CASE STUDY

Energy Master Plan: University of Colorado (CU) Boulder

Development of a comprehensive plan to guide the planning, policy, programming, and budgeting of energy related infrastructure at a major university campus.

Client
CU Boulder

Location
Colorado, USA

Contract Value
USD 400K

Years
2019-2021

Project Overview

AECOM assisted CU Boulder in the development of an Energy Master Plan (EMP) to articulate its energy vision and establish a roadmap to accomplish it over the next 30 years.

The CU Energy Master Plan results from a yearlong stakeholder engagement process. Workshops and focus sessions with campus stakeholders and industry experts established a consensus on energy management goals, strategies, and implementation.

The EMP was built upon on a detailed technical and financial analysis to ensure it is technically achievable and has a financially sound investment pathway.

The EMP consists of an introduction and background, four sections that expand on each of the principal goal areas and supporting actions, and a section with the roadmap for implementation. The six high-level goals and sections are: Increase Campus Energy Efficiency, Reduce Facility Energy Emissions, Enhance Critical Mission Resilience, and Lead in Energy Innovation.

Client Benefits

The EMP AECOM created:

- Enabled the campus to implement a cost-conscious energy program
- Defined the energy goals and prescribes the route towards achieving them
- Engaged AECOM's Rosetta energy planning analytics platform in order to achieve integration

Work Performed

AECOM assisted CU Boulder in the development of an Energy Master Plan (EMP) to articulate its energy vision and establish a roadmap to accomplish it over the next 30 years.

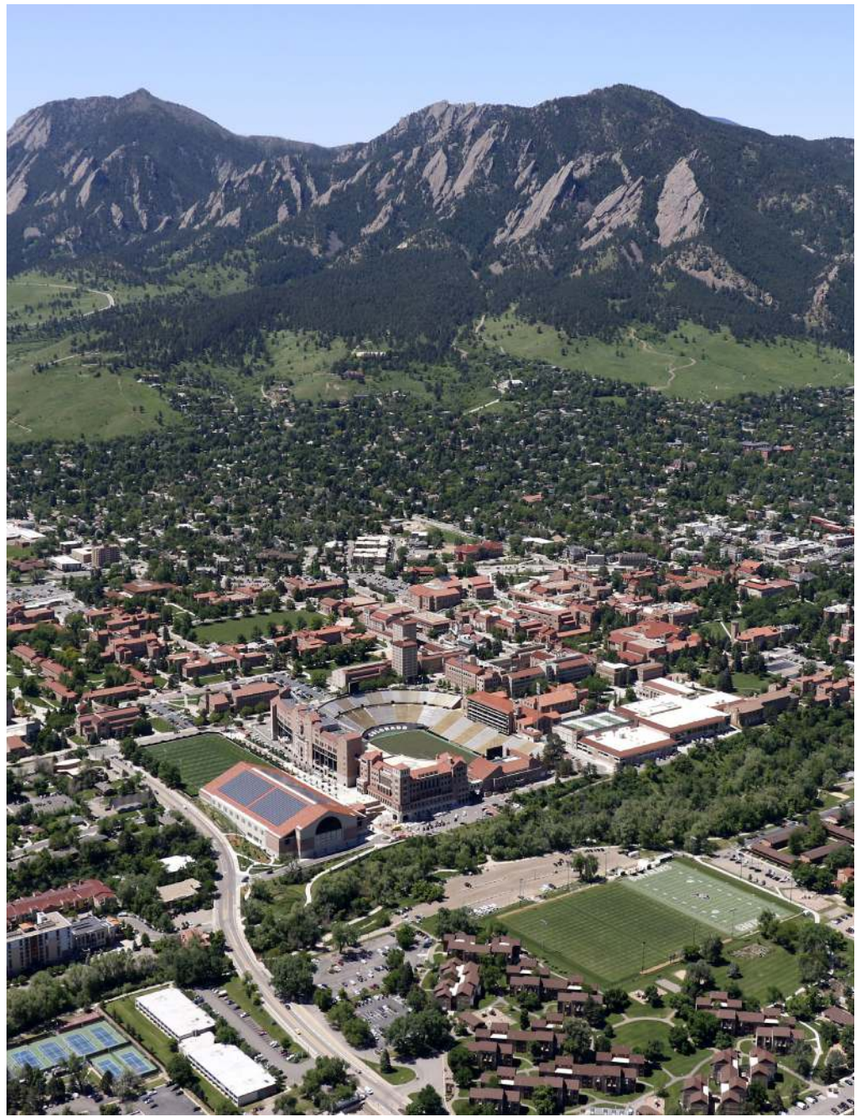
The overarching role of the EMP is to provide a framework that enables the campus to implement a cost-conscious energy program while preparing for changes in the campus' use of space, capital renewal investment, and technology innovation in a rapidly changing environment.

The EMP defines the energy goals and prescribes the route towards achieving them through addressing the key areas of energy conservation and efficiency, energy management, on-site energy generation and storage, decarbonization of energy supply, and the mechanisms to engage the broad spectrum of campus stakeholders.

For each goal, the University has developed specific targets, using metrics where applicable, to track success of the program as well as map a set of actions that will guide CU Boulder in achieving its goals.

The EMP also outlines the organizational structure, roles, and responsibilities to support ongoing project evaluation and implement necessary actions. The plan provides a summary of the existing conditions of campus infrastructure and energy use characteristics and describes the strategies and actions CU Boulder will implement to realize its more sustainable and resilient future.

The strategies and roadmap outlined in the EMP are supported by analysis conducted using AECOM's Rosetta energy planning analytics platform. Rosetta allowed the integration of campus energy modeling with campus growth projections and other evolving financial, environmental and technological factors to develop a robust strategy set and optimized implementation schedule to validate goals and quantify required investment.



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