

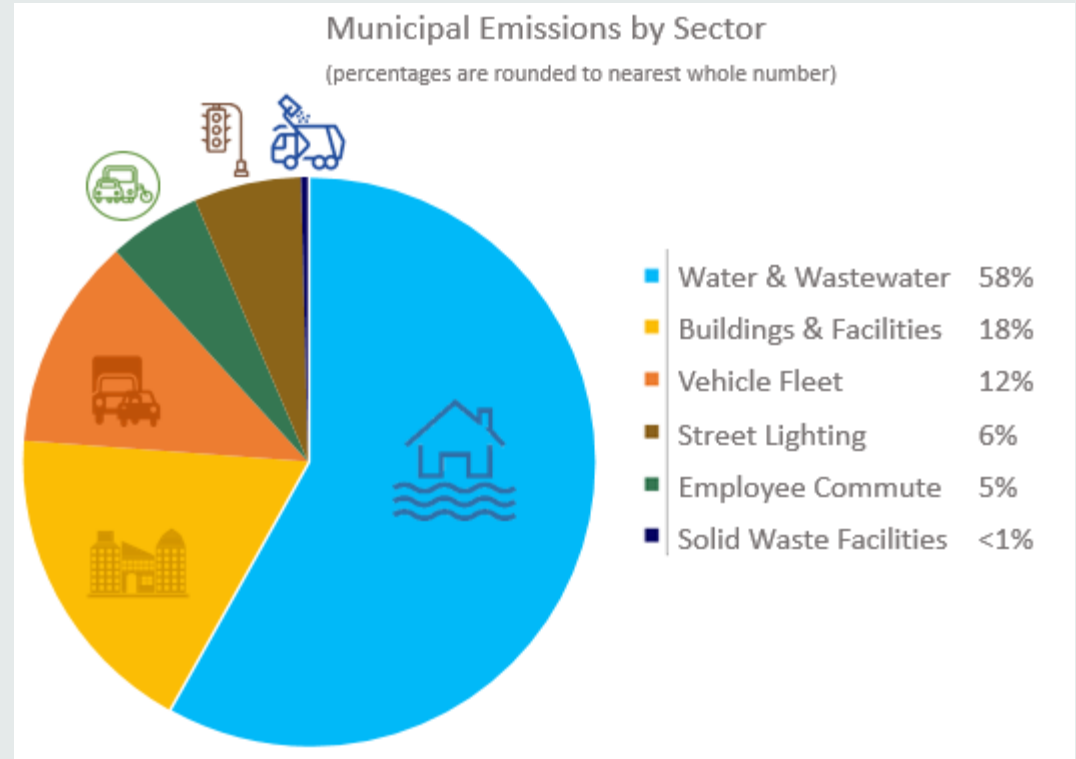


# City of Missoula and McKinstry

## Energy Savings Performance Contract

# Energy Conservation & Climate Action Plan

## Goal: Carbon Neutrality by 2025



City of Missoula Conservation & Climate Action Plan  
Adopted by Resolution 7753, January 2013

# Buildings & Facilities

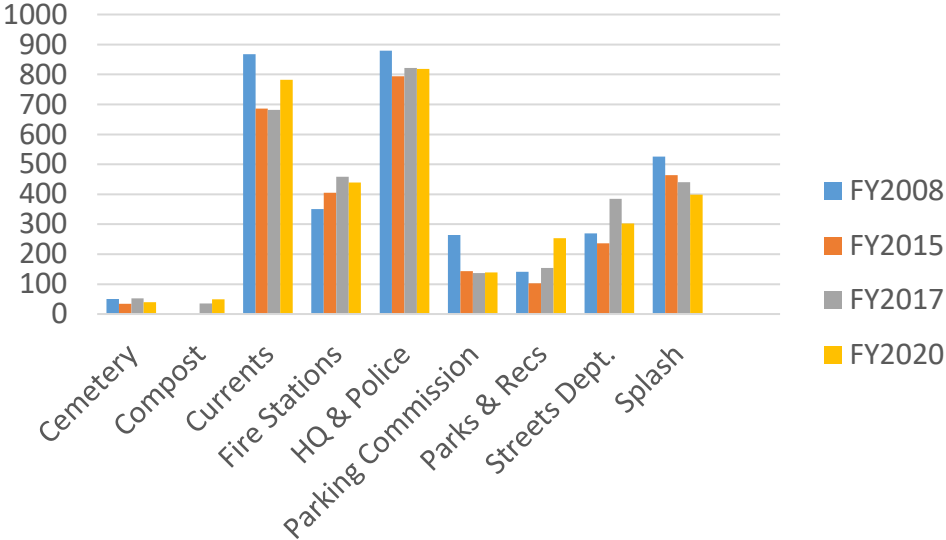


18%

The emissions in this sector are produced by the electricity and natural gas usage of city owned, operated and/or occupied buildings & facilities.

Buildings & facilities is the second largest contributor to the government’s emission with **3,350 MT CO<sub>2</sub>e**. Of the generated emissions, 62% is the result of electricity, and 38% is the result of natural gas.

## Buildings & Facilities Comparisons



# Energy Savings Performance Contract Goals

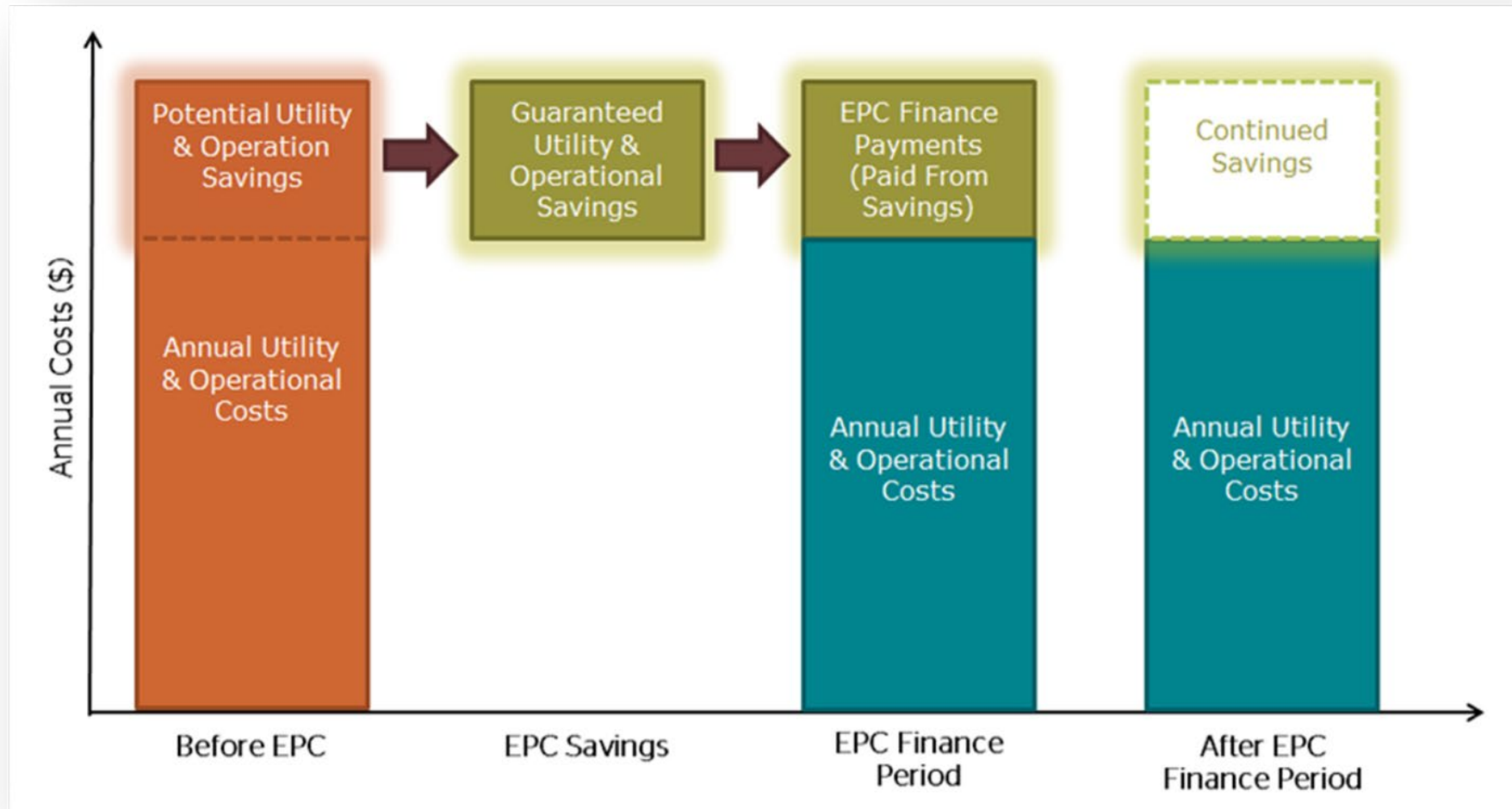
- **Facility Improvement and Performance**
  - **Service and Program Improvement and Performance**
- **Energy Efficiency and Conservation**
- **Utility and Maintenance Cost Savings**
- **Occupant, Employee and Visitor Health, Service, Safety and Comfort**
- **Data and Reporting Coordination**







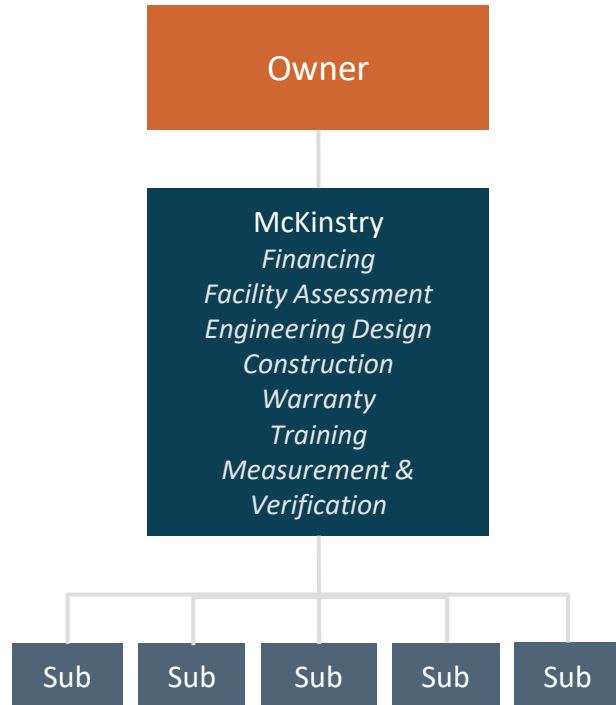
# EPC Funding Overview





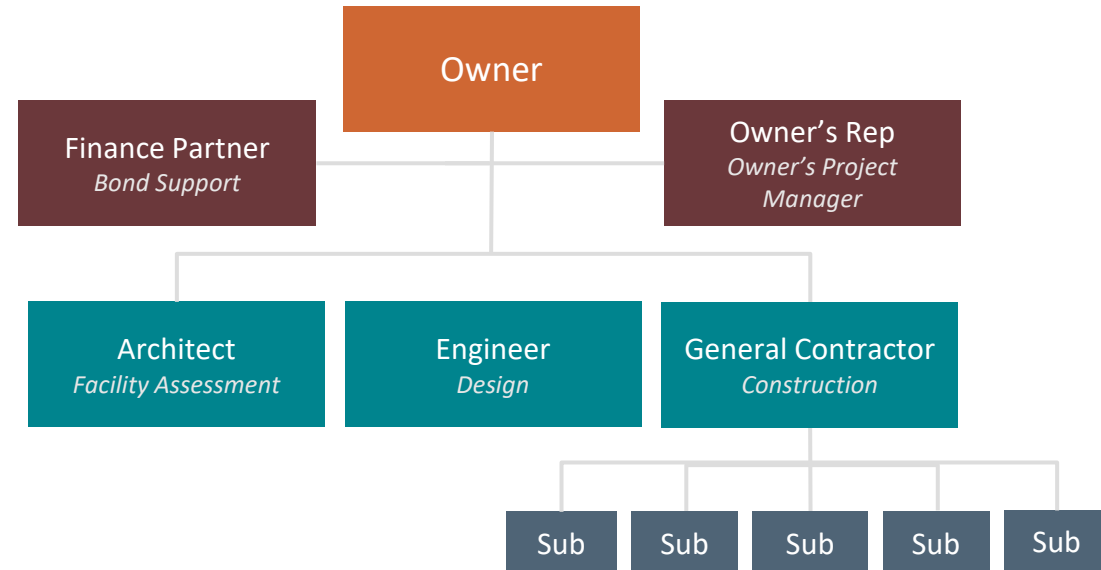
# ESPC Benefits

## Energy Savings Performance Contracting



- Ideal for Deferred Maintenance/Upgrades
- Guaranteed Outcomes
- No Change Orders

## Traditional Construction



- Outcomes Not Guaranteed
- Cost Overruns Due to Change-Orders

# City of Missoula

## Investment Grade Audit - Scope of Work

Department	Building/Asset	Building Audit	Lighting Audit	Solar Assessment
Building Maintenance	City Shops	x	x	x
Fire	Fire Stations 1-5	x	x	x
Missoula Art Museum	Missoula Art Museum	x	x	
Missoula Parking Commission	Bank Street, Central Park, Park Place	x	x	
Parks & Recreation	Currents, Splash, Parks Irrigation, Outdoor Field Lighting	x	x	x

# Budget request: Phase 1 project implementation

## Down Payment for 20-yr Project

	Budget *	Escalation	Escalated Budget	% Change	Original Down	Escalated Down	Down Change
Aquatics	\$ 1,692,784	\$ 271,598	\$ 1,964,383	16.0%	\$ -	\$ 91,423	\$ 91,423
City Shops	\$ 1,005,891	\$ 159,458	\$ 1,165,350	15.9%	\$ 531,631	\$ 691,090	\$ 159,458
Fire	\$ 544,483	\$ 99,674	\$ 644,157	18.3%	\$ 85,976	\$ 185,650	\$ 99,674
MAM	\$ 136,329	\$ 22,515	\$ 158,844	16.5%	\$ -	\$ 7,466	\$ 7,466
Parking	\$ 389,739	\$ 60,339	\$ 450,078	15.5%	\$ 9,645	\$ 69,985	\$ 60,339
Parks	\$ -	\$ -	\$ -	#DIV/0!	\$ -	\$ -	\$ -
<b>TOTAL</b>	<b>\$ 3,769,226</b>	<b>\$ 613,585</b>	<b>\$ 4,382,811</b>	<b>16.3%</b>	<b>\$ 627,252</b>	<b>\$ 1,045,613</b>	<b>\$ 418,360</b>

	% Elec Saved	% Gas Saved	mTon CO2e	Acres of Trees
<b>Aquatics</b>	36.7%	19.2%	260	213
<b>City Shops</b>	28.1%	71.6%	142	117
<b>Fire</b>	22.0%	32.9%	108	89
<b>MAM</b>	63.4%	101.8%	35	29
<b>Parking</b>	88.6%	0.3%	81	67
<b>Parks</b>	44.3%	0.0%	-	-
<b>TOTAL</b>	<b>38.6%</b>	<b>14.6%</b>	<b>627</b>	<b>514</b>



# What projects will likely be implemented?

- Aquatics:

- LED lighting
- Envelope upgrades
- Updated efficient pumps
- Water filtration system updates
- Onsite chlorine generation

- Missoula Art Museum:

- LED lighting
- Control System Update
- Independent heating and cooling zones
- Envelope upgrades
- Water conservation

- Shops:

- Make-up Air Unit and Exhaust Fans Replacement
- LED Lighting
- Envelope upgrades
- Overhead door controls

# What projects will likely be implemented?

- Parking:

- LED lighting
- Envelope upgrades
- Elevator Heater Thermostat

- Parks:

- Re-roof for Solar PV
- Solar PV on Currents Building

- Fire:

- FS-2 Roof replacement; FS-3 5-year roof maintenance
- LED Lighting
- Envelope upgrades
- Various control system updates and integration
- Water conservation
- Occupancy Sensing and Demand Control Ventilation

# Next Steps:

- Upon budget approval, we will meet to continue to solidify Phase 1 project scope
- Further refine project costs (with anticipated reduction as construction market and material costs change)
- Seek funding opportunities
- Implement Phase 1 projects

# Contact Information

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