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A River of Energy Solutions

How Renewable Projects Get Funded

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Agenda

- Types of Funding
- Economic Drivers
- Improving Project Potential

Landfill Gas
MCLB Albany (ESPC)

Carport PV NB San Diego (O&MN Funds)

Types of Funding

The types of funds used to finance renewable projects fall into two categories: appropriated and 3rd party financed.

<u>Appropriated</u>

- Recovery Act (ARRA)
  - ❑ Special Appropriation
- Military Construction (MILCON)
  - ❑ Typically building construction incorporating renewable features
    - ➢ LEED and NetZero Building criteria
  - ❑ Energy Conservation Investment Program (ECIP)
    - ➢ MILCON funds dedicated to renewable projects
- Sustainment, Restoration, and Modernization (O&M Funds)
  - ❑ Typically facilities maintenance funds for major repairs
  - ❑ Subject to Anti-Deficiency Act rules on construction versus repairs

Types of Funding (continued)

3rd Party Financed

- Utility Energy Services Contract (UESC)
  - ❑ Authorized by 10 USC 2913(D) for energy efficiency measures
  - ❑ Limited to electric and gas utilities
  - ❑ Must include incentives from the utility such as financing
  - ❑ Must be economical
- Energy Savings Performance Contract (ESPC)
  - ❑ Authorized by Energy Policy Act of 1992 for energy efficiency measures
  - ❑ Must be economical
  - ❑ Payments must come from verified savings
- Power Purchase Agreement (PPA)
  - ❑ Authorized by 10 USC 2922a for energy production facilities
  - ❑ Government purchases output
  - ❑ No economic criteria

Types of Funding (continued)

3rd Party Financed

- Energy Joint Venture (EJV)
  - ❑ Authorized by 10 USC 2916 for energy production facilities
  - ❑ Contractor sells production to others
  - ❑ Government gets a fee
- Enhanced Use Lease (EUL)
  - ❑ Authorized by 10 USC 2667 for leasing of government real property
  - ❑ Contractor uses property for commercial use
  - ❑ Government gets a fee or in-kind services

750 KW PV Carport
NS North Island
(ESPC)

Economic Drivers

Appropriated Funds

- Lower cost of capital
  - ❑ NPV analysis based on OMB discount factors tied to Treasury rates
- Limited opportunity to take advantage of incentives
  - ❑ General policy is that government doesn't sell REC's
  - ❑ Government cannot take advantage of Federal tax incentives
- Government assumes performance risk
- Government assumes O&M responsibility

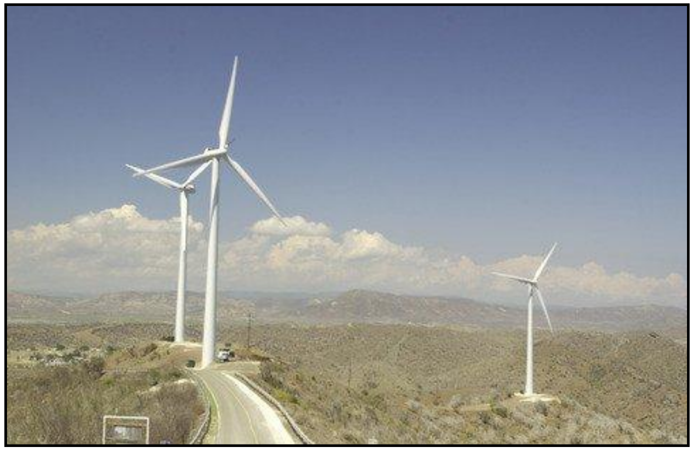
Roof Top PV
NB Coronado
(ARRA)

Economic Drivers

Financed Funds

- Higher cost of capital
  - ❑ Finance rates dependent on private capital market
- Greater opportunity to take advantage of incentives
  - ❑ Produce additional revenue through the sale of REC's
  - ❑ Lower costs through State and Federal incentives
- Provide long-term predictable prices
- Lower performance and O&M risks to the government

GTMO Wind Turbines (ESPC)



Economic Drivers

<u>All Funds</u>

- Projects generally are required to be more economical than existing energy sources
  - ❑ Existing rates must be evaluated on a marginal basis
  - ❑ Care should be taken in the treatment of capacity related charges (e.g. demand)
- Alternative sources may incur additional utility charges
  - ❑ Standby charges
  - ❑ Departing load charges

NNSY 40 MW WTE Cogeneration Plant (MILCON)

Improving Project Potential

- Project potential increases where energy costs are higher
- State incentives vary, examine carefully
- Financed projects can have lower costs and risk
  - ❑ Availability of incentives
  - ❑ Ability to sell REC's
  - ❑ Long term rates
  - ❑ No ownership risks

1.1 MW Solar Array
MC Air Ground Combat Center (ESPC)

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