

FEDERAL UTILITY PARTNERSHIP WORKING GROUP SEMINAR

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Project Financing

Scott Foster, Bostonia Partners LLC

Hosted by:



Project Financing - Overview

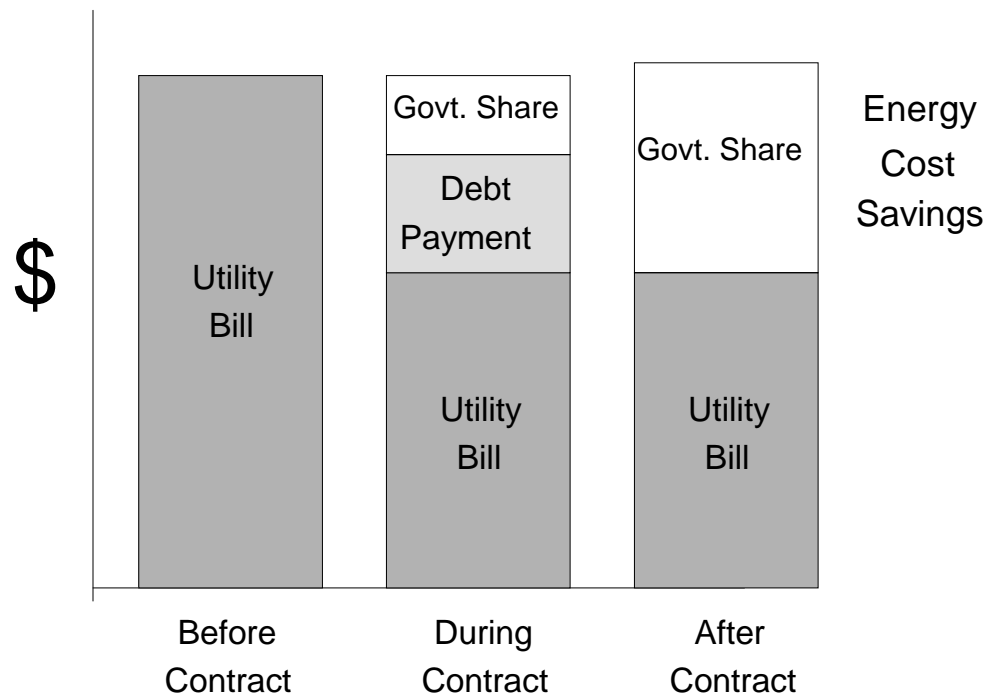
- Federal contract vehicles - UESCs
- Federal energy contract financing
- Financier risk evaluation
- Case studies

Utility Energy Services Contracts

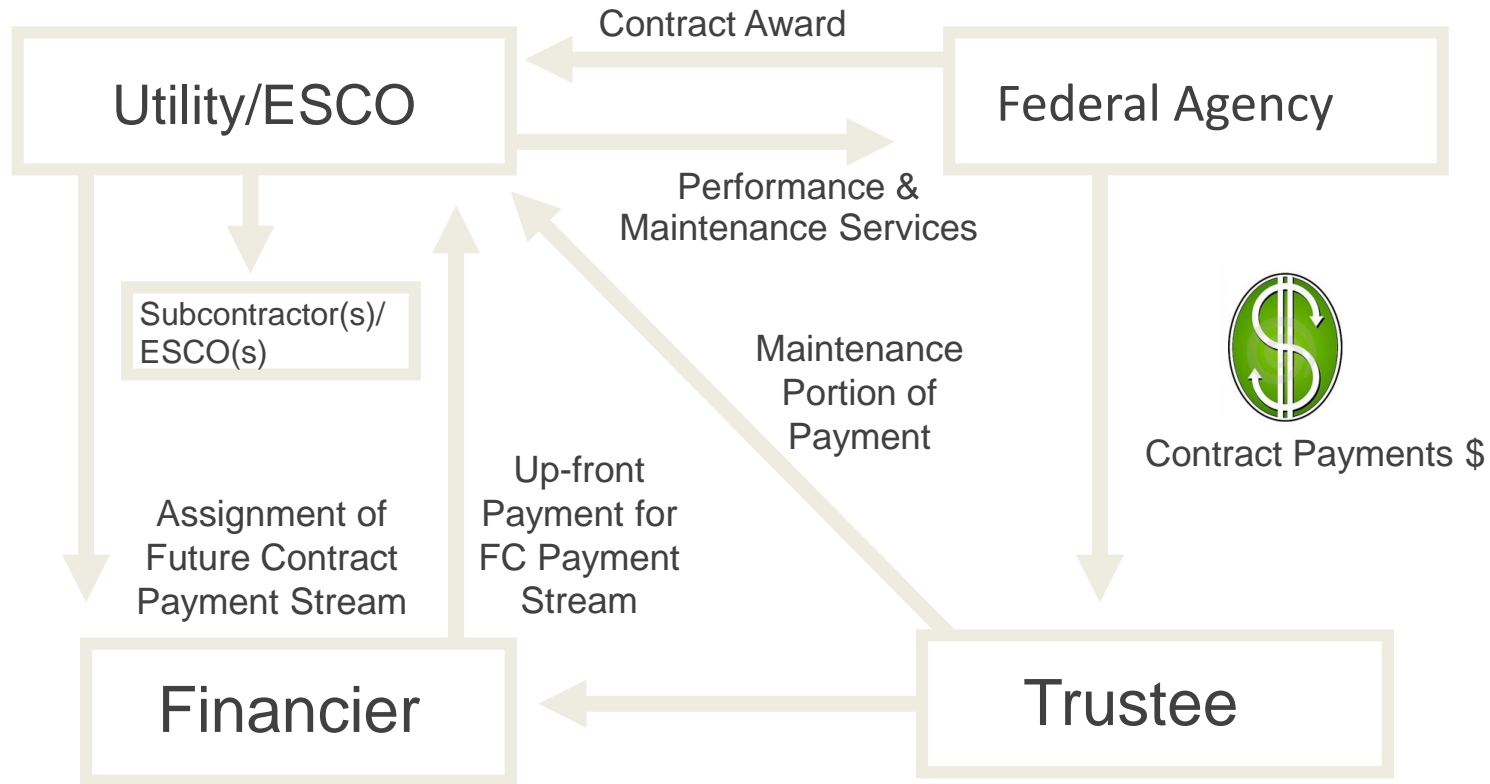
- Contract between local utility and the federal agency for purpose of implementing cost-saving energy efficiency, distributed generation improvements and water conservation
- The utility finances the upfront cost of purchasing and installing new equipment, and the federal agency repays the utility over the life of the contract from the cost savings from the project
- Net cost to the federal agency is minimal and the agency saves time and resources by using the one-stop shopping provided by the utility
- 10 years plus for DoD – 10 U.S.C. § 2913; up to 25 years for civilian agencies under 40 U.S.C. § 501(b)(1)(B)
- Types – GSA Area Wide UESC, Basic Ordering Agreement and Site Specific

Utility Energy Services Contracts

- UESCs are created for energy efficiency, renewables, or water conservation
- Sources of funding are incentives, rebates, savings, avoided costs, and appropriated funds



Federal Energy Parties, Structure, and Process



Financier Risk Evaluation

- Financiers evaluate a Federal Energy Efficiency Project across three broad risk categories:
 - Contract Risk
 - Project Risk
 - Participant Risk
- Ultimately, pricing and terms are set by comparing a Project's overall risk and return to similar projects in the private sector.

Contract Risk

- How well/consistently documented is the Project and the arrangements with the Utility/ESCO versus FAR and the Utility Contract regulation?
 - Termination Risk
 - No Set-off
 - Multi-year Authority
 - Congressional Notification
 - Assignment to Lender
 - Absolute Certainty of Roles and Responsibilities

Project Risk

- Can the Project perform as projected over the term specified? Emphasis on:
 - Equipment Risk
 - Maintenance & Operation Risk
 - Measurement & Verification Risk
 - Useful Life versus Term Risk
 - Market/Inflation Risk

Participant Risk

- Utility/ESCO Risk
 - Experience of Utility/ESCO
 - Credit Strength of Utility/ESCO
 - Documentation
- Customer Risk
 - Closure or Termination Potential
 - Payment History
 - Acceptance Risk

Financing Risk: Key Points to Remember

- Financier prices to “weakest non-mitigatable risk” assumed.
- Financier’s concern is repayment of their investment on-time. All actions/requests reflect increasing certainty of repayment.
- Most financiers make their return over time, not at funding.

Financier's Perspective - Recap

- Credit matters
- Documentation matters
- Project size matters
- Tenor matters
- Contracting Officers matter
- Lawyers matter – all parties
- Accounting treatment matters – all parties but mostly for off balance sheet financings for commercial customers.

CASE STUDY:

White Sands Missile Range

Project Overview

- \$18 million ESPC for US Army in White Sands, New Mexico – largest military installation in the US
- ESPC includes 4.5 MW Solar PV array (ground mount and carport) and an Energy Management Control System
- Solar array will produce 10.4 million kWh and contribute approximately 10% of total energy consumption at the installation
- Project will create total cost savings of approximately \$44 million over the 25-year contract term based on escalation of electricity rates
- Siemens Government Technologies selected to construct and operate the system



Financing Overview

- Unlike a traditional ESPC, private ownership of the energy assets allowed the project to monetize federal tax credits
- Long-term Energy Services Agreement (ESA) allows Government to acquire solar power without upfront capital or a buy down of project capital cost
- Title to non-solar ECMs will vest with the Government at acceptance
- Government will pay same utility rate it currently pays and will own the RECs

CASE STUDY:

U.S. FDA White Oak Research Center

Project Overview

- \$207 million ESPC, Public-Private Partnership to construct heat and power central utility plant and islanded microgrid for the 3.9 million square foot, \$1.5 billion FDA office and lab compound
- The project features a 26MW combined heat and power plant (expansion capability up to 55MW) that reliably produces electricity for the critical lab needs of FDA and uses waste heat to produce building heating and cooling
- In addition, the project includes upgrades to the heating, ventilation, and air conditioning systems, improvements to lighting—including the latest LED technology—and building envelope modifications



Financing Overview

- The majority of the project was financed utilizing a \$207+ million securitization of the cash flow structure from energy cost savings derived from energy conservation measures implemented at the campus
- The utilization of the PPP and ESPC estimated to create more than \$25 million in savings in the first year of operation through energy savings and avoided operations and maintenance costs, and approximately \$200 million in government savings over 20 years (per Public Service Comparator analysis)
- The project co-exists with utility through a third-party agreement with Pepco to operate in parallel and participate in demand response events

CASE STUDY:

Hill Air Force Base

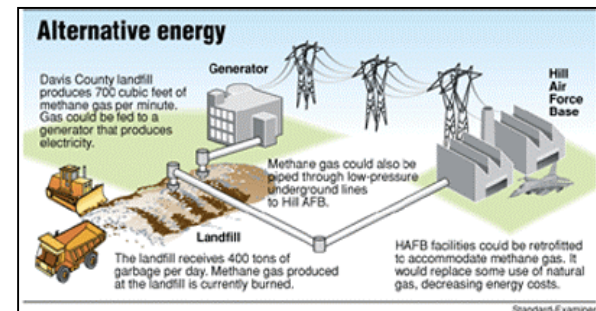
Project Overview

- \$5 million ESPC financing at Hill AFB - 1st DOE Biomass Super Project
- Main parties include DOE, Ameresco, Bostonia, Hill Air Force base, Davis County Landfill, Utah Power utility
- Large electrical demand and steam load at Hill AFB; large waste disposal in place and daily disposal rate at Davis County Landfill
- Biomass and Alternative Methane Project included : 1.2 MW IC engines, 20 year contract, 2 mile pipeline, conventional ECM's in other buildings
- Reduction of 5,000 tons of greenhouse gases, 5.5 tons of Nitrogen Oxide, 4.8 tons of Carbon Monoxide, 19 tons of Sulfur Dioxide



Financing Overview

- Structured as securitization for ECMs, including biomass and alternative methane fuel energy savings project that generates electricity for the Government to sell to utility for credit
- Total cost savings of \$16+ million over the 20-year contract
- Overall simple payback under 10 years
- No Capital investment required by Hill AFB
- Monthly credit received by Hill AFB for Green Power generation



CASE STUDY:

Camp Lejeune, North Carolina

Project Overview

- \$28,700,000 Utility Energy Services Contract (UESC) financing at United States Marine Corps' Camp Lejeune
- Stakeholders include Marine Corps, Piedmont Natural Gas, Energy Systems Group, Bostonia
- Steam Decentralization Project for 38 buildings in Hadnot Point/French Creek, Courthouse Bay, and Marine Corps Air Station New River
- Addresses heating, ventilation, water heating and other mechanical systems, as well as fire protection system adjustments, and minor hazardous materials abatement services to remove asbestos and lead paint in 12 buildings
- 25 month implementation period
- Marine Corps is reasonable for all operation, maintenance, repair and replacement of the equipment during performance period
- Total estimated energy and operational savings: \$40.4 mm



Financing Overview

- Stand-alone UESC between the US Navy and Piedmont Natural Gas
- Annual payments of principal and interest beginning January 2017, increasing by 3% each year
- 16 Year final maturity (including construction)
- 100% payment and performance bonds to secure ESG's performance during the implementation period
- Tri-party financing agreement between Piedmont Natural Gas, Energy Systems Group and Bostonia



Scott J. Foster
Managing Director
Bostonia Partners LLC

sfoster@bostonia.com
(703) 887-0714



One Exeter Plaza,
699 Boylston St., 7th Floor
Boston, MA 02116

www.bostonia.com

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