

# Energy Efficiency at BPA Highlights and New Activities



# Presentation Outline

- BPA Organizational Overview
- New Initiatives in the Industrial Sector
- New Development Activities



# Organizational Overview

- ~\$80 million annual budget
- 62 FTE, and growing
- 52 aMW 2009 conservation target; expecting significantly higher targets in 2010
- Over 1,000 aMW achieved since inception



# New Industrial Initiatives

- Energy Champion Engineers
  - Assist large industries with internal processes to deliver projects & develop strategic energy management program.
  - Collaborated with NEEA and Grays Harbor PUD.
- Green Motor Initiative
  - Recruit, certify and ensure compliance (test and audit) of motor service centers.
  - Collaboration with Green Motors Practices Group; facilitated by NEEA.
- Efficient Data Center Demonstration Project
  - Engaged support of industry professionals to develop a standardized process to establish Data Center energy usage baselines and methodology to evaluate continuous usage.
- Distribution Efficiency/CVR
  - Demonstration underway to evaluate target retail and wholesale transmission line loss.



# Industrial Program Design Services

- January 2008 BPA began to study and review approaches to the industrial sector.
- Process: Inventory, summarize existing materials, conduct national Best Practices interviews, assess market characterizations, document BPA to Utility to Industry barriers, hired a consultant to advise.
- BPA review team recommendations:
  - Long-term (over next 2-yr Rate Period, likely longer pending Post-2011 Public Process), BPA will contract with one or more 3<sup>rd</sup> parties to provide a variety of industrial services to utilities by Summer 2009.
  - Services include, but are not limited to:
    - ♦ Project development
    - ♦ Marketing
    - ♦ Project implementation
    - ♦ Niche market program design and delivery
- Collaboration with NEEA, unknown at this time.



# New Development Activities

- Demand Response
- Technology Innovation
- Smart Grid



# Demand Response

- Completed Potential Assessment & Strategic Plan for 2009-2012
- 2009 Pilot Projects:
  - Automated DR for Commercial Facilities
  - Smart Thermostats/Home Area Network
- Projects Under Development:
  - Emergency/Capacity DR
  - Price-Based Demand Response



# Technology Innovation

- EE Emerging Technology Assessment & Demonstration Project
  - Partnership with Washington State University
  - Phase 1: Identify, prioritize, and scope new technologies
  - Phase 2: Demonstrate selected technologies and quantify actual savings
  - Technologies include Advanced Lighting, Heat Pump Water Heaters, Premium Ventilation
- Monitoring & Communications Standards for Distributed Renewable Resources
  - Develop a uniform monitoring and communications system for integrating distributed generation



# Smart Grid Demonstration Project

- Demonstrate the value of interoperable systems across the electric grid: from end-uses, through distribution and transmission, to generation, and back
- The Project will not use closed systems that cannot interoperate.
- Focus on end-use to grid renewables interaction
- One of four regional DOE Smart Grid Demonstration Projects
- The Project will be public, transparent, visible, and accountable

