



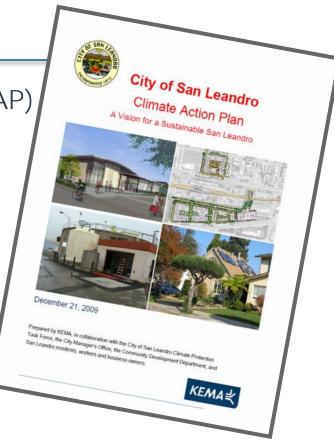


City of San Leandro

Council Presentation April 6th, 2015

PROCESS TO DATE

- * 2009 City adopts Climate Action Plan (CAP)
- ★ 2005 CAP database showed municipal operations constituting less than 1% of the City's total emissions
- ★ Also in 2009, the City received \$732,400 EECBG from Dept. of Energy
 - 14% of street lights converted to LED
 - Major City buildings received building controls retrofit







* To identify potential energy/water savings projects through a City-wide audit

Implement a comprehensive package of savings measures and related City infrastructure improvements with zero capital outlay from the City that will pay for themselves over time from cost savings, and continue to reduce costs to the City once paid for



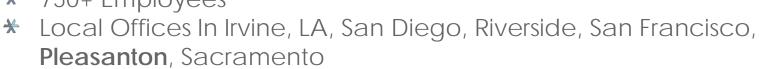


- ★ RFP sent to seven firms
- * Three firms attended pre-proposal meeting
- * Two firms submitted proposals
- Staff's recommendation is to enter into NPSA with Climatec for initial City-wide audit



WHO IS CLIMATEC?

- ★ Founded In 1975
- * Unmatched Local Resources
 - ★ 750+ Employees



- CA's Largest Energy Management Provider
 Extensive Experience With Over 100+ Public Agencies
- * Proven Savings Track Record
 - * Climatec Has **NEVER** Had A Guaranteed Savings Shortfall







WHAT WE DO

- Building Automation
 - Enterprise Energy Management

6

- Energy Services
- Security Solutions
- Life Safety
- Support Services
- Mechanical Systems
- 2 3 4 5 6 7

CITY ENERGY - PROGRAM GOALS



- ✤ Leverage and Maximize Funding
- * <u>Alleviate</u> Unfunded Needs
- ✤ <u>Upgrade</u> Existing Systems
- ✤ <u>Improve</u> Comfort and Safety
- * <u>Reduce</u> Deferred Maintenance
- ★ <u>Self-Fund</u> Improvements
- * <u>Guaranteed</u> Savings
- * <u>Support</u> San Leandro's Climate Action Plan





POTENTIAL ENERGY/WATER CONSERVATION MEASURES





Building Automation Systems

- * New BAS installations
- Integrating existing BAS
- * BAS occupancy control
- BAS energy dashboard

HVAC Systems

- * Central plants
- ★ Central plant optimization
- * HVAC equipment
- ★ Variable frequency drives
- * Demand control ventilation
- Piping system retrofits
- Air handling systems retrofits

Renewable Energy

- * Solar photovoltaic
- ✤ Solar thermal
- ✤ Battery storage
- DC MicroGrid zero net energy

Energy Education & Training

- * Conservation curriculum
- Dedicated on-site resources
- * City-wide energy policy & procedures
- ★ Energy kiosks
- * Community outreach programs

Lighting Systems

- ★ Street lighting
- * Wireless mesh network control
- ★ Traffic lighting
- * Lighting system acquisition and purchase
- ★ LED lighting and retrofitting
- Parking garage lighting retrofits
- ★ Interior & Exterior lighting
- * Day light harvesting
- ✤ Occupancy sensors

Water Management

- ✤ Waterless urinals
- * Momentary sinks
- ✤ Irrigation retrofits
- * Irrigation control
- ★ AMR automatic meter reading
- * AMI advanced meter infrastructure
- * Pumping Optimization
- * Wastewater plant optimization
- * Reclaimed water infrastructure

Building Envelope

- * Window systems
- * Door systems
- * Roofing systems
- ★ Wall insulation
- ★ Weather stripping

Other Systems

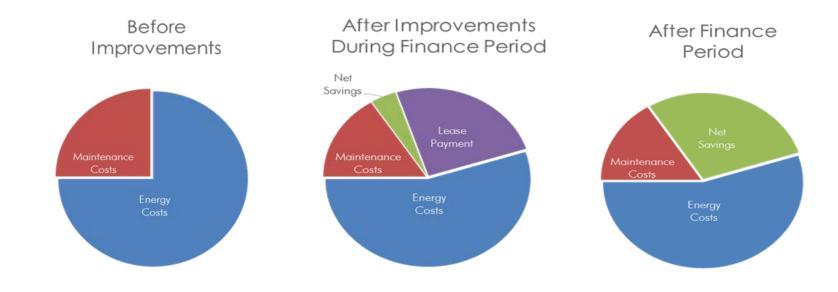
- * CCTV security system
- ✤ Intrusion security system
- ★ Oil recvcling programs
- * Computer power management



PERFORMANCE CONTRACTING



How it Works





THE PROCESS



Preliminary AnalysisLetter of AuthorizationPreliminary Study

Detailed Analysis

Letter of Intent
Detailed Study

nplementation

Agreement Closu
Planning, Installation, Project

Guarantee Phase • Energy Savings Beg

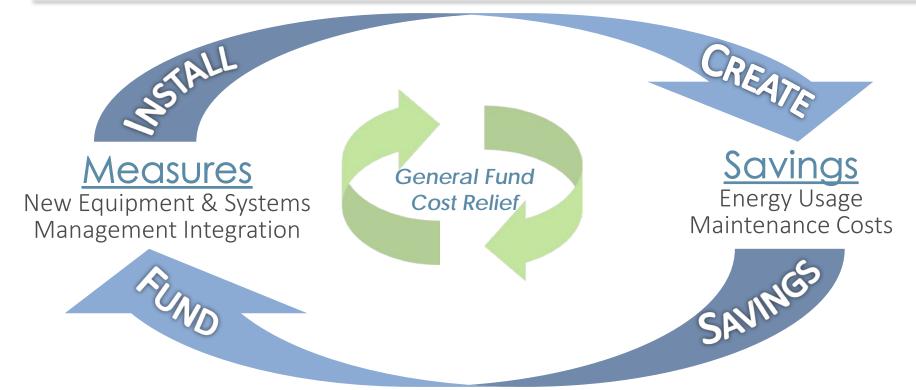
Verification

Climatec partners with the customer to coauthor a comprehensive plan strategically customized to our customers goals – while maximizing energy savings and addressing environmental concerns.



SELF-FUNDED IMPROVEMENTS







NEXT STEPS

✤ RFP Response

* Council Briefing – Investigation Begins

✤ Energy/Water Audit

- ✤ Utility Baseline
- ✤ Staff Interviews
- ✤ Site Surveys
- ✤ Preliminary Assessment
 - ★ Multi-Phase Recommendations
 - ✤ Council input on Prioritization of Projects

* Council Action on Climatec Project

Tomorrow April 2015

Jan 2015

June 2015

Q3 2015





CLIMATEC Acquired By Robert Bosch In North America – Jan, 2015



- Founded By Robert Bosch In 1886 As A "Workshop For Precision And Electrical Engineering"
- Celebrated 125th Anniversary In 2011
- Approximately 290,000 Associates Of Which Approximately 45,600 Are In Research And Development
- Bosch Files 18 Patents On Average Each Working Day





"I have always acted according to the principle that I would rather lose money than trust. The integrity of my promises, the belief in the value of my products and in my word of honor have always had a higher priority for me than a transitory profit." Robert Bosch 1919







QUESTIONS?