate how the goal was set and the strategy wasn't just to encourage people to drive electric cars, for example, that there will actually be new ways of commuting to campus that will be implemented so I appreciate this section very much. One other comment that I did have is in the Embodied Carbon section of Scope 3 Reduction Strategies, there is talk about updating building materials standards, but there is nothing in there about how we are actually going to do that and what kinds of updates will be in those standards, so I think including what kinds of updates are actually going to take place would be beneficial in this section.

The single page on Scope 3 emissions is fairly disappointing. Several emission sources are not reported: investments and athletics being major

Draft Climate Action Plan Comments – University of Colorado Boulder

contributors. The graphic showing decreases feels misleading when the text simply says a consistent annual aim...would closely mirror CU Boulder's goals. Some of these emission sources are more within the universities control than others, and these should be called out with specific actions and goals committed to.

The CAP should include emissions from investments, CU Athletics, and a full accounting of purchased goods and services!!

Emission reduction strategies should be specific and actionable, not vague and noncommittal

Scope 3 emissions are drastically understated and strategies to mitigate impacts are so vague so as to be meaningless. Scope 3 neglects the impact of CU's direct investment in fossil fuel companies, which more than doubles the stated Scope 3 emissions. This is misleading and completely ignores the *most significant* climate impact of the university. This simply cannot be ignored in the targets and inventory assessments.

Additionally, the Scope 3 plans are much too vague. Proposed strategies should be concrete, time-bound, actionable, and budgeted, and developed as soon as possible (I suggest 2025). Without these concrete actions, CU is bound to fall short again on its targets.

My first concern with the new Climate Action Plan is how accurate, consistent, and comprehensive the scope 3 emissions are being reported. There has been significant assumptions taken into account here because of the lack of data and ambiguity of the nature. Have the assumptions been rounded up or down? Also, why is purchased goods and services estimate still so small? It currently sits as one of the smallest emitters just below 20,000 MTCO_{2e}. The actual number is 12,216 MTCO_{2e}. When researching other Greenhouse gas inventories, the purchased goods and service category was significantly higher, and if not one of the largest. One example of a carbon account inventory that shows this is Stanford Universities and their good and services category takes the majority of around 40%. Those I could be mistaken, but from reading the report of goods, the inventory does not consider the items sold at the book store on campus. I would image that the book store's goods has a more significant impact on this category. If I am wrong and it is reported, then it is reporting lower numbers or rounded down numbers. Are all the items too difficult to track their emissions (including afterlife emissions)? In fact, the report shows there is no data for end of life treatment fo

Draft Climate Action Plan Comments – University of Colorado Boulder

products sold. The emissions influence factor is reported to be NA. In my opinion, there are so many products purchased and sold on campus that the University benefits from from an economic and marketing standpoint, so end of product life should be estimated and reported to improve the accuracy of scope 3 emissions. Overall, my question is why is our purchased goods and services section of scope 3 still such a small percentage while it is much larger at other universities? How can we go about better reporting purchased goods and services and end of product life?

- Finally, waste makes up 4% in the baseline year and by applying the above mentioned strategies, it may be realistic to reduce these emissions also by 7% per year. page 81. What does 7% percent mean and consist of?

Complete a full inventory of Scope 3 emissions, in accordance with the Science Based Targets Initiative (SBTi) rules, and lay out concrete strategies and timelines to reduce Scope 3 emissions to meet the targets.

Include emissions from investments, CU Athletics, and a full accounting of purchased goods and services. Disclose the university's stake in the Limelight Hotel and include its emissions if required by emissions reporting rules.

Complete the Scope 3 inventory by conducting relevant surveys, models, and incorporating all available data into the CAP and public-facing emissions inventory by no later than Jan 1, 2025.

By no later than Jan 1, 2025, develop concrete, actionable, time-bound, and budgeted emissions reductions strategies for every Scope 3 category and model these strategies' abilities to meet the targets. CU should allow students to assist in collecting data and establishing strategies.

The reduction of 50% in Scope 3 emissions by 2030 is listed as a core goal of the CAP (p. 10). However, the university's Scope 3 inventory is still highly incomplete. Major sources of emissions have been inappropriately excluded from the Scope 3 target: Investments, and the lion's share of the Purchased Goods and Services category. All Scope 3 emissions from Athletics have been excluded as well. In some cases, data that should have already been collected remains missing (student air travel). Scope 3 strategies remain at an extremely preliminary stage, lacking timelines, budgets, assigned responsibilities, or even meaningful backing of reduction potential. Many of the strategies are explicitly plans to make further plans (initiate a discussion initiate surveys, p. 85).

With 2030 approaching rapidly, the university must concretize its plans before the end of the year. The CAP should urgently:

- (1) Complete a full Scope 3 inventory by no later than Jan 1, 2025. This would require immediately getting to work on collecting any missing data

Draft Climate Action Plan Comments – University of Colorado Boulder

and establishing relationships with vendors (see our separate comments in these areas).

(2) Develop appropriate Scope 3 strategies, including timelines, budgets, assigned responsibilities, and quantified reduction potential by no later than Jan 1, 2025. Our comments include suggestions for strategies in most large Scope 3 categories.

Integrating classroom learning with development of campus strategy is a core aspect of the living laboratory principle in higher ed. sustainability. This proposal would allow a large number of students to actively engage with the CAP, while supporting campus efforts for strategic planning. Many Scope 3 strategies remain vague, in part because of a lack of data. Students could gain critical skills by helping develop Scope 3 emissions reduction strategies. Similarly, students will gain key skills by engaging in the planning process for campus heating district reform and energy efficiency. We recommend that the university will begin offering the proposed applied CAP courses starting Fall 2024. Topics for these courses will include: (1) campus supply chain emissions (2) campus emissions from ground and air transportation (3) campus investment emissions (4) the campus heating district system (5) campus energy efficiency and embodied carbon (6) campus waste emissions (7) campus planning for climate equity (8) a course on financial aspects of the CAP. The BFA and CUSG can solicit interest from faculty and coordinate the development of this curriculum.

Please include all Scope 3 emissions in the denominator of total emissions.

Please include investment emissions in Scope 3 inventory and subject them to targets.

Please include athletics emissions in Scope 3 inventory and subject it to targets.

Please complete the purchased goods and services category, which appears to be severely underreported.

Please provide transparency around life cycle assessments for new construction and other capital goods.

Please repurpose space as much as possible to reduce need for new construction.

Please use flight-specific emissions factors when calculating the emissions of flights, have all business travel flights booked through Concur, and include an inventory of flights flown by branch and department. Adopt air travel reduction targets at a departmental level by Spring 2025.

Please shift CU calendar to finish before Thanksgiving, thus eliminating student flight emissions when students fly home for Thanksgiving and then back again for just 2-3 weeks.

Draft Climate Action Plan Comments – University of Colorado Boulder

Please commit to strategies that address the equity connection between high commuting emissions, affordable housing, and income inequality.

Please:

--Commit to paying employees a living wage, by initiating an immediate 20% Cost of Living Adjustment (COLA) and annual 6% COLA for graduate workers, non-tenure-track faculty, and staff, as demanded by UCW Colorado. Wage increases will help ensure that CU Boulder employees can live closer to campus, reducing VMT.

--By Fall 2026, outline a plan for creating affordable housing designated for or otherwise accessible students, faculty, and staff and/or annexing land for this purpose, as has been done for the CU South campus.

--Work directly with Boulder City Council to increase affordable and sustainable housing options near campus.

--Work directly with local governments and the Regional Transportation District (RTD) to expand public transit options that could serve CU Boulder's students, staff, and employees, particularly focusing on low-income and marginalized groups.

--Maintain and expand remote or hybrid work options for staff whose work can be completed remotely.

Please use the 20-year Global Warming Potential (GWP) factor to calculate waste emissions and adopt the following strategies to reduce emissions:

--The CAP should use the 20-year Global Warming Potential (GWP) factor to calculate its waste emissions, instead of the 100 year factor, because this will be more accurate. Methane has a shorter lifespan in the atmosphere (closer to 20 years) than many other greenhouse gases. When 100-year factors are used instead of 20 years, the warming potential of methane produced by waste is severely undercounted.

--CU and any campus franchises should stop purchasing single use plastics no later than June 2025.

--CU should purchase dehydrating equipment so that it can preprocess its organic waste. It should re-educate its students on composting on campus and begin composting of public facing waste by June 2025. This will likely require building capacity for manual sorting.

Top ask: calculate Scope 3 emissions based on the full SBTi criteria.

- Please conduct a rigorous quantification of the university's scope 3 emissions in compliance with SBTi or better, and publicly report the data. The current CAP only includes a tiny fraction of scope 3 emissions - and there are order of magnitude errors in the reporting.

- Please update the scope 3 targets after the emissions inventory is complete, in compliance with SBTi criteria.

- By including Scope 3 emissions, we expect CU's carbon footprint to grow by 300% or more (based on studies done at sister universities). If CU continues to ignore this dominant fraction of it's emissions, how can we make meaningful change? This is an opportunity to have a huge impact.

Draft Climate Action Plan Comments – University of Colorado Boulder

Either fully account for S3 emissions or just remove it from the CAP. In its current state, the S3 emissions that ARE in the inventory are pretty rough estimates. Please complete a full inventory of S3 emissions and develop real strategies to meet your S3 targets. S3 is BY FAR the highest emissions category.

Please include emissions investments from CU Athletics.

As per requests made when the initial CAP draft was release for comment: By no later than Jan 1, 2025, develop concrete, actionable, time-bound, and budgeted emissions reductions strategies for every Scope 3 category and model these strategies' abilities to meet the targets. CU should allow students to assist in collecting data and establishing strategies.

Complete adequate measurement and strategies for all Scope 3 strategies. The reduction of 50% in Scope 3 emissions by 2030 is listed as a core goal of the CAP (p. 10). However, the university's Scope 3 inventory is still highly incomplete. Major sources of emissions have been inappropriately excluded from the Scope 3 target: Investments, and the lion's share of the Purchased Goods and Services category. All Scope 3 emissions from Athletics have been excluded as well. In some cases, data that should have already been collected remains missing (student air travel). Scope 3 strategies remain at an extremely preliminary stage, lacking timelines, budgets, assigned responsibilities, or even meaningful backing of reduction potential. Many of the strategies are explicitly plans to make further plan (initiate a discussion initiate surveys, p. 85).

With 2030 approaching rapidly, the university must concretize its plans before the end of the year. The CAP should urgently

(1) complete a full Scope 3 inventory by no later than Jan 1, 2025. This would require immediately getting to work on collecting any missing data and establishing relationships with vendors (see our separate comments in these areas).

(2) develop appropriate Scope 3 strategies, including timelines, budgets, assigned responsibilities, and quantified reduction potential by no later than Jan 1, 2025. Our comments include suggestions for strategies in most large Scope 3 categories.

Correct or remove Scope 3 scenario space. A scenario space is a graph presenting the trajectory of emissions under strategies that an organization is planning to pursue. The scenario space included for Scope 3 emissions (pp. 21, 81-82, 212-214) is misleading in its current form and should be corrected. The graph and discussion of assumptions suggest that the university has a quantitative plan to meet Scope 3 targets, which is incorrect.

Draft Climate Action Plan Comments – University of Colorado Boulder

The assumptions underlying the percentage reductions are unsupported by data. These assumptions rely on future planning efforts that may take years before they result in reductions, but emissions reductions are modeled to begin in 2024 (e.g., the strategy to facilitate discussion on options to reduce business travel emissions., p. 106). In one case (Commuting), the percentage reduction is based on a misunderstanding of the EV adoption rate (that rate applies to newly sold vehicles, rather than to all vehicles on the road, see p. 82). That mistake results in an overestimation of the reduction rate by a factor of about ten. In all categories, the scenario space seems to ignore campus growth. Campus growth will result in an increase of activity levels that should have been modeled in the business-as-usual scenario. A list of specific concerns with the reduction rates assumed in the Scope 3 space is linked below.

The CAP should correct the Scope 3 scenario space so that it relies on reliable data and strategies. In a separate comment, we asked for these revisions to be completed no later than Jan. 1, 2025. Until these revisions are completed, the current Scope 3 scenario space should be removed given its shortcomings.

Specific concerns with reduction rates in the Scope 3 scenario space:

https://o365coloradoedu-my.sharepoint.com/:w:/g/personal/naor2878_colorado_edu/Ebo8Leo2gL1Dj4tnvKHj6cEBIY-nohrHLM3xnNXxfawCw?e=pe2rTK

Include all Scope 3 emissions in the denominator of total emissions, or remove 67% figure. When calculating its total Scope 3 emissions, CU Boulder is currently excluding a large portion of its emissions—notably athletics, investments, and a significant amount of purchased goods and services—as mentioned above and detailed below. The CAP’s claim that 67% of Scope 3 emissions are covered by the target in accordance with SBTi criteria (P14, P41, P73, P80) is therefore incorrect and misleading. SBTi requires companies to complete a full Scope 3 inventory before creating targets that cover at least two-thirds of emissions (see SBTi Criteria and Recommendations, 2023); CU Boulder has not done this.

The CAP should choose one of the following options: (1) Revise the denominator of the 67% calculation to include, at a minimum: (a) Category 15 Investment emissions; (b) full accounting of Purchased Goods and Services emissions; (c) Athletics department emissions. (2) If the CAP does not include the above emissions, it should delete the claim that 67% of Scope 3 emissions are covered by the target. Details about each of these options are provided below.

Correct misleading language around Scope 3 targets and SBTi requirements. It appears that the CAP is relying on, and further mischaracterizing, an outdated version of SBTi guidance from 2020 in a way that undermines the importance and specificity of Scope 3 targets.

Draft Climate Action Plan Comments – University of Colorado Boulder

Please remove the statement Scope 3 targets generally need not be science-based (p. 80, Appendix D, p. 6). This is not accurate according to current SBTi guidance which stipulates that Scope 3 targets should be consistent with limiting global warming to 2 degrees Celsius above pre-industrial levels (see SBTi Criteria, 2023, Category 18, p. 13).

Please remove the statement SBTi does not provide a specific percentage reduction target for Scope 3 emissions. Instead, it advocates for setting targets that are 'ambitious and measurable. (p 80) This is incorrect; SBTi does provide a specific percentage reduction target for Scope 3 emissions. See Target Validation Protocol for Near-term Targets, Version 3.1 March 2023, pg. 39. For near-term Scope 3 targets, the minimum ambition is a 2.5% annual reduction between the base year and the target year.

Include investment emissions in the Scope 3 inventory and subject them to targets. Emissions from Investments are Scope 3 emissions, and as such, should be included in the GHG inventory and made subject to targets. The CAP's exclusion of those investment emissions from the GHG inventory is in material non-compliance with SBTi. It is also in material non-compliance with the Human Rights Climate Commitments for universities that CU Boulder itself sponsored in COP28. These commitments require signatories to: Establish clear and publicly available policies to align with science-based climate targets any of the institution's investments associated with emissions. The same Commitments also require that the university Maintain clear and publicly available policies of exclusion of investments that are inconsistent with respect for human rights and with the goals of the Paris Agreement. At a minimum, these policies should exclude investments in companies that engage in new exploration and development of coal and oil; extract resources from vulnerable ecosystems; or that otherwise are found to have made substantial historical and ongoing contributions to the violation of the right to a healthy environment. It is unacceptable that CU Boulder is failing to meet the commitments that it is promoting to other institutions.

The repeated claim in the CAP that CU Boulder's investments are ... not within the authority or Scope of the CU Boulder CAP (e.g., pp. 42, 73) is incorrect and should be deleted. The CAP should include the 372,000 tCO_{2e} from fossil fuel investments (p. 211) in its inventory and perform additional analysis to quantify emissions not included in that figure. The CAP's claims are incorrect for several reasons. First, CU Boulder's role as a large beneficiary of the CU Endowment means that emissions financed by the CU Endowment are indeed within CU Boulder's accounting boundary under GHG accounting rules (in proportion to CUB's share of the benefit).

Second, even under CUB's (incorrect) claim that formal legal ownership is necessary, CUB is in fact the legal owner of about \$1.2 billion in current investments (see CU System 2022 financial report, pdf pp. 11, 15, see link below)). The CAP should quantify any and all balance sheet emissions, include them in the Category 15 Investment Inventory, and subject them to targets.

Draft Climate Action Plan Comments – University of Colorado Boulder

Lastly, we request that the language regarding the 372,000 tCO₂e figure being a very rough indicative estimate be removed (pp. 42, 72, 196). This figure is calculated in much the same way as other Scope 3 categories that were included in the inventory, namely, by taking activity data and multiplying it by an aggregated emissions factor. In fact, the Investments figure is likely more precise than calculations for categories like goods and services (where activity data is missing), and downstream transportation (where activity data was modeled). Please make sure to remove the very rough indicative estimate language which is incorrect.

Until Investment emissions are included in the inventory, the CAP should acknowledge in the Executive Summary (pp. 14-15) that Investment emissions, which account for the majority of CU Boulder's emissions, have been excluded from the Scope 3 inventory.

Link to CU financial statements:

<https://www.cu.edu/doc/supplementals-fy2022-optimizedpdf-1>

Link to CU Foundation financial statements:

<https://giving.cu.edu/sites/default/files/pdfs/cuf-audited-financial-statements-fy-2023.pdf>

Take the following concrete actions on Scope 3 emissions from Investments.

By May 2024, provide public notice to the CU Board of Regents regarding Scope 3 investment emissions. The notice will clarify that (1) CU Endowment Emissions affect CU Boulder's GHG inventory, and (2) that CU Boulder will not be able to comply with SBTi rules unless these emissions are managed in accordance with SBTi targets.

By May 2024, make a formal request to the CU Foundation to disclose its portfolio so that GHG emissions from that CU Boulder can quantify emissions from that portfolio by September 2024. Emissions will be quantified using the GHG Protocol Partnership For Carbon Accounting (PCAF) standard.

By September, 2024, complete a carbon audit of CU Boulder's on balance-sheet investments (\$1.2 billion in short-term investments as of 2022) under the PCAF standard.

By September 2024, have the CU Boulder Chief Financial Officer issue official guidelines for the CU Boulder's own investment policy (including cash management) regarding assets with risk exposure to fossil fuels.

These requests are all made in the spirit of a broad-based campaign by the campus community for divestment from fossil fuels, and formal requests and resolutions by BFA, CUSG, and Fossil Free CU.

Draft Climate Action Plan Comments – University of Colorado Boulder

Complete purchased goods category, which appears to be substantially under-reported. The Purchased Goods and Services (PG&S) Category (Scope 3) appears to be considerably under-reported, and accounts for only a small fraction of emissions reported by peer institutions. The CAP should require this category's completion no later than September 2024. The completion will require three distinct actions:

First, only 5 purchase categories were included in the inventory, which the university recognizes may lead to significant under-measurement (p. 199). The university should collect all relevant purchase categories.

Second, instead of using emissions data from actual suppliers, the university used aggregated emissions factors, which are of little use to planning reductions (p. 200). The university should immediately work with a vendor like Sievo Procurement Analytics to obtain actual emissions factors. The CAP Steering Committee should have contracted such a vendor when beginning its work in Sept. 2023.

Third, the CAP excluded Athletics, which is likely a large and rapidly growing source of PG&S emissions from the inventory. Athletics needs to be incorporated into the inventory.

The resulting PG&S inventory in the CAP is so incomplete that the purchased goods and services category is practically absent from the inventory. The CAP reported figure of 12,216 tCO₂e in emissions is under 3% of the 402,153 tCO₂e reported by Stanford. PG&S emissions by other universities like Cornell and Yale (270,261 and 164,766 tCO₂e respectively) further suggest that CU Boulder's inventory is incomplete for purposes of SBTi and the GHG Protocol Scope 3 Standards. All three universities have a smaller number of students than CU Boulder (Cornell being the largest with 22,000 students compared to CU Boulder's 33,000 students in 2019). All STARS reports including the data are linked below.

The under-reporting of one of the largest Scope 3 categories undermines the completeness of the Scope 3 inventory more generally. Until the CAP provides an appropriate the PG&S inventory, the CAP should acknowledge in the Executive Summary (pp. 14, 15) that At this point, the Purchased Goods & Services category is materially incomplete.

Links:

Stanford-- <https://reports.aashe.org/institutions/stanford-university-ca/report/2022-03-03/OP/air-climate/OP-1/>

Cornell -- <https://reports.aashe.org/institutions/cornell-university-ny/report/2022-03-03/OP/air-climate/OP-1/>

Yale -- <https://reports.aashe.org/institutions/yale-university-ct/report/2022-06-29/OP/air-climate/OP-1/>

Provide transparency around lifecycle assessments (LCAs) for new construction and other capital goods. LCAs are highly variable and can provide inaccurate results depending on several factors. To ensure

Draft Climate Action Plan Comments – University of Colorado Boulder

accuracy, state the standard used for LCAs (does it follow applicable ISO guidelines?), state the scope and boundary of LCAs (i.e. just upfront embodied or full lifecycle, what omissions and assumptions are being made, where is the data sourced and what is its quality?), make LCAs publicly available, state which third party is verifying the LCAs, and state how results and recommendations will be handled.

Repurpose space to reduce new construction. The most effective way to reduce embodied carbon from new construction is to reduce the need for new construction. Many campus buildings are observed to have underutilized space including classrooms, offices, and laboratories. To take advantage of this space, commit to analyzing space utilization and use this analysis to create a plan by the end of 2024 to reduce new construction by a certain percentage relative to BAU over the next 10 years. By reducing the need for new construction, excess capital will be available for pending energy efficiency and heating system upgrade retrofits.

Use flight-specific emissions factors. The 2024 CAP quantifies Scope 3 Business Travel emissions using a single emissions factor for miles travelled, which can be highly inaccurate due to, e.g., take-off and landing yielding the largest portion of flight emissions. Instead, the CAP should use flight-specific emissions factors which are already readily available in the Concur system used by the university. The use of individual emissions factors will enable the university to more accurately assess its emissions and pursue lower emission flight options like minimizing connections.

Clarify the RFI used to calculate flight emissions; use an RFI of 2.7. Please clarify whether the CAP uses an RFI of 2.4 or 2.7. As the CAP states, the IPCC and Stanford recommend a value of 2.7 (Appendix D, p. 13). However, the table on Appendix D, p. 21 states an RFI of 2.4. But, the university's calculated 32,041 Mt CO_{2e} appears closer to the recommended RFI of 2.7.

Example calculations:

56.7 million miles * 0.209 kg/mile * 2.4 RFI * 1000 kg/ton = 28440 MTCO_{2e}
(which is close to the reported 28,400 value on Appendix D, p. 13)

56.7 million miles * .209 kg/mile * 2.7 * 1000 kg/ton = 32,000 Mt CO_{2e}
(which is close to the figure actually reported for Category 6, business travel, emissions)

Ensure that all business air travel is booked through Concur or develop a system to account for outside booking. The CAP is unclear how significant the amount of business travel that occurs outside of the Concur platform (p.75: (Table 19) reports: High level data were available through CU travel booking partner; no survey for outside booking.) The CAP should either (1) mandate that all business travel must occur through Concur for all cases or (2) develop a specific way to account for outside booking.

Draft Climate Action Plan Comments – University of Colorado Boulder

It would also be necessary to quantify off-Concur travel for 2019 baseline setting.

Include a breakdown of miles flown by branch (administrative, faculty, athletics, student, etc.) and department. Such granular flight-level data should be readily available from Concur, and is necessary to identify and prioritize emissions reductions from air travel.

Remove inaccurate references to SBTi guidance regarding student and parent travel and include the category under the target. Category 9 (Downstream Transportation and Distribution; in CU Boulder's case, out of state student and parent travel to and from campus for breaks and events) is included in the baseline inventory at a total of 56,504 MTCO_{2e}, making it the largest measured Scope 3 category in the inventory. However, this category has been excluded from the targets.

The CAP states that Category 9 has been excluded from targets due to the need for better underlying data and the limited sphere of influence the campus has on how and when people come and go from campus, per the SBTi guidance (p.41, 73). This language is incorrect. SBTi guidance on target-setting presumes the institution has already undertaken a full Scope 3 inventory and does not allow excluding certain categories because of lack of data or limited sphere of influence. Instead of excluding it based on unreliable data, the university should take immediate steps to collect such data (see separate comment). We also find the claim that CU Boulder has a limited sphere of influence on student travel to be unpersuasive—in a separate comment, we list concrete, actionable strategies that the university could take to limit emissions from student travel. It is unacceptable to exclude this significant Scope 3 category from targets and proper inventorying; without action, these emissions could continue to grow. We request that (1) the incorrect language be removed, and that (2) the student and parent travel emissions be included under the target.

Accelerate the timeline for accurately measuring Category 9, student travel. Given that this is the university's largest estimated Scope 3 category and that current estimates are rough and imprecise, it is unacceptable not to even begin surveying students and families on their travel emissions until 2027 (p. 106). A comprehensive methodology for estimating these emissions has already been developed by Stanford University and the CAP should schedule its distribution to students no later than Fall 2024. The university should also include in-state students in this survey, since car trips to and from campus also produce emissions.

A white paper describing the Stanford methodology is available below:

https://sustainable.stanford.edu/sites/g/files/sbiybj26701/files/media/file/scope-3-emissions-from-student-travel_public-11-2023.pdf

Draft Climate Action Plan Comments – University of Colorado Boulder

Include specific strategies to address Scope 3, Category 9 (out of state student and parent travel). The strategies included for this category on pg. 28 amount to plans for unnecessarily delayed data collection (initiate surveys... and vague ideas (educate students and parents; explore options).

Specific strategies to reduce student travel have already been suggested on numerous occasions and should be adopted by this CAP. This includes but is not limited to:

End Fall Semester before Thanksgiving Break or go fully remote following Thanksgiving Break (which the Law School has already implemented);.

Offer video participation in commencement and other key events, starting Spring 2025.

Create a Spring Break in Colorado program to disincentivize air travel during this time starting Spring 2025.

Offer robust and targeted education to students and families about the climate impacts of air travel emissions starting with the Fall 2024 orientation.

Fix the calculation on Figure 19, p.77 of the CAP to properly account for increased flight demand. Demand for flights is likely to go up sharply in the future; therefore, if we plan to only reduce from our current baseline we will miss the target by 2050. In Figure 19 (p.77), the projected business travel emissions curves, the business as usual (BAU, orange) line [i.e., the expected 4% linear increase from 2019 levels, meaning over double by 2050] is where the business travel with Reductions (green) line should be subtracted from, not the baseline. Unless the university plans on mandating a baseline cap on business travel, it should fix this calculation to correct the inaccurate reductions estimate.

Provide the necessary reductions to meet the embodied carbon target on Figure 4, p.10 of the Scope 3 Measurements, Targets, and Future Plans section in the CAP, including properly accounting for increased demand in capital goods from BAU. Figure 4 (p.10): An embodied carbon reduction target line is necessary to show what must be done to meet the embodied carbon target line. These reductions will be greater than the distance between the baseline and the target line due to the BAU line (orange). The Business as Usual (orange) line [~40% linear increase between 2034 and 2050] is where the proposed embodied carbon reduction line should be subtracted from, not the baseline, as was done with business travel reductions on fig. 19 (p. 77). In other words, greater reductions will be necessary in years where the BAU diverges upwards from the baseline (~2034-2050).

Incorporate the following specific strategies to reduce business travel. The CAP does not provide concrete strategies to reduce paid business

Draft Climate Action Plan Comments – University of Colorado Boulder

travel (see, e.g., p. 82). The voluntary programs suggested are highly unspecified. Further, the suggested prioritization of airlines with sustainable fuel use (SAF) can only lead to limited reductions, which have not been quantified by the CAP. We are concerned that a focus on SAF will lead the university to neglect the critical reductions necessary in activity levels, i.e., miles travelled. In addition, so called sustainable aviation fuels have highly determinantal land-use outcomes. Instead, we suggest the CAP should adopt the following strategies:

Adopt air travel reduction targets at a departmental level by Spring 2025. Targets will be set using historical averages as baseline (say, starting 2018, and excluding 2020-1 for COVID-19) of flights by each department and admin unit (including Athletics). The Executive Sustainability Council can adjust these budgets up or down according to mission-critical needs (e.g., travel required for grant work). The Executive Sustainability Council will also issue guidelines about prioritization of graduate students and early career faculty for whom travel has greater professional significance. Department chairs and heads of units will be responsible to stay within targets.

Central administration will create a program to help organize remote conferences, and train departmental staff in how to organize those conferences. The program will begin operations no later than Spring 2025.

To reduce flight emissions intensity, adopt a policy to limit the use of connecting flights by Spring 2025. This strategy would require a transition to flight-specific emissions data which is readily available on Concur (see separate comment).

The CAP should commit to strategies that address the equity connection between high commuting emissions, affordable housing, and income inequality. There is a strong connection between socioeconomic inequality, housing, and transportation emissions: if people cannot afford to live where they work, they are forced to live far away—often in places where public transportation is non-existent, inaccessible, or prohibitively expensive—and thus drive to work, increasing emissions. The lack of affordable housing in Boulder impacts CU Boulder's lowest-paid workers most acutely. While the CAP briefly notes that many students and staff commute from nearby cities to campus each day, in part due to the high cost of living in Boulder County, (p. 78) it does not seem to take this seriously in its emissions reductions strategies. Emissions reduction projections are based solely on an extrapolation from EV adoption rates (p. 82, and see our separate comment regarding the large quantitative mistake the CAP makes regarding that concept). Meanwhile, the tiered strategy tables on pp. 28 and 104 do not include any strategies related to housing or the cost of living in Boulder, and the strategies on Table 20 rely heavily on EVs.

Additional strategies that should be adopted include:

Draft Climate Action Plan Comments – University of Colorado Boulder

Commit to paying employees a living wage, by initiating an immediate 20% Cost of Living Adjustment (COLA) and annual 6% COLA for graduate workers, non-tenure-track faculty, and staff, as demanded by UCW Colorado. Wage increases will help ensure that CU Boulder employees can live closer to campus, reducing VMT.

By Fall 2026, outline a plan for creating affordable housing designated for or otherwise accessible students, faculty, and staff and/or annexing land for this purpose, as has been done for the CU South campus.

Work directly with Boulder City Council to increase affordable and sustainable housing options near campus.

Work directly with local governments and the Regional Transportation District (RTD) to expand public transit options that could serve CU Boulder's students, staff, and employees, particularly focusing on low-income and marginalized groups

Maintain and expand remote or hybrid work options for staff whose work can be completed remotely.

Regarding EVs, the CAP should acknowledge that, while affordable charging is an essential component of making EVs more accessible to people across income spectrums, EVs are currently prohibitively expensive for many CU employees and thus the CAP should prioritize other strategies first. Furthermore, EV adoption comes with environmental injustice ramifications that must be considered, such as the mining of battery materials in an exploitative manner and without Free, Prior and Informed Consent of Indigenous populations.

The CAP should include university franchises in the Scope 3 inventory.

The CAP has labeled the Franchises (Scope 3, Category 15) as a N/A category, claiming (on p. 9) that The category is applicable to franchisors, which are companies that grant licenses to other entities to sell or distribute its goods or services in return for payments, such as royalties for the use of trademarks and other services. CUB does not grant such licenses, and therefore this category has not been included. This statement seems to be inaccurate. Considerable merchandise is sold with the university's trademarks, both online and in stores across Boulder, sometimes bearing additional branding by large apparel companies. Our understanding is that according to Campus Policies, use of university trademarks for commercial purposes requires licensing and payment of royalties. A link describing university policy is included below. In pertinent part, it reads: Use of the University's trademarks for commercial purposes without the prior written consent of the University may constitute trademark infringement, trademark dilution, and unfair competition in violation of federal and state laws. Use of any University trademark in commerce may be prohibited by law except by express license from the University. We also note that the claim that CU Athletics is not included within the university's GHG accounting boundary is unpersuasive, and has been addressed in a separate comment.

Draft Climate Action Plan Comments – University of Colorado Boulder

The 2024 CAP should therefore be revised to include Franchise emissions. We request the inclusion be made by no later than September, 2024.

For a link to campus policies on using trademarks, see link below:
<https://www.colorado.edu/policies/licensing-policy>

The CAP should complete adequate measurement and strategies for all Scope 3 strategies.

The reduction of 50% in Scope 3 emissions by 2030 is listed as a core goal of the CAP (p. 2). However, the university's Scope 3 inventory is still highly incomplete. Major sources of emissions have been inappropriately excluded from the Scope 3 target: Investments, and the lion's share of the Purchased Goods and Services category. All Scope 3 emissions from Athletics have been excluded as well. In some cases, data that should have already been collected remains missing (student air travel). Scope 3 strategies remain at an extremely preliminary stage, lacking timelines, budgets, assigned responsibilities, or even meaningful backing of reduction potential. Many of the strategies are explicitly plans to make further plan (initiate a discussion initiate surveys, p. 85).

With 2030 approaching rapidly, the university must concretize its plans before the end of the year. The CAP should urgently:

(1) complete a full Scope 3 inventory by no later than Jan 1, 2025. This would require immediately getting to work on collecting any missing data and establishing relationships with vendors (see our separate comments in these areas).

(2) develop appropriate Scope 3 strategies, including timelines, budgets, assigned responsibilities, and quantified reduction potential by no later than Jan 1, 2025. Our separate comments include suggestions for strategies in most large Scope 3 categories

The CAP should correct or remove Scope 3 scenario space.

A scenario space is a graph presenting the trajectory of emissions under strategies that an organization is planning to pursue. In its current form, the scenario space included for Scope 3 emissions (pp. 21, 81-82, 212-214) is incorrect and misleading and should be corrected. The graph and discussion of assumptions suggest that the university has a quantitative plan to meet Scope 3 targets, which is incorrect. The qualifications made in the text regarding directional strategies are not sufficient to address these concerns.

Specifically, the assumptions underlying the percentage reductions are largely unsupported by data. These assumptions rely on future planning efforts that may take years before they result in reductions, but emissions reductions are modeled to begin in 2024 (e.g., the strategy to facilitate discussion on options to reduce business travel emissions., p.

Draft Climate Action Plan Comments – University of Colorado Boulder

106). In one case (Commuting), the percentage reduction is based on a misunderstanding of the EV adoption rate (that rate applies to newly sold vehicles, rather than to all vehicles on the road, see p. 82). That mistake results in an overestimation of the reduction rate by a factor of about ten. In all categories, the scenario space seems to ignore campus growth. Campus growth will result in an increase of activity levels that should have been modeled in the business-as-usual scenario. A list of specific concerns with the reduction rates assumes in the Scope 3 space is linked below.

The CAP should correct the Scope 3 scenario space so that it relies on reliable data and strategies. In a separate comment, we asked for these revisions to be completed no later than Jan. 1, 2025. Until these revisions are completed, the current Scope 3 scenario space should be removed given its shortcomings.

Specific technical concerns with reduction rates in the Scope 3 scenario space are available in the link below:

https://o365coloradoedu-my.sharepoint.com/:w:/g/personal/naor2878_colorado_edu/Ebo8Leo2gL1Dj4tnvKHj6cEBIY-nohrHLM3xnNXxfawCw?e=pe2rTK

The CAP should Include all Scope 3 emissions in the denominator of total emissions, or remove 67% figure.

When calculating its total Scope 3 emissions, CU Boulder is currently excluding a large portion of its emissions—notably athletics, investments, and a significant amount of purchased goods and services—as mentioned above and detailed below. The CAP's claim that 67% of Scope 3 emissions are covered by the target in accordance with SBTi criteria (P14, P41, P73, P80) is therefore incorrect and misleading. SBTi requires companies to complete a full Scope 3 inventory before creating targets that cover at least two-thirds of emissions (see SBTi Criteria and Recommendations, 2023); CU Boulder has not done this.

The CAP should choose one of the following options: (1) Revise the denominator of the 67% calculation to include, at a minimum: (a) Category 15 Investment emissions; (b) full accounting of Purchased Goods and Services emissions; (c) Athletics department emissions. (2) If the CAP does not include the above emissions, it should delete the claim that 67% of Scope 3 emissions are covered by the target. Details about each of these options are provided below

The CAP should correct misleading language around Scope 3 targets and SBTi requirements.

It appears that the CAP is relying on, and further mischaracterizing, an outdated version of SBTi guidance from 2020 in a way that undermines the importance and specificity of Scope 3 targets.

Draft Climate Action Plan Comments – University of Colorado Boulder

1) Please remove the statement Scope 3 targets generally need not be science-based (p. 80, Appendix D, p. 6). This is not accurate according to current SBTi guidance which stipulates that Scope 3 targets should be consistent with limiting global warming to 2 degrees Celsius above pre-industrial levels (see SBTi Criteria, 2023, Category 18, p. 13).

2) Please remove the statement SBTi does not provide a specific percentage reduction target for Scope 3 emissions. Instead, it advocates for setting targets that are 'ambitious and measurable. This is incorrect; SBTi does provide a specific percentage reduction target for Scope 3 emissions. See Target Validation Protocol for Near-term Targets, Version 3.1 March 2023, pg. 39. For near-term Scope 3 targets, the minimum ambition is a 2.5% annual reduction between the base year and the target year.

The CAP should include investment emissions in the Scope 3 inventory and subject them to targets.

Emissions from Investments are Scope 3 emissions, and as such, should be included in the GHG inventory and made subject to targets. The CAP's exclusion of those investment emissions from the GHG inventory is in material non-compliance with SBTi. It is also in material non-compliance with the Human Rights Climate Commitments for universities that CU Boulder itself sponsored in COP28. These commitments require signatories to: Establish clear and publicly available policies to align with science-based climate targets any of the institution's investments associated with emissions. The same Commitments also require that the university Maintain clear and publicly available policies of exclusion of investments that are inconsistent with respect for human rights and with the goals of the Paris Agreement. At a minimum, these policies should exclude investments in companies that engage in new exploration and development of coal and oil; extract resources from vulnerable ecosystems; or that otherwise are found to have made substantial historical and ongoing contributions to the violation of the right to a healthy environment. It is unacceptable that CU Boulder is failing to meet the commitments that it is promoting to other institutions.

The repeated claim in the CAP that CU Boulder's investments are ... not within the authority or Scope of the CU Boulder CAP (e.g., pp. 42, 73) is incorrect and should be deleted. The CAP should include the 372,000 tCO_{2e} from fossil fuel investments (p. 211) in its inventory and perform additional analysis to quantify emissions not included in that figure. The CAP's claims are incorrect for several reasons. First, CU Boulder's role as a large beneficiary of the CU Endowment means that emissions financed by the CU Endowment are indeed within CU Boulder's accounting boundary under GHG accounting rules (in proportion to CUB's share of the benefit).

Second, even under CUB's (incorrect) claim that formal legal ownership is necessary, CUB is in fact the legal owner of about \$1.2 billion in current investments (see CU System 2022 financial report, pdf pp. 11, 15,

Draft Climate Action Plan Comments – University of Colorado Boulder

see link below)). The CAP should quantify any and all balance sheet emissions, include them in the Category 15 Investment Inventory, and subject them to targets.

Lastly, we request that the language regarding the 372,000 tCO₂e figure being a very rough indicative estimate be removed (pp. 42, 72, 196). This figure is calculated in much the same way as other Scope 3 categories that were included in the inventory, namely, by taking activity data and multiplying it by an aggregated emissions factor. In fact, the Investments figure is likely more precise than calculations for categories like goods and services (where activity data is missing), and downstream transportation (where activity data was modeled). Please make sure to remove the very rough indicative estimate language which is incorrect.

Until Investment emissions are included in the inventory, the CAP should acknowledge in the Executive Summary (pp. 14-15) that Investment emissions, which account for the majority of CU Boulder's emissions, have been excluded from the Scope 3 inventory.

Link to CU financial statements:

<https://www.cu.edu/doc/supplementals-fy2022-optimizedpdf-1>

The CAP should take the following concrete actions on Scope 3 emissions from Investments.

1. By May 2024, provide public notice to the CU Board of Regents regarding Scope 3 investment emissions. The notice will clarify that (a) CU Endowment Emissions affect CU Boulder's GHG inventory, and (b) that CU Boulder will not be able to comply with SBTi rules unless these emissions are managed in accordance with SBTi targets.
2. By May 2024, make a formal request to the CU Foundation to disclose its portfolio so that GHG emissions from that CU Boulder can quantify emissions from that portfolio by September 2024. Emissions will be quantified using the GHG Protocol Partnership For Carbon Accounting (PCAF) standard.
3. By September, 2024, complete a carbon audit of CU Boulder's on balance-sheet investments (\$1.2 billion in short-term investments as of 2022) under the PCAF standard.
4. By September 2024, have the CU Boulder Chief Financial Officer issue official guidelines for the CU Boulder's own investment policy (including cash management) regarding assets with risk exposure to fossil fuels.

These requests are all made in the spirit of a broad-based campaign by the campus community for divestment from fossil fuels, and formal requests and resolutions by BFA, CUSG, and Fossil Free CU.

Draft Climate Action Plan Comments – University of Colorado Boulder

The CAP should include Athletics in the Scope 3 inventory.

In a low-visibility footnote on p. 193, the university discloses for the first time that this inventory does not include CU Athletics, which is a separate organization from CU Boulder Campus. That exclusion is inconsistent with GHG accounting rules because the university has clear operational control over CU Athletics. The fact that Athletics is a separate organization does not exclude it from the accounting boundary. Indeed, the university did not attempt to exclude other auxiliary enterprises like housing and dining from its GHG inventory. CU Athletics is a large actor with potentially significant Scope 3 emissions in purchased goods and services, business travel, and franchises. The 2024 CAP should incorporate Athletics into the accounting boundary before the publication of the CAP, or no later than revision for Sept. 2024.

Until CU Athletics is included in the inventory, the CAP should clearly and prominently acknowledge its exclusion in pp. 14-15 by adding the following language: CU Athletics has been excluded from the Scope 3 inventory.

The CAP should complete purchased goods category, which appears to be substantially under-reported.

The Purchased Goods and Services (PG&S) Category (Scope 3) appears to be considerably under-reported, and accounts for only a small fraction of emissions reported by peer institutions. The CAP should require this category's completion no later than September 2024. The completion will require three distinct actions:

1. First, only 5 purchase categories were included in the inventory, which the university recognizes may lead to significant under-measurement (p. 199). The university should collect all relevant purchase categories.
2. Second, instead of using emissions data from actual suppliers, the university used aggregated emissions factors, which are of little use to planning reductions (p. 200). The university should immediately work with a vendor like Sievo Procurement Analytics to obtain actual emissions factors. The CAP Steering Committee should have contracted such a vendor when beginning its work in Sept. 2023.
3. Third, the CAP excluded Athletics, which is likely a large and rapidly growing source of PG&S emissions from the inventory. Athletics needs to be incorporated into the inventory.

The resulting PG&S inventory in the CAP is so incomplete that the purchased goods and services category is practically absent from the inventory. The CAP reported figure of 12,216 tCO₂e in emissions is under 3% of the 402,153 tCO₂e reported by Stanford. PG&S emissions by other universities like Cornell and Yale (270,261 and 164,766 tCO₂e respectively) further suggest that CU Boulder's inventory is incomplete for purposes of SBTi and the GHG Protocol Scope 3 Standards. All three

Draft Climate Action Plan Comments – University of Colorado Boulder

universities have a smaller number of students than CU Boulder (Cornell being the largest with 22,000 students compared to CU Boulder's 33,000 students in 2019). All STARS reports including the data are linked below.

The under-reporting of one of the largest Scope 3 categories undermines the completeness of the Scope 3 inventory more generally. Until the CAP provides an appropriate the PG&S inventory, the CAP should acknowledge in the Executive Summary (pp. 14, 15) that At this point, the Purchased Goods & Services category is materially incomplete.

Links:

Stanford-- <https://reports.aashe.org/institutions/stanford-university-ca/report/2022-03-03/OP/air-climate/OP-1/>

Cornell -- <https://reports.aashe.org/institutions/cornell-university-ny/report/2022-03-03/OP/air-climate/OP-1/>

Yale -- <https://reports.aashe.org/institutions/yale-university-ct/report/2022-06-29/OP/air-climate/OP-1/>

The CAP should provide transparency around lifecycle assessments (LCAs) for new construction and other capital goods.

LCAs are highly variable and can provide inaccurate results depending on several factors. To ensure accuracy, state the standard used for LCAs (does it follow applicable ISO guidelines?), state the scope and boundary of LCAs (i.e. just upfront embodied or full lifecycle, what omissions and assumptions are being made, where is the data sourced and what is its quality?), make LCAs publicly available, state which third party is verifying the LCAs, and state how results and recommendations will be handled.

The CAP should create a specific strategy to repurpose space to reduce new construction.

The most effective way to reduce embodied carbon from new construction is to reduce the need for new construction. Many campus buildings are observed to have underutilized space including classrooms, offices, and laboratories. To take advantage of this space, commit to analyzing space utilization and use this analysis to create a plan by the end of 2024 to reduce new construction by a certain percentage relative to BAU over the next 10 years. By reducing the need for new construction, excess capital will be available for pending energy efficiency and heating system upgrade retrofits.

The CAP should use flight-specific emissions factors.

The 2024 CAP quantifies Scope 3 Business Travel emissions using a single emissions factor for miles travelled, which can be highly inaccurate due

Draft Climate Action Plan Comments – University of Colorado Boulder

to, e.g., take-off and landing yielding the largest portion of flight emissions. Instead, the CAP should use flight-specific emissions factors which are already readily available in the Concur system used by the university. The use of individual emissions factors will enable the university to more accurately assess its emissions and pursue lower emission flight options like minimizing connections

The CAP should clarify the RFI used to calculate flight emissions; use an RFI of 2.7.

Please clarify whether the CAP uses an RFI of 2.4 or 2.7. As the CAP states, the IPCC and Stanford recommend a value of 2.7 (Appendix D, p. 13). However, the table on Appendix D, p. 21 states an RFI of 2.4. But, the university's calculated 32,041 Mt CO₂e appears closer to the recommended RFI of 2.7.

Example calculations:

56.7 million miles * 0.209 kg/mile * 2.4 RFI * 1000 kg/ton = 28440 MTCO₂e
(which is close to the reported 28,400 value on Appendix D, p. 13)

56.7 million miles * .209 kg/mile * 2.7 * 1000 kg/ton = 32,000 Mt CO₂e
(which is close to the figure actually reported for Category 6, business travel, emissions)

The CAP should ensure that all business air travel is booked through Concur or develop a system to account for outside booking.

The CAP is unclear how significant the amount of business travel that occurs outside of the Concur platform (p.75: (Table 19) reports: High level data were available through CU travel booking partner; no survey for outside booking.) The CAP should either (1) mandate that all business travel must occur through Concur for all cases or (2) develop a specific way to account for outside booking. It would also be necessary to quantify off-Concur travel for 2019 baseline setting.

The CAP should include a breakdown of miles flown by branch (administrative, faculty, athletics, student, etc.) and department. Such granular flight-level data should be readily available from Concur, and is necessary to identify and prioritize emissions reductions from air travel.

The CAP should remove inaccurate references to SBTi guidance regarding student and parent travel and include the category under the target.

Category 9 (Downstream Transportation and Distribution; in CU Boulder's case, out of state student and parent travel to and from campus for breaks and events) is included in the baseline inventory at a total of 56,504 MTCO₂e, making it the largest measured Scope 3 category in the inventory. However, this category has been excluded from the targets.

Draft Climate Action Plan Comments – University of Colorado Boulder

The CAP states that Category 9 has been excluded from targets due to the need for better underlying data and the limited sphere of influence the campus has on how and when people come and go from campus, per the SBTi guidance (p.41, 73). This language is incorrect. SBTi guidance on target-setting presumes the institution has already undertaken a full Scope 3 inventory and does not allow excluding certain categories because of lack of data or limited sphere of influence. Instead of excluding it based on unreliable data, the university should take immediate steps to collect such data (see separate comment).

We also find the claim that CU Boulder has a limited sphere of influence on student travel to be unpersuasive—in a separate comment, we list concrete, actionable strategies that the university could take to limit emissions from student travel. It is unacceptable to exclude this significant Scope 3 category from targets and proper inventorying; without action, these emissions could continue to grow.

We request that (1) the incorrect language be removed, and that (2) the student and parent travel emissions be included under the target.

The CAP should accelerate the timeline for accurately measuring Category 9, student travel.

Given that this is the university's largest estimated Scope 3 category and that current estimates are rough and imprecise, it is problematic not to even begin surveying students and families on their travel emissions until 2027 (p. 106). A comprehensive methodology for estimating these emissions has already been developed by Stanford University and the CAP should schedule its distribution to students no later than Fall 2024. The university should also include in-state students in this survey, since car trips to and from campus also produce emissions.

A white paper describing the Stanford methodology is available below:

https://sustainable.stanford.edu/sites/g/files/sbiybj26701/files/media/file/scope-3-emissions-from-student-travel_public-11-2023.pdf

The CAP should include specific strategies to address Scope 3, Category 9 (out of state student and parent travel).

The strategies included for this category on pg. 28 amount to plans for unnecessarily delayed data collection (initiate surveys... and vague ideas (educate students and parents; explore options).

Specific strategies to reduce student travel have already been suggested on numerous occasions and should be adopted by this CAP. This includes but is not limited to:

Draft Climate Action Plan Comments – University of Colorado Boulder

- 1) End Fall Semester before Thanksgiving Break or go fully remote following Thanksgiving Break (which the Law School has already implemented).
- 2) Offer video participation in commencement and other key events, starting Spring 2025.
- 3) Create a Spring Break in Colorado program to disincentivize air travel during this time starting Spring 2025.
- 4) Offer robust and targeted education to students and families about the climate impacts of air travel emissions starting with the Fall 2024 orientation.

The CAP should fix the calculation on Figure 19, p.77 of the CAP to properly account for increased flight demand.

Demand for flights is likely to go up sharply in the future; therefore, if we plan to only reduce from our current baseline we will miss the target by 2050. In Figure 19 (p.77), the projected business travel emissions curves, the business as usual (BAU, orange) line [i.e., the expected 4% linear increase from 2019 levels, meaning over double by 2050] is where the business travel with Reductions (green) line should be subtracted from, not the baseline. Unless the university plans on mandating a baseline cap on business travel, it should fix this calculation to correct the inaccurate reductions estimate.

The CAP should provide the necessary reductions to meet the embodied carbon target on Figure 4, p.10 of the Scope 3 Measurements, Targets, and Future Plans section in the CAP, including properly accounting for increased demand in capital goods from BAU.

Figure 4 (p.10): An embodied carbon reduction target line is necessary to show what must be done to meet the embodied carbon target line. These reductions will be greater than the distance between the baseline and the target line due to the BAU line (orange). The Business as Usual (orange) line [~40% linear increase between 2034 and 2050] is where the proposed embodied carbon reduction line should be subtracted from, not the baseline, as was done with business travel reductions on fig. 19 (p. 77). In other words, greater reductions will be necessary in years where the BAU diverges upwards from the baseline (~2034-2050).

The CAP should incorporate the following specific strategies to reduce business travel. The CAP does not provide concrete strategies to reduce paid business travel (see, e.g., p. 82).

Congext: The voluntary programs suggested are highly unspecified. Further, the suggested prioritization of airlines with sustainable fuel use (SAF) can only lead to limited reductions, which have not been quantified by the CAP. We are concerned that a focus on SAF will lead the

Draft Climate Action Plan Comments – University of Colorado Boulder

university to neglect the critical reductions necessary in activity levels, i.e., miles travelled. In addition, so called sustainable aviation fuels have highly determinantal land-use outcomes.

Instead, we suggest the CAP should adopt the following strategies:

- 1) Adopt air travel reduction targets at a departmental level by Spring 2025. Targets will be set using historical averages as baseline (say, starting 2018, and excluding 2020-1 for COVID-19) of flights by each department and admin unit (including Athletics). The Executive Sustainability Council can adjust these budgets up or down according to mission-critical needs (e.g., travel required for grant work). The Executive Sustainability Council will also issue guidelines about prioritization of graduate students and early career faculty for whom travel has greater professional significance. Department chairs and heads of units will be responsible to stay within targets.
- 2) Central administration will create a program to help organize remote conferences, and train departmental staff in how to organize those conferences. The program will begin operations no later than Spring 2025.
- 3) To reduce flight emissions intensity, adopt a policy to limit the use of connecting flights by Spring 2025. This strategy would require a transition to flight-specific emissions data which is readily available on Concur (see separate comment).

The CAP should commit to strategies that address the equity connection between high commuting emissions, affordable housing, and income inequality.

There is a strong connection between socioeconomic inequality, housing, and transportation emissions: if people cannot afford to live where they work, they are forced to live far away—often in places where public transportation is non-existent, inaccessible, or prohibitively expensive—and thus drive to work, increasing emissions. The lack of affordable housing in Boulder impacts CU Boulder's lowest-paid workers most acutely. While the CAP briefly notes that many students and staff commute from nearby cities to campus each day, in part due to the high cost of living in Boulder County, (p. 78) it does not seem to take this seriously in its emissions reductions strategies. Emissions reduction projections are based solely on an extrapolation from EV adoption rates (p. 82, and see our separate comment regarding the large quantitative mistake the CAP makes regarding that concept). Meanwhile, the tiered strategy tables on p. 28 and 104 do not include any strategies related to housing or cost of living in Boulder, and the strategies on Table 20 rely heavily on EVs.

Additional strategies that should be adopted include:

- 1) Commit to paying employees a living wage, by initiating an immediate 20% Cost of Living Adjustment (COLA) and annual 6% COLA for graduate workers, non-tenure-track faculty, and staff, as demanded by UCW

Draft Climate Action Plan Comments – University of Colorado Boulder

Colorado. Wage increases will help ensure that CU Boulder employees can live closer to campus, reducing VMT.

2) By Fall 2026, outline a plan for creating affordable housing designated for or otherwise accessible students, faculty, and staff and/or annexing land for this purpose, as has been done for the CU South campus.

3) Work directly with Boulder City Council to increase affordable and sustainable housing options near campus.

4) Work directly with local governments and the Regional Transportation District (RTD) to expand public transit options that could serve CU Boulder's students, staff, and employees, particularly focusing on low-income and marginalized groups

5) Maintain and expand remote or hybrid work options for staff whose work can be completed remotely.

Regarding EVs, the CAP should acknowledge that, while affordable charging is an essential component of making EVs more accessible to people across income spectrums, EVs are currently prohibitively expensive for many CU employees and thus the CAP should prioritize other strategies first. Furthermore, EV adoption comes with environmental injustice ramifications that must be considered, such as the mining of battery materials in an exploitative manner and without Free, Prior and Informed Consent of Indigenous populations.

The CAP should use the 20-year Global Warming Potential (GWP) factor to calculate its waste emissions, instead of the 100 year factor, because this will be more accurate.

Methane has a shorter lifespan in the atmosphere (closer to 20 years) than many other greenhouse gases. When 100-year factors are used instead of 20 years, the warming potential of methane produced by waste is severely undercounted. CU and any campus franchises should stop purchasing single use plastics no later than June 2025.

CU should also purchase dehydrating equipment so that it can preprocess its organic waste. It should re-educate its students on composting on campus and begin composting of public facing waste by June 2025. This will likely require building capacity for manual sorting

CU Boulder should complete a full inventory of the Scope 3 emissions, in accordance with the Science Based Targets Initiative (SBTi) rules. It needs to establish concrete timelines to reduce Scope 3 emissions to meet the targets. Emissions from athletics should be properly accounted for in Scope 3.

Draft Climate Action Plan Comments – University of Colorado Boulder

1. Complete adequate measurement and strategies for all Scope 3 strategies. The reduction of 50% in Scope 3 emissions by 2030 is listed as a core goal of the CAP (p. 10). However, the university's Scope 3 inventory is still highly incomplete. Major sources of emissions have been inappropriately excluded from the Scope 3 target: Investments, and the lion's share of the Purchased Goods and Services category. All Scope 3 emissions from Athletics have been excluded as well. In some cases, data that should have already been collected remains missing (student air travel). Scope 3 strategies remain at an extremely preliminary stage, lacking timelines, budgets, assigned responsibilities, and meaningful backing of reduction potential. Many of the strategies are merely plans to make further plans (i.e. initiate a discussion, initiate surveys, p. 85).

With 2030 approaching rapidly, the university must concretize its plans before the end of the year. The CAP should urgently

(1) complete a full Scope 3 inventory by no later than Jan 1, 2025. This would require immediately collecting any missing data and establishing relationships with vendors (see other comments in these areas).

(2) develop appropriate Scope 3 strategies, including timelines, budgets, assigned responsibilities, and quantified reduction potential by no later than Jan 1, 2025. Other comments include suggestions for strategies in most large Scope 3 categories.

Correct or remove Scope 3 scenario space. A scenario space is a graph presenting the emissions trajectory under strategies that an organization plans to pursue. The scenario space included for Scope 3 emissions (pp. 21, 81-82, 212-214) is misleading in its current form and should be corrected. The graph and discussion of assumptions suggest that the university has a quantitative plan to meet Scope 3 targets, which is incorrect.

The assumptions underlying the percentage reductions are unsupported by data. These assumptions rely on future planning efforts that may take years before they result in reductions, but emissions reductions are modeled to begin in 2024 (e.g., the strategy to facilitate discussion on options to reduce business travel emissions., p. 106). In one case (Commuting), the percentage reduction is based on a misunderstanding of the EV adoption rate (that rate applies to newly sold vehicles, rather than to all vehicles on the road, see p. 82). That mistake results in an overestimation of the reduction rate by a factor of about ten. In all categories, the scenario space seems to ignore campus growth. Campus growth will result in an increase of activity levels that should have been modeled in the business-as-usual scenario. A list of specific concerns with the reduction rates assumed in the Scope 3 space is linked below.

The CAP should correct the Scope 3 scenario space so that it relies on reliable data and strategies. Another comment asks for these revisions to be completed no later than Jan. 1, 2025. Until these revisions are

Draft Climate Action Plan Comments – University of Colorado Boulder

completed, the current Scope 3 scenario space should be removed given its shortcomings.

Specific concerns with reduction rates in the Scope 3 scenario space:

https://o365coloradoedu-my.sharepoint.com/:w:/g/personal/naor2878_colorado_edu/Ebo8Leo2gL1Dj4tnvKHj6cEBIY-nohrHLM3xnNXxfawCw?e=pe2rTK

1. Include all Scope 3 emissions in the denominator of total emissions, or remove 67% figure. When calculating its total Scope 3 emissions, CU Boulder is currently excluding a large portion of its emissions—notably athletics, investments, and a significant amount of purchased goods and services—as mentioned above and detailed below. The CAP’s claim that 67% of Scope 3 emissions are covered by the target in accordance with SBTi criteria (P14, P41, P73, P80) is therefore incorrect and misleading. SBTi requires companies to complete a full Scope 3 inventory before creating targets that cover at least two-thirds of emissions (see SBTi Criteria and Recommendations, 2023); CU Boulder has not done this.

The CAP should choose one of the following options: (1) Revise the denominator of the 67% calculation to include, at a minimum: (a) Category 15 Investment emissions; (b) full accounting of Purchased Goods and Services emissions; (c) Athletics department emissions. (2) If the CAP does not include the above emissions, it should delete the claim that 67% of Scope 3 emissions are covered by the target. Details about each of these options provided below.

2. Include investment emissions in the Scope 3 inventory and subject them to targets. Emissions from Investments are Scope 3 emissions, and as such, should be included in the GHG inventory and made subject to targets. The CAP’s exclusion of those investment emissions from the GHG inventory is in material noncompliance with SBTi. It is also in material noncompliance with the Human Rights Climate Commitments for universities that CU Boulder itself sponsored in COP28. These commitments require signatories to: Establish clear and publicly available policies to align with science-based climate targets any of the institution’s investments associated with emissions. The same Commitments also require that the university Maintain clear and publicly available policies of exclusion of investments that are inconsistent with respect for human rights and with the goals of the Paris Agreement. At a minimum, these policies should exclude investments in companies that engage in new exploration and development of coal and oil; extract resources from vulnerable ecosystems; or that otherwise are found to have made substantial historical and ongoing contributions to the violation of the right to a healthy environment. It is unacceptable that CU Boulder is failing to meet the commitments that it is promoting to other institutions.

The repeated claim in the CAP that CU Boulder’s investments are ... not within the authority or Scope of the CU Boulder CAP (e.g., pp. 42, 73) is incorrect and should be deleted. The CAP should include the 372,000 tCO₂e

Draft Climate Action Plan Comments – University of Colorado Boulder

from fossil fuel investments (p. 211) in its inventory and perform additional analysis to quantify emissions not included in that figure. The CAP's claims are incorrect for several reasons. First, CU Boulder's role as a large beneficiary of the CU Endowment means that emissions financed by the CU Endowment are indeed within CU Boulder's accounting boundary under GHG accounting rules (in proportion to CUB's share of the benefit).

Second, even under CUB's (incorrect) claim that formal legal ownership is necessary, CUB is in fact the legal owner of about \$1.2 billion in current investments (see CU System 2022 financial report, pdf pp. 11, 15, see link below). The CAP should quantify any and all balance sheet emissions, include them in the Category 15 Investment Inventory, and subject them to targets.

Lastly, we request that the language regarding the 372,000 tCO₂e figure being a very rough indicative estimate be removed (pp. 42, 72, 196). This figure is calculated in much the same way as other Scope 3 categories that were included in the inventory, namely, by taking activity data and multiplying it by an aggregated emissions factor. In fact, the Investments figure is likely more precise than calculations for categories like goods and services (where activity data is missing), and downstream transportation (where activity data was modeled). Please make sure to remove the very rough indicative estimate language which is incorrect.

Until Investment emissions are included in the inventory, the CAP should acknowledge in the Executive Summary (pp. 14-15) that Investment emissions, which account for the majority of CU Boulder's emissions, have been excluded from the Scope 3 inventory.

Link to CU financial statements:

<https://www.cu.edu/doc/supplementals-fy2022-optimizedpdf-1>

Link to CU Foundation financial statements:

<https://giving.cu.edu/sites/default/files/pdfs/cuf-audited-financial-statements-fy-2023.pdf>

3. Take the following concrete actions on Scope 3 emissions from Investments.

By May 2024, provide public notice to the CU Board of Regents regarding Scope 3 investment emissions. The notice will clarify that (1) CU Endowment Emissions affect CU Boulder's GHG inventory, and (2) that CU Boulder will not be able to comply with SBTi rules unless these emissions are managed in accordance with SBTi targets.

By May 2024, make a formal request to the CU Foundation to disclose its portfolio so that GHG emissions from that CU Boulder can quantify emissions from that portfolio by September 2024. Emissions will be

Draft Climate Action Plan Comments – University of Colorado Boulder

quantified using the GHG Protocol Partnership For Carbon Accounting (PCAF) standard.

By September, 2024, complete a carbon audit of CU Boulder's on balance-sheet investments (\$1.2 billion in short-term investments as of 2022) under the PCAF standard.

By September 2024, have the CU Boulder Chief Financial Officer issue official guidelines for the CU Boulder's own investment policy (including cash management) regarding assets with risk exposure to fossil fuels.

These requests are all made in the spirit of a broad-based campaign by the campus community for divestment from fossil fuels, and formal requests and resolutions by BFA, CUSG, and Fossil Free CU.

4. Include Athletics in the Scope 3 inventory. In a low-visibility footnote on p. 193, the university discloses for the first time that This inventory does not include CU Athletics, which is a separate organization from CU Boulder Campus. That exclusion is inconsistent with GHG accounting rules because the university has clear operational control over CU Athletics. The fact that Athletics is a separate organization does not exclude it from the accounting boundary. Indeed, the university did not attempt to exclude other auxiliary enterprises like housing and dining from its GHG inventory. CU Athletics is a large actor with potentially significant Scope 3 emissions in purchased goods and services, business travel, and franchises. The 2024 CAP should incorporate Athletics into the accounting boundary before the publication of the CAP, or no later than revision for Sept. 2024.

Until CU Athletics is included in the inventory, the CAP should clearly and prominently acknowledge its exclusion in pp. 14-15 by adding the following language: CU Athletics has been excluded from the Scope 3 inventory.

5. Complete purchased goods category, which appears to be substantially under-reported. The Purchased Goods and Services (PG&S) Category (Scope 3) appears to be considerably under-reported, and accounts for only a small fraction of emissions reported by peer institutions. The CAP should require this category's completion no later than September 2024. The completion will require three distinct actions:

First, only 5 purchase categories were included in the inventory, which the university recognizes may lead to significant under-measurement (p. 199). The university should collect all relevant purchase categories.

Second, instead of using emissions data from actual suppliers, the university used aggregated emissions factors, which are of little use to planning reductions (p. 200). The university should immediately work with a vendor like Sievo Procurement Analytics to obtain actual emissions

Draft Climate Action Plan Comments – University of Colorado Boulder

factors. The CAP Steering Committee should have contracted such a vendor when beginning its work in Sept. 2023.

Third, the CAP excluded Athletics, which is likely a large and rapidly growing source of PG&S emissions from the inventory. Athletics needs to be incorporated into the inventory.

The resulting PG&S inventory in the CAP is so incomplete that the purchased goods and services category is practically absent from the inventory. The CAP reported figure of 12,216 tCO₂e in emissions is under 3% of the 402,153 tCO₂e reported by Stanford. PG&S emissions by other universities like Cornell and Yale (270,261 and 164,766 tCO₂e respectively) further suggest that CU Boulder's inventory is incomplete for purposes of SBTi and the GHG Protocol Scope 3 Standards. All three universities have a smaller number of students than CU Boulder (Cornell being the largest with 22,000 students compared to CU Boulder's 33,000 students in 2019). All STARS reports including the data are linked below.

The under-reporting of one of the largest Scope 3 categories undermines the completeness of the Scope 3 inventory more generally. Until the CAP provides an appropriate the PG&S inventory, the CAP should acknowledge in the Executive Summary (pp. 14, 15) that At this point, the Purchased Goods & Services category is materially incomplete.

Links:

Stanford-- <https://reports.aashe.org/institutions/stanford-university-ca/report/2022-03-03/OP/air-climate/OP-1/>

Cornell -- <https://reports.aashe.org/institutions/cornell-university-ny/report/2022-03-03/OP/air-climate/OP-1/>

Yale -- <https://reports.aashe.org/institutions/yale-university-ct/report/2022-06-29/OP/air-climate/OP-1/>

1. Provide transparency around lifecycle assessments (LCAs) for new construction and other capital goods. LCAs are highly variable and can provide inaccurate results depending on several factors. To ensure accuracy, state the standard used for LCAs (does it follow applicable ISO guidelines?), state the scope and boundary of LCAs (i.e. just upfront embodied or full lifecycle, what omissions and assumptions are being made, where is the data sourced and what is its quality?), make LCAs publicly available, state which third party is verifying the LCAs, and state how results and recommendations will be handled.

2. Repurpose space to reduce new construction. The most effective way to reduce embodied carbon from new construction is to reduce the need for new construction. Many campus buildings are observed to have underutilized space including classrooms, offices, and laboratories. To take advantage of this space, commit to analyzing space utilization and

Draft Climate Action Plan Comments – University of Colorado Boulder

use this analysis to create a plan by the end of 2024 to reduce new construction by a certain percentage relative to BAU over the next 10 years. By reducing the need for new construction, excess capital will be available for pending energy efficiency and heating system upgrade retrofits.

3. Use flight-specific emissions factors. The 2024 CAP quantifies Scope 3 Business Travel emissions using a single emissions factor for miles travelled, which can be highly inaccurate due to, e.g., take-off and landing yielding the largest portion of flight emissions. Instead, the CAP should use flight-specific emissions factors which are already readily available in the Concur system used by the university. The use of individual emissions factors will enable the university to more accurately assess its emissions and pursue lower emission flight options like minimizing connections.

4. Clarify the RFI used to calculate flight emissions; use an RFI of 2.7. Please clarify whether the CAP uses an RFI of 2.4 or 2.7. As the CAP states, the IPCC and Stanford recommend a value of 2.7 (Appendix D, p. 13). However, the table on Appendix D, p. 21 states an RFI of 2.4. But, the university's calculated 32,041 Mt CO₂e appears closer to the recommended RFI of 2.7.

Example calculations:

56.7 million miles * 0.209 kg/mile * 2.4 RFI * 1000 kg/ton = 28440 MTCO₂e (which is close to the reported 28,400 value on Appendix D, p. 13)

56.7 million miles * .209 kg/mile * 2.7 * 1000 kg/ton = 32,000 Mt CO₂e (which is close to the figure actually reported for Category 6, business travel, emissions)

5. Ensure that all business air travel is booked through Concur or develop a system to account for outside booking. The CAP is unclear how significant the amount of business travel that occurs outside of the Concur platform (p.75: (Table 19) reports: High level data were available through CU travel booking partner; no survey for outside booking.) The CAP should either (1) mandate that all business travel must occur through Concur for all cases or (2) develop a specific way to account for outside booking. It would also be necessary to quantify off-Concur travel for 2019 baseline setting.

6. Include a breakdown of miles flown by branch (administrative, faculty, athletics, student, etc.) and department. Such granular flight-level data should be readily available from Concur and is necessary to identify and prioritize emissions reductions from air travel.

Draft Climate Action Plan Comments – University of Colorado Boulder

7. Remove inaccurate references to SBTi guidance regarding student and parent travel and include the category under the target. Category 9 (Downstream Transportation and Distribution; in CU Boulder’s case, out of state student and parent travel to and from campus for breaks and events) is included in the baseline inventory at a total of 56,504 MTCO_{2e}, making it the largest measured Scope 3 category in the inventory. However, this category has been excluded from the targets.

The CAP states that Category 9 has been excluded from targets due to the need for better underlying data and the limited sphere of influence the campus has on how and when people come and go from campus, per the SBTi guidance (p.41, 73). This language is incorrect. SBTi guidance on target-setting presumes the institution has already undertaken a full Scope 3 inventory and does not allow excluding certain categories because of lack of data or limited sphere of influence. Instead of excluding it based on unreliable data, the university should take immediate steps to collect such data (see separate comment). We also find the claim that CU Boulder has a limited sphere of influence on student travel to be unpersuasive—in a separate comment, we list concrete, actionable strategies that the university could take to limit emissions from student travel. It is unacceptable to exclude this significant Scope 3 category from targets and proper inventorying; without action, these emissions could continue to grow. We request that (1) the incorrect language be removed, and that (2) the student and parent travel emissions be included under the target.

8. Accelerate the timeline for accurately measuring Category 9, student travel. Given that this is the university’s largest estimated Scope 3 category and that current estimates are rough and imprecise, it is unacceptable not to even begin surveying students and families on their travel emissions until 2027 (p. 106). A comprehensive methodology for estimating these emissions has already been developed by Stanford University and the CAP should schedule its distribution to students no later than Fall 2024. The university should also include in-state students in this survey, since car trips to and from campus also produce emissions.

A white paper describing the Stanford methodology is available below:

https://sustainable.stanford.edu/sites/g/files/sbiybj26701/files/media/file/scope-3-emissions-from-student-travel_public-11-2023.pdf

9. Include specific strategies to address Scope 3, Category 9 (out of state student and parent travel). The strategies included for this category on pg. 28 amount to plans for unnecessarily delayed data collection (initiate surveys... and vague ideas (educate students and parents; explore options).

Draft Climate Action Plan Comments – University of Colorado Boulder

Specific strategies to reduce student travel have already been suggested on numerous occasions and should be adopted by this CAP. This includes but is not limited to:

End Fall Semester before Thanksgiving Break or go fully remote following Thanksgiving Break (which the Law School has already implemented);.

Offer video participation in commencement and other key events, starting Spring 2025.

Create a Spring Break in Colorado program to disincentivize air travel during this time starting Spring 2025.

Offer robust and targeted education to students and families about the climate impacts of air travel emissions starting with the Fall 2024 orientation.

10. Fix the calculation on Figure 19, p.77 of the CAP to properly account for increased flight demand. Demand for flights is likely to go up sharply in the future; therefore, if we plan to only reduce from our current baseline we will miss the target by 2050. In Figure 19 (p.77), the projected business travel emissions curves, the business as usual (BAU, orange) line [i.e., the expected 4% linear increase from 2019 levels, meaning over double by 2050] is where the business travel with Reductions (green) line should be subtracted from, not the baseline. Unless the university plans on mandating a baseline cap on business travel, it should fix this calculation to correct the inaccurate reductions estimate.

11. Provide the necessary reductions to meet the embodied carbon target on Figure 4, p.10 of the Scope 3 Measurements, Targets, and Future Plans section in the CAP, including properly accounting for increased demand in capital goods from BAU. Figure 4 (p.10): An embodied carbon reduction target line is necessary to show what must be done to meet the embodied carbon target line. These reductions will be greater than the distance between the baseline and the target line due to the BAU line (orange). The Business as Usual (orange) line [~40% linear increase between 2034 and 2050] is where the proposed embodied carbon reduction line should be subtracted from, not the baseline, as was done with business travel reductions on fig. 19 (p. 77). In other words, greater reductions will be necessary in years where the BAU diverges upwards from the baseline (~2034-2050).

12. Incorporate the following specific strategies to reduce business travel. The CAP does not provide concrete strategies to reduce paid business travel (see, e.g., p. 82). The voluntary programs suggested are highly unspecified. Further, the suggested prioritization of airlines with sustainable fuel use (SAF) can only lead to limited reductions,

Draft Climate Action Plan Comments – University of Colorado Boulder

which have not been quantified by the CAP. We are concerned that a focus on SAF will lead the university to neglect the critical reductions necessary in activity levels, i.e., miles travelled. In addition, so called sustainable aviation fuels have highly determinantal land-use outcomes. Instead, we suggest the CAP should adopt the following strategies:

-Adopt air travel reduction targets at a departmental level by Spring 2025. Targets will be set using historical averages as baseline (say, starting 2018, and excluding 2020-1 for COVID-19) of flights by each department and admin unit (including Athletics). The Executive Sustainability Council can adjust these budgets up or down according to mission-critical needs (e.g., travel required for grant work). The Executive Sustainability Council will also issue guidelines about prioritization of graduate students and early career faculty for whom travel has greater professional significance. Department chairs and heads of units will be responsible to stay within targets.

-Central administration will create a program to help organize remote conferences, and train departmental staff in how to organize those conferences. The program will begin operations no later than Spring 2025.

-To reduce flight emissions intensity, adopt a policy to limit the use of connecting flights by Spring 2025. This strategy would require a transition to flight-specific emissions data which is readily available on Concur (see separate comment).

The CAP should commit to strategies that address the equity connection between high commuting emissions, affordable housing, and income inequality. There is a strong connection between socioeconomic inequality, housing, and transportation emissions: if people cannot afford to live where they work, they are forced to live far away—often in places where public transportation is non-existent, inaccessible, or prohibitively expensive—and thus drive to work, increasing emissions. The lack of affordable housing in Boulder impacts CU Boulder's lowest-paid workers most acutely. While the CAP briefly notes that many students and staff commute from nearby cities to campus each day, in part due to the high cost of living in Boulder County, (p. 78) it does not seem to take this seriously in its emissions reductions strategies. Emissions reduction projections are based solely on an extrapolation from EV adoption rates (p. 82, and see our separate comment regarding the large quantitative mistake the CAP makes regarding that concept). Meanwhile, the tiered strategy tables on pp. 28 and 104 do not include any strategies related to housing or the cost of living in Boulder, and the strategies on Table 20 rely heavily on EVs.

Additional strategies that should be adopted include:

-Commit to paying employees a living wage, by initiating an immediate 20% Cost of Living Adjustment (COLA) and annual 6% COLA for graduate workers, non-tenure-track faculty, and staff, as demanded by UCW Colorado. Wage increases will help ensure that CU Boulder employees can live closer to campus, reducing VMT.

Draft Climate Action Plan Comments – University of Colorado Boulder

-By Fall 2026, outline a plan for creating affordable housing designated for or otherwise accessible students, faculty, and staff and/or annexing land for this purpose, as has been done for the CU South campus.

-Work directly with Boulder City Council to increase affordable and sustainable housing options near campus.

-Work directly with local governments and the Regional Transportation District (RTD) to expand public transit options that could serve CU Boulder's students, staff, and employees, particularly focusing on low-income and marginalized groups

-Maintain and expand remote or hybrid work options for staff whose work can be completed remotely.

Regarding EVs, the CAP should acknowledge that, while affordable charging is an essential component of making EVs more accessible to people across income spectrums, EVs are currently prohibitively expensive for many CU employees and thus the CAP should prioritize other strategies first. Furthermore, EV adoption comes with environmental injustice ramifications that must be considered, such as the mining of battery materials in an exploitative manner and without Free, Prior and Informed Consent of Indigenous populations.

I think the most important thing for the university in regards to its efforts to reduce its climate impact, is to first understand the impact we are making today. It makes it very difficult to measure the actual progress being made by the university when they fail to account for most of their emissions every year. It also skews total emission numbers when new emission sources are discovered and estimated yearly. Even if the university is successful in reducing existing emissions, when they report newly estimated sources alongside it can make it look like no progress has been made to the uneducated eye. Especially in regards to Scope 3 emissions, CU Boulder needs to do a much better job accounting for what is included in this category as well as implementing methods to estimate emissions from said sources. CU Boulder is much behind leading universities such as Stanford in this area (just 5 self reported spending categories compared to Stanford's 1,065), and while we are making efforts to catch up, it would be best to prioritize a full accounting of our S3 emissions to know what our impacts truly are, as other universities such as the University of Copenhagen report S3 emission proportions as high as 90%. Once we get this full accounting it would be much easier to determine where our biggest source of emissions are, as well as the most efficient way to prioritize lowering categories within our S3 emissions. It is scary to think that our biggest source of emission could be something we haven't realized yet since it hasn't been estimated.

Draft Climate Action Plan Comments – University of Colorado Boulder

Many thanks to all of the authors of the draft CU Boulder Climate Action Plan (CAP). I appreciate the hard work and long hours that you put into writing this. Thank you also for the opportunity to provide comments and feedback on the draft CAP. I hope my comments and feedback can be helpful in strengthening the CAP and in formulating a document that moves the university forward constructively on climate action.

I am an Associate Professor in the Department of Environmental Studies at CU Boulder. My research and teaching address questions around land use, sustainable agriculture, food systems, and rural livelihoods. I have taught classes on food systems and the environment at CU Boulder since 2015. I also sit on the university's Sustainability Council, as one of three invited faculty members.

My comments and feedback relate principally to the ways in which the CAP addresses food systems. While food system emissions may be a relatively modest part of the university's total emissions, I focus on them for a number of reasons. First, as one of only a few faculty on campus with expertise in food and the environment, this domain may be where I can be most helpful. Second, food emissions account for around a third of global human caused GHG emissions (Crippa et al. 2021) and without addressing food system emissions it may not be possible to meet global climate goals (Clark et al. 2020); as such, it is extremely important (at a global scale) to consider food system emissions. To the extent that CU Boulder aspires to be a leader in sustainability, it could be helpful for the campus to demonstrate how large public institutions can effectively reduce food system emissions. Third, if the university's goal is net zero emissions, then the campus will need to address all sources of emissions, regardless of the proportion of the total that they account for. This includes food system emissions. Fourth, addressing food system emissions is something that can be done in the very immediate future, without waiting for the construction of new systems or infrastructure. Fifth, addressing food system emissions could be relatively cheap or even net positive in terms of finances. Sixth, addressing food system emissions is something that can be done through individual and collective action, including by students.

I have a few major comments, and then a couple of relatively minor ones.

MAJOR COMMENTS

First, throughout the CAP, the main action items related to food are 1) Establish a food recovery program... and 2) Increase percentage of locally-grown foods purchased and plant-based meals served (e.g., Table 8, page 28, and then repeatedly throughout the CAP). These are frequently listed as though they are just two different actions, but I believe it is important to recognize that these are actually three different action items and they should be written, presented, and treated as such. That is, purchasing locally-grown foods is an entirely different strategy than serving more plant-based foods. These should be separated out into different lines. This is important because a) it does not appear to make logical sense to combine them, when each could be enacted independently of the other, b) combining them risks confusing and conflating subsequent decision-making, prioritization, measurement, and reporting, and c) as I

Draft Climate Action Plan Comments – University of Colorado Boulder

will show, there is very little evidence to suggest that buying locally-grown food will reduce GHG emissions but there is very strong evidence to suggest that serving more plant-based meals could reduce GHG emissions.

Second, I wish to address the proposed action to purchase a greater percentage of locally-grown food (defined (on p193 of the CAP PDF (p9 of the appendix 'Scope 3 Measurements, Targets and Future Plans')) without a clear rationale as within 250 miles of Boulder). What is the evidence that leads the authors of the draft CAP to believe that this is likely to be an effective way to reduce GHG emissions? A theory-of-change is loosely introduced (...increasing the purchase of locally-grown... foods will also reduce transportation, page 84) but no evidence is cited here or elsewhere to support this proposition. Why is no evidence cited? I am skeptical that such evidence exists. I have been teaching classes on food systems and the environment for nearly a decade, and I track the literature on food systems closely. I am not aware of any compelling evidence to support the proposition that buying more local food is likely to meaningfully reduce GHG emissions. Indeed, to the contrary, I think there is a lot of evidence to suggest that buying local food will not have a meaningful impact on food system GHG emissions. This data- and evidence-based essay from Our World In Data explains why:

<https://ourworldindata.org/food-choice-vs-eating-local>. Similarly, in a TEDx talk that I gave in 2017, I explain why I believe the idea of 'food miles' (the belief that buying local food will meaningfully reduce emissions) is misguided:

https://www.ted.com/talks/peter_newton_failing_to_go_the_distance_what_s_the_beef_with_food_miles?hasSummary=true. Indeed, I go slightly further and suggest that buying local food could actually increase emissions. The short summary is: Food transportation accounts for an extremely small fraction of food system emissions (e.g., Weber & Matthews 2008). The vast majority of emissions from food systems comes from on-farm practices (i.e., agriculture and livestock production, on the farm itself) (e.g., Tubiello et al. 2021). So, the potential gains from reducing the distance from producer to retailer (which is all that local food does) are very marginal at best. But moreover, if buying or supporting local food means growing food in places that are not optimal for the production of that food (e.g., in terms of soil, climate, or water availability) then it is very likely that the additional GHG emissions that result from the inefficiency of producing food in sub-optimal places will quickly outweigh any minor savings from reducing transportation distances (e.g., Webb et al. 2013). Worse still, if the university invests in trying to buy more local food: a) it will almost certainly cost more money (local food is usually more expensive, in large part because of the inefficiencies involved in producing it), thus either increasing food costs for students (an equity concern) or wasting money that could have been better spent on more effective measures, and b) it risks i) distracting attention from other actions that would actually reduce emissions and ii) expending valuable time, energy, effort, and resources that could have been directed towards more effective alternative actions. In sum, I know of no substantial evidence that suggests that purchasing locally-grown food will meaningfully reduce GHG emissions; there is lots of evidence that suggest that purchasing locally-grown food will NOT meaningfully reduce GHG emissions; and there are some good reasons to think that this action could perversely increase emissions. This

Draft Climate Action Plan Comments – University of Colorado Boulder

conclusion is mirrored by the ever-increasing number of analyses that compare alternative climate actions in terms of their potential efficacy. To cite just one example, the renowned Project Drawdown initiative (which quantifies the potential contribution of different actions to reduce GHG emissions) lists reduced food waste and plant-rich diets as its #1 and #2, respectively, most impactful actions under its 'Scenario 1' list of solutions (<https://drawdown.org/solutions/table-of-solutions>) but 'buy local food' does not appear anywhere in its assessment of useful solutions. I strongly encourage the authors of the draft CAP to either a) provide strong evidence to justify the inclusion of this action in the CAP or b) eliminate the suggestion to 'purchase more locally-grown food' from the CAP.

Third, on the proposed action to serve more plant-based meals. I support this proposed action, since there is very strong evidence to suggest that shifts towards more plant-based foods will very likely reduce food system emissions (e.g., Scarborough et al. 2023, Poore & Nemecek 2018). Indeed, there is specific evidence that offering a higher proportion of plant-based meals in a college dining context can increase student choice of plant-based options (Garnett et al. 2019). However, there are additionally some more nuanced distinctions to draw and to act upon in this domain that are not adequately captured by the proposition to simply 'serve more plant-based meals'. These distinctions are well-illustrated by the Poore & Nemecek (2018) paper, which is a landmark analysis (published in *Science* and cited >4,400 times since 2018) in its compilation of life-cycle emissions data for a range of food items sourced from ~38,000 farms around the world. The paper's findings align with a vast literature that indicates that ruminant products (i.e., food products from cows, sheep, and goats) typically have a much, much higher emissions intensity than do other animal products, which in turn typically have a higher emissions intensity than do plant products. Please, open the Poore & Nemecek (2018) paper and take a moment to look at the relative emissions intensity of different food items, conveyed in Figure 1, which is the crux of the analysis. Note that the authors had to rescale the x-axis for beef and lamb, because the emissions intensity of ruminant meat (beef and lamb) is an order of magnitude higher than other food products! It is true that this is a global analysis, and that beef production in the US is likely less emissions-intensive than in many places in the world. Nonetheless, even if the beef that CU Boulder dining services is procuring is at the 10th-percentile (i.e., even if it is among the very least emissions-intensive beef in the world) then, at 20 kg CO₂eq per 100g of protein, that beef is still 3.5 times more emissions-intensive than the average chicken meat, 20 times more emissions-intensive than the same amount of protein from tofu, and 50 times more emissions-intensive than 100g of protein from peas. I have no reason to believe that campus dining is actually buying such (relatively) low-emissions beef; if it is not, then the differentials between beef and alternative sources of protein are actually (much) higher. All of this is to say that, serving more plant-based meals could be a very meaningful action and I believe it should remain in the CAP. But ceasing to serve beef and lamb would almost certainly have a much more dramatic and immediate impact on food system emissions on campus. This has demonstrably been the case elsewhere: for example, the University of Cambridge in the UK eliminated beef and lamb from campus dining and

Draft Climate Action Plan Comments – University of Colorado Boulder

through that single action reported that it reduced its food system emissions by 33% (e.g., <https://www.cam.ac.uk/news/removing-beef-and-lamb-from-menu-dramatically-reduces-food-related-carbon-emissions-at-cambridge>). A policy paper by Ripple et al. (2014) makes the case for reducing ruminant consumption as a climate change mitigation strategy. To make one further point, the climate impact of 'serve more plant-based meals' very much depends on what substitutive effect it has. For example, the mitigation potential of a switch from a beef-based meal (average 50 kg CO₂eq per 100g of protein; best-case 20 kg CO₂eq per 100g of protein) to a chicken-based meal (average 5.7 kg CO₂eq per 100g of protein) is much larger in magnitude than a switch from a chicken-based meal to a tofu-based meal (average 2.0 kg CO₂eq per 100g of protein). So, serving more plant-based meals will do much more to reduce emissions if those plant-based meals serve as a substitute for beef consumption than if they serve as a substitute for chicken consumption. Eliminating beef and lamb from campus dining could also have co-benefits with human health. There can be strong synergies between food choices that have lower environmental impact and those associated with improved health. As Clark et al. (2019) show, ...of the foods associated with improved health (whole grain cereals, fruits, vegetables, legumes, nuts, olive oil, and fish), all except fish have among the lowest environmental impacts, and fish has markedly lower impacts than red meats and processed meats. Foods associated with the largest negative environmental impacts—unprocessed and processed red meat—are consistently associated with the largest increases in disease risk. Eliminating beef and lamb could thus not only dramatically reduce GHG emissions but could also promote positive health outcomes.

Finally, on page 7 of the appendix 'Scope 3 Measurements, Targets and Future Plans' (p 199 of the CAP PDF) there is a single stated emissions factor for food of 0.155 kg CO₂eq/\$ spent. However, it is likely inappropriate and misleading to use a single emissions factor for all food. As demonstrated by Poore & Nemecek (2018) and also by Clark et al. (2022), the emissions intensity of food items varies dramatically - by more than an order of magnitude. Using a single emissions factor hides the dramatic improvements in food systems emissions that could be gained by procuring and serving a smaller quantity of emissions-intensive foods (e.g., beef) and procuring and substituting such food with a larger quantity of much less emissions-intensive foods (e.g., plants).

MINOR COMMENTS

The following are relatively minor points. Nonetheless, we are a university community that should be committed to truth, accuracy, data, and evidence. As such, I believe that the CAP should be based on accurate claims supported by evidence and data and so the following points are worth addressing.

Page 90 providing sustainable dining options, such as locally sourced, organic food, can promote healthy eating habits among students. This statement seems to imply that locally-sourced food is healthier than non-locally-sourced food and that organic food is healthier than food produced by non-USDA Organic production systems. What is the evidence that leads the authors of the draft CAP to believe these two things? I

Draft Climate Action Plan Comments – University of Colorado Boulder

know of no compelling evidence that local food is healthier. If you have compelling evidence for this claim, please cite it in the CAP. The evidence around the relative healthiness of organic food is very mixed. The two most comprehensive systematic reviews I know of indicate that: 1) the health benefits of organic foods are unclear and that The published literature lacks strong evidence that organic foods are significantly more nutritious than conventional foods. (Smith-Spangler et al. 2012), and 2) organic crops ...on average, have higher concentrations of antioxidants, lower concentrations of Cd and have significantly lower concentrations of proteins, amino acids and fibre (Barański et al. 2014). If you have compelling evidence that organic food is healthier, please cite it in the CAP. On the other hand, there is strong evidence that eating a plant-forward diet rich in whole grains, fruits, and vegetables can contribute to human health (e.g., Medawar et al. 2019 and, just recently, Landry et al. 2023 (an identical twin study)). My understanding of the literature is that the principal determining factor here is whether or not a person consumes plenty of whole grains, fruits, and vegetables, and that it is far less relevant whether the foods that supply such a plant-rich diet are produced locally or further way, or whether they are produced using USDA Organic agriculture or not. Since local food and organic food are often (much) more expensive, falsely emphasizing the importance of these traits could mislead students into thinking they must spend more money than they really need to in order to consume a healthy diet rich in whole grains, fruits, and vegetables. Such a misconception would be especially unjust to students from less economically privileged backgrounds.

Page 90 This is in addition to the carbon savings that can accrue to food waste programs by reducing the significant amounts of emissions associated with nitrogen fertilizer used to grow food, and fuel to transport it long distances. It is unclear to me what is being proposed here; the logic and theory of change is unclear to me. I suggest either clarifying this claim and supporting it with evidence, or removing it from the CAP.

Conclusion

Thanks again for the opportunity to provide feedback here and thank you again to the authors of this draft for their hard work. In the event that I could be useful to you as you revise the CAP, I would be willing to lend my expertise to the parts of the CAP that relate to food systems. You can contact me at: peter.newton@colorado.edu.

Peter Newton
Associate Professor
Department of Environmental Studies

References

Barański, M., Średnicka-Tober, D., Volakakis, N., Seal, C., Sanderson, R., Stewart, G. B., ... & Leifert, C. (2014). Higher antioxidant and lower cadmium concentrations and lower incidence of pesticide residues in organically grown crops: a systematic literature review and meta-analyses. *British Journal of Nutrition*, 112(5), 794-811.

Draft Climate Action Plan Comments – University of Colorado Boulder

Clark, M. A., Domingo, N. G., Colgan, K., Thakrar, S. K., Tilman, D., Lynch, J., ... & Hill, J. D. (2020). Global food system emissions could preclude achieving the 1.5 and 2 C climate change targets. *Science*, 370(6517), 705-708.

Clark, M. A., Springmann, M., Hill, J., & Tilman, D. (2019). Multiple health and environmental impacts of foods. *Proceedings of the National Academy of Sciences*, 116(46), 23357-23362.

Crippa, M., Solazzo, E., Guizzardi, D., Monforti-Ferrario, F., Tubiello, F. N., & Leip, A. J. N. F. (2021). Food systems are responsible for a third of global anthropogenic GHG emissions. *Nature Food*, 2(3), 198-209.

Garnett, E. E., Balmford, A., Sandbrook, C., Pilling, M. A., & Marteau, T. M. (2019). Impact of increasing vegetarian availability on meal selection and sales in cafeterias. *Proceedings of the National Academy of Sciences*, 116(42), 20923-20929.

Landry, M. J., Ward, C. P., Cunanan, K. M., Durand, L. R., Perelman, D., Robinson, J. L., ... & Gardner, C. D. (2023). Cardiometabolic Effects of Omnivorous vs Vegan Diets in Identical Twins: A Randomized Clinical Trial. *JAMA Network Open*, 6(11), e2344457-e2344457.

Medawar, E., Huhn, S., Villringer, A., & Veronica Witte, A. (2019). The effects of plant-based diets on the body and the brain: a systematic review. *Translational Psychiatry*, 9(1), 226.

Ripple, W. J., Smith, P., Haberl, H., Montzka, S. A., McAlpine, C., & Boucher, D. H. (2014). Ruminants, climate change and climate policy. *Nature Climate Change*, 4(1), 2-5.

Scarborough, P., Clark, M., Cobiac, L., Papier, K., Knuppel, A., Lynch, J., ... & Springmann, M. (2023). Vegans, vegetarians, fish-eaters and meat-eaters in the UK show discrepant environmental impacts. *Nature Food*, 4(7), 565-574.

Smith-Spangler, C., Brandeau, M. L., Hunter, G. E., Bavinger, J. C., Pearson, M., Eschbach, P. J., ... & Bravata, D. M. (2012). Are organic foods safer or healthier than conventional alternatives? A systematic review. *Annals of Internal Medicine*, 157(5), 348-366.

Tubiello, F. N., Rosenzweig, C., Conchedda, G., Karl, K., Gütschow, J., Xueyao, P., ... & Sandalow, D. (2021). Greenhouse gas emissions from food systems: building the evidence base. *Environmental Research Letters*, 16(6), 065007.

Weber, C. L., & Matthews, H. S. (2008). Food-miles and the relative climate impacts of food choices in the United States. *Environ. Sci. Technol.* 42, 10, 3508-3513

Webb, J., Williams, A. G., Hope, E., Evans, D., & Moorhouse, E. (2013). Do foods imported into the UK have a greater environmental impact than the same foods produced within the UK?. *The International Journal of Life Cycle Assessment*, 18, 1325-1343.

Draft Climate Action Plan Comments – University of Colorado Boulder

Please include and account for more scope three categories.

By no later than Jan 1, 2025, develop concrete, actionable, time-bound, and budgeted emissions reductions strategies for every Scope 3 category and model these strategies' abilities to meet the targets. CU should allow students to assist in collecting data and establishing strategies.

Thanks so much for coming to speak with my leadership team in the University Libraries. I wanted to mention here the question we asked which was about emissions for cloud computing since most of our current enterprise types of applications fit this bill with AWS, Google, or Azure Cloud Computing contracts and so do many of our research areas now that Google has pretty good research computing options in Google Cloud HPC solutions.

We need to create a more complete and accurate analysis of our Scope 3 Emissions. We should not be waiting years to create this Scope 3 analysis; rather, we need to incorporate a comprehensive Scope 3 analysis into this current Climate Action Plan. There are perfectly good models of methods of S3 calculations, especially ones from Stanford and Yale, that CU Boulder should be following. There is not an excuse to purposefully exclude categories of Scope 3 emissions, especially when CU Boulder only has to follow in other universities' footsteps. It is of utmost importance for CU Boulder to accurately identify all sources of emissions, especially as it is impossible to generate a solution when a large portion of the issue is not quantified accurately. By properly accounting for all Scope 3 emissions, CU Boulder will have the knowledge required to effectively reduce its real emissions.

While it is a positive step to utilize SBTi guidelines, CU Boulder must join SBTi for accountability purposes to make the progress necessary to effectively mitigate emissions and protect the environment. CU Boulder's former Climate Action Plan failed to meet a 20% decrease in emissions over the course of 15 years, and without third party accountability, CU Boulder is significantly more likely to fall short of the newly developed goals. CU's goals in this Climate Action Plan are, and must be, more aggressive, so the University needs third party intervention to ensure progress in

Draft Climate Action Plan Comments – University of Colorado Boulder

line with emissions reductions goals. CU Boulder must establish an SBTi-conforming emissions target, allow SBTi inventory management, and conform to SBTi Scope 3 standards.

Since the campus heating system contributes 18.8% to CU Boulder's emissions, the transition from inefficient, fossil fuel-burning boilers must be prioritized. The goal of implementing the first phase of replacement heating by 2035 is not aggressive enough. The University needs to start transitioning to heat pumps by 2030 at the latest. If the budget is going to be approved by 2025, 5 years will be ample time to begin the crossover, and waiting longer than that is not treating the climate crisis with the severity it demands.

The lack of concrete goals for large sources of Scope 3 emissions is another opportunity to improve the CAP. Emissions from athletics, purchased goods, and investments (among other sources) ARE crucial sources of emissions that need to be accounted for to truly achieve carbon neutrality. Omitting these sources from emissions estimates is dishonest. A complete Scope 3 inventory needs to be completed by January 1, 2025 so that honest goals can be set for limiting these important emissions. Tools like SIMAP already have functionality for estimating broader sources of emissions and should be utilized.

Scope 3 emissions are CU Boulder's largest category of emissions (even by the current undercount) and represent an enormous opportunity to take leadership with ripple effects for the university's suppliers and community, but the current CAP does not take Scope 3 seriously enough. It misses several key criteria of SBTi when it comes to Scope 3, notably failing to conduct a full Scope 3 inventory. Furthermore, Scope 3 strategies remain highly underdeveloped and amount to vague statements and plans to make plans (i.e. facilitate discussion; make surveys, explore options). To ensure an adequate plan for Scope 3 the CAP should 1) complete the Scope 3 inventory by including emissions from athletics and investments 2) improve measurement strategies and conduct necessary surveys for underreported (ie Purchased Goods and Services) or loosely estimated (ie Category 9, student travel) emissions, 3) develop concrete, actionable and equity-advancing strategies to reduce Scope 3 emissions, and 4) model those strategies' ability to meet the 50% reduction by 2030 target. These actions should be completed no later than Jan 1, 2025, as cutting Scope 3 emissions in half by 2030 is an urgent task that must begin as soon as possible. The university can get to work on the more fleshed out strategies as it completes its Scope 3 work to give a fuller picture of what is required.

In more specific regards to my recommendation (1), the exclusion of Investments (Category 15) and Athletics across the board, CU Boulder is showing inconsistency with GHG accounting rules. CU Boulder claims that investments are ... not within the authority or Scope of the CU Boulder CAP (e.g., pp. 42, 73) since they are part of the CU system. However, CU Boulder's role as a large beneficiary of the CU Endowment means that

Draft Climate Action Plan Comments – University of Colorado Boulder

emissions financed by the CU Endowment are indeed within CU Boulder's accounting boundary under GHG accounting rules (in proportion to CUB's share of the benefit - 372,000 tCO₂e). Plus, CU Boulder is the legal owner of \$1.2 billion in current investments, which should be included. The CAP should include these emissions. The university justifies excluding Athletics because it is a separate organization (Appendix D pg 1) but this does not exclude it from the accounting boundary any less than housing, dining, or other auxiliary enterprises. CU Boulder Athletics is a significant part of campus culture and a large actor with potentially significant (and increasing) Scope 3 emissions in purchased goods and services, business travel, and franchises. The 2024 CAP should incorporate Athletics into the accounting boundary ideally before the official publication of the CAP, and at latest by September 2024.

In regards to point (2), the CAP should take the following actions to complete inventories, improve measurements, and provide missing data: 1) For Category 6 (Business Travel) clarify whether the CAP uses an RFI of 2.4 or 2.7; ensure all business air travel is booked through Concur for complete accounting; properly account for increased flight demand; and include a breakdown of miles flown by branch (administrative, faculty, athletics, student, etc.) and department. 2) For Category 9 (downstream transport and distribution), the CAP should accelerate the timeline for accurately measuring Category 9, student travel, by distributing a comprehensive survey developed by Stanford University to students no later than Fall 2024.

Finally, the CAP should significantly build out Scope 3 strategies that are currently lacking in specifics, timelines, and clearly designated plans. The SMARTIE (Strategic, Measurable, Ambitious, Realistic, Time-bound, Inclusive, and Equitable) goals framework is recommended for this. This includes but is not limited to 1) For Category 9, end Fall Semester before Thanksgiving Break or go fully remote following Thanksgiving Break; Offer video participation in commencement and other key events, starting Spring 2025; Create a Spring Break in Colorado program to disincentivize air travel during this time starting Spring 2025; Offer robust and targeted education to students and families about the climate impacts of air travel emissions starting with the Fall 2024 orientation. 2) For Category 6, adopt air travel reduction targets at a departmental level create a program to help organize remote conferences, and train departmental staff in how to organize those conferences, adopt a policy to limit the use of connecting flights, all by Spring 2025.

As a housing justice advocate, I am especially concerned about the strategies for Category 7, employee and student commuting. The CAP should commit to strategies that address the equity connection between high commuting emissions, affordable housing, and income inequality. There is a strong connection between socioeconomic inequality, housing, and transportation emissions: if people cannot afford to live where they work, they are forced to live far away—often in places where public transportation is non-existent, inaccessible, or prohibitively expensive—and thus drive to work, increasing emissions. The lack of affordable housing in Boulder impacts CU Boulder's lowest-paid workers most acutely. While the CAP briefly notes that many students and staff commute from nearby cities to campus each day, in part due to the high cost of living

Draft Climate Action Plan Comments – University of Colorado Boulder

in Boulder County, (p. 78) it does not seem to take this seriously in its emissions reductions strategies. Emissions reduction projections are based solely on an extrapolation from EV adoption rates (p. 82, and see our separate comment regarding the large quantitative mistake the CAP makes regarding that concept). Meanwhile, the tiered strategy tables on p. 28 and 104 do not include any strategies related to housing or cost of living in Boulder, and the strategies on Table 20 rely heavily on EVs. Additional strategies that should be adopted include: 1) Commit to paying employees a living wage, by initiating an immediate 20% Cost of Living Adjustment (COLA) and annual 6% COLA for graduate workers, non-tenure-track faculty, and staff, as demanded by UCW Colorado. Wage increases will help ensure that CU Boulder employees can live closer to campus, reducing VMT. 2) By Fall 2026, outline a plan for creating affordable housing designated for or otherwise accessible students, faculty, and staff and/or annexing land for this purpose, as has been done for the CU South campus. 3) Work directly with Boulder City Council to increase affordable and sustainable housing options near campus. 4) Work directly with local governments and the Regional Transportation District (RTD) to expand public transit options that could serve CU Boulder's students, staff, and employees, particularly focusing on low-income and marginalized groups 5) Maintain and expand remote or hybrid work options for staff whose work can be completed remotely. 6) Regarding EVs, the CAP should acknowledge that, while affordable charging is an essential component of making EVs more accessible to people across income spectrums, EVs are currently prohibitively expensive for many CU employees and thus the CAP should prioritize other strategies first. Furthermore, EV adoption comes with environmental injustice ramifications that must be considered, such as the mining of battery materials in an exploitative manner and without Free, Prior and Informed Consent of Indigenous populations.

As long as these gaps go unaddressed or are in progress, the CAP should avoid misleading claims about its Scope 3 inventory and strategies. For example, the CAP claims that 67% of Scope 3 emissions are covered by the target in accordance with SBTi criteria (P14, P41, P73, P80); this is highly misleading. SBTi requires companies to complete a full Scope 3 inventory before creating targets that cover at least two-thirds of emissions (see SBTi Criteria and Recommendations, 2023); since CU Boulder has not done this, it should not yet make this claim until it includes at minimum (a) Category 15 Investment emissions; (b) full accounting of Purchased Goods and Services emissions; (c) Athletics department emissions. The CAP should also correct misleading language around Scope 3 targets and SBTi requirements. It appears that the CAP is relying on, and further mischaracterizing, an outdated version of SBTi guidance from 2020 in a way that undermines the importance and specificity of Scope 3 targets. For instance, the statement Scope 3 targets generally need not be science-based (p. 80, Appendix D, p. 6) is absolutely not accurate according to current SBTi guidance which stipulates that Scope 3 targets should be consistent with limiting global warming to 2 degrees Celsius above pre-industrial levels (see SBTi Criteria, 2023, Category 18, p. 13). The statement SBTi does not provide a specific percentage reduction target for Scope 3 emissions. Instead, it advocates for setting targets that are 'ambitious and measurable (p 80) is also incorrect; SBTi does provide a specific percentage reduction target for Scope 3 emissions. See

Draft Climate Action Plan Comments – University of Colorado Boulder

Target Validation Protocol for Near-term Targets, Version 3.1 March 2023, pg. 39. For near-term Scope 3 targets, the minimum ambition is a 2.5% annual reduction between the base year and the target year. Finally, the CAP states that Category 9 has been excluded from targets due to the need for better underlying data and the limited sphere of influence the campus has on how and when people come and go from campus, per the SBTi guidance (p.41, 73). This language is also incorrect. SBTi guidance on target-setting presumes the institution has already undertaken a full Scope 3 inventory and does not allow excluding certain categories because of lack of data or limited sphere of influence. Instead of excluding it based on unreliable data, the university should take immediate steps to collect such data, as detailed above.

The inclusion of students on this project could shed new and innovate light on the plan. Not just student input via forums or commentary periods but help with designing and constructing as well. For instance, the Environmental Design program has partnered with the City of Boulder in past years to help with projects the city was doing. If the plan could include one of the student bodies that has relevant knowledge and experience to help design parts of the CAP, there may be ideas shared that weren't thought of by the faculty/staff planning committee.

It's absolutely essential that the CAP include a complete inventory of current 3 emissions (including frequently omitted areas like food, purchasing, and investments), and for CU and the sustainability council (including strong student and professor leadership) to put together a concrete plan by 2025 to reduce scope 3 emissions in all areas. Scope 3 is often the largest portion of total emissions, and the fact that CU so far has not accurately reported on or included an in-depth plan for eliminating scope 3 emissions in the CAP seems to signal that CU is more concerned with its image as a sustainable school and the easiest path to 'decarbonization' than truly being dedicated to ensuring livable and climate just future for the students that have trusted this institution with their precious time, minds, and money. I'd also like to see far stronger support and opportunity for students to play a role in helping collect data on scope 3 emissions and make suggestions that are given real consideration to mitigate those emissions - CU is full of innovators and leaders in sustainability, and the fact that students aren't more included and supported in creating solutions for decarbonization robs CU Boulder of vital solutions to the issues that it so far has failed to address rapidly and effectively enough, and robs students of the opportunity to gain real experience in creating sustainable systems and become the leaders and innovators that this school seeks to support them in becoming.

How do you plan to foster lower-impact transportation options? The plan to have campus closed from Fall break to Winter break was shot down, even though the most amount of travel occurs during this time in a very short time frame. Is CU Boulder going to invest more heavily in public

Draft Climate Action Plan Comments – University of Colorado Boulder

transportation options and create new bus lines with electric buses? Is CU Boulder going to try and influence local property managers to lower rents so that more people can live in Boulder instead of having to commute from the suburbs?

The University of Colorado Boulder should be commended for its commitment to reducing carbon emissions in line with climate goals. However, the draft Climate Action Plan (CAP) does not go far enough towards making our campus and community more sustainable. First and foremost, investments in fossil fuels, though controlled at the University System level, need to be considered in full as scope 3 emissions. While Boulder itself may not have the direct ability to alter how the University System chooses to invest, CU Boulder is still by some estimates responsible for \$146 million of fossil fuel investments, contributing 372,000 MTCO_{2e} of emissions. This is more than double all scope 1 and 2 emissions combined. Regardless of who makes the decision to invest this money, these are still emissions that CU Boulder is responsible for and must include in any accurate reflection of the current state of emissions. Failing to include investments in fossil fuels in scope 3 emissions is a bad-faith representation of total university emissions.

Furthermore, although CU Boulder does not have direct control over fossil fuel investments, steps should be taken to influence the University System to divest. CU Boulder is the flagship school of the University of Colorado System, with more than half of the total student population of the system. Surely the leadership of CU Boulder has influence over the decisions of the Board of Regents, even if the Board ultimately makes the final decisions. Therefore, CU Boulder's CAP should include a plan for how to encourage the University System to divest from fossil fuel. The Board of Regents has expressed an interest in studying the idea of divestment as recently as 2023, and having the largest school in the system advocating for this change might help push the regents in the direction of divestment.

Second, I understand that CAPs typically focus on carbon emissions and co-benefits. However, I would like to encourage the university to consider adding a section on plans to reduce water consumption on campus and in the community. While CU Boulder undoubtedly has enough water rights secured to maintain our current water use, it is essential for even senior water rights holders to continue to conserve water so that it can be equitably distributed across the state and beyond. Climate change is water change in Colorado. As climate change continues to warm our state, cause frequent droughts, and shift seasonal flows, water control is absolutely a part of climate action that must be planned for. The university has a responsibility not only to its students, but also to people downstream as well as to river ecosystems. Water conservation should be a top priority of the university and should therefore be included in the CAP.

I think the most critical part of CU's climate action plan (that was only briefly touched on) is increasing plant-based meals. Many of my peers are vegetarian, vegan, or have expressed interest in trying to eat less

Draft Climate Action Plan Comments – University of Colorado Boulder

meat and dairy products- let's make these environmentally conscious choices accessible.

Include emissions from investments, CU Athletics, and a full accounting of purchased goods and services. Disclose the university's stake in the Limelight Hotel and include its emissions if required by emissions reporting rules.

By no later than Jan 1, 2025, develop concrete, actionable, time-bound, and budgeted emissions reductions strategies for every Scope 3 category and model these strategies' abilities to meet the targets. CU should allow students to assist in collecting data and establishing strategies. Many Scope 3 strategies amount to vague statements and plans to make plans (i.e. facilitate discussion; make surveys, explore options). Unless these strategies are spelled out in detail, there is little hope of reaching Scope 3 targets.

1. Change the academic calendar to reduce the flight emissions of students by one third. If students start 2 weeks earlier in Aug, they can have a longer break from November - January, and therefore need to take one fewer flight each year. This costs the university nothing, and makes a significant difference.
2. Reimplement compost as a university-wide practice. This is a discipline we know how to do as a community, and it must happen.

The implications of emissions reduction strategies relevant to fossil fuel-related investments, CU athletics, and purchased products should be clear and transparent in defined emissions targets.

Why didn't CU take responsibility for categories 10-12 and 15. As far as everyone on campus can see CU buys and consumes merchandise and products on a daily basis. Therefore, CU has a responsibility to encourage better consumption habits on campus to reduce this emission rather than just ignoring it.

Also Athletics contributes significantly to all of these emissions categories are we just going to ignore the fact that \$70 million dollars is being allocated to coach prime and all the carbon emissions associated with the publicity, travel, and football program. There was not one mention of the increase in emissions due to Coach prime.

Regarding category 15 investments of scope 3. While CU doesn't have direct control over this metric, they are still a direct beneficiary of the endowment fund. The university receives a significant amount of money due to fossil fuel investment which in tandem harms the reputation of the university as they are now associated with gaining money from oil companies. There should be better public disclosure over the investments and what the entire CU system holds its investments in, the lack of

Draft Climate Action Plan Comments – University of Colorado Boulder

transparency hurts the university's reputation. Also no student wants its research project for climate change to be funded by Phillips 66.

There should be more actionable goals around transportation especially the flights to and from Colorado from students. Maybe have a better system for move in and move out. There is no need to rush students out of the dorms so fast you give them 24 hours to get out. They quite literally have no time to pack up anything and of course they are going to throw everything out. Maybe have better travel systems in place and encourage students to stay over breaks for educational programs so they are not flying back and forth every weekend.

Overall very scarce research done on scope 3 and therefore very scare actionable plans to reduce scope 3 emissions.

Considering that paid business travel (pages 13 and 14) is a leading source of emissions, the points raised in Strategies to reduce emissions from paid business travel do not have a path to implementation. For example, one of the points says Reduce conference and travel budget to conferences by 50%. But how would the implementation look? Would it be a cut across all departments and colleges or will those that make up the most be penalized more? Details on implementation are generally lacking in this area.

Please provide a breakdown of all scope 3 emissions department by department (or college by college). Due to the varying sizes of departments, this variance is not clear and we would benefit from this knowledge which can be used to inform the implementation plan.

In regards to the Scope 3 targets table on page 82, there is an annual 7% reduction applied to all Scope 3 categories. It is not clear how this projection is attainable or even makes sense. There are no sources to back up these figures other than CU has acknowledged other university plans in place and is making reasonable estimates. I do not see how this projection is realistic or attainable at all. Is there going to be any annual accountability to see if these targets are being met?

Co-Benefits

I would like to ask that the CAP steering committee develop and fund specific climate justice strategies that tangibly benefit marginalized communities.

For example, currently, the CAP designates some strategies as having an equity co-benefit, but does not explain what specific equity measures these strategies will have. Instead of only being a part of certain strategies, equity should be a priority throughout the plan. To accomplish this, the CAP should build on existing analyses by the CAP Equity Subcommittee, whose work is largely not reflected in the CAP draft.

Draft Climate Action Plan Comments – University of Colorado Boulder

How will equity be understood? measured? truly meaningfully incorporated? this needs to be clarified.

Develop and fund specific climate justice strategies that tangibly benefit marginalized communities.

Provide an analysis of how all strategies will result in tangible benefits for marginalized communities, and how harms to these communities will be mitigated. Incorporate strategies specifically requested by marginalized communities (listen!!). This includes fully funding the Tribal Climate Leaders program and increasing affordable and sustainable housing options near campus!!

Provide an analysis of how all strategies will result in tangible benefits for marginalized communities, and how harms to these communities will be mitigated and/or eliminated.

Incorporate strategies specifically requested by marginalized communities. This includes fully funding the Tribal Climate Leaders program and increasing affordable and sustainable housing options near campus. Affordable relative to grad student stipends.

Equity should be a priority, and that does not sufficiently show up in this plan. Develop and fund specific climate justice strategies that tangibly benefit marginalized communities. Listen to the voices of marginalized communities. Currently, the CAP designates some strategies as having an equity co-benefit, but does not explain what specific equity measures these strategies will have. Instead of only being a part of certain strategies, equity should be a priority throughout the plan. To accomplish this, the CAP should build on existing analyses by the CAP Equity Subcommittee, whose work is largely not reflected in the CAP draft.

Provide an analysis of how all strategies will result in tangible benefits for marginalized communities, and how harms to these communities will be mitigated. Currently, the CAP designates some strategies as having an equity co-benefit, but does not explain what specific equity measures these strategies will have. Instead of only being a part of certain strategies, equity should be a priority throughout the plan. To accomplish this, the CAP should build on existing analyses by the CAP Equity Subcommittee, whose work is largely not reflected in the CAP draft. Incorporate strategies specifically requested by marginalized communities. This includes fully funding the Tribal Climate Leaders program and increasing affordable and sustainable housing options near campus. Despite receiving repeated feedback from the CU's Center for

Draft Climate Action Plan Comments – University of Colorado Boulder

Native American and Indigenous Studies about the importance of the Tribal Climate Leaders program, the CAP does not commit to funding the program.

Provide an analysis of how all strategies will result in tangible benefits for marginalized communities, and how harms to these communities will be mitigated.

CU must provide an analysis of how all strategies will result in tangible benefits for marginalized communities, and how harms to these communities will be mitigated. Strategies requested by marginalized communities must be implemented. This includes fully funding the Tribal Climate Leaders program and increasing affordable and sustainable housing options near campus.

Please incorporate tribal leadership into this process, and incorporate strategies specifically requested by marginalized communities. This includes funding the Tribal Climate Leaders program as well as establishing more affordable housing near campus for students and staff/faculty. Affordable and sustainable housing is essential to this plan.

Climate change disproportionately harms our most underserved and vulnerable communities. Moreover, efforts by the government, industry, nonprofits, the academy, and other actors to address environmental problems have long exacerbated such environmental inequalities rather than remedying them. Thus, it is vitally important that CU's Climate Action Plan proactively fosters climate equity. Accordingly, I appreciate the references to co-benefits in the Climate Action Plan and the list of principles the university can use to support equity when implementing the CAP (p. 89). However, the equity commitments are vague and do not commit to many tangible, meaningful actions that would help foster equity. For instance, the CAP asserts "If a proposed action potentially worsens existing inequity or introduces inequity... (p. 89) -- the CAP should instead have stronger language that *prohibits* actions that worsen existing inequalities. I also understand that students and faculty across campus have made various recommendations for equity that do not appear in the Climate Action Plan. Therefore, in the interest of transparency and accountability, could you please publicly post a list of the equity proposals made on interim drafts and a reason for why each of those was eliminated from the plan?

A key focus for equity needs to be to increase local affordable housing options so that there isn't a gap between those who can afford to live in Boulder and use public transit/bike, and those commuting from far beyond Boulder. This is a huge issue for staff, students, and faculty in terms of quality of life, but also in terms of emissions. CU needs to rightsize it's housing stock and build housing that would support faculty and staff

Draft Climate Action Plan Comments – University of Colorado Boulder

(not just that works for temporary student housing)-- it needs to be more long-term and larger to accommodate families.

Part of this plan should be to fully fund and institutionalize the Tribal Climate Leaders program. I work on climate issues with Tribes in our state and a repeated issue is that they don't feel like CU serves them, both in terms of our science and in terms of their students/learners. Fort Lewis College offers FREE tuition to tribal students and that is really what CU should be doing, but at the bare minimum, they should provide funding for this program. It benefits the students, the Tribes by having trusted connections to CU, and scientists do better research in partnership with tribal students and scholars and CU has a terrible pipeline problem.

Without climate justice, climate action is meaningless. CU must take concrete steps towards reconciliation for the genocide of indigenous people and the theft of their land that the university is founded upon. As a small step towards this enormous debt, CU should fully fund the Tribal Climate Leaders Program.

Additionally, increasing affordable and sustainable housing options near campus are essential to address the especially rampant disparities in housing access in Boulder which perpetuate the marginalization of historically oppressed communities.

Develop and fund specific climate justice strategies that tangibly benefit marginalized communities. Collaborate with the Climate Justice Collaborative and specific groups led by marginalized community members to inform these efforts.

Provide an analysis of how all strategies will result in tangible benefits for marginalized communities, and how harms to these communities will be mitigated.

Incorporate strategies specifically requested by marginalized communities. This includes fully funding the Tribal Climate Leaders program and increasing affordable and sustainable housing options near campus.

Please develop and fund specific climate justice strategies that tangibly benefit marginalized communities.

Please provide an analysis of how all strategies will result in tangible benefits for marginalized communities, and how harms to these communities will be mitigated.

Please incorporate strategies specifically requested by marginalized communities. This includes fully funding the Tribal Climate Leaders

Draft Climate Action Plan Comments – University of Colorado Boulder

program and increasing affordable and sustainable housing options near campus.

I have heard arguments that the Climate Action Plan cannot fund the Tribal Climate Leaders program because it is out-of-scope. But I have also heard that when the CAP Steering Committee solicited input from marginalized communities about what they would like to see addressed in the CAP, the Tribal Climate Leaders Program was one of the only concrete asks. I believe that the Sustainability Executive Council (Council) should not see this as outside the scope of the CAP. Maybe this has to do with seeing the Council differently than many administrators do: I don't think the Council should just do operations. I think the Council should advocate for any and every policy it needs to to make the CAP successful. To me, that includes fundraising for the Tribal Climate Leaders Program, or helping the Program find grant money, or funding the Program in another way. This is something the CAP's full time employee could do. The word equity appears so often in the CAP, and we all know equity is a key component of climate justice, and helping to fund the Tribal Climate Leaders Program is the LEAST the CAP can do to make strides towards climate justice.

I have also heard CAP Steering Committee members say that we don't have the buy-in we might need from other CU Administrators about changing CU's school schedule so that students finish before Thanksgiving and fly less. Here, too, I have a different vision of what Council members--when they are seated--should do. They should be advocates for the CAP in every possible way, and should seek the buy in of other Administrators. Instead of shrugging and saying that things are out of their purview, future Council members should dig in and become activists, get to know the people whose help they need, and try to hammer out solutions to emissions reductions.

Top ask: Prioritize equity and marginalized voices in the next iteration of the CAP.

- It is obvious, reading through the current CAP, that equity was an afterthought. Please reach out to tribal communities and minority groups on campus and report their asks directly. Please do not summarize on their behalf.

- Please increase affordable housing around campus, and / or increase graduate student salaries. It is increasingly difficult to be a graduate student and pay Boulder rent (typical rent is more than half of our monthly paycheck). Pushing graduate students out of Boulder means an increase in student commuting, the emissions from which should be accounted for in the scope 3 emissions.

Develop and fund specific climate justice strategies that tangibly benefit marginalized communities.

Incorporate strategies specifically requested by marginalized communities. This includes fully funding the Tribal Climate Leaders

Draft Climate Action Plan Comments – University of Colorado Boulder

program and increasing affordable and sustainable housing options near campus.

Remove STARS Platinum from the list of co-benefits. Achieving the Platinum Status ranking in the STARS certification (as described on pg 23, pg 93 and in the table on pg 28) is a branding opportunity for the university; it does not offer direct positive outcomes for CU Boulder faculty, staff, students, and community and should not be considered a co-benefit.

Add to the equity implementation guidelines p. 89 the following:

When possible, ensure purchasing decisions support businesses owned by oppressed groups, select products and materials with high environmental and labor standards throughout their supply chain, reflect human rights standards, and respect Free Prior and Informed Consent on Indigenous lands.

On p.28, table 8, provide an analysis of how strategies designated as equitable will result in tangible benefits for marginalized communities.

Currently, it is not clear why certain strategies receive an equity co-benefit sticker. There should be an explanation of what specifically about each strategy contributes to material benefits to marginalized communities.

Include analyses on the equity implications of all strategies. Equity should not just be considered a co-benefit of certain strategies, it should be a priority throughout the plan. The CAP can incorporate and build on previous work conducted by the Equity Subcommittee, which has not been fully incorporated into the CAP, to consider each strategy's potential to tangibly benefit marginalized communities and/or disproportionately harm marginalized communities. Strategies that offer benefits should be prioritized accordingly, and steps should be outlined to reduce disproportionate harm. This is especially relevant for certain Scope 3 categories; for example, prioritizing public transit and affordable housing over EV adoption.

Include funding for the Tribal Climate Leaders Program (TCLP) as a strategy. To state that the TCLP is out of the scope of the CAP is not a fact but a rhetorical claim that works to narrow the boundaries of what can and cannot be included in the CAP, and makes it seem natural and obvious, when the exclusion of equity-specific strategies is actually a choice. This is CU Boulder's Climate Action Plan and CU Boulder must be held responsible for its commitments made in its land acknowledgement, otherwise it remains empty words.

Draft Climate Action Plan Comments – University of Colorado Boulder

To the New Buildings call out box on p.54 add the following to reflect conversations with protected class groups on campus:

[bullet] Prioritize (construct first) new buildings that increase affordable housing, and retrofits for departments that house underfunded disciplines and centers for protected classes

[bullet] During retrofits and construction, ensure that people with disabilities retain access to elevators and ramps

p. 84 Add specific and measurable equity requirements for the purchase of goods and services under Procurement. Specifically, add the following text By Jan. 2025, retain 10% of vendors (by dollar volume) who are small business owned or run by people of minority identities; Increase 2% per year through 2030 for a total of 20%.

Include specific and measurable plans for developing affordable and sustainable housing near campus for staff and students to reduce commute emissions and times p. 78. Create a separate strategy to partner with the City of Boulder to further expand sustainable and affordable housing to decrease Scope 3 commuting emissions.

Re-frame equity as a stand-alone category rather than a co-benefit The co-benefit framing makes it seem as though equity is a natural and inevitable benefit of climate strategies chosen. Separating equity as a category would allow for an analysis of how strategies might improve or worsen inequalities, as well as suggestions for more equitable outcomes.

The consultant should be responsible for making proposed equity changes to the CAP. Ensure the burden of making these changes does not fall on the Equity Subcommittee, but instead is conducted by the consultant, since the Equity Subcommittee has already done this work and had it cut from the CAP several times.

Provide the data and modeling underlying financial calculations in the CAP. The financial calculations in the CAP appendix are presented as bottom-line figures (see, e.g., pages 188-192). To be able to assess the analysis, the CAP should provide readers with the underlying spreadsheets and model assumptions regarding these calculations. Transparency regarding financial calculations is necessary for readers to be able to assess the appropriateness of the figures. For example, readers need to be able to assess whether an appropriate life cycle cost analysis has been carried out such that all future cost reductions have been incorporated into the model. We request that underlying data and models be made public on the CAP website by May 1, 2024.

The CAP should remove STARS Platinum from the list of co-benefits.

Draft Climate Action Plan Comments – University of Colorado Boulder

Achieving the Platinum Status ranking in the STARS certification (as described on pg 23, pg 93 and in the table on pg 28) is a branding opportunity for the university; it does not offer direct positive outcomes for CU Boulder faculty, staff, students, and community and should not be considered a co-benefit.

The CAP should add to the equity implementation guidelines p. 89 the following:

When possible, ensure purchasing decisions support businesses owned by oppressed groups, select products and materials with high environmental and labor standards throughout their supply chain, reflect human rights standards, and respect Free Prior and Informed Consent on Indigenous lands.

On p.28, table 8, please provide an analysis of how strategies designated as equitable will result in tangible benefits for marginalized communities.

Currently, it is not clear why certain strategies receive an equity co-benefit sticker. There should be an explanation of what specifically about each strategy contributes to material benefits to marginalized communities.

The CAP should include analyses on the equity implications of all strategies.

Equity should not just be considered a co-benefit of certain strategies, it should be a priority throughout the plan. The CAP can incorporate and build on previous work conducted by the Equity Subcommittee, which has not been fully incorporated into the CAP, to consider each strategy's potential to tangibly benefit marginalized communities and/or disproportionately harm marginalized communities. Strategies that offer benefits should be prioritized accordingly, and steps should be outlined to reduce disproportionate harm. This is especially relevant for certain Scope 3 categories; for example, prioritizing public transit and affordable housing over EV adoption.

The CAP should include funding for the Tribal Climate Leaders Program (TCLP) as a strategy.

To state that the TCLP is out of the scope of the CAP is not a fact but a rhetorical claim that works to narrow the boundaries of what can and cannot be included in the CAP, and makes it seem natural and obvious, when the exclusion of equity-specific strategies is actually a choice. This is CU Boulder's Climate Action Plan and CU Boulder must be held responsible for its commitments made in its land acknowledgement, otherwise it remains empty words

Draft Climate Action Plan Comments – University of Colorado Boulder

To the New Buildings call out box on p.54 add the following to reflect conversations with protected class groups on campus:

- [bullet] Prioritize (construct first) new buildings that increase affordable housing, and retrofits for departments that house underfunded disciplines and centers for protected classes
- [bullet] During retrofits and construction, ensure that people with disabilities retain access to elevators and ramps.

The CAP should provide the data and modeling underlying financial calculations in the CAP.

The financial calculations in the CAP appendix are presented as bottom-line figures (see, e.g., pages 188-192). To be able to assess the analysis, the CAP should provide readers with the underlying spreadsheets and model assumptions regarding these calculations. Transparency regarding financial calculations is necessary for readers to be able to assess the appropriateness of the figures. For example, readers need to be able to assess whether an appropriate life cycle cost analysis has been carried out such that all future cost reductions have been incorporated into the model. We request that underlying data and models be made public on the CAP website by May 1, 2024.

The CAP should disclose climate-relevant documents.

To provide transparency and accountability, the 2024 CAP should require the university to make publicly available on <https://www.colorado.edu/sustainability/> all data and planning documents related to the climate governance on campus. A list of documents we request regarding the CAP draft is included below. We ask that the documents be made public by April 1, 2024.

[https://o365coloradoedu-my.sharepoint.com/:w:/r/personal/naor2878_colorado_edu/_layouts/15/Doc.aspx?sourcedoc=%7B1FE2BD0A-FE6E-4372-8A01-8A21C6CDE7BB%7D&file=Document%20Requests%20\(CAP\).docx&action=default&mobileredirect=true](https://o365coloradoedu-my.sharepoint.com/:w:/r/personal/naor2878_colorado_edu/_layouts/15/Doc.aspx?sourcedoc=%7B1FE2BD0A-FE6E-4372-8A01-8A21C6CDE7BB%7D&file=Document%20Requests%20(CAP).docx&action=default&mobileredirect=true)

Reducing CU's fossil fuel consumption by electrifying the heating system will improve air quality in the Colorado front range, where we regularly exceed Ozone regulations. This pollution predominantly affects poorer and POC communities. CU Boulder should develop and fund specific climate justice strategies that tangibly benefit marginalized communities.

1. Remove STARS Platinum from the list of co-benefits. Achieving the Platinum Status ranking in the STARS certification (as described on pg 23, pg 93 and in the table on pg 28) is a branding opportunity for the

Draft Climate Action Plan Comments – University of Colorado Boulder

university; it does not offer direct positive outcomes for CU Boulder faculty, staff, students, and community and should not be considered a co-benefit.

2. Add to the equity implementation guidelines p. 89 the following:

When possible, ensure purchasing decisions support businesses owned by oppressed groups, select products and materials with high environmental and labor standards throughout their supply chain, reflect human rights standards, and respect Free Prior and Informed Consent on Indigenous lands.

3. On p.28, table 8, provide an analysis of how strategies designated as equitable will result in tangible benefits for marginalized communities.

Currently, it is not clear why certain strategies receive an equity co-benefit sticker. There should be an explanation of what specifically about each strategy contributes to material benefits to marginalized communities.

4. Include funding for the Tribal Climate Leaders Program (TCLP) as a strategy. To state that the TCLP is out of the scope of the CAP is not a fact but a rhetorical claim that works to narrow the boundaries of what can and cannot be included in the CAP, and makes it seem natural and obvious, when the exclusion of equity-specific strategies is actually a choice. This is CU Boulder's Climate Action Plan and CU Boulder must be held responsible for its commitments made in its land acknowledgement, otherwise it remains empty words.

5. To the New Buildings call out box on p.54 add the following to reflect conversations with protected class groups on campus:

- Prioritize (construct first) new buildings that increase affordable housing, and retrofits for departments that house underfunded disciplines and centers for protected classes.

- During retrofits and construction, ensure that people with disabilities retain access to elevators and ramps.

6. (p. 84) Add specific and measurable equity requirements for the purchase of goods and services under Procurement. Specifically, add the following text By Jan. 2025, retain 10% of vendors (by dollar volume) who are small business owned or run by people of minority identities; Increase 2% per year through 2030 for a total of 20%.

Draft Climate Action Plan Comments – University of Colorado Boulder

7. Re-frame equity as a stand-alone category rather than a co-benefit. The co-benefit framing makes it seem as though equity is a natural and inevitable benefit of climate strategies chosen. Separating equity as a category would allow for an analysis of how strategies might improve or worsen inequalities, as well as suggestions for more equitable outcomes.

8. The consultant should be responsible for making proposed equity changes to the CAP. Ensure the burden of making these changes does not fall on the Equity Subcommittee, but instead is conducted by the consultant, since the Equity Subcommittee has already done this work and had it cut from the CAP several times.

Diving into the co-benefits section of the CU Boulder Climate Action Plan (CAP), I appreciate the addition of the section co-benefits and how it will relate to social justice and equity. However, with that being said, I do feel that the general outline of the co-benefit section are extremely vague. There is emphasis on the effects of how reducing CU's emissions will help with the effects of climate change on communities and that message is repeated throughout the plan. This statement is overused and has a limited backbone to help support this. Within both private and public sectors, we can all agree that reducing emissions is better off for us all, but how will CU's CAP address this specifically? There is mention of residential housing and electric improvements, but those aspects also apply to nonresidential components of the CU communities as classrooms and labs. Then there is the statement with effort, initiatives can include members of the CU Boulder community that may otherwise be excluded from participation and the associated benefits. This blanket statement aggravated me as this is one of the most common statements any large corporation can use to promote diversity. If we do blank, then blank will increase participation. This is absolutely not true when it comes to creating and fostering an equitable and diverse environment. There is so much more that goes into truly diversifying communities and a blanket equity closing statement is not how CU should be addressing equity. CU is known for its performative diversity, and even in the CAP it is apparent and needs to be addressed.

The section of the CAP to address the affordable housing crisis was a nice addition. I do appreciate how the construction and plan of new architecture includes the rising housing crisis and there seems to be mention of dense but affordable housing. The timeline, especially of the HVAC system and envelopment improvements seems rather slow in my mind, as CU prides itself in being a pioneer in the STEM fields. If there was true emphasis on the equity and community if their students, I would like to see a plan with more immediate results to help address the housing crisis.

Thank you for the addition of adding definitions of climate justice and equity and understanding that these cannot happen if members of the community are negatively affected. I strongly support the need for collaboration with community-based organizations and local businesses, especially to increase equity within marginalized and underrepresented groups. The community health section is a nice addition to this CAP, and

Draft Climate Action Plan Comments – University of Colorado Boulder

the mention of fertilizer and runoff is one of my main concerns, so I was happy to see its mention. My only worry is the goal Help Achieve a Platinum STARS rating. While the addition of this goal is excellent for CU and the community, I fear that once/if this rating gets addressed, then CU may slow or dwindle down on its environmental impact factor. Often, once an award is achieved, the momentum that was leveraged to get the award slows or even stops, and I must caution CU for not letting this happen. This award would bring honor to CU, but there should be a plan in place to make sure the momentum continues past this one achievement of many.

Develop and fund specific climate justice strategies that tangibly benefit marginalized communities.

Specific Asks:

1) Provide an analysis of how all strategies will result in tangible benefits for marginalized communities, and how harms to these communities will be mitigated.

Why this ask: Currently, the CAP designates some strategies as having an equity co-benefit, but does not explain what specific equity measures these strategies will have. Instead of only being a part of certain strategies, equity should be a priority throughout the plan. To accomplish this, the CAP should build on existing analyses by the CAP Equity Subcommittee, whose work is largely not reflected in the CAP draft.

2) Incorporate strategies specifically requested by marginalized communities. This includes fully funding the Tribal Climate Leaders program and increasing affordable and sustainable housing options near campus.

There needs to be more emphasis on funding and developing leaders in the climate justice and equity that directly support marginalized communities. This should include analysis of tangible benefits and potential harms for specific actions taken by the University, as well as fully funding initiatives like the Tribal Climate Leaders program.

Equity is not just a convenient co-benefit or byproduct of some climate action strategies; rather, climate action is an opportunity to purposefully and transformatively address underlying injustices in our society and therefore equity should be central throughout the plan. While the plan certainly mentions equity frequently, I worry that it does not incorporate enough concrete strategies to ensure benefits of actions will go towards marginalized communities and excludes a large portion of the analysis and recommendations done by the Equity Subcommittee in the previous draft of the CAP.

To address these concerns, the CAP should 1) Re-frame equity as a stand-alone category rather than a co-benefit. 2) Provide an analysis of how all strategies will result in tangible benefits for marginalized communities, and how harms to these communities will be mitigated. 3)

Draft Climate Action Plan Comments – University of Colorado Boulder

Incorporate strategies specifically requested by marginalized communities. This includes fully funding the Tribal Climate Leaders program and increasing affordable and sustainable housing options near campus. 4) Explain why strategies have the co-benefit of equity and actually prioritize the strategies that offer stronger equity benefits. 5) Remove STARS Platinum from the list of co-benefits, as this is a branding opportunity for the university, rather than something that offers direct positive outcomes for CU Boulder faculty, staff, students, and community

The climate crisis is the largest social justice issue of this century. We must treat it as such. Equity cannot be a co-benefit: it must be a priority. Marginalized communities are the most impacted by the climate crisis, yet contribute the least to its causes. This is paradoxical and unfair, and CU Boulder has a responsibility to do everything it can to aid the most vulnerable folks within our Boulder community. I'm asking that you provide an analysis of how all strategies will result in tangible benefits for marginalized communities, and how harms to these communities will be mitigated. Further, the university is located on STOLEN LAND. You have a moral responsibility to fully fund the Tribal Climate Leaders program, a strategy specifically requested by CU's Center for Native American and Indigenous Studies.

Incorporate strategies specifically requested by marginalized communities. This includes fully funding the Tribal Climate Leaders program and increasing affordable and sustainable housing options near campus. Despite receiving repeated feedback from the CU's Center for Native American and Indigenous Studies about the importance of the Tribal Climate Leaders program, the CAP does not commit to funding the program. Equitable climate action requires not only including marginalized and frontline communities in decision-making processes but also listening to them.

Strategies specifically requested by marginalized communities must be incorporated into the plan. This includes fully funding the Tribal Climate Leaders program and increasing affordable and sustainable housing options near campus to allow for less emissions caused by daily commutes.

1) Provide an analysis of how all strategies will result in tangible benefits for marginalized communities, and how harms to these communities will be mitigated. Why this ask: Currently, the CAP designates some strategies as having an equity co-benefit, but does not explain what specific equity measures these strategies will have. Instead of only being a part of certain strategies, equity should be a priority throughout the plan. To accomplish this, the CAP should build on existing analyses by the CAP

Draft Climate Action Plan Comments – University of Colorado Boulder

Equity Subcommittee, whose work is largely not reflected in the CAP draft.

2) Incorporate strategies specifically requested by marginalized communities. This includes fully funding the Tribal Climate Leaders program and increasing affordable and sustainable housing options near campus.

Why this ask: Despite receiving repeated feedback from the CU's Center for Native American and Indigenous Studies about the importance of the Tribal Climate Leaders program, the CAP does not commit to funding the program. Equitable climate action requires not only including marginalized and frontline communities in decision-making processes but also listening to them.

Rethink the academic calendar, especially the fall semester, to end in-person events at the Thanksgiving break. Having less than 10 business days (not including exams) especially for the 46% out-of-state students is a huge contribution to emissions. Especially when considering that travel is the leading contribution to emissions as noted in the plan. 5,,Implementation can only be ensured with accountability, and most of the accountability measures amount to plans to develop plans. Whereas presentations about the CAP at multiple open forums made it sound like CU was adhering to the spirit of the SBTi , the Scope 3 appendix makes it clear that CU is not seeking to establish a science-based target at this time...Neither are we seeking validation from SBTi. This amounts to an unwillingness to be held accountable to targets and plans. Rather than create additional structures on campus (which itself doesn't seem guaranteed to happen) the university could achieve true accountability by submitting its targets and goals to SBTi and reporting through that existing mechanism. In short actually seeking validation through SBTi would indicate a level of seriousness and commitment that currently is not present in the plan.

Implementation Plan

In accordance with legislation moving through CUSG and GPSG:

Seat six students on the Executive Sustainability Council: 1) a CUSG Tri-Executive or their designee; 2) the CUSG Sustainability Chair or designee; 3) a GPSG appointee; 4) the Legislative Council President or designee; 5) a CUSG Environmental Board Co-Chair or their designee; and 6) at least one at-large representative studying environmental justice, to be appointed jointly by CUSG and GPSG.

Give these students an equitable degree of decision-making authority on the Council.

Allow students to take meeting minutes and report these back to their constituent organizations.

Seat the Director of the Environmental Center as a member of the Executive Council.

Host quarterly Q&A public progress updates.

Draft Climate Action Plan Comments – University of Colorado Boulder

The Governance Organizational Chart (p.98), shows the Sustainability Council and the Sustainability Executive Council are of equal importance. This is further expanded upon on p. 96, Implementation of the CAP will be overseen by the ... Sustainability Council and supported by an ongoing CAP Steering Committee composed of staff, faculty, and students...The Executive Council on Sustainability...will also play a key role. This language belies the true structure of the Executive Council, which includes no students, and places the Sustainability Council on the lowest rung on its decision-making hierarchy. Further, p.97 language reveals that the Sustainability council will only receive a briefing three times each year, which is quite a bit different than the statement above from p.96. Per the recent FAQ posted on the CAP, we further note that student representation in the Engagement Working Group is insufficient, and in no way meets the need for student seats on the Executive Council itself.

Specific metrics to be included in climate dashboard. Reporting in the climate dashboard should provide the detailed metrics regarding performance against business-as-usual (BAU), energy consumption and other activity data, energy use intensity (EUI), and whether timelines for meeting of specific benchmarks were met. Our detailed requests regarding the dashboard are linked below:

https://o365coloradoedu-my.sharepoint.com/:w:/g/personal/naor2878_colorado_edu/EWmip2roATRBh3_B5kLw4rQBYSGpXrzZ05aXbo_QUGc9lg?e=1fID7V

Assign specific responsibilities and implementation timelines. For each strategy and goal in the CAP, list specific staff or officeholder that is responsible for implementation items and reporting. Please do not assign responsibilities to whole committees or divisions. The list of items and specific responsibilities should be incorporated into the university's climate dashboard with specific timelines. We highlight that assignment of specific responsibilities is required under the Human Rights Climate Commitments that CU Boulder promoted in COP28: To promote accountability, an institution's climate action plan should clearly designate implementation responsibility to specific senior officers of that institution.

Hire full-time-equivalent (FTE) employees to implement, track, liaise with student groups, and provide dedicated project management for the CAP. Part-time committees are not sufficient to truly push and monitor CAP implementation. Annual data tracking in itself, and public dashboard information, across a large campus is a full-time job. The CAP should 1) provide for the hiring of one CAP project administrator, two administrative FTE, and a dedicated CAP liaison for student organizations.

Draft Climate Action Plan Comments – University of Colorado Boulder

STUDENTS, FACULTY, AND STAFF NEED VOTING POWER

I believe it is essential to include students on the Sustainability executive council. CU should agree to requests listed in resolutions passed by CU Undergraduate and Graduate Student Governments, calling for six student representatives on the Sustainability Executive Council. The representatives would be nominated by these bodies and would include at least one student working on environmental justice research or implementation.

Include at least six students on the body that will implement the CAP. Also, the Sustainability Executive Council should commit to transparency, including posting data, allowing students to report on meeting minutes, and hosting public progress reports.

CU should agree to requests listed in resolutions passed by CU Undergraduate and Graduate Student Governments and add the requested six student representatives to the Sustainability Executive Council. The representatives would be nominated by these bodies and should include at least one student working on environmental justice research or implementation.

The Sustainability Executive Council should establish a clear decision-making process, commit to transparency by releasing the detailed data it uses to make decisions and allow student representatives to report meeting minutes. It should host a quarterly public forum structured as a CAP implementation progress report followed by Q&A with the public. CU should also acknowledge the contribution of the COVID-19 pandemic to emission reduction.

Students are the leading driver for sustainability initiatives. If CU's goal is to attract more students to the school and promote the education and development of its current students, then CU must include students in meaningful ways. Include at least six students on the body that will implement the CAP, the Sustainability Executive Council. This Council should commit to transparency, including posting data, allowing students to report on meeting minutes, and hosting public progress reports. Transparency and student involvement is key to climate progress.

Hire full-time-equivalent (FTE) employees to implement, track, liaise with student groups, and provide dedicated project management for the CAP. Part-time committees are not sufficient to truly push and monitor CAP implementation. Annual data tracking and public dashboard information across a large campus is a full-time job. The CAP should 1) provide for the hiring of one CAP project administrator, two administrative FTE, and a dedicated CAP liaison for student organizations. I have a lot of experience in this realm, I would love to talk further about my ideas.

Draft Climate Action Plan Comments – University of Colorado Boulder

Solar panels are largely made up of non-renewable minerals, some of these precious minerals are said to be exhausted by 2050. In our current implementation plan, it refers to building 1.1MW of onsite solar. Are there other methods of renewable energy that might be considered if the efficiency of solar is lost?

CU should agree to requests listed in 100 LCR 01 passed by CU Undergraduate and Graduate Student Governments, calling for six student representatives on the Sustainability Executive Council. The representatives would be nominated by these bodies and would include at least one student working on environmental justice research or implementation. The Sustainability Executive Council should establish a clear decision-making process, commit to transparency by releasing the detailed data it uses to make decisions and allow student representatives to report meeting minutes. It should host a quarterly public forum structured as a CAP implementation progress report followed by Q&A with the public.

In regards to the Sustainability Executive Council, it should be of the highest concern that the student body of the University of Colorado be given some degree of final decision making power. While in theory this exists through the Sustainability Council, in reality, the current proposal enables the SEC to ignore the voice of the students, the very voice from which it derives its power. How can a university that boasts one of the top 50 law schools in the country possibly be proud of a system of governance where those being governed have no say in any matter?

It is the student body that will have to deal with the Climate Action Plan, as the students will have to experience the possibly tumultuous transition to decarbonizing and electrifying CU Boulder's Heat System. More importantly, it is the student body, both presently and for as long as the University of Colorado stands, that will be facing the challenges and consequences of climate change. Therefore, there should be six members of the student body on the SEC. Of the 31,000 undergraduate students that attend CU Boulder, I am sure that the SEC can find six that can represent the student body's views on the CAP. Thank you.

I want to lend my support to all of the suggestions made by CU Fossil Free (which I assume you've seen elsewhere), but in particular the first, to include students more directly in implementation. CU should include at least six students on the body that will implement the CAP, the Sustainability Executive Council. This Council should commit to transparency, including posting data, allowing students to report on meeting minutes, and hosting public progress reports. This will help make sure the plan actually gets implemented, and provide a form of accountability if/when things go off track.

Draft Climate Action Plan Comments – University of Colorado Boulder

The goals are too vague without detailed enough targets regarding implementation. I don't see aggressive goals for new buildings such as the CU South project.

I hope CU can include at least 6-7 students in the body of Sustainability Executive Council to oversee and monitor the implementation of the CAP, this will help with data transparency, timely and effective implementation, and tuned in for progress reports. This exclusion of student representatives also isolate and limit students from providing effective inputs and participation.

As a member of the environmental board, the Climate Action Plan has been a topic of environmental board meetings that has been brought to my attention for years now. I have a few concerns considering the Climate Action Plan, although I do know personally how hard members such as Micah Borkan, Dave Newport, and Jasmin Barco have worked on this plan to make it adaptive, feasible, and just. I am proud of my university for putting forth this effort and although this is just the start, it is still, a start.

First and foremost, one of the concerns not just of myself but the entire Environmental Board, is the governance section of the CAP regarding the Campus Sustainability Executive Council. As students who have dedicated time and hard work to CU's sustainable journey, it is important that the Environmental Board and the Environmental Center are involved in this Council. It is important to us that students with extensive knowledge in these issues are involved in the governance process, to preserve student autonomy and hold the University accountable from an environmental, scientific standpoint, not just a legislative standpoint.

Additionally, student engagement and education is not represented well in the CAP as it is currently drafted. Although there is the engagement section regarding implementation of feedback into the CAP, the CAP itself does not pledge to continue student engagement and push for students to live more sustainably or get involved.

Although the plan to decarbonize and create more opportunities for renewable, especially solar, are included in the CAP, I believe one of the biggest challenges to CU's sustainability holistically is its refusal for divestment. I would like to emphasize a student group on campus, Fossil Free CU, which has worked in conjunction with the Environmental Board to push the university to divest from fossil fuels using a long-term divestment action plan. I would also like to see these students' hard work pay off and see CU formally implement a divestment plan from fossil fuels in the CAP.

There should be students (especially graduate students) included specifically in the Sustainability Executive Council in order to better implement the actions outlined in the CAP as well as maintain full transparency in the implementation. This is also essential in order to continue to keep the general student population at CU Boulder aware and

Draft Climate Action Plan Comments – University of Colorado Boulder

interested in the current progress towards achieving the goals stated in the CAP.

Students should have more decision-making power. We need at least six students on the Sustainability Executive Council, including both graduate and undergraduate students. This Council must commit to transparency, including posting data, allowing students to report on meeting minutes, and hosting public progress reports.

I'm extremely disappointed in this plan, which seems to be mostly a PR document. It states a bunch of goals but no specifics about how to reach them--the same thing that happened with the whiffed 2020 targets.

It is outrageous that the only concrete action CU is taking is to double-down on fossil fuels.

The CAP should include six students, including both undergraduate and graduate students on the Sustainability Executive Council. At least one student should be studying environmental justice. This will help improve the council's accountability and will include the whole community in the process of lowering our emissions, as well as providing students with the opportunity to implement their learning.

Students should have real decision-making power on the CAP executive council;. Please include at least six students on the body that will implement the CAP, the Sustainability Executive Council. This Council should commit to transparency, including posting data, allowing students to report on meeting minutes, and hosting public progress reports.

Establish clear and publicly available policies to terminate the receipt of donations and other funding from fossil fuel companies and related entities. This quote is taken from the Human Rights Commitments sponsored by CU Boulder in COP28. The CAP should recommend that the Office of Advancement releases guidelines prohibiting the receipt of donations from fossil fuels companies and related entities by September 2024, and those guidelines enter into force no later than January 2025.

Disclose past donations received from fossil fuel companies and related entities starting in 2020. This language is quoted from the Human Rights Climate Commitments sponsored by CU Boulder in COP28. The CAP should recommend that this disclosure be completed by September, 2024 and posted on the CAP website.

I think it is really important that CU include students-- undergraduate and graduate-- on the Sustainability Executive Council as the Sustainability Council does not have decision making power. This would

Draft Climate Action Plan Comments – University of Colorado Boulder

make this a more inclusive process and reflect that CU is an educational institution. Additionally, this would be wonderful experience for students training in the climate and management sphere. Without representation, it does not feel like an inclusive process.

Further, to build community trust and buy in (something I study professionally as a community engaged scholar), CU needs to develop a clear approach to decision making and prioritize transparency. This means other avenues for the broader CU community to engage throughout this process (one comment period is not enough) and to be transparent in how data is used and decisions are made. (Also, how these comments are considered-- I highly recommend public responses to them so that people feel like it was a worthwhile and true engagement process).

The current draft of the CAP mentions that the Sustainability Council will be composed of staff, faculty, and students. I would like to see a specific guarantee for at least 6 students on the Sustainability Council. The student voice is crucial to the success of the CAP. If only one or two students are on the Sustainability Council, then those students may not be comfortable to speak their mind in the meetings of the Sustainability Council. More students on the Sustainability Council means that those students will be more comfortable to engage in Sustainability Council activities. This will further the effectiveness of the Council.

The Sustainability Executive Council should include a meaningful degree of student representation. I support the Undergraduate and Graduate Student Governments' call for 6 representatives. Including student representation will improve the council's accountability and transparency.

Student voices must be included in implementation. Add at least six students to implement the CAP on the Sustainability Executive Council. They should be transparent and open, and *commit* to posting data, allowing student reports on meeting minutes, and interfacing with the public for progress reports.

Five Priority Demands:
Implementation Plan (Governance and Accountability)

Include at least six students on the body that will implement the CAP, the Sustainability Executive Council. This Council should commit to transparency, including posting data, allowing students to report on meeting minutes, and hosting public progress reports.

Specific Asks:

1) CU should agree to requests listed in resolutions passed by CU Undergraduate and Graduate Student Governments, calling for six student representatives on the Sustainability Executive Council. The representatives would be nominated by these bodies and would include at

Draft Climate Action Plan Comments – University of Colorado Boulder

least one student working on environmental justice research or implementation.

2) The Sustainability Executive Council should establish a clear decision-making process, commit to transparency by releasing the detailed data it uses to make decisions and allow student representatives to report meeting minutes. It should host a quarterly public forum structured as a CAP implementation progress report followed by Q&A with the public.

Scopes 1 & 2 (Electric & Heating)

Top-Line Ask: Decarbonize and electrify CU Boulder's heating system by 2035 and incorporate all future capital projects into the emissions inventory of the CAP.

Specific Asks:

1) CU should decarbonize and electrify its heating system by 2035.

2) CU should incorporate all capital projects it foresees into the CAP, including projects that are currently omitted and that will emit heavily.

Scope 3 (Additional Emissions)

Top-Line Ask: Complete a full inventory of Scope 3 emissions, in accordance with the Science Based Targets Initiative (SBTi) rules, and lay out concrete strategies and timelines to reduce Scope 3 emissions to meet the targets.

Specific Asks:

1) Include emissions from investments, CU Athletics, and a full accounting of purchased goods and services. Disclose the university's stake in the Limelight Hotel and include its emissions if required by emissions reporting rules.

Boulder's inventory and targets:

- 1) Investment emissions, which constitute more than all reported emissions combined;
- 2) Athletics;
- 3) Purchased goods and services, which were reported at a fraction of peer institutions (12,216 tCO₂e compared to Stanford's 402,153 tCO₂e).

By excluding such large categories of emissions, CU is heavily diluting the ambition of its targets.

2) Complete the Scope 3 inventory by conducting relevant surveys, models, and incorporating all available data into the CAP and public-facing emissions inventory by no later than Jan 1, 2025.

This includes: conducting a comprehensive survey on student travel (Category 9), breaking down air miles by department and flight length (Category 6), providing accounting for purchased goods and services (Category 1), and transparency around Life Cycle Assessments (Category 2).

3) By no later than Jan 1, 2025, develop concrete, actionable, time-bound, and budgeted emissions reductions strategies for every Scope 3 category and model these strategies' abilities to meet the targets. CU

Draft Climate Action Plan Comments – University of Colorado Boulder

should allow students to assist in collecting data and establishing strategies.

4. Core & Guiding Principles (Transparency & Accountability)

Top-Line Ask: Live up to the stated values of transparency and accountability by formally committing to follow all Science-Based Target Initiative (SBTi) rules and submit targets for validation, investigating past failures to meet the 2020 target, and avoiding overstatement of climate benefits.

Specific Asks:

1) Formally commit to SBTi, submit targets for validation, and remove all misleading, inaccurate, and outdated references to SBTi guidance.

Why this ask? The CAP has backed off its original intentions of aligning with SBTi, the leading standards for corporate climate action, and consistently misrepresents SBTi guidance.

2) Fully acknowledge the university's failure to meet its 2020 target and conduct an independent study of the causes of that miss; use the insights from this study to inform the current CAP.

CU Boulder missed its previous 2020 emissions reduction goal by a factor of nearly three, but the CAP downplays this miss and does not explain why it occurred. CU overspent its cumulative carbon budget, so it should account for these excessive emissions in its new targets.

3) Remove, or correct and substantiate misleading statements to avoid climate-washing and commit to transparency with the CU Boulder community. Why this ask? The CAP overstates the university's past climate record and leadership.

5. Co-Benefits (Equity)

Top-Line Ask: Develop and fund specific climate justice strategies that tangibly benefit marginalized communities.

Specific Asks:

1) Provide an analysis of how all strategies will result in tangible benefits for marginalized communities, and how harms to these communities will be mitigated.

2) Incorporate strategies specifically requested by marginalized communities. This includes fully funding the Tribal Climate Leaders program and increasing affordable and sustainable housing options near campus.

Implementation Plan (Governance and Accountability)

Please include at least six students on the body that will implement the CAP, the Sustainability Executive Council. This Council should commit to transparency, including posting data, allowing students to report on meeting minutes, and hosting public progress reports.

1) CU should agree to requests listed in resolutions passed by CU Undergraduate and Graduate Student Governments, calling for six student representatives on the Sustainability Executive Council. The

Draft Climate Action Plan Comments – University of Colorado Boulder

representatives would be nominated by these bodies and would include at least one student working on environmental justice research or implementation.

2) The Sustainability Executive Council should establish a clear decision-making process, commit to transparency by releasing the detailed data it uses to make decisions and allow student representatives to report meeting minutes. It should host a quarterly public forum structured as a CAP implementation progress report followed by Q&A with the public.

This plan needs to be updated to match the ambition and urgency of other universities who are meeting their climate goals. It lacks enough specific timelines, goals, and data.

Please seat six students on the Climate Executive Council, as it is the body that will be making the implementing decisions for the CAP. Students deserve a seat at that table, as the university's lifeblood, as young people, and as future professionals who have much to learn from the experience. Please give these students an equitable degree of decision making authority. Please have these seats reflect requests made by the resolutions passed through CUSG and GPSG, including seating:

- 1) a CUSG Tri-Executive or their designee;
- 2) the CUSG Sustainability Chair or designee;
- 3) a GPSG appointee;
- 4) the Legislative Council President or designee;
- 5) a CUSG Environmental Board Co-Chair or their designee; and
- 6) at least one at-large representative studying environmental justice, to be appointed jointly by CUSG and GPSG.

Please seat the Director of the Environmental Center on the Climate Executive Council.

Please allow students seated on the Sustainability Executive Council to report meeting minutes back to the bodies that elected them.

Please host a quarterly public forum to update our community on implementing the CAP.

Please release the data you use to formulate the CAP, as much data as possible, so that students and the public can track your work. This would allow students to write theses, do research and truly participate in the work of formulating and analyzing climate action plans.

Please hire at least one full time employee (FTE) to manage the CAP, liaise with students, professors and researchers, and help implement the CAP.

Draft Climate Action Plan Comments – University of Colorado Boulder

Top ask: Let us elect 6 students to the governing body - the Sustainability Executive Council.

- Please allow us a voice and power in the important decisions to come. The current students helping with the CAP were not electing by students and were not added to the committee until the CAP was already written.
- Please add tenure-track faculty to the CAP council. Current members are fireable-at-will faculty and therefore the power dynamic of the CAP is such that the Chancellor can fire anyone not promoting his agenda or the agenda of the regents. As the Colorado Sun and CPR have reported on, the university lets professors go after closed-door investigations and pushes out others via continued racism and sexism. As students, we have not forgotten these instances. The power dynamic of the CAP needs restructuring so that there are full job protections for those appointed to critique it. Until there is a fair voting system built into the CAP governance, we are at the mercy of the Chancellor's decisions behind a façade of democracy.
- Please publish public minutes from the CAP meetings.

Both CU's grad and undergraduate student governments have formally requested representation on the body that implements the CAP. Not doing so suggests the University is serious neither about real student leadership and student governance, nor about implementing a robust, meaningful plan. Those students should be drawn from environmental programs, and their requests for transparency should be met.

CU should agree to the requests listed in resolutions recently passed by CUSG and GPSG: include at least 6 students on the Sustainability Executive Council. This is the implementation body, and given the failures of past climate efforts on campus, we need this council to have more oversight and accountability.

The Sustainability Executive Council needs to have the utmost transparency. Please establish a clear and effective decision-making process, release detailed data used to make decision, allow student reps to attend and report minutes through shared governance structures, and host FREQUENT town halls to discuss progress.

Adopt the proposed policy to reduce climate washing in campus communications. The 2024 CAP should acknowledge multiple recent instances of climate washing in CU communications. Most recently, in November 2, 2023 CU Boulder advertised a \$43 million investment in fossil fuel infrastructure as a ...key milestone on CU Boulder's path to carbon neutrality. The correction that the university later published was highly incomplete and had low visibility. To reduce their occurrence, the CAP should recommend the adoption of the following formal policy linked below no later than May 2024. Our proposal is linked below.

Draft Climate Action Plan Comments – University of Colorado Boulder

https://o365coloradoedu-my.sharepoint.com/:w:/g/personal/naor2878_colorado_edu/Ee60lJSnBYVGnNuMV7_cAwQBK9_-OZgltJpyHNAIG_i4Nw?e=MXs1WU

Report cumulative performance. The 2024 CAP draft should provide for reporting of cumulative performance against targets. According to this approach, any annual emissions exceeding annual targets (i.e., linear reduction) will be recorded in a cumulative performance account. Balance in that cumulative account will be presented in the university's climate dashboard. The university will not claim it is meeting targets while the balance in the cumulative account is negative. Excess emissions of a total of 424,183 tCO₂e resulting from the university's miss of its 2020 target should be debited to the account and addressed before 2030 (that amount reflects the sum of 306,683 tCO₂e in excess emissions and 117,500 tCO₂e in higher emissions under the new target resulting from the higher baseline).

For an example of cumulative performance analysis, and calculation of the 424,183 tCO₂e figure, see our Proposed Acknowledgement of CU Boulder's 2020 Target Miss, Figure 1 and Table 1, available here:

https://o365coloradoedu-my.sharepoint.com/:w:/g/personal/naor2878_colorado_edu/EWmip2roATRBh3_B5kLw4rQBYSGpXrzZ05aXbo_QUGc9lg?e=1fID7V

Specific metrics to be included in climate dashboard. Reporting in the climate dashboard should provide the detailed metrics regarding performance against business-as-usual (BAU), energy consumption and other activity data, energy use intensity (EUI), and whether timelines for meeting of specific benchmarks were met. Our detailed requests regarding the dashboard are linked below:

https://o365coloradoedu-my.sharepoint.com/:w:/g/personal/naor2878_colorado_edu/EWmip2roATRBh3_B5kLw4rQBYSGpXrzZ05aXbo_QUGc9lg?e=1fID7V

Disclose climate-relevant documents. To provide transparency and accountability, the 2024 CAP should require the university to make publicly available on <https://www.colorado.edu/sustainability/> all data and planning documents related to the climate governance on campus. A list of documents we request regarding the CAP draft is included below. We ask that the documents be made public by April 1, 2024.

[https://o365coloradoedu-my.sharepoint.com/:w:/r/personal/naor2878_colorado_edu/_layouts/15/Doc.aspx?sourcedoc=%7B1FE2BD0A-FE6E-4372-8A01-8A21C6CDE7BB%7D&file=Document%20Requests%20\(CAP\).docx&action=default&mobileRedirect=true](https://o365coloradoedu-my.sharepoint.com/:w:/r/personal/naor2878_colorado_edu/_layouts/15/Doc.aspx?sourcedoc=%7B1FE2BD0A-FE6E-4372-8A01-8A21C6CDE7BB%7D&file=Document%20Requests%20(CAP).docx&action=default&mobileRedirect=true)

Draft Climate Action Plan Comments – University of Colorado Boulder

Assign specific responsibilities and implementation timelines. For each strategy and goal in the CAP, list specific staff or officeholder that is responsible for implementation items and reporting. Please do not assign responsibilities to whole committees or divisions. The list of items and specific responsibilities should be incorporated into the university's climate dashboard with specific timelines. We highlight that assignment of specific responsibilities is required under the Human Rights Climate Commitments that CU Boulder promoted in COP28: To promote accountability, an institution's climate action plan should clearly designate implementation responsibility to specific senior officers of that institution.

Hire full-time-equivalent (FTE) employees to implement, track, liaise with student groups, and provide dedicated project management for the CAP. Part-time committees are not sufficient to truly push and monitor CAP implementation. Annual data tracking in itself, and public dashboard information, across a large campus is a full-time job. The CAP should 1) provide for the hiring of one CAP project administrator, two administrative FTE, and a dedicated CAP liaison for student organizations.

CAP should use the 20-year Global Warming Potential (GWP) factor to calculate its waste emissions, instead of the 100 year factor, because this will be more accurate. Methane has a shorter lifespan in the atmosphere (closer to 20 years) than many other greenhouse gases. When 100-year factors are used instead of 20 years, the warming potential of methane produced by waste is severely undercounted.

CU and any campus franchises should stop purchasing single use plastics no later than June 2025.

CU should purchase dehydrating equipment so that it can preprocess its organic waste. It should re-educate its students on composting on campus and begin composting of public facing waste by June 2025. This will likely require building capacity for manual sorting.

We would really like more student input and student voices in the Sustainability Enforcement commission.

The CAP should include specific metrics in the climate dashboard.

Reporting in the climate dashboard should provide the detailed metrics regarding performance against business-as-usual (BAU), energy consumption and other activity data, energy use intensity (EUI), and whether timelines for meeting of specific benchmarks were met. Our detailed requests regarding the dashboard are linked below:

https://o365coloradoedu-my.sharepoint.com/:w:/g/personal/naor2878_colorado_edu/EWmip2roATRBh3_B5kLw4rQBYSgPxrzZO5aXbo_QUGc9lg?e=1fID7V

Draft Climate Action Plan Comments – University of Colorado Boulder

The CAP should adopt the proposed policy to reduce climate washing in campus communications.

The 2024 CAP should acknowledge multiple recent instances of climate washing in CU communications. For example, in November 2, 2023 CU Boulder advertised a \$43 million investment in fossil fuel infrastructure as a ...key milestone on CU Boulder's path to carbon neutrality. The correction that the university later published was highly incomplete and had low visibility. Even more recently, the CAP website itself published a number of incorrect and misleading claims on its FACs webpage. These claims all try exegerate the university's climate performance and understate areas of significant under-performance.

To reduce their occurrence, the CAP should recommend the adoption of the following formal policy linked below no later than May 2024. Our proposal is linked below.

https://o365coloradoedu-my.sharepoint.com/:w:/g/personal/naor2878_colorado_edu/Ee60lJSnBYVGnNuMV7_cAwQBK9_-OZgltJpyHNAIG_i4Nw?e=MXs1WU

For examples regarding incorrect claims in the CAP FACs page, see link below--

https://o365coloradoedu-my.sharepoint.com/:w:/g/personal/naor2878_colorado_edu/EYIf9RVNdGtEi4h_JnC6qYEBSR6l8Z-gxUVNW0brq3Lcaw?e=iKrc3a

The CAP should report cumulative performance.

The 2024 CAP draft should provide for reporting of cumulative performance against targets. According to this approach, any annual emissions exceeding annual targets (i.e., linear reduction) will be recorded in a cumulative performance account. Balance in that cumulative account will be presented in the university's climate dashboard. The university will not claim it is meeting targets while the balance in the cumulative account is negative. Excess emissions of a total of 424,183 tCO₂e resulting from the university's miss of its 2020 target should be debited to the account and addressed before 2030 (that amount reflects the sum of 306,683 tCO₂e in excess emissions and 117,500 tCO₂e in higher emissions under the new target resulting from the higher baseline).

For an example of cumulative performance analysis, and calculation of the 424,183 tCO₂e figure, see our Proposed Acknowledgement of CU Boulder's 2020 Target Miss, Figure 1 and Table 1, available here:

https://o365coloradoedu-my.sharepoint.com/:w:/g/personal/naor2878_colorado_edu/EWmip2roATRBh3_B5kLw4rQBYSgpXrzZ05aXbo_QUGc9lg?e=GbFXRr

Draft Climate Action Plan Comments – University of Colorado Boulder

The CAP should assign specific responsibilities and implementation timelines.

For each strategy and goal in the CAP, list specific staff or officeholder that is responsible for implementation items and reporting. Please do not assign responsibilities to whole committees or divisions. The list of items and specific responsibilities should be incorporated into the university's climate dashboard with specific timelines. We highlight that assignment of specific responsibilities is required under the Human Rights Climate Commitments that CU Boulder promoted in COP28: To promote accountability, an institution's climate action plan should clearly designate implementation responsibility to specific senior officers of that institution.

As previously requested, students should sit on the Sustainability Executive Council. At least 6 seats should be filled by students so we (students) can be involved in the decision making process. This university should serve students, and there are many benefits to bringing in the ideological voices of students. At least one of the students should be working directly on environmental justice. The council should also commit to transparency by posting data, allowing students to report on meeting minutes, and hosting public progress reports.

1. Adopt the proposed policy to reduce climate washing in campus communications. The 2024 CAP should acknowledge multiple recent instances of climate washing in CU communications. Most recently, in November 2, 2023 CU Boulder advertised a \$43 million investment in fossil fuel infrastructure as a ...key milestone on CU Boulder's path to carbon neutrality. The correction that the university later published was highly incomplete and had low visibility. To reduce their occurrence, the CAP should recommend the adoption of the following formal policy linked below no later than May 2024. Our proposal is linked below.

https://o365coloradoedu-my.sharepoint.com/:w:/g/personal/naor2878_colorado_edu/Ee60lJSnBYVGnNuMV7_cAwQBK9_-OZgltJpyHNAIG_i4Nw?e=MXs1WU

2. Report cumulative performance. The 2024 CAP draft should provide for reporting of cumulative performance against targets. According to this approach, any annual emissions exceeding annual targets (i.e., linear reduction) will be recorded in a cumulative performance account. Balance in that cumulative account will be presented in the university's climate dashboard. The university will not claim it is meeting targets while the balance in the cumulative account is negative. Excess emissions of a total of 424,183 tCO₂e resulting from the university's miss of its 2020 target should be debited to the account and addressed before 2030 (that amount reflects the sum of 306,683 tCO₂e in excess emissions and 117,500

Draft Climate Action Plan Comments – University of Colorado Boulder

tCO₂e in higher emissions under the new target resulting from the higher baseline).

For an example of cumulative performance analysis, and calculation of the 424,183 tCO₂e figure, see our Proposed Acknowledgement of CU Boulder's 2020 Target Miss, Figure 1 and Table 1, available here:

https://o365coloradoedu-my.sharepoint.com/:w:/g/personal/naor2878_colorado_edu/EWmip2roATRBh3_B5kLw4rQBYSgpXrzZ05aXbo_QUGc9lg?e=1fID7V

3. Specific metrics to be included in climate dashboard. Reporting in the climate dashboard should provide the detailed metrics regarding performance against business-as-usual (BAU), energy consumption and other activity data, energy use intensity (EUI), and whether timelines for meeting of specific benchmarks were met. Our detailed requests regarding the dashboard are linked below:

https://o365coloradoedu-my.sharepoint.com/:w:/g/personal/naor2878_colorado_edu/EWmip2roATRBh3_B5kLw4rQBYSgpXrzZ05aXbo_QUGc9lg?e=1fID7V

4. Disclose climate-relevant documents. To provide transparency and accountability, the 2024 CAP should require the university to make publicly available on <https://www.colorado.edu/sustainability/> all data and planning documents related to the climate governance on campus. A list of documents we request regarding the CAP draft is included below. We ask that the documents be made public by April 1, 2024.

[https://o365coloradoedu-my.sharepoint.com/:w:/r/personal/naor2878_colorado_edu/_layouts/15/Doc.aspx?sourcedoc=%7B1FE2BD0A-FE6E-4372-8A01-8A21C6CDE7BB%7D&file=Document%20Requests%20\(CAP\).docx&action=default&mobileRedirect=true](https://o365coloradoedu-my.sharepoint.com/:w:/r/personal/naor2878_colorado_edu/_layouts/15/Doc.aspx?sourcedoc=%7B1FE2BD0A-FE6E-4372-8A01-8A21C6CDE7BB%7D&file=Document%20Requests%20(CAP).docx&action=default&mobileRedirect=true)

5. Assign specific responsibilities and implementation timelines. For each strategy and goal in the CAP, list specific staff or officeholder that is responsible for implementation items and reporting. Please do not assign responsibilities to whole committees or divisions. The list of items and specific responsibilities should be incorporated into the university's climate dashboard with specific timelines. We highlight that assignment of specific responsibilities is required under the Human Rights Climate Commitments that CU Boulder promoted in COP28: To promote accountability, an institution's climate action plan should clearly designate implementation responsibility to specific senior officers of that institution.

Draft Climate Action Plan Comments – University of Colorado Boulder

6. Hire full-time-equivalent (FTE) employees to implement, track, liaise with student groups, and provide dedicated project management for the CAP. Part-time committees are not sufficient to truly push and monitor CAP implementation. Annual data tracking in itself, and public dashboard information, across a large campus is a full-time job. The CAP should 1) provide for the hiring of one CAP project administrator, two administrative FTE, and a dedicated CAP liaison for student organizations.

The CAP executive council must establish clear and consistent transparency and decision-making process. Data used to assess the progress of climate action should be released publically, including the methodology used in calculating them.

The CAP executive council should include at least 6 student leaders (with a varied skillset, but emphasizing students focused on Environmental Justice). Student representatives should be elected by CU Undergraduate and Graduate Student Governments.

In the plan, it is mentioned that the University will work with faculty and curriculum to integrate and educate the student body. I think that there could be better ways to do this. There are intro courses for all majors and within those, for all freshman, it may be more beneficial to add a small section into those classes for students to learn more about the schools climate action plan. Most people opt out of talks and seminars specifically for niche subjects, and there are also several classes that are offered at the university that are not related to climate change or the climate action plan. Having segments in of the intro classes for freshman would be a good way to reach a large population of the student body. Equipping students will information about the schools climate action plan will be very beneficial, but I think that there needs to be other ways to do this because most student have heard the same thing over and over and it goes in one ear and out the other. Making the importance of the climate action plan seem more relatable to students would also be way better and make the information stick. Most students here want to ski and/or love the mountains, so targeting the importance of the climate action plan as well as how climate change is affecting skiing, loss of snow, and everything mountain related may connect with the student body better.

I'm a student, leader of a community organization around social change, and community member in Boulder, and am deeply concerned about the current omissions in data, lack of accountability, specific implementation plans, transparency, and equity focus for the CU CAP.

For implementation of the plan in particular, I want to know that CU's administration will be held accountable in truly fulfilling all the goals set, using honest data, and adjusting as new information and technology

Draft Climate Action Plan Comments – University of Colorado Boulder

comes to light. The CAP should include at least six students on the Sustainability Executive Council, and host public progress reports.

Hello,

I'm a senior in the Physics undergraduate program at CU. I'm writing to request that students play a far more prominent role in the CAP going forward - specifically, to honor resolutions by student government that six student representatives be placed on the Sustainability Executive Council.

I'm acquainted with members of the CU Environmental Board, the student government, and various activist groups around campus and I consistently find myself surprised by their dedication and the depth of their knowledge on complex, multifaceted issues of sustainability. It is a testament to the education they receive at this institution, and yet the university that educated us undervalues our input. The experience of the current Sustainability Executive Council will be crucial for the success of CAP. But more potent is the combination of experienced administrators with freshly educated, deeply motivated students.

Climate change, the biodiversity crisis, and the modern technology move at an unprecedented pace. Students at CU are the most recently educated on issues of sustainability and decarbonization. We are acclimatized to the speed of technological and social change. Perhaps most importantly, we are poised to inherit and suffer the brunt of climate change's worst effects. These facts make it obvious to me that students should be given real decision making power. Not just to suggest, or advise on, but to truly decide the future that we will inhabit.

Thank you for considering,

Taj

CU should agree to requests listed in resolutions passed by CU Undergraduate and Graduate Student Governments, calling for six student representatives on the Sustainability Executive Council. The representatives would be nominated by these bodies and would include at least one student working on environmental justice research or implementation.

The Climate Action plan draft currently splits governance into two bodies: 1) the Sustainability Executive Council, which consists mostly of CU Administrators, and which will have final decision-making power, and 2) a Sustainability Council which consists only of students, faculty and staff, and serves only in an advisory capacity to the Sustainability Executive Council. This structure disempowers students, isolating them from decision-making power and input. Students belong where decisions are being made.

Draft Climate Action Plan Comments – University of Colorado Boulder

Decarbonize and electrify CU Boulder's heating system by 2035 and incorporate all future capital projects into the emissions inventory of the CAP.

Overall Climate Action Plan

Complete a full inventory of Scope 3 emissions, in accordance with the Science Based Targets Initiative (SBTi) rules, and lay out concrete strategies and timelines to reduce Scope 3 emissions to meet the targets.

Decarbonize and electrify CU Boulder's heating system by 2035 and incorporate all future capital projects into the emissions inventory of the CAP.

Create courses where students can collect and analyze emissions data and develop CAP strategies. Integrating classroom learning with development of campus strategy is a core aspect of the living laboratory principle in higher ed. sustainability. This proposal would allow a large number of students to actively engage with the CAP, while supporting campus efforts for strategic planning. Many Scope 3 strategies remain vague, in part because of a lack of data. Students could gain critical skills by helping develop Scope 3 emissions reduction strategies. Similarly, students will gain key skills by engaging in the planning process for campus heating district reform and energy efficiency. We recommend that the university will begin offering the proposed applied CAP courses starting Fall 2024. Topics for these courses will include: (1) campus supply chain emissions (2) campus emissions from ground and air transportation (3) campus investment emissions (4) the campus heating district system (5) campus energy efficiency and embodied carbon (6) campus waste emissions (7) campus planning for climate equity (8) a course on financial aspects of the CAP. The BFA and CUSG can solicit interest from faculty and coordinate the development of this curriculum.

Adopt the following acknowledgment of the 2020 target miss. The 2024 CAP should adopt the acknowledgement linked below regarding CU Boulder's miss of the 20%-by-2020 Scope 1-2 target and insert it on p. 6 of the current draft. Our proposed acknowledgement includes key facts about the 2020 target miss together with supporting data. The community deserves to know these facts.

We further request that the CAP Steering Committee make clear that it did not review the causes that led to the 2020 miss and the lack of implementation of the university's 2009 Conceptual Plan for Carbon Neutrality.

Lastly, we note that the FAQ website, while seeming to address the 2020 miss in the first question, continues to make incorrect and misleading claims. We request that specific corrections will be made to the response to the first question. The requested corrections are also linked below.

Draft Climate Action Plan Comments – University of Colorado Boulder

Our proposed acknowledgment and supporting data is available here:

https://o365coloradoedu-my.sharepoint.com/:w:/g/personal/naor2878_colorado_edu/EWmip2roATRBh3_B5kLw4rQBYSgpXrzZ05aXbo_QUGc9lg?e=yuhAcL

The corrections we request to the CAP FAQs page are available here:

https://o365coloradoedu-my.sharepoint.com/:w:/g/personal/naor2878_colorado_edu/EYIf9RVNdGtEi4h_JnC6qYEBSR6l8Z-gxUVNW0brq3Lcaw?e=ErksrW

Remediate excess emissions due to the 2020 missed targets by adding them to the new 2030 target. As documented in our Proposed Acknowledgement (linked below), CU Boulder's miss of the 2020 target resulted in 306,683 tCO₂e of excess emissions relative to the target curve. Further, the higher baseline used for the new targets because of the 2020 miss makes the new targets less restrictive by 117,150 tCO₂e relative to counterfactual where CU met the 2020 targets (virtually the entire difference accrues before 2030). The CAP Steering Committee should incorporate 423,833 tCO₂e as additional reductions required under the new 2030 target.

For data, see here:

https://o365coloradoedu-my.sharepoint.com/:w:/g/personal/naor2878_colorado_edu/EWmip2roATRBh3_B5kLw4rQBYSgpXrzZ05aXbo_QUGc9lg?e=yuhAcL

Remediate excess emissions due to the 2020 missed targets by adding them to the new 2030 target. As documented in our Proposed Acknowledgement (linked below), CU Boulder's miss of the 2020 target resulted in 306,683 tCO₂e of excess emissions relative to the target curve. Further, the higher baseline used for the new targets because of the 2020 miss makes the new targets less restrictive by 117,150 tCO₂e relative to counterfactual where CU met the 2020 targets (virtually the entire difference accrues before 2030). The CAP Steering Committee should incorporate 423,833 tCO₂e as additional reductions required under the new 2030 target.

For data, see here:

Draft Climate Action Plan Comments – University of Colorado Boulder

https://o365coloradoedu-my.sharepoint.com/:w:/g/personal/naor2878_colorado_edu/EWmip2roATRBh3_B5kLw4rQBYSgpXrzZ05aXbo_QUGc9lg?e=yuhAcL

Conduct an independent study of the 2020 target miss. The CAP should commit the university to commission an independent study of the reasons that led to the 2020 miss. Such a study is necessary to draw meaningful lessons that can be applied to the 2024 CAP (pertaining to technical aspects as well as to governance and implementation provisions). The study is also necessary to provide transparency and build trust in the community following the university's repeated understatement of the miss and its significance (including the CAP's own FAQ).

This study should be published no later than Jan 1, 2025. The CAP should be revised to state how each of the specific lessons from the study will be addressed in the new CAP

Provide transparency regarding Limelight project. Despite repeated requests, the university has not disclosed the nature of its agreement with the Limelight Conference Center and Hotel. The project will result in considerable GHG emissions. Those include several 10k of MTCO_{2e} of air travel emissions (as stated on Pg 17, Appendix D). They also include embodied carbon from construction and S1-2 emissions from ongoing operations. There is concern that the Limelight project has been inappropriately excluded from the university's GHG inventory. The CAP should (1) provide the legal documentation between the university and Aspen Hospitality and (2) explain whether and how the Limelight project has been included in its GHG inventory, and if it has not been included, why.

Provide transparency regarding Limelight project. Despite repeated requests, the university has not disclosed the nature of its agreement with the Limelight Conference Center and Hotel. The project will result in considerable GHG emissions. Those include several 10k of MTCO_{2e} of air travel emissions (as stated on Pg 17, Appendix D). They also include embodied carbon from construction and S1-2 emissions from ongoing operations. There is concern that the Limelight project has been inappropriately excluded from the university's GHG inventory. The CAP should (1) provide the legal documentation between the university and Aspen Hospitality and (2) explain whether and how the Limelight project has been included in its GHG inventory, and if it has not been included, why.

Disclose past donations received from fossil fuel companies and related entities starting in 2020. Here as well, the language is quoted from the Human Rights Climate Commitments sponsored by CU Boulder in COP28. The CAP should recommend that this disclosure be completed by September, 2024 and posted on the CAP website.

Draft Climate Action Plan Comments – University of Colorado Boulder

Adjust BAU to account for campus growth. The CAP should clarify whether and how expected campus growth (student number and gross square footage) has been factored into business-as-usual scenarios for Scopes 1-2 and Scope 3. Where growth has not been factored adequately, the CAP should incorporate realistic growth in the BAU scenarios.

Correct or remove misleading statements that overstate the university's past climate action. The CAP contains several statements that contradict its stated goals of increasing transparency with campus and ensuring accountability by overstating its past and current climate leadership.

P. 8 - With the announcement of the Right Here, Right Now Human Rights Climate Commitments, CU Boulder has positioned itself as a global leader in advancing human rights as we address the climate crisis. Please qualify the claim by noting that CU Boulder has not yet met the Human Rights Climate Commitments it sponsored, which, among other things, specify that targets must be in accordance with an accepted science-based methodology consistent with technical criteria of the SBTi Corporate Net-Zero Standard, and that universities must manage their investment emissions.

P. 30 The University of Colorado's Boulder campus has long been a leader in pursuing climate action. The evidence following this statement refers to unimplemented plans, missed targets, and joining initiatives. It does not substantiate the claim that the university has been a leader in pursuing climate action.

Severely limit WDEP electricity generation after parity with Xcel.

Once the emissions factor associated with electricity generation at WDEP is greater than the emissions factor from electricity purchased from Xcel, do not use WDEP for electricity generation outside of those times when it is needed to reduce output from Xcel's peaker generators. Page 60 of the CAP should be revised to provide an explicit commitment that WDEP will not be used for baseload generation once the grid is cleaner.

Clarify implementation of the Energy Master Plan's 10% goal. What is the total campus electric demand that is used to calculate the goal on p. 59, and is that demand indexed to future campus growth? Please provide the numerator (total amount of onsite electric capacity) and denominator (total campus electric demand) to provide transparency on whether capacity 10% goal will be met under the CAP.

Draft Climate Action Plan Comments – University of Colorado Boulder

Clarify Fleet Electrification Timeline, include electric vehicle (EV) and internal combustion engines (ICE) vehicle purchases in the public dashboard: 1) There are two different timelines in the CAP and the Appendix, 2037 and 2050. Please clarify the timeline and preferably choose the earlier timeline of 2037; 2) Include EV and ICE vehicle purchases in the public dashboard.

For Fleet Electrification, Add Financing Options in the same section of the CAP, and Add Additional NPV Cost Calculations with Tax Credits and Incentives: 1) Add additional NPV cost estimates to include tax credits and incentives that are certain under the IRA or state level; 2) Add these additional NPV figures into the body of the CAP; and 3) Electrification will require money, but not providing the financing options direct next to the fleet electrification cost will give readers a skewed perception of the true cost. Many readers may not be aware that financing options are on PDF pages 105 and 214. Please add the electric vehicle and charging infrastructure financing options on pages 60-64 and at the beginning of the Fleet Electrification Appendix

Please provide the following information on the use and reporting of renewable energy credits (RECs): 1) Please specify in the CAP Executive Summary that RECs will not be used to reduce Scope 3 emissions and only used to reduce Scope 2 emissions; 2) If RECs are sold to Xcel, please provide that reporting and ensure emissions reduction from RECs are not double-counted in the CAP; 3) Provide reporting in the public dashboard and subsequent reports about RECs and how much of CUB emissions are being offset by RECs; 4) The original CAP proposal ask for solutions without RECs and virtual net metering. Please provide information on why that condition was changed.

Complete adequate measurement and strategies for all Scope 3 strategies. The reduction of 50% in Scope 3 emissions by 2030 is listed as a core goal of the CAP (p. 10). However, the university's Scope 3 inventory is still highly incomplete. Major sources of emissions have been inappropriately excluded from the Scope 3 target: Investments, and the lion's share of the Purchased Goods and Services category. All Scope 3 emissions from Athletics have been excluded as well. In some cases, data that should have already been collected remains missing (student air travel). Scope 3 strategies remain at an extremely preliminary stage, lacking timelines, budgets, assigned responsibilities, or even meaningful backing of reduction potential. Many of the strategies are explicitly plans to make further plan (initiate a discussion initiate surveys, p. 85).

With 2030 approaching rapidly, the university must concretize its plans before the end of the year. The CAP should urgently

(1) complete a full Scope 3 inventory by no later than Jan 1, 2025. This would require immediately getting to work on collecting any missing data

Draft Climate Action Plan Comments – University of Colorado Boulder

and establishing relationships with vendors (see our separate comments in these areas).

(2) develop appropriate Scope 3 strategies, including timelines, budgets, assigned responsibilities, and quantified reduction potential by no later than Jan 1, 2025. Our comments include suggestions for strategies in most large Scope 3 categories

Include Athletics in the Scope 3 inventory. In a low-visibility footnote on p. 193, the university discloses for the first time that This inventory does not include CU Athletics, which is a separate organization from CU Boulder Campus. That exclusion is inconsistent with GHG accounting rules because the university has clear operational control over CU Athletics. The fact that Athletics is a separate organization does not exclude it from the accounting boundary. Indeed, the university did not attempt to exclude other auxiliary enterprises like housing and dining from its GHG inventory. CU Athletics is a large actor with potentially significant Scope 3 emissions in purchased goods and services, business travel, and franchises. The 2024 CAP should incorporate Athletics into the accounting boundary before the publication of the CAP, or no later than revision for Sept. 2024.

Until CU Athletics is included in the inventory, the CAP should clearly and prominently acknowledge its exclusion in pp. 14-15 by adding the following language: CU Athletics has been excluded from the Scope 3 inventory.

Remove inaccurate references to SBTi guidance regarding student and parent travel and include the category under the target. Category 9 (Downstream Transportation and Distribution; in CU Boulder's case, out of state student and parent travel to and from campus for breaks and events) is included in the baseline inventory at a total of 56,504 MTCO_{2e}, making it the largest measured Scope 3 category in the inventory. However, this category has been excluded from the targets.

The CAP states that Category 9 has been excluded from targets due to the need for better underlying data and the limited sphere of influence the campus has on how and when people come and go from campus, per the SBTi guidance (p.41, 73). This language is incorrect. SBTi guidance on target-setting presumes the institution has already undertaken a full Scope 3 inventory and does not allow excluding certain categories because of lack of data or limited sphere of influence. Instead of excluding it based on unreliable data, the university should take immediate steps to collect such data (see separate comment). We also find the claim that CU Boulder has a limited sphere of influence on student travel to be unpersuasive—in a separate comment, we list concrete, actionable strategies that the university could take to limit emissions from student travel. It is unacceptable to exclude this significant Scope 3 category from targets

Draft Climate Action Plan Comments – University of Colorado Boulder

and proper inventorying; without action, these emissions could continue to grow. We request that (1) the incorrect language be removed, and that (2) the student and parent travel emissions be included under the target.

The CAP should commit to strategies that address the equity connection between high commuting emissions, affordable housing, and income inequality. There is a strong connection between socioeconomic inequality, housing, and transportation emissions: if people cannot afford to live where they work, they are forced to live far away—often in places where public transportation is non-existent, inaccessible, or prohibitively expensive—and thus drive to work, increasing emissions. The lack of affordable housing in Boulder impacts CU Boulder’s lowest-paid workers most acutely. While the CAP briefly notes that many students and staff commute from nearby cities to campus each day, in part due to the high cost of living in Boulder County, (p. 78) it does not seem to take this seriously in its emissions reductions strategies. Emissions reduction projections are based solely on an extrapolation from EV adoption rates (p. 82, and see our separate comment regarding the large quantitative mistake the CAP makes regarding that concept). Meanwhile, the tiered strategy tables on pp. 28 and 104 do not include any strategies related to housing or the cost of living in Boulder, and the strategies on Table 20 rely heavily on EVs.

Additional strategies that should be adopted include:

Commit to paying employees a living wage, by initiating an immediate 20% Cost of Living Adjustment (COLA) and annual 6% COLA for graduate workers, non-tenure-track faculty, and staff, as demanded by UCW Colorado. Wage increases will help ensure that CU Boulder employees can live closer to campus, reducing VMT.

By Fall 2026, outline a plan for creating affordable housing designated for or otherwise accessible students, faculty, and staff and/or annexing land for this purpose, as has been done for the CU South campus.

Work directly with Boulder City Council to increase affordable and sustainable housing options near campus.

Work directly with local governments and the Regional Transportation District (RTD) to expand public transit options that could serve CU Boulder’s students, staff, and employees, particularly focusing on low-income and marginalized groups

Maintain and expand remote or hybrid work options for staff whose work can be completed remotely.

Regarding EVs, the CAP should acknowledge that, while affordable charging is an essential component of making EVs more accessible to people across income spectrums, EVs are currently prohibitively expensive for many CU

Draft Climate Action Plan Comments – University of Colorado Boulder

employees and thus the CAP should prioritize other strategies first. Furthermore, EV adoption comes with environmental injustice ramifications that must be considered, such as the mining of battery materials in an exploitative manner and without Free, Prior and Informed Consent of Indigenous populations.

Adopt the proposed policy to reduce climate washing in campus communications. The 2024 CAP should acknowledge multiple recent instances of climate washing in CU communications. Most recently, in November 2, 2023 CU Boulder advertised a \$43 million investment in fossil fuel infrastructure as a ...key milestone on CU Boulder's path to carbon neutrality. The correction that the university later published was highly incomplete and had low visibility. To reduce their occurrence, the CAP should recommend the adoption of the following formal policy linked below no later than May 2024. Our proposal is linked below.

https://o365coloradoedu-my.sharepoint.com/:w:/g/personal/naor2878_colorado_edu/Ee60lJSnBYVGnNuMV7_cAwQBK9_-OZgltJpyHNAIG_i4Nw?e=MXs1WU

Report cumulative performance. The 2024 CAP draft should provide for reporting of cumulative performance against targets. According to this approach, any annual emissions exceeding annual targets (i.e., linear reduction) will be recorded in a cumulative performance account. Balance in that cumulative account will be presented in the university's climate dashboard. The university will not claim it is meeting targets while the balance in the cumulative account is negative. Excess emissions of a total of 424,183 tCO₂e resulting from the university's miss of its 2020 target should be debited to the account and addressed before 2030 (that amount reflects the sum of 306,683 tCO₂e in excess emissions and 117,500 tCO₂e in higher emissions under the new target resulting from the higher baseline).

For an example of cumulative performance analysis, and calculation of the 424,183 tCO₂e figure, see our Proposed Acknowledgement of CU Boulder's 2020 Target Miss, Figure 1 and Table 1, available here:

https://o365coloradoedu-my.sharepoint.com/:w:/g/personal/naor2878_colorado_edu/EWmip2roATRBh3_B5kLw4rQBYSgpXrzZ05aXbo_QUGc9lg?e=1fID7V

Disclose climate-relevant documents. To provide transparency and accountability, the 2024 CAP should require the university to make publicly available on <https://www.colorado.edu/sustainability/> all data and planning documents related to the climate governance on campus. A list of documents we request regarding the CAP draft is included below. We ask that the documents be made public by April 1, 2024.

Draft Climate Action Plan Comments – University of Colorado Boulder

[https://o365coloradoedu-my.sharepoint.com/:w:/r/personal/naor2878_colorado_edu/_layouts/15/Doc.aspx?sourcedoc=%7B1FE2BD0A-FE6E-4372-8A01-8A21C6CDE7BB%7D&file=Document%20Requests%20\(CAP\).docx&action=default&mobileredirect=true](https://o365coloradoedu-my.sharepoint.com/:w:/r/personal/naor2878_colorado_edu/_layouts/15/Doc.aspx?sourcedoc=%7B1FE2BD0A-FE6E-4372-8A01-8A21C6CDE7BB%7D&file=Document%20Requests%20(CAP).docx&action=default&mobileredirect=true)

CAP should use the 20-year Global Warming Potential (GWP) factor to calculate its waste emissions, instead of the 100 year factor, because this will be more accurate. Methane has a shorter lifespan in the atmosphere (closer to 20 years) than many other greenhouse gases. When 100-year factors are used instead of 20 years, the warming potential of methane produced by waste is severely undercounted.

CU and any campus franchises should stop purchasing single use plastics no later than June 2025.

CU should purchase dehydrating equipment so that it can preprocess its organic waste. It should re-educate its students on composting on campus and begin composting of public facing waste by June 2025. This will likely require building capacity for manual sorting.

1. representative of all members of the community should be included in the Sustainability Executive Council. Students are our MOST important members, and our future. It is imperative that they be included in a decision making, not solely advisor, fashion.
2. it is critical that the Executive Council commit to transparency on assumptions, models and other decisions. I study disasters and communication. Without transparency, there will be NO TRUST is what is happening. Without trust, we will be unsuccessful at meeting our goals and lauding our progress. A real commitment to transparency is essential. it would also allow experts across campus to fully engage (providing better models)

Hello, please incorporate the following into the Climate Action Plan:

- Include at least six students on the body that will implement the CAP, the Sustainability Executive Council. This Council should commit to transparency, including posting data, allowing students to report on meeting minutes, and hosting public progress reports.
- Decarbonize and electrify CU Boulder's heating system by 2035 and incorporate all future capital projects into the emissions inventory of the CAP.

Draft Climate Action Plan Comments – University of Colorado Boulder

- Complete a full inventory of Scope 3 emissions, in accordance with the Science Based Targets Initiative (SBTi) rules, and lay out concrete strategies and timelines to reduce Scope 3 emissions to meet the targets.
- Live up to the stated values of transparency and accountability by formally committing to follow all Science-Based Target Initiative (SBTi) rules and submit targets for validation, investigating past failures to meet the 2020 target, and avoiding overstatement of climate benefits.
- Develop and fund specific climate justice strategies that tangibly benefit marginalized communities.

1. Implementation Plan:

Include at least six students on the body that will implement the CAP, the Sustainability Executive Council. This Council should commit to transparency, including posting data, allowing students to report on meeting minutes, and hosting public progress reports.

2. Scopes 1 & 2:

Decarbonize and electrify CU Boulder's heating system by 2035 and incorporate all future capital projects into the emissions inventory of the CAP.

3. Scope 3:

Complete a full inventory of Scope 3 emissions, in accordance with the Science Based Targets Initiative (SBTi) rules, and lay out concrete strategies and timelines to reduce Scope 3 emissions to meet the targets.

4. Core & Guiding Principles:

Live up to the stated values of transparency and accountability by formally committing to follow all SBTi rules and submit targets for validation, investigating past failures to meet the 2020 target, and avoiding overstatement of climate benefits.

5. Co-Benefits:

A) Provide an analysis of how all strategies will result in tangible benefits for marginalized communities, and how harms to these communities will be mitigated.

B) Incorporate strategies specifically requested by marginalized communities. This includes fully funding the Tribal Climate Leaders program and increasing affordable and sustainable housing options near campus.

This plan shows the leadership in a critical area of societal benefit that our future students will appreciate. It is encouraging to see step up in a serious and (presumably, and hopefully) committed manner to the climate challenge. I strongly encourage enacting and carrying out this plan.

30 years of drought land once set aside for drainage developed without required due processes. Now that weather is being restored by an improved understanding of biology the need to put domestication back into zones and limits that respect the 'trails of nature'. Strive for non

Draft Climate Action Plan Comments – University of Colorado Boulder

mechanized areas of communities and look to meet the requirements and obligations of development stated in that agreement.

I support the initiative for 6 students to be voting members of the Sustainability Executive Council to increase student input in climate planning. CU must also take a more aggressive approach to reducing emissions by decarbonizing the heating systems by 2035. There also must be more of an emphasis on transparency and equity to support the Tribal Climate Leaders program.

First of all, let me say that I am pursuing a Master's of the Environment and working with Boulder Valley School District on its 2050 decarbonization plan. I know how challenging it can be to make actionable plans decades into the future and I commend you for your work so far. With that said, there are a few glaring issues with the CAP as it currently stands.

1. Firstly, I believe that equity should be prioritized throughout, with special attention to fully funding The Tribal Climate Leaders program and similar programs for under-represented students and faculty. Another important piece with obvious equity co-benefits is the construction of dense, affordable housing on CU properties. CU South provides a great opportunity to build all-electric, dense housing within Boulder so that lower-income students and faculty can afford to live within city limits.

2. Next, CU should own up to the fact that it did not meet its interim 2020 emissions target and investigate why it fell short. CU has been a climate leader but if we are going to remain accountable into the future, we need to be honest about past mistakes.

3. To this point, Scope 3 emissions should be fully accounted for. I recognize that student flights are a difficult issue to account for, but I think inventive options, like discounted Amtrak or Greyhound tickets for students should be explored. Likewise, the University can collaborate with RTD to increase commuting options for students, especially those living outside of Boulder's commercial core.

Controversially, I actually don't believe that CU should divest financial investments from fossil fuels but I think it should use its voting power to change course for polluting companies and should directly reinvest dividends from oil majors into climate justice programs on campus.

4. I've looked at preliminary figures for removing the cogen plant on main campus and I understand that it is a massive financial undertaking. With that said, gas infrastructure will never get us to zero carbon and we have an obligation to electrify everything in a short time frame. Electrifying campus will future-proof the University from other expensive upgrades down the line. This is quite possibly the single most important issue from an emissions standpoint so it should be a top priority.

5. Lastly, students are the majority stakeholders on campus and they deserve a real seat at the table, not a symbolic seat that can be

Draft Climate Action Plan Comments – University of Colorado Boulder

overridden by the administration. I encourage you to add at least six students to the Sustainability Executive Council. As we transform campus for the better, it's vital that we use a bottom-up approach that keeps equity at its core and centers student voices.

Thanks so much for your time.

Decarbonize and electrify CU Boulder's heating system by 2035 and incorporate all future capital projects into the emissions inventory of the CAP. Currently, CU Boulder uses natural gas for its heating; decarbonizing the heating system is the single most impactful strategy the university can take to reduce its direct emissions. The CAP draft's timing for decarbonization is too slow, taking until 2050. This will be a considerable undertaking, but I hope the university rises to the challenge and becomes an example for another colleges in Colorado and across the country.

1. Governance: Put six students on the Sustainability Executive Council, which will implement the CAP.
à The draft currently includes no students on this decision-making body.
2. Heating: Decarbonize and electrify CU's heating system by 2035.
à CU's peers have a much faster timeline for decarbonizing than we do.
3. Strategies: Collect data and make concrete plans to reduce emissions from Scope 3 emissions categories (flights, purchased goods and services, waste, commuting) by January 1, 2025.
à The draft includes only plans to make plans to reduce these categories. It leaves out or undercounts Scope 3 categories like investments, athletics, and purchased goods and services.
4. Transparency: Formally commit to meeting Science-Based Targets Initiative standards, and acknowledge that CU missed its 2020 emissions reductions target.
5. Equity: Incorporate strategies specifically requested by historically marginalized communities, including funding the Tribal Climate Leaders program and increasing affordable housing options near campus.

Implementation Plan (Governance and Accountability):
Include at least six students on the body that will implement the CAP, the Sustainability Executive Council. This Council should commit to transparency, including posting data, allowing students to report on meeting minutes, and hosting public progress reports.

Scopes 1 & 2 (Electric & Heating):
Decarbonize and electrify CU Boulder's heating system by 2035 and incorporate all future capital projects into the emissions inventory of the CAP.

Scope 3 (Additional Emissions):

Draft Climate Action Plan Comments – University of Colorado Boulder

Complete a full inventory of Scope 3 emissions, in accordance with the Science Based Targets Initiative (SBTi) rules, and lay out concrete strategies and timelines to reduce Scope 3 emissions to meet the targets.

Core & Guiding Principles (Transparency & Accountability):

Live up to the stated values of transparency and accountability by formally committing to follow all Science-Based Target Initiative (SBTi) rules and submit targets for validation, investigating past failures to meet the 2020 target, and avoiding overstatement of climate benefits.

Co-Benefits (Equity):

Develop and fund specific climate justice strategies that tangibly benefit marginalized communities.

Include at least six students on the body that will implement the CAP, the Sustainability Executive Council. This Council should commit to transparency, including posting data, allowing students to report on meeting minutes, and hosting public progress reports.

Decarbonize and electrify CU Boulder's heating system by 2035 and incorporate all future capital projects into the emissions inventory of the CAP.

Complete a full inventory of Scope 3 emissions, in accordance with the Science Based Targets Initiative (SBTi) rules, and lay out concrete strategies and timelines to reduce Scope 3 emissions to meet the targets.

Live up to the stated values of transparency and accountability by formally committing to follow all Science-Based Target Initiative (SBTi) rules and submit targets for validation, investigating past failures to meet the 2020 target, and avoiding overstatement of climate benefits.

Develop and fund specific climate justice strategies that tangibly benefit marginalized communities.

The report is very well put together! Please prioritize analyzing campus waste streams and exploring ways to recycle or even upcycle these products, whether they be food waste, construction waste, etc.

Also, with the implementation of solar panels, please continue to explore areas that allow them to use already developed land, whether it be on rooftops, over carparks, or even exploring agrovoltaics with the surrounding communities.

Thank you for your hard work!

My first point to touch on is the equity and inclusion in the plan, being sure to prioritize marginalized members of the community. I also want to recommend regular monitoring and reporting mechanisms to track progress towards carbon neutrality goals and identify areas for improvement and have them be available to the public.

Draft Climate Action Plan Comments – University of Colorado Boulder

When we look specifically at the scope 3 target (page 21), commute, business, and travel have to be more realistic when looking long-term. To say that x can be hit is a more preemptive goal, I think there needs to be some leeway on what can be done.

A large majority of the project also seems to be dependent on Xcel Energy's project. There needs to be a plan in place in the slight chance that projects change on Xcel's end. If the energy project is unsuccessful will CU then proceed to change this current plan to adjust for funding that fell through. CU is being reliant on Xcel's project, if it wasn't for this major funding by Xcel's project I fully believe that the university would not be able to meet the targets they have outlined.

Within the report it would have been nice to evaluate areas of funding that the university could tap, whether it be from the IRA, private companies funding the energy transition or even donors who are willing to push forward the transition.

It is absurd that this plan does not include a complete and full divestment from fossil fuels. I guess for those in power this is a matter of fiscal responsibility but have you no ethics? This investment is a euphemism for murder; for colonialism and imperialism; for disease and death; for neglect; for anti-Black racism and racism in general; for oppression; for the displacement of the consequences of your actions; for I care more about money than I do about life. I guess it is easier to understand this matter in monetary terms when it is not your home being burned, when it is not your nation being flooded, and when it is not your body getting heat stroke while you pick food. Why are you invested in the destruction of my people, of all people, of your children, and of yourself? Have you no morals? Have you gone mad with the sheer hypocrisy of this plan that does not include divestment? I assure you the people of Haiti and Pakistan do not see this as a matter of fiscal responsibility. If divestment is not a part of climate action, then what does climate action even mean? I should not have to type these things out for you to understand. Look at the news, open your eyes, and stop living in disillusionment: even with blood on your hands, you continue to choke us to death.

(A letter below)

The world is burning and I'm late to class. I paint my face with a bricolage of rationalizations that appear sensible to me. I feel the world is ambivalent and so am I.

I walk the same path every day. Over the creek and into the institution. Like how a broken clock is still right twice a day, I know the creek will flow in the same direction on my way home as it did on my way to class. I guess, the water will always flow until the day it does not.

When only ten percent of the Colorado River reaches Mexico, and I am half Mexican, what made me so privileged to be on this side of the border and not the other? Why is my Peruvian father planting trees in the Rocky

Draft Climate Action Plan Comments – University of Colorado Boulder

Mountains and not the Andes? On the same land that was once my ancestors', then the land of colonizers, and finally to the land of different colonizers. A war was fought, but my people had already lost after the first ship had sailed. Centuries passed by, and now I'm the first in my family to attend university. I speak the language of all my colonizers whether they be French, Spanish, or English. Their tongue has been stuffed down my throat and my head is at the intersection of it all.

As if this moment will bring me resolve, my eyes swallow the water that streams so peacefully. Like my ancestors, I know that this water, which was once snow, is as alive as I. She had traveled so far to see me, and I must say hello. However, at a certain point, I remember that the Colorado River, which provides water to Arizona, Colorado, Wyoming, Utah, New Mexico, Nevada, California, and Mexico has been in drought since before I was even born. The creek may flow but her story is one of 24 years of drought.

I have no time to linger, and the creek, try as it may, will never reach the ocean. This water is as impermanent as the catharsis it had brought me. I am rushing to class now but my mind is reminiscing on a particular stanza by Natalie Diaz: The water we drink, like the air we breathe, is not a part of our body but is our body.

The creek is running low this morning, which means I am running low this morning.

What does it mean to love something that depresses you? It means ordering a latte before class knowing that every cup of coffee consumed destroys roughly one square inch of rainforest. It's drinking a foamy latte, while only 25 miles away from you the residents of Commerce City are drinking contaminated water that will give them kidney cancer, testicular cancer, breast cancer, ovarian cancer, endometrial cancer, prostate cancer, non-Hodgkin lymphoma, thyroid cancer, and childhood leukemia (NCI, 2014). When 48% of Commerce City residents are Latino but only 22% of Colorado residents are Latino, you need not be a mathematician to see the disproportion. But here I am, drinking a latte - only 25 miles away.

(Left to right: Suncor oil refinery located in Commerce City, Colorado, and my latte).

I present these statistics in class, but no matter how articulate I am, I feel no one hears me. Why is no one angry? I feel so stuck. I can make a documentary about water privatization in Latin America; get \$5,000 in funding from the university for The Bold to create an entire section dedicated to climate reporting; I can attend local workshops on regenerative farming; I can read Bill McKibben, Rachel Carson, or All We Can Save as many times as I want; I can become vegan and only eat organic; I can refuse to buy new clothes except shoes (my guilty pleasure); I can commit to flying less; I can drive less and walk everywhere; I can refuse to buy from Amazon; I can do everything I can; and oil will still burn while rivers run low. So, as I present the human rights violations underway in Commerce City, it occurs to me that I am still not doing everything I can. My frustration with the ecological

Draft Climate Action Plan Comments – University of Colorado Boulder

collapse has been met with a world that seems uninterested in our own demise.

The world is ending and I have to do my homework. The U.S. is supporting a military operation in Rafah, which means we are supporting genocide: I am sitting in class learning about human rights. The University of Colorado Boulder says they have a clear path to a zero emissions target for all categories by no later than 2050, but I do not believe the residents of Commerce City should endure another 26 years of pollution, disease, and death. The world is ambivalent and so am I.

I am on my way home from class now and I pass by the memorial of Los Seis. Una Jaakola, Reyes Martinez, Neva Romero, Francisco Dougherty, Heriberto Teran, and Florencio Granado all died for my educational opportunity. They were killed off campus while students were occupying Temporary Building 1 at the University of Colorado Boulder demanding funding for students like myself. I wish I could ask for their guidance.

Climate change and ecological collapse disproportionately affect the marginalized. Half of those living near hazardous waste are people of color. Black Americans are 75% more likely to live near commercial facilities that produce emissions, odor, and noise pollution. The world is so hot that farmworkers are dying as they pick the food we eat. Delivery drivers who bring the packages to our doorsteps are dying of heat stroke. By 2025, over half the world's population will be living in a water-scarce area. Climate change is killing my people first, but eventually, it will kill everyone.

I am trying to convey to you the gravitas of our lands, water, air, and bodies being murdered – how this crime is hard to trace. Who do I call on the day the creek runs dry? What do I eat when all the farmworkers are dead in the fields? Where do I go when this world is too hot? How do I stop the end of the world?

I begin by stopping what I can. The University of Colorado Boulder has 270 million dollars invested in fossil fuels. The University of Colorado Boulder has 270 million dollars invested in our own extinction. So, I must ask the Board of Regents: why are you killing us? This is not a matter of fiscal responsibility. Anything apart from an immediate and full divestment from fossil fuels will be understood as an active participation in our extinction.

My fellow students have protested to no avail. Regardless, I will not give up, for I love this world and its people. I don't want my peers to be fighting in wars over water twenty years from now, when we could have simply fought for divestment today.

I am happy to tell you that the United Mexican American Students (UMAS) y Mecha has offered to host a space for the movement towards divestment. We are hosting a teach-in on environmental action on Thursday, February 22nd at 5:30 p.m. in Ekeley Room E1B50. We invite all our peers, professors, staff members, and anyone affiliated with CU to join us. If you cannot

Draft Climate Action Plan Comments – University of Colorado Boulder

attend, the least you can do is sign the petition for divestment and share it with everyone you know. We will not survive if we do not have solidarity.

¡La unión hace la fuerza!

Con Mucho Amor,

Bianca Perez con UMAS y Mecha

Implementation Plan (Governance and Accountability)

* Include at least six students on the body that will implement the CAP, the Sustainability Executive Council. This Council should commit to transparency, including posting data, allowing students to report on meeting minutes, and hosting public progress reports.

Scopes 1 & 2 (Electric & Heating)

*Decarbonize and electrify CU Boulder's heating system by 2035 and incorporate all future capital projects into the emissions inventory of the CAP.

Scope 3 (Additional Emissions)

*Complete a full inventory of Scope 3 emissions, in accordance with the Science Based Targets Initiative (SBTi) rules, and lay out concrete strategies and timelines to reduce Scope 3 emissions to meet the targets.

Core & Guiding Principles (Transparency & Accountability)

*Live up to the stated values of transparency and accountability by formally committing to follow all Science-Based Target Initiative (SBTi) rules and submit targets for validation, investigating past failures to meet the 2020 target, and avoiding overstatement of climate benefits.

Co-Benefits (Equity)

* Develop and fund specific climate justice strategies that tangibly benefit marginalized communities.

Include at least six students on the body that will implement the CAP, the Sustainability Executive Council.

Decarbonize and electrify CU Boulder's heating system by 2035 and incorporate all future capital projects into the emissions inventory of the CAP.

Complete a full inventory of Scope 3 emissions, in accordance with the Science Based Targets Initiative (SBTi) rules, and lay out concrete strategies and timelines to reduce Scope 3 emissions to meet the targets.

Live up to the stated values of transparency and accountability by formally committing to follow all Science-Based Target Initiative (SBTi) rules and submit targets for validation, investigating past failures to meet the 2020 target, and avoiding overstatement of climate benefits.

Develop and fund specific climate justice strategies that tangibly benefit marginalized communities.

Draft Climate Action Plan Comments – University of Colorado Boulder

CU needs to divest from any fossil fuel investments it is holding and invest in efforts that address the climate crises with livable solutions for all Life on Planet Earth.

Every professor for each class needs to prepare students with solutionary approaches to solve the multiple climate crises and their causes which their field or discipline has contributed to creating. Also engage students in values assessments for their field and for themselves -- asking which values and intentions move us towards creating a livable world for all Life. There is much we can learn from the Indigenous worldviews and from Traditional Ecological Knowledge. Thank you for considering this suggestion.

Decarbonize energy sources by any means necessary.

Include at least six students on the body that will implement the CAP, the Sustainability Executive Council. This Council should commit to transparency, including posting data, allowing students to report on meeting minutes, and hosting public progress reports.

Decarbonize and electrify CU Boulder's heating system by 2035 and incorporate all future capital projects into the emissions inventory of the CAP.

Complete a full inventory of Scope 3 emissions, in accordance with the Science Based Targets Initiative (SBTi) rules, and lay out concrete strategies and timelines to reduce Scope 3 emissions to meet the targets.

Clarify Fleet Electrification Timeline, include electric vehicle (EV) and internal combustion engines (ICE) vehicle purchases in the public dashboard: 1) There are two different timelines in the CAP and the Appendix, 2037 and 2050. Please clarify the timeline and preferably choose the earlier timeline of 2037; 2) Include EV and ICE vehicle purchases in the public dashboard. If I have misunderstood the CAP, please reformat it to provide greater reading clarity.

For Fleet Electrification, Add Financing Options in the same section of the CAP, and Add Additional NPV Cost Calculations with Tax Credits and Incentives: 1) Add additional NPV cost estimates to include tax credits and incentives that are certain under the IRA or state-level; 2) Add these additional NPV figures into the body of the CAP; and 3) Electrification will require money, but not providing the financing options direct next to the fleet electrification cost will give readers a

Draft Climate Action Plan Comments – University of Colorado Boulder

skewed perception of the true cost. Many readers may not be aware that financing options are on PDF pages 105 and 214. Please add the electric vehicle and charging infrastructure financing options on pages 60-64 and at the beginning of the Fleet Electrification Appendix

The electric vehicle and charging sections focus largely on the fleet vehicles. There are growing segment of student and staff with EVs who also need charging. i know here is a bank of charging at the football stadium, but that's a 25 minutes to the other side of campus. We need charger banks in all the parking lots across the main campus.

Also, send out a survey about how many students and staff have EVs. The number may be surprising. If we want people to drive EVs, we must have the infrastructure, especially in boulder where most students live in apartments without chargers. #IfYouBuildItTheyWillCome

The following are comments on the CAP that are being submitted by the members of the Boulder Faculty Assembly (BFA) Climate Science and Education Committee (CSEC)

I. General Observations and Executive Summary

- The US National Climate Task Force, and Xcel energy (which we are relying on for a hefty portion of the savings) are both working to reduce by 50% from 2005 baselines, and we are working from a 2019 baseline, which I assume is when the project started and I appreciate that you can't go back and just whip up a baseline from thin air, but is there a reason we are ok with this much lower bar rather than trying to estimate what the 2005 baseline would have been?
- It appears that CU plans to piggyback on Xcel's intensity reduction commitments when it comes to bringing down its own scope 2. But why aren't we accelerating that process by committing to purchase Power Purchase Agreements (PPAs) through Xcel to bring our Market-Based Scope 2 emissions down to 0 immediately?

1. Introduction

P 32

Footnote 18 should refer to footnote 7 not 6.

In side bar, should an be a in this sentence? • Development of an 5.9MW offsite solar array as part of the state's new Virtual Net Metering Program (VNEM)

P 33

The CAP is organized around five Core Goals...
[Six are listed on this page - confusing] Also, please check for consistent use of these goals throughout the document (as subheadings)]

Draft Climate Action Plan Comments – University of Colorado Boulder

The Core goals section here is very similar to the one on Page 10 except the last bullet item on affordable education. This is an important point so why was this point not on page 10?

In bullet point 1 for the core goals, you may want to spell out RECs as not everyone will remember or go back to page 10 to see it spelled out.

P 35

Bullet 4: Replace benefits-cost analysis with benefit-cost analysis. Besides using a social cost of carbon which is a generic model estimate, there are clear costs CU may be able to anticipate associated with dealing with a warmer climate, increasing risks and insurance costs, extreme weather damages like flooding, freeze damage. Is there a document that lists the CU campus and CU community climate vulnerabilities and prioritizes them and gives a roadmap to address them?

Bullet 5: You mention CAP Dashboard: what about improved data gathering, emissions estimates and QA/QC?

2. Baseline Forecasts & Targets

P 37

The paragraph mentions Figure C ; it should be Figure 6.

P 39

Do you explain somewhere that you use CO₂eq GHG emissions and 100 yr GWP for conversions to CO₂? I see Footnote 27 on p 39: you need to clarify the GWP is for a certain time horizon and for pulse emissions.

All your emission figures are estimates that have uncertainties and will be improved and refined. How is this going to be tracked and taken into account?

The inventory was conducted in an Excel-based model called the Climate and Energy Scenario Analysis tool (CESA). How do you justify using a proprietary model? How is version control done for the model runs and being able to reproduce results? Is this a model that CU will keep using or will an in-house version be developed, especially to downscale results to better reflect the impact of various actions/policies for various units on campus?

P 40

Figure 7 is not easy to read and could be better in a table with the emission categories in descending order. What does 0% mean? Needs improvement. Also in a table you can separate Scope 1 and Scope 2. Not everyone is familiar with the various subsections of campus for the NG usage. Is that the most disaggregated data you have so far?

Draft Climate Action Plan Comments – University of Colorado Boulder

Is there a document or files that describe the input data to the emission estimation model and where the data comes from: meters, accounting (fuel purchases), default values etc... and which data improvements are needed to improve future estimates and for emission reduction tracking?

P 41

Seven of the categories have been included in this first Scope 3 inventory, some using significant assumptions given the lack of available data, and seven of the categories have reduction targets. Should the first part be Nine of the 15 categories have been included in the first Scope 3 inventory. Reference Table 10 here.

The one category that was estimated and included in the baseline inventory, but excluded from the targets is category 9, which considers out of state travel for those who are consuming CU Boulder's services (i.e. students flying to and from campus). This exclusion is due to the need for better underlying data and the limited sphere of influence the campus has on how and when people come and go... Except for example if the semesters are planned differently as discussed during a few Q&A with the back to back Thanksgiving and Christmas breaks.

P 42-43

You have 2 tables back to back after this sentence The table below summarizes the emissions associated with each category. In the current draft, the table after the sentence is table 10, which should be referenced earlier on p41, so here you are referring to Table 11 which is 2 tables down.

P 44

Remove Figure 8. It is the same as Figure 6 p38 and I do not see it explicitly referenced in this section. If needed, reference Figure 6.

P 45

Under a business-as-usual scenario, which assumes that CU Boulder does not change its operations in any way, as shown by the black line in Figure D, (...) Figure D should be Figure 9, but really Figure 8 since Figure 8 should be deleted (per comment above).

This trend is driven by the fundamental economics of low cost renewable energy, incentives from the IRA, and Colorado legislation requiring (...) The IRA is a familiar acronym for some of us right now, but the Act and its direct impacts on emission reductions on Colorado power sector may not be clear for most people.

P 46

Check if you want to rename Figure 9, Figure 8 and reflect the change in numbering with the rest of the figures.

Do you need to bring up the 2005 baseline in Figure 9?

Draft Climate Action Plan Comments – University of Colorado Boulder

P 47

The majority of CU Boulder's combined Scopes 1 and 2 emissions comes from purchased electricity. The emissions come from electricity generated by burning fossil fuels such as coal, natural gas, and oil at power plants. Are there power plants burning oil in Colorado?

By Colorado law, the energy mix is required to be converted to greater percentages of renewable sources, and gradually become 100% renewable by 2050. Do you want to be more specific: what energy mix are you talking about? All combustion sources or utilities in CO?

In November 2004, Colorado became the first state to legislate a legislated renewable portfolio standard by popular vote (see SB 19-236). repetition. Why do you reference SB19-236 here? Will it make sense to the reader?

This standard, now updated, requires the utility to secure 80% of its energy from carbon-free sources by 2030, and 100% by 2050. It seems that the law applies not just to Xcel Energy but also TriState (and maybe other utilities). See: <https://www.cleancooperative.com/news/colorado-public-utilities-commission-will-oversee-tri-state-resource-planning>. So here replace the utility by Xcel Energy since it is the utility that supplies CU Boulder.

Electricity emissions for CU Boulder are estimated through multiplying the electricity consumed by an emissions factor, which is the quantity of CO2 equivalent released into the atmosphere for every unit of electricity produced. It is emission factor, singular for emission. Should produced be replaced with consumed ? Here you assume the emission factor is the same, but is it?

runs on fossil fuels with alternatives that run on electricity. Figure 10 shows the expected trend of emission factor values between now and 2050 for Xcel Energy, CU Boulder's electricity provider, based on company reports. Company reports is vague, do you refer to Xcel Electric Resource Plan:
https://www.xcelenergy.com/company/rates_and_regulations/resource_plans/clean_energy_plan

This Figure (10) is described in the text which makes it relevant. Other figures, such as Fig. 17, are not described in the text and should be deleted since they just confuse the reader as to why they are pertinent to the argument being presented.

P 48

Is Xcel's emission reduction plan for zero emissions by 2050 not net zero?

3. Reducing Scope 1 and 2 Emissions

P 50

Draft Climate Action Plan Comments – University of Colorado Boulder

4. Transportation: Transition campus fleet to electric vehicles (Note: reducing campus community vehicle miles traveled (VMT) in commuting to campus and the use of electric vehicles among the CU Boulder community is addressed under Scope 3 emissions) 32 is should be are. Also do you clearly define what you mean with campus vs CU Boulder Community ?

P 51

Do you provide links to the CU Boulder Energy Master Plan and the Campus Master Plan?

It has the potential to reduce energy burden (high percentage of household income going to utility bills) in housing. maybe simplify: It has the potential to reduce housing energy costs

P 52

Special attention was paid to laboratories, which represent 40% of the campus energy use and present special challenges. That is interesting information. Where is the full breakdown for buildings data in terms of sq feet, energy usage etc by type of usage (lab, dorms, classrooms, UMC/C4C, REC and Sports facilities...?

The following table illustrates the implementation timeline, first costs, first cost per building area, the life cycle cost including the social cost of carbon (SCC), measured in net present value (NPV), the GHG emission reduction potential, percent of emissions, and the cost per metric ton of GHG reduced (in CO₂e). These measures represent the majority, but not the entirety of the measures listed in the Energy Master Plan (EMP), and the implementation and the CAP recommends the continued evaluation and implementation of all measures within the EMP. add emission and remove the text in green above.

What does percent of emissions mean here: percent of total campus CO₂e emissions? Table 11 column label is % of 2050 emissions and note 34 mentions baseline emissions. I have no idea what this % represents: is it an emission or an emission reduction? Please clarify.

Does first cost mean initial investment cost ? What do you assume for the SCC value?

Where do the cost estimates come from? The EMP? Will the estimates be refined in the near future or are they robustly derived?

P 53

To evaluate the impact of these building energy system upgrades, three scenarios were developed: the first, represented by the blue line in Figure G - [Shouldn't this be Figure 11?] represents an evenly distributed investment approach in building efficiency, with an annual spend of approximately \$9 million between now and 2040. Total cost is estimated at \$104 million. The second and third scenarios, represented by the red and olive lines, accelerate the pace of investment. Fix figure

Draft Climate Action Plan Comments – University of Colorado Boulder

#. I do not see scenarios 2 and 3 in the Figure. Also provide the unit for the y-axis.

P 69

[There needs to be a description of Fig. 17 in the text that explains why it is relevant to the discussion. Otherwise delete it.]

4. Reducing Scope 3 Emissions

P 74

Table 1 provides a summary of Scope 3
[Shouldn't this be Table 19?]

P 92

Demand response. The cogeneration facility currently in operation provides another type of resiliency to the broader community. During periods of peak demand for electricity, the utility calls on CU Boulder to generate its own power, reducing the amount of utility power needed for the City of Boulder and surrounding communities. By reducing peak demand for the utility, CU Boulder is helping to reduce the need to serve that demand through power plants that are used only at peak times.
[This is a very controversial statement considering the cost projected for upgrading the WDEP system (millions of dollars). There needs to be an ongoing discussion of alternative strategies complete with a cost-benefit analysis of each.]

5. Co-Benefits: Equity, Health, Resilience

6. Implementation: Governance, Engagement, Reporting, and Finance

Table 23, p. 106

1. Given the size of scope 3 emissions and the impact of travel and commuting on GHG emissions, why are we waiting until 2027 to do the following:

- a. To educate students and parents about emissions from air travel
- b. To initiate surveys to measure student travel
- c. To explore options to reduce travel-related emissions during holiday breaks

2. We should differentiate the scope 3 emissions from in-state versus out-of-state student travel to and from campus; the environmental costs of relying on out-of-state students to fund the university operations is worth a conversation.

3. What sorts of resources are being marshaled to apply for IRA funds? The plan mentions the unprecedented nature of that funding

Draft Climate Action Plan Comments – University of Colorado Boulder

1. Include at least 6 students in the Sustainability Executive Council, giving them actual decision making power instead of just an advisory role. Also, this Council should commit to transparency, including posting data, allowing students to report on meeting minutes, and hosting public progress reports. This will allow students to better participate in discussions about these decisions.

2. Decarbonize and electrify CU Boulder's heating system by 2035 and incorporate all future capital projects into the emissions inventory of the CAP. We should not fall behind CSU on this, which has committed to decarbonizing in the next ten years.

3. Complete a full inventory of Scope 3 emissions, in accordance with the Science Based Targets Initiative (SBTi) rules, and lay out concrete strategies and timelines to reduce Scope 3 emissions to meet the targets. Scope 3 or indirect emissions include all emissions an institution is responsible for outside of its own walls, like commuting, flights, waste, and investments. Scope 3 emissions are crucial, as they often constitute the vast majority of a company's emissions. By excluding such large categories of emissions, CU is heavily diluting the ambition of its targets. Indirect emissions should include the extra commuting miles necessary for students who cannot afford to live in boulder due to a lack of affordable campus housing.

4. Live up to the stated values of transparency and accountability by formally committing to follow all Science-Based Target Initiative (SBTi) rules and submit targets for validation, investigating past failures to meet the 2020 target, and avoiding overstatement of climate benefits. CU Boulder missed its previous 2020 emissions reduction goal by a factor of nearly three, but the CAP downplays this miss and does not explain why it occurred. CU overspent its cumulative carbon budget, so it should account for these excessive emissions in its new targets. The CAP must explain these discrepancies to avoid further missed targets.

5. Develop and fund specific climate justice strategies that tangibly benefit marginalized communities. Despite receiving repeated feedback from the CU's Center for Native American and Indigenous Studies about the importance of the Tribal Climate Leaders program, the CAP does not commit to funding the program. This program should be fully funded. Additionally, the CAP designates some strategies as having an equity co-benefit, but does not explain what specific equity measures these strategies will have. Instead of only being a part of certain strategies, equity should be a priority throughout the plan. To accomplish this, the CAP should build on existing analyses by the CAP Equity Subcommittee, whose work is largely not reflected in the CAP draft. The CAP should also include a plan for expanding affordable, sustainable housing near campus to reduce commuting miles (see comment PART 3 about scope 3 or indirect emissions).

Five Priority Demands:

1. Implementation Plan (Governance and Accountability)

Top-Line Ask: Include at least six students on the body that will implement the CAP, the Sustainability Executive Council. This Council

Draft Climate Action Plan Comments – University of Colorado Boulder

should commit to transparency, including posting data, allowing students to report on meeting minutes, and hosting public progress reports.

2. Scopes 1 & 2 (Electric & Heating)

Top-Line Ask: Decarbonize and electrify CU Boulder's heating system by 2035 and incorporate all future capital projects into the emissions inventory of the CAP.

3. Scope 3 (Additional Emissions)

Top-Line Ask: Complete a full inventory of Scope 3 emissions, in accordance with the Science Based Targets Initiative (SBTi) rules, and lay out concrete strategies and timelines to reduce Scope 3 emissions to meet the targets.

4. Core & Guiding Principles (Transparency & Accountability)

Top-Line Ask: Live up to the stated values of transparency and accountability by formally committing to follow all Science-Based Target Initiative (SBTi) rules and submit targets for validation, investigating past failures to meet the 2020 target, and avoiding overstatement of climate benefits.

5. Co-Benefits (Equity)

Top-Line Ask: Develop and fund specific climate justice strategies that tangibly benefit marginalized communities.

CU students should be on the sustainability executive council. We will feel the impacts of climate change and there should be at least 6 students on the council. The representatives would be nominated by these bodies and would include at least one student working on environmental justice research or implementation. The Executive Council should establish a clear decision-making process, commit to transparency by releasing the detailed data it uses to make decisions and allow student representatives to report meeting minutes. Additionally, the substantiality council should prioritize decarbonization by 2035 and stop prioritizing clean natural gas solutions to the climate crisis. CU should be required to complete a full inventory of Scope 3 emissions, in accordance with the Science Based Targets Initiative (SBTi) rules, and lay out concrete strategies and timelines to reduce Scope 3 emissions to meet the targets. CU should be required to report all the information from the scope 3 targets in accordance with the SBTi. The council should also prioritize equity projects, and develop and fund climate justice strategies that benefit marginalized communities from the impacts or inequality effects of climate change.

Include at least six students on the body that will implement the CAP, the Sustainability Executive Council. This Council should commit to transparency, including posting data, allowing students to report on meeting minutes, and hosting public progress reports. Decarbonize and electrify CU Boulder's heating system by 2035 and incorporate all future capital projects into the emissions inventory of the CAP. Complete a full inventory of Scope 3 emissions, in accordance with the Science Based Targets Initiative (SBTi) rules, and lay out concrete strategies and timelines to reduce Scope 3 emissions to meet the targets. Live up to the stated values of transparency and accountability by formally committing to the Science-Based Climate Initiative (SBTi), investigating past

Draft Climate Action Plan Comments – University of Colorado Boulder

failures to meet the 2020 target, and avoiding overstatement of climate benefits. Develop and fund specific climate justice strategies that tangibly benefit marginalized communities.

I feel the lack of transparency in this CAP shows that compared to other schools we are severely lacking in powerful initiatives to be more sustainable not only as a campus but also as a community. I am disappointed with how far off we are on many of our goals and trust that the university will do better.

CU Boulder's recently released Climate Action Plan (CAP) is grossly inadequate. As a CU student and Teaching Assistant, I believe that the CAP needs to include the following:

The inclusion of at least six students on the body responsible for implementing the CAP, the Sustainability Executive Council, to foster diverse perspectives and active student engagement in addressing climate challenges. This ensures that the plan is not only effective but also reflective of the concerns and insights of the campus community.

A Commitment to transparency by the Sustainability Executive Council is pivotal for the success of the CAP. Posting data, allowing students to report on meeting minutes, and hosting public progress reports not only build trust within the community but also empower individuals to actively participate in the ongoing efforts to combat climate change. This openness creates a collaborative atmosphere and encourages accountability.

CU should aim to decarbonize and electrify CU Boulder's heating system by 2035. This would demonstrate a strong commitment to reducing the university's carbon footprint. Additionally, incorporating all future capital projects into the emissions inventory of the CAP would ensure a holistic approach to sustainability. By aligning these initiatives with a concrete timeline, the university could take a proactive stance in combating climate change and set an inspiring example for other institutions to follow.

Make the decision to complete a full inventory of Scope 3 emissions, following the Science Based Targets Initiative (SBTi) rules. This is a crucial step toward understanding the complete impact of the university's activities. By outlining concrete strategies and timelines to reduce Scope 3 emissions, CU Boulder is not only taking responsibility for its carbon footprint but also demonstrating a commitment to global sustainability standards.

Make a pledge to live up to the stated values of transparency and accountability by formally committing to follow all Science-Based Climate Initiative (SBTi) rules. If CU were to investigate past failures to meet the 2020 target and avoid overstatement of climate benefits, this would showcase a commitment to learn from mistakes and continuously improve the effectiveness of the CAP. This level of self-reflection and

Draft Climate Action Plan Comments – University of Colorado Boulder

accountability is essential for ensuring the credibility and success of the climate action plan.

Finally, the CAP needs to include specific climate justice strategies that tangibly benefit marginalized communities. CU must make this commitment to acknowledge the disproportionate impacts of climate change on vulnerable populations and ensure that the university's efforts contribute to a more equitable and sustainable future.

The overall climate action plan adopts a timeline that is unreasonably slow, and evinces far less of a commitment to climate action than it should. In particular:

*CU should decarbonize and electrify its heating system by 2035. Currently, CU Boulder uses natural gas for its heating; decarbonizing the heating system is the single most impactful strategy the university can take to reduce its direct emissions. The CAP draft's timing for decarbonization is too slow, taking until 2050. The longer CU waits to reduce its emissions, the worse for the climate. CU's peer institutions, like CSU, will decarbonize their heating within the next ten years.

*CU should incorporate all capital projects it foresees into the CAP, including projects that are currently omitted and that will emit heavily. The CAP draft purports to do an honest accounting of CU's future Scope 1-2 emissions, but fails to incorporate or even mention several planned capital investments that will increase CU's emissions. Notably, this includes a \$45 million investment to extend the life of CU's natural gas heating system by 20-25 years, which belies the CAP's stated goal of decarbonizing CU's heating. The CAP also fails to account for planned growth, like the South Campus expansion.

*CU should complete a full inventory of Scope 3 emissions, in accordance with the Science Based Targets Initiative (SBTi) rules, and lay out concrete strategies and timelines to reduce Scope 3 emissions to meet the targets. CU should unclude emissions from investments, CU Athletics, and a full accounting of purchased goods and services, and should disclose the university's stake in the Limelight Hotel and include its emissions if required by emissions reporting rules. Scope 3 or indirect emissions include all emissions an institution is responsible for outside of its own walls, like commuting, flights, waste, and investments. Scope 3 emissions are crucial, as they often constitute the vast majority of a company's emissions. The Science Based Targets Initiative (SBTi) requires companies to inventory all Scope 3 emissions and implement a science-based target for them. Yet three key emissions sources were excluded or severely underreported in CU Boulder's inventory and targets:

- 1) Investment emissions, which constitute more than all reported emissions combined;
- 2) Athletics;
- 3) Purchased goods and services, which were reported at a fraction of peer institutions (12,216 tCO₂e compared to Stanford's 402,153 tCO₂e). By excluding such large categories of emissions, CU is heavily diluting the ambition of its targets.

Draft Climate Action Plan Comments – University of Colorado Boulder

* CU should complete the Scope 3 inventory by conducting relevant surveys, models, and incorporating all available data into the CAP and public-facing emissions inventory by no later than Jan 1, 2025. This includes: conducting a comprehensive survey on student travel (Category 9), breaking down air miles by department and flight length (Category 6), providing accounting for purchased goods and services (Category 1), and transparency around Life Cycle Assessments (Category 2). Many of the Scope 3 categories, while formally included in CU Boulder's inventory, are based on loose estimates or not backed with reliable data. In some cases, we found order-of-magnitude mistakes in data used.

*Cu should, no later than Jan 1, 2025, develop concrete, actionable, time-bound, and budgeted emissions reductions strategies for every Scope 3 category and model these strategies' abilities to meet the targets. CU should allow students to assist in collecting data and establishing strategies. Many Scope 3 strategies amount to vague statements and plans to make plans (i.e. facilitate discussion; make surveys, explore options). Unless these strategies are spelled out in detail, there is little hope of reaching Scope 3 targets.

*Most importantly, CU should fully acknowledge the university's failure to meet its 2020 target and conduct an independent study of the causes of that miss; CU should use the insights from this study to inform the current CAP. CU Boulder missed its previous 2020 emissions reduction goal by a factor of nearly three, but the CAP downplays this miss and does not explain why it occurred. CU overspent its cumulative carbon budget, so it should account for these excessive emissions in its new targets.

In the same vein, CU should remove, or correct and substantiate misleading statements to avoid climate-washing and commit to transparency with the CU Boulder community. The CAP overstates the university's past climate record and leadership.

*CU should develop and fund specific climate justice strategies that tangibly benefit marginalized communities. To address the disproportionate impact of climate change and climate action on marginalized communities, CU should provide an analysis of how all strategies will result in tangible benefits for marginalized communities, and how harms to these communities will be mitigated. Currently, the CAP designates some strategies as having an equity co-benefit, but does not explain what specific equity measures these strategies will have. Instead of only being a part of certain strategies, equity should be a priority throughout the plan. To accomplish this, the CAP should build on existing analyses by the CAP Equity Subcommittee, whose work is largely not reflected in the CAP draft.

In the same vein and for the same reason, CU should incorporate strategies specifically requested by marginalized communities. This includes fully funding the Tribal Climate Leaders program and increasing affordable and sustainable housing options near campus. Despite receiving repeated feedback from the CU's Center for Native American and Indigenous

Draft Climate Action Plan Comments – University of Colorado Boulder

Studies about the importance of the Tribal Climate Leaders program, the CAP does not commit to funding the program. Equitable climate action requires not only including marginalized and frontline communities in decision-making processes but also listening to them.

Include at least six students on the body that will implement the CAP, the Sustainability Executive Council. This Council should commit to transparency, including posting data, allowing students to report on meeting minutes, and hosting public progress reports.

Decarbonize and electrify CU Boulder's heating system by 2035 and incorporate all future capital projects into the emissions inventory of the CAP.

Complete a full inventory of Scope 3 emissions, in accordance with the Science Based Targets Initiative (SBTi) rules, and lay out concrete strategies and timelines to reduce Scope 3 emissions to meet the targets. Live up to the stated values of transparency and accountability by formally committing to follow all Science-Based Target Initiative (SBTi) rules and submit targets for validation, investigating past failures to meet the 2020 target, and avoiding overstatement of climate benefits. Develop and fund specific climate justice strategies that tangibly benefit marginalized communities.

1. Governance: Put six students on the Sustainability Executive Council, which will implement the CAP. The draft currently includes no students on this decision-making body.

2. Heating: Decarbonize and electrify CU's heating system by 2035.

3. Strategies: Collect data and make concrete plans to reduce emissions from Scope 3 emissions categories (flights, purchased goods and services, waste, commuting) by January 1, 2025. The draft includes only plans to make plans to reduce these categories. It leaves out or undercounts Scope 3 categories like investments, athletics, and purchased goods and services.

4. Transparency: Formally commit to meeting Science-Based Targets Initiative standards, and acknowledge that CU missed its 2020 emissions reductions target.

5. Equity: Incorporate strategies specifically requested by historically marginalized communities, including funding the Tribal Climate Leaders program and increasing affordable housing options near campus.

Being that the state of Colorado is going to fail its goals of carbon emissions reductions, as well as CU failing its goals, how will the University and the State hold each other accountable? Electricity generation on CU's campus, if it stays with XCEL's path forged by the

Draft Climate Action Plan Comments – University of Colorado Boulder

state would have seen significantly less emissions in our electricity sector, why did we not stay exclusively with XCEL?
How is the CU committed to remaining a climate leader while actively working to expand campus in areas miles away from main campus? How is this going to affect our ability to adhere to carbon reductions efforts? With this expansion, would more opportunities of cost effective public transportation arise?
Will the transition to cleaner energies in Boulder affect the already tight financial capabilities of Boulder's population today? Will it continue to hurt those already marginalized in Boulder?

CU is as big a part of the City of Boulder's Climate Action plan and goals as any other entity and your current plan is woefully inadequate, not to mention light on accountability, transparency, and specifics. It's 2024 -- this is not the time to educate leaders in the future of Planet Earth while not taking BOLD moves to decarbonize CU in every way possible. I'm also disappointed that the plan overlooks nature-based solutions and habitat/canopy restoration to a large extent. Do better.

Include at least six students on the body that will implement the CAP, the Sustainability Executive Council. This Council should commit to transparency, including posting data, allowing students to report on meeting minutes, and hosting public progress reports.
Decarbonize and electrify CU Boulder's heating system by 2035 and incorporate all future capital projects into the emissions inventory of the CAP.
Complete a full inventory of Scope 3 emissions, in accordance with the Science Based Targets Initiative (SBTi) rules, and lay out concrete strategies and timelines to reduce Scope 3 emissions to meet the targets. Live up to the stated values of transparency and accountability by formally committing to follow all Science-Based Target Initiative (SBTi) rules and submit targets for validation, investigating past failures to meet the 2020 target, and avoiding overstatement of climate benefits. Develop and fund specific climate justice strategies that tangibly benefit marginalized communities.

Thank you for this opportunity to provide input. And thank you to the members of the CAP Steering Committee and the Equity Subcommittee for their important efforts in this process.

The draft CAP, in my view, evidences extensive and in many cases careful work to understand CU Boulder's current emissions and chart a path to decarbonization. Nevertheless it also raises several serious concerns. I will get to the point directly:

First- the draft CAP fundamentally lacks adequate ambition to reduce emissions as quickly as possible. Zero emissions by 2050 is too long a timeline, and not in line with ambition among higher education institutions in the US, many of which lay out plans for decarbonization by 2035 or sooner. CU Boulder has an opportunity to demonstrate climate

Draft Climate Action Plan Comments – University of Colorado Boulder

action leadership through this CAP; the current draft does not position CU Boulder as a leader in this regard. More specifically: the Plan reveals that heating (natural gas) comprises the single greatest emissions source in scope 1, but as figure 3 (p.19) indicates, heating system upgrades will not commence under the draft plan until the 2031-2040 period. These upgrades should instead be a priority action, beginning immediately. Accelerating this action might allow an earlier target date for zero emissions and, more importantly, would reduce the university's cumulative emissions faster.

Second- the draft CAP, while it makes many important statements regarding the imperative to advance equity and climate justice through the CAP, fails to provide a comprehensive analysis of uneven distribution of benefits and harms from the campus's current emissions practices and how the CAP will specifically shift these to pursue justice. Identifying particular strategies as having equity co-benefits and laying out a series of best practices from the UC system and the Climate Leadership Network takes a step in this direction, but is inadequate- what is needed is specifics. The draft CAP itself states, We view equity as both a benefit of inclusive climate action and a framework through which climate action can be evaluated (p.9). Such an evaluation should be presented in this CAP, along with detailed actions that will be taken to realize the promised equity co-benefits and a commitment to provide the funding to do so. Needed actions and funding that have already been requested in this area include for more affordable and sustainable housing near campus, and for the Tribal Climate Leaders program. In relation to the latter, the CAP draft states, Given the scope of the CAP and its emphasis on infrastructure and operations, this plan is limited in its capacity to directly support the goals of CU Boulder's Land Acknowledgment (p.5). This suggests an alarmingly limited imagination of the scope for a campus CAP, and even of the relationship between infrastructure and operations and the Land Acknowledgment. Reworking the campus' physical plant to change how the university relates to the climate seems to me a deeply appropriate process through which to pursue Land Acknowledgement actions. The Tribal Climate Leaders program should be funded.

Third- the draft CAP cannot afford to overlook emissions tied to university investments. The draft lists investments as out of CU Boulder direct scope/control (p.15), but omitting these seriously compromises the campus' future claims to zero emissions. And while the emissions themselves may be beyond the university's direct control, the university absolutely has control over whether or not it invests in those emitting entities. To suggest otherwise is fraudulent. This presents, in fact, an enormous opportunity to advance the CAP's work: investment emissions (scope 3 category 15) are estimated at 372,000MTCO_{2e}, far more than scope 1 and 2 emissions combined. A fossil fuel divestment plan would thus go a significant (and indispensable) way toward zero emissions. I realize this presents a governance challenge as investment decisions are made by the CU System rather than the campus; this does not change the reality that emissions from investments must be addressed concretely in the scope 3 plan in order to in fact reach zero emissions in any meaningful or defensible way.

Draft Climate Action Plan Comments – University of Colorado Boulder

Fourth- the draft CAP appears to waffle on its commitment to science-based targets and SBTi in particular. The current draft, when describing the plan figure for scopes 1 and 2, states, The black dashed line represents CU Boulder's science based emissions target (SBT) (p.16). However, footnote 53 reads, the University is not seeking to establish a science-based target at this time, nor is it seeking conformance with the GHG Protocol Scope 3 Standard. Neither are we seeking validation from SBTi on our inventory or target setting process (p.73). Is CU Boulder establishing an SBT or not? The campus should unequivocally commit to both setting an SBT and specifically to SBTi validation now. This is an important step in demonstrating serious commitment to reaching zero emissions and in fact doing so. Indeed, the Annexes and other sections of the CAP frequently reference SBTi standards- the CAP should take the final step to fully commit to these methodologies, standards and verification process.

Fifth- the proposed governance structure excludes students and faculty from the Sustainability Executive Council. This is a missed opportunity, as 1) college and university students are consistently instrumental to motivating high-ambition emissions reduction efforts on campuses globally (including at CU Boulder), and 2) CU Boulder is home to significant faculty expertise in areas such as climate justice, environmental governance, GHG accounting, lifecycle analysis etc, which would greatly benefit CAP implementation. Specifically: CU Boulder should agree to requests listed in resolutions passed by CU Undergraduate and Graduate Student Governments, calling for six student representatives on the Sustainability Executive Council. The representatives would be nominated by these bodies and would include at least one student working on environmental justice research or implementation.

In sum: I am asking that CU Boulder take the opportunity of this important CAP to lead. Our campus is already somewhat late to the party of campus zero emissions planning; in my view this demands exceptional ambition and commitment. The CAP represents an opportunity to demonstrate that, but is not there yet.

Thank you very much for your consideration and careful attention to these concerns; please feel free to follow up with any questions.

Implementation Plan:

- 1) CU should agree to requests listed in resolutions passed by CU Undergraduate and Graduate Student Governments, calling for six student representatives on the Sustainability Executive Council. The representatives would be nominated by these bodies and would include at least one student working on environmental justice research or implementation.
- 2) The Sustainability Executive Council should establish a clear decision-making process, commit to transparency by releasing the detailed data it uses to make decisions and allow student representatives to report meeting minutes. It should host a quarterly public forum structured as a CAP implementation progress report followed by Q&A with the public.

Draft Climate Action Plan Comments – University of Colorado Boulder

Scopes 1 & 2:

- 1) CU should decarbonize and electrify its heating system by 2035.
- 2) CU should incorporate all capital projects it foresees into the CAP, including projects that are currently omitted and that will emit heavily.

Scope 3:

- 1) Include emissions from investments, CU Athletics, and a full accounting of purchased goods and services. Disclose the university's stake in the Limelight Hotel and include its emissions if required by emissions reporting rules.
- 2) Complete the Scope 3 inventory by conducting relevant surveys, models, and incorporating all available data into the CAP and public-facing emissions inventory by no later than Jan 1, 2025. This includes: conducting a comprehensive survey on student travel (Category 9), breaking down air miles by department and flight length (Category 6), providing accounting for purchased goods and services (Category 1), and transparency around Life Cycle Assessments (Category 2).
- 3) By no later than Jan 1, 2025, develop concrete, actionable, time-bound, and budgeted emissions reductions strategies for every Scope 3 category and model these strategies' abilities to meet the targets. CU should allow students to assist in collecting data and establishing strategies.

Core & Guiding Principles:

- 1) Formally commit to Science-Based Target Initiative (SBTi) rules, submit targets for validation, and remove all misleading, inaccurate, and outdated references to SBTi guidance.
- 2) Fully acknowledge the university's failure to meet its 2020 target and conduct an independent study of the causes of that miss; use the insights from this study to inform the current CAP.
- 3) Remove, or correct and substantiate misleading statements to avoid climate-washing and commit to transparency with the CU Boulder community.

Co-Benefits

- 1) Provide an analysis of how all strategies will result in tangible benefits for marginalized communities, and how harms to these communities will be mitigated.
- 2) Incorporate strategies specifically requested by marginalized communities. This includes fully funding the Tribal Climate Leaders program and increasing affordable and sustainable housing options near campus.

Although very concise and specific to CU Boulder, the main feedback I have relates to community inclusion. I.e: How does this climate action plan include students and university employees? The report lacks transparency in terms of the effect of reduced emissions initiatives on students and employees. As CUB only provides housing for first-year students, what does mitigating emissions look like for off-campus housing and commuters? As a CUB student, how could I personally reduce my impact and help achieve these goals by 2050? Some sort of plan for mitigation would incentivize students to reduce their personal footprint, or an

Draft Climate Action Plan Comments – University of Colorado Boulder

emissions breakdown of the individual student would hold students' accountable for their impacts on the University and Boulder community.

Another aspect of the report I would add to increase transparency and accuracy is the emissions output from each individual school (Arts & Sciences, CMCI, etc.). As a student ambassador for the College of Arts & Sciences, it would be beneficial to know the exact numbers from specific departments when parents/students approach my team with questions about CU's climate action. As a result, CU would appear much more transparent and proactive with precise, categorized data from each college.

1. Fund the Tribal Climate Leaders program
2. Collect data on Scope 3 emissions and create a data-driven plan to reduce it
3. Decarbonize and electrify CU's heating system by 2035
4. Put six students on the Sustainability Executive Council, which will implement the CAP
5. Formally commit to meeting Science-Based Targets Initiative standards, and acknowledge that CU missed its 2020 emissions reductions target

Decarbonize and electrify CU Boulder's heating system by 2035 and incorporate all future capital projects into the emissions inventory of the CAP.

I am a resident and climate activist in Boulder. I care about climate action because climate change and sustainability concern everyone and our decisions today greatly affect the world of tomorrow.

I think the current draft CAP could use a few changes:

- Include six students in the Sustainability Executive Council: Students have the most at stake in the climate crisis. There needs to be adequate student representation at an executive level, where decisions are made and implemented.
- Decarbonize and electrify CUB's heating system by 2035, not 2050: Heating is one of the highest contributors to pollution in general, let alone at CU Boulder, and every year we add to the decarbonization timeline, the worse the climate crisis gets. 2050 is not the worst goal, but CU Boulder can do better! Shortening the timeline will at least push the university to move quicker, even if it isn't attained.
- Complete a full inventory of Scope 3 (indirect) emissions in accordance to Science Based Targets Initiative (SBTi) rules, and develop actionable, timely, budgeted emission reduction strategies by 1/1/2025: ANY emissions the university can be held accountable for, even if they're necessary to operations, or aren't directly responsible for, need to be reduced. CU Boulder's inventory didn't fully account for emissions caused by investments, athletics, and purchased goods and services. However, these are huge emitters that CU could, at the very least, seek to mitigate, and fudging such emitters weakens the plan's ambition.
- Live up to transparency and accountability by accounting for failure to meet the 2020 target: Transparency and accountability are critical to actually reaching climate goals, for this is a crisis. CU Boulder missed

Draft Climate Action Plan Comments – University of Colorado Boulder

its 2020 emissions reduction goal. The CAP does not explain why it occurred, and isn't clear if it will account for CU overspending its carbon budget. The CAP must account for any excessive emissions.

- Develop and fund specific climate justice strategies that tangibly benefit marginalized communities and analyze how harms of these communities will be mitigated: It's no secret climate change disproportionately affects some communities more than others, and CU Boulder, which has the typical vast resources of universities and a substantial climate impact, has a duty to incorporate equity throughout this CAP. The CAP doesn't commit to funding a Tribal Climate Leaders program, which would be an important commitment to equity, despite receiving repeated feedback from the Center for Native American and Indigenous Studies.

While I am very new to the community, I have fought and advocated for a CAP at my own university for years, and CU has already put in much more work than I could ever hope for at a university. However, climate change is becoming more and more of a crisis each year, and there are many opportunities to do better. I hope you will consider these comments, reach out if you have any questions, and commit to making these changes.

Sincerely,
Finn Jackson

Please offer more plant-based meals.

I am concerned that the Climate Action Plan is not ambitious enough. The plan is unclear and the actionable items are not concrete. We need CU to commit to these actions. Additionally, we need to divest from fossil fuels!

I'd like to see greater emphasis on electrification from buildings to vehicles. Please cover empty rooftops with solar panels, put better insulation & heat pumps in buildings, install outdoor electrical outlets on every parking lot light pole (L1 charging), add induction stoves in every kitchen, replace old toilets with 1-pint flush toilets with bidets, stream environmental films on demand, and distribute free RTD EcoPasses for all students, staff, and faculty.

Include at least six students on the body that will implement the CAP, the Sustainability Executive Council. This Council should commit to transparency, including posting data, allowing students to report on meeting minutes, and hosting public progress reports.

Decarbonize and electrify CU Boulder's heating system by 2035 and incorporate all future capital projects into the emissions inventory of the CAP.

Draft Climate Action Plan Comments – University of Colorado Boulder

Complete a full inventory of Scope 3 emissions, in accordance with the Science Based Targets Initiative rules, and lay out concrete strategies and timelines to reduce Scope 3 emissions to meet the targets.

Live up to the stated values of transparency and accountability by formally committing to follow all Science-Based Target Initiative rules and submit targets for validation, investigating past failures to meet the 2020 target, and avoiding overstatement of climate benefits.

Develop and fund specific climate justice strategies that tangibly benefit marginalized communities, including fully funding the Tribal Climate Leaders Program.

I am writing to provide feedback on the Climate Action Plan (CAP) proposed by CU Boulder. CU Boulder's CAP sets ambitious goals to reduce Scope 1 and 2 greenhouse gas (GHG) emissions, aiming for a 50% reduction by 2030 and net zero emissions by 2050. The plan also emphasizes equity, health, and resilience co-benefits. While the plan demonstrates a strong commitment to sustainability, several areas could be further developed to enhance its effectiveness.

To outline the CAP's strengths, the plan's targets align with the Paris Climate Agreement and demonstrate CU Boulder's commitment to climate action. By considering the impact of climate goals on inequity, the plan demonstrates a commitment to social justice and inclusivity. I also commend the plan's emphasis on building efficiency improvements, as buildings are significant contributors to emissions.

However, while the plan outlines a strategy for fleet electrification, it could benefit from more specific targets and timelines for phasing out internal combustion vehicles. Additionally, the plan should provide a more detailed analysis of the financial implications of each strategy, including upfront costs, savings over time, and potential sources of funding. I recommend establishing a robust monitoring and reporting framework that will help track progress, identify areas for improvement, and ensure transparency.

The CAP clearly articulates the governance structures, such as the Sustainability Council and CAP Steering Committee. I also recommend continuing to engage marginalized communities and stakeholders, including students, faculty, staff, and the broader community, in order to help garner support for the plan and foster a culture of sustainability. The use of tools like the Climate Action Tracker and online dashboard for reporting progress enhances transparency and accountability. Finally, I recommend investing in research to develop new approaches for emissions reduction in order to accelerate the progress towards these goals.

CU Boulder's CAP demonstrates a strong commitment to sustainability and climate action. By addressing the feedback provided and implementing the recommended improvements, CU Boulder can enhance the effectiveness of its plan and serve as a leader in climate action within the higher education sector.

Thank you for your dedication to ensuring a more sustainable future for our university.

Draft Climate Action Plan Comments – University of Colorado Boulder

Include at least six students on the body that will implement the CAP, the Sustainability Executive Council. This Council should commit to transparency, including posting data, allowing students to report on meeting minutes, and hosting public progress reports.

Decarbonize and electrify CU Boulder's heating system by 2035 and incorporate all future capital projects into the emissions inventory of the CAP.

Complete a full inventory of Scope 3 emissions, in accordance with the Science Based Targets Initiative (SBTi) rules, and lay out concrete strategies and timelines to reduce Scope 3 emissions to meet the targets.

Live up to the stated values of transparency and accountability by formally committing to follow all Science-Based Target Initiative (SBTi) rules and submit targets for validation, investigating past failures to meet the 2020 target, and avoiding overstatement of climate benefits.

Develop and fund specific climate justice strategies that tangibly benefit marginalized communities.

Thank you very much for the CAP Steering Committee, Equity Subcommittee, consultants, and all others involved in preparing the CU Boulder Climate Action Plan. I appreciate the opportunity to review the document and provide feedback. My feedback is around the a) accuracy and b) specificity of the plan.

As a public institution of higher education, it is important that our decision-making and prioritization are based on scientific evidence and accurate information. Thus, it is important that all statistics, figures, and information in the report be supported by facts and be accurately and completely represented. There are a number of cases throughout the report where information is inaccurately portrayed, incomplete, or not based on evidence. For example, page 12 says Adding Scope 3, emissions estimates increase to 163,027 MTCO_{2e}. However, Table 2 on page 13 shows that Scope 3 emissions alone are 163,027 MTCO_{2e}, so the text on page 12 should read Adding Scope 3, emissions estimates increase to 293,620 MTCO_{2e}. This could mislead the reader to think that Scope 3 emissions are just 32k MTCO_{2e}, when really Scope 3 alone is 32k MTCO_{2e} larger than Scope 1 and 2 combined. This is a relatively minor error, but this and others have made me question the accuracy of other claims in the report. One action to reduce Scope 3 emissions is to Increase percentage of locally-grown foods purchased (Table 8 on page 28). There is little to no evidence suggesting that eating locally reduces emissions; if this evidence is identified, then it should be cited. I encourage those involved in creating the report to spend time fact checking all information included in this lengthy report, and add references to peer-reviewed scientific evidence when possible.

Additionally, many of the emissions reduction strategies are not specific, making it hard for implementers to understand the specific goal and for monitoring, reporting, and verification of progress toward goals. For example, Table 20 on page 84 shows Scope 3 reduction strategies. Many of these strategies are vague in terms of their implementation, concrete goal, and how progress will be tracked. Such strategies I'm referring to

Draft Climate Action Plan Comments – University of Colorado Boulder

include Increase percentage of locally-grown foods purchased and plant-based meals served, Educate students and parents on emissions from air travel, and Expand staff vanpools to make them available to more low-income staff. I may have missed it in the document, but I don't see specific information about the exact targets for these goals. Consequently, they could hypothetically be met by increasing locally-grown foods purchased and plant-based meals by 1%, educating one student and one parent on emissions from air travel, and adding one staff vanpool, all of which would have very little emissions reduction impact. To help ensure that the CAP facilitates a meaningful reduction in emissions, it is important that all actions include specific goals, actionable strategies, and concrete metrics to monitor and report progress toward those goals.

Thank you very much for your time and consideration of this feedback.

Implementation Plan (Governance and Accountability)

Top-Line Ask: Include at least six students on the body that will implement the CAP, the Sustainability Executive Council. This Council should commit to transparency, including posting data, allowing students to report on meeting minutes, and hosting public progress reports.

Scopes 1 & 2 (Electric & Heating)

Top-Line Ask: Decarbonize and electrify CU Boulder's heating system by 2035 and incorporate all future capital projects into the emissions inventory of the CAP.

Scope 3 (Additional Emissions)

Top-Line Ask: Complete a full inventory of Scope 3 emissions, in accordance with the Science Based Targets Initiative (SBTi) rules, and lay out concrete strategies and timelines to reduce Scope 3 emissions to meet the targets.

4. Core & Guiding Principles (Transparency & Accountability)

Top-Line Ask: Live up to the stated values of transparency and accountability by formally committing to follow all Science-Based Target Initiative (SBTi) rules and submit targets for validation, investigating past failures to meet the 2020 target, and avoiding overstatement of climate benefits.

5. Co-Benefits (Equity)

Top-Line Ask: Develop and fund specific climate justice strategies that tangibly benefit marginalized communities.

I think there needs to be a clear commitment to transparency and accountability by officially embracing all the rules of the Science-Based Target Initiative (SBTi) and investigating why we fell short in 2020. We failed in 2020. CU Boulder missed its emissions reduction goal by nearly threefold, yet the CAP downplays this without explanation, despite exceeding our carbon budget. It's crucial to rectify misleading

Draft Climate Action Plan Comments – University of Colorado Boulder

statements and commit to honesty to avoid merely 'climate-washing' our image. Own our mistakes so that we can learn from them!

The authors of the CAP used the spelling of acknowledgment on the land acknowledgment page of the report. Acknowledgment (with no e after the letter g) is AP Style and is also American English.

However, on Page 6 of the report (on the acknowledgments page), the authors used the British spelling (acknowledgements), which has an e after the g.

This may seem like a minor detail, but from a reader perspective, editorial inconsistencies like this can undermine the authority and credibility of a written piece. I suggest using the American spelling to be consistent.

Not nearly enough.

Five Priority Demands:

- Include at least six students on the body that will implement the CAP, the Sustainability Executive Council. This Council should commit to transparency, including posting data, allowing students to report on meeting minutes, and hosting public progress reports.
- Decarbonize and electrify CU Boulder's heating system by 2035 and incorporate all future capital projects into the emissions inventory of the CAP.
- Complete a full inventory of Scope 3 emissions, in accordance with the Science Based Targets Initiative (SBTi) rules, and lay out concrete strategies and timelines to reduce Scope 3 emissions to meet the targets.
- Live up to the stated values of transparency and accountability by formally committing to follow all Science-Based Target Initiative (SBTi) rules and submit targets for validation, investigating past failures to meet the 2020 target, and avoiding overstatement of climate benefits.
- Develop and fund specific climate justice strategies that tangibly benefit marginalized communities.

Please use this opportunity to commit to funding the Tribal Climate Leaders program run by CU's Center for Native American and Indigenous Studies. This is a well respected program with clear, demonstrated ability to help CU meet the Climate Action Plan's stated commitment to climate equity. Without committing to funding such programs, the CAP language on equity and resilience seem disingenuous.

Draft Climate Action Plan Comments – University of Colorado Boulder

CU has a history of misrepresenting its accomplishments and failures on climate action. Specifically, communications on the 2020 emissions reduction miss ignore the substantial increases in emissions between 2009 and 2020 that led to a large cumulative emissions overshoot.

CU also did not communicate its failures on emissions reductions that it planned to result from increased WDEP operation over the 2010-2027 period.

The CAP must include a plan for accountability and public communication. I recommend an annual report of emissions and alignment with proposed reductions.

Include at least six students on the body that will implement the CAP, the Sustainability Executive Council. This Council should commit to transparency, including posting data, allowing students to report on meeting minutes, and hosting public progress reports.

Decarbonize and electrify CU Boulder's heating system by 2035 and incorporate all future capital projects into the emissions inventory of the CAP.

Complete a full inventory of Scope 3 emissions, in accordance with the Science Based Targets Initiative (SBTi) rules, and lay out concrete strategies and timelines to reduce Scope 3 emissions to meet the targets.

Live up to the stated values of transparency and accountability by formally committing to follow all Science-Based Target Initiative (SBTi) rules and submit targets for validation, investigating past failures to meet the 2020 target, and avoiding overstatement of climate benefits.

Develop and fund specific climate justice strategies that tangibly benefit marginalized communities.

Implementation Plan (Governance and Accountability)

Top-Line Ask: Include at least six students on the body that will implement the CAP, the Sustainability Executive Council. This Council should commit to transparency, including posting data, allowing students to report on meeting minutes, and hosting public progress reports.

Specific Asks:

1) CU should agree to requests listed in resolutions passed by CU Undergraduate and Graduate Student Governments, calling for six student representatives on the Sustainability Executive Council. The representatives would be nominated by these bodies and would include at least one student working on environmental justice research or implementation.

Why this ask? The Climate Action plan draft currently splits governance into two bodies: 1) the Sustainability Executive Council, which consists mostly of CU Administrators, and which will have final decision-making power, and 2) a Sustainability Council which consists only of students, faculty and staff, and serves only in an advisory capacity to the

Draft Climate Action Plan Comments – University of Colorado Boulder

Sustainability Executive Council. This structure disempowers students, isolating them from decision-making power and input. Students belong where decisions are being made.

2) The Sustainability Executive Council should establish a clear decision-making process, commit to transparency by releasing the detailed data it uses to make decisions and allow student representatives to report meeting minutes. It should host a quarterly public forum structured as a CAP implementation progress report followed by Q&A with the public.

Why this ask? The current draft CAP fails to describe many of the critical engineering and modeling assumptions it makes. For students and the public to engage in this discussion, they need access to both data and decision-making.

Scopes 1 & 2 (Electric & Heating)

Top-Line Ask: Decarbonize and electrify CU Boulder's heating system by 2035 and incorporate all future capital projects into the emissions inventory of the CAP.

Specific Asks:

1) CU should decarbonize and electrify its heating system by 2035.

Why this ask? Currently, CU Boulder uses natural gas for its heating; decarbonizing the heating system is the single most impactful strategy the university can take to reduce its direct emissions. The CAP draft's timing for decarbonization is too slow, taking until 2050. The longer CU waits to reduce its emissions, the worse for the climate. CU's peer institutions, like CSU, will decarbonize their heating within the next ten years.

2) CU should incorporate all capital projects it foresees into the CAP, including projects that are currently omitted and that will emit heavily.

Why this ask? The CAP draft purports to do an honest accounting of CU's future Scope 1-2 emissions, but fails to incorporate or even mention several planned capital investments that will increase CU's emissions. Notably, this includes a \$45 million investment to extend the life of CU's natural gas heating system by 20-25 years, which belies the CAP's stated goal of decarbonizing CU's heating. The CAP also fails to account for planned growth, like the South Campus expansion.

Scope 3 (Additional Emissions)

Top-Line Ask: Complete a full inventory of Scope 3 emissions, in accordance with the Science Based Targets Initiative (SBTi) rules, and lay out concrete strategies and timelines to reduce Scope 3 emissions to meet the targets.

Specific Asks:

1) Include emissions from investments, CU Athletics, and a full accounting of purchased goods and services. Disclose the university's stake in the Limelight Hotel and include its emissions if required by emissions reporting rules.

Why this ask? Scope 3 or indirect emissions include all emissions an institution is responsible for outside of its own walls, like commuting, flights, waste, and investments. Scope 3 emissions are crucial, as they often constitute the vast majority of a company's emissions. The Science Based Targets Initiative (SBTi) requires companies to inventory all Scope 3 emissions and implement a science-based target for them. Yet three key

Draft Climate Action Plan Comments – University of Colorado Boulder

emissions sources were excluded or severely underreported in CU Boulder's inventory and targets:

1) Investment emissions, which constitute more than all reported emissions combined;

2) Athletics;

3) Purchased goods and services, which were reported at a fraction of peer institutions (12,216 tCO₂e compared to Stanford's 402,153 tCO₂e). By excluding such large categories of emissions, CU is heavily diluting the ambition of its targets.

2) Complete the Scope 3 inventory by conducting relevant surveys, models, and incorporating all available data into the CAP and public-facing emissions inventory by no later than Jan 1, 2025.

This includes: conducting a comprehensive survey on student travel (Category 9), breaking down air miles by department and flight length (Category 6), providing accounting for purchased goods and services (Category 1), and transparency around Life Cycle Assessments (Category 2).

Why this ask? Many of the Scope 3 categories, while formally included in CU Boulder's inventory, are based on loose estimates or not backed with reliable data. In some cases, we found order-of-magnitude mistakes in data used.

3) By no later than Jan 1, 2025, develop concrete, actionable, time-bound, and budgeted emissions reductions strategies for every Scope 3 category and model these strategies' abilities to meet the targets. CU should allow students to assist in collecting data and establishing strategies.

Why this ask? Many Scope 3 strategies amount to vague statements and plans to make plans (i.e. facilitate discussion; make surveys, explore options). Unless these strategies are spelled out in detail, there is little hope of reaching Scope 3 targets.

4. Core & Guiding Principles (Transparency & Accountability)

Top-Line Ask: Live up to the stated values of transparency and accountability by formally committing to follow all Science-Based Target Initiative (SBTi) rules and submit targets for validation, investigating past failures to meet the 2020 target, and avoiding overstatement of climate benefits.

Specific Asks:

1) Formally commit to SBTi, submit targets for validation, and remove all misleading, inaccurate, and outdated references to SBTi guidance.

Why this ask? The CAP has backed off its original intentions of aligning with SBTi, the leading standards for corporate climate action, and consistently misrepresents SBTi guidance.

2) Fully acknowledge the university's failure to meet its 2020 target and conduct an independent study of the causes of that miss; use the insights from this study to inform the current CAP.

CU Boulder missed its previous 2020 emissions reduction goal by a factor of nearly three, but the CAP downplays this miss and does not explain why it occurred. CU overspent its cumulative carbon budget, so it should account for these excessive emissions in its new targets.

3) Remove, or correct and substantiate misleading statements to avoid climate-washing and commit to transparency with the CU Boulder community. Why this ask? The CAP overstates the university's past climate record and leadership.

Draft Climate Action Plan Comments – University of Colorado Boulder

5. Co-Benefits (Equity)

Top-Line Ask: Develop and fund specific climate justice strategies that tangibly benefit marginalized communities.

Specific Asks:

1) Provide an analysis of how all strategies will result in tangible benefits for marginalized communities, and how harms to these communities will be mitigated.

Why this ask: Currently, the CAP designates some strategies as having an equity co-benefit, but does not explain what specific equity measures these strategies will have. Instead of only being a part of certain strategies, equity should be a priority throughout the plan. To accomplish this, the CAP should build on existing analyses by the CAP Equity Subcommittee, whose work is largely not reflected in the CAP draft.

2) Incorporate strategies specifically requested by marginalized communities. This includes fully funding the Tribal Climate Leaders program and increasing affordable and sustainable housing options near campus.

Why this ask: Despite receiving repeated feedback from the CU's Center for Native American and Indigenous Studies about the importance of the Tribal Climate Leaders program, the CAP does not commit to funding the program.

Our university is failing in its commitment to lower emissions as evidenced by our total emissions in 2019, and I do not think our current targets are enough to meet our goals, which are lacking strength and urgency themselves. Perhaps we should examine the climate plans of other universities, such as Stanford and CSU, as a model for how we can improve our targets and long-term goals.

Glad to hear the U' is pursuing geothermal. From the draft CAP, i can't tell if it's just for heating/cooling purposes, or if we might also strive to do electricity generation, by utilizing deeper / higher geo-heat sources. Between the West and East campuses, i expect there's adequate space to drill for suitable heat. Perhaps even directionally drilling between the two campuses is feasible. 'Pure speculation on my part, but i trust we know who to consult with about such matters. From the reading i've done, i think we should avoid enhanced or fracked geothermal. There are closed-loop systems that are more promising without the dangers of induced seismicity.

I feel strongly that CU should decarbonize it's electric consumption much faster than spec'd in the draft. Geothermal might be a pathway for this, though i recognize it to be an up-n-coming (vs widely proven) technology.

Can we please get rid of all the stinky, diesel Kubota, et. al, utility vehicles on campus, ASAP? 'Really find it annoying as a cyclist, pedestrian, and breather-of-air, that those are constantly driven around campus, often utilizing multi-use paths. Electric alternatives surely exist. And i bet 7/10 times, a bike would suffice for FM personnel

Draft Climate Action Plan Comments – University of Colorado Boulder

anyway. This latter suggestion could be implemented immediately, of course.

CU might also take-on composting operations for itself. 'Dismayed about the A1 Organics situation, whereby now only vegetable mater is composted, which in turn has led to the trashing of a lot more compostables, campus-wide.

'Just some ideas off the top.
Thanks for your consideration.

Include at least six students on the body that will implement the CAP, the Sustainability Executive Council. This Council should commit to transparency, including posting data, allowing students to report on meeting minutes, and hosting public progress reports.

Decarbonize and electrify CU Boulder's heating system by 2035 and incorporate all future capital projects into the emissions inventory of the CAP.

Complete a full inventory of Scope 3 emissions, in accordance with the Science Based Targets Initiative (SBTi) rules, and lay out concrete strategies and timelines to reduce Scope 3 emissions to meet the targets.

Live up to the stated values of transparency and accountability by formally committing to follow all Science-Based Target Initiative (SBTi) rules and submit targets for validation, investigating past failures to meet the 2020 target, and avoiding overstatement of climate benefits.

Develop and fund specific climate justice strategies that tangibly benefit marginalized communities.

In my opinion, research laboratory environments (and actions in these environments) need to be strengthened in the CAP document considering 1) the resource-intensive nature of labs and 2) the large energy use on campus resulting from laboratory research and as a result the significant contributions of lab spaces to campus scope 1, 2, and 3 emissions.

a. There are 5 pages dedicated to fleet electrification and no section of the document dedicated to highlighting the importance of action in laboratory environments even though from the data in the CAP draft and EMP, it is my understanding that research laboratory buildings are responsible for contributing to a much larger emissions footprint than fleet. As a result, due to the disproportionately large energy consumption and significant opportunities that exist for improved efficiency in campus laboratory environments, perhaps the committee could consider doing more to highlight laboratory spaces under core goal 1 on achieving 50% reduction in scope 1 and 2.

i. [Note: it is great that the large consumption of labs is mentioned in a sentence of the first paragraph at the top of page 52, but importantly, this sentence with the 40% is incorrectly worded. It should say something like Special attention was paid to laboratories since major

Draft Climate Action Plan Comments – University of Colorado Boulder

research buildings represent 40% of campus building energy use. We don't have meters for just lab spaces, but instead at the building level. So we can only speak to the large energy consumption of major research buildings.]

b. While the scope 3 emissions in this draft did not look at scientific research's contributions scope 3 for category 1&2, we can expect that research contributions to scope 3 will be very significant and perhaps this could be mentioned as part of the document. For example, in the many biological labs across campus, there are large amounts of single-use plastic use and lab across campus also require the use of chemicals and equipment.

As far as I can tell, all the funding mentioned in the document is pointed at infrastructure upgrades and none to help fund the staff to make this a reality including staff working on efforts for efficiency and avoided consumption by campus members (such as behavior change and culture). If it is possible, I suggest adding at least the goal/intention of increasing funding available for staffing and programs benefiting efficiency to the CAP. It is much more cost effective to fund efforts to avoid consumption than to have to address the additional consumption and the associated emissions.

Include at least six students on the body that will implement the CAP, the Sustainability Executive Council. This Council should commit to transparency, including posting data, allowing students to report on meeting minutes, and hosting public progress reports. Decarbonize and electrify CU Boulder's heating system by 2035 and incorporate all future capital projects into the emissions inventory of the CAP. Complete a full inventory of Scope 3 emissions, in accordance with the Science Based Targets Initiative (SBTi) rules, and lay out concrete strategies and timelines to reduce Scope 3 emissions to meet the targets. Live up to the stated values of transparency and accountability by formally committing to follow all Science-Based Target Initiative (SBTi) rules and submit targets for validation, investigating past failures to meet the 2020 target, and avoiding overstatement of climate benefits. Develop and fund specific climate justice strategies that tangibly benefit marginalized communities.

I support the five priority improvements requested by CU Boulder students.

Include at least six students on the Sustainability Executive Council that will implement the CAP. This Council should commit to transparency, including posting data, allowing students to report on meeting minutes, and hosting public progress reports.

Decarbonize and electrify CU Boulder's heating system by 2035 and incorporate all future capital projects into the emissions inventory of the CAP.

Draft Climate Action Plan Comments – University of Colorado Boulder

Complete a full inventory of Scope 3 emissions, in accordance with the Science Based Targets Initiative (SBTi) rules, and lay out concrete strategies and timelines to reduce Scope 3 emissions to meet the targets.

Live up to the stated values of transparency and accountability by formally committing to follow all Science-Based Target Initiative (SBTi) rules and submit targets for validation, investigating past failures to meet the 2020 target, and avoiding overstatement of climate benefits.

Develop and fund specific climate justice strategies that tangibly benefit marginalized communities.

My top line demand: decarbonize the endowment -- this is the most important point which cannot be ignored!

Include at least six students on the body that will implement the CAP, the Sustainability Executive Council. This Council should commit to transparency, including posting data, allowing students to report on meeting minutes, and hosting public progress reports.

Students should have a voting voice.

Decarbonize and electrify CU Boulder's heating system by 2035 and incorporate all future capital projects into the emissions inventory of the CAP.

NOT 2050 this is unrealistic

Thank you for creating this Climate Action Plan and for the opportunity to provide feedback. We appreciate the plan's: financial analyses, Scope 3 work, and accountability structures. Table 8: Summary of All Strategies is a particularly helpful and concise summary.

We think the following areas could be strengthened:

- The Climate Action Plan could be more holistic and provide more emphasis on preparing students for a green economy. The CAP should do more to help CU-Boulder use its role as a public education institution to prepare students for a green economy and a future indelibly shaped by climate change. While mentioned lightly in the Collaboration with Curriculum and Faculty Training section, this area could be greatly expanded and impactful.

- On page 18 of the executive summary, change short-term to near-term for clarity in this sentence:

- This option accelerates short-term emissions reductions through building efficiency, renewable energy, and fleet decarbonization and would reduce Scope 1 and 2 emissions significantly below the science-based target.

Draft Climate Action Plan Comments – University of Colorado Boulder

- Indicate that CU-Boulder must act with *urgency* to help limit global temperature rise to 1.5 degrees C. Without urgency, this can become just another plan.

- DPS has found it helpful to distill our Climate Action Plan into a one-page summary for easy distribution. We recommend CU-Boulder create one for their CAP.

1. Implementation Plan (Governance and Accountability)

Include at least six students on the body that will implement the CAP, the Sustainability Executive Council. This Council should commit to transparency, including posting data, allowing students to report on meeting minutes, and hosting public progress reports. The current planned structure disempowers students, i.e., the younger generation who are more heavily impacted by CU's climate action (or lack thereof).

2. Scopes 1 & 2 (Electric & Heating)

Decarbonize and electrify CU Boulder's heating system by 2035 and incorporate all future capital projects into the emissions inventory of the CAP. This is the single most impactful action the university can take to reduce its direct emissions. CU's peer institutions, like CSU, are planning to decarbonize heating within the next ten years.

3. Scope 3 (Additional Emissions)

Complete a full inventory of Scope 3 emissions, in accordance with the Science Based Targets Initiative (SBTi) rules, and lay out concrete strategies and timelines to reduce Scope 3 emissions to meet the targets. This should include emissions from every Scope 3 category including investments, CU Athletics, student travel, purchased goods and services. By excluding such a large category of emissions, CU is heavily diluting the ambition of its targets.

4. Core & Guiding Principles (Transparency & Accountability)

Live up to the stated values of transparency and accountability by formally committing to follow all Science-Based Target Initiative (SBTi) rules and submit targets for validation, investigating past failures to meet the 2020 target, and avoiding overstatement of climate benefits. This should involve at minimum removing all misleading, inaccurate, and outdated references to SBTi guidance and acknowledging the university's failure to meet its 202 target. Avoid climate-washing!

5. Co-Benefits (Equity)

Develop and fund specific climate justice strategies that tangibly benefit marginalized communities. This should involve incorporating strategies specifically requested by marginalized communities, including the Tribal Climate Leaders program, and increasing affordable and sustainable housing options near campus.

Draft Climate Action Plan Comments – University of Colorado Boulder

I appreciate that the Climate Action Plan is targeting zero total emissions without purchasing offsets, rather than Net Zero as a goal. Carbon offsets are often misleading, or misrepresented, and relying too heavily on them can greenwash a heavy polluter.

However, I am disappointed that (while recognizing that the current plan still would make CU Boulder a leader among American universities) the plan only targets a reduction to zero emissions by 2050 in line with the Paris Agreement. The Paris Agreement is a global compact that encompasses all nations, including both wealthy countries with huge economic capacity, and developing nations with significantly less economic capital to invest in green projects. These developing countries incur a much higher opportunity cost when it comes to spending their limited resources on green projects, rather than the often-cheaper (and thus more economically advantageous) heavier-polluting alternatives, or even directly spending on socioeconomic development. Because the US and other Western nations relied entirely on heavily polluting industries to gain their preeminent economic status, the benefits that the US reaped from its past economic success (fueled by fossil fuels and other polluting industries) means that the US (and its contained organizations, like CU Boulder) should be **exceeding** these global goals, in order to allow poorer and disadvantaged nations who did not previously benefit from these fossil fuels to transition in a more just manner. While I recognize that moving up the timeline on large infrastructure projects can be wasteful (for example, by retiring heating systems before their useful lifespan has concluded), I believe that broadly speaking these goals should be revised to be more aggressive in their final targets, such as a reduction to zero emissions by 2040, and investment into becoming net carbon negative by 2050 (such as by investing in things like off site utility-scale renewables and selling to surrounding towns and other communities). Compared to other universities globally, and even other colleges and universities in the United States, the CU system is comparatively wealthy (with a greater than \$1 billion endowment - I understand that we aren't Harvard or the University of Texas system) and we can afford to truly be a leader in this space, going above and beyond the bare minimum required to meet global goals by 2050.

While not directly related to the stated climate plan, it is very disappointing that this report clearly utilizes AI-generated art, such as on page 26. Not only is AI art generation wasteful and power inefficient - and thus misaligned with the core thesis of this report to reduce needless waste - but it also takes away opportunities for artists to be fairly compensated for their work. I hope that the final version of this report would instead commission one of the many talented and hard working creative professionals employed on this campus to create its required visual art at an equitable rate.

Include at least six students on the body that will implement the CAP, the Sustainability Executive Council. This Council should commit to transparency, including posting data, allowing students to report on meeting minutes, and hosting public progress reports. Decarbonize and electrify CU Boulder's heating system by 2035 and incorporate all future capital projects into the emissions inventory of the CAP. Complete a full

Draft Climate Action Plan Comments – University of Colorado Boulder

inventory of Scope 3 emissions, in accordance with the Science Based Targets Initiative (SBTi) rules, and lay out concrete strategies and timelines to reduce Scope 3 emissions to meet the targets. Live up to the stated values of transparency and accountability by formally committing to follow all Science-Based Target Initiative (SBTi) rules and submit targets for validation, investigating past failures to meet the 2020 target, and avoiding overstatement of climate benefits. Develop and fund specific climate justice strategies that tangibly benefit marginalized communities.

Include at least six students on the body that will implement the CAP, the Sustainability Executive Council. This Council should commit to transparency, including posting data, allowing students to report on meeting minutes, and hosting public progress reports.

Decarbonize and electrify CU Boulder's heating system by 2035 and incorporate all future capital projects into the emissions inventory of the CAP.

Complete a full inventory of Scope 3 emissions, in accordance with the Science Based Targets Initiative (SBTi) rules, and lay out concrete strategies and timelines to reduce Scope 3 emissions to meet the targets.

Live up to the stated values of transparency and accountability by formally committing to follow all Science-Based Target Initiative (SBTi) rules and submit targets for validation, investigating past failures to meet the 2020 target, and avoiding overstatement of climate benefits.

Develop and fund specific climate justice strategies that tangibly benefit marginalized communities.

I endorse the demands being made by the students have coordinated. Those demands are included below. However, I would also like to flag the importance of reducing the use and reliance on animal-based products. This includes meat, leather, dairy, and the like. The outsized emissions from animal products are not only problematic for scope 3 emissions but contribute to the systematic exploitation of animals on factory farms.

Implementation Plan (Governance and Accountability)

Top-Line Ask: Include at least six students on the body that will implement the CAP, the Sustainability Executive Council. This Council should commit to transparency, including posting data, allowing students to report on meeting minutes, and hosting public progress reports.

Scopes 1 & 2 (Electric & Heating)

Top-Line Ask: Decarbonize and electrify CU Boulder's heating system by 2035 and incorporate all future capital projects into the emissions inventory of the CAP.

Scope 3 (Additional Emissions)

Top-Line Ask: Complete a full inventory of Scope 3 emissions, in accordance with the Science Based Targets Initiative (SBTi) rules, and

Draft Climate Action Plan Comments – University of Colorado Boulder

lay out concrete strategies and timelines to reduce Scope 3 emissions to meet the targets.

Core & Guiding Principles (Transparency & Accountability)

Top-Line Ask: Live up to the stated values of transparency and accountability by formally committing to follow all Science-Based Target Initiative (SBTi) rules and submit targets for validation, investigating past failures to meet the 2020 target, and avoiding overstatement of climate benefits.

Co-Benefits (Equity)

Top-Line Ask: Develop and fund specific climate justice strategies that tangibly benefit marginalized communities.

Governance: Put six students on the Sustainability Executive Council, which will implement the CAP.

- the University is for students and if students are not allowed a seat at the table how is the University centering students.

Equity: Incorporate strategies specifically requested by historically marginalized communities, including funding the Tribal Climate Leaders Program and increasing affordable housing options near campus.

- there was 1 ask about including equity and you still did not include it.

After attending the Online Forum on January 31st, the main feedback I had was how disappointed I was by the outlined steps that many of the presenters were very excited about. At the end of the forum the question was posed, What are you most excited about in the CAP? All of them said the same thing in different words- they are excited by the structure/framework the CAP gives us. That it gives the campus something to reference before taking action. I think it's significant because we have outlined steps for slow continuous progress. That statement would be genuinely more impactful if the steps were not dated from sometime between 2029 and 2050. What is preventing a general laxity of taking steps until a future date? Also notably, it felt as though they were filling the air with a lot of fluff. Speaking so fast I genuinely struggled to take any notes. A discussion requires open conversation, not one side begging for answers to questions that the other majorly side-steps with excuses.

One of the main critiques of the Climate Action Plan presented by CU is that it isn't ambitious enough. They plan to be carbon neutral by 2050 whereas CSU has made a goal of being carbon neutral by 2030. CSU has their goal set in less than a quarter of the time. When questioned much of the explanation presented was the financial burden it would pose. Personally, I question that considering CU's tuition is on average 22% more. They also argue they are meeting the goal which many institutions are undertaking including Xcel with the same goal of carbon neutrality by 2050. A statement that would not hold merit in the average classroom, I didn't do the homework because look these other students didn't either. Even with their dependency on others to set their goal by- they are not matching many including the company they used as an example. Xcel has the

Draft Climate Action Plan Comments – University of Colorado Boulder

goal of using 80% clean energy by 2030 whereas CU's goal is only 50%. Another critique is on the actions they are taking that seems to directly oppose their mission statement. By upgrading the West District Energy Plant which runs on greenhouse gasses and building 2 more dorms with the infrastructure for steam heating instead of warm water geothermal heating they are increasing the carbon footprint of the institution.

Now I have gotten the chance to look more into the CAP draft in its entirety and am disappointed on further levels as there seems to be a misrepresentation- or better said underrepresentation- of emissions particularly in Scope 3. Additionally as a student who has to commute a good distance because of housing costs in Boulder I am curious about the Transportation Demand Management (TDM) enhancements that the Committee Members who made the CAP draft would like to take action upon. There was mention that the reduction of VMT would be a viable option in achieving sustainability goals. Change needs to be actionable and broad statements will lead to a lack of action. Just like a new years resolution of, I will lose weight, with no plan will fail, so will a Climate Action Plan without actionable steps. They generally want to focus on students who live 8-10 miles from campus by developing buses, vanpools, bikes and more in the Boulder area. While wonderful the students and staff who live nearby add the least to the carbon footprint made by VHM. Continue promotion of high-density affordable housing close to campus, is vague and I believe needs further development if to actually make real change for emissions and equity for students and faculty alike. This category of Scope 3 according to the CAP Draft has the highest capability of increasing equity for students and staff across racial, social and economic demographics. It also has great potential for reducing Scope 3 emissions.

That is not to say I did not have anything nice to say. I do appreciate that CU is dedicated to not using offsets, which admittedly I don't know if CSU can say the same. While there are genuine offsets, the regulatory standards for them are lacking and the significance of them is generally overstated. I do also like the plan to have a dashboard of action done vs not done accessible to students/faculty/staff alike. As I said previously, communication is important. Making progress clear and accessible keeps you accountable and keeps people engaged. As someone who pays tuition and lives below the poverty line- I do hope my money is going to good things. It is your job to make sure that is the case.

1. Governance: Put six students on the Sustainability Executive Council, which will implement the CAP.
2. Heating: Decarbonize and electrify CU's heating system by 2035.
3. Strategies: Collect data and make concrete plans to reduce emissions from Scope 3 emissions categories (flights, purchased goods and services, waste, commuting) by January 1, 2025.
4. Transparency: Formally commit to meeting Science-Based Targets Initiative standards, and acknowledge that CU missed its 2020 emissions reductions target.

Draft Climate Action Plan Comments – University of Colorado Boulder

5. Equity: Incorporate strategies specifically requested by historically marginalized communities, including funding the Tribal Climate Leaders program and increasing affordable housing options near campus.

WE WANT TRANSPARENCY, ACCOUNTABILITY, AND NEVER ENDING, HONEST IMPROVEMENT.

I am extremely disappointed in the quality of CU Boulder's CAP. To put it frankly, the greenhouse gas accounting is sloppy and incomplete, the targets are therefore based on a tiny fraction of CU's real emissions, the plans are rudimentary and lack enforcement, and the timetables are too long. But as a document, it looks gorgeous.

Thank you for writing a CAP. Thank you for asking students for feedback. Please listen to what we have to say, and revise as necessary. This is just the beginning of the CAP.

Writing a CAP does not ensure real emissions reductions. As your students, we watched you fail to meet the 2020 targets and then sweep it under the rug at public meetings. We are the first generation to experience the effects of climate change, and the last generation able to do something about it. Since you have waited until 2024 to create a CAP, we have high expectations, and we are educated. We are not going to settle for mediocrity, because we simply don't have the time. Please continue to lean on us and the experts at CU Boulder to revise your plans. There are so many amazing ideas waiting to surface.

While the effort of CU Boulder to define a Climate Action Plan is admirable, there are a number of flaws with the plan as it is currently conceived:

- student representation in the CAP governance is insufficient: it is not clearly explained how many students will be on the Sustainability Council (indeed, the composition of the council is unclear) and if their powers will be on par with those of the other members. In addition, there should also be faculty and student representation on the Executive Council (again, the composition of this body is left mostly unsaid; 6 students on the Executive Council seems an adequate number), given that it is this body that will take major decision.

- the conversion of the CU heating system is, as CAP itself admits, the most important intervention in terms of emission reduction. It therefore stands to reason that its timeline should be much more ambitious: work should begin well before 2029/2030 and finish much earlier than 2050.

- the CAP does not take into consideration the environmental impact of the financial investments of CU. This is a significant gap that needs to be corrected. The climate impact of the CU financial investments should be quantified and declared and strategies should be put in place to deinvest from fossil fuels and other climate-altering assets.

Draft Climate Action Plan Comments – University of Colorado Boulder

- the CAP sets goals, but a proper plan also sets intermediate milestones and deadlines, without which it is highly likely to fail. At the very least, intermediate milestones three years for now, in 2027, should be established.

Implementation Plan (Governance and Accountability):

Increased student representation on the Sustainability Executive Council aligns with principles of inclusivity and shared decision-making. The importance of transparency in data and decision-making processes is rightly emphasized, ensuring that students and the public have meaningful engagement opportunities. The existing structure that isolates students from decision-making power highlights the need for a more collaborative and inclusive approach.

Scopes 1 & 2 (Electric & Heating):

The urgency to decarbonize and electrify CU Boulder's heating system by 2035 underscores the significance of immediate, impactful actions. The concern about omitted capital projects and their potential emissions reflects a commitment to a holistic emissions inventory. The comparison with peer institutions like CSU provides a benchmark, emphasizing the importance of staying competitive in sustainability efforts.

Scope 3 (Additional Emissions):

The focus on a comprehensive Scope 3 emissions inventory, aligned with the Science-Based Targets Initiative (SBTi), is crucial for a thorough understanding of the university's environmental impact. The emphasis on including emissions from investments, athletics, and purchased goods and services broadens the scope and provides a more accurate representation of CU Boulder's carbon footprint. The call for reliable data and concrete reduction strategies is essential for achieving meaningful emissions reductions.

Core & Guiding Principles (Transparency & Accountability):

The insistence on adhering to SBTi rules, submitting targets for validation, and acknowledging past failures demonstrates a commitment to accountability and transparency. The call for an independent study to understand the reasons behind missing the 2020 target ensures that future goals are informed by lessons learned. The emphasis on removing misleading statements aligns with the principles of honest communication and accountability.

Co-Benefits (Equity):

The overarching focus on climate justice and equity throughout the CAP is commendable. The call for tangible benefits for marginalized communities and specific strategies requested by these communities reflects a commitment to addressing environmental justice concerns. The recommendation to fund the Tribal Climate Leaders program and increase affordable and sustainable housing options showcases a dedication to supporting initiatives directly impacting marginalized communities.

I recommend the committee and the campus continue to focus on short- and long-term gains on the largest currently measurable emissions (natural

Draft Climate Action Plan Comments – University of Colorado Boulder

gas (heating), business travel, downstream transportation and distribution, energy-related activities, and capital goods.

I am the Speaker of the Graduate and Professional Student Government (GPSG); I'm also a PhD student in the atmospheric and oceanic sciences department; and have joined a group of many committee graduate students that have worked together to read the entire document and provide comments on the whole CAP. You will be seeing many specific comments from me in the coming days and weeks.

Firstly, as a climate scientist, I care deeply about these issues and about CU, and I want CU to be a leader in this space. And as a GPSG rep and Speaker, I know for a fact through conversations and debates about this topic, that your graduate student body cares deeply about this is well.

Currently, the CAP touts CU's leadership in a number of ways, but it doesn't back it up in the slightest. In fact, the CAP in its current state reads to me as a document full of empty promises and reeks of climate washing. I appreciate the effort that went into this, but it is not anywhere close to what a CAP driven by science based targets and the greenhouse gas accounting protocol asks for. I understand wanting to put a positive spin on things, but let's be realistic here: this plan is not really a plan. It's a plan to make a bunch of other plans. In its current form, it's barely even a roadmap.

Please, please, please, take this seriously. The impact of doing this well could not only make the planet a better place for everyone, but it could seriously make CU a leader in this space. Let's show the world what CU is made of! Specific comments to follow.

- 1) Include at least six students on the body that will implement the CAP.
- 2) Decarbonize and electrify CU Boulder's heating system by 2035 and incorporate all future capital projects into the emissions inventory of the CAP.
- 3) Complete a full inventory of Scope 3 emissions, in accordance with the Science Based Targets Initiative (SBTi) rules, and lay out concrete strategies and timelines to reduce Scope 3 emissions to meet the targets.
- 4) Live up to the stated values of transparency and accountability by formally committing to follow all Science-Based Target Initiative (SBTi) rules and submit targets for validation, investigating past failures to meet the 2020 target, and avoiding overstatement of climate benefits.
- 5) Develop and fund specific climate justice strategies that tangibly benefit marginalized communities.

This Climate Action Plan was extremely disappointing and falls miles short of adequate sustainability goals. The following should be addressed:

Draft Climate Action Plan Comments – University of Colorado Boulder

Include at least six students on the body that will implement the CAP, the Sustainability Executive Council. This Council should commit to transparency, including posting data, allowing students to report on meeting minutes, and hosting public progress reports.

Decarbonize and electrify CU Boulder's heating system by 2035 and incorporate all future capital projects into the emissions inventory of the CAP.

Complete a full inventory of Scope 3 emissions, in accordance with the Science Based Targets Initiative (SBTi) rules, and lay out concrete strategies and timelines to reduce Scope 3 emissions to meet the targets.

Live up to the stated values of transparency and accountability by formally committing to follow all Science-Based Target Initiative (SBTi) rules and submit targets for validation, investigating past failures to meet the 2020 target, and avoiding overstatement of climate benefits.

Develop and fund specific climate justice strategies that tangibly benefit marginalized communities.

As a law student at the University of Colorado, I am deeply committed to addressing the urgent climate crisis and have significant concerns regarding the Climate Action Plan's (CAP) current design and ambition. The plan's outlined targets for emission reductions—50% by 2030 and 100% by 2050—are commendable in theory but lack the necessary specifics, data, timelines, and concrete strategies for achieving these goals. This shortfall is particularly notable in addressing some of the university's largest emission sources and in omitting key categories of emissions altogether.

The CAP's approach risks repeating past failures to meet climate targets and undermines the university's potential to lead in climate action.

The CAP's governance structure and stakeholder engagement process do not sufficiently empower students, faculty, and staff, relegating them to advisory roles rather than integrating their insights into decision-making. A genuinely inclusive and transparent approach is critical for fostering accountability and ensuring the CAP's success. This includes the need for detailed plans and timelines for decarbonizing the heating system, a full inventory and reduction plan for Scope 3 emissions, and adherence to Science-Based Targets Initiative (SBTi) guidelines, among others.

Lastly, the CAP must prioritize equity and justice by integrating specific strategies that benefit marginalized communities directly. This involves not only recognizing the disproportionate impacts of climate change on these communities but also actively involving them in creating solutions. The current draft's vague references to equity co-benefits fall short of the actionable commitments needed to ensure that the CAP contributes to a just and equitable transition to sustainability.

Draft Climate Action Plan Comments – University of Colorado Boulder

In conclusion, while the CAP's goals align with the urgent need for climate action, its current design lacks the specificity, inclusivity, and commitment to justice necessary to make it a truly effective and leading plan. I urge the university to revise the CAP to address these concerns comprehensively, thereby ensuring that CU Boulder not only meets its climate targets but also sets a benchmark for others to follow.

Implementation Plan (Governance and Accountability)

Include at least six students on the body that will implement the CAP, the Sustainability Executive Council. This Council should commit to transparency, including posting data, allowing students to report on meeting minutes, and hosting public progress reports.

1) CU should agree to requests listed in resolutions passed by CU Undergraduate and Graduate Student Governments, calling for six student representatives on the Sustainability Executive Council. The representatives would be nominated by these bodies and would include at least one student working on environmental justice research or implementation.

2) The Sustainability Executive Council should establish a clear decision-making process, commit to transparency by releasing the detailed data it uses to make decisions and allow student representatives to report meeting minutes. It should host a quarterly public forum structured as a CAP implementation progress report followed by Q&A with the public.

Scopes 1 & 2 (Electric & Heating)

Decarbonize and electrify CU Boulder's heating system by 2035 and incorporate all future capital projects into the emissions inventory of the CAP.

1) CU should decarbonize and electrify its heating system by 2035. Currently, CU Boulder uses methane (natural) gas for its heating; decarbonizing the heating system is the single most impactful strategy the university can take to reduce its direct emissions. The CAP draft's timing for decarbonization is too slow, taking until 2050. The longer CU waits to reduce its emissions, the worse for the climate. CU's peer institutions, like CSU, will decarbonize their heating within the next ten years.

2) CU should incorporate all capital projects it foresees into the CAP, including projects that are currently omitted and that will emit heavily. The CAP draft purports to do an honest accounting of CU's future Scope 1-2 emissions, but fails to incorporate or even mention several planned capital investments that will increase CU's emissions. Notably, this includes a \$45 million investment to extend the life of CU's methane gas heating system by 20-25 years, which belies the CAP's stated goal of decarbonizing CU's heating. The CAP also fails to account for planned growth, like the South Campus expansion.

Scope 3 (Additional Emissions)

Complete a full inventory of Scope 3 emissions, in accordance with the Science Based Targets Initiative (SBTi) rules, and lay out concrete strategies and timelines to reduce Scope 3 emissions to meet the targets.

Draft Climate Action Plan Comments – University of Colorado Boulder

1) Include emissions from investments, CU Athletics, and a full accounting of purchased goods and services. Disclose the university's stake in the Limelight Hotel and include its emissions if required by emissions reporting rules. Scope 3 or indirect emissions include all emissions an institution is responsible for outside of its own walls, like commuting, flights, waste, and investments. Scope 3 emissions are crucial, as they often constitute the vast majority of a company's emissions. The Science Based Targets Initiative (SBTi) requires companies to inventory all Scope 3 emissions and implement a science-based target for them. Yet three key emissions sources were excluded or severely underreported in CU Boulder's inventory and targets:

- Investment emissions, which constitute more than all reported emissions combined;
- Athletics;
- Purchased goods and services, which were reported at a fraction of peer institutions (12,216 tCO₂e compared to Stanford's 402,153 tCO₂e).

By excluding such large categories of emissions, CU is heavily diluting the ambition of its targets.

2) Complete the Scope 3 inventory by conducting relevant surveys, models, and incorporating all available data into the CAP and public-facing emissions inventory by no later than Jan 1, 2025. Many of the Scope 3 categories, while formally included in CU Boulder's inventory, are based on loose estimates or not backed with reliable data. In some cases, we found order-of-magnitude mistakes in data used.

3) By no later than Jan 1, 2025, develop concrete, actionable, time-bound, and budgeted emissions reductions strategies for every Scope 3 category and model these strategies' abilities to meet the targets. CU should allow students to assist in collecting data and establishing strategies. Many Scope 3 strategies amount to vague statements and plans to make plans (i.e. facilitate discussion; make surveys, explore options). Unless these strategies are spelled out in detail, there is little hope of reaching Scope 3 targets.

Core & Guiding Principles (Transparency & Accountability)

Live up to the stated values of transparency and accountability by formally committing to follow all SBTi rules and submit targets for validation, investigating past failures to meet the 2020 target, and avoiding overstatement of climate benefits.

1) Formally commit to SBTi, submit targets for validation, and remove all misleading, inaccurate, and outdated references to SBTi guidance.

2) Fully acknowledge the university's failure to meet its 2020 target and conduct an independent study of the causes of that miss; use the insights from this study to inform the current CAP. CU Boulder missed its previous 2020 emissions reduction goal by a factor of nearly three, but the CAP downplays this miss and does not explain why it occurred. CU overspent its cumulative carbon budget, so it should account for these excessive emissions in its new targets.

3) Remove, or correct and substantiate misleading statements to avoid climate-washing and commit to transparency with the CU Boulder community. The CAP overstates the university's past climate record and leadership.

Co-Benefits (Equity)

Draft Climate Action Plan Comments – University of Colorado Boulder

Develop and fund specific climate justice strategies that tangibly benefit marginalized communities.

1) Provide an analysis of how all strategies will result in tangible benefits for marginalized communities, and how harms to these communities will be mitigated. Currently, the CAP designates some strategies as having an equity co-benefit, but does not explain what specific equity measures these strategies will have. Instead of only being a part of certain strategies, equity should be a priority throughout the plan. To accomplish this, the CAP should build on existing analyses by the CAP Equity Subcommittee, whose work is largely not reflected in the CAP draft.

2) Incorporate strategies specifically requested by marginalized communities. This includes fully funding the Tribal Climate Leaders program and increasing affordable and sustainable housing options near campus. Despite receiving repeated feedback from the CU's Center for Native American and Indigenous Studies about the importance of the Tribal Climate Leaders program, the CAP does not commit to funding the program.

- The timeline for heating decarbonization (completion by 2050) is unacceptably slow and out of step with the much more rapid pace being taken by campuses across the country as well as in Colorado. Cumulative greenhouse gas emissions matter more than specific target dates; CU must bring its emissions down much sooner than the current plan by accelerating heating decarbonization.

- The use of a 4% discount rate to calculate net present values of the costs of investing in each scenario (p. 68) should be justified based on the needs of climate science, and alternative analyses provided for comparison.

- The CAP does not contain an adequate accounting of procurement-related Scope 3 emissions. A more robust accounting beyond 5 categories should have been undertaken as part of the climate action plan development process.

- The rationale provided for excluding the emissions from the university's investments in fossil fuels is unconvincing and not in accordance with carbon accounting standards. This is particularly important given the size of those emissions relative to Scopes 1 and 2, as documented in the report

- CU should establish a science-based target (footnote 53 says that CU is not establishing a science-based target) and submit its plans and progress to SBTi for validation and conforming to the GHG Protocol Scope 3 Standard. This is the only mechanism that would create true accountability for this plan.

As a student who was drawn to the University of Colorado Boulder by a passion for sustainability and environmental conservation, I have been extremely disappointed to learn how poorly the university has performed in its efforts to reduce its carbon emissions and invest in sustainable

Draft Climate Action Plan Comments – University of Colorado Boulder

energy. A divestment from fossil fuels is a necessary step seemingly ignored in CU Boulder's newest Climate Action plan. Turning the page into a new era of sustainable operations is not possible without this action. Many other students alongside myself are alarmed by the amount of fossil fuel investments in which the University holds. It is not until we grapple with the conflict between our investment in the fossil fuel industry and our climate action goals that tangible change will be made. As more and more students are alarmed by the problem of climate change and global warming, I believe it is in CU's best interest to make a change. If the board decides to divest from fossil fuels now, CU has the potential to set an example for universities everywhere and encourage discourse surrounding sustainable action at a university level. Additionally, I believe CU will be better prepared to adjust to a future in which renewable energy sources have a larger role in many parts of society. As divestment gains traction across the globe alongside advances in the technologies surrounding renewable energy, CU Boulder may avoid the financial risks associated with climate change as well as project an image of sustainability that will attract students and faculty. I believe that the divestment from fossil fuels is a shared responsibility among students, faculty, and board members and despite CU's inability to curb carbon emissions in past years, we have the opportunity to turn the page and make CU an example for universities across the globe in terms of taking decisive climate action to prevent the consequences of climate change.

Provide the data and modeling underlying financial calculations in the CAP. The financial calculations in the CAP appendix are presented as bottom-line figures (see, e.g., pages 188-192). To be able to assess the analysis, the CAP should provide readers with the underlying spreadsheets and model assumptions regarding these calculations. Transparency regarding financial calculations is necessary for readers to be able to assess the appropriateness of the figures. For example, readers need to be able to assess whether an appropriate life cycle cost analysis has been carried out such that all future cost reductions have been incorporated into the model. We request that underlying data and models be made public on the CAP website by May 1, 2024.

Scope 1&2 MTCO_{2e} are still less than Scope 3. The plan states that 8 of the GHG Protocol categories either don't apply, or fall outside of the sphere of control of CU Boulder. There is a risk to the Climate Action Plan (CAP), should Scope 3 GHG emissions continue to be deigned out of reach, and therefore not measured and reported on.

This blind spot in the CAP increases the likelihood that emissions may be shifted from Scopes 1& 2 into 3 - intentionally or unintentionally - and there remain hidden from the CAP's ability to deliver on climactic change. You can't control what you don't measure. is an an engineering truism that seems to apply here. I would urge CU Boulder to report on all of the GHG Protocol categories, even if the report claims n/a or insufficient data, and over time, to develop better tools to assess our performance in those categories.

Draft Climate Action Plan Comments – University of Colorado Boulder

Working toward a true Net Zero will require working beyond our sphere of control, and collaboratively working deep into our spheres of influence. It is great to be the star athlete on the field, but it's not the same as being a leader on the field: the difference is the capacity to organize more than one-self for high performance. If we've learned nothing else about Climate Change, it is that broad collaboration is the necessary, deeper, harder problem to crack.

Include at least six students on the body that will implement the CAP, the Sustainability Executive Council. This Council should commit to transparency, including posting data, allowing students to report on meeting minutes, and hosting public progress reports.

Decarbonize and electrify CU Boulder's heating system by 2035 and incorporate all future capital projects into the emissions inventory of the CAP.

Complete a full inventory of Scope 3 emissions, in accordance with the Science Based Targets Initiative (SBTi) rules, and lay out concrete strategies and timelines to reduce Scope 3 emissions to meet the targets.

Live up to the stated values of transparency and accountability by formally committing to follow all Science-Based Target Initiative (SBTi) rules and submit targets for validation, investigating past failures to meet the 2020 target, and avoiding overstatement of climate benefits.

Develop and fund specific climate justice strategies that tangibly benefit marginalized communities.

These are the additions I would like to see in CU's Climate Action Plan:

1. Governance: Put six students on the Sustainability Executive Council, which will implement the CAP.
2. Heating: Decarbonize and electrify CU's heating system by 2035.
3. Strategies: Collect data and make concrete plans to reduce emissions from Scope 3 emissions categories (flights, purchased goods and services, waste, commuting) by January 1, 2025.
4. Transparency: Formally commit to meeting Science-Based Targets Initiative standards, and acknowledge that CU missed its 2020 emissions reductions target.
5. Equity: Incorporate strategies specifically requested by historically marginalized communities, including funding the Tribal Climate Leaders program and increasing affordable housing options near campus.

1. Governance: Put six students on the Sustainability Executive Council, which will implement the CAP. The draft currently includes no students on this decision-making body.

2. Heating: Decarbonize and electrify CU's heating system by 2035. CU's peers have a much faster timeline for decarbonizing than we do.

Draft Climate Action Plan Comments – University of Colorado Boulder

3. Strategies: Collect data and make concrete plans to reduce emissions from Scope 3 emissions categories (flights, purchased goods and services, waste, commuting) by January 1, 2025. The draft includes only plans to make plans to reduce these categories. It leaves out or undercounts Scope 3 categories like investments, athletics, and purchased goods and services.

4. Transparency: Formally commit to meeting Science-Based Targets Initiative standards, and acknowledge that CU missed its 2020 emissions reductions target.

5. Equity: Incorporate strategies specifically requested by historically marginalized communities, including funding the Tribal Climate Leaders program and increasing affordable housing options near campus.

Thank you for providing transparency of feedback and for soliciting feedback.

First, I want to affirm the Climate Action Plan. CU Boulder is woefully behind peer institutions in this regard, and it's particularly shameful given the expertise on our campus, as well as political will of students. This plan will be a key achievement of our current Chancellor's administration, and I deeply hope the new Chancellor being chosen will consider climate action a priority. Thank you to all who have worked on this, as it is an achievement to be at this point already.

Second, I want to affirm Prof. Karen Bailey's work and the overall Equity team to make sure equity was a key component of the plan. One way I know a listening session I attended and participated in on equity had an impact on the plan was that increasing support of the Tribal Climate Leaders Program was listed with the Land Acknowledgement; this is something Prof. Carroll and I had raised, and I am thrilled to see it mentioned in the document as one small but meaningful example. I think carbon offsets are a false solution, but this program could be funded through offsets, if such a program continues on campus for currently unavoidable negative climate impacts.

I also want to affirm the clear stance on eliminating single-use plastics from campus from non-essential uses; this should be celebrated this year if the new vending contract reflects this plan as an early and compelling turning of the tide of thoughtless waste and climate risks that disproportionately burden environmental justice frontline communities in the US and the Global South. I look forward to working with people across campus on this issue—both celebrating what I hope will be the new contract for vending machines and working on more waste-related issues, such as disposable coffee cups on campus.

There are lots of aspirations in this document that point us towards a more sustainable future. The food-related plans are exciting, for example, and I look forward to those being expounded upon moving forward.

Draft Climate Action Plan Comments – University of Colorado Boulder

No plan is perfect, of course. I'm not sure why the transportation of student athletics was not included, for example, especially since the stadium is a sustainability jewel on campus. For now, as a living document, I will focus on three areas for improvement:

a) I am not alone in wishing divestment from fossil fuels in our retirement plans and investments be affirmed as worthwhile instead of ignored without one mention in the plan. We shouldn't make profit off an industry that is harming future generations. Of course, our campus alone cannot make this action happen, but we can advocate for it system-wide. If not addressed, it seems a statement could be made for why it was not considered (as other footnotes address what is not part of the scope of the study).

b) The heating systems upgrade also falls short of our greatest ambitions—and does feel like it was ill-timed with this plan: was the West District Energy Plant contract signed in December 2023 something that locks us into fossil fuel dependency for decades, as some say? Couldn't it have been a shorter contract that allowed us to prioritize considering alternatives? I believe those who signed the contract feel we need it today to run our campus now; this plan should make more transparent the years of that contract and its impact on global greenhouse gases through the use of fossil fuels. Can the plan include: When can the WDEP decision be revisited (in terms of the contract just signed), what is its climate footprint, and what will it take to transition in the future?

c) Can the transition of buildings be accelerated? 2050 seems like an unambitious target when campuses such as CSU and Colorado College already are installing electric heat pumps (let alone institutional peers nationally). Am I misreading the target? Is it the price slowing it down? Could we launch a development campaign to ask donors to pay for the transition of a building in exchange for a plaque and acknowledgement?

Thank you again for your consideration and labor. It's exciting to see the Chancellor's leadership in wrapping up this plan before retirement; and, again, I hope the hiring committee can identify a new chancellor that will prioritize climate action.

Include at least six students on the body that will implement the CAP, the Sustainability Executive Council. This Council should commit to transparency, including posting data, allowing students to report on meeting minutes, and hosting public progress reports. Decarbonize and electrify CU Boulder's heating system by 2035 and incorporate all future capital projects into the emissions inventory of the CAP. Complete a full inventory of Scope 3 emissions, in accordance with the Science Based Targets Initiative (SBTi) rules, and lay out concrete strategies and timelines to reduce Scope 3 emissions to meet the targets. Live up to the stated values of transparency and accountability by formally committing to follow all Science-Based Target Initiative (SBTi) rules and submit targets for validation, investigating past failures to meet the 2020 target, and avoiding overstatement of climate benefits. Develop and fund specific climate justice strategies that tangibly benefit marginalized communities.

Draft Climate Action Plan Comments – University of Colorado Boulder

Implementation Plan (Governance and Accountability)

Top-Line Ask: Include at least six students on the body that will implement the CAP, the Sustainability Executive Council. This Council should commit to transparency, including posting data, allowing students to report on meeting minutes, and hosting public progress reports.

Specific Asks:

1) CU should agree to requests listed in resolutions passed by CU Undergraduate and Graduate Student Governments, calling for six student representatives on the Sustainability Executive Council. The representatives would be nominated by these bodies and would include at least one student working on environmental justice research or implementation.

Why this ask? The Climate Action plan draft currently splits governance into two bodies: 1) the Sustainability Executive Council, which consists mostly of CU Administrators, and which will have final decision-making power, and 2) a Sustainability Council which consists only of students, faculty and staff, and serves only in an advisory capacity to the Sustainability Executive Council. This structure disempowers students, isolating them from decision-making power and input. Students belong where decisions are being made.

2) The Sustainability Executive Council should establish a clear decision-making process, commit to transparency by releasing the detailed data it uses to make decisions and allow student representatives to report meeting minutes. It should host a quarterly public forum structured as a CAP implementation progress report followed by Q&A with the public.

Why this ask? The current draft CAP fails to describe many of the critical engineering and modeling assumptions it makes. For students and the public to engage in this discussion, they need access to both data and decision-making.

Scopes 1 & 2 (Electric & Heating)

Top-Line Ask: Decarbonize and electrify CU Boulder's heating system by 2035 and incorporate all future capital projects into the emissions inventory of the CAP.

Specific Asks:

1) CU should decarbonize and electrify its heating system by 2035.

Why this ask? Currently, CU Boulder uses natural gas for its heating; decarbonizing the heating system is the single most impactful strategy the university can take to reduce its direct emissions. The CAP draft's timing for decarbonization is too slow, taking until 2050. The longer CU waits to reduce its emissions, the worse for the climate. CU's peer institutions, like CSU, will decarbonize their heating within the next ten years.

2) CU should incorporate all capital projects it foresees into the CAP, including projects that are currently omitted and that will emit heavily.

Why this ask? The CAP draft purports to do an honest accounting of CU's future Scope 1-2 emissions, but fails to incorporate or even mention several planned capital investments that will increase CU's emissions. Notably, this includes a \$45 million investment to extend the life of CU's natural gas heating system by 20-25 years, which belies the CAP's

Draft Climate Action Plan Comments – University of Colorado Boulder

stated goal of decarbonizing CU's heating. The CAP also fails to account for planned growth, like the South Campus expansion.

Scope 3 (Additional Emissions)

Top-Line Ask: Complete a full inventory of Scope 3 emissions, in accordance with the Science Based Targets Initiative (SBTi) rules, and lay out concrete strategies and timelines to reduce Scope 3 emissions to meet the targets.

Specific Asks:

1) Include emissions from investments, CU Athletics, and a full accounting of purchased goods and services. Disclose the university's stake in the Limelight Hotel and include its emissions if required by emissions reporting rules.

Why this ask? Scope 3 or indirect emissions include all emissions an institution is responsible for outside of its own walls, like commuting, flights, waste, and investments. Scope 3 emissions are crucial, as they often constitute the vast majority of a company's emissions. The Science Based Targets Initiative (SBTi) requires companies to inventory all Scope 3 emissions and implement a science-based target for them. Yet three key emissions sources were excluded or severely underreported in CU Boulder's inventory and targets:

1) Investment emissions, which constitute more than all reported emissions combined;

2) Athletics;

3) Purchased goods and services, which were reported at a fraction of peer institutions (12,216 tCO₂e compared to Stanford's 402,153 tCO₂e). By excluding such large categories of emissions, CU is heavily diluting the ambition of its targets.

2) Complete the Scope 3 inventory by conducting relevant surveys, models, and incorporating all available data into the CAP and public-facing emissions inventory by no later than Jan 1, 2025.

This includes: conducting a comprehensive survey on student travel (Category 9), breaking down air miles by department and flight length (Category 6), providing accounting for purchased goods and services (Category 1), and transparency around Life Cycle Assessments (Category 2).

Why this ask? Many of the Scope 3 categories, while formally included in CU Boulder's inventory, are based on loose estimates or not backed with reliable data. In some cases, we found order-of-magnitude mistakes in data used.

3) By no later than Jan 1, 2025, develop concrete, actionable, time-bound, and budgeted emissions reductions strategies for every Scope 3 category and model these strategies' abilities to meet the targets. CU should allow students to assist in collecting data and establishing strategies.

Why this ask? Many Scope 3 strategies amount to vague statements and plans to make plans (i.e. facilitate discussion; make surveys, explore options). Unless these strategies are spelled out in detail, there is little hope of reaching Scope 3 targets.

4. Core & Guiding Principles (Transparency & Accountability)

Top-Line Ask: Live up to the stated values of transparency and accountability by formally committing to follow all Science-Based Target Initiative (SBTi) rules and submit targets for validation, investigating

Draft Climate Action Plan Comments – University of Colorado Boulder

past failures to meet the 2020 target, and avoiding overstatement of climate benefits.

Specific Asks:

1) Formally commit to SBTi, submit targets for validation, and remove all misleading, inaccurate, and outdated references to SBTi guidance.

Why this ask? The CAP has backed off its original intentions of aligning with SBTi, the leading standards for corporate climate action, and consistently misrepresents SBTi guidance.

2) Fully acknowledge the university's failure to meet its 2020 target and conduct an independent study of the causes of that miss; use the insights from this study to inform the current CAP.

CU Boulder missed its previous 2020 emissions reduction goal by a factor of nearly three, but the CAP downplays this miss and does not explain why it occurred. CU overspent its cumulative carbon budget, so it should account for these excessive emissions in its new targets.

3) Remove, or correct and substantiate misleading statements to avoid climate-washing and commit to transparency with the CU Boulder community. Why this ask? The CAP overstates the university's past climate record and leadership.

5. Co-Benefits (Equity)

Top-Line Ask: Develop and fund specific climate justice strategies that tangibly benefit marginalized communities.

Specific Asks:

1) Provide an analysis of how all strategies will result in tangible benefits for marginalized communities, and how harms to these communities will be mitigated.

Why this ask: Currently, the CAP designates some strategies as having an equity co-benefit, but does not explain what specific equity measures these strategies will have. Instead of only being a part of certain strategies, equity should be a priority throughout the plan. To accomplish this, the CAP should build on existing analyses by the CAP Equity Subcommittee, whose work is largely not reflected in the CAP draft.

2) Incorporate strategies specifically requested by marginalized communities. This includes fully funding the Tribal Climate Leaders program and increasing affordable and sustainable housing options near campus.

Why this ask: Despite receiving repeated feedback from the CU's Center for Native American and Indigenous Studies about the importance of the Tribal Climate Leaders program, the CAP does not commit to funding the program.

So, the climate action plan would be to replace any CU BUSES with electric ones if not yet done so and also allow student with free printing services inside the CU Building. Also inclusive of all better learning platform that allow students to get free access to Wolfram Alpha and other such resources instead of always heading to office hours that requires the use of energy and fuel to run vehicles and create pollutions. These small things matter a lot when it is considered a cumulative measure.

Draft Climate Action Plan Comments – University of Colorado Boulder

I am writing to ask that the CAP

1. Include at least six students on the body that will implement the CAP, the Sustainability Executive Council.
2. Decarbonize and electrify CU Boulder's heating system by 2035 and incorporate all future capital projects into the emissions inventory of the CAP.
3. Complete a full inventory of Scope 3 emissions, in accordance with the Science Based Targets Initiative (SBTi) rules, and lay out concrete strategies and timelines to reduce Scope 3 emissions to meet the targets.
4. Live up to the stated values of transparency and accountability by formally committing to follow all Science-Based Target Initiative (SBTi) rules and submit targets for validation, investigating past failures to meet the 2020 target, and avoiding overstatement of climate benefits.
5. Develop and fund specific climate justice strategies that tangibly benefit marginalized communities.

As a 45-year resident of Boulder and former lecturer at CU, I am very concerned about the CAP and its implementation. CU's plan will have a very significant effect on the city, county, state, and beyond.

I believe that Earth's climate naturally undergoes cyclical changes over billions of years. I do not think that human activity, past or present, plays any role in this natural climate variability. Therefore, I consider the concept of man-made climate change to be a complete hoax, propagated by a globalist agenda to undermine petrochemical corporations, increase government control, and erode individual freedoms and independence.

I believe this is a sound and comprehensive plan to reduce greenhouse gas emissions. I fully support this Climate Action Plan and I hope that it is implemented fully!

Annalisa Teleha, Sadie Rich, Dominique Dashwood
Graduate Students, The University of Colorado Boulder
Masters of the Environment Program
4001 Discovery Drive
Boulder, CO 80309-0397
annalisa.teleha@colorado.edu, sadie.rich@colorado.edu,
dominique.dashwood@colorado.edu

February 26, 2024

Submitted via online Qualtrics portal

CU Boulder Climate Action Plan Steering Committee
Attn: CU Boulder Draft Climate Action Plan 2024
sustainability@colorado.edu

Draft Climate Action Plan Comments – University of Colorado Boulder

Re: University of Colorado, Boulder 2024 Draft Climate Action Plan
(February 6th, 2024)

Dear CU Boulder Steering Committee:

On behalf of Annalisa Teleha, Sadie Rich, and Dominique Dashwood, CU Masters of the Environment students, we submit the following comments in response to The University of Colorado Boulder's Draft Climate Action Plan (CAP), 2024. We appreciate the CAP Steering Committee's commitment to comprehensively reviewing their draft CAP with the consideration of public comments. Furthermore, we would like to thank CU Boulder for engaging the public so thoroughly through their open comment period and accessibility of online public engagement sessions.

To be clear, we support the University of Colorado Boulder's formation and implementation of a Climate Action Plan to reduce greenhouse gas emissions by 50% by 2030 with a linear reduction to 100% by 2050, as set by the Paris Agreement. We find the five Core Goals outlined by the CAP 2024 sufficient and believe they will aid in strengthening CU Boulder's commitment to climate action. Furthermore, we support the prioritization of low-hanging fruit, mentioned in the January 2024 public forum, to make as many quick impacts on campus-wide carbon admissions as possible. We also strongly support recommendations that address governance, communication, and financing strategies to help ensure the Plan's execution is implemented.

First, According to the February 23rd, 2024 online public forum, the use of pilot buildings was mentioned to test new practices and equipment. Specifically, a residence hall in Williams Village and an academic on main and east campuses. We recommend that the CAP follows through with pilot buildings as doing so would ensure funds are not wasted installing systems and the process can stay as equitable as possible.

Second, we recommend CU take a more serious approach to reinstating the on-campus organics recycling program. The Draft CAP only requires CU to Write a Zero Waste plan to address ... strategies around compostables and food recovery efforts. The call to write a plan does not make any meaningful commitments to reduce waste and therefore GHG emissions in this category. When organic waste decomposes in the landfill, it releases methane, a greenhouse gas estimated to be twenty times more potent than carbon dioxide emissions. Waste accounts for a small portion of greenhouse gas emissions, however, this program was previously operational on campus and we are discouraged to see CU take steps backward.

Third, as stated by the CAP Executive Summary, an annual goal of a 7% reduction in scope three emissions closely mirrors CU Boulder's climate goals. With this reduction in mind, we also recommend that CU Boulder staff be held more accountable for their emissions while traveling to, and on campus. Excessive vehicle use to and from campus by staff has a notable impact on scope three emissions. In addition, many staff have offices on campus that are temperature-controlled year-round. These offices often sit empty as staff find themselves on other parts of campus causing a lot of scope one and two emissions. We hope that the University

Draft Climate Action Plan Comments – University of Colorado Boulder

supports a dynamic office plan with shared spaces to decrease wasted space or provides infrastructure for staff to turn off temperature control when offices are left unoccupied.

In closing, we appreciate CU Boulder's efforts to reduce Scope 1, 2, and 3 GHG emissions and the Steering Committee will take adequate action to implement the most protective and enforceable measures possible. Thank you for your attention and consideration of these comments.

Sincerely,

Annalisa Teleha

CU Boulder Masters of the Environment Student, Bachelor of Science in Environmental Biology from Tulane University

Sadie Rich

CU Boulder Masters of the Environment Student, Returned Peace Corps Volunteer

Dominique Dashwood

CU Boulder Masters of the Environment Student, Bachelor of Science in Environmental Management and Protection

As a young person, climate change is one of my most pressing worries about the future. The warming of the planet produces so many spiraling effects with the potential to amplify and re-embed existing socioeconomic inequalities and cause tremendous loss to the biodiversity of the Earth. The climate crisis is also an opportunity for transformative action that addresses underlying inequalities and changes our relationships with nature as we rapidly decarbonize. This requires bold leadership, leadership that can come from universities as centers of research and a significant presence in their communities. CU Boulder has led the way for decades in climate science research, but we have been gravely behind in terms of climate action. While I respect the work that has gone into this plan and acknowledge some improvements over past drafts, for the reasons detailed in my previous comments, this CAP does not catch us up, much less make us a leader in this space. As a student, it is frustrating to be told that this is the best we can do, that we just don't have the money, that we can't incorporate climate justice strategies because they're outside of the scope of operations, that administrators just hope that our generation (the students) grows up and figure these things out. The reality is, to address climate change with the urgency it demands, we have to break with the status quo, and we have to do it now. If we, as a leading research university with immense resources, expertise, and institutional power, can't do this, I am frankly quite scared about what the future holds for our planet.

I know I'm not alone among CU Boulder students in wanting to see climate action that can not only meet the bare minimum of required emissions reductions consistent with the Paris Agreement, but also pave a path for transformative change, to bring students, faculty, and staff together and

Draft Climate Action Plan Comments – University of Colorado Boulder

give us hope. I urge the CAP steering committee to take our feedback seriously, to think boldly about the potential of this plan, and to be willing to work with diverse groups across campus to improve the plan. Thanks very much for this opportunity to comment and for your consideration of my and others' feedback.

Note: what follows is a forward to a more extensive, detailed analysis of the CAP and specific asks that I have worked on with a group of fellow graduate students. We will be submitting the full list of asks shortly to the CAP Steering Committee. On behalf of the group, I am submitting our cover letter as an official public comment so that it will be recorded and posted publicly on the CAP website. Thank you very much for your consideration of our feedback.

We, the undersigned students and faculty, are calling for major revisions to the February 2024 Climate Action Plan (CAP) draft, which currently does not meet the requirements for effective climate action planning. The document will require major revisions for a number of reasons outlined herein, including but not limited to: collection of missing data, correction of significant mistakes in figures and application of SBTi rules, and devising of concrete, actionable strategies. As importantly, the CAP needs to be revised to remove claims that overstate its benefits and that amount to climate washing. The necessary revisions will require a return to the proverbial drawing board. That process will take months, and the CAP Steering Committee should not be rushed to release the final plan in April 2024. Meanwhile, urgent action can begin on the strategies that are already specified. To facilitate the necessary revisions, we are submitting a detailed list of suggestions for revision to the CAP Steering Committee. In this forward, our goal is to provide a more general evaluation of the 2024 CAP draft, and the nature of the work that remains to be done.

To reduce campus greenhouse gas (GHG) emissions—the CAP's stated Core Goals #1-2—the CAP needed to devise strategies in three core areas: (1) energy efficiency upgrades in buildings; (2) heating system upgrades to decarbonize campus heating and (3) the category of emissions known as Scope 3, or value chain emissions. Out of the three core areas, the CAP only devises a concrete strategy for the first area, energy efficiency. The second area, heating system upgrades, has essentially been carved out of the CAP for future studies. While formally included in CAP figures, the CAP admits these figures reflect rough estimations rather than detailed engineering, emissions, and financial analysis. The university's timeline for the heating system upgrades—which will take until 2050 to complete—is overly long, and the rough financial cost estimates are also inordinately high, in comparison to heating system upgrades at other peer institutions.

The third area, Scope 3 emissions, is presented in the CAP as a major progress relative to the university's past planning efforts. In reality, the CAP's Scope 3 emissions inventory is highly incomplete. The university's plans to address Scope 3 emissions consist primarily of initiating future planning processes. For example, one listed strategy is

Draft Climate Action Plan Comments – University of Colorado Boulder

to Facilitate discussion on options to reduce business travel emissions (p. 103). Another listed strategy is to Initiate surveys to measure student travel during breaks and family visit air travel [in 2027]. The format for this survey was readily available from Stanford University and should have already been completed during the year-and-a-half CAP process. The university's inventory for the large Purchased Goods & Services Scope 3 category is also at an early and incomplete stage, despite repeated requests that the university contract a vendor to acquire the necessary capabilities. With 2030 targets looming large, the 2024 CAP's role is to provide actual time-bound, actionable plans for Scope 3, not plans to make plans. This issue is especially significant because quantitatively, Scope 3 emissions are the largest category that the university needs to abate.

The CAP draft, in short, has major gaps in the kind of concrete analysis that one would find in a climate action plan. The CAP Steering Committee tries to justify these gaps by claiming that the draft is a living document and will continue to evolve in the future. We find this explanation unpersuasive for several reasons. First, the CAP draft was the result of a year and a half of planning, considerable expenditure on consultants, and major time commitment from senior staff. That level of resources is inconsistent with a work product whose only significant contribution to large-scale emissions reduction is energy efficiency upgrades (we also note that energy efficiency upgrades were already planned under the university's 2009 Conceptual Plan for Carbon Neutrality, which was not implemented, and the 2021 Energy Master Plan). While working towards progress on energy efficiency is a positive and essential goal, the 2024 CAP should devote more energy and analysis to devising concrete strategies for the two greater emissions categories: heating decarbonization and Scope 3. The full inventory, strategies, and emissions reductions modeling for these categories should be included in the 2024 CAP, or at the very least, a concrete timeline should be specified for when they will be added.

The CAP steering committee's notion of a living document is unpersuasive for another reason. The CAP had an explicit goal to align the new targets with the Science Based Targets Initiatives (SBTi), a goal that it has not achieved. SBTi is a standard setting body that provides a detailed rule framework for organizations adopting climate targets. The SBTi rule framework was developed to curb the problem of climate washing: organizations that advertise seemingly ambitious climate targets but qualify these targets in the small print. By committing to SBTi targets, organizations assure their stakeholders that their climate targets adhere to certain rules. In the CAP, CU Boulder attempts to increase its reputation by providing that assurance. A reader of the CAP website and the Executive Summary would reasonably conclude that the university's targets are SBTi-aligned. In reality, a low-visibility footnote (first appearing on pg 41) clarifies that the university does not fully commit to following SBTi rules. The same footnote also notes that the university will not submit its targets for technical validation by SBTi, a key requirement of its rules.

Aligning with SBTi is a stated goal of the CAP and was included in the Request for Proposals that the university published to hire the CAP

Draft Climate Action Plan Comments – University of Colorado Boulder

consultant. Further, compliance with SBTi is required by the Human Rights Climate Commitments that CU Boulder itself has sponsored in COP28 and proposed for other universities to adopt. Those Commitments state: Targets must be in accordance with accepted science-based methodology and further clarify: Institutions in high-income and upper middle-income countries should adopt a minimum level of ambition for 1.5°C consistent with the technical criteria of the SBTi Corporate Net-Zero Standard. The main reason that the university is not compliant with SBTi is that its Scope 3 inventory is highly incomplete, thereby substantially reducing the ambition of its targets.

CU Boulder should live up to the commitment that it is asking other universities to adopt. Instead, the CAP Steering Committee seems to assume it can claim alignment with SBTi if it follows those rules it deems important, while relegating compliance with other rules to an unspecified plan for future improvements. This assumption is incorrect and inconsistent with the Human Rights Climate Commitments. The only organizations entitled to advertise alignment with SBTi are those that fully commit to its technical standards and intend to submit their targets for validation in accordance with those standards. Further, the SBTi rules that the CAP deems unimportant are crucial and their noncompliance materially reduces the ambition of the CAP's targets. The CAP's claims to SBTi alignment raises serious climate-washing concerns, as well as reputational, legal, and financial risks to the university.

A third reason that makes the living document claim unpersuasive is that it is inconsistent with the community's lived experience. The CAP draft tries to present an image of engagement where community members' suggestions contribute to the CAP's development and implementation. In reality, the CAP draft ignores consistent feedback on the issues that mattered most to community members:

In December, 2022, hundreds of students rallied for the university to divest its investments from fossil fuels. The CAP draft was an opportunity to listen to their concerns, and include investment emissions in the Scope 3 inventory. The CAP declined to do so, citing reasons we find unpersuasive;

A year later, in December 2023, hundreds of students, faculty, staff, and other community members, sent a petition letter to the university. One of the key requests in the letter was to accelerate the pace of heating system upgrades in line with other peer universities. The CAP steering committee declined that call. It attempted to rationalize the multi-decade implementation timeline in ways that, again, we find unpersuasive.

Regarding the Equity portion of the plan, students and faculty repeatedly petitioned that the CAP would commit the university to funding the Tribal Climate Leadership Plan (TCLP). The requested amounts were small and highly feasible. That request was denied. While the word equity appears in the CAP draft 97 times, the CAP only designates eight strategies as having an equity co-benefit (four of which are low-priority strategies), does not explain why they will have such a benefit, and omits the Equity Subcommittee's previous equity analysis.

Draft Climate Action Plan Comments – University of Colorado Boulder

In the same December 2023 petition letter, hundreds of students requested for CUSG to have seats in the Executive Sustainability Council. The requested seats will help students have a greater voice and input into campus climate planning. Again, the request was denied.

In higher education sustainability, we speak of campus as a living laboratory, where students learn climate action by pursuing climate advocacy on campus. What the 2024 CAP draft is teaching students is that their advocacy does not matter. This track-record must be meaningfully addressed and the demands of students implemented before we can rely on the CAP's future as a living document.

The university urgently needs to build trust with the community around climate planning. Trust requires transparency and accountability. Trust also requires the ability to acknowledge and learn from our mistakes. In 2009, the university adopted a climate target to reduce its Scope 1-2 emissions by 20% by 2020. The 2009 plan that was devised to meet the 2020 target was not implemented, and the university missed the target by a wide margin. Nevertheless, the university declined to accurately characterize the size of the miss and did not pursue a study to understand its causes. As a result, the 2024 CAP has not benefited from important lessons that could have been learned. Meanwhile, campus communications around climate issues promote a sense of CU Boulder as a climate leader while repeatedly mischaracterizing facts. To build trust with the community, the 2024 CAP needed to address these difficult and urgent issues and chart a path forward. It did not.

We call on the university to use this opportunity to turn a page. The comments below provide a detailed blueprint for necessary revisions in the CAP. At the end of the document, we provide a table summarizing our asks and request that the CAP Steering Committee complete the table by filling out whether or not they will be incorporating each suggested revision. Our hope is that the university will dedicate the necessary time and resources to the revision process. We emphasize that whatever the outcomes of that revision process may be, the university is obligated to portray the plan accurately, and not to exaggerate its climate benefits.

Sincerely,

Sean Benjamin, graduate student in Mechanical Engineering

Mariah Bowman, Law School student

Noah Gershon, graduate student in Civil Engineering

Lucas Elek, Law School student

Sara Fleming, graduate student in Geography

Nadav Orian Peer, Law School faculty

Jonah Shaw, graduate student Atmospheric and Oceanic Sciences

Mikell Warms, graduate student in Atmospheric and Oceanic Sciences

I would like to see more actions that are social justice and culturally focused.

Draft Climate Action Plan Comments – University of Colorado Boulder

I would like to see more commitments to uplifting BIPOC leadership such as through the CNAIS program, Tribal Climate Leaders program, ethnic studies, CEB, etc. The climate crisis is a sickness caused by racist extraction from BIPOC people, racial capitalism. We need to uplift their voices.

I would like a shift to divestment from fossil fuels happening right now, we are in a climate emergency and we need to act like it. Investment could be put into renewable energy and renewable energy research.

I would like to see a general required sustainability education for all CU students.

I would like to see compost be accessible on campus once again, this could be just a select few bins on campus that are at a few dorms and one in the UMC (only the students really interested in composting their items will engage, avoiding contamination)

I would like to see a second-hand section of the CU clothing store in the UMC-- higher sustainability standards, only sell clothing that are transparent about their factory's ethics (environmentally & socially)

I would like to see the UMC automatically giving out reusable plates, unless the student specifies that they want a to-go container (many students eat their food in the UMC and through out a single-use container after 10 minutes of using it)

I would like to see a storage lot to hold the things that freshmen don't want when they are moving out, these items could then be saved and donated in the following fall to incoming freshmen

To the CAP Steering Committee:

Thank you for your dedication to addressing the climate crisis through work here on the CU campus. I write in my personal capacity, although my comments and concerns are deeply informed by my work as a lawyer representing communities on the front line of climate change harms and by my role as a faculty member at CU Law, where I have the great privilege to direct the Getches-Green Natural Resources, Energy, and Environmental Law Clinic. In that role, I work closely with students who will be future leaders and policymakers grappling with the most urgent, existential issue we as a global community face--how to ensure we have a healthy planet that is livable for all people.

I expressly adopt the excellent comments prepared by a group of students who have been working in close consultation with faculty and student organizations; those comments are pasted below in full. While I support each of the five priority demands, I want to underscore the importance of student leadership and full participation by at least six students on the Sustainability Executive Council. Our undergraduate and graduate students are the lifeblood of this institution. They are thoughtful, energetic, creative, and willing to literally roll up their sleeves and embrace tough problems. They are also (generally speaking) the generation who will be impacted by climate change harms like none before. We owe it to these students to empower and uplift them by ensuring they have a presence on the executive body that will drive CU's vision forward and implement CU's climate plan. Please do not short-change these students' futures by excluding them from full participation on the Sustainability

Draft Climate Action Plan Comments – University of Colorado Boulder

Executive Council. CU should model inclusive decision-making by welcoming student participation in this way.

Below, please find the five priority demands I urge you to consider and implement with respect to the CAP. I welcome any questions you may have.

Five Priority Demands:

Implementation Plan (Governance and Accountability)

Top-Line Ask: Include at least six students on the body that will implement the CAP, the Sustainability Executive Council. This Council should commit to transparency, including posting data, allowing students to report on meeting minutes, and hosting public progress reports.

Specific Asks:

1) CU should agree to requests listed in resolutions passed by CU Undergraduate and Graduate Student Governments, calling for six student representatives on the Sustainability Executive Council. The representatives would be nominated by these bodies and would include at least one student working on environmental justice research or implementation.

Why this ask? The Climate Action plan draft currently splits governance into two bodies: 1) the Sustainability Executive Council, which consists mostly of CU Administrators, and which will have final decision-making power, and 2) a Sustainability Council which consists only of students, faculty and staff, and serves only in an advisory capacity to the Sustainability Executive Council. This structure disempowers students, isolating them from decision-making power and input. Students belong where decisions are being made.

2) The Sustainability Executive Council should establish a clear decision-making process, commit to transparency by releasing the detailed data it uses to make decisions and allow student representatives to report meeting minutes. It should host a quarterly public forum structured as a CAP implementation progress report followed by Q&A with the public.

Why this ask? The current draft CAP fails to describe many of the critical engineering and modeling assumptions it makes. For students and the public to engage in this discussion, they need access to both data and decision-making.

Scopes 1 & 2 (Electric & Heating)

Top-Line Ask: Decarbonize and electrify CU Boulder's heating system by 2035 and incorporate all future capital projects into the emissions inventory of the CAP.

Specific Asks:

1) CU should decarbonize and electrify its heating system by 2035.

Why this ask? Currently, CU Boulder uses natural gas for its heating; decarbonizing the heating system is the single most impactful strategy the university can take to reduce its direct emissions. The CAP draft's timing for decarbonization is too slow, taking until 2050. The longer CU waits to reduce its emissions, the worse for the climate. CU's peer institutions, like CSU, will decarbonize their heating within the next ten years.

2) CU should incorporate all capital projects it foresees into the CAP, including projects that are currently omitted and that will emit heavily.

Draft Climate Action Plan Comments – University of Colorado Boulder

Why this ask? The CAP draft purports to do an honest accounting of CU's future Scope 1-2 emissions, but fails to incorporate or even mention several planned capital investments that will increase CU's emissions. Notably, this includes a \$45 million investment to extend the life of CU's natural gas heating system by 20-25 years, which belies the CAP's stated goal of decarbonizing CU's heating. The CAP also fails to account for planned growth, like the South Campus expansion.

Scope 3 (Additional Emissions)

Top-Line Ask: Complete a full inventory of Scope 3 emissions, in accordance with the Science Based Targets Initiative (SBTi) rules, and lay out concrete strategies and timelines to reduce Scope 3 emissions to meet the targets.

Specific Asks:

1) Include emissions from investments, CU Athletics, and a full accounting of purchased goods and services. Disclose the university's stake in the Limelight Hotel and include its emissions if required by emissions reporting rules.

Why this ask? Scope 3 or indirect emissions include all emissions an institution is responsible for outside of its own walls, like commuting, flights, waste, and investments. Scope 3 emissions are crucial, as they often constitute the vast majority of a company's emissions. The Science Based Targets Initiative (SBTi) requires companies to inventory all Scope 3 emissions and implement a science-based target for them. Yet three key emissions sources were excluded or severely underreported in CU Boulder's inventory and targets:

1) Investment emissions, which constitute more than all reported emissions combined;

2) Athletics;

3) Purchased goods and services, which were reported at a fraction of peer institutions (12,216 tCO₂e compared to Stanford's 402,153 tCO₂e). By excluding such large categories of emissions, CU is heavily diluting the ambition of its targets.

2) Complete the Scope 3 inventory by conducting relevant surveys, models, and incorporating all available data into the CAP and public-facing emissions inventory by no later than Jan 1, 2025.

This includes: conducting a comprehensive survey on student travel (Category 9), breaking down air miles by department and flight length (Category 6), providing accounting for purchased goods and services (Category 1), and transparency around Life Cycle Assessments (Category 2).

Why this ask? Many of the Scope 3 categories, while formally included in CU Boulder's inventory, are based on loose estimates or not backed with reliable data. In some cases, we found order-of-magnitude mistakes in data used.

3) By no later than Jan 1, 2025, develop concrete, actionable, time-bound, and budgeted emissions reductions strategies for every Scope 3 category and model these strategies' abilities to meet the targets. CU should allow students to assist in collecting data and establishing strategies.

Why this ask? Many Scope 3 strategies amount to vague statements and plans to make plans (i.e. facilitate discussion; make surveys, explore options). Unless these strategies are spelled out in detail, there is little hope of reaching Scope 3 targets.

Draft Climate Action Plan Comments – University of Colorado Boulder

4. Core & Guiding Principles (Transparency & Accountability)

Top-Line Ask: Live up to the stated values of transparency and accountability by formally committing to follow all Science-Based Target Initiative (SBTi) rules and submit targets for validation, investigating past failures to meet the 2020 target, and avoiding overstatement of climate benefits.

Specific Asks:

1) Formally commit to SBTi, submit targets for validation, and remove all misleading, inaccurate, and outdated references to SBTi guidance.

Why this ask? The CAP has backed off its original intentions of aligning with SBTi, the leading standards for corporate climate action, and consistently misrepresents SBTi guidance.

2) Fully acknowledge the university's failure to meet its 2020 target and conduct an independent study of the causes of that miss; use the insights from this study to inform the current CAP.

CU Boulder missed its previous 2020 emissions reduction goal by a factor of nearly three, but the CAP downplays this miss and does not explain why it occurred. CU overspent its cumulative carbon budget, so it should account for these excessive emissions in its new targets.

3) Remove, or correct and substantiate misleading statements to avoid climate-washing and commit to transparency with the CU Boulder community. Why this ask? The CAP overstates the university's past climate record and leadership.

5. Co-Benefits (Equity)

Top-Line Ask: Develop and fund specific climate justice strategies that tangibly benefit marginalized communities.

Specific Asks:

1) Provide an analysis of how all strategies will result in tangible benefits for marginalized communities, and how harms to these communities will be mitigated.

Why this ask: Currently, the CAP designates some strategies as having an equity co-benefit, but does not explain what specific equity measures these strategies will have. Instead of only being a part of certain strategies, equity should be a priority throughout the plan. To accomplish this, the CAP should build on existing analyses by the CAP Equity Subcommittee, whose work is largely not reflected in the CAP draft.

2) Incorporate strategies specifically requested by marginalized communities. This includes fully funding the Tribal Climate Leaders program and increasing affordable and sustainable housing options near campus.

Why this ask: Despite receiving repeated feedback from the CU's Center for Native American and Indigenous Studies about the importance of the Tribal Climate Leaders program, the CAP does not commit to funding the program.

CU should agree to requests listed in resolutions passed by CU Undergraduate and Graduate Student Governments, calling for six student representatives on the Sustainability Executive Council. The representatives would be nominated by these bodies and would include at

Draft Climate Action Plan Comments – University of Colorado Boulder

least one student working on environmental justice research or implementation. The Sustainability Executive Council should establish a clear decision-making process, commit to transparency by releasing the detailed data it uses to make decisions and allow student representatives to report meeting minutes. It should host a quarterly public forum structured as a CAP implementation progress report followed by Q&A with the public. CU should decarbonize and electrify its heating system by 2035. CU should incorporate all capital projects it foresees into the CAP, including projects that are currently omitted and that will emit heavily. Formally commit to SBTi, submit targets for validation, and remove all misleading, inaccurate, and outdated references to SBTi guidance. Fully acknowledge the university's failure to meet its 2020 target and conduct an independent study of the causes of that miss; use the insights from this study to inform the current CAP. Remove, or correct and substantiate misleading statements to avoid climate-washing and commit to transparency with the CU Boulder community. Provide an analysis of how all strategies will result in tangible benefits for marginalized communities, and how harms to these communities will be mitigated. Incorporate strategies specifically requested by marginalized communities. This includes fully funding the Tribal Climate Leaders program and increasing affordable and sustainable housing options near campus.

1. CU should agree to requests listed in resolutions passed by CU Undergraduate and Graduate Student Governments, calling for six student representatives on the Sustainability Executive Council. The representatives would be nominated by these bodies and would include at least one student working on environmental justice research or implementation.

2. The Sustainability Executive Council should establish a clear decision-making process, commit to transparency by releasing the detailed data it uses to make decisions and allow student representatives to report meeting minutes. It should host a quarterly public forum structured as a CAP implementation progress report followed by Q&A with the public.

3. CU should incorporate strategies specifically requested by marginalized communities. This includes fully funding the Tribal Climate Leaders program and increasing affordable and sustainable housing options near campus.

Hi! I'm grad student in the Geological Sciences department and a staff member with GPSG. I appreciate the effort that has been put into creating this document, but ultimately it falls well-short of a plan for net zero by 2050. Please continue to work to improve this plan and be transparent with updates to it through our shared governance channels. We can do better!

Implementation Plan (Governance and Accountability)

Draft Climate Action Plan Comments – University of Colorado Boulder

Top-Line Ask: Include at least six students on the body that will implement the CAP, the Sustainability Executive Council. This Council should commit to transparency, including posting data, allowing students to report on meeting minutes, and hosting public progress reports.

Scopes 1 & 2 (Electric & Heating)

Top-Line Ask: Decarbonize and electrify CU Boulder's heating system by 2035 and incorporate all future capital projects into the emissions inventory of the CAP.

Scope 3 (Additional Emissions)

Top-Line Ask: Complete a full inventory of Scope 3 emissions, in accordance with the Science Based Targets Initiative (SBTi) rules, and lay out concrete strategies and timelines to reduce Scope 3 emissions to meet the targets.

4. Core & Guiding Principles (Transparency & Accountability)

Top-Line Ask: Live up to the stated values of transparency and accountability by formally committing to follow all Science-Based Target Initiative (SBTi) rules and submit targets for validation, investigating past failures to meet the 2020 target, and avoiding overstatement of climate benefits.

5. Co-Benefits (Equity)

Top-Line Ask: Develop and fund specific climate justice strategies that tangibly benefit marginalized communities. Specifically, I support fully funding the Tribal Climate Leaders program.

CU should agree to requests listed in resolutions passed by CU Undergraduate and Graduate Student Governments, calling for six student representatives on the Sustainability Executive Council. The representatives would be nominated by these bodies and would include at least one student working on environmental justice research or implementation. The Sustainability Executive Council should establish a clear decision-making process, commit to transparency by releasing the detailed data it uses to make decisions and allow student representatives to report meeting minutes. It should host a quarterly public forum structured as a CAP implementation progress report followed by Q&A with the public.

CU NEEDS to decarbonize and electrify its heating system by 2035. It also NEEDS to incorporate all capital projects it foresees into the CAP, including projects that are currently omitted and that will emit heavily. The CAP draft purports to do an honest accounting of CU's future Scope 1-2 emissions, but fails to incorporate or even mention several planned capital investments that will increase CU's emissions. Notably, this includes a \$45 million investment to extend the life of CU's natural gas heating system by 20-25 years, which belies the CAP's stated goal of decarbonizing CU's heating. The CAP also fails to account for planned growth, like the South Campus expansion.

Complete a full inventory of Scope 3 emissions, in accordance with the Science Based Targets Initiative (SBTi) rules, and lay out concrete

Draft Climate Action Plan Comments – University of Colorado Boulder

strategies and timelines to reduce Scope 3 emissions to meet the targets. Include emissions from investments, CU Athletics, and a full accounting of purchased goods and services. Disclose the university's stake in the Limelight Hotel and include its emissions if required by emissions reporting rules. By no later than Jan 1, 2025, develop concrete, actionable, time-bound, and budgeted emissions reductions strategies for every Scope 3 category and model these strategies' abilities to meet the targets. CU should allow students to assist in collecting data and establishing strategies.

Live up to the stated values of transparency and accountability by formally committing to follow all Science-Based Target Initiative (SBTi) rules and submit targets for validation, investigating past failures to meet the 2020 target, and avoiding overstatement of climate benefits. Fully acknowledge the university's failure to meet its 2020 target and conduct an independent study of the causes of that miss; use the insights from this study to inform the current CAP. With the world in the state that it is, you cannot afford to fail again. Remove, or correct and substantiate misleading statements to avoid climate-washing and commit to transparency with the CU Boulder community. Lying will help no one.

Provide an analysis of how all strategies will result in tangible benefits for marginalized communities, and how harms to these communities will be mitigated. Incorporate strategies specifically requested by marginalized communities. This includes fully funding the Tribal Climate Leaders program and increasing affordable and sustainable housing options near campus. Despite receiving repeated feedback from the CU's Center for Native American and Indigenous Studies about the importance of the Tribal Climate Leaders program, the CAP does not commit to funding the program. Your land acknowledgements in email signatures are not enough.

Do better.

Include at least six students on the body that will implement the CAP, the Sustainability Executive Council. This Council should commit to transparency, including posting data, allowing students to report on meeting minutes, and hosting public progress reports.

CAP Steering Committee:

Include at least six students on the body that will implement the CAP, the Sustainability Executive Council. This Council should commit to transparency, including posting data, allowing students to report on meeting minutes, and hosting public progress reports.

Decarbonize and electrify CU Boulder's heating system by 2035 and incorporate all future capital projects into the emissions inventory of the CAP.

Draft Climate Action Plan Comments – University of Colorado Boulder

Complete a full inventory of Scope 3 emissions, in accordance with the Science Based Targets Initiative (SBTi) rules, and lay out concrete strategies and timelines to reduce Scope 3 emissions to meet the targets.

Live up to the stated values of transparency and accountability by formally committing to the Science-Based Climate Initiative (SBTi), investigating past failures to meet the 2020 target, and avoiding overstatement of climate benefits.

Develop and fund specific climate justice strategies that tangibly benefit marginalized communities.

Thank you,
Todd

The plans fails to address the long term growth of the campus and how CU accounts for the emissions associated with the direct growth of the university and the influx of emissions this will bring. This is a direct cause of why CU did not meet its 2020 goals, they did not properly account for growth.

Governance structure fails to provide fair and just representation of students and all stakeholders for the implementation of this plan, this significantly undermines community members autonomy in their climate futures and is contradictory to promoting throughout this plan.

- the proposed structure is very hierarchical, and places all control within the chancellors where it should be embedded across all colleges and programs at cu.

the concept of space utilization is underdeveloped in this plan, why are we so insistent upon new constructure, when we are forgetting about the current unused space.

fails to support and engage existing sustainability programs and organizations on campus ex: green labs.

This plan fails to be communicated to people who do not have a good understanding of sustainability and climate change. There needs to be a more general public version of this report for someone who knows nothing about climate and sustainability.

Why are we still using a band-aid approach when we should bite the bullet and invest in geothermal energy.

There is little to no mention of policy change and development to ensure the longevity of these initiatives. Such as if a staff member as a campus purchasing card they can go out and buy a car that has an ICE engine, how do you plan to put policy around purchases like these. There needs to be more direct plans for policy change and creation.

If CU is going to claim >\$12 million dollars in cash flows from these projects over time, how is that money going to be reinvested into the students, especially because it came directly from tuition money.

Draft Climate Action Plan Comments – University of Colorado Boulder

Fails to account for future land acknowledgments and the growth of CU onto indigenous land in the future.

One of the proposed frameworks, ILFI International Living Futures Institute, uses carbon offsets as one of the three main ways to reduce carbon footprint. Even though CU has made a commitment to do this without Offsets.

There is no transparency or paper trail on the financial estimates. A seemingly arbitrary number \$600 million to 1 billion is mentioned but no details. The appendix is exactly the place to put these details.

Great work! Maybe this is discussed in the main body (I only read the Ex Summary), but given that research/labs are only 10% of the portfolio but account for 40% of energy consumption, it might be good to carve out some language specific to this building type. If we are to follow the CHAP model (new research building/de-intensify Cristol/Ekeley) as well as follow the recommendations from SLIS to generally de-intensify most of our older lab buildings, this could very well mean that we would need to build replacement buildings for JILA B- and S-wings, Ekeley, Duane, Porter, Gold, and Muenzinger unless we have build a swing space lab building to avoid new construction and add'l embodied carbon

Put six students on the sustainability executive council. Decarbonize heating by 2035. Make concrete plan to reduce emissions from Scope 3 emissions categories. Increase transparency.

There doesn't seem to be much discussion of occupant behavior change in the plan. While infrastructure is an important part of achieving goals, it seems like a concerted effort to compel people to change their ideas of business as usual would go a long way and really start to grow the impact outside the direct influence of the campus. For instance, expanding the temperature ranges that are deemed acceptable would go a long way towards reducing the demand for heating/cooling. The added benefit is that some of these policy changes are low-hanging fruit (low/no cost) if the campus is willing to take a consistent position on enforcement.

Include at least six students on the body that will implement the CAP, the Sustainability Executive Council. This Council should commit to transparency, including posting data, allowing students to report on meeting minutes, and hosting public progress reports.

Decarbonize and electrify CU Boulder's heating system by 2035 and incorporate all future capital projects into the emissions inventory of the CAP.

Draft Climate Action Plan Comments – University of Colorado Boulder

Complete a full inventory of Scope 3 emissions, in accordance with the Science Based Targets Initiative (SBTi) rules, and lay out concrete strategies and timelines to reduce Scope 3 emissions to meet the targets.

Live up to the stated values of transparency and accountability by formally committing to follow all Science-Based Target Initiative (SBTi) rules and submit targets for validation, investigating past failures to meet the 2020 target, and avoiding overstatement of climate benefits.

Develop and fund specific climate justice strategies that tangibly benefit marginalized communities.

Hi CAP team, I was curious how I could become involved? I work for CMCI and would love to join the sustainability initiatives on campus. Happy to set up a call to discuss possible avenues for becoming part of the team.

If CU electrifies the fleet and eliminates combustion engines in favor of electric equipment would there be carbon added to the campus usage quantity for the generation of electricity used to charge all of that equipment? If yes, what scope would that fall under, where is that calculation and is there a strategy to offset that potential carbon addition? Projection of 300 million dollars per decade for three decades. Where does this spending rank in priority to other competing CU needs and who gets to decide?

On page 23 there is a sentence that states "The conversion of fleet and building operations to electricity insulates the campus from the volatility of fossil fuel markets and can reduce certain operating costs." As of 2022 60+% (37.6% coal and 26.7% natural gas) of electricity being generated in Colorado came from plants using either coal or natural gas. Xcel has stated they will eliminate coal powered plants by 2030, what if they don't? As part of eliminating coal powered plants Xcel is planning that a number of natural gas powered plants come online (at a cost of 12 - 15 billion dollars) for resiliency and to handle peak loads. How will switching to using more electricity to charge equipment insulate the campus from fuel market volatility? Won't electric costs (operating expenses) go up significantly if/when Xcel builds those new plants?

Is there a list of on campus sites studied for additional solar PV installations that can be shared?

Appendix A is referenced multiple times in the document but it is not included. Where can that appendix be found or accessed?

How do interested parties access the Climate Action Tracker and the online dashboard?

While capital (one time) cost projections were covered there was very little exploration of any impacts to operational (ongoing) costs. Has the steering committee and Blue Strike Environmental done any modeling of those costs?

Can you share a breakdown of GHG emissions with each school/department and institute leadership and staff so everyone can work together on the goals and reporting? Thank you!

Will the campus develop an extreme heat and extreme cold

Draft Climate Action Plan Comments – University of Colorado Boulder

operations plan to optimize the energy usage and limit peak energy needs?
This may allow CU to retire WDEP and invest in something more beneficial.
Thank you.