



City of Fresno Sustainability Division Energy Efficiency Projects Update

January 27, 2022

Energy Efficiency: Milestones Recap

The Road to Efficiency

- ❑ MSC & City Hall Energy Efficiency Project Success
 - \$212,000 annual savings on electric bill
 - 951,000 kilowatt hours (kWh) annual savings helps clean our air and is equivalent to:
 - Removing 145 vehicles off the road
 - Enough energy to power 81 homes
 - 673 metric tons of CO₂ emissions avoided



Light Up Fresno

- ❑ LED Streetlight Conversion
 - \$1.7 million annual savings on electric bill
 - 10.6 million kWh annual savings helps clean our air and is equivalent to:
 - Removing 1,600 vehicles off the road
 - Enough energy to power 935 homes
 - 7,512 metric tons of CO₂ emissions avoided

PARCS, Police, & Fire Energy Efficiency Projects Overview

▪ Scope of Work

- LED Lighting Upgrades – 73 Sites
- HVAC Upgrades – 20 Sites
- System Controls Upgrades – 43 Sites
- Transformer Upgrades – 10 Sites
- Mobile Backup Generators – 2 units for various sites
- Park Sites Include 10 Measure “P” – 33% Highest Need Neighborhood Goal

▪ Project Savings

- Estimated first year utility bill savings – \$1.4m
- Estimated first year O&M savings – \$624,000
- Estimated 15-Year project savings – \$22.6 million
- Energy Performance Contract Guarantee

▪ Progress in Last Year

- Facility on-site walk throughs
- Extensive energy audits and analysis
- Solar evaluations and design

▪ Environmental Attributes

- 3.5 million kWh savings annually
- Equivalent to taking 539 gas powered vehicles off the road every year or powering 299 homes annually

PARCS and Additional Sites – Proposed Scope of Work



PARCS

- LED Lighting Upgrades – 47 Sites
 - Interior, Exterior, & Field Lighting
- HVAC Upgrades (23 units) – 4 Sites
- System Controls Upgrades – 18 Sites
- Transformers Upgrades (7 units) – 5 Sites
- Year 1 project savings – \$789,000
- 15-Year project savings – \$12.6 million

MET Building & Veterans Memorial Auditorium

- LED Lighting Upgrades Interior & Exterior– 2 Sites
- HVAC Upgrades (12 Units) – 1 Site
- System Controls Upgrades – 1 Site
- Year 1 project savings – \$81,000
- 15-Year project savings – \$1.25 million



Public Safety Facilities – Proposed Scope of Work



City Owned Police Facilities

- LED Lighting Upgrades Interior & Exterior – 5 Sites
- HVAC Upgrades (27 Units) – 3 Sites
- System Controls – 5 Sites
- Transformer Upgrades (1 Unit) – 1 Site
- Asbestos Abatement – 1 site (Police Annex)
- Year 1 project savings – \$241,000
- 15-Year project savings – \$3.7 million

Fresno Fire Facilities

- LED Lighting Upgrades Interior & Exterior– 19 Sites
- HVAC Upgrades (57 Units) – 12 Sites
- System Controls Upgrades – 19 Sites
- Transformer Upgrades (4 Units) – 4 Sites
- Mobile Backup Generators (2 Units) – Various Sites
- Year 1 project savings – \$318,000
- 15-Year project savings – \$5 million



PARCS & Fire Solar Proposal



- On-site solar locations:
 - Roeding Park
 - Woodward Park
 - Ted C. Wills Park
 - Fire HQ
 - Fresno Art Museum at Radio Park
 - Mosqueda Center
- Over \$2.7 million in electricity bill savings over 20 years represents a 20% savings.
- \$16,400 in total Year 1 savings on electricity bills
- Year 1 solar production of 1.4 million kWh is expected to offset 993 metric tons of CO₂
 - Equivalent to taking more than 216 gas powered vehicles off the road every year
- Rate Stabilization – No annual escalator
- Local labor prioritized for construction

Energy Savings, Financing Payments, and Solar PPA Payments

☐ Energy Efficiency & Solar Savings

- PG&E bill savings will be captured and applied to energy project financing
- Standard Energy Loan Financing, as low as 2.62%
- PG&E – On Bill Financing (OBF) at 0% interest up to \$1.7 million
- Solar Power Purchase Agreement (PPA) payments
- Construction costs are financed and fully recovered by energy savings

☐ City CAFR & Audit Policies

- Project financing structured to maximize cost efficiency, while adhering to City guidelines by identifying savings and payments by Department



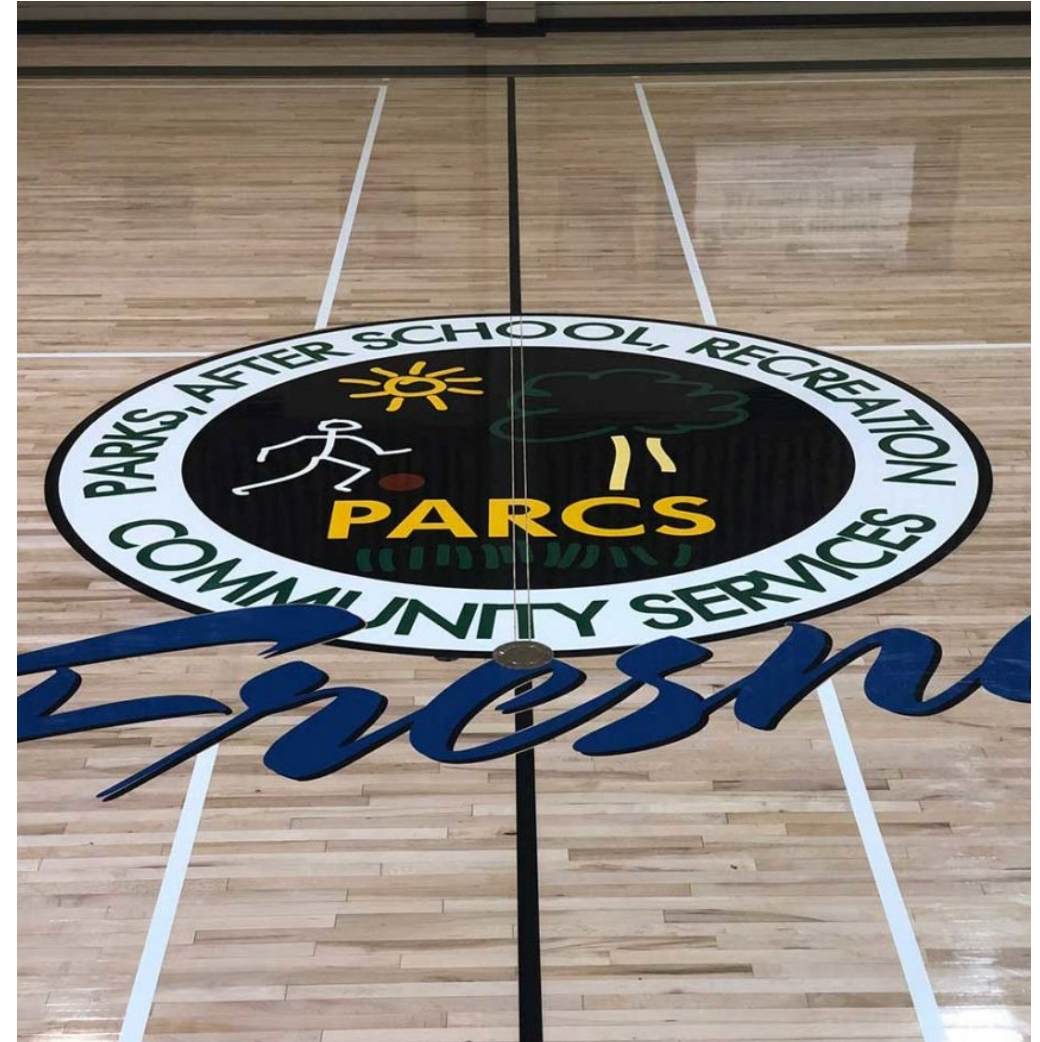
Next Steps

Finalize Project

- Finalized Scopes of Work
 - Final product selection
 - Updated solar projects
- Secure project financing
- Department coordination
- Staff training for implementation

Return to Council

- Award of Design Build Energy Efficiency contract
- Secure project funding for City Administrative Costs
- Authorize project financing
- Approval of solar power purchase agreement(s)





Feedback & Questions

Ann Kloose, Division Manager
City of Fresno Public Works
Sustainability Division