Strategies for Integrating Renewable Energy into the Department of the Navy’s Infrastructure

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CenterPoint Energy
GROTON, Conn. (July 16, 2014) The Los Angeles-class attack submarine USS Toledo (SSN 769) transits the Thames River as Toledo departs Naval Submarine Base New London to conduct local operations.

(U.S. Navy photo by Mass Communication Specialist 1st Class Jason J. Perry/Released)
Deploying new renewable energy generation will enhance the DON’s energy security posture:

- Long-term contracts for RE at a set price provide cost-stability
- Power diversification increases the availability of local energy sources
- Locating facilities on-base provides physical security
- Collaborating with local communities to provide services in times of disaster or need
REPO Project Development Models

Model 1
Off-base Generation for On-base Consumption
(Acquisition: USC/PPA)

Model 2
On-base Generation for Off-base Consumption
(Real Estate: Outgrant)

Model 3
On-base Generation for On-base Consumption
(Acquisition: PPA)
Integrating Microgrid Technology to Optimize RE

Additional updated infrastructure is required to create access to on-base renewable energy generation

- Microgrid technology will help protect existing infrastructure
- Integration could guarantee continuity of operations and will avoid inefficient use of fossil fuels.
- Opportunity to provide ancillary services that are mutually beneficial to the DON and energy service providers
- Adding energy management systems will automate load-allocations to critical infrastructure
Regulations can Facilitate Win-Wins for the DON and Utility Partners

**State Regulations**

- Create a market that would monetize ancillary services, e.g., a tariff
- Guidance from regulators about obligation to supply energy when creating a microgrid and maintaining the reliability of the future grid of grids
- Consider regulatory relief/arrangements to allow DON to supply to utility partners

**Federal Regulations**

- Allow the Services to monetize energy security
- Encourage use of third-party finance structures and clarify boundaries/triggers for OMB scoring
Utilizing 3rd Party Financing for Microgrid Development

- Collaborating with utilities and energy service providers to provide ancillary services that benefit the community, the greater grid and the DON
  - Yuma, Arizona
  - New London, Connecticut

- How do we do it:
  - Real estate outgrants – USC§2667
  - ESPCs
  - Work with regulatory bodies at the state and federal level to enable the DON to monetize ancillary services in exchange for energy security benefits

U.S. Marine Corps photo by Sgt. Gabriela Garcia/Released
REPO Project Opportunities with Potential for Microgrid Integration

Federal Utility Partnership Working Group
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*Project size are estimates that are subject to change.

- HI 41 MW
- GUAM 45 MW
- Fallon 20 MW
- Lemoore 150 MW
- Camp Pendleton 10 MW
- Yuma ~25 MW
- Ventura County 6 MW
- Seal Beach 15 MW
- Mid-South 7 MW
- New London 6 MW
- Newport 11 MW
- Earle 20 MW
- JBAB 6 MW
- Oceana 34 MW
- Bethesda 6 MW
- Kings Bay 42 MW
- Albany 38 MW
- Jacksonville 7 MW
- Gulfport 4 MW
- Meridian 44 MW
- GITMO 10 MW
- Pensacola & Whiting Field * 117 MW
- Diez Garcia 10 MW
- Diego Garcia 10 MW
- GUAM 45 MW
- Guan 45 MW
- USN Installations
- USMC Installations
- Model 2 Opportunities
- Model 3 Opportunities
- Lease Signed

*lease Signed
Questions?

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