Energy Trust of Oregon

Board Meeting Minutes—142nd Meeting

April 6, 2016

Board members present: Susan Brodahl, Ken Canon, Melisa Cribbins, Heather Beusse Eberhardt, Dan Enloe, Roger Hamilton, Lindsey Hardy, Mark Kendall, Debbie Kitchin, Alan Meyer, John Reynolds, Anne Root, Eddie Sherman, Stephen Bloom (OPUC ex officio)

Board members absent: Warren Cook (Oregon Department of Energy special advisor)

Staff attending: Margie Harris, Debbie Menashe, Steve Lacey, Peter West, Pati Presnail, Hannah Cruz, Jed Jorgensen, Betsy Kauffman, Jessica Iplikci, Mike Bailey, Sue Fletcher, Dave McClelland, Elizabeth Fox, Cheryle Easton, Cheryl Gibson, Alison Ebbott, Justin Buttles, Juliet Eck, Mariet Steenkamp, Rachanney Ros, Greg Stokes, Kim Crossman, Ted Light, Jay Ward, Marshall Johnson, Rob Strange, Chris Dearth

Others attending: Elaine Prause (Oregon Public Utility Commission), JP Batmale (Oregon Public Utility Commission), Murali Varahasamy (Lockheed Martin Energy), Claire Carlson (Lockheed Martin Energy), Bob Stull (CLEAResult), BJ Moghadam (NEEA), Scott Scheuneman (RHT Energy), Jeff Manternach (Red Rock Biofuels), Ross Finney (RHT Energy), Brendan McCarthy (PGE), Dave Backen (Evergreen Consulting), Jennifer Price (Moss Adams), Ashley Osten (Moss Adams)

Business Meeting

Debbie Kitchin called the meeting to order at 12:15 p.m. Reminder that consent agenda items can be changed to regular agenda items at any time.

General Public Comments

The president may defer specific public comment to the appropriate agenda topic.

There were no public comments.

Consent Agenda

The consent agenda may be approved by a single motion, second and vote of the board. Any item on the consent agenda will be moved to the regular agenda upon the request from any member of the board.

MOTION: Approve consent agenda

Consent agenda includes:

1. February 24 board meeting minutes
2. Corporate Authorization (bank signing authority)—R770

RESOLUTION 770
AUTHORIZING APPROVED BANK SIGNERS

WHEREAS:

1. **Umpqua Bank and Bank of the Cascades provide general banking services to Energy Trust (collectively, the “Banks”).**
2. **Section 7.3 of the Energy Trust bylaws requires that the board of directors authorize officers or agents to sign checks, drafts, or other orders for the payment of money, notes and other evidences of indebtedness (“authorized bank signers”) by way of resolution from time to time.**
3. **Effective February 17, 2016, Courtney Wilton retired as Chief Financial Officer of Energy Trust.**

4. **Effective March 28, 2016, Mariet Steenkamp became Chief Financial Officer of Energy Trust.**

It is therefore RESOLVED that,

1. **Courtney Wilton is to be removed from the list of authorized bank signers for the Banks.**

2. **Mariet Steenkamp is to be added to the list of authorized bank signers for the Banks.**

3. **The resulting list of authorized bank signers for the Banks is as follows:**

    a. **Debbie Kitchin, Board President**
    b. **Dan Enloe, Board Treasurer**
    c. **Margie Harris, Executive Director**
    d. **Mariet Steenkamp, Chief Financial Officer**
    e. **Peter West, Director of Programs**
    f. **Steve Lacey, Director of Operations**
    g. **Debbie Goldberg Menashe, General Counsel**

4. **The Executive Director is authorized to execute all required documentation to implement this resolution.**

Moved by: Mark Kendall		Seconded by: Roger Hamilton
Vote:	In favor: 13	Abstained: 0
	Opposed: 0	

President's Report

Debbie Kitchin reflected on the many accomplishments of Energy Trust over the years. She noted the board committees are active, engaged and providing good leadership. The organization has a strong board and renowned staff. She encouraged the board and staff to not become complacent, and to keep doing good work. She noted there are changes coming in the next year, like the executive director transition, and when there are strong systems, staff and board members in place, those changes can be made while continuing to make progress.

Committee Reports

Evaluation Committee, Alan Meyer

The LED Streetlights Market Assessment Study reviewed at the last board meeting is in the meeting packet for today's board meeting. The committee met last week and the notes will be in the June board packet.

Executive Director Transition Committee, Ken Canon

The board met in an hour-long executive session this morning to discuss the executive director hiring process. The committee expects good results from the search for a new executive director with a decision anticipated within a couple of months.

Compensation Committee, Dan Enloe

The committee reviewed Energy Trust's investments. Employees can expect more details about the optional socially responsible funds. Generally, performance was as expected on investments. Though there were a few unexpected staff transitions, including retirements and staff leaving Energy Trust, it was nothing untoward. Related to salaries, the committee approved a comprehensive study of current market salaries for all positions, making adjustments as needed to realign positions and salary ranges to the current market. The salary survey is completed every other year or so, and not annually.

By the end of the year, total compensation costs remained flat, and are expected to increase slightly this year due to changing salaries and health care benefits.

The board commended the Human Resources staff for evaluating and assessing compensation to be both fair and competitive.

Finance Committee, Dan Enloe
Last year, operating costs were essentially flat and delivery costs were reduced. One thing that changed was adding mid-year and year-end incentives Program Management Contractor agreements. The goal was to motivate contractors to acquire savings earlier in the year and to limit the "hockey stick," or the large amount of project activity and incentives delivered at the end of the year. The strategy was somewhat effective and some of the activity did shift into mid-year.

By year-end, program reserves were lowered as planned. Overall, reserves went down from $87 million to $68 million. Pacific Power efficiency reserves went down over $1 million more than budget, and staff will work with the utility this year on fine-tuning on budget and rate planning. A similar trend was noted with Cascade Natural Gas.

The lease extension was executed last month following the board's approval at the February board meeting. The board thanked the committee and the Finance team for pursuing needs and opportunities for the lease extension. In the end, Energy Trust secured a long-term lease renewal that includes favorable terms for space upgrades and keeps the maximum rent below the current and projected market average.

Dan noted the Chief Financial Officer recruitment concluded, and Energy Trust hired Mariet Steenkamp. The board welcomed Mariet. Margie noted Mariet is already invested and interested and has an inquiring mind.

Reviewing the January 2016 financial statement, it was noted total liabilities and net assets are down about $21 million from last year, as planned.

Policy Committee, Roger Hamilton
Today's staff presentations were previewed at the last Policy Committee meeting, including: the Medford Airport solar project, the Production Efficiency megaproject, recruitment updates for the CFO and executive director, and the 2016 Oregon legislative session. The next meeting is May 12.

Strategic Planning Committee, Mark Kendall
The committee is finalizing the agenda and working with staff for the annual strategic planning workshop on May 19 and 20. Packets will be mailed to the board beforehand. There will be presentations on key topics, including a Strategic Plan metrics tool, and an emerging efficiency resources graphic to help the board visualize the role Energy Trust has in rolling out next new technologies and approaches compared to NEEA's role. The information will be helpful for the board as staff utilizes metrics to track progress on Energy Trust's role in emerging technology and resources. The workshop will also include presentations by staff regarding the changing policy environment, including the Clean Power Plan, Oregon's Renewable Portfolio Standard, the federal Investment Tax Credit extension and large customer funding.

The workshop creates time for the board to reflect on Energy Trust's progress to meeting long-term, five-year goals related to energy efficiency, renewable energy, emerging technology and resources, growing/changing markets and operational efficiencies. The workshop is designed to provide interactive opportunities for the board to work from the material and engage with the presenters.

Mark noted for the board that the term emerging efficiency technology is now being referenced as emerging energy efficiency resources, because it's broader than technology alone.

The board appreciated the timing of the workshop changing from June to May.

Audit Committee

Ken Canon noted the annual financial audit is complete and before the board today for acceptance. Ken introduced Jennifer Price and Ashley Osten of Moss Adams LLP. This is the fourth year Moss Adams has conducted an independent financial audit for Energy Trust. The Audit Committee heard full details on the audit at the last committee meeting in March.

Moss Adams summarized the audit process and results for the board. The audit process included meetings with the Audit Committee to approve the audit scope and completion of all audit procedures by Moss Adams. Jennifer stated the audit followed this standard process and Energy Trust staff was very well prepared. Moss Adams reported Energy Trust received an unmodified opinion on the 2015 financial statements, resulting in Energy Trust meeting its 2015 Oregon Public Utility Commission minimum performance measure to demonstrate financial integrity. This is consistent with prior years. An unmodified opinion means Energy Trust's financial statements are presented fairly in accordance with generally accepted accounting principles (GAAP) in the U.S. Moss Adams reviewed the highlights of the audit and reported there were no items to be communicated specifically to the board.

Moss Adams said the Audit Committee asked them to review Energy Trust's financial procedures and make any best-practice recommendations. Moss Adams described two best-practice recommendations. The first is recommending the executive director expenses be approved by someone on the Audit Committee or the board in addition to the Chief Financial Officer as is currently the case.

The second best-practice recommendation from Moss Adams is related to electronic payments. After meeting with the Executive Director, staff and the Audit Committee, Moss Adams recommends Energy Trust consider outsourcing the option of electronic payments to a bank or third party as they consider expanding the electronic payment system to include incentive payments. The board discussed the electronic payments recommendation. The board noted there are benefits and costs to switching to electronic payments versus paper checks, and there are risks with both. Moss Adams noted willingness to weigh in again once a decision is made and internal controls are set. The board noted to staff that security of the information should be high on the list when exploring electronic payments. While electronic payments can lead to improvements in the speed and accuracy of payments, the board doesn't want to take on a new security risk for those benefits.

The board noted the engagement with Moss Adams was very helpful and instructive. The board recognized the Finance group and its contributions to obtaining an unmodified audit opinion for Energy Trust.

RESOLUTION 771
ACCEPTANCE OF AUDITED FINANCIAL REPORT

BE IT RESOLVED: That Energy Trust of Oregon, Inc., Board of Directors accepts the auditor's report on the financial statements, including an unmodified opinion, submitted by Moss Adams LLP for the calendar year ended December 31, 2015.

Moved by: Anne Root		Seconded by: John Reynolds
Vote:	In favor: 13	Abstained: 0
	Opposed: 0	

The board took a break from 12:55 to 1:10 p.m.

Energy Programs

Margie introduced the resolution. The Production Efficiency program is requesting board approval to waive the program incentive cap and authorize incentives for a Red Rock Biofuels LLC energy-efficiency project in Pacific Power territory. A new liquefied fuels refinery plant will be built in Lakeview, Oregon. Working with Energy Trust, Red Rock proposes to use waste heat from the gasification process to generate electricity, which will all be used on-site to offset electricity purchases from the utility. The system significantly increases the energy efficiency of the overall plant. By offsetting the needs for purchased electricity, the energy-efficiency project is projected to save 48 million kilowatt hours, or 5.5 average megawatts, a year. The incentive proposed would be up to $2 million, paid as savings performance milestones are met. This is a megaproject, and is before the board because the proposed incentive amount exceeds the $500,000 threshold signing authority of the executive director. As a waste-heat-to-power project, it also fits under the board's combined heat and power (CHP) policy.

Kim Crossman introduced Jeff Manternach, chief financial officer of Red Rock, and reviewed the project details. The Production Efficiency program studied and analyzed the project, and quantified the savings, feasibility and cost and benefits. The plant will produce jet and diesel biofuel products, which will be sold to a number of customers. It is a first of its kind plant, converting wood products into synthetic fuels at commercial scale. The greatest energy-efficiency opportunity in the process is during gasification, which produces high temperature, high quality heat. If harnessed, the waste heat can power up to 70-80 percent of the plant's energy needs.

As part of due diligence for the project, the program and Legal group assessed the viability of the business. Red Rock was very open with Energy Trust, and there were no surprises when the program reviewed the Dun and Bradstreet reports. Red Rock was recently acquired by Joule Unlimited Technologies, whose primary investor is Flagship Ventures, Inc. Flagship is focused on investing in the low-carbon economy. Key project milestones have been met or are in process. An independent engineering review of the plant construction and operation plans by Harris Group confirmed the project is on track as expected. At this stage, Red Rock is in the final stages of securing financing.

Kim reviewed how the project is meeting the requirements of the board's policy to waive program incentive caps ("megaprojects"). Incentive agreements for megaprojects must include provisions that bar self-direction of the public purpose charge for at least three years after the final incentive payment. In addition, the project must provide energy-efficiency savings at a lower cost than the standard program. In addition, the policy requires that there be incentive funds available. The proposed project can meet all of these provisions.
The Red Rock waste-heat-to-power project is very cost-effective at an incentive of 4 cents per kWh saved, up to a maximum incentive of $2 million in incentive payments. This will result in savings at about 3/10s of a cent per kWh levelized. Normal Production Efficiency savings for custom projects are about 1 cent per kWh levelized. In addition, there are funds available at Energy Trust, and to further reduce risk, the Red Rock incentive is tied to overall system performance with incentives to be paid in increments and budgeted for in 2018, 2019 and 2020.

Kim reviewed a diagram of the process at the plant, describing where the energy-efficiency project fits into the system. She noted a handful of demonstration plants producing biofuels like Red Rock in the U.S. However, none currently capture the onsite waste process heat to produce power. Kim said that even though the product being made at Red Rocks is innovative, biofuels from forest residuals, the process of gasification is not new and waste-heat-to-power systems, including back-pressure steam turbines and other associated equipment, are common and proven technologies in many types of industries.

The board discussed and assessed the proposal for its risks and benefits, asking a number of questions both with regard to the plant's business and the proposed energy-efficiency project.

The board asked whether natural gas can be used to fuel the entire system. Jeff said natural gas is only used for startup or emergency purposes. It's an alternate and not preferred. The plant's primary feedstock is woody biomass. Jeff highlighted that the waste-heat-to-power process would be operating even if the plant was using natural gas, because the gasification system would still be generating waste process heat.

The board commented the 93 percent utilization rate seemed on the high end of a combined heat and power system. Kim said the utilization rate is consistent with published research and technical studies for back-pressure steam turbines. Steve Lacey noted the 93 percent is the availability of the generator when the plant is operating.

Responding to a question from the board, Jeff described the source of the woody biomass used as feedstock for the primary process, which is predominately slash. Slash is waste material, mainly tops and branches, timber companies leave behind. Current management practice for that material is to collect and burn it on private, state or federal land. The plant will also use pre-commercial thinnings of young trees that are thinned from the forest to encourage growth of fewer, larger trees. Finally, the plant will use sawdust, shavings and bark from the Lakeview Mill. The woody biomass is mainly from Ponderosa pine, Lodgepole pine, White fir and other mixed firs.

Jeff confirmed his supply assessment factored in possible future droughts, noting a report from TSS Consultants. Red Rock has access to three times the amount of materials it needs from private lands and when government land is added, an estimated five times the amount of material needed is available.

Jeff also described direct jobs impacts, noting a Business Oregon economic impact report. There will be 31 direct jobs at the plant and roughly 75 jobs related to biomass harvest, collection and transport.

Kim described how the program is managing possible risk with this energy-efficiency project. The project is following the normal custom process. The program received a detailed technical study by an Allied Technical Assistance Contractor in Quarter 3 2015. The multi-year incentive is paid in increments for verified savings and the program will rely upon detailed monitoring and verification requirements. The program is also providing technical support during design, construction and operation. Much of this work is conducted by RHT Energy, Program Delivery Contractor to the Production Efficiency program. To deliver ratepayer benefits, the milestone requirement ensures incentives are not being held in reserve if for some reason the plant is not built. The Planning group also reviewed the incentive proposal and levelized cost. If the full incentive was paid upfront, the project would have a ratepayer payback of seven months.

The board asked about additional support for the plant and the plant's business plan. The business plan captures an underutilized resource to create a renewable fuel, providing jet fuel to Southwest Airlines and FedEx via long-term contracts and ideally to the U.S. government in the future. There is significant local support for the utilization of woody biomass, and support from the U.S. Departments of Energy and

Agriculture and the Navy, which is funding one-third of the facility construction. Other support for the project comes from the Oregon Department of Energy, Connect Oregon and Business Oregon. The board asked Jeff about various business risks to the plant operations and plan, and Jeff provided detailed responses.

Board members had additional questions regarding the Red Rock business plan. The board discussed how, because this is a new company to Oregon and because this is an early commercial scale biofuel refinery, there is greater risk to the ongoing operations of the project than in Energy Trust incentive-funded projects undertaken by more established companies. The board asked a number of questions of staff and Jeff regarding these circumstances. Staff responded that its business due diligence provides a basis for confidence in the stability of the company. In addition, the short period of ratepayer payback – calculated as a function of avoided cost – and contract terms that provide for incentive payment over time are other ways to manage the company's overall business risk and any risk to the efficiency project.

The board questioned whether this project is a free rider project. Kim said that was the first question staff explored. As they reviewed the project, it became clear the waste-heat-to-power component of the plant, the energy-efficiency project that is being put forth for an incentive, is the only system within the facility that could be cut out of the final design without any impact on the production of low carbon biofuel. All other equipment and systems are required to produce the fuel. It is the only piece that has never been installed in the cellulosic biofuel demonstration plants built elsewhere in the U.S. The staff analysis and review of the independent engineering report indicate the waste-heat-to-power project isn't in the current base plant design. Jeff confirmed the waste-heat-to-power project is not needed to make the biofuel, and so in the event they had trouble raising enough funding for the plant, the waste-heat-to-power system would be the first component value engineered out of their design.

In response to board questions about funding availability, Kim said there are no large customer funding constraints in Pacific Power territory. For many years, Energy Trust has been close to the large customer funding cap in PGE territory, but not in Pacific Power territory. Kim further explained there has not been a megaproject in Pacific Power territory in nine years. The Red Rock project is a viable megaproject that gets Energy Trust large savings at a very low cost. No other projects are or will be turned away. The payback calculation was done in accordance with the Total Resource Cost test, which is how Energy Trust evaluates energy-efficiency investments.

The board discussed the financials of the plant and its investors. Jeff noted Red Rock is now a wholly owned subsidiary of Joule Unlimited Technologies. Joule is funding ongoing operations right now, which will continue into the future.

Jeff clarified the cost of the waste-heat-to-energy project is $8 million and is included in the overall plant cost of $250 million.

The board asked when project financing is expected to be in place. Jeff said there is a detailed timeline on the senior debt and is projecting September for the financial close. The plant is at 30 percent design and engineering. It is shovel ready as soon as financing is set. All other contracts are signed and ready to go. After the financials close, Jeff estimates an 18-month period until plant startup.

The board asked additional questions regarding business risk including those related to consideration of the value of carbon reduction, feedstock supply and costs, plant utility-supplied energy supply, performance bonding and engineering, procurement and construction contract guarantees. Kim and Jeff provided responses.

The board asked what the incentive structure is if the plant does not perform as expected and on schedule. Kim said the program would use the same approach as the last megaproject, and if performance milestones are not met by the third year, some of the incentive would be forfeited. Kim noted the last combined heat and power project at Oregon State University, which went through the commercial sector, involved a lot of work to dial-in the system over a multi-year period, and that the program technical expertise helped significantly with that effort.

After a motion to approve the resolution to waive the program incentive cap for the Red Rock project, the board amended the resolution to specify that the three-year self-direction prohibition commences at the time the final incentive payment is paid to the project. With the changes made to the resolution, the board voted on Resolution 772.

AMENDED RESOLUTION 772
WAIVING PROGRAM INCENTIVE CAP AND APPROVING INCENTIVES FOR THE RED ROCK BIOMASS GASIFICATION EFFICIENCY PROJECT

WHEREAS:

1. **The Energy Trust Production Efficiency program has worked with Red Rock Biofuels, LLC (Red Rock) to identify a waste heat to energy system for a new biomass gasification facility located in Lakeview, Oregon (the Project).**

2. **Energy efficiency aspects of the Project were reviewed through standard Energy Trust processes for complex custom-track industrial projects, including a technical energy analysis study commissioned by Energy Trust and carried out by a nationally-recognized expert.**

3. **The project's energy savings will cost less than half the cost of savings from the average custom project. The incentive for the Project is projected and would be budgeted at $.04/first-year kWh, a levelized cost of < ½ cent / kWh; while Production Efficiency program custom capital projects average $.13/first-year kWh, or about 1 cent levelized.**

4. **Energy Trust funding would be contingent on Red Rock's agreement to suspend self-direction at this site for at least three years after the last payment.**

5. **Energy from the Project will be used on-site.**

6. **Energy Trust funding would be conditioned on committed full debt and equity investment for the project in place not later than November 30, 2016 and would be payable in increments based on performance.**

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

1. **Waives the Production Efficiency Program's incentive cap for this project; and**

2. **Authorizes the executive director to negotiate and sign an incentive agreement with Red Rock Biofuels LLC for up to $2 million in total incentives payable on the following terms and conditions:**

   - **Agreement to suspend self-direction at the site for at least three years after the last payment;**
   - **Incentives to be paid in three annual payments tied to commercial operation and savings performance;**
   - **Post-installation measurement, verification and evaluation plans will be required;**
   - **Red Rock to secure sufficient debt and equity investment by November 30, 2016 to mitigate risk associated with the start-up phase of continued investment solicitations.**

Moved by: John Reynolds
Seconded by: Melissa Cribbins
Vote:
In favor: 12
Abstained: 1; Alan Meyer, due to risk
Opposed: 0

Heather Beusse Eberhardt recused herself at 2:26 p.m.

The Renewable Energy program is requesting board approval for a $1.25 million incentive for a 1.9-megawatt solar system at the Rogue Valley International Medford Airport. The system will essentially result in the airport achieving net-zero energy. The project is a result of a competitive 2015 Request for Proposals for solar projects in Pacific Power territory.

The airport is an active Energy Trust participant where energy-efficient lighting and the major renovation of the control tower were projects in the New Buildings program. The airport has also installed three standard solar projects with Energy Trust.

Dave McClelland reviewed the project details. The system will generate an expected 2,876 MWh a year, slightly more than the annual load. The project is net metered to meet onsite load, and was the only project from the RFP to be net metered. The developer, Lockheed Martin, is working with three possible financial partners. The project cost is $4.71 million, $2.45 per watt, which is at the high end of the RFP and on the low end of the standard commercial solar program. The project cost is not surprising to the program given the location, which requires federal oversight and related conditions.

Dave reviewed milestones met by the project so far and what is still in progress or to be completed. He noted Pacific Power appreciated the project owner engaging them early on the siting. Dave described a new requirement as of last week. The Federal Aviation Administration is asking for an Environmental Assessment, which is a lower-level study than an Environmental Impact Study. The assessment will add some time and cost to the project.

The board asked if other solar projects Energy Trust has supported received environmental assessments. Peter said past Energy Trust-supported projects have had such assessments and mentioned projects in Klamath Falls and Lakeview, Deschutes and Jefferson counties that received USDA grants for on-farm solar systems to support irrigation. Other energy efficiency and renewable energy projects that received grants also went through environmental reviews. In those cases, solar, wind and energy efficiency on site were reviewed in a categorical Environmental Impact Statement. To Peter’s knowledge, federal agencies have the authority and are required to complete environmental reviews prior to project approval. For the Medford Airport, a slough runs alongside the property.

Dave described the property and site location. It is industrial zoned property and the system will be outside the runway protection zone. The Environmental Assessment is expected to be completed by Quarter 1, 2017, after which construction will begin. The system is expected to come online in Quarter 3, 2017.

Dave reviewed financial considerations, including revenues and expenses. The board inquired about expenditures, asking for more information on the capitalized construction costs and principal payments line items. Dave and Peter will follow-up with more information, and noted the financial analysis for this project is consistent with past projects.

The board asked why the project owner did not know about the need for an Environmental Assessment. Dave said the property in question was originally purchased as a buffer to the runway. At the time they purchased it, an environmental study was completed which they thought would meet the requirements.

The board said in the future they would like to see the briefing paper note if the developer is seeking to sell the project after construction.

RESOLUTION 773
APPROVE INCENTIVES FOR THE ROGUE VALLEY – MEDFORD AIRPORT SOLAR PROJECT

WHEREAS:

1. **In April 2015, Energy Trust solicited solar projects to be connected to Pacific Power.**
2. **The current proposal involves a collaboration between Jackson County, which owns the Rogue Valley International-Medford Airport, and Lockheed Martin, facilitated by RHT Energy.**
3. **The proposed system will be a fixed-tilt 1,926 kW_{DC} solar array consisting of 5,928 SolarWorld 325 W modules (or an approved equivalent), and 26 Sungrow inverters with a combined AC max power rating of 1,716 kW_{AC}.**
4. **The project would allow the airport to claim to be one of the world's first net-zero airports: current load is about 2,863 MWh/yr. The project would generate an estimated 2,876 MWh/yr.**
5. **The proposed system has capital costs of $4,712,063 or $2.45/$W_{DC}$. These costs are well below the average cost of $3.28/W for Pacific Power 2015 commercial projects, and are similar to the most competitive costs in our standard program.**
6. **The project's total modeled above-market cost is $1,326,040. At $0.65/$W_{DC}$, the project incentive would be up to $1.25 million.**
7. **Lockheed Martin and the county would transfer to Energy Trust at least 90% of Renewable Energy Certificates (RECs) for the project's 25-year life.**

It is RESOLVED that the board of directors of Energy Trust of Oregon:

1. **Authorizes an incentive of $0.65/$W_{DC}$, up to $1,250,000, for the Rogue Valley International-Medford Airport Solar Project, payable on the following terms:**
   a. **The incentive will be paid in two payments: $800,000 on commercial operation and $450,000 after a performance period; and,**
   b. **Lockheed and the county will transfer to Energy Trust at least 90% of RECs for the project's 25-year life.**

Moved by: John Reynolds
Seconded by: Anne Root
Vote:
In favor: 12
Abstained: 0
Opposed: 0

Heather Beusse Eberhardt re-joined the meeting at 2:51 p.m.

Staff Report

Highlights, Margie Harris

Margie described a recent participant, Medford School District, the first school district to enroll in Energy Trust's commercial Strategic Energy Management.

Margie reviewed the 2015 results, which will be published in the 2015 Annual Report on April 15. At the last board meeting, she shared the organization's progress to energy goals. To recap, Energy Trust achieved 102 percent of the electric efficiency goal, 116 percent of the natural gas efficiency goal and 112 percent of the renewable energy generation goal.

Margie provided a sampling of accomplishments in the residential sector, including the growing number of customers purchasing LEDs, promoted through an advertising campaign and with an online interactive tool. The sector also launched an incentive for smart thermostats. In two months, customers purchased approximately 500 thermostats, nearly five times the amount expected. The New Homes program issued 2,500 energy performance scores, EPS™, which help homebuyers compare energy usage and carbon footprints.

In the commercial sector, the New Buildings program promoted high-performance new construction and broke every prior enrollment record. One-half of the 600 new construction projects enrolled were outside the Portland metro area. Existing Buildings participants saved energy with energy-efficient lighting, especially LEDs. In 2014, LEDs made up approximately 65 percent of Existing Buildings lighting savings. In 2015, that increased to 80 percent of savings. In Existing Multifamily, tenants saw savings from LEDs, showerheads, faucet aerators and advanced power strips installed in 26,000 individual units, including in 5,000 affordable housing units. Existing Multifamily wrote its largest single incentive check in 2015, paid to Home Forward for completing extensive upgrades to four different affordable housing properties.

In the industrial sector, two-thirds of natural gas savings were from its largest ever project, a regenerative thermal oxidizer that also helps the customer meet air quality requirements. 2015 was an important year for helping agricultural customers cut energy and water use, and 350 farmers and 30 nurseries participated with the Production Efficiency program. The sector also saw increased savings from customers investing in lighting, and completed 500 lighting projects, compared to 300 in the prior year.

The renewable energy sector helped install 1,800 solar systems, two hydropower systems and two biopower systems. The Solar program had outstanding performance in 2015, and supported 40 percent more systems than in 2014. The sector also provided $2 million in project development assistance to 29 projects.

In 2015, Energy Trust's support groups completed complementary work to support programs and serve customers. The Trade Ally Network welcomed 200 new trade and program allies. The organization received high customer satisfaction, exceeding the OPUC minimum annual performance measure. New and enhanced IT systems worked better for staff, contractors and customers.

Margie clarified that Energy Trust asks trade ally contractors and programs allies if they are Minority, Women or Emerging Small Businesses, and some companies volunteer the information.

Energy Trust has a powerful outreach team, which made 80 presentations and conducted outreach at 290 events to boost awareness of Energy Trust and connect with customers.

Margie announced Energy Trust will be providing natural gas efficiency programs and services to about 90,000 Avista customers in Oregon. The services will start with a limited pilot in 2016 and a full roll-out of programs to all customer types in 2017. This change came out of a general rate case and decoupling settlement at the OPUC.

Margie provided an update on OPUC dockets, including ongoing dockets and new activity expected from the passage of SB 1547. Related to SB 1547, the OPUC will lead a stakeholder meeting on April 21 to discuss a proposed task schedule related to the new legislation. Margie reviewed a number of dockets Energy Trust is tracking and providing information for as requested, making this a busy time for the OPUC and for us.

Margie reviewed the 2016 OPUC minimum performance measures, approved by the OPUC in February. The energy goals and levelized costs were adjusted to reflect the goals set forth in the annual budget. The only other change to the performance measures was the OPUC removing the NEEA-specific performance measure in favor of Energy Trust incorporating the performance metrics it has for NEEA in our annual reports.

Margie provided a staffing update. Mariet Steenkamp, new CFO, worked at Central City Concern where she performed functions very similar to what is needed at Energy Trust. JP Batmale, Energy Trust planning manager, was recently hired as OPUC liaison. Lori Miller, executive assistant, is replacing Ana Morel and starts mid-April.

Energy Trust was recently notified it ranks among one of the 100 Best Green Workplaces in Oregon. The final rankings will be released in June.

Margie previewed a new video and website in use to attract irrigation district customers to modernize their irrigation systems. The Irrigation Modernization initiative is delivered in coordination with Farmers Conservation Alliance, and looks to identify energy-efficiency and renewable energy opportunities, among other benefits.

2016 Legislation Update, Jay Ward
Jay provided a short update on three of the bills that passed the 2016 Oregon legislative session, including the Oregon Clean Electricity and Coal Transition Plan (SB 1547), a solar incentivization bill (HB 4037) and a biomass tax credit bill (SB 1507).The board's annual strategic planning workshop will include more information and staff analysis on potential impacts of SB 1547 on Energy Trust programs.

Adjourn

The meeting adjourned at 3:30 p.m.

The annual strategic planning workshop for the Energy Trust Board of Directors will be held May 19-20, 2016, at MercyCorps, Aceh Conference Room, 45 SW Ankeny St, Portland, Oregon.

The next regular meeting of the Energy Trust Board of Directors will be held Wednesday, June 8, 2016, at 12:30 p.m. at Energy Trust of Oregon, Inc., 421 SW Oak Street, Suite 300, Portland, Oregon.

/S/Alan Meyer
Alan Meyer, Secretary