

ADC 2010  
**WINTER FORUM**

# ***Navy Region Southwest***

***Regional Renewable Energy Planning/ Development***



# Outline

- Renewable Energy Requirements/ Goals
- Regional Renewable Energy Planning
- Regional Renewable Energy Development
- Regional Environmental Coordinator

# Renewable Energy Requirements

- Renewable Energy Mandates
  - SECNAV Goals: 50% Alternative Energy by 2020
  - 2007 NDAA: 25% of all DoD energy consumed be renewable by 2025
  - EPACT 2005: Renewable Energy – 3% by 2007, 5% by 2010, 7.5% by 2013
  - Executive Order 13423: Renewable Energy generation projects on agency property for agency use
- Energy Independence
  - Reduce peak power demand – save \$\$
  - Potential for revenue/in-kind consideration (EUL/ private development contracts)
  - Rate Stability
  - Renewable power rates will be fixed and lower than or equal to “brown power”
- Risks
  - Self-Encroachment
  - Policy issues relative to “credit” for renewable projects



# Renewable Energy Planning

- Region approach across Southwest
  - Navy/ Marine Corps
- Formed team in 2008 to focus exclusively on renewable energy development across 17 Installations
- Market research/ outreach to Industry

# Renewable Energy Planning

- Market research/ Industry Feedback
  - Commercially-available, proven technologies exist
  - Industry response primarily related to solar technologies
  - Large-scale wholesale generation projects in CA are dependent on transmission upgrades which are 5-10+ years away
  - Small & medium projects are more viable (short-term) due to on-site consumption, state incentives, Federal tax credits, and Renewable Energy Credits
  - Power purchase agreements (PPA) of 20 years or more are the most desirable and feasible for smaller projects

# Renewable Energy Planning

- Based on market research:
- Phased/ Tiered approach to renewable energy development
  - Tier 1 & 2 for small/medium projects with on-site consumption
  - Tier 3 for large wholesale generation projects

# Renewable Energy Development

Smaller – Direct funded projects

- Funded directly
- Renewable credit to Installation
- ARRA – 35 new roofs; 5 new carports
- ~5MW new capacity



Naval Base Coronado (51 KW)



Naval Base San Diego Solar carport (57 KW)



Naval Air Weapons Station – China Lake Solar carport (116 KW)

# Renewable Energy Development

- Tier 1 & 2 projects
  - New contract solicitation initiated in 2009
  - Expect award very soon - \$200M
  - Individual task orders (1-15 MW)
  - PPAs with terms of 10-30 years
  - Projects can be executed quickly
  - Industry is highly competitive for systems of this size, leading to lower cost energy

# Renewable Energy Development

- Tier 3 developments
- Energy Joint Venture (EJV)
  - Business agreement
  - Government provides land
  - Developer sells power, Government gets royalties and/or power
- Enhanced Use Lease (EUL)
  - Real Estate agreement
  - Government provides land lease
  - Developer provides ‘in-kind consideration’

# Renewable Energy Development

## **Tier 3 example:**

### **Geothermal Energy**

272 MW

- Contractor owned/  
operated
- Power goes to SoCal  
grid
- Navy Revenue Sharing



Naval Air Weapons Station China Lake

# Renewable Energy Development

- Recent introduction of SECNAV energy goals – 50% alternative energy by 2020
  - Tier 3 projects critical component of strategy in the Southwest
  - Evaluating CA/ AZ locations currently
  - Spring – Energy Industry Forum in San Diego
    - Engage with Industry further
    - Frame renewable energy issues across Southwest
    - Industry feedback to consider in refining Tier 3 strategy

# Regional Coordination

- DoD Regional Environmental Coordinator (REC)
  - REC 9
    - Led by Navy Region Southwest Commander
    - Inter-service coordination of environmental/ energy issues
    - Liaison with States on regulatory issues

# Regional Coordination

- DoD SW Renewable Energy Working Group
- Mojave Summit (SoCal focused)
  - Training, environmental, energy, encroachment
- Two examples of close coordination across Services
  - Coordinate issues/ concerns related to renewable energy developments near facilities

Bernie Lindsey  
Utilities/ Energy Program  
Manager

Navy Region Southwest  
[Bernard.lindsey@navy.mil](mailto:Bernard.lindsey@navy.mil)

