P3 Financing for Energy Projects
AAPA Maritime Economic Development – Energy Projects Seminar

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PPP for Energy Infrastructure

- Tremendous infrastructure needs in the US – Ports are no different
- Infrastructure financing tools – consider PPPs
- Benefits of PPPs
  - Investment costs are spread over the life of the project
  - For energy projects, tax benefits (ITC, depreciation) greatly reduce the cost of capital
  - Strong track record of on-time, on-budget delivery
  - Certain risks can be transferred to private partner
    - Construction risk
    - Long-term maintenance
  - Encourage strong customer service by private partner
  - Reduce life cycle costs
Evaluating PPPs

- Common misperception is that PPPs are always a more expensive form of project delivery for Governments and Quasi-Governmental Public Authorities

- As highlighted by the National Council for Public-Private Partnership’s (NCPPP) white paper, “Testing Tradition: Assessing the Added Value of Public-Private Partnership”, a thorough and proper evaluation involves several analyses:
  - Costs of deferred maintenance, repair, replacement
  - Project timing
  - Complete financial analysis using Value for Money (Vfm) assessment on Net Present Value (NPV) basis

- Establish Public Sector Comparator (PSC) as baseline to compare to PPP or privatized options
- Conduct full Life-Cycle (FLC) cost and revenue analysis for each option
- Value and assess transfer of risk more effectively

**Financing costs for projects may be higher for PPPs however FLC analysis often shows savings over time due to risk allocation, design, construction, and long-term O&M.**
Benefits of Energy Services Program

• ESA Program can help Ports meet existing and future utility master plan goals and objectives

• Utilizes energy savings to finance energy conservation, distributed generation, and renewable energy without any net investment from owner or tenant

• ESA Program creates secure, economical, efficient, program to help manage utility costs and deploy renewable energy and other distributed generation projects

• Port participates in a public-private partnership to access third-party capital, create transparency and employment opportunities, and allocate risk

• Port includes costs to operate and maintain the energy conservation measures and/or renewable energy systems within the financing structure

• Investment grade Energy Services Company (ESCO) upgrades/retrofits building systems, and Port enjoys guaranteed energy savings and reduced operating costs

• Provides expedited implementation and preserves capital for core mission activities
3P Financing Structure – Energy Efficiency Project

- Port Authority
  - Performance Guaranty
  - Assignment of Payments
    - EPC and O&M Payments

- Developer/ESCO
  - Energy Services Agreement
  - Energy and Water ECMs
  - Energy and Water Savings Projects

- Financier
  - Funding Proceeds
  - Debt Service/Equity Returns

- Trustee
CHP Ownership and Financing Structure

- Commodities (Power, Heating, Hot Water)
- Energy Services Agreement
- Assignment of Payments
- Development & Asset Ownership Fee $$$
- Construction and O&M Financing $$$
- Financing Proceeds $$$
- Certificates / Debt Service

- Port Authority
- Trustee
- Financier
- Energy Services Company
- Financier
- Debt and Equity

- Combined Heat & Power Facility
- Asset Ownership
- Construction / O&M Agreements

- Represents contractual agreements
Components of Energy Services Program

- Key terms and conditions are established at commencement of ESA Program
- Renewable energy or central plant payments are blended with energy efficiency services
- Provides “off-balance sheet” or “off credit” treatment for both renewable and energy efficiency projects
- Port-selected, investment grade ESCO provider guarantees installed energy efficiency and renewable energy measures
- Project savings or discounts utilized to fund “core mission” capital projects
- Provides port with a “full service solution” for energy infrastructure needs and goals
- Can be integrated within the port master plan
Project Overview

• 3,200,000 square foot campus – population of 7,500

• $207,500,000 ESA Financing – monetization of 30% energy savings realized through Microgrid
  • CHP, Thermal Storage, Automate Demand Response, Dual Distribution Loop

• Other benefits:
  • Optimization: “Make or buy” decisions/Demand Response
  • Excess power supplied to the grid
  • Annual pollution prevention: equivalent to 15,000 cars off the road
  • $3M in demand savings
  • Rainwater harvesting/water conservation
Other Representative Projects - Ports

US Navy, Yokosuka Naval Base, Japan – Port Energy Infrastructure ($101,800,000)
• $101,800,000 ESPC Financing, Yokosuka Naval Base, Japan
• Construction of 39MW cogeneration facility to support fleet

Virgin Islands Port Authority - $40,000,000
• Assisted VI Port Authority with developing strategic plan and securing rating.
• Issued bonds in four tranches to fund infrastructure improvements: channel dredging, customs and border control facility, park deck and other or miscellaneous marine side improvements

Northrop Grumman Shipbuilding Systems - $39,000,000
• Lease financing of four 300 ton portal cranes, panel line equipment and other infrastructure for improvements in quality and efficiency of ship building process.
• Executed through a private placement of Certificates
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