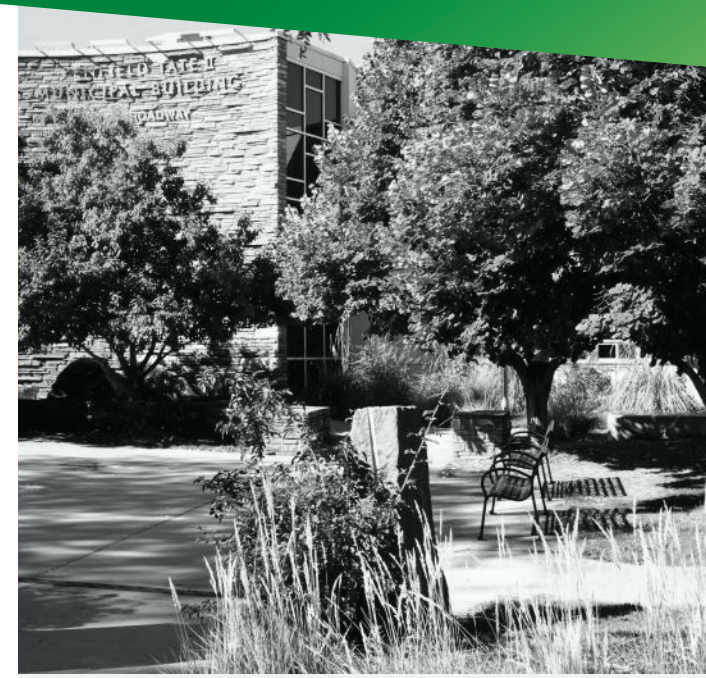
Project Highlight

City of Boulder, CO

AMERESCO

Advancing the City's Climate Action Commitment to Net Zero by 2035



Technology Types:

AssetPlanner® | Asset Management Advisory | Capital Planning | Sustainability Software as a Service (SaaS) | Portfolio Tiering & Prioritization | Sustainable Deconstruction

SaaS Contract Term

5 years

Emissions Target Reduction

80% by 2030

Deferred Maintenance Assessment

~1.8M square feet gross floor area

Total Cost of Ownership Modeling

$550M current replacement value of assets

Summary

The City of Boulder's Climate Action Plan calls for an 80% reduction in emissions from city buildings by 2030.

Further, it strives to enable Boulder to become a net-zero city by 2035 and a carbon-positive city by 2040.

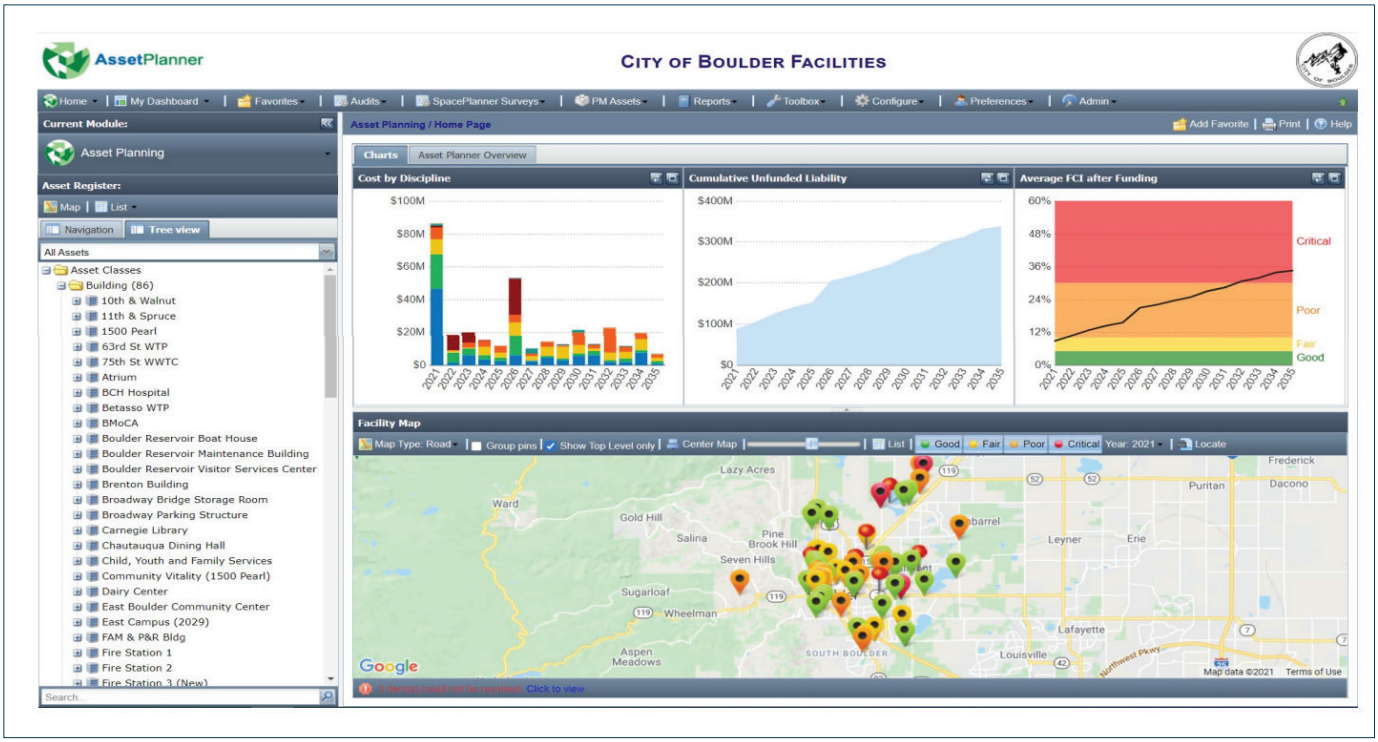
These ambitious targets required a Facilities Master Plan (FMP) to align with these goals and address the city's aging building portfolio.

Partnering with Ameresco, the city set out to quantify and baseline building performance in terms of environmental sustainability, social responsibility, and financial stewardship – three pillars of asset management.

Enterprise Asset Management & Planning

The City of Boulder engaged with Ameresco to establish a long-term capital plan and quantify the deferred maintenance of their facilities portfolio, comprised of 75 facilities and ~1.8 million SF of gross floor area. Utilizing **AssetPlanner® software solution**, Ameresco developed capital lifecycle needs, analyzed operational expenditures over a 3-year period, and calculated the **total cost of ownership (TOC)** for each of the city's facilities. Ameresco's comprehensive needs analysis was a key component of Boulder's acclaimed facilities master plan (FMP). **Sustainability Advisory** and **Master Capital Planning** helped provide the financial and environmental baseline for scenario modeling and analysis; where various strategies were modeled against a "do nothing" scenario to communicate impact and alignment to city goals.

Another key activity of the FMP involved **portfolio tiering** – a decision development model that incorporates objective scoring and tiering of facilities against six guiding principles to prioritize them for strategic direction.

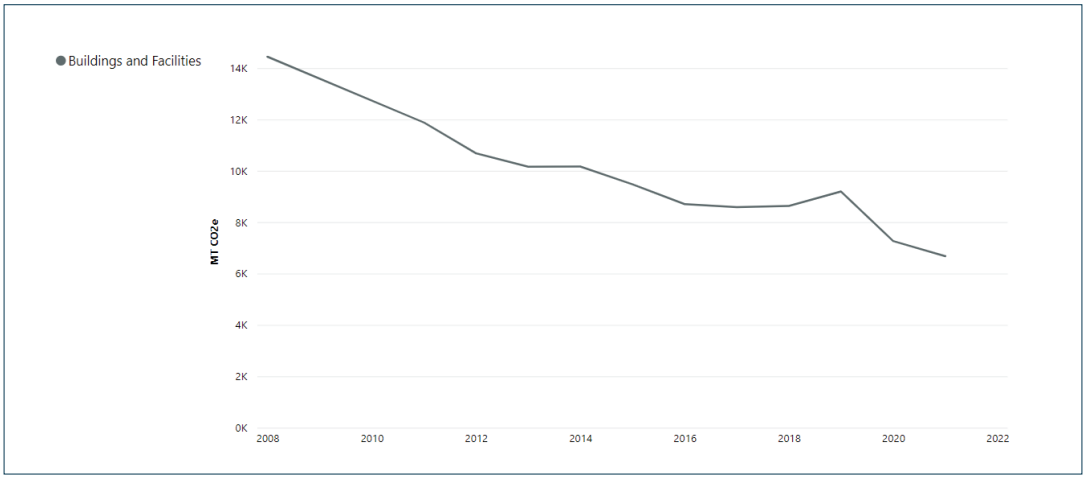


AssetPlanner® dashboard of the City of Boulder facilities' data providing analysis and cost estimates to enable capital planning

We partnered with Ameresco to develop a long-term capital plan to better understand the deferred maintenance of our facilities portfolio using AssetPlanner. This work was expanded to assess our how our building portfolio measured up against city goals around sustainability, resiliency, social responsibility and financial stewardship. Shifting to a total cost of ownership view of the portfolio has enabled better prioritization and decision making. Ameresco's support was invaluable in our framing of the aging infrastructure problem at hand and in developing strategic solutions to consolidate facilities, maintain well, and ensure facilities align with our broader climate action goals.

Michele Crane
Chief Architect and Facilities Capital Project Manager,
City of Boulder, CO

City of Boulder Building & Facilities GHG Emissions Data Dashboard



Source: https://bouldercolorado.gov/boulder-measures/greenhouse-gas-emissions-from-city-operations-and-facilities

Benefits

The FMP is the guiding policy document for the City of Boulder's facilities and fleet department in response to their Climate Action goals. It will serve to improve financial and environmental stewardship, while driving social responsibility throughout the city. Working with Ameresco, the City was able to:

- Quantify deferred maintenance
- Quantify total cost of ownership
- Communicate financial and environmental risk
- Plan for climate action and social responsibility
- Identify cost-effective decarbonization pathways

Sustainable Deconstruction

Another component of the City of Boulder's climate action plan includes being a national example of preservation of embodied energy through adaptive reuse. The City's sustainable deconstruction ordinance requires the diversion of 75% of the materials generated from deconstruction, by weight, from the landfill. As part of a redevelopment project, the city purchased a former hospital building site which was set for deconstruction.

Partnering with Ameresco, the City's zero waste team worked together on waste diversion to recycle lighting and plumbing fixture, carpet squares, doors, windows, and eWaste such as computer boards. Other items such as pumps and electrical equipment went out for auction for direct reuse. The steel from the deconstruction will be reused to help build a new fire station and other projects in Boulder.

Additionally, the team went beyond the ordinance requirements by compacting and reusing the mortar and concrete which doesn't waste the past carbon energy or "embodied carbon" – CO_2 or greenhouse gas emissions associated with the construction, maintenance, renovation, and end-of-life of a building.

By the end of the project, it is estimated that the percentage of waste diversion reached nearly 90%.

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Ameresco's team of energy experts can
assist you in identifying the solution that fits your needs.

For more information about Ameresco and our full-range of energy efficiency
and renewable energy solutions, please call **1-866-AMERESCO** or visit **ameresco.com**.