



# Energy Conservation Program

April 14, 2022

# Agenda

- City of Smyrna and Georgia Power Partnership
- Audit Parameters by Facility and ECM
- Sample Audit Data ECM2 HVAC
- Investment Cost Methodology
- Financial Proforma
- Next Steps
- Q & A

# City of Smyrna and Georgia Power Partnership

- Collaborative solutions that provide smart choices
- Coauthor projects with the highest priority
- Transparency with pay as you go implementation strategy
- Cost of upgrades offset with annual savings
- Full turnkey project with sole source responsibility
- Decarbonization reduction by 2,018,831 Pounds of CO<sub>2</sub>



Carbon sequestered  
by 15,142 tree  
seedlings grown  
for 10 years



GHG emission from  
199 passenger vehicles  
driven for one year  
or  
CO<sub>2</sub> emissions from  
103,041 gallons of  
gasoline consumed



CO<sub>2</sub> emissions  
from 1,012,137  
pounds of coal  
burned



GHG emissions  
avoided by 311 tons  
of waste recycled  
instead of landfilled



CO<sub>2</sub> emissions from  
charging 111,391,357  
smartphones

# Audit Parameters by Facility and ECM

Facility and ECM (Energy Conservation Measure)								
No.	Facility Location	ECM1 LED Lighting	ECM2 HVAC	ECM3 Controls	ECM4 Water	ECM5 LED Parks	ECM6 EV Charging	ECM7 Solar Chargers
1	City Hall	X	X	X	X	-	-	-
2	Community Center	X	X	X	X	-	X	-
3	Public Library	X	X	X	X	-	X	-
4	Brawner Hall	X	X	X	X	-	-	TBD
5	Taylor Brawner House	X	-	-	X	-	-	-
6	Reed House	X	-	-	X	-	-	-
7	Police Station/Jail	X	X	X	X	-	-	-
8	Public Works	X	X	-	X	-	-	-
9	Recycling Center	X	X	-	X	-	-	-
10	Smyrna Museum	X	TBD	-	X	-	-	-
11	Fire Station #1	X	-	X	X	-	-	-
12	Fire Station #2	X	-	-	X	-	-	-
13	Fire Station #3	X	-	-	X	-	-	-
14	Fire Station #4	X	-	-	X	-	-	-
15	Fire Station #5	X	-	-	X	-	-	-
16	Wolfe Rec. Center	X	X	X	X	-	-	-
17	Tolleson Park	-	-	-	X	X	-	-
18	Chuck Camp Park	-	X	-	X	X	-	-
19	Brinkley Park	-	X	-	X	X	-	-
20	Cobb Park	-	X	-	X	X	-	-
21	Jonquil Park	-	X	-	X	X	-	-
22	River Line Park	-	-	-	X	X	-	-
23	Ward Park	-	X	-	-	X	-	-
24	New Green Space	-	-	-	-	-	-	TBD
25	New Parking Deck	-	-	-	-	-	TBD	-

# Sample Audit Data ECM2 HVAC

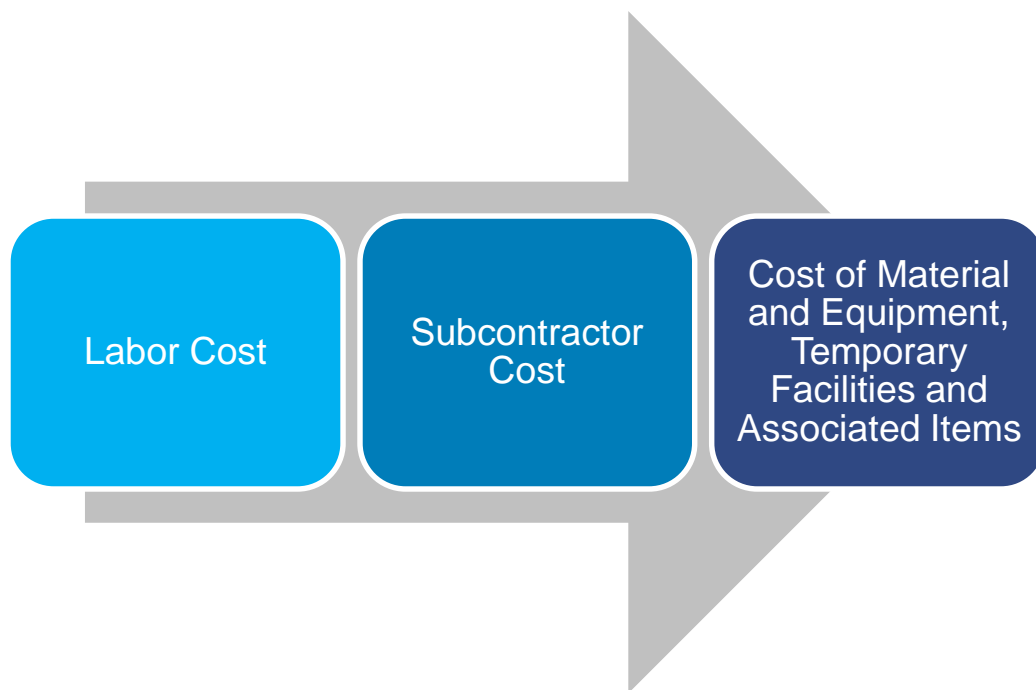
Equipment Location	Equipment Tag	Equipment Type	MFG Date	Unit Size	Refrigerant Type	*Condition Assessment	Proposed Action	New Make
Community Center	Cooling Tower #1	Cooling Tower	2021	250 Tons	n/a	Excellent	None	Evapco
Community Center	Cooling Tower #2	Cooling Tower	2021	250 Tons	n/a	Excellent	None	Evapco
Community Center	Boiler #1	Hot Water Boiler	1990	1300 MBH	n/a	Poor/EOL	Replace	Crest Condensing
Community Center	Boiler #2	Hot Water Boiler	1990	1300 MBH	n/a	Poor/EOL	Replace	Crest Condensing
Community Center	Pump LP#1	CW Loop Pump Library	1990	10 HP	n/a	Poor/EOL	Replace	Bell & Gossett
Community Center	Pump LP#2	CW Loop Pump Community Center	1990	10 HP	n/a	Poor/EOL	Replace	Bell & Gossett
Community Center	Pump LP#3	Standby CW Loop Pump	1990	7.5 HP	n/a	Poor/EOL	Replace	Bell & Gossett
Community Center	Pump P#3	HW Loop Pump	1990	7.5 HP	n/a	Poor/EOL	Replace	Bell & Gossett
Community Center	Pump P#4	Backup HW Loop Pump	1989	5.0 HP	n/a	Poor/EOL	Replace	Bell & Gossett
Community Center	Pump P#5	Backup HW Loop Pump	1989	5.0 HP	n/a	Poor/EOL	Replace	Bell & Gossett
Community Center	WSHP-18 (RM-C 2nd FL)	Water Source Heat Pump	1991	3 Tons	R22	Poor/EOL	Replace	Climate Master
Community Center	WSHP-13 (Racket Ball)	Water Source Heat Pump	1991	12 Tons	R22	Poor/EOL	Replace	Climate Master
Community Center	WSHP-15A (Large Gym)	Water Source Heat Pump	1991	20 Tons	R22	Poor/EOL	Replace	Climate Master
Community Center	WSHP-15B (Large Gym)	Water Source Heat Pump	1991	20 Tons	R22	Poor/EOL	Replace	Climate Master
Community Center	WSHP-16 (Arts & Crafts)	Water Source Heat Pump	1991	20 Tons	R22	Poor/EOL	Replace	Climate Master
Community Center	WSHP-1A-35 (1st FL)	Water Source Heat Pump	1991	10 Tons	R22	Poor/EOL	Replace	Climate Master
Community Center	WSHP-17 (Dance)	Water Source Heat Pump	1991	5 Tons	R22	Poor/EOL	Replace	Climate Master
Community Center	WSHP-12	Water Source Heat Pump	1991	10 Tons	R22	Poor/EOL	Replace	Climate Master

\*Condition Assessment: Poor, Fair, Good, Excellent, EOL (End of Life)



# Investment Cost Methodology

Base Project Cost Includes:



Construction Fees	Percentages
Project Management	2%
Performance & Payment Bonds	0.5%
Insurance Fee	Included
Training Fee	Included
Commissioning Fee	Included
Contingency Fee	1% - 3%
Overhead	8% - 10%
Profit	10%
Total Markup Percentage	21.5 % - 25.5 %

# Financial Proforma

## Energy Conservation Measure (ECM)

- ECM 1 Interior LED Upgrades for 16 Facilities
- ECM 2 HVAC Retrofit for 13 Facilities & 5 Parks
- ECM 3 Controls Upgrades for 7 Facilities
- ECM 4 Water Conservation for 22 Facilities
- ECM 5 Parks Led Retrofits for 32 Locations
- ECM 6 EV Charging Stations 2 Locations
- ECM 7 Solar Chargers for 3 Locations

## Investment

\$ 806,865

\$1,960,789

\$ 344,596

\$ 296,354

\$2,360,748

\$ 77,088

\$ 123,332

Sub-Total Turnkey Investment

\$5,969,772

Estimated Energy Efficiency Rebates

(\$ 40,000)

**Total Turnkey Investment**

**\$5,929,772**

Estimated Annual Energy, O&M & Water Savings

\$ 157,282

Savings Over 15-year Time Horizon

\$2,359,230

***Savings Help to Offset Upgrades by 40% Over Time***

# Next Steps



Final Scope and Contract Development



Contract Signing



Material Released for Production



Begin Construction



# Q & A

