



Bainbridge Island Community Energy Meeting

April 30, 2009

BAINBRIDGE ISLAND COMMUNITY ENERGY MEETING
APRIL 30, 2009

AGENDA

Welcome

Statement from U.S. Congressman Jay Inslee

Bainbridge Island's Energy Challenge (7:05 -7:20)

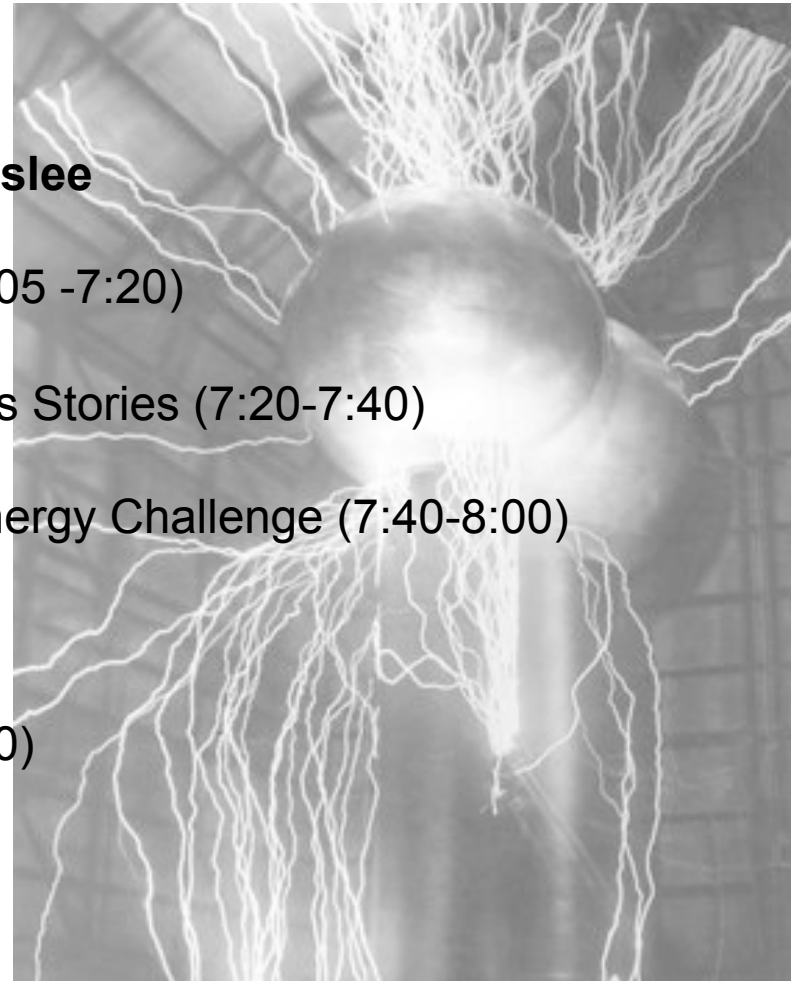
Presentation of Other Community Success Stories (7:20-7:40)

How We Can Meet Bainbridge Island's Energy Challenge (7:40-8:00)

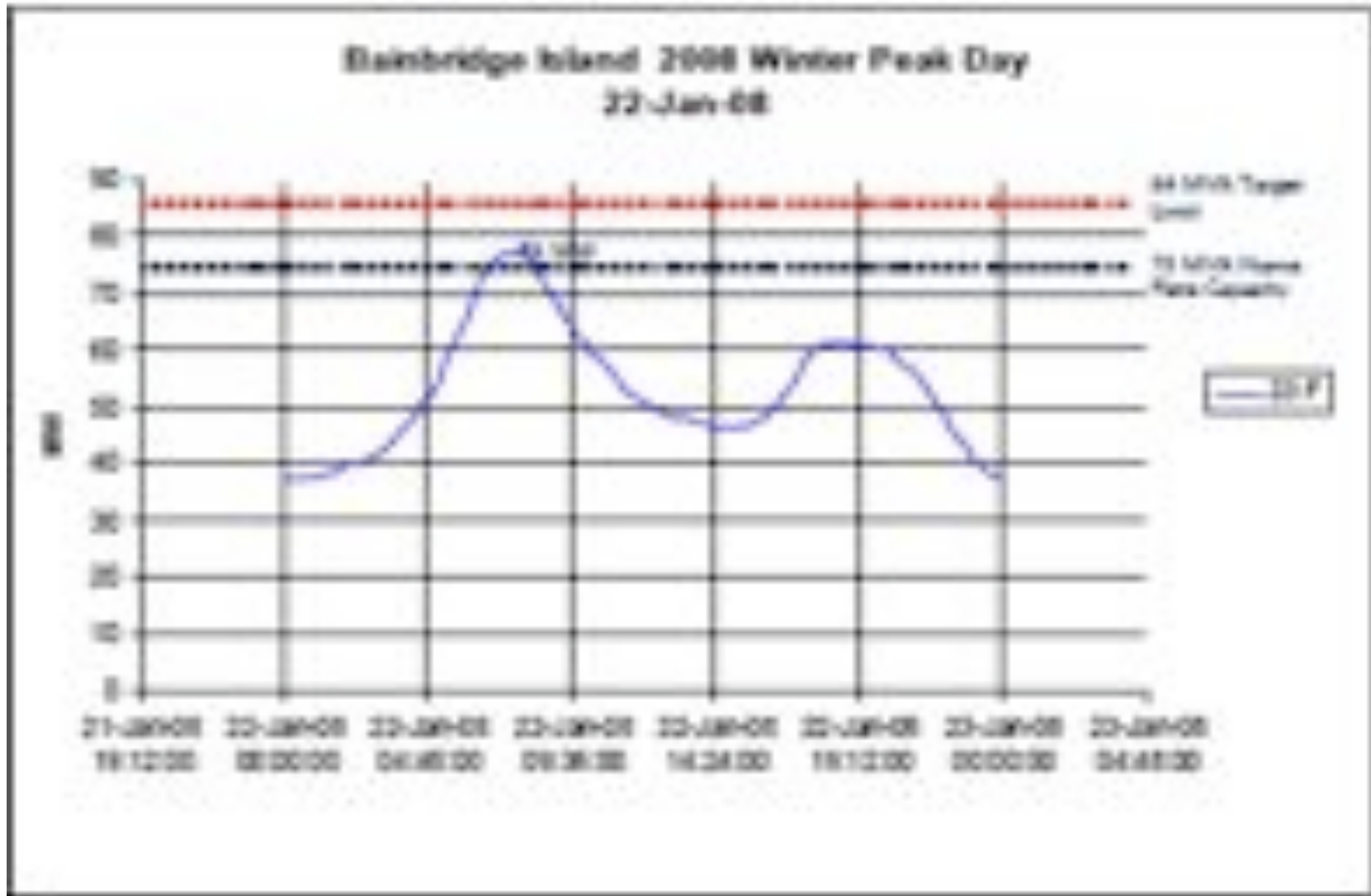
Discussion (8:00 - 8:35)

Community Energy Task Force (8:35- 8:50)

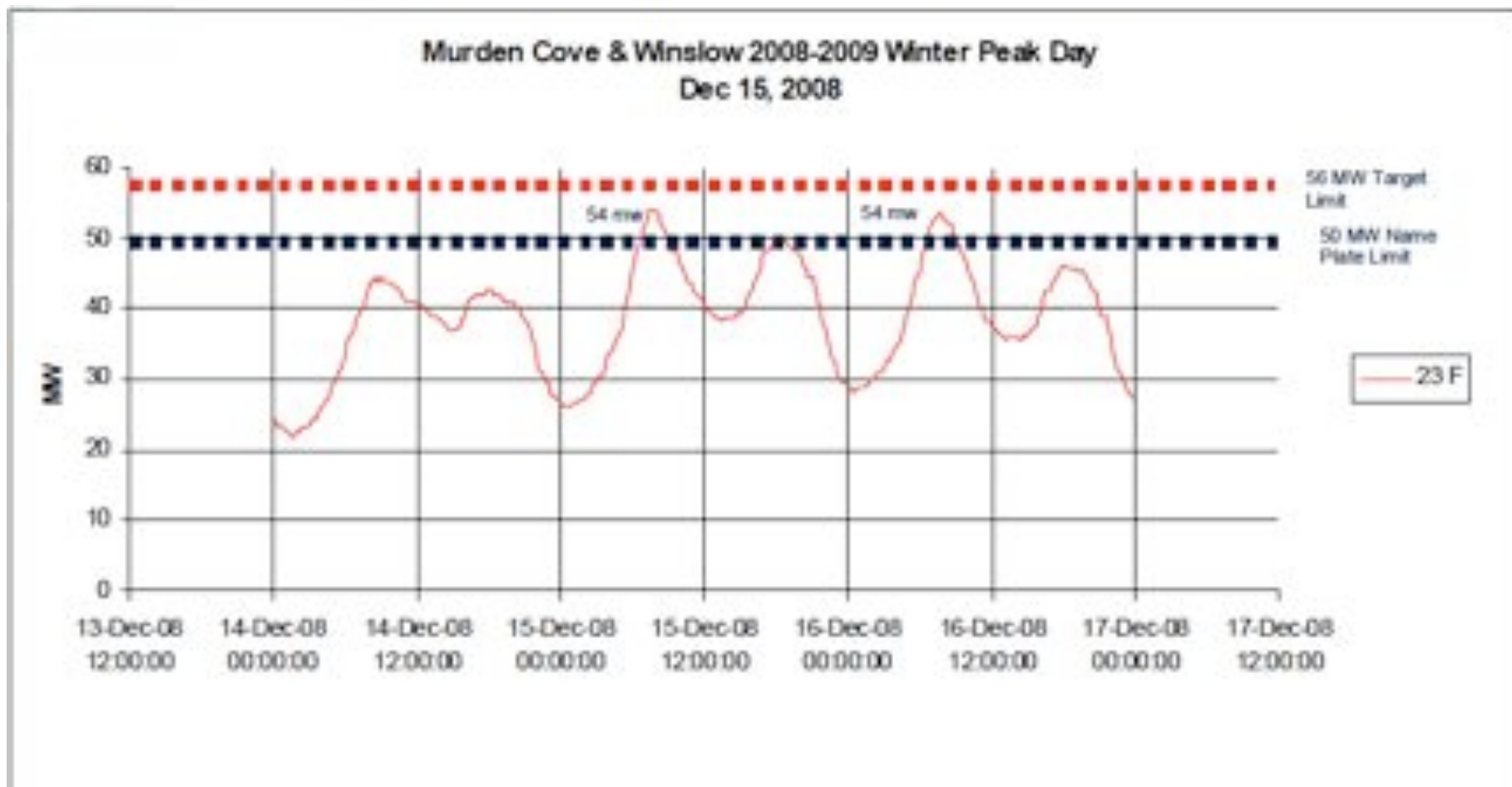
Wrap Up and Next Steps (8:50 – 9:00)



Bainbridge Island Energy Challenge



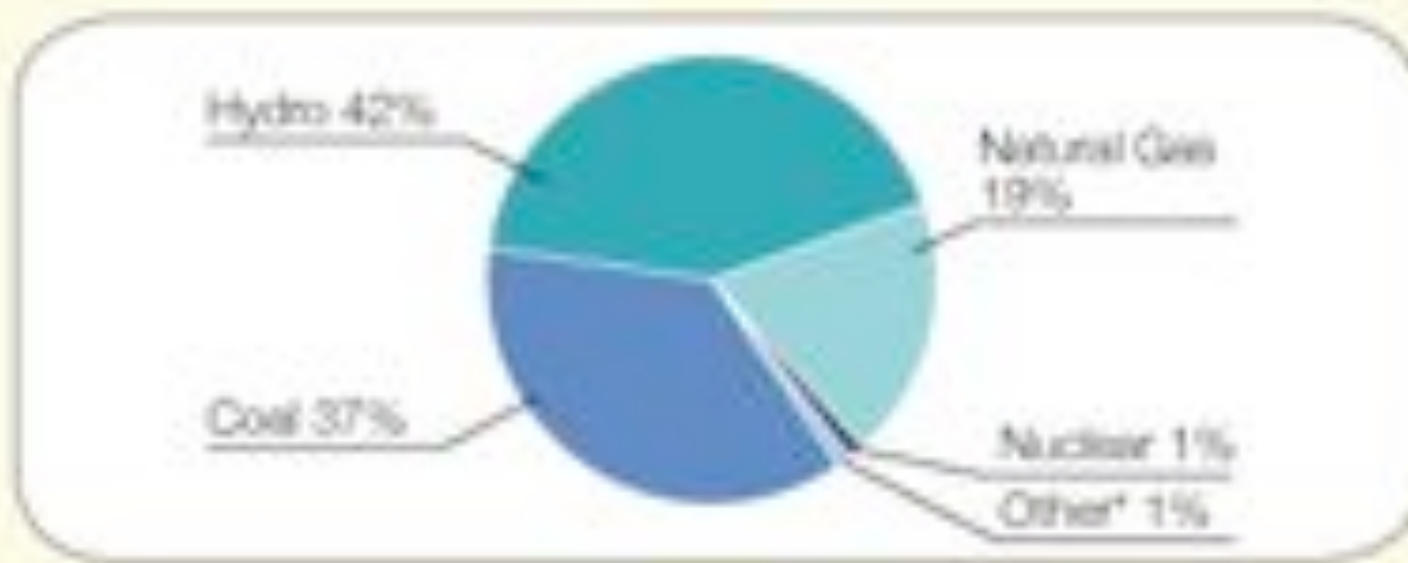
Bainbridge Island Energy Challenge



Bainbridge Island Energy Challenge

- Growth in power demand
- Growth in populations
- Higher than average energy consumption, 19,000kWhs vs. 11,797kWhs
- > 9.5MT of carbon per household each year

Bainbridge Island Energy Challenge



* Biomass, landfill gas, petroleum, waste, wind and solar.

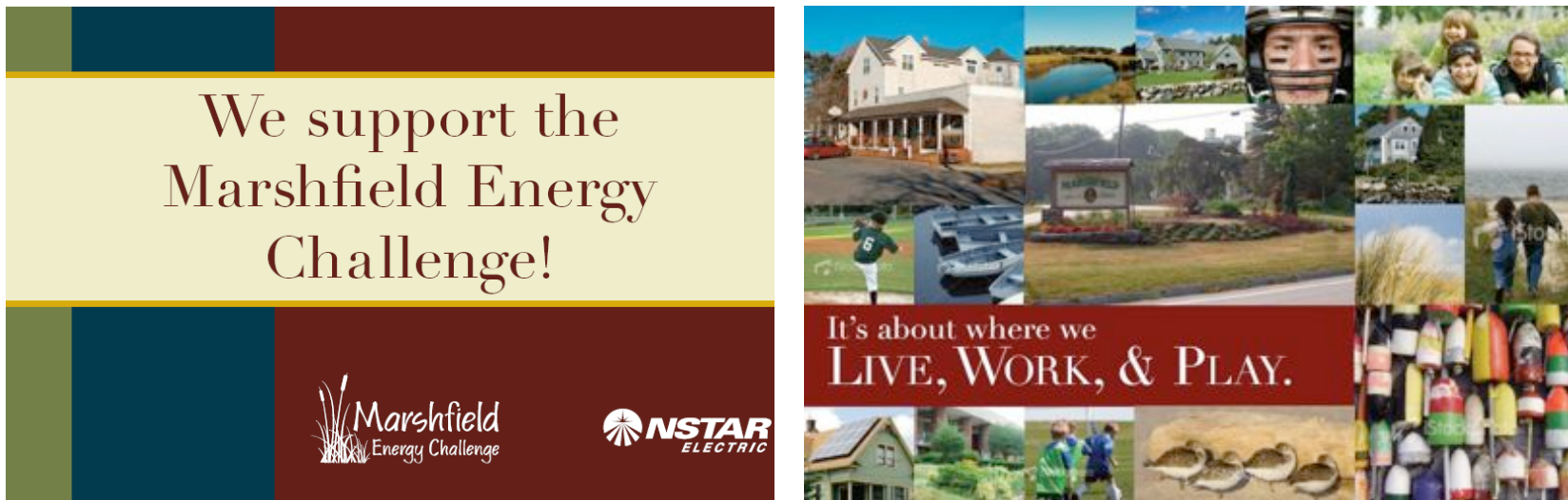
In 2007, PSE sold renewable energy credits (RECs) associated with the power output of its two wind-power facilities, so this power is not included in the fuel-mix report.

Source of data:

As reported by PSE Inc. and published by the State of Washington Office of Community, Trade and Economic Development, Energy Policy Section, 2007.

Community Energy Program Case Studies

Marshfield Energy Challenge



- Challenge: Defer substation upgrades in the face of increased growth and peak demand
- Goal: Achieve 2MW (of 25 MW) capacity relief on the target circuits -- sufficient to defer substation upgrades

Marshfield Energy Program: 3-pronged strategy

Integrated Approach

1. Energy Efficiency
2. Renewable Resources
3. Pilot Smart Grid



It's about where we
LIVE, WORK, & PLAY.

NSTAR Electric invites you to join the Marshfield Energy Challenge. Here's your opportunity to make an impact at home and in your town.

Residential program offerings and rebates include:

- 50% off insulation and air sealing upgrades*
- 0% financing up to \$10,000
- Up to \$1,000 rebate for a high efficiency heating system
- \$300 rebate for high efficiency hot water heaters
- ENERGY STAR® replacement window & refrigerator rebates
- Significant incentives for solar electric (PV) panels
- Additional money saving offers for residences with central A/C

If you are a Marshfield business owner, contact us today about our commercial incentives.

*Up to \$1,000. Consistent with federal tax laws, one eligible for per services upgrade will be used in total amount of financing offer is contingent on being approved for a loan from a participating lender. Rebates and financing are subject to funding availability and subject to change or cancellation without notice.

Call **1-866-626-4693** to find out more about the Marshfield Energy Challenge.

Espanola Power Savers Project

- Challenge: Full scale effort to achieve as high as possible a reduction in electricity consumption
- Goal: Deferral of network augmentation by reducing overall load reduction through the installation of cost effective retrofit and replacement measures



Espanola Energy Results

- Within 15 months of Project launch
 - 87% residential and commercial buildings had been audited.
 - 75% of the work completed
 - 70% of the kW value of the measures recommended for all homes have been accepted.
- 1st Yr Energy Savings: 7,424 MWh
- Lifecycle Energy Savings: 259,840 MWh
- Capacity Savings: 1.759 MWh

City of Ashland, OR Comprehensive Conservation Program

- A holistic approach to resource conservation
 - Energy: mixed fuels
 - Water
 - Land-use planning
 - Regional air quality
 - Recycling
 - Composting



City of Ashland, OR

Comprehensive Conservation Program

Successes:

- City has created nearly 10,000 MWh in total annual savings
- Ashland pioneered solar access rights
- Water conservation program has resulted in daily savings of over a quarter million gallons of water
- Rewards resource-efficiency in new developments
- Solar Pioneer I & II – a robust community solar energy program

Keys to Successful Community Energy Program

- Community-based
- Strong Alliance
- Dedicated team
- Detailed plan
- Effective tools
- Financial support



Bainbridge Island Energy Challenge

Preliminary electrical targets to avoid new substation

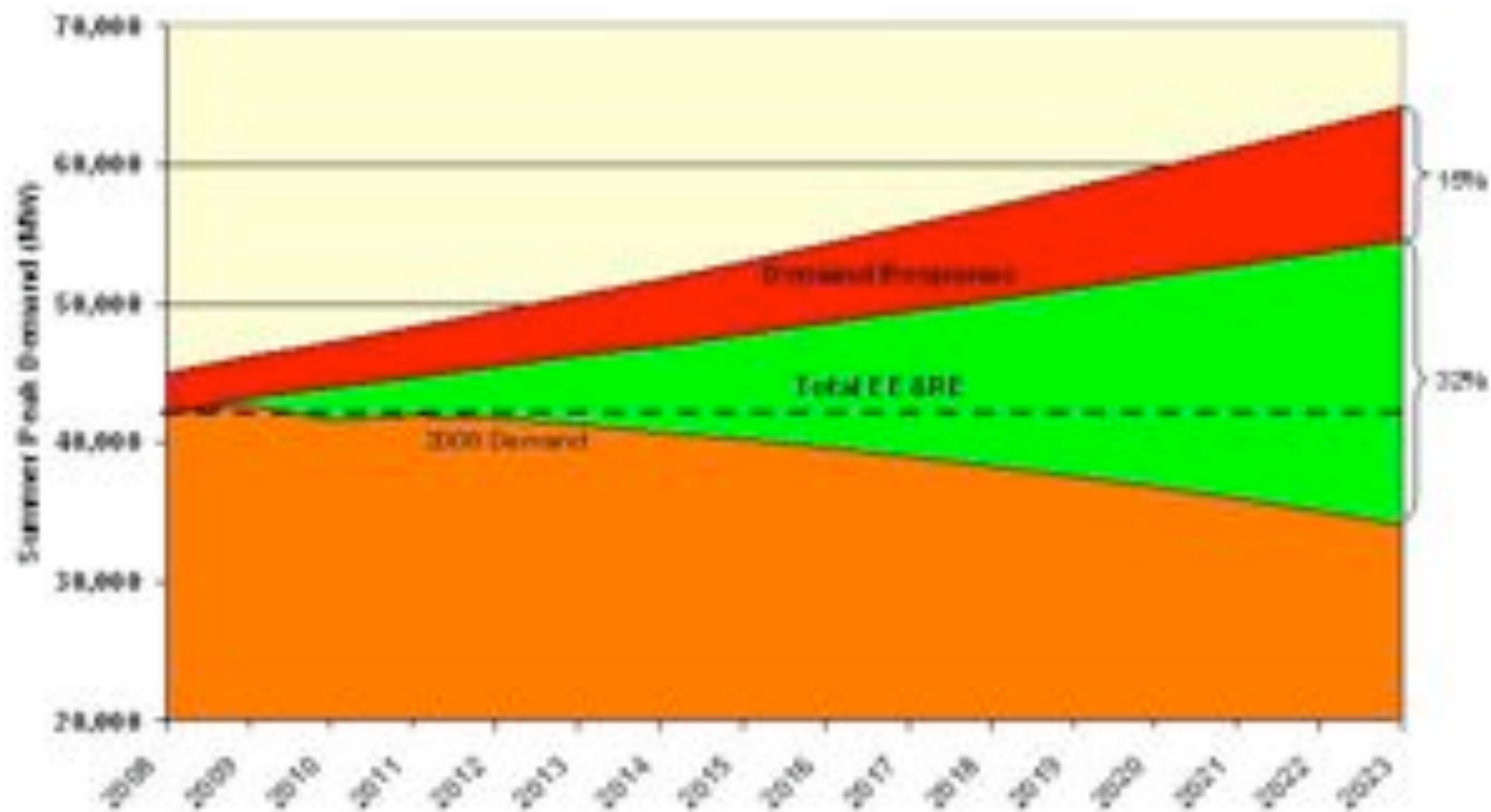
4 MW peak demand reduction by January 2011
17,500 MWh consumption reduction
~10% savings

8 MW demand reduction by January 2013
35,000 MWh consumption reduction
~20% savings

Alternatives to Substation

- Conservation and Weatherization
- Real Time Monitoring, Demand Response, Smart Grid
- Peak and Off-Peak Demand Rates
- Distributed Energy Generation and Storage (e.g. solar)
- Fuel Switching to Biogas, Syngas, or Biomass
- Power Factor Correction

Bainbridge Island Energy Challenge



Bainbridge Island Energy Challenge

1. What 3 things must happen for this community to meet the challenge?
2. Who must be involved – person(s) or group(s)?
3. What would you like this to be called?

Community Energy Task Force

- Determine the goals.
- Identify key community groups and leaders.
- Examine the options for achieving the necessary “negawatts” to meet load reduction targets.
- Evaluate marketing plans
- Provide support to the implementation team.
- Rally support in the community
- Work fast

Next Steps

*When people set a
common goal and work together,
powerful change can happen.*