



Energy Performance Contracting More Than Just Energy Savings

Carson City School District – Carson City, Nevada



INTRODUCTIONS

Dan Addink, CEM

Project Director

dana@mckinstry.com

303.868.8506

Mark Korinek

Director of Operations

mkorinek@carson.k12.nv.us

775.283.2181



DISTRICT NEEDS AND CHALLENGES

- Unfunded capital needs: heat pumps, roof, chiller, HVAC units
- Limited staff HVAC training – heavy reliance on service contracts
- Very low energy use – difficult to achieve savings

School District	Area (SF)	EUI
Carson City	1,068,651	44.7
Washoe County	7,119,209	61.3
Clark County	34,679,125	59.4

PROJECT HIGHLIGHTS

- Comprehensive LED lighting retrofit
- Indoor water conservation retrofits
- Install trash compactors
- Replace 88 heat pumps in 2 schools
- Replace middle school gym roof
- Replace 4 rooftop units
- Replace chiller
- powerED behavior and training program



MAINTENANCE CONTRACT SAVINGS

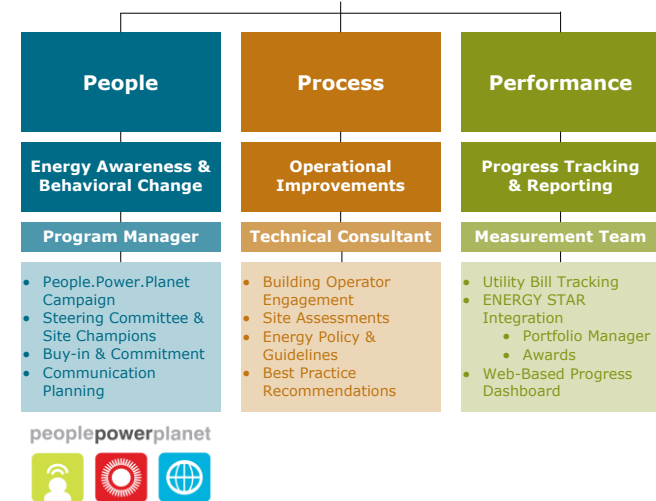
Year	Filters	BAS Maint.	Misc. Repairs	Tools	Energy Mgr.	HVAC Tech	Total Cost	Savings
Baseline	\$84,700	\$125,900	\$87,644	\$0	\$0	\$0	\$298,244	\$0
Yr 1	\$84,700	\$20,000	\$43,822	\$2,500	\$100,000	\$0	\$251,022	\$47,222
Yr 2 +	\$11,467	\$20,000	\$43,822	\$2,500	\$100,000	\$7,000	\$184,789	\$113,455

- Baseline: subcontract out filter HVAC maintenance, filter replacement, and BAS monitoring.
- Future: bring filter replacement, BAS monitoring, and minor HVAC repairs in-house.
- McKinstry powerED program to support and train new employee.

BEHAVIOR-BASED PROGRAM: powerED

- Implement an energy awareness program
- People module engages occupants
- Process module engages operators
- Performance module reports results
- \$17,500 in guaranteed energy savings
- \$113K+ in maintenance savings

powerED
by McKinstry



PROJECT FINANCIAL SUMMARY

Metric	Amount
Total Project Cost	\$6.05M
Estimated Incentives	\$187k
District Capital	\$475k
Guaranteed Annual Savings	\$366k
25-Year NPV	\$2.01M
Avoided Capital	\$2.57M