



# **NAVFAC Atlantic**

## **Energy Project Contracting**

22 JUNE 2010

# NEW SECNAV ENERGY GOALS



- **First:** Change the way the Navy and Marine Corps awards contracts. The lifetime energy cost of a building or a system, and the fully burdened cost of fuel in powering those, will be a mandatory evaluation factor used when awarding contracts.
- **Second:** The Navy will demonstrate in local operations by 2012 a Green Strike Group composed of nuclear vessels and ships powered by biofuel.
- **Third:** The Department of the Navy will by 2015 reduce petroleum use in our 50,000 strong commercial fleet in half - by 50 percent.
- **Fourth:** The Department of the Navy will by 2020 produce at least half of our shore-based energy requirements on our installations from alternative sources.
- **Fifth:** By 2020, half of DON's total energy consumption for ships, aircraft, tanks, vehicles, and shore installations will come from alternative sources.

# SHORE ENERGY: LAW AND POLICY



	<u>Status</u>	
<b>Energy Reduction Goals</b>		<ul style="list-style-type: none"><li>•Reduce Consumption by 3% per year or 30% by 2015</li><li>•Reduce water consumption by 2% annually</li><li>•All new construction and renovations greater than \$2.5M required to reduce fossil fuel consumption by 55% in FY10 &amp; 100% by 2030</li></ul>
<b>Renewables</b>		<ul style="list-style-type: none"><li>•Purchase renewable elect: 3% now and 7.5% by FY13</li><li>•Renewable provide 25% of electricity by 2025</li><li>•Install renewable fuel pumps at all fleet fueling centers</li></ul>
<b>Metering</b>		<ul style="list-style-type: none"><li>•Elect meters on all buildings by end of 2012</li><li>•Natural gas and steam meters on all facilities (requires DoD interpretation) by 2016</li></ul>
<b>Sustainable Facilities</b>		<ul style="list-style-type: none"><li>•Buildings to be designed 30% better than ASHRAE Stds</li><li>•15% of bldg inventory to be sustainable by 2015</li><li>•All lease spaces required to have earned Energy Star label</li><li>•Comprehensive energy and water evaluations on all buildings on a 4-year cycle</li></ul>
<b>Vehicles</b>		<ul style="list-style-type: none"><li>•Purchase 100% Alternative Fuel Vehicles</li><li>•20% reduction in annual petroleum consumption by 2015</li></ul>

DOD or DON policy in blue

## Two Primary Methods

- Use your own money
  - Installation Funds
  - Region Funds
- Use someone else's money
  - ECIP (Congress)
  - Alternative Financing (UESC and ESPC)

- **Utility Energy Services Contract (UESC)**
  - Contract with local utility, using area-wide contract
  - May finance design and construction
  - Measurement & Verification required (M&V), guarantees generally not required
  
- **Energy Savings Performance Contract (ESPC)**
  - Contract through pre-approved Energy Services Companies (ESCO)
  - Design and construction financed
  - M&V required
  - Savings guarantees required
  
- **Design/Build, Design/Bid/Build**
  - Centrally funded Energy Conservation Investment Program (ECIP)
  - Self-funded by Base, Region or Other

- **UESC & ESPC must be economical**
  - Utility prices significantly impact economics
  - Energy Incentives can help make economics better
  
- **ECIP must be economical**
  - In recent years only for renewable projects
  - More difficult to get renewables to pay back in some areas

# Project Execution Process - UESC



- **UESC – 3 Steps**

- **Preliminary Audit**

- No upfront cost to Navy
    - Identifies a number of opportunities
    - Screening tool: Navy may elect to proceed to next step if project is promising

- **Feasibility Study**

- Navy pays for study upfront
    - Funds can come from any source, but typically come from Region
    - In depth examination of chosen opportunities (technical and economic)
    - Final “Go/No Go” decision point for the project

- **Design/Build**

- May be completely or partially financed using down payment
    - Measurement & Verification now required
    - FECs hold the utility area-wide contracts and award the projects

# Project Execution Process - ESPC



- **ESPC – New Process**

- Navy/Marines put together a **Site Data Package**
- Request Proposals from all **ESPC Contractors**
- Go through **Selection Process**
- Final “Go/No Go” decision point for the project
- **Design/Build**
  - **Financed**
  - **M&V is included, savings are guaranteed**
  - **Maintenance often performed by the ESCO as part of savings guarantee**
  - **Contracted through Specialty Center Acquisitions, Navy (SCAN)**

# Project Execution Process - ECIP



- **ECIP – Centrally Funded (in full)**
  - **Funding for ECIP (Energy Conservation Investment Program) appropriated by Congress identical to MILCON**
  - **Funds for design available the FY before construction**
  - **Funds generally arrive in 2<sup>nd</sup> Qtr of year of construction**
  - **Funds and construction contracts treated same as MILCON**
  - **Executed by FECs**

# ARRA PHOTOVOLTAIC PROJECTS



- **FOUR PROJECTS IN VIRGINIA INSTALLING SOLAR SYSTEMS**
  - **CONTRACT AWARDED**
  - **CONSTRUCTION SCHEDULED TO START SUMMER 2010**
  - **THREE PROJECTS INSTALLING PHOTOVOLTAIC**
    - NAVAL STATION NORFOLK - SOLAR & LIGHTING
      - \$1.02 M
    - NAVAL SHIPYARD NORFOLK – SOLAR & LIGHTING
      - \$1.257 M
    - HAMPTON ROADS AREA – INSTALL PHOTOVOLTAIC SYSTEMS
      - \$26.1 M
  - **ONE INSTALLING SOLAR VENTILATION PREHEAT**
    - NAVAL AIR STATION OCEANA
      - \$825,000
  - **APPROXIMATELY 2350 KW OF SOLAR POWER**