

DEPARTMENT OF ACHIEVING LOW-IMPACT ENERGY



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Introduction

Boulder County prioritizes environmental sustainability to promote economic vitality, ensure energy for residents' well-being, and address climate change. Being environmentally sustainable supports benefits for both humans and the environment locally and beyond. This vision led to the creation of the **Department of Achieving Low-Impact Energy (DALE)** with the focus on implementing an Energy Element to the Boulder County Comprehensive Plan

Background

DALE aims to shift to 100% renewable energy for Boulder County's residential, commercial, and agricultural sectors by 2040, focusing on energy usage in Rural and Suburban Residential Zones. Homes account for 22% of energy use and 21% of CO2 emissions, with an average of 892 million Btu's of embedded energy per home. Environmental sustainability is a top priority for Boulder County, promoting economic vitality, clean air and water, and addressing climate change. DALE seeks to identify ways to reduce energy consumption and promote renewable energy sources for a sustainable future.

Stakeholders



RESIDENTIAL

Policies would directly influence homeowners and renters through housing updates and economic benefits.



AGRICULTURE

The use of energy on farms and ranches will be impacted through renewable energy infrastructure and energy sources for machinery.



BUSINESS

Energy companies of the county and expanding the energy sector to promote local job growth is key.

Public Engagement

Public Meeting

Low-impact Energy Equity Group (LEEG)

LEEG will be created with the goal of including diverse representation of race, ethnicities, age, and socioeconomic status that will define equity guidelines for sustainability and energy resilience within the Boulder County community to achieve the goal of **clean energy for all**. LEEG will include 19 community members who are located throughout different portions of the county to include and understand rural energy needs and barriers. There will be advertisement for the group through flyers, emails, and applications being made available at community events. The group will meet at an accessible hybrid meeting where interactive engagement will take place such as drawing on maps and working through hypothetical scenarios. Policies would be made upon this feedback and there will be a second round of an accessible meeting with LEEG to adjust policies as deemed necessary.



Survey

Energy Policy Survey

The purpose of the energy policy survey is to acquire general feedback from the county on the barriers residents face to implement low-impact energy. DALE recognizes that to achieve 100% renewable energy for Boulder County there has to be an open dialog between the residents and the process of implementation.

LEEG Application Survey

There will be a high consideration for who will be part of the LEEG. This is to ensure that the voices of those who have been historically silenced and not included in the planning process will be uplifted. There will be a particular consideration to include those who reside in rural mountainous areas in the county.

Website

The DALE website will be an information hub that will have easy access to community energy partners, surveys, proposed policy, contact, climate change awareness, and the history of energy in Boulder County. All the information is translated into Spanish for increased accessibility.



Community Partners

Boulder County has relations with many agencies dedicated to low-impact energy. DALE will amplify these agencies through policy. Some are listed below.



Offer expert advice, connections to contractors, and help finding incentives and financing. EnergySmart is a partnership with local utilities and government, funded by the City of Boulder and Boulder County.



A widely recognized and approved approach for evaluating the energy efficiency of a residence and predicting its energy costs.



Promotes sustainable residential development and redevelopment in Boulder County's unincorporated areas. To achieve this, the regulations encourage the construction of energy-efficient structures that minimize greenhouse gas emissions and waste sent to landfills



Offers businesses expert advice and financial incentives to measure and improve their energy, waste, water, and transportation practices.



Focus on policy and programs in collaboration with utilities, state and local governments, environmental groups, national laboratories, businesses, and other energy experts. Works in the Southwest region of the United States to promote clean energy.

Goals

Goal 1. Equitable Energy

The goal of Equitable Energy in supporting low-impact energy in Boulder County is to ensure that all residents, regardless of socioeconomic status, race, or geographic location, have access to reliable, affordable, and sustainable renewable energy sources. The purpose of promoting clean equity energy will be to open pathways for new jobs, community connection, business opportunities, and education.

Goal 2. Uplifting Professionals

The goal of prioritizing resources to professional sectors with the purpose of creating opportunities for lower-impact energy will instill in the Boulder County community that the future economic development of the city prioritizes clean energy to reach county goals.

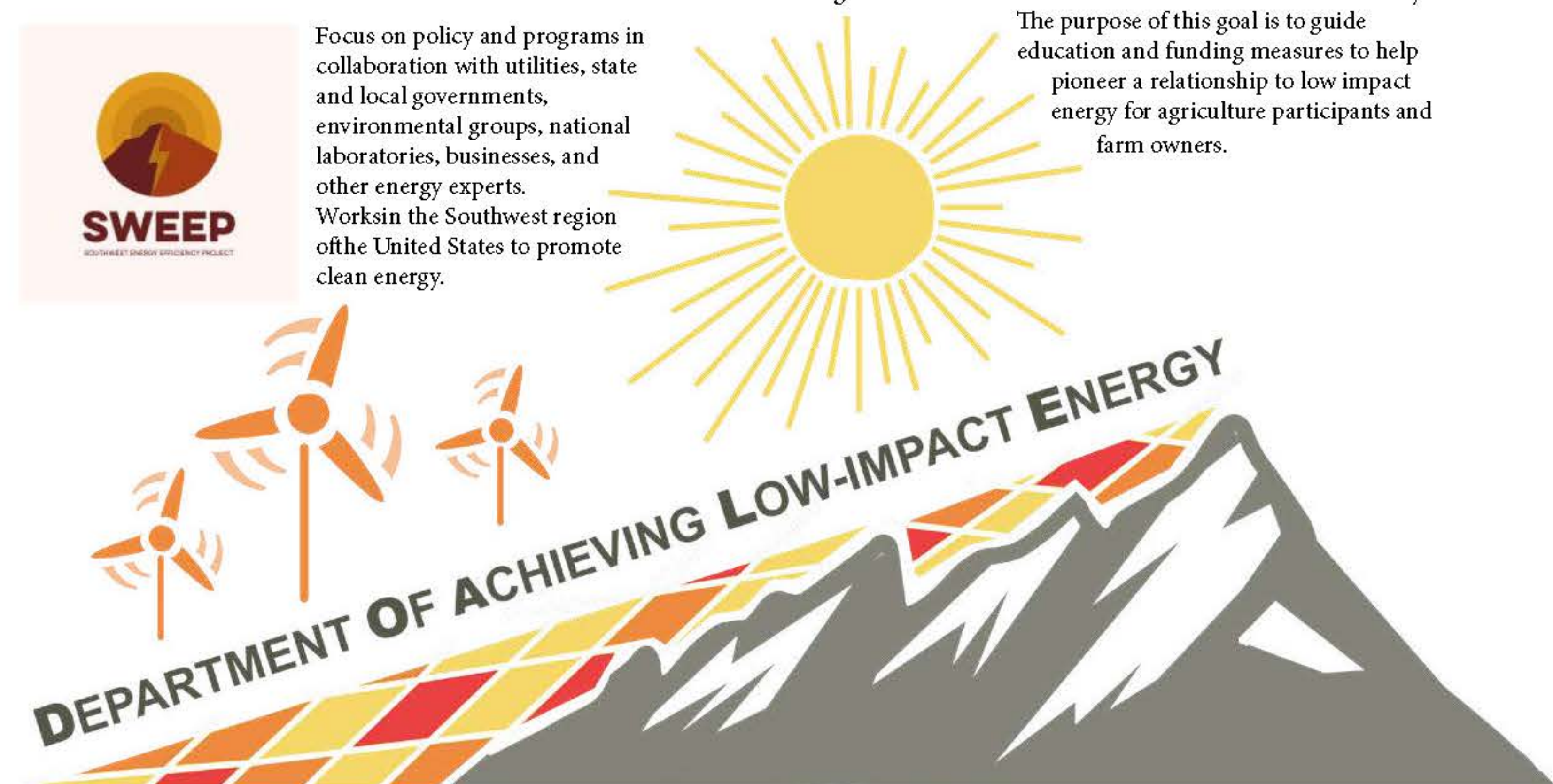
Goal 3. Individual Level

The goal of focusing efforts on the individual level is to empower individuals with the resources and education to make sustainable energy choices in Boulder County. The goal prioritized creating lasting connections with individual community members through uplifting voices and connections through various initiatives. Focusing on the individual level will place an emphasis on fundings, support, and accessibility for equitable community engagement accessible to all.

Goal 4: Utilizing Agricultural Land

Boulder County has approximately 25,000 acres of agricultural land; the county believes that energy production and agriculture production can have a symbiotic relationship that will create lasting economic and environmental benefits for the community.

The purpose of this goal is to guide education and funding measures to help pioneer a relationship to low impact energy for agriculture participants and farm owners.



Energy Policies Proposed by DALE



Goal 1: Equitable Energy

Equity Board	ENRG 1.01	Dedicated board to bring down financial barriers to accessing low-impact energy through supporting legal regulations and making meaningful connections to provide more support for low-income county residents
	ENRG 1.02	Support regulations for tax-breaks for low-income residents who install renewable energy systems as a strategy to reduce the current financial burden of low-impact energy
Community Solar Grid	ENRG 1.03	Establish a community solar grid that allows residents to purchase or lease energy generated from solar panels owned by the county.
	ENRG 1.04	Collaborate with relevant stakeholders, including utility companies and community organizations, to create the grid.
	ENRG 1.05	Prioritize access to the community solar grid for low-income county residents and local business.
Education & Outreach	ENRG 1.06	Implement education and outreach programs that provide residents with information about the benefits of renewable energy and how to access these resources.
	ENRG 1.07	Develop an informative website, including resources translated into Spanish, to increase accessibility and promote community engagement.
Efficient Building Upgrades	ENRG 1.08	Provide information and resources to residents on the benefits of energy-efficient upgrades and available financial assistance options, including low-interest loans, rebates, and grants.
	ENRG 1.09	Collaborate with local services such as Energy Smart, RESNET, BuildSmart, PACE, and SWEEP to ensure that residents have access to high-quality, affordable energy-efficient upgrades.

Goal 2: Uplifting Professionals

Scholarships & Grants	ENRG 2.01	Establish scholarship and grant programs to provide financial assistance to individuals interested in pursuing training and education in the field of renewable energy.
	ENRG 2.02	Work with local businesses and organizations to create opportunities for renewable energy trainees to gain hands-on experience and develop job skills.
Education	ENRG 2.03	Create educational programs for trade professionals to promote energy-conscious decision-making in their work.
	ENRG 2.04	Establish partnerships with local educational institutions such as the Colorado School of Energy Studies to promote pathways for trade professionals to gain knowledge and skills in renewable energy and energy efficiency.
Partnerships	ENRG 2.05	Partner with local nonprofits and companies in Boulder County, such as Jack's Solar Garden, American Solar Energy Society, and Architectural Solar Association, to gain knowledge and expertise on renewable energy implementation and best practices.
	ENRG 2.06	Support local community members in their outreach efforts to promote renewable energy adoption and raise awareness about the benefits of sustainable energy production.
Incentives	ENRG 2.07	Offer individual incentives that will have lasting positive impacts on energy efficient practices. These will be in the form of gift baskets, DALE energy kits, and payments.
	ENRG 2.08	Offer community gatherings in the forms of events focused on low-impact energy to connect community members in fun and interactive forums hosted by the county.
	ENRG 2.09	Host an annual DALE community event where the county celebrates the accomplishments of energy focused business and individuals of the community and sets goals for future years. A way for the county to say 'thank you.'

Goal 3: Individual Level

Signage	ENRG 3.01	Partner with local artists and schools to create visually appealing and engaging signage to promote awareness of reduced energy consumption practices and support community members in their efforts to conserve energy.
	ENRG 3.02	Ensure that signage measures are equitable and inclusive to reach all members of the community, including those with language barriers or disabilities.
	ENRG 3.03	Utilize signage schools and public areas throughout the county to raise awareness about the importance of reducing energy consumption at the individual level.
Energy Consultation	ENRG 3.04	Provide free electric bill calculations online for residents and businesses to identify scenarios in which personal electricity consumption can be reduced and partners in the city that can aid in lowering energy costs.
	ENRG 3.05	Create a task force for free at home consultations on ways the reduce energy consumption such as appliance choice.
Workshop Engagement	ENRG 3.06	Work with local businesses to host monthly workshops designed to cater to the energy needs of specialized tasks forces to create community connectivity through energy.
	ENRG 3.07	Workshops will be advertised through social media, local websites, and fliers in Boulder County and surrounding cities and counties to further workforce connectivity.
Prioritize Vehicles	ENRG 3.08	Prioritize funding for homeowners and vehicle owners who choose lower-impact vehicles through financial incentives such as tax credits, rebates, and subsidies.
	ENRG 3.09	Collaborate with the transportation department to increase the number of charging stations throughout the county in existing and new parking areas, prioritizing areas that face lower-income barriers.
	ENRG 3.10	Partner with local car dealerships to increase inventory of variety of electric powered vehicles

Goal 4: Utilizing Agriculture Land

Investment	ENRG 4.01	Research on technologies like solar greenhouses, which can provide plants with exposure to the solar spectrum to improve yield.
	ENRG 4.02	Invest in assistance for implementing renewable energy on farms through workshops and one-on-one consultation.
Regulation	ENRG 4.03	Provide subsidies, low-interest financing, and tax-breaks to support the implementation of renewable energy. The Solar Massachusetts Renewable Target (SMART) will be used as a precedent.
	ENRG 4.04	If a lot size is over 2 acres, residents must designate land for renewable energy systems (i.e. wind turbine, solar panels). Residents must have a plan to designate land by 2028.
Education	ENRG 4.05	Educate the public on the benefits of co-location, including increased productivity, dual-revenue streams for farmers, beneficial microclimates, decreased operation/maintenance costs, pollination, improved crop yield, hydrogen production, EV charging, animal shelter fences for livestock, and greenhouse capabilities.
	ENRG 4.06	Design education for different age groups and ability to foster a curiosity for energy and agriculture at an early age.
Prioritization/Development	ENRG 4.07	Develop an integrated, multi-level multi-sector legal infrastructure to support renewable energy technology.
	ENRG 4.08	Address the overlap in agrivoltaics in all aspects of infrastructure in the county and create legal action supporting renewable energy systems in innovative sectors.
	ENRG 4.09	Lessen up front costs for renewable energy infrastructure through financial incentives such as tax credits