

ENERGY PERFORMANCE CONTRACT CASE STUDY

City and County of Denver, CO
April 2022



AT A GLANCE

Energy Conservation Measures

- Interior and Exterior Lighting Retrofits
- Lighting Controls
- Energy Management Control System Upgrades
- Pump Improvements
- Pipe and Equipment Insulation
- Pool Covers
- Vending Machine Controls
- Transport Gas
- Building Envelope Measures
- Education Program and Live Energy Monitoring

Project Stats (phases 1 and 2):

Cost of Project: \$3,630,000

Project Size: 600,000 sq ft

Environmental benefits include the **reduction of more than 2.17 million pounds of carbon dioxide**, which is equivalent to eliminating 200 passenger vehicles from the road annually, saving enough electricity to power 90 homes each year, or the equivalent of planting 810 acres of pine forest annually.



PROJECT OVERVIEW

Ameresco partnered with the Strategic Initiatives Division of General Services and with funding provided by Denver's Environmental Health Department, the City and County of Denver to implement an energy performance contract (EPC). Ameresco was pre-qualified by the Colorado Energy Office and Denver selected the energy service provider for the City's first-ever EPC. Under an EPC, an energy service provider implements energy and infrastructure upgrades.

Denver's EPC included a total of 88 energy efficiency improvements to 14 of the City's most energy-intensive buildings, including four recreation centers, four libraries, three fire stations, and the 911 Call Center. The project identified and targeted some of the City's largest energy consumers for efficiency upgrades. Through these improvements, the City will save over \$2.4 million in the first 15 years.

EPC PROJECT HIGHLIGHTS

Beginning first with an Investment Grade Audit of 22 library and recreation center facilities comprising over 525,000 ft², Phase II included interior and exterior lighting upgrades, as well as the installation of motorized reel and cable systems to deploy and retract new fabric pool covers by the push of a button at the Washington Parks and Recreation Center. Additionally, an energy information system (EIS) was installed for real-time electricity and natural gas metering monitoring under Ameresco's AssetPlanner Energy & Sustainability Module that will allow the City to:

- Track energy performance over time, including demand interval data.
- Benchmark against industry targets.
- Identify savings opportunities and develop accurate reporting.
- Create consumption baselines and cost avoidance reports using built-in weather normalization.
- Assess greenhouse gas emissions and calculate the carbon footprint of assets.

Most recently, Ameresco was selected for a Phase III initiative to perform investment grade audits in accordance with supporting the City and County of Denver become compliant with the Energize Denver Ordinance across their parks and recreation, golf, and public safety facilities comprising approximately 2 million square feet. This work is expected to be completed by December 2024.



COLORADO
Energy Office