Federal Sector Energy Efficiency: The Unique Way that BPA Works with Other Federal Agencies

Presented by:
Michael R. Huber, P.E.
Navy Program Manager
BPA Energy Efficiency, Seattle
(Thanks are due Curt Nichols & Allie Robbins)
Today’s Topics

- Federal Sector defined & potential savings
- How BPA Targets Federal Agencies
- Steps to Savings (by federal sub-sector)
- BPA’s Role (How we help)
- Source/Scope of Savings
- Past Accomplishments
- What’s Ahead
- Contacts
The Federal Sector

- The Federal Sector includes
  - Federally owned or occupied facilities
  - Examples: post offices, military bases, ranger stations, courthouses, national parks

- Within the Pacific Northwest
  - Oregon
  - Washington
  - Idaho
  - Western Montana
Federal Sub-Sectors

- **Utility Served Federal (USF)**
  - Most federal facilities – including GSA buildings, VA clinics and hospitals, Forest Service ranger stations, Coast Guard bases, FAA control towers, JBLM
  - Serving utility can work with them directly

- **Direct Served Federal (DSF)**
  - US Navy (3 Puget Sound sites)
  - DOE-Hanford
  - Fairchild Air Force Base (Spokane)

- **No Serving Utility (NSU)**
  - Station Service (hydro and BPA transmission facilities)
  - Reserve Power (irrigation districts and fish hatcheries)
Total Federal Sector Potential

- Utility Served Federal (USF) – 15-25 aMW
- Direct Served Federal (DSF) – 20-30 aMW
- No Serving Utility (NSU) – 40-50 aMW
- Federal Sector Total – 75-115 aMW (BPA’s planning estimate = 90 aMW)
- Savings Goal (FY12) – 3.0 aMW (no savings from the NSU sub-sector)
How ESFP Targets its Services

- **BPA’s Federal Work Focuses On:**
  - Electric Energy-Saving Projects
  - In Consumer-Owned Utility Areas (only if needed)
  - Agencies with UESC Agreements
  - Advise/assist Feds (Labs do too)
Energy Smart Federal Partnership

Federal Agencies are helped by ESFP

- General Energy Information
- Technical Assistance & Planning
- Access to Financing
- Connect to local utility & incentives
- Design/Construct/Verify
- Hold Earned Incentives
- Meet FEMP and EO goals
- Facilitate Recognition
  - Case Studies and Awards
Federal Agencies Get Savings

- Sign an Interagency Agreement with BPA
- Complete site efficiency assessment
- Obtain capital to implement efficiency project
  - Appropriated funds, or end of year funds
  - ESCO shared savings (ESPC route)
  - UESC financing (third-party loan)
- Apply for utility incentive
- Complete efficiency project
- Verify performance
- Collect (or assign) incentive
- Report savings / Produce case study
USF – Utility Served Federal sites

USF Projects Work like other Sectors

- Utilities set incentive levels; provide rebate
- Measures follow BPA Implementation Manual and utility requirements
- BPA Programs staff may facilitate project financing (and the analysis leading to that)
- BPA Engineers may manage projects
- BPA can hold an Agency’s earned incentive
- Earned incentives can be reinvested to get even more savings
DSF – Direct Served Federal sites

DSFs now have their own ECAs/EEIs

- Will use EE Central like a utility customer
- Measures follow the BPA Implementation Manual
- EE Engineers may manage projects

Example: Navy (multiple bases)
- Six $3 – 7 Million UESC financings
- Implement some appropriated projects
- BPA serves as Prime Contractor
- Financing cover some gas-saving & IOU electric projects
- Gas, IOU rebates can be re-invested to our projects
- Can purchase & drop ship products for Navy installation
NSU – Sites with No Serving Utility

Energy Smart Reserve Power (ESRP)

- Target Reserve Power Irrigation Districts
  - Send out an annual solicitation (call for projects)
  - Select projects with the lowest incentive rate
  - RPIDs do their own installation (in the off season)

- Include other NSU sites if funds remain
  - Federal Hydropower Facilities
  - Reserve Power Fish Hatcheries
  - BPA’s Station Service Substations

- Funded as a FY13-14 regional program pilot
Working with Multi-Sited Agencies

A Federal “Chain & Franchise” Exercise

- Work with the Regional Headquarters
- Identify Broad Energy Efficiency Goals
- Identify Specific Sites for Efficiency Projects
- Connect the Agency with the Serving Utilities
- Assist the Agency with Contractor Selection (or manage the implementation ourselves)
- Hold their Earned Incentives for Future Reinvestment (if necessary)
- Help them Document/Report their Savings
Fish & Wildlife: One Agency, Many Sites

Utility Energy Service Contract (UESC) with the Agency’s Regional Office. Individual Projects Possible in a Variety of Utility Service Areas
Single Site Efficiency Projects

- Much like EE work in other sectors
  - Utilities set the incentive levels & provide rebates to Agency, Contractor, or BPA
  - Measures follow Utility & BPA requirements
  - EE Engineers or Contractors assist on projects
  - Example: JBLM (Tacoma Power)
    - $18 Million UESC Financing in 2008
    - Includes PSE gas-saving projects too
    - Voltage Optimization being considered
    - Coordinating with the Corps of Engineers to implement financed funds
Who We’ve Worked With

- **Army**
  - Joint Base Lewis McChord (JBLM)

- **Forest Service**
  - West Yellowstone

- **Fish & Wildlife**
  - Dworshak Fish Hatchery

- **GSA**
  - Tacoma Union Station

- **Navy** (DSF & USF bases)
Source of ESFP Savings

Efficiency Project Type (FY '08 through FY '10)

- Lighting: 64%
- HVAC: 16%
- Irrigation: 12%
- Other: 8%
What ESFP Has Accomplished

- **Energy Savings**
  - 33 aMW (power for 9,600 homes)

- **Water Savings**
  - 2 Billion Gallons/year

- **Cost Avoidance**
  - $14.5 Million/year

- **CO₂ Emissions**
  - 99,900 Metric Tons/year

- **Recognition**
  - Awards for BPA and client agencies
Energy Smart Federal Partnership

What’s Ahead for ESFP:

- Agency Rep at BPA – Single point of contact
- Closer ESFP/EER/Utility coordination
- Potential new agency agreements:
  - Veterans Administration
  - Forest Service (Region 6)
  - Fish & Wildlife
  - Federal Aviation Admin
Energy Smart Federal Partnership

Partnering is Smart:

- Federal Agency
- Local Utility
- Financier
- Vendor
- Contractor
- Bonneville Power

![Graph showing average daily electricity use per month for different months.](image-url)
Contacts

For more information, contact:

Allie Robbins
Acting Federal Sector Lead
arrobbins@bpa.gov
503-230-5871

Cheryl Lewiski
Federal Sector Coordinator
cllewiski@bpa.gov
503-230-3059

Michael Huber
Navy Program Manager
mrhuber@bpa.gov
206-220-6778