Energy Trust of Oregon, Inc.

Board Meeting Minutes – 82nd Meeting

May 14, 2008

Board members present: Jason Eisdorfer (left 1:30 pm), Dan Enloe, Roger Hamilton, Julie Hammond, Al Jubitz, Debbie Kitchin (arrived 1:40 pm), John Klosterman, Vickie Liskey, Caddy McKeown, Alan Meyer (left 1:30 pm), John Reynolds, John Savage, *ex officio* (left at 2:00 pm) and Betty Merrill, *ex officio*

Board members absent: Rick Applegate and Preston Michie

Staff attending: Kacia Brockman, Pete Catching, Alan Cowan, Phil Degens, Elizabeth Giles, Fred Gordon, Margie Harris, Nancy Klass, Steve Lacey, Debbie Goldberg Menashe, Jan Schaeffer, John Volkman and Peter West

Others attending: Jeremy Anderson, WISE; Bill Edmonds, NW Natural; Dick Harmon, IAF; Joe Hertzberg, Decisions Decisions; and Lori Koho, OPUC

Business Meeting

President John Reynolds called the meeting to order at 12:12 pm. He noted the policy committee agenda item will be moved up, as Jason needs to leave the meeting early.

April 9, 2008, meeting minutes.

MOTION: Approve minutes from the April 9, 2008, meeting.

Moved by: Caddy McKeown		Seconded by: Jason Eisdorfer
Vote:	In favor: 9	Abstained: 1 (John Klosterman abstained because he was not at the April board meeting)
	Opposed: 0	

Adopted on May 14, 2008, by Energy Trust Board of Directors.

General Public Comments

There were none.

President's Report

Resolution #477 board committee appointments. John Reynolds asked why the resolution notes the executive director and general counsel are authorized to sign routine 401k administrative documents on behalf of the board. John Volkman explained that there are a number of routine transactions associated with the plan that require signatures, e.g., every time an employee leaves Energy Trust their account needs to be transferred to a successor plan or IRA. Having Margie or John sign such papers avoids the need to send papers to the board secretary for signature and getting them back.

John noted he would appreciate having more board members attend the Conservation Advisory Council (CAC) and Renewable Energy Advisory Council (RAC) meetings. He noted that Debbie Kitchin and Alan Meyer regularly attend the RAC and CAC meetings.

RESOLUTION #477
BOARD COMMITTEE APPOINTMENTS

WHEREAS:

1. **The Energy Trust of Oregon, Inc. Board of Directors is authorized to appoint by resolution committees to carry out the Board's business.**
2. **The Board President has nominated several new directors to serve on the following committees.**

It is therefore RESOLVED:

1. **That the Board of Directors hereby appoints the following directors to the following committees for terms that will continue until a subsequent resolution changing committee appointments is adopted:**

Audit Committee	
	Julie Hammond, Chair
	Alexis Dow, Metro
	Vickie Liskey
	Caddy McKeown
	Preston Michie
	John Reynolds (ex officio)
Board Nominating Committee	
	Rick Applegate, Chair
	Julie Hammond
	Alan Meyer
	Preston Michie
	John Reynolds (ex officio)
Compensation Committee *(formerly 401(k) Committee)*	
	John Klosterman, Chair
	Al Jubitz
	Vickie Liskey
	Preston Michie
	John Reynolds (ex officio)

Executive Director Review Committee	
	Caddy McKeown, Chair
	Julie Hammond
	John Reynolds (ex officio)
Finance Committee	
	John Klosterman, Chair
	Debbie Kitchin
	Dan Enloe
	John Reynolds (ex officio)
Policy Committee	
	Jason Eisdorfer, Chair
	Rick Applegate
	Roger Hamilton
	Caddy McKeown
	John Reynolds (ex officio)
Program Evaluation Committee	
	Debbie Kitchin, Chair
	Dan Enloe
	Alan Meyer
	John Reynolds (ex officio)
Strategic Planning Committee *(formerly Innovation Task Force)*	
	Rick Applegate, Chair
	Jason Eisdorfer
	Al Jubitz
	Lori Koho, OPUC
	Betty Merrill, ODOE
	John Reynolds (ex officio)

2. The executive director and general counsel are authorized to sign routine 401(k) administrative documents on behalf of the board, or other documents if authorized by the Compensation Committee.

Moved by: Vickie Liskey Seconded by: Caddy McKeown

Vote: In favor: 10 Abstained: 0

Opposed: 0

Adopted on May 14, 2008, by Energy Trust Board of Directors.

Energy Efficiency Program

Resolution #478 amending the New Homes and Products contract. Jason Eisdorfer introduced the topic. Margie noted the funds are available from projected carryover funds, totaling $6.1 million (including reserves) at the end of 2008. Kendall Youngblood, Residential Sector Manager, noted we are looking to add 2.1 aMW in electric energy savings, for an additional expenditure of $1.6 million, to the New Homes and Products program. Of this amount, $806,000 would be for specialty compact fluorescent lighting promotions and $826,000 would be for an expanded refrigerator replacement initiative in Pacific Power territory. The resolution would authorize the executive director to amend the program management contract for the New Homes and Products program without revising the entire Energy Trust budget. If the program expends all the dollars as projected, the board would see an 11% variance over the current approved program budgets. The variance would be indicated on the quarterly reports to the board and OPUC.

Alan Meyer asked why we are seeking additional support for CFLs if the market has been nearly transformed. Kendall explained these CFLs are specialty bulbs such as those used in recessed overhead fixtures and bathroom vanities. This proposed program incentive does not include the typical twister bulb.

RESOLUTION #478

AUTHORIZING ADDITIONAL EXPENDITURES FOR THE HOME ENERGY SOLUTIONS NEW HOMES AND PRODUCTS PROGRAM

WHEREAS:

1. **In December 2007, the board approved a $11,832,525 2008 budget for the Home Energy Solutions New Homes and Products Program. Under board policy, expenditures may not exceed board-authorized program budgets.**
2. **In April 2008, the board revised the 2008 budget to reflect 2007 carryover and supplemental energy efficiency funding, which includes funds that are not allocated to specific programs, and available to be targeted where they can be most effective.**
3. **Staff has identified two areas where cost-effective energy savings are available and expenditures would exceed board-authorized budgets: (a) $805,626 for additional compact florescent specialty lighting promotions saving approximately 1.5 aMW at $.010/kWh, levelized (~13.5 million kWh); and (b) $825,880 for an expanded refrigerator replacement initiative in PacifiCorp territory, saving 0.6 aMW at $.026/kWh, levelized (~5.4 million kWh).**

It is therefore RESOLVED that the board of directors of Energy Trust of Oregon, Inc.:

1. **Authorizes an exception from the board policy limiting expenditures to board-authorized program budgets, for the limited purpose of allowing the executive director to amend the Home Energy Solutions New Homes and Products program management contract to increase funding by $1,631,506 and savings goals by 2.1 aMW.**
2. **Directs staff to report budget and savings variances for this program to the board as part of the quarterly report.**

Moved by: Jason Eisdorfer Seconded by: Roger Hamilton

Vote: In favor: 10 Abstained: 0

Opposed: 0

Adopted on May 14, 2008, by Energy Trust Board of Directors.

Policy Committee report (moved forward on the agenda). Jason noted the committee met April 15. He explained the first item, risk vs reliability policy, will be discussed later during this meeting. He noted the staff is exploring additional office space, in the event additional space is needed in future years. John Reynolds asked for comment on whether we should pay a premium for new space in which we more closely can "walk our talk." Margie noted we are in conversations about a couple of "living building" projects, in which buildings would produce as much or more energy than they use. Julie Hammond noted that we need to balance between demonstrating our values and being fiscally prudent. Dan Enloe noted the possibility that Energy Trust should consider a building like that if our presence were needed to "tip" occupancy. He noted a recent story in The Oregonian about Intel increasing density in office occupancy through measures like telecommuting. He offered to provide more information about this; Margie welcomed it. Alan Meyer asked what our current per-square-foot rate is; Margie said $19, escalating to approximately $21 by the end of our lease in 2011. Current space in the building is renting at $25 per square foot. This is compared to projected downtown new LEED certified building costs of $35+ per square foot. Al Jubitz noted some of the projects recycle old buildings. In the interim, staff is negotiating additional storage and conference room space on the 10th floor of the current building.

John Reynolds noted the policy committee's consideration of the risk vs. reliability policy. Roger asked whether factoring in concern about global warming might change the weights to risk vs. reliability. Fred Gordon noted we expect to deal with this question in more depth at the board strategic planning retreat. Dan Enloe said our duty is to the Oregonian ratepayer. When we have the opportunity to take risks, we become a leader for the benefit of Oregonians.

Renewable Energy Program

Managing risk in renewable energy projects: Peter West noted at the February board meeting, a robust discussion of Energy Trust's approach to contracting for renewable energy projects led to a request from the board for a review of Energy Trust's approach to managing risk in renewable energy projects. He noted the analytic approach staff takes to analyzing projects has been peer-reviewed on an ongoing basis. He said we use third-party, national experts to support our analyses. We focus our support for projects at the very beginning and, again, at the very end.

The discussion at the February board meeting focused on contracting, which happens at the end. He noted that, more and more over time, our job is to help drive project costs down to the point where they have no above-market costs, and then we turn to new, riskier technologies. He also noted that all projects entail risk and, it is a myth that every project "hits a home run."

Peter identified five types of risks Energy Trust looks at:

1. Development risk. We look at this up front and are conservative in our assessments.
2. Opportunity risk. We take some unavoidable risk because by investing in one project there are others we might forego.

3. Equipment, permitting and construction. Although we may want to reexamine this at the strategic plan workshop, we do not currently take these risks. Investments in this area can be large, and we are unable to hold an equipment inventory.
4. Project costs. We do not accept the risk of cost overruns.
5. Performance. We fund only after projects are inspected and commissioned, so we avoid the risk that a project would not result in generation. If a project comes in at a smaller generation rating than anticipated, we fund a smaller portion of the project. If it fails over time, we require a pro-rata payback of incentives.

Peter then went into more detail on areas where Energy Trust assumes risks. Early on we didn't take much development risk. Starting in 2006, we realized if we didn't start stepping in to support feasibility studies and resource assessments, we weren't going to see more projects. These are good spots for leverage: we can split the cost and risk, up to 50-50. This helps develop partnerships. We do not fund development expenses beyond the resource assessment and feasibility study. This is similar to the approach of the Production Efficiency program, except that the Production Efficiency program pays 100% of the cost of studies, and the average cost of renewable energy studies is higher.

Development risk was then discussed in more detail. For small projects, the risk of failure after commissioning is fairly low. Because our share of total project cost is 5-20% (larger projects, not PV), our partners in the projects carry most of the risk. The projects get the major part of their revenues from power sales, which provide an incentive to perform. We look at what our partners are requiring to assure performance. Utilities have standard power-sales contracts that can allow them to step into a project if its sponsors fail to deliver. Peter noted that, unlike our efficiency projects, we include pay-back provisions in renewable project agreements. Like energy efficiency, we reduce payment if a project is built to less-than-expected capacity or design. He noted we do not ask for interest payments on repayments, for several reasons: We already extract something out of these projects, namely the green tags (he noted we now are able to leave some green tags on the table, providing another incentive). In addition, if we paid over time, we would pay more in cash than if we were to pay up front. And finally, we are not a commercial lender; we have to balance fiscal responsibility with serving the public purpose in developing renewable energy. We push the market as far as we can with regard to the risks we think we cannot carry.

Alan Meyer said Peter's paper and presentation went well beyond the scope of his questions. He initially thought the actions at the February board meeting were not in keeping with the spirit of the last point Peter made about paying less up front. Peter said he wrote the action items in February poorly. In the case of Swalley irrigation district considered at that meeting, we had made an error in calculation that we needed to correct. That was not in the write-up, erroneously. In the case of the Central Oregon Irrigation District also considered at that meeting, we offered $1 million up front. If we had paid over time, it would have been $1 million plus the value of money over time; this was not clear in the write-up. Alan acknowledged he understood this.

Roger Hamilton asked what our green tag policy is. Peter explained we claim green tags in proportion to the share of above market costs represented by our funds and the market value of the tags.

Betty asked what Energy Trust does with its green tags. Peter said we retire them to the utility to use to address the renewable portfolio standard (RPS).

John Reynolds asked to what extent we are willing to share the risk of a costly up-front activity such as drilling for geothermal resource. Peter said we have to consider the total amount of money we have, and ask what a dry hole would do to our generation goals.

Jason said that although SB 1149 doesn't require retiring green tags with utilities, selling the green tags removes the "renewable" quality from an investment. So, in effect, we are required to retire the tags. He referred to a discussion documented in the Renewable Energy Advisory Council notes concerning how to count tags toward RPS requirements.

John Reynolds asked about a briefing paper in the packet on using Pacific Power funds for large scale solar. Peter said he had been approached by developers seeking funds to support large ground-mounted (2-3 mw) solar electric installations with Pacific Power. Peter explained we felt it wasn't fair to support 1-2 projects without a request-for-proposal (RFP) process. There isn't enough time to have a fair process, given that we're told projects must be underway by June to be completed by the end of the year in order to get the federal production tax credit. Rather than rush with a limited RFP that could only benefit a few, staff thought it best to wait. It would be better to use any additional funds to satisfy the excess demand in the standard program before adding new elements. He also noted we have budget for only 1-2 large projects; he doesn't foresee being able to transform a market with only 1-2 projects.

Jason Eisdorfer and Alan Meyer left the meeting at 1:30 pm.

Committee Reports

Audit Committee. Julie Hammond said the audit committee met with two auditors today; they will select one to work with us on proper internal controls. The committee is beginning to think about the next management audit. Dan Enloe asked what the level of e-business transactions at Energy Trust is. Julie and Margie noted we have taken a conservative approach to carefully manage public purpose funds.

John Reynolds asked when the next management audit is due. Julie thinks January 2010. She doesn't think it will be as in-depth a study this time.

Debbie Kitchin arrived at 1:40 pm.

Finance Committee. John Klosterman noted the compensation committee has held two meetings to more closely review total staff compensation and benefits. He noted also our 401(k) advisor is selling that portion of his business and we are working with him to find another advisor. He drew attention to finance committee notes. He noted the overall position of our investments is solid.

Julie asked about an RFP to hire a mapping review of our internal data systems. Margie explained this is getting at details from the Moss Adams study.

Policy Committee. This was covered earlier in the meeting.

Program Evaluation Committee. Debbie Kitchin noted the evaluation committee met Friday to review the findings of the draft Home Energy Solutions impact assessment and the Home Energy Monitor pilot. Phil Degens reported on a pilot study in which we are installing about 200 Home Energy Monitors and put 30 up for sale (we sold out in two hours). A requirement of participation is completion of surveys by all those with installed monitors. To date, we've completed almost 80 on-line surveys. We are following up with the rest to get more surveys. In about six months and, again after a year, we will look at bills to see the impact of the monitor on energy use.

John Savage asked if we are providing information about how the average usage of those with monitors compares with the average usage of their neighbors around them. Phil said we are not doing this with this pilot. He notes there are utilities around the country doing this. John joked that it would be interesting to offer an "evil pilot" in which comparative information, even if it were not true, would show a resident using more than their neighbors and seeing if their energy usage decreases below that of their neighbors.

Dan Enloe suggested running a contest among people with the meters and rewarding those who save the most. Phil noted this pilot is simply studying how people use the meters.

Break

The board took a break from 1:50 – 2:05.

John Savage left the meeting during the break.

Strategic Planning Committee. Margie reviewed logistics for the retreat Friday-Saturday, June 13-14. She introduced Joe Hertzberg, facilitator for the meeting. She directed attention to tab 7, a briefing paper on the 2008-2009 strategic planning process. She said unlike some recent sessions, this time staff will not direct the board's discussion on specific issues. Instead, the agenda will encourage us to "take the lid off," asking the board to brainstorm about the organization's future vision, mission and goals, given the doubling of our resources, the maturity of our operations and the effective extension of our end-date through 2025. There will be two speakers at the retreat: one from McKinsey & Company, Chris Stori, who will address two recent studies on energy efficiency productivity and global warming reductions; the second speaker is the local author of The Clean Tech Revolution: The Next Big Growth and Investment Opportunity, Ron Pernick. Joe Hertzberg said this meeting will be fun, and will be a nice balance between open-ended thinking and practicalities. We hope to end up with a sense of what to do and what not to do, and, for areas of potential activity about which we are unsure, a sense of the issues to resolve and how to resolve them.

In anticipation of the upcoming retreat, the board and meeting attendees watched a video of the following:

- *Overview of conservation in the Pacific Northwest, Tom Eckman, Northwest Power & Conservation Council.* Nancy Klass ran a slide show with taped talk that Tom Eckman recently gave to staff. Some of Tom's key points included:

  - Since 1978, we have obtained almost 2,000 aMW of savings from the Alliance and utility/Energy Trust programs, approximately 800 aMW from building codes since 1983, and approximately 700 aMW from appliance efficiency, for a total of 3,300 aMW.

  - Since 1980, half of the region's load growth has been met through energy efficiency.

  - This is enough juice to serve the entire state of Idaho and all of western Montana.

  - It saved the region's consumers nearly $1.3 billion in 2005, net the cost of rates.

  - It lowered 2005 PNW carbon emissions by 13.5 million non-metric tons.

  - The levelized cost of efficiency runs between 1-2 cents/kwh, compared to the wholesale cost of power, which is about $50/kwh/month, or 10 cents/kWh not including wires and transmission.

- Efficiency acquisition is the cheapest and least risky way to go.

- The 5th Power Plan relies on conservation and renewable resources to meet nearly all load growth.

- Residential lighting represents 20-25% of the efficiency resource.

- A survey of 96% of the region's loads in 2005-7 shows we are meeting efficiency targets, and in 2007 we set an all-time record.

- For the future, utilities are ramping up: Puget Sound Energy increased its conservation goal 40% in 2008 compared to 2007; Avista is increasing its 2008 efficiency goal by 20%; and more. Everybody's up about 1/5th higher in '08 compared to '07.

- Other energy efficiency drivers include climate change awareness and state mandates, the Western Climate Initiative (WCI), challenges to new thermal power plants, emerging technologies (such as electric autos) could dramatically increase usage of electricity.

- Other factors include high natural gas prices and are forecast to remain so, the cost of new resources are substantially higher, renewable portfolio standards (RPS) and other legislation, all of which limit resource choices.

- The Northwest carbon emissions for electricity production has a historical average of one-half pound per kwh, given hydro. Using combined-cycle or conventional coal plants to generate electricity will at least double the carbon output. The national average is one pound of carbon for every kWh of electric generation, and we can expect to move toward that average in this region

- From 1990 to 2005, we added about 23 coal plants worth of emissions. If 2005 had been an average water year, it would have been 15 coal plants worth of added emissions.

- 85% of our carbon emissions come from existing coal plants.

- If the Northwest meets all load growth with conservation or renewables, it still won't meet the WCI goals or come anywhere close to reducing carbon to 1990 levels.

- The amount of carbon we produce varies with time of day, day of week and season of year. If we save energy during the day, to reduce peak demand, we displace gas generation. If we save energy at night, we displace coal. So, if carbon reduction is the goal, we may invest in different efficiency and renewable measures than if we are just aiming at saving megawatts.

- Adopting a carbon tax will raise the cost of coal compared to gas, which will mean we turn off coal plants at the margin.

- By increasing the cost of carbon-producing resources, carbon control might make 4-20% more conservation "cost effective." However, we haven't studied this effect. The CO_2 cost must be high enough ($50/ton in 2012, or $43/ton in 2006) to have any effect. Even with the projected $50 ton/cost by 2012, we may not get CO_2 emissions down to 1990 levels.

- Achieving CO_2 goals will require us to decommission coal plants and replace them with energy efficiency and renewable power.

Margie summarized Tom's points:

- Energy efficiency will continue to be the most cost effective resource.
- Current efficiency measures will continue to generate savings for several years, but energy efficiency needs to evolve to supply significant savings after 2025.
- All resources will be more costly in the future.
- All non-carbon resources will be more valuable.

John Reynolds asked if we know how close we came to meeting conservation targets in earlier power plans. Debbie noted the plans all assume existing technologies, not new ones.

Dan Enloe noted Tom's analysis is of regional energy sources. Worldwide there are less expensive resources, and not all countries will participate in carbon regulation. Roger Hamilton noted the interaction between the transportation sector and the energy sector.

Staff Report

Highlights of staff report. Margie reported::

- Working with NW Natural and Cascade Natural Gas on their integrated resource plans
- Automating our first program forms on-line
- Well underway with activities in the Corvallis Energy Challenge
- Partnering with the Association of Clean Water Agencies and the Green Motors Practices Group, doing outreach to PGE-area cities and water districts on small hydro projects
- The expiring federal production tax credit is pushing solar forward
- The absence of turbines has slowed the small wind program
- The third annual NW Solar Expo attracted more than 4,000 people
- We presented the Energy Trust Green Future Award to the City of Portland's Office of Sustainable Development in recognition of its success increasing the number of solar installations
- The number of web visits is approaching 10,000/month, a record
- Thad Roth has been hired as biomass program manager; he was with Columbia River PUD
- Ben Huntington has been hired as planner/analyst in the Planning & Evaluation team

Feature presentation. *New Buildings Program, Spencer Moersfelder, Business Sector Manager.* Spencer manages the New Buildings program, with SAIC as the program contractor. The market includes commercial new construction, multifamily buildings more than 3 stories high, mixed-use buildings, major renovations and new industrial buildings. In 2007 the program won an American Council for an Energy Efficient Economy (ACEEE) exemplary program award. The program has four tracks:

- Standard track – prescriptive incentives up to $100,000
- Custom track – custom incentives up to $300,000
- LEED Track – up to $300,000

- ENERGY STAR track – $30,000 incentives for ENERGY STAR certification
- Maximum regular incentive – $460,000

Baseline = existing codes.

Electric results = savings, costs, measure lives all increasing while levelized cost is decreasing.
Gas results = savings increasing, then decreasing; costs and measure lives increasing; levelized cost decreases and then increases.

Large projects are especially important to the success of the program. Marketing has focused on outreach to architects and engineers. In addition, we are trying a more traditional trade ally approach to meet the design-build market.

Julie Hammond asked how we market to architects and engineers. Spencer said we do a lot of "lunch and learn" sessions. Circuit riders travel the state and regularly meet with these program actors to keep them up to date on program activities and provide project assistance.

Spencer showed pie charts demonstrating the custom track achieves the highest savings per number of projects.

Steve Lacey said we expect to bring the OSU LEED energy center plus co-gen project to the board this summer. This will be a megaproject, because it will seek incentives above the program cap.

Caddy McKeown said she has gotten calls from two different community colleges about how to work with Energy Trust. Spencer said he is the go-to guy. She noted we might want to reach out to community colleges.

Betty Merrill said she works with the program nearly every day. She thinks it's an excellent program, very well run, and thanked Spencer.

Margie noted, for the benefit of new board members, this presentation is one in a series of presentations by staff members on particular areas of Energy Trust activity.

Caddy welcomed the new board members.

Adjourn

The meeting adjourned at 3:50 pm.

Next meeting. The next regular meeting of the Energy Trust Board of Directors and annual strategic planning workshop will be held at Reed College, 3203 SE Woodstock Boulevard, Vollum Lounge, Portland, Oregon as follows:

Board meeting, June 13, 2008, 12:00 noon – 12:30 pm
Annual strategic planning workshop, Friday, June 13, 8:30 am to 5:00 pm and
Saturday, June 14, 8:30 am to approximately 2:30 pm

Both the board meeting and strategic planning workshop are open to the public.

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Debbie Kitchin, Secretary