Section 4. Energy Trust

Mission, goals and performance measures: Energy Trust was organized in 2001-2002 to administer revenues from a "public purpose charge" that investor-owned electric utilities (Portland General Electric and Pacific Power) are required to collect under Oregon's 1999 direct-access law. The public purpose charge is three percent of the utilities' rate revenues. The Oregon Public Utility Commission (OPUC) directs most (73.8%) of these revenues to Energy Trust pursuant to a grant agreement, to invest in new energy efficiency, above-market costs of renewable energy, and market transformation. After 2002, Energy Trust began providing efficiency programs to customers of gas utilities: NW Natural, Cascade Natural Gas and Avista.

Energy Trust issued its first energy efficiency incentive payment in June 2002. At that time, the organization was expected to have a ten-year life. The board established 2012 goals that were meant to stretch the organization's capacities over those 10 years. The most recent version of Energy Trust's vision, mission and goals follow:

Mission statement:

To change how Oregonians produce and use energy by investing in efficient technologies and renewable resources that save dollars and protect the environment.

Vision:

Imagine meeting the future energy needs of Oregonians in a way that lowers energy cost, adds comfort to homes, strengthens our economy and leaves our environment healthier for generations to come. This will happen when we use energy efficiently and create renewable energy. The people at Energy Trust are committed to this future.

Goals (by 2012):

1. *Save 300 average megawatts of electricity.*
2. *Save 21 million annual therms of natural gas*
3. *Help Oregonians meet 10 percent of their electric energy needs from renewable resources.*
4. *Expand participation by customers that have been hard to reach historically.*
5. *Help businesses to thrive by promoting energy efficiency and renewable energy.*
6. *Encourage Oregonians to integrate energy efficiency and renewable energy in daily life.*

(See ***Section 5, Action Plan Appendix 1*** for a fuller statement.

Since 2004, the OPUC has established minimum performance measures for Energy Trust programs. See ***Section 5, Action Plan Appendix 2*** for current performance measures.

Funding: Oregon's 1999 restructuring law allocates the portion of the three-percent public purpose charge that goes to Energy Trust in a complicated way:

- 56.7% is for energy conservation and market transformation, 80% of which must be spent in the service area of the company that collected them; and
- 17.1% is for renewable energy.

In 2007, the legislature authorized the OPUC to allow electric companies to collect more than three percent from ratepayers for energy conservation. These supplemental efficiency funds must be used for energy conservation measures for energy users that use less than one MW. See ***Section 6*** for a five-year projection of savings we expect to achieve with all electric funds, the three-percent charge plus supplemental funds.

Gas funds are used entirely for gas efficiency programs.

Programs: Since 2002, Energy Trust has deployed 10 efficiency and renewable energy programs serving residential, commercial and industrial sectors. By the end of 2007, Energy Trust was on track to achieve its 10-year efficiency goal, having saved 59% of the 300 aMW goal. See Attachment 2, *2008-2009 Action Plan,* Section 1 for a summary of 2007 results. By the end of 2008, renewable energy generation is expected to reach 75% of its 10-year goal. Participation in gas programs is on track to reach gas efficiency goals. In 2008, the nationally-respected Regulatory Assistance Program found Oregon's suite of energy efficiency programs (including Energy Trust and State of Oregon programs) to be among the best in the U.S.

Costs: Energy Trust efficiency programs save money for utilities and energy users. In 2007, the cost of Energy Trust electric savings was $1.03 million per aMW, much less than utilities would have had to pay for generation. Energy Trust pays only an increment of the cost of efficiency measures, but Energy Trust incentives typically enable energy users to recover their entire investment in just a few years.

Energy Trust may pay the above-market increment of renewable project costs, i.e., the difference between the cost of the project's energy and the cost of market power. Energy Trust renewable projects would not be cost-competitive without Energy Trust incentives.

Risk: Energy Trust has been moderately conservative about new technologies, almost always investing only in commercially-available technologies. Energy Trust is not required to avoid technologies with longer-term, more speculative benefits, but OPUC performance measures require Energy Trust to ensure short-term savings, which favors a conservative stance.

Organizational development: Even though the Energy Trust's current 60-person staff is small in comparison to programs in other states, Energy Trust has experienced significant growth since 2002. Budgets have grown from less than $30 million in 2002 to over $100 million in 2008. Management systems – budget, accounting, data and financial management – have grown comparably in scale and complexity. Energy Trust tries to limit the size of its staff by outsourcing management of most of its efficiency programs, and working closely with other clean energy organizations in Oregon and the Northwest (see ***Section 8***). Energy Trust has discussed alternative delivery models, expansion into other service territories (we are now evaluating the possibility of expanding service to NW Natural customers in Washington), and other roles. See ***Section 9, Alternative Energy Trust Roles***.

Legislative developments since 1999: The 2007 Oregon Renewable Energy Act:

- extended the life of the three-percent public purpose fund from 2012 to 2026;
- authorized electric utilities to increase efficiency funding above three percent beginning in 2008;
- adopted renewable energy portfolio requirements for utilities; and
- directed Energy Trust renewable programs to smaller-scale projects, 20 MW or less.

The 2007 legislature also adopted greenhouse gas reduction goals for Oregon:

- begin reducing emissions by 2010;
- reduce emissions to 10% less than 1990 levels by 2020; and
- reduce emissions 75% below 1990 levels by 2050.

See ***Section 7*** for an analysis of Energy Trust effects on CO_2 emissions.

Section 5: 2008-2009 Action Plan (excerpted)

A. INTRODUCTION

Palpable shifts are evident in the environment in which Energy Trust operates. The first is broader acceptance that climate change is real and that, as a result, carbon regulation is expected. Time previously spent debating scientific evidence about climate change is now shifting to how to reduce carbon emissions 80% between now and 2050. A second change is the exponential growth in capital investment aimed at clean technology development. Related venture capital investments have increased 800% in four years time, with solar being a top priority category. Third, renewable energy equipment production is dramatically expanding. Demand for wind turbines is outstripping supply, and costs have increased 30% - 50%. The top five world wind manufacturers, representing 65% of the market, all are working to increase their output by 2010. Global supply of solar photovoltaic (PV) panels is expected to increase four-fold by 2010.

We appear to have reached the proverbial tipping point at which energy efficiency and renewable energy emerge as positive, viable, centerpiece solutions in a world where carbon reduction is a driver. Energy efficiency is seen as the first resource choice—the most available, affordable and carbon-neutral option. Like Oregon, other states with system benefit charges are pursuing more aggressive ways to acquire *all* the cost effective energy efficiency available as soon as possible. As Oregon becomes the 24th state with a renewable portfolio standard, utilities will be acquiring more renewable energy projects for their portfolios at a faster rate than ever before. The work Energy Trust does buys critical time, building a bridge to a bright and innovative energy future that is greener, cleaner and more sustainable.

2007 Energy Trust accomplishments move us further in this direction. Electric savings results are expected to exceed the best case goal of 32 aMW. Electric efficiency spending is projected to be within 85% of the total available budget, with the result that more savings are acquired at lower cost . Natural gas savings in 2007 are expected to be between the conservative 1.8 million annual therm goal and the best case goal of 2.4 million annual therms. Expected year-end renewable energy generation totals 77.3 aMW, a dramatic increase over prior years.

As we look forward, heightened consumer awareness and marketplace interest translates to high growth in volume and demand for Energy Trust programs and services, especially for renewable energy opportunities. For efficiency, this is also evident in the electric utilities' planned filings to secure additional energy efficiency funding above the current 3% public purpose charge collection. When projections for incremental funding are considered, Energy Trust anticipates:

- Over a five-fold increase in the number of projects completed: 21,000+ in 2004 to over 112,000 projected in 2008
- A seven-fold increase in the number of checks issued: 12,000 in 2004 to nearly 90,000 projected in 2008
- A ten-fold increase in the number of participant contacts: 140,000+ in 2004 to 1.5+ million projected in 2008
- Nearly double the number of solar projects in 2007 over 2006, and an expected doubling again in 2008

Because the utility supplemental energy efficiency plans are under development and consideration and not yet approved by the Oregon Public Utility Commission (OPUC), this

budget assumes only base electric efficiency funding levels derived from the current 3% public purpose charge. The draft 2008-2009 action plan and 2008 budget anticipate a minimum range of 21.7-28.9 aMW in electric energy savings and between 1.7 and 2.2 million annual therm savings, representing the conservative to best case scenarios for both fuels. OPUC minimum performance measures for 2008 remain under development. The current performance measure that requires average program levelized cost to be 2.0 cents/kWh is expected to increase to a much higher level, reflecting a desire to acquire more cost effective savings. Levelized costs per annual therm, currently at 40 cents, may also increase to compensate if discount rates are changed. Commitments to new renewable energy generation in 2008 is expected to be between 9.5 and17.3 aMW.

The following sections of the 2008-2009 action plan describe our emphases and strategies (section II), followed by detailed program/department descriptions and corresponding budgets (section III). The draft 2008 budget is consistent with these themes and approaches. Lastly, a summary of 2009 actions is included (section IV).

B. 2008-2009 DRAFT ACTION PLAN HIGHLIGHTS

Growth in demand for Energy Trust services and programs challenge us to acquire more savings and generation and to deliver greater benefits over time. Building upon existing programs, the 2008-2009 action plan is characterized by innovation and diversification. The plan expands into both current and new markets, adds insights through new market research, pursues different technologies, strengthens existing partnerships while seeking collaboration with new partners, and defines different Energy Trust roles. These and other new strategies are intended to build capacity and ultimately achieve more results.

The following specific themes spotlight what to expect in the coming two years:

1. *Renewable energy program transition* - When the Oregon Renewable Energy Act takes effect in January 2008, Energy Trust will transition from programs historically emphasizing utility scale development to projects 20 MW or less. Mature, successful and diverse renewable energy programs form a solid foundation for this transition, for which the challenge is to meet growth in volume and demand across all programs. 2008-2009 emphases include:
    - Fulfill 2007 project commitments and continue to provide diverse project opportunities across renewable technologies
    - Meet residential and commercial solar electric demand, with a special emphasis on large commercial installation opportunities in PGE service territory
    - Pursue several community scale wind projects
    - Focus on biopower/biogas projects for dairies and municipal sewage/water treatment facilities
    - Expand the open solicitation program to incorporate small-scale hydro and small geothermal projects

    In addition, greater emphasis will be placed on non-profit/public sector opportunities using the successful third-party investor model for financing. To meet changing customer expectations, Energy Trust will provide more technical assistance, market validation and neutral reviews of proposed renewable energy projects. Lastly, with an exclusive role to develop smaller projects, Energy Trust anticipates longer lead times and more intensive work with customers to secure projects and bring them on line. Energy Trust will

continue to monitor available funds and, should demand exceed resources, staff will work with interested parties on project timing.

2. *Energy efficiency program emphases* - The 2008-2009 action plan and 2008 budget are designed to capture more savings within existing markets and pursue new initiatives to reach more challenging and historically underserved, niche markets. Consistent with the resource assessment, the commercial sector holds the greatest market potential for accelerating savings and is the first tier for program growth. Overall energy efficiency strategies using base public purpose funding will:
    - Concentrate on sub-markets for both existing and new commercial buildings, including food services, lodging, office buildings, healthcare facilities and informational technology (IT) server farms
    - Emphasize lost opportunities, including new small to medium commercial construction, focused on the design-build market
    - Expanded service to industrial customers, with new staff managing the program in-house, more direct Energy Trust/Program Delivery Contractor communication and a new focus on small industrial manufacturing customers
    - Go deeper into residential markets, continuing high value HVAC measures, ENERGY STAR® Home Performance, further integrating solar through home energy reviews and assessments, and renewed concentration in the multifamily/rental market

    More research is planned to integrate new technologies and measure offerings. Investments and field testing will be pursued for high efficiency water heaters, advanced residential construction techniques and potentially also for select light-emitting diode (LED) applications. In addition, joint marketing of both efficiency and renewable energy opportunities is viewed as a key element of the overall strategy to successfully enter new markets.

3. *Utility Collaboration and Other Partnerships* - With the Renewable Energy Act in place, Energy Trust expects to coordinate even more closely with PGE and Pacific Power on their integrated resource plans (IRPs). This will include regularly engaging utility representatives in the design and review of updated Energy Trust resource assessments. New market opportunities and corresponding measures/technologies will also be identified and pursued. Mutual Energy Trust/utility priorities are expected to be reflected in utility IRPs, with Energy Trust acquisition targets and results included for both efficiency savings and renewable energy generation. In addition, the following important areas will be emphasized as Energy Trust further pursues cooperative relationships:
    - Interconnection - The smooth and successful integration of smaller renewable energy projects into the electric utility grid is of special importance as Energy Trust continues to acquire smaller-scale, distributed generation
    - New financial options - These include further exploration of utility bill and other financing options and potential purchase and ownership of efficiency and/or renewable energy products where this is critical to establishing viable markets
    - Economic development - As interest in sustainable and green development continues, Energy Trust will strengthen its connections with utilities, state, regional and local economic development organizations, private investors and other organizations committed to sustainability

4. *Apply a customer-driven marketing strategy* - In 2008 Energy Trust is accelerating the evolution of its communications and marketing strategy from a generalized market approach (e.g. existing commercial buildings) to a customer-centric approach that also targets more specific customer groups and vendors (e.g., dry cleaners and nurseries). Beyond the promotion of specific individual programs, this approach will provide broader and more comprehensive ways for business and residential customers to address their energy opportunities. More in-depth market research, targeted outreach, web improvements and trade ally support activities are the keystones to this plan. Specific changes will:
    - Add new research focused on market segmentation, an annual attitude and awareness survey and shared market research with utilities and other entities
    - Increase outreach, using more tailored messages for key target groups
    - Promote sector-wide marketing and communications strategies that work across both efficiency and renewable programs
    - Upgrade our website, adding more detailed energy information, interactive features and possibly videos
    - Progressively automate on-line forms and put an easier application process in place, further simplifying participation
    - Centralize trade ally administration and support, adding capacity for more interaction and feedback, trainings, events and recognition

5. *Community energy* - Energy Trust has selected Corvallis as the community to test whether working with local leaders and organizations in a concentrated manner will result in more participation and greater savings and generation at lower cost. Corvallis presented a best-case opportunity to explore the full gamut of community-based strategies. With planning underway in fall 2007, the pilot community energy project will continue for 9-12 months with elements that will:
    - Partner with the local grassroots Sustainability Coalition, comprised of and driven by energetic volunteers from 65 community organizations
    - Work closely with NW Natural, Pacific Power, the mayor and city council members of Corvallis and possibly Consumers Power on planning and delivery

    In addition to the Corvallis focus, Energy Trust will work to engage large employers to reach out to employees with information about Energy Trust opportunities through:
    - Continued work with Nike to communicate Energy Trust Home Energy Savings information on its intranet sustainability site and through employee email "blasts"
    - Future participation of larger employers to deliver targeted messages for both efficiency and renewables

6. *Continue process improvements* - In 2008, Energy Trust will act upon findings and recommendations from the IT Enterprise Architecture Study. Such actions will lead to a new IT strategic plan with elements that:
    - Put a new IT staffing plan in place
    - Re-assess contact management system requirements and software
    - Evaluate current versus alternative accounting and finance packages
    - Develop new system implementation plans

    These improvements are intended to further focus IT efforts on those system

improvements that most benefit both internal and external customers and users. Additionally these improvements will provide Energy Trust the flexibility to more effectively address the complexities the organization encounters.

7. *Incremental energy efficiency funding* - This Approved action plan, Approved budget and corresponding savings assume current funding levels. Both PGE and Pacific Power have submitted energy efficiency plans now under consideration by the OPUC to acquire more cost effective savings with funding above the current 3% public purpose rate. If the OPUC approves such energy efficiency plans, Energy Trust anticipates an implementation role to invest incremental funds. In addition to gleaning more savings from existing programs and approaches, preliminary planning with PGE and Pacific Power has identified the following potential investments:
    - With the coordinated participation of utility representatives, accelerate efforts to target key sub-sectors of the existing buildings market
    - Expand efforts in small to medium new commercial construction
    - Explore possible opportunities for zero net energy residential and commercial building design
    - Expand market penetration to serve more customers across all sectors
    - Add services for near low-income residential customers (60-80% of federal median income levels), expanding multifamily lighting emphasis and investigating the addition of new high efficiency technologies such as ductless mini-split heat pump units for heating
    - Investigate capturing new energy improvement upgrades and financing opportunities at the time when existing residential and commercial buildings are sold or leased

Assuming OPUC approval of expanded utility efficiency plans, program efforts will be further refined and implementation coordinated with both PGE and Pacific Power. Expansion will also require time to ramp up Energy Trust capabilities to achieve agreed upon results. We expect adjustments to this draft action plan and the 2008-2009 budget to be made in spring 2008. These changes, as well as others stemming from the Renewable Energy Act, will lead to preparation of a new Energy Trust strategic plan.

Action Plan Appendix 1: Energy Trust Mission Statement and Goals

Mission statement:

To change how Oregonians produce and use energy by investing in efficient technologies and renewable resources that save dollars and protect the environment.

Strategic Plan Goals:

Goal 1: By 2012, deliver programs to help consumers save 300 average megawatts (2.6 million annual megawatt hours) of electricity and 19 million annual therms of natural gas from long-lasting energy efficiency measures. Targets are for a weighted average measure life of 14 years for electric savings and 20 years for gas savings.

Goal 2: Provide 10% of Oregon's electric energy from renewable resources by 2012, (approximately 450 average megawatts for Pacific Power and PGE if Energy Trust programs are complemented by state, federal and other policies and programs, or 150 average megawatts by Energy Trust effort alone.) [1]

Goal 3: Extend energy efficiency and on-site renewable energy programs and benefits to underserved consumers.

Goal 4: Contribute to the creation of a stable environment in which businesses that promote energy efficiency and renewable energy have the opportunity to succeed and thrive.

Goal 5: Encourage and support Oregonians to integrate energy efficiency and renewable resources into their daily lives.

Action Plan Appendix 2: 2008 OPUC Performance Measures *(provisional)*

Category	Measures	2008 Draft Budget
Energy Efficiency	Obtain at least 20 aMW computed on three year rolling average Levelized cost not to exceed $0.02/KWh	21.7 - 28.9 aMW $0.019 - $.025/kwh
Natural Gas	Obtain at least 700,000 annual therms Levelized cost not to exceed $0.40/therm	1.7-2.2 million annual therms $0.34 - $0.45/therm
Renewable Resources Energy	Secure at least 3 aMW computed on a three year rolling average from small scale projects	9.5 – 17.3 aMW
Financial Integrity	Receive an Unqualified financial opinion from independent auditor on annual financial statements	Accounting conforms with Generally Accepted Accounting Principles (GAAP)
Administrative and Program Support Costs	Keep below 11% of annual revenue	8.1%

[1] Goal 2 was adopted before passage of the Oregon Renewable Energy Act, which takes effect in January 2008. In the course of updating the strategic plan during this same year, Energy Trust will revise this goal to reflect our new and exclusive focus on renewable energy projects of 20MW or less.

Customer Satisfaction	Achieve reasonable rates	Includes customer satisfaction research
Benefit/Cost Ratios	Report both utility system and societal perspective on an annual basis and report significant changes, if any, on quarterly statements	

Section 6: Efficiency savings and renewable generation, 2008-2013

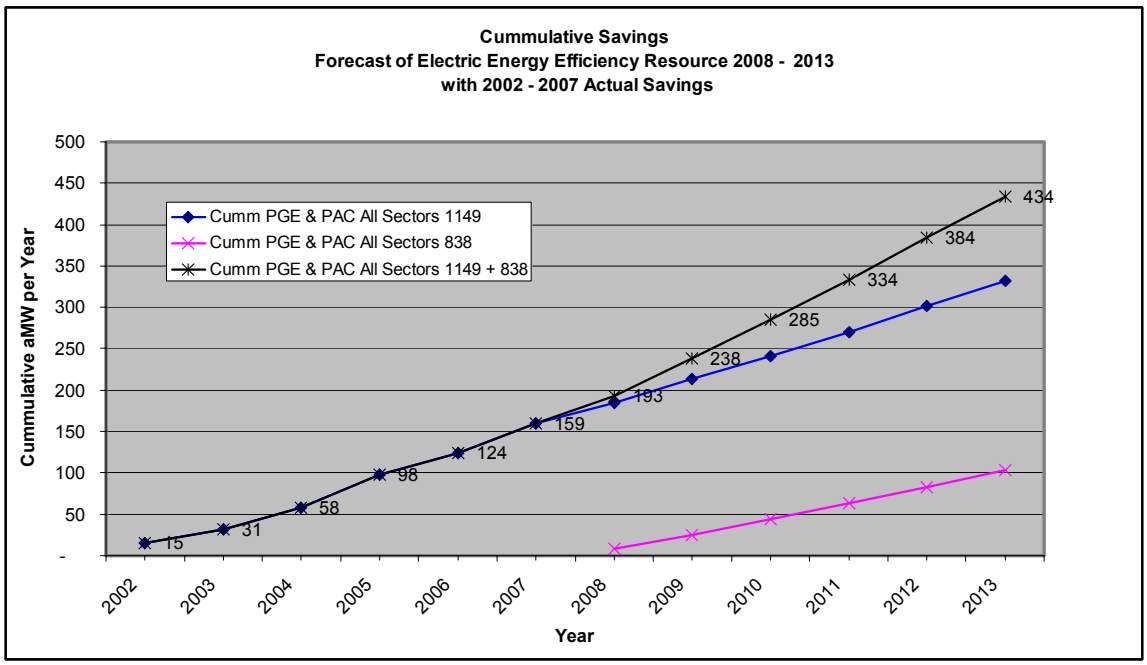
Given current funding and strategies, what can we expect Energy Trust programs to accomplish by 2013?

- Table 1: Electric savings. Top slide shows 434 average megawatts (aMW) cumulative savings 2002-2013. The bottom slide shows savings each year.
- Table 2: Gas savings. Top slide shows just over 25 million therms cumulative savings 2003-2013. The bottom slide shows savings per year
- Table 3: Renewable energy. Top slide shows 102-120 aMW of cumulative renewable energy 2002-2013. The bottom slide shows acquisition per year.

(Electric and gas efficiency estimates are coordinated with utility integrated resource plans)

Table 1: Electric Savings

(2002-2007 historical; 2008-2013 forecast)



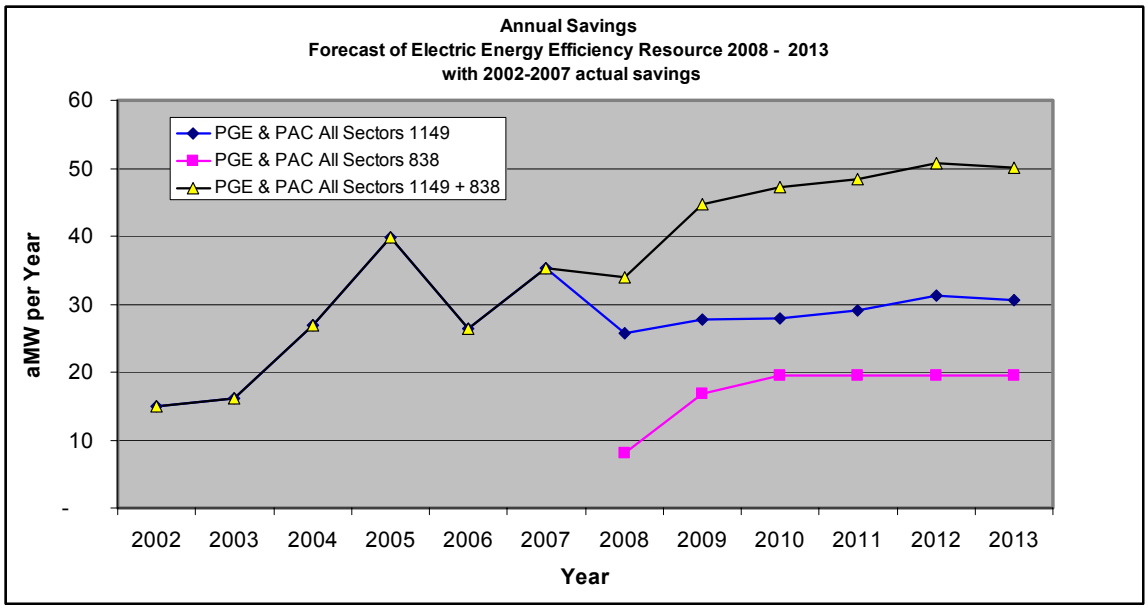
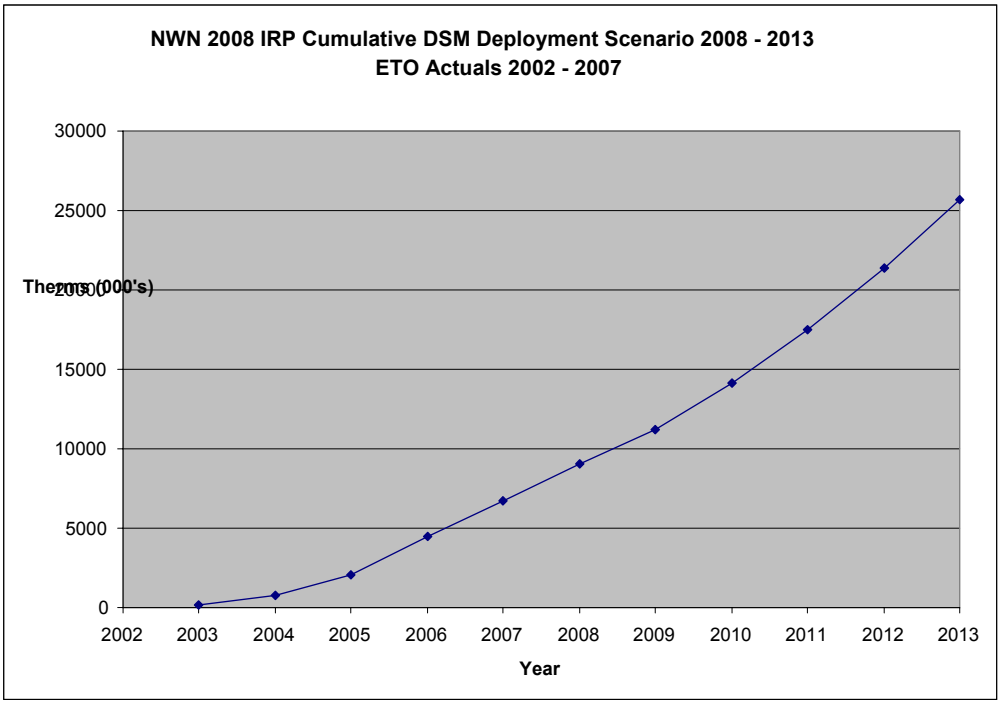


Table 2: Gas Savings

(2002-2007 historical; 2008-2013 forecast)



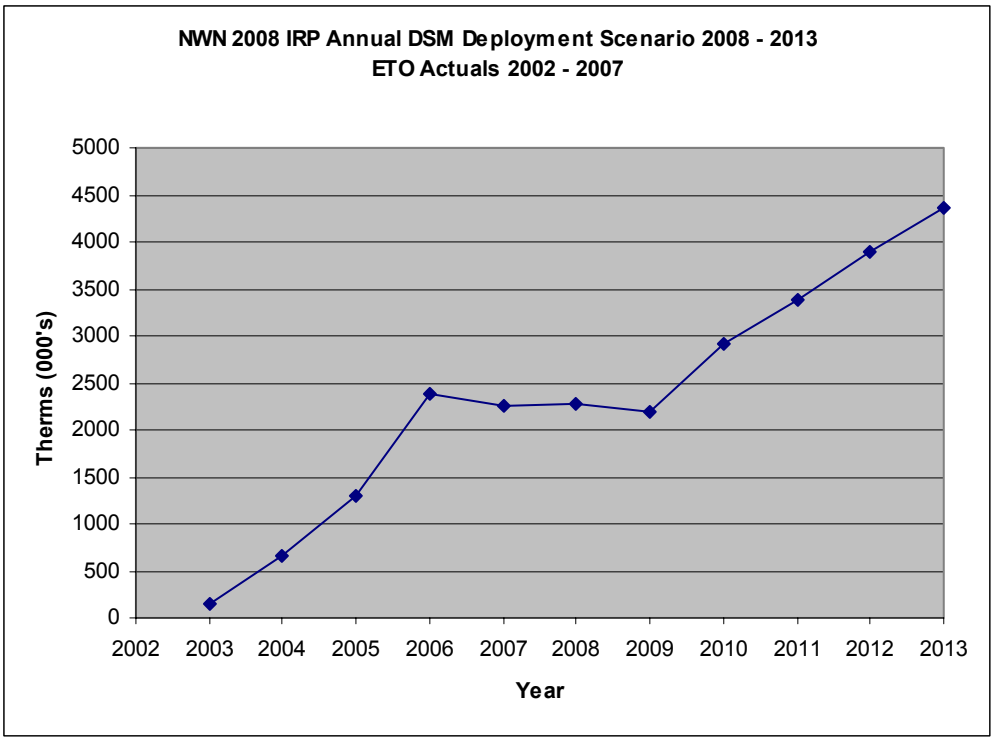
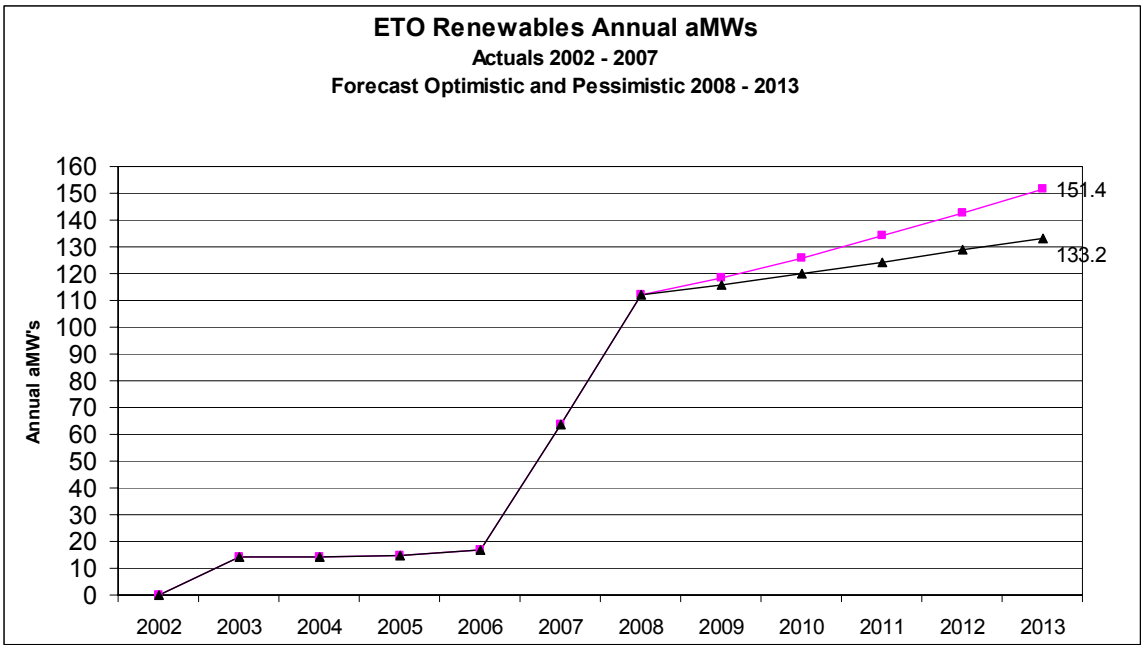
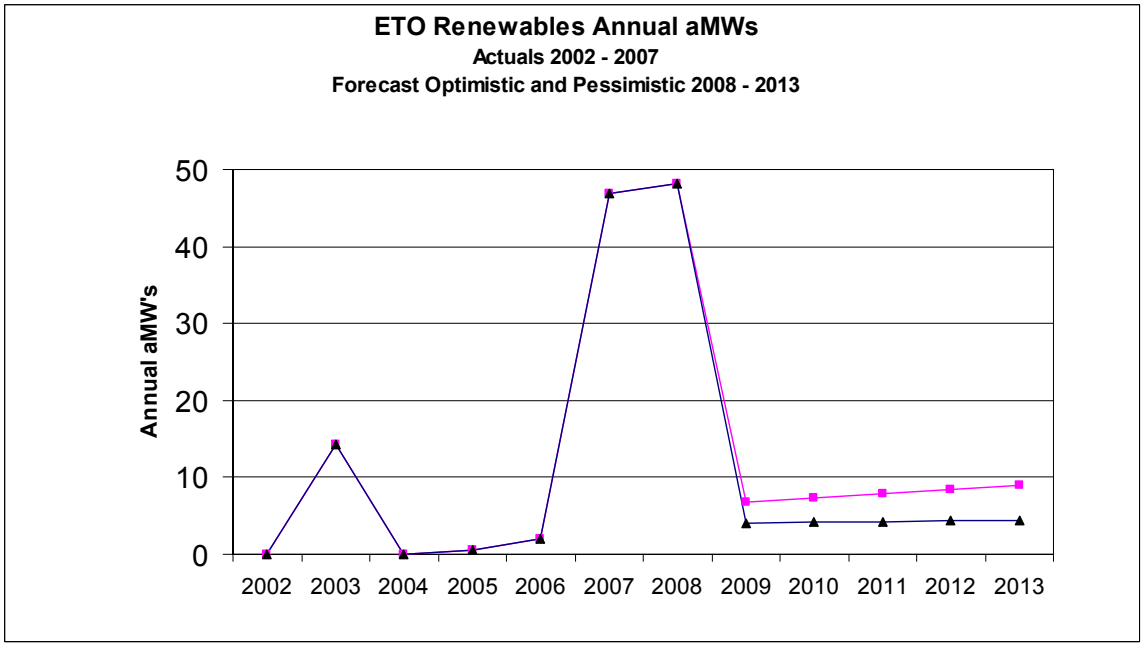

NWN 2008 IRP Annual DSM Deployment Scenario 2008 - 2013
ETO Actuals 2002 - 2007
Therms (000's)
5000
4500
4000
3500
3000
2500
2000
1500
1000
500
0
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012
2013
Year

Table 3: Renewable Energy

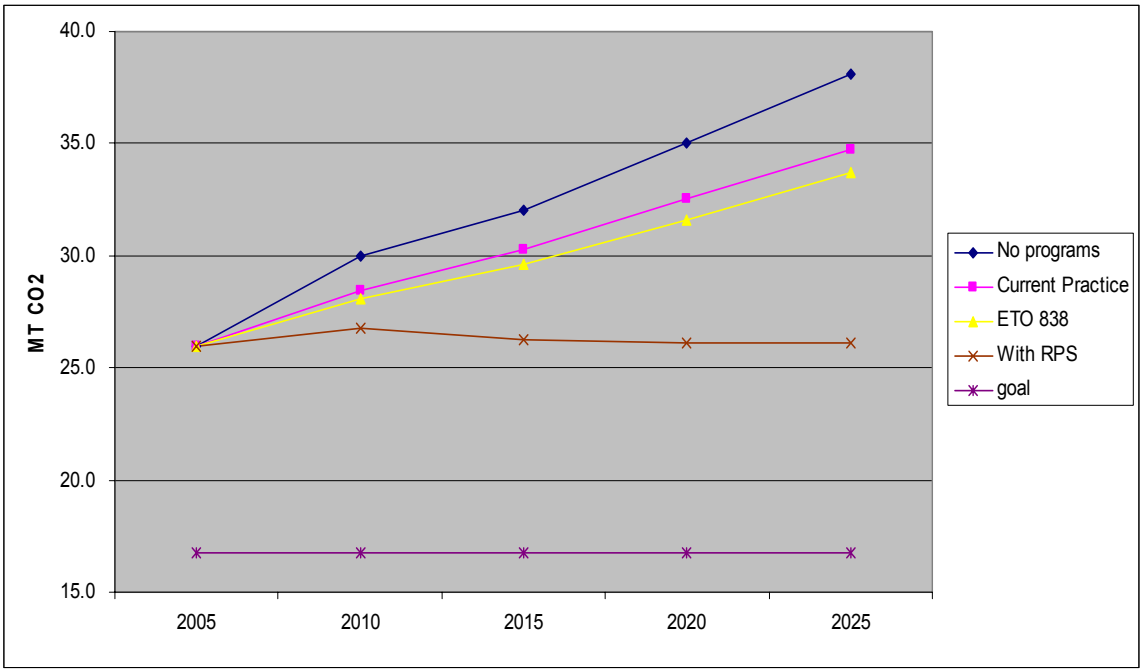




Section 7: Effect of Oregon and Energy Trust clean energy programs on CO_2 emissions from electric generation

This graph shows how Oregon and Energy Trust energy programs help reduce CO_2 emissions (in short tons) from Oregon electricity generation:*

- **The top line** ("no programs") shows where emissions would be without Oregon's current energy programs – codes, tax credits, Energy Trust programs, etc.
- **The next line down** ("current practice") shows emissions given pre-2008 energy programs (Energy Trust programs are 20-25% of the difference between this line and the top line).
- **The next line down** ("ETO 838") shows additional reductions from supplemental funds for Energy Trust programs under the Oregon Renewable Energy Act of 2007.
- **The next line** ("with RPS") shows additional reductions if the renewable portfolio requirements of the Oregon Renewable Energy Act of 2007 are met.
- **The bottom line** ("goal") shows Oregon's 2020 goal: to reduce emissions to 10% below 1990 levels. Deeper reductions are needed by 2050 (75% below 1990 levels).



These lines are additive. Combined, they stabilize the sector's emissions at 2005 levels, but stop short of Oregon's 2020 goal.

* The graph includes emissions from gas combustion for electricity generation but not other gas emissions. We can estimate non-generation gas emissions, but we do not have a corresponding emissions-reduction goal for this slice of emissions.

Section 8: Oregon and Northwest Clean Energy Organizations

An overview of clean energy organizations in Oregon and the Northwest, and how Energy Trust interacts with it.

	Core responsibilities	Current activity
OREGON		
Oregon Public Utility Commission	• Regulates electric and gas investor-owned utility rates • Oversees utility integrated resource planning • Gatekeeper for all Energy Trust funding • Intermediary between Energy Trust and legislature • Oversees Energy Trust performance	• Requires thorough analysis of efficiency, renewables, greenhouse gas costs in utility integrated resource plans • Engaged in implementing utility renewable portfolio requirements, including Energy Trust renewable requirements and supplemental efficiency funding • Coordinating efficiency, renewable and energy/climate initiatives with California and Washington
Investor-owned utilities	• Own resources and distribute energy to end-use customers • Collect funds for Energy Trust programs (SB 1149 for electric, settlement agreements for gas) • Electric utilities authorized to collect higher funding levels for electric efficiency (SB 838) • Electric utilities must supply growing levels of renewable energy • Electric utilities are BPA purchasers • Transmit energy interstate (Pacific and NWN)	• Highest rate of customer participation in green electric power programs in the nation; NW Natural has new green power program • Increasing funding for and collaboration with Energy Trust electric efficiency programs • New renewable portfolio requirements reduce significance of Energy Trust renewable programs to electric utilities • Likely to bear responsibility for (and pass on to ratepayers and shareholders cost of) greenhouse gas emission reductions
Oregon Department of Energy	• State lead in energy policy • Administers energy efficiency and renewable energy tax credit & loan programs • Administers self-direct program • Staffs energy facility siting council	• Engaged in initiatives with California and Washington • Lead agency in implementing utility renewable portfolio requirements • Helps staff Oregon global warming commission, Western Climate Initiative

Energy Trust	• Receives funding via OPUC grant agreement (electric) and multi-party/OPUC settlement agreements (gas)
	• Invests revenues in energy efficiency, renewable energy and market transformation programs
	• Governed by non-profit board, which establishes goals in 5-year
		• 2007 legislature:
		  ○ extended life of the 3% electric charge that supports Energy Trust to 2026
		  ○ authorized utilities to fund energy efficiency above 3%, except for large (> 1 MW) customers, and
		  ○ limited used of renewable

	strategic plan • Accountable for meeting OPUC minimum performance measures • Programs overlap with utility conservation and utility objectives in integrated resource plans • Efficiency programs managed by contractors (except production efficiency); renewable energy and production efficiency programs managed in-house • Services delivered by trade allies and installers	energy fund to projects 20 MW and less • Engaged in strategic planning
Climate Trust	• Brokers CO_2 offsets for new energy facilities required to offset emissions under Oregon law • Brokers greenhouse gas offsets nationally	• Supplied offsets for Port Westward (PGE), Coyote Springs (Avista/PGE), and other combustion-turbine projects • Purchased offsets from Energy Trust's Blue Heron efficiency project).
Higher Education	• UO: Public research university, nationally recognized sustainable energy/architecture/design programs • OSU - Public research university, nationally recognized engineering and sciences programs • OIT – Renewable Energy Center	• UO: Research collaboration with Resource Innovations for Sustainable Environment, Climate Leadership Initiative and Sustainable Business program. PV research through the Solar Energy Center. • OSU- Manages an Industrial Assessment Center – trains students in practical energy savings analysis methods – well known graduates in the region plus renewable research – wave power in particular. • OIT – Conducts applied research on PV, ground source heating, fuel cell, wind, and biomass systems
NORTHWEST		
NW Power Council	• Four-state entity (OR, WA, ID and MT) • Develops 20-year electric power plan for the NW, with which BPA resource acquisitions must be consistent • Plan must give edge to conservation compared to other resources • Influences energy conservation analytical standards and conventions	• Embarked on new power plan with greater focus on efficiency resource assessment portion – going deeper and more specific than in past
BPA	• Markets power from federal projects in NW, with preference to public utilities • Helps integrate NW operations with Canadian hydro projects, CA	• Under increasing pressure to deliver conservation in public utility territory

	and Southwest energy markets • Finances, builds, operates NW transmission system • Acquires conservation and other resources consistent with Power Council plan • Residential exchange program with investor-owned utilities affects rates and Energy Trust revenue	
NW Energy Efficiency Alliance	• Designs and runs market transformation programs, building supply and demand for energy efficient technologies and systems through education and demonstration • Overseen by board of utility, BPA and Energy Trust representatives	• Engaged in strategic planning process, reconsidering traditional roles and debating potential roles in gas, renewables and other areas
INTEREST GROUPS		
NGOs	• Citizens' Utility Board, Renewable Northwest Project, NW Energy Efficiency Coalition, Industrial Customers of NW Utilities, others	• Actively lobby to further energy-related missions

Section 9: Alternative Energy Trust Roles

This section:

- Assumes Energy Trust continues to fulfill our current purpose and obligations
- Explores whether there are other complementary or supplementary roles for Energy Trust to play?
- Identifies possible future roles to consider as a starting point for more discussion:

1. **Geographic extension: How widely should Energy Trust offer services?**
    - We are currently considering expansion opportunities ad hoc, e.g., gas efficiency programs in Clark County, Washington; electric efficiency programs for BPA in niche markets.
    - Should Energy Trust actively pursue expansion opportunities systematically? In Oregon? In Washington? Regionally? Nationally?
    - Should Energy Trust spread its service model by setting up a consulting arm to help other areas establish Energy Trust-like organizations? And/or consult in program design and administrative models in other states?
    - Are there new/different regional coordination activities to pursue through the Northwest Energy Efficiency Alliance, such as natural gas? Renewables? Other?
    - What about broader, more intentional coordinated regional efforts with other states? Leveraging our programs with other providers, such as Puget Sound utilities? Joint efforts through California/Washington/Oregon Regulatory Commissions?
    - Should Energy Trust seek new partnerships with venture capital firms, banks, other financial investors and economic development organizations and representatives?

2. **Greenhouse gas reduction:**
    - How closely should Energy Trust tie its goals to greenhouse gas reduction? For example, should our performance metrics and monitoring and evaluation efforts be more explicitly geared to reducing greenhouse gas emissions?
    - Greenhouse gas reduction will require technological innovation in energy efficiency and renewable energy. Should Energy Trust develop an initiative – or participate in cooperative initiatives – to push development of innovative systems and technologies, thereby ensuring a long-term pipeline of clean energy solutions?

3. **Risk and entrepreneurialism: How much risk should Energy Trust take?**
    - Oregon, California and Washington are working on a concept to target widespread development of zero-net-energy buildings and homes by 2030 (zero-net-energy structures are highly energy efficient and use or generate renewable energy). Actual programs will require significant funding and, if successful, begin to produce significant results in about 10 years. Is Energy Trust able to take such risks?
    - Should Energy Trust be more engaged in developing and promoting product availability at lower cost for market transformation by pursuing:
        - Testing/piloting of new technologies?
        - More lower cost, higher efficiency natural gas technologies?
        - Lower cost solar PV and wind?

4. **Possible general roles:**
   a. **A one-stop shop for resource efficiency:**
      - Expand efficiency programs to all energy fuels, i.e., oil and propane?
      - Provide efficiency services to water districts? Energy Trust programs already save water in concert with electric or gas savings. Should we develop this into a business line?
      - Further integration of Energy Trust renewable energy and energy efficiency activities with other resource considerations, such as transportation, land use, water use, and other resource management efforts?
   b. **Play a broader role in energy policy:**
      - To this point, Energy Trust has provided information to energy policy processes. Should we become more actively involved in advocating policy initiatives which help to accomplish our goals, such as:
        - Higher appliance efficiency standards?
        - Zero net energy commercial and/or residential buildings?
        - Renewable energy development?
        - Research and development?
        - Codes and standards?
   c. **Establish training programs to spread expertise in energy efficiency and renewable energy in the field:**
      - Energy Trust currently helps train electricians, installers, and other technicians in efficiency and renewable skills. Should we expand this service into more comprehensive training programs?
      - Fund trained workforce development activities?

5. **Renewable Energy roles [Note: These ideas are more about how we can effectively carry out the mission the legislature has stated for us. We will likely bring such concepts back for additional discussion over the course of the coming year]:**
   - Should we take more risk to make current < 20 MW programs effective, for example by:
     - Easing security requirements?
     - Taking an equity position in projects?
     - Buying and re-selling turbines
     - Providing preconstruction financing, loans and/or guarantees?
   - Should we invest more aggressively in passive solar heating and cooling, solar hot-water, and other so-called "end-use/direct-use" renewables, such as:
     - Accepting and managing for limited renewable funding by maintaining current programs, stopping and starting them as funds are exhausted regardless of market demand?
     - Focusing on fewer technologies and/or markets?
     - Staging development of different technologies over 20 years?
     - Securing more funding – a necessity if Energy Trust were to engage in something like a zero-net-energy building initiative (#2, above), for example.
     - Facilitating outside capital for projects, such as bill financing for solar, better terms from lenders, etc.?
     - Securing financing options, such as utility bill payments or more third party investment?