



Energy Performance Contracts

City Council – Finance and Governance Committee
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Presenters

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Energy Performance Contracting (EPC)

Energy Audit

- An energy services company (ESCO) is engaged to perform a technical energy audit on a facility and then provide a turnkey design and construction solution for the recommended services & improvements.

Financing

- The City may pay cash or obtain third party financing. Here the City will pay outright for services and will finance, via a lease, the equipment.

Savings

- The ESCO guarantees the audit-based energy savings which are applied towards the payment on the capital lease. The ESCO will cover any difference between the audit guaranteed savings and actual savings.

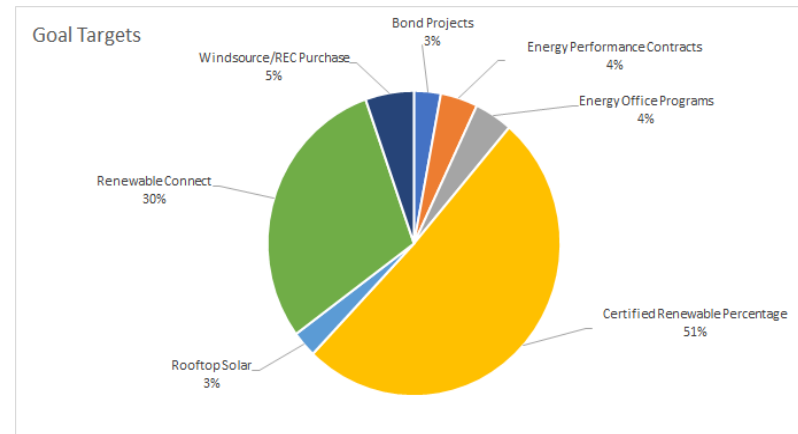
Project Overview

- Building portfolio includes over 40 buildings
 - Examples include City and County Building, Lindsey-Flanigan Courthouse, Detention Center, Crime Lab, police stations (including Police Administration Building), fire stations, Central Platte Campus, Denver Animal Shelter, libraries, and rec centers.
- Energy improvements:
- Lighting, mechanical, solar panels, window and insulation upgrades, envelope weatherization, and pool covers.
 - Services (including asset management, employee education, energy monitoring, measurement and verification)
- Total Cost: \$19.05M
- ESCO Vendors (services and equipment):
 - Ameresco, ~\$1.75M- rec center and library facilities
 - McKinstry, ~\$17.30M- offices, police, fire, justice, animal shelter, and maintenance facilities
- Timeline: Estimated start Q4 2021; Estimated construction completion Q2 2023

General Services' Goal Contributions

Energy Goal	Energy Performance Contract Project Contribution
100% Renewable Electricity in Municipal Facilities by 2025 (~250 buildings)	Progresses goal by 5% by adding 1.1 GWh of solar electricity and reducing facility electricity use
Annual ELECTRIC Savings (Estimated 0.8 to 4.6 GWh, or 15%)	8.6 GWh (or 47%) savings per year
Annual ENERGY Savings (MMBtu and CO2 emissions)	9,013 MMBtu savings per year 8,533 CO2 Metric Tons savings per year

MWBE Goal Contributions	
Total EPC Project Investment:	\$19M
MWBE Minimum Commitment:	\$2M



Preliminary ESCO Contract Terms

Background – Energy Performance Contracts are a strategy to reduce energy use in existing buildings per the *Strategic Energy Plan for City and County of Denver Municipal Facilities 100% Renewable Electricity Goal*. The strategy prioritizes large buildings with high energy-use intensity (EUI).

Ameresco, Inc.

McKinstry Essention LLC

Contract Maximum: \$1,753,788

Contract Maximum: \$17,305,047

Equipment \$977,273

Equipment \$15,906,240

Services \$776,515 (incl. \$105K for Investment Grade Audits already completed)

Services \$1,787,807 (incl. \$389K for Investment Grade Audits already completed)

M&V costs: \$36,763

M&V costs: \$157,272

MWBE Commitment: 18%

MWBE Commitment: 18%

Buildings included: 15 Recreation Centers/Buildings, 7 Libraries

Buildings included: 5 Fire Stations, 5 Police Facilities, City and County Building, Denver Crime Lab, Lindsey-Flanigan Courthouse, Elections Building, Van Cise-Simonet Detention Center, and others

Both contractors shall adhere to the Colorado Energy Office's Measurement and Verification (M&V) Policy.

ESCO Timeline

Energy Service Company	Contract Term	Energy Improvement Construction and Installation	Measurement & Verification* Period	Capital Lease Financing Term
McKinstry Essention LLC	Contract Execution – December 2025	January 2022 – April 2023	2023 – 2025	December 2021 – January 2037
Ameresco, Inc.		January 2022 – December 2022		

*M&V is currently aligned with Colorado Energy Office's Measurement and Verification Policy; M&V may be extended past recommended policy timing, for additional cost, if warranted

ESCO Implementation

Preliminary Construction Schedule for Improvements

Ameresco, Inc.

- **Jan 2022:** Coordination meetings with the Facility Teams
- Based on the number of buildings receiving improvements and scheduling around weather dependent upgrades, generally:
 - **Jan 2022 – Mar 2022:** Subcontractor Coordination, Equipment Purchases, Permitting, Design
 - **Mar 2022 – Nov 2022:** Construction
 - **Dec 2022:** Closeout

McKinstry Essention LLC

- **Dec 2021 to Jan 2022:** Coordination meetings with the Facility Teams
- Based on the number of buildings receiving improvements and scheduling around weather dependent upgrades, generally:
 - **Jan 2022 – Oct 2022:** Subcontractor Coordination, Equipment Purchases, Permitting, Design
 - **Mar 2022 – Mar 2023:** Construction
 - **Apr 2023:** Closeout

Improvements & Savings

Total Project Costs	McKinstry	Ameresco	Total
	\$17,305,047	\$1,753,788	\$19,058,835
Solar Improvements	\$4,685,134	\$0	\$4,685,134
Building Components- windows, HVAC improvements, HVAC controls, weather stripping	\$6,970,151	\$0	\$6,970,151
Lighting Upgrades- LED conversion, lamp replacements	\$4,250,955	\$1,335,275	\$5,586,230
Other- Audit cost, project contingency, staff education	\$1,398,807	\$418,513	\$1,817,320

- **These improvements are expected to generate utility savings of \$16.1M over 15 years.**
- Energy savings will be audited through a 3-year M&V process.
- Ongoing energy savings beyond 15-years are expected.

Financial Plan

- Total project cost is \$19.05M funded by:
 - ~\$14.8M from capital lease proceeds
 - \$494K from Energy Conservation Projects Funds for Investment Grade Audits (already completed)
 - \$1.4M from CIP for soft costs, including measurement & verification
 - \$2.4M Climate Protection Fund/Climate Action, Sustainability & Resiliency (CASR) for work not eligible for capital lease (ex. incidental goods)
- Capital lease payments total \$16.51M over 15-years supported by:
 - ~\$16.1M Projected utility savings (appropriated annually)
 - \$400K from the Climate Protection Fund/CASR

Capital Leases

- A lease purchase (“rent-to-own”) transaction subject to annual appropriation by City Council; not subject to voter approval
- Used for smaller acquisitions of capital equipment (i.e., software, crime lab equipment, golf carts, etc.)
 - Debt Policy: minimum cost of equipment financed through a capital lease should be \$500,000 with a useful life of 5 years or more (aligned with depreciable life of asset)
 - Financed equipment must be tangible capital equipment (cannot lease services)
- Why finance capital equipment via a lease?
 - Helps leverage agency dollars that may be insufficient to cover full cost of tangible capital equipment purchase within 1-year
 - Provides for a shorter-term financing solution (compared to longer term bonds) that better aligns with capital useful life
 - **TABOR** provisions of Colorado Constitution prohibit “multi-year fiscal obligations”, without prior voter authorization

Capital Lease Financing Terms/Parameters

Total Combined Project Amount	\$19,058,835 <ul style="list-style-type: none"> • McKinstry- \$17,305,047 • Ameresco- \$1,753,788
Completed Project Amounts (included in total above)	Investment Grade Audits: <ul style="list-style-type: none"> • Ameresco: \$105,060 • McKinstry: \$388,573
Amount to be Leased (Principal)	\$14,811,870 <ul style="list-style-type: none"> • McKinstry- \$13,834,597 • Ameresco- \$977,273
Lessor	JP Morgan Chase, N.A.
Lease Term	15 years
Interest Rate	1.60%/year
Total Estimated Lease Purchase	\$16,514,858.73
Annual Lease Payment (P&I)	\$1,594,907.87 in 2023-2027 \$854,031.94 in 2028-2037 <ul style="list-style-type: none"> • First lease payment anticipated in 2023 (with Council appropriation)
Responsible Agency	General Services
Prepayment	City can prepay without penalty after 12 months

Legislative Summary

1. An Energy Performance Agreement with Ameresco Inc. (GENRL-202161178-00)
2. An Energy Performance Agreement with McKinstry Essention LLC (GENRL-202161179-00)
3. A Purchase Order (PO-00107101) for McKinstry Essention LLC for energy conservation equipment for improvements to for the DPD Traffic Operations Center
4. A rescission of \$1,470,171 from completed facilities maintenance capital projects and reappropriates the funds
5. A rescission and transfer of \$2,800,000 from the Climate Protection Special Revenue Fund into the Climate Protection Capital Projects Fund
6. A 15-year capital lease purchase transaction (FINAN-202161239)

Calendar

- 11/16/21- FINGOV
- 11/23/21- Mayor Council
- 12/6/21- 1st and Only Reading for Resolutions
- 12/13/21- Anticipated financial closing
- Q4 2021- Anticipated start of equipment purchases