



FLAGSTAFF SUSTAINABILITY PROGRAM

WORKING TOWARD
COMMUNITY SUSTAINABILITY

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Energy Conservation

- Performance based contract
- Program overview
- Program outcomes
- Lessons learned



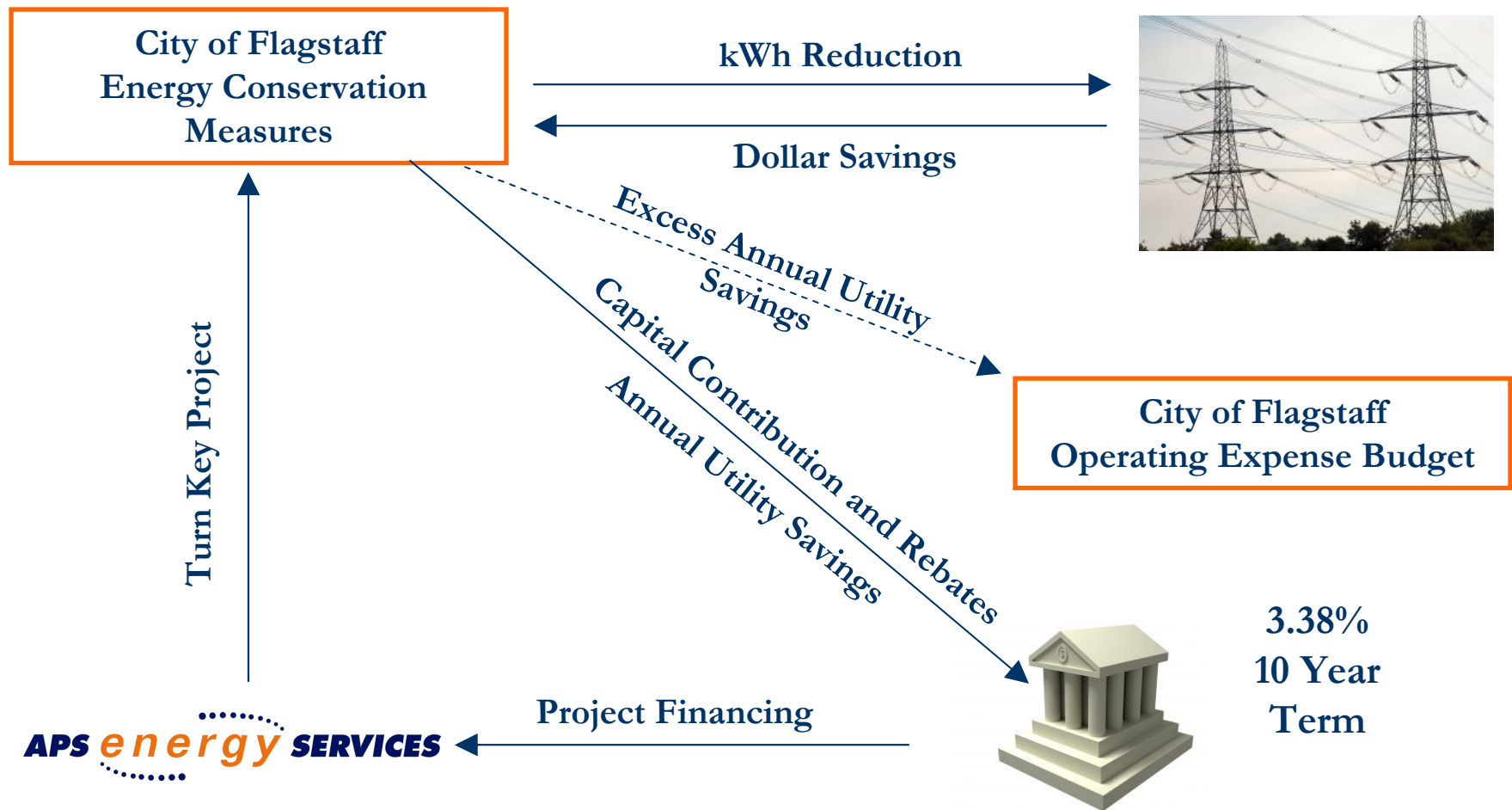
Performance Contracting

Benefits Considered

- Strategic, design-build energy plan
- Self funded by virtue savings
- Performance guaranteed
- Built-in energy officer
- Recommendation for future efficiency and renewable energy measures



Performance Contracting





Performance Contracting

Program Overview

- 2002 City of Flagstaff issued Request for Proposal
- January 2004 kick-off
- City-wide performance audit
- 26 facilities identified for upgrades
- Traffic signals and pedestrian walk signs identified for upgrade



Performance Contracting

Program Overview

- Comprehensive Lighting Retrofit
- Traffic Lights and Pedestrian Walk Signs
- Energy Management Control System
- Water Conservation
- Motors
- VendingMisers™
- HVAC/Controls
- Renewable energy



Performance Contracting

Program Overview

- The 15-Year Program Provides:
 - \$3,120,001 in Facility Upgrades Funded from Reductions in Existing Operating Expenses
 - Annual Utility Cost Avoidance of \$324,604
 - Projected Positive Cash Flow of \$252,535 Over Ten Years
 - Projected Positive Cash Flow of \$2,571,390 Over Fifteen Years



Performance Contracting

Program Overview

- Annual electric utility reductions
 - 7.6% / 2,642,866 kWh
 - \$227,017
- Annual natural gas utility reductions
 - 28% / 102,351 therms
 - \$78,012
- Annual water utility reductions
 - 802,000 gallons
 - \$4,027



Performance Contracting

Renewable Energy





Performance Contracting

Lessons Learned

- Communication is essential
- Build internal capacity
 - Site/Facility manager
 - Contractor
 - Management
- Maintain working relationship



Performance Contracting

Future Opportunities

- Solar Generation Project Throughout City
- Landfill Gas Collection & Renewable Energy System
- Landfill Wind Study
- Solid Waste Reduction System
- Evaluate Additional Energy Savings Opportunities
 - Solar Thermal Systems
 - Street Lighting

Community Sustainability

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