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# P3 Financing for Energy Projects

AAPA Maritime Economic Development – Energy Projects Seminar

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# PPPs for Energy Infrastructure

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- 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

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- 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 (NCP3P) 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

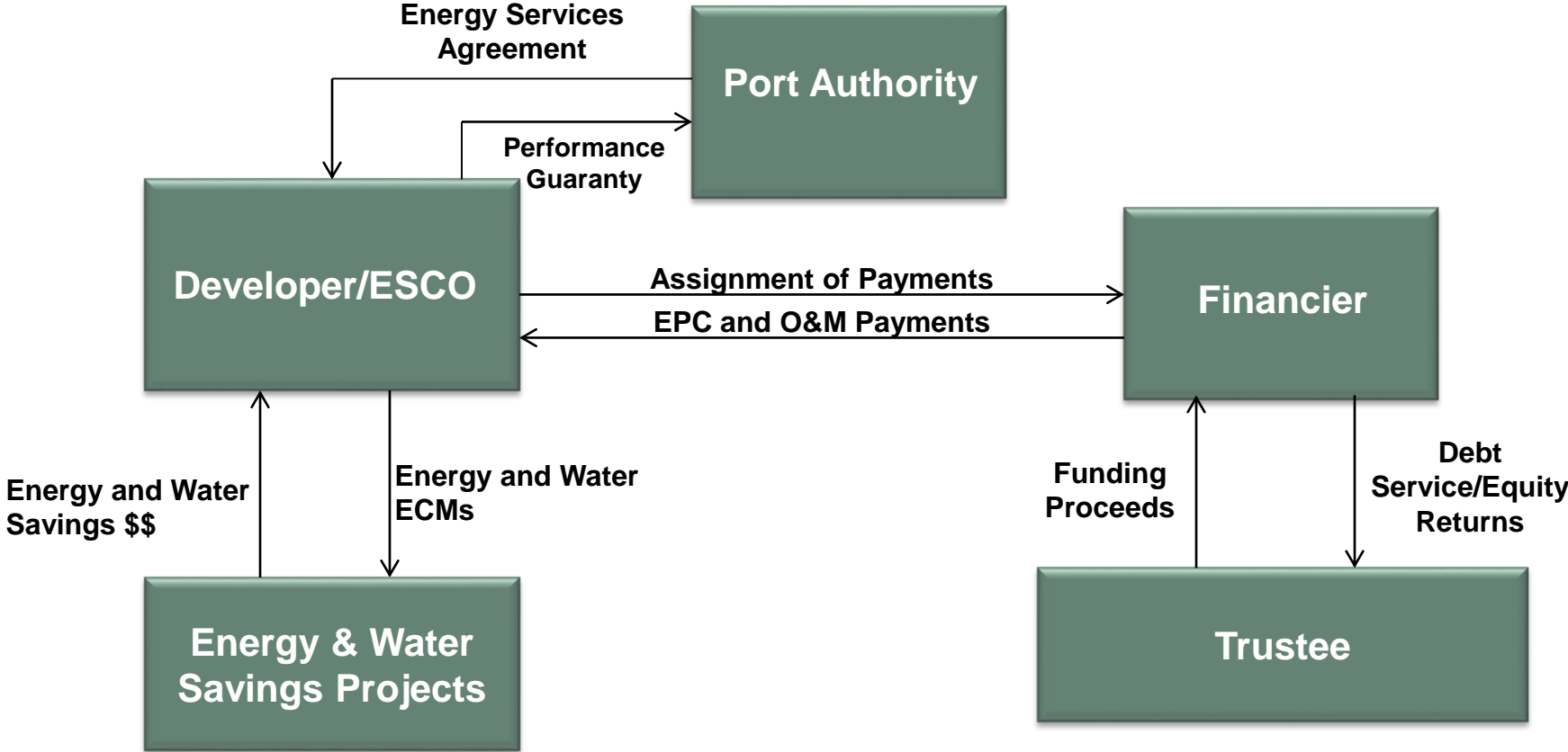
***Financing costs for projects may be higher for PPPs however FLC analysis often shows savings over time due to risk allocation, design, construction, and long-term O&M.***

# Benefits of Energy Services Program

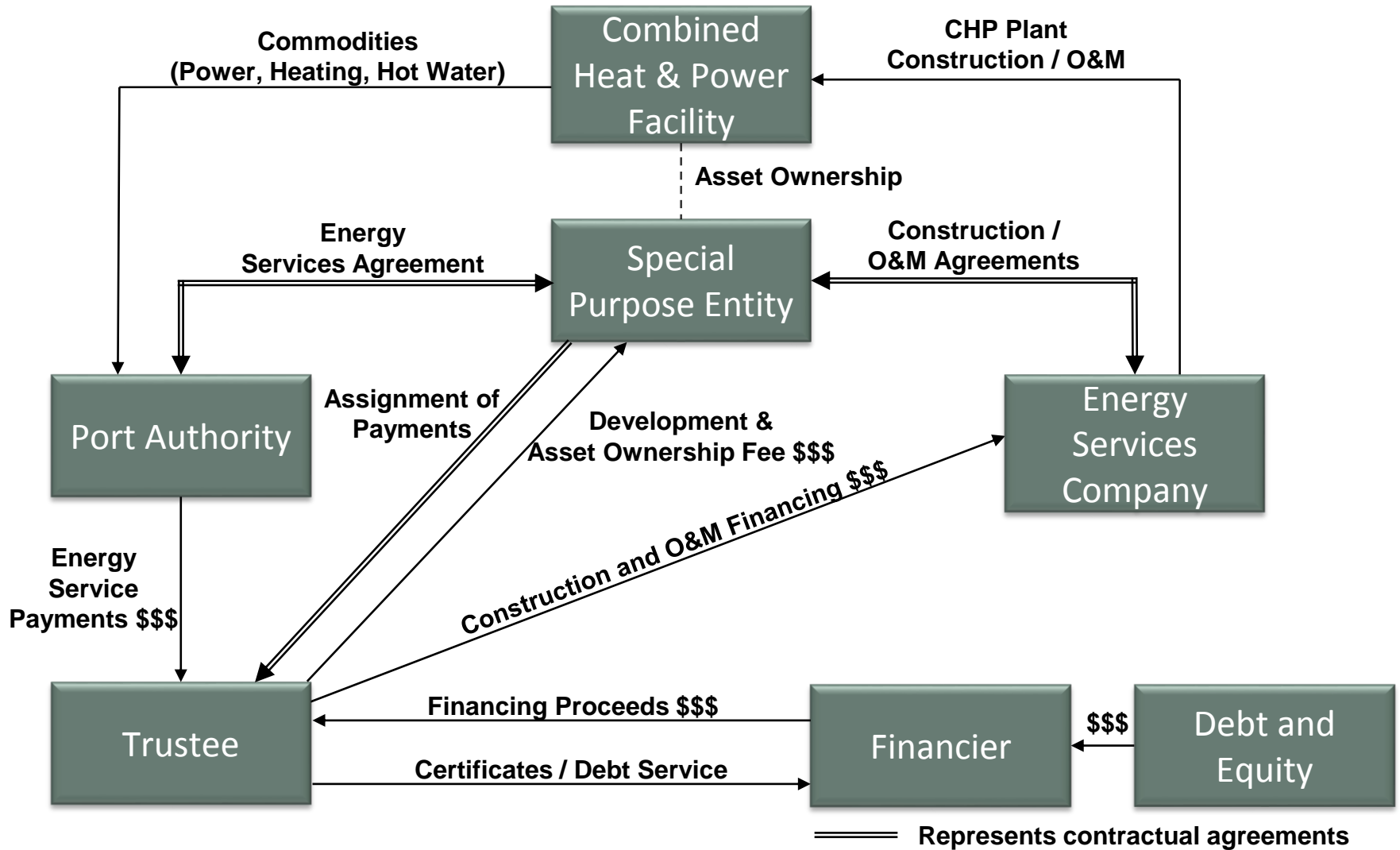
- ESA Program can help Ports meet existing and future utility master plan goals and objectives
- Utilizes energy savings to finance energy conservation, distributed generation, and renewable energy without any net investment from owner or tenant
- ESA Program creates secure, economical, efficient, program 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



# CHP Ownership and Financing Structure



# 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





# FDA Federal Research Center, White Oak, MD – Microgrid

## 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
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- 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

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### **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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