

# Municipal Utility Energy Efficiency Delivery

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Presentation by Tom O'Connor to  
Governor's Ten Year Energy Plan Task  
Force

# Oregon Municipal Electric Utilities Association (OMEU)

- Eleven small, city-owned electric utilities:
  - Ashland, Bandon, Canby Utility Board, Cascade Locks, Drain, Forest Grove Light & Power, Hermiston Energy Services, McMinnville Water & Light, Milton-Freewater Light & Power, Monmouth, Springfield Utility Board
- Public agencies – not-for-profit – governed by utility boards or city councils
- Oldest – McMinnville/Milton-Freewater 1889; Newest – Hermiston Energy Services 2001
- Smallest – Cascade Locks, Drain; Largest – Springfield
- Customer base varies: one very large industry; four colleges; several former timber communities; tourism; generally lower per capita income than Portland; generally lower load growth rates
- Distribution utilities
- Power supply – BPA plus small local renewables
  - Base Load: BPA Tier 1; Load Growth: BPA Tier 2 or other PPA

# Regional Conservation Program Development

- Council adopts Power Plan providing resource guidance including EE goals to BPA with stakeholder input
- 1200 aMW by 2015 increasing every 5 years
  - COU/BPA share 504 aMW
- Regional Technical Forum (RTF) reviews cost-effectiveness of measures
- BPA power rate case sets agency budget including budget to achieve EE goals
- COUs fund BPA EE programs through BPA rates
- Each COU has a BPA EE budget based on their Rate Period High Water Mark

# Program Implementation

- COU implements local conservation program offering BPA and locally-designed programs
- COU reports measures installed to BPA/Council
- Residential and commercial measures are often based on “deemed savings”; industrial measures often based on measured savings
- COU is reimbursed for incentives paid out up to cost-effectiveness levels determined by BPA/RTF/Council
- COU’s dedicated funding under the BPA power sales contract is “use it or lose it” and does not carry across multiple rate case periods
- COUs may gain flexibility to adjust for “lumpiness” by participating in bilateral exchanges or pooling agreements
- If a COU cannot expend its dedicated funding, BPA will in effect backstop by using that portion to ensure the regional goal is met

# Program Implementation II

- “Larger” OMEU members such as SUB, McMinnville, Ashland operate their own programs with local staff plus BPA regional programs
- Smaller OMEU members have a turnkey contract with Efficiency Services Group (ESG) to implement programs (Bandon, Canby, Cascade Locks, Monmouth). Hermiston has a turnkey contract with its larger neighboring cooperative
- BPA offers targeted niche regional programs and expertise by contract with engineering and consulting firms
  - Energy Smart Grocer (PECI)
  - Energy Smart Industrial Partners (Cascade Energy Engineering, Strategic Energy Group, Evergreen Consulting)

# Program Implementation III

- OMEU members employ a range of incentives, marketing and loans to customers depending on the makeup of the local community and needs of the customers
- Direct incentive payments for installed measures work best for many customers and those who may not want to incur additional debt
  - Low income weatherization can pay 100% of measure cost
- Loans can work well for more expensive measures (ductless heat pumps, windows) and for those who are willing to debt-finance to spread payments over time
- “Direct install” can work well for lighting and water saving measures
- Direct install can be used in conjunction with a “snap audit” to encourage additional measures and gather data for future program design
- Municipal utilities employ a variety of marketing tools including city or utility newsletters, bill stuffers, websites, social media, community events, door to door direct install, and coordination with city building and permitting offices

# Municipal Utility Conservation Loan Programs

- Over 10 years experience with a variety of loan programs and billing options
- Experience with innovative partnerships with local banks and credit unions
  - Utility buys down the rate to zero; loan is administered by local bank/credit union
  - Reduces risk to utility; supports local business
  - SUB has made 1425 loans; totaling \$5,867,380; saving over 4 million kWh
- Experience with “on-bill financing”
  - Ashland, EWEB, and McMinnville make utility loans and collect on the utility bill – one stop shopping
  - Ashland has made 179 loans totaling over \$1 million; averaging about \$6,000 per loan
  - EWEB has made 10,200 residential loans and 342 commercial loans totaling over \$39 million
  - McMinnville has made 528 loans totaling \$1,898,253 and saving over 2 million kWh
- Experience with other loan billing options
  - Milton-Freewater issues loans and city finance department sends a separate bill on a monthly basis
  - Milton-Freewater has made 42 loans totaling \$242,839; saving over 180,000 kWh

# Achievements and Challenges

- NW COUs have consistently met regional plan targets
- Saved 1,100 aMW – more than twice the output of the Bonneville Dam
- Avoided 16.2 million tons of CO<sub>2</sub> – equivalent to taking 3.2 million cars off the road
- From 1994 – 98 OMEU members Ashland, Forest Grove, McMinnville, Monmouth, Milton-Freewater and Springfield Utility Board formed a joint agency for conservation funding and implementation. Oregon Municipal Energy and Conservation Agency (OMECA) achieved over 5 aMW of conservation at an average cost of 1.5 cents per kWh and won numerous state and regional awards
- Challenges ahead include higher cost measures; more niche measures; ballot measures requiring voter approval of increases to fees, charges, and rates; fewer opportunities in residential, rural utilities
- Uncertainties include the economy, load growth, reliability and cyber requirements, fish costs, electric vehicles, new electronics and vampire loads
- To meet the new power plan goals we will use a mix of BPA/utility programs, incentives, loans, tax credits, codes, and ARRA funds when available



# Appendix – Regional Measures and Programs

- Agriculture 20 aMW (pump testing, irrigation hardware, stock watering heaters, lighting, scientific scheduling, customer projects)
- Commercial 100 aMW (lighting and refrigeration, HVAC custom projects, Energy Smart Grocer, shell measures, high efficiency food service equipment, new construction, plug loads, new appliances)
- Industrial (custom projects, Energy Smart Industrial Program, energy management pilots, lighting, compressed air efficiencies)
- Residential 132 aMW (lighting and showerheads, weatherization/low income weatherization, new appliances, HVAC and ductless heat pumps, new construction site built, multi-family and mobile homes)
- Distribution efficiency (Energy Smart Efficiency Program, distribution system improvements and voltage reduction)



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