



# Funding Energy Projects at Water and Wastewater Facilities

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# Presentation Outline

- “Traditional” Project Delivery and Funding
- Private \ Public Partnerships
- Performance Contracts
- Utility Demand Response and Peak Shaving Programs
- Grants and Incentives



# “Traditional” Project Delivery and Funding



# Tradition Project Delivery and Funding

- **FEASIBILITY STUDY**
  - **DESIGN**
  - **BID**
  - **BUILD**
- 
- **FUNDING**
    - **RESERVES**
    - **LOAN / BOND**

# Private \ Public Partnerships



# Private \ Public Partnerships

- **LOCAL \ NEIGHBORING BUSINESS OR INDUSTRY PARTNERS WITH UTILITY**
  
- **EXAMPLES:**
  
- **LOCAL INDUSTRY BUILDS PIPELINE TO UTILIZE DIGESTER GAS**
- **LOCAL GOLF COURSE USES PLANT EFFLUENT FOR IRRIGATION**
- **LOCAL FARM FOR SPREADING OF TREATED BIOSOLIDS**

# Performance Contracts





## What is Performance Contracting?

An alternative means of financing building improvements

- Increase energy efficiency and improve building environment
- Program is Self-funding through energy retrofits
- Paid for from existing budgeted funds
- No bond vote required
- Qualifies for Government & Utility grants
- Partnership to ensure the client receives the desired products
- Performance is ***Guaranteed*** in Writing



# Long Term Partnership

*"You cannot manage what you do not measure" - Jack Welch, CEO of General Electric*

Energy Monitoring (along with Measurement and Verification) enhances capital improvements in buildings by providing the following benefits:

- Maintain reduced building maintenance and operating costs
- Maintain reduced energy consumption
- Maintain occupant comfort
- Continuous monitoring of operational problems and provide sustainable solutions
- Increase staff skills and awareness of sustainable building operation
- Work toward meeting requirements of LEED-EB® rating system



# Advantages of Energy Performance Contracts

- Long term ***Guaranteed*** savings
- Turn key performance with Guaranteed Maximum Price contract
- Facility improvements done immediately vs. spreading work out over several years
- Increased comfort and safety
- Positive environmental impact – “Greening” of the community
- Project financing is “off balance sheet” and will not affect debt load
- Additional Facility Improvement Measures can be paid for with excess savings

# Utility Demand Response and Peak Shaving Programs



# Utility Demand Response Programs

- **LOCAL ELECTRICAL UTILITY PAYS AN ENERGY USER TO CURTAIL ENERGY USE DURING PERIODS WHEN GRID IS AT/NEAR CAPACITY, BY:**
- **UTILIZING EMERGENCY GENERATORS**
- **SIMPLY TURNING OFF EQUIPMENT**
- **UTILIZING FLEXIBILITY IN THE PROCESS TO MAKE GRADUAL ENERGY REDUCTIONS**

# Grants and Incentives



# Grants and Incentives

- DSIRE Website
- Database of State Incentives for Renewables and Efficiency
- <http://www.dsireusa.org/>



Questions?