



April 7, 2015

To: House Committee Revenue

From: Anthony L. Buckley, Chief Financial Officer  
Oregon Department of Energy

Subject: Tax Credit Committee Policy Questions  
HB 2448A Energy Incentives Program

Thank you for the opportunity to provide information about the Oregon Department of Energy's (ODOE) Energy Incentives Program (EIP) On [March 10, 2015](#), ODOE provided initial response to these questions for the House Committee on Energy and Environment. Below are the expanded responses to the Tax Credit Committee Policy Questions.

**1. What is the public policy purpose of this credit? Is there an expected timeline for achieving this goal?**

The purpose of the Energy Incentives Program is to spur investment in cost-effective energy savings and resource acquisition. Oregon and the region benefit by reducing the need for new electric generation and increasing the use of alternative transportation fuels in the future. This enables the energy system to support our growing region and economy with reliable power and fuel at a lower cost and with lower emissions, and reduced reliance on out-of-state energy supplies. EIP is a cost-effective way to capture these benefits because it builds upon business investment and other incentive programs to achieve more energy efficiency, renewable energy and clean transportation fuels than any of these efforts would achieve alone. Also, by increasing volume and supporting emerging technologies, EIP helps transform markets to bring down costs and reduce the incentives needed for continued uptake of successful measures.

The public policy purpose of the EIP: Energy Conservation Tax Credit is to promote energy savings and market transformation by providing incentives for businesses, organizations, public bodies, nonprofits and tribes that influence a capital investment in energy efficient devices, measures or upgrades that yield a simple payback period<sup>1</sup> greater than three years.

For conservation incentives under the EIP program, the timeline for achieving the goal will track the Northwest Power and Conservation Council's<sup>2</sup> ongoing power planning. The Council has found that "improved efficiency of electricity use is by far the lowest-cost and lowest-risk resource available to the region. Cost-effective efficiency should be developed aggressively and

<sup>1</sup> Simple payback period is calculated by dividing the actual project costs by the annual value of energy savings. The simple payback period is the time it takes for the project to pay for itself in energy savings.

<sup>2</sup> The Northwest Power and Conservation Council's mission is to ensure, with public participation, an affordable and reliable energy system while enhancing fish and wildlife in the Columbia River Basin.

on a consistent basis for the foreseeable future. The Council's plan demonstrates that cost-effective efficiency improvements could on average meet 85 percent of the region's growth in energy needs over the next 20 years."<sup>3</sup>

One of the goals of the 10-Year Energy Action Plan is to meet 100 percent of load growth in Oregon with energy conservation and efficiency. ODOE programs currently contribute about 15 percent of statewide energy efficiency toward that goal. For the 2012-13 period Oregon's reported and voluntary conservation energy efficiency efforts helped hold the line on load growth. Incentives are a part of meeting increasing demand by influencing and accelerating customer buying decisions. The EIP program's timeline for conservation projects will track power planning, as long as energy conservation is the least cost resource.

The public policy purpose of the EIP: Renewable Energy Development (RED) Grant is to promote investment in renewable energy development by providing incentives for businesses, organizations, public bodies, nonprofits and tribes that install and operate a renewable energy production system that produces electricity.

For renewable energy incentives under the RED grant program, the timeline for achieving the goal will track the Renewable Portfolio Standard and the Power Plan. The state has a Renewable Portfolio Standard which requires the state's largest utilities to supply 25 percent of their electricity from eligible resources by 2025. Small utilities have requirements of 10 and five percent. The EIP Renewable Energy Development Grant program will also support the goals of the 10-Year Energy Action Plan. One of the action items for the plan is to align the state's incentive programs to support meeting the state's energy generation goals. The RED grant program for renewable projects encourage the installation of systems that support distributed generation. The benefits of distributed generation include increased efficiency, reduced environmental impact, reduced grid cost, increased reliability and quality, and business certainty. The RED grant program supports opportunities to increase distributed generation in the state through solar, biomass, hydro and wind resources.

The public policy purpose of the EIP: Transportation Tax Credit is to promote cleaner transportation fuels and diversify the fuel market by providing incentives to businesses, organizations, public bodies, nonprofits and tribes for the purchase of alternative fuel vehicle infrastructure and the purchase or conversion of alternative fuel vehicles as part of an Oregon fleet.

For transportation incentives, the timeline for achieving the goal will track goal three of the 10-Year Energy Action Plan. Goal three of the plan is to convert 20 percent of large fleets to alternative fuels. Projects supported by the EIP Transportation Tax Credit for alternative fuel fleets and infrastructure will support this goal.

---

<sup>3</sup> Sixth Northwest Conservation and Electric Power Plan Sixth Power Plan, [http://www.nwcouncil.org/media/6383/SixthPowerPlan\\_Overview.pdf](http://www.nwcouncil.org/media/6383/SixthPowerPlan_Overview.pdf)

**2. Who (groups of individuals, types of organizations or businesses) directly benefits from this credit? Does this credit target a specific group? If so, is it effectively reaching this group?**

The Energy Incentives Program benefits businesses, organizations, nonprofits, tribes, schools and public bodies that invest in energy conservation, renewable energy resources and cleaner transportation fuels and vehicles. The program is utilized by many sectors including commercial, agricultural, industrial and renewable energy. Retailers and the construction industry benefit from the added business due to eligible purchases and installations. The program includes grants for renewable energy development projects and tax credits for energy conservation and transportation projects.

The Energy Incentives Program began accepting applications in 2012 with over 1,000 applications received through 2014. More information above the number of applications by type of project is provided in Attachment 1. These programs provide incentives for projects that include commercial buildings; renewable thermal; commercial, agricultural and industrial processes; co-generation facilities; solar photovoltaic systems; biomass facilities; and alternative fuel infrastructure and fleet vehicles.

**3. What is expected to happen if this credit fully sunsets? Could adequate results be achieved with a scaled down version of the credit? What would be the effect of reducing the credit by 50%?**

If the Energy Incentives Program ended, Oregon businesses, nonprofits, public bodies and tribes would no longer receive tax credits for capital investments in energy efficiency, tax credits for investments in cleaner transportation fuels and vehicles, or grants for building and operating renewable energy production systems. Retailers and the construction industry that support EIP projects may see a slowdown in demand for eligible devices and installations. If not offset by other energy programs, the increased energy use in Oregon as a result of projects and systems not purchased could result in increased fossil fuel generation and resulting greenhouse gas emissions and other impacts.

The programs started accepting applications in 2012 and was scaled back compared to the Business Energy Tax Credit. The Conservation program is capped at \$28 million a biennium, Transportation program at \$20 million a biennium and Renewable Energy Development Grants at \$3 million at biennium.

**4. What background information on the effectiveness of this type of credit is available from other states?**

Oregon is considered a leader in conservation efforts and other states have modeled their programs after Oregon's. Other states and the Federal government provide a wide variety of tax credits for energy efficiency, renewable energy investments, clean transportation fuels and business development.

The American Council for an Energy-Efficient Economy (ACEEE) has found that “financial incentives are an important instrument to spur the adoption of technologies and practices in homes and businesses.”<sup>4</sup> The ACEEE scorecard provides that “financial incentives can lower the up-front cost and shorten the payback period of energy efficiency upgrades, two critical barriers to consumers and businesses making cost-effective efficiency investments.”<sup>5</sup> The scorecard also attributes financial incentives to raising consumer awareness, encouraging more active marketing of these products and encouraging manufactures to innovate.

In the 2014 State Energy Efficiency Scorecard, Oregon was ranked #3, up from #4 in 2013. The presence or absence of tax credits alone does not create a tipping point for the overall health of a state’s energy efficiency rank. Tax credits are part of an overall portfolio of market interventions to achieve energy efficiency targets.

In a 2010, The National Renewable Energy Laboratory explored The Role of Policy in Clean Energy Market Transformation.<sup>6</sup> The study found that purchasing decisions are influenced by many factors including culture, infrastructure and population density, which obscure the amount of variations in purchases that can be attributed to state incentives. The variables involved in determining the cause of any differences in effectiveness between states, and the availability of data, make a thorough analysis difficult. The study examined a wide array of policies, the following broad conclusions are taken from the study:

- Policies are more connected with clean energy development the longer they are in place, indicating that policy longevity (and resulting market certainty for investors) may be an important aspect of effectiveness.
- Where significant relationships were found, mixes of policies explain growth best, indicating that an environment for investment in clean energy through implementation of a suite of policies may be more effective at driving clean energy development than those that choose a single or small number of mechanisms.
- Policy alone does not explain variability in state clean energy growth. When other variables (including population, electricity price, and number of years a policy is in place) were incorporated into the analysis, the results indicated better explanation of the variation between state clean energy developments.

**5. Is use of a tax credit an effective and efficient way to achieve this policy goal? What are the administrative and compliance costs associated with this credit? Would a direct appropriation achieve the goal of this credit more efficiently?**

The Energy Incentives Program started accepting applications in 2012, during this time the program has been an effective and efficient way to achieve the policy goals on a statewide level. The administrative and compliance costs associated with the program derive from the review and processing of applications. ODOE’s approximate costs for administering the EIP in

---

<sup>4</sup> American Council for an Energy-Efficient Economy, The 2014 State Energy Efficiency Scorecard, October 2014, page 73.

<sup>5</sup> American Council for an Energy-Efficient Economy, The 2014 State Energy Efficiency Scorecard, October 2014, page 73.

<sup>6</sup> The National Renewable Energy Laboratory. “State of the States 2010: The Role of Policy in Clean Energy Market Transformation” <http://energy.gov/sites/prod/files/2013/11/f5/49193.pdf>, January 2011.

2014 were \$710,840 during which time ODOE processed over 350 applications offering about \$12.8 million in potential incentives.

The administrative and compliance costs of the program are funded through fees for initial applications, technical reviews and final reviews. Most EIP projects submit a \$500 application fee and a percentage of the project costs as a technical and final review fee. There are additional fees for amendments and pass-through or transfer processes. Small Premium Projects (SPP) for Conservation (projects under \$20,000 in eligible costs) pay a \$100 application fee and final review fee.

Many of the administrative and compliance costs of the incentive program would still be necessary under an appropriation based program. The cost of setting standards, reviewing applications, confirming project completion, issuing incentives and ensuring continued operation of facilities would be retained. A direct appropriation would allow more flexibility in providing incentives, including the removal of the constraint and delay of the incentive and expense of the pass-through program.

#### **6. What other incentives (including state or local subsidies, federal tax expenditures or subsidies) are available that attempt to achieve a similar policy goal?**

For eligible projects in the Energy Incentives Program there are a variety of incentives available depending on the project type and site location.

The Energy Trust of Oregon administers the public purpose charge program that covers a portion of the state and provides cash payments for certain energy conservation and renewable resource investments. Businesses that are not in Energy Trust territory may receive incentive payments from their gas and electric utilities for designated investment; and large energy users are able to redirect their public purpose charge funds directly into qualifying activities on their own properties.

As an example, a Renewable Energy Development Grant bioenergy project may also qualify for the following incentives:

##### State Incentives

- An Energy Trust of Oregon incentive may be customized for each project and is based on the market costs of producing energy by the facility, if the project is located in certain areas of the state.
- Exemption from ad valorem property taxation under ORS 307.175 may be available for certain bioenergy projects. This provision does not apply to very many facilities as the system must be net metered or designed to offset onsite electricity use.
- Commercial renewable energy projects that are located in a designated Rural Renewable Energy Development Zone may be eligible for a 3 to 5 year local property tax exemption.
- A facility that uses biomass as a fuel could receive a benefit directly or to their fuel supplier under the Biomass Producer or Collector tax credit program. This program does

not have a project or program related cap and provides a per unit incentive based on the amount of material that is delivered to the facility.

#### *Federal Incentives*

- Rural Energy For America Program
  - Grant funding may be available to agricultural producers or rural small businesses to install renewable energy systems. Grants are up to 25 percent of the total eligible project costs with a \$500,000 maximum.
  - Loan guarantees may be available on loans up to 75 percent of the total eligible project costs with a maximum of \$25 million.
- Biomass Crop Assistance Program provides three types of assistance:
  - Establishment payments for 50 percent of the cost of establishing a new, perennial energy crop.
  - Annual payments for the crop as it matures, up to 5 or 15 years depending on the species.
  - Matching payments for mitigating the cost of harvesting and transportation agricultural or forest residues to an end use facility. These matching payments provide up to \$20 per dry ton for agricultural or crop residues or woody forest residues removed directly from public forest land.

#### **7. Could this credit be modified to make it more effective and/or efficient? If so, how?**

The Oregon Department of Energy proposes HB 2448A to make the Energy Incentives Program more effective and efficient. HB 2448A amends the EIP Energy Conservation program to tie the use of conservation tax credits to a performance agreement and create a process for annually recertifying tax credits with eligible project costs of at least \$1 million to ensure greater tax credit accountability. HB 2448A would also extend the EIP program's sunset to provide stability and continuity in the marketplace for applicants, contractors and ODOE staff.

## Attachment 1: Oregon Department of Energy Incentives Program Data

### Energy Conservation Tax Credit: Competitive Projects

Calendar Year	# Applications Received*	Preliminary Tax Credits**	First Year kWh Savings	First Year Therm Savings	First Year Propane Gallon Savings	First Year Diesel Gallons Displaced	First Year Energy Savings in MMBtus***	Final Certificates Issued	Final Tax Credits Issued
2012	43	\$4,312,424	16,919,803	397,702		31,843	101,937	19	\$2,003,668
2013	46	\$12,895,823	58,593,459	613,861		153,813	282,715	9	\$345,149
2014	25	\$6,617,375	8,552,254	56,821	280,672	6,477	61,536	0	\$0
<b>Total</b>	<b>114</b>	<b>\$23,825,622</b>	<b>84,065,516</b>	<b>1,068,384</b>	<b>280,672</b>	<b>192,133</b>	<b>446,188</b>	<b>28</b>	<b>\$2,348,817</b>

\*Number of applications received is the total number of applications, not all applications are offered an incentive due to competitive process. For 2014, some applications are still in review.

\*\*Amount of tax credits offered refers to the preliminary certificates issued by ODOE.

\*\*\*Energy savings estimated for first year, devices have a life span of 10-20 years.

Data as of December 31, 2014

### Energy Conservation Tax Credit: Small Premium Projects, eligible costs under \$20,000, prescriptive tax credit

Calendar Year	# Applications Received*	Preliminary Tax Credits**	First Year kWh Savings	First Year Therm Savings	First Year Propane Gallon Savings	First Year Diesel Gallons Displaced	First Year Energy Savings in MMBtus***	Final Certificates Issued	Final Tax Credits Issued
2012	258	\$479,493						181	\$262,285
2013	246	\$407,490						185	\$309,180
2014	299	\$808,988						71	\$157,590
<b>Total</b>	<b>803</b>	<b>\$1,695,971</b>						<b>437</b>	<b>\$729,055</b>

Not available \*\*\*\*

\*Number of applications received is the total number of applications, not all applications are offered an incentive due to informational filings expiring.

\*\*Amount of tax credits offered refers to the informational filings received by ODOE.

\*\*\*Energy savings estimated for first year, devices have a life span of 10-20 years.

\*\*\*\*Estimated energy savings under analysis for these devices.

Data as of December 31, 2014

### Renewable Energy Development Grant

Calendar Year	# Applications Received*	Grants Offered**	First Year Energy kWh Production***	First Year Energy Production in MMBtus***	Grants Awarded	Grant Award Amounts
2012	6	\$109,096	95,300	325	3	\$109,096
2013	44	\$1,198,231	42,616,565	145,450	2	\$33,257
2014	19	\$334,883	6,974,193	23,803	0	\$0
<b>Total</b>	<b>69</b>	<b>\$1,642,210</b>	<b>49,686,058</b>	<b>169,579</b>	<b>5</b>	<b>\$142,353</b>

\*Number of applications received is the total number of applications, not all applications are offered an incentive due to competitive process. For 2014, some applications are still in review.

\*\*Amount of grants offered refers to performance agreements issued by ODOE.

\*\*\*Energy savings estimated for first year, devices have a life span of 10-20 years.

Data as of December 31, 2014

### Transportation Tax Credit: Alternative Fuel Vehicle Infrastructure

Calendar Year	# Applications Received*	Preliminary Tax Credits**	First Year Savings in Gasoline Gallons Displaced***	First Year Savings in Diesel Gallons Displaced***	First Year Energy Savings in MMBtus***	Final Certificates Issued	Final Tax Credits Issued
2012	14	\$1,566,155	303,007	2,352,041	364,339	7	\$927,729
2013	15	\$3,481,444	542,880	2,231,100	377,537	4	\$784,038
2014	11	\$1,084,059	11,820	216,300	31,500	0	\$0
<b>Total</b>	<b>40</b>	<b>\$6,131,658</b>	<b>857,707</b>	<b>4,799,441</b>	<b>773,376</b>	<b>11</b>	<b>\$1,711,767</b>

\*Number of applications received is the total number of applications, not all applications are offered an incentive. For 2014, some applications are still in review.

\*\*Amount of tax credits offered refers to the preliminary certificates issued by ODOE.

\*\*\*Energy savings estimated for first year, devices have a life span of 10-20 years.

Data as of December 31, 2014

**Transportation Tax Credit: Transit Services**

<b>Calendar Year</b>	<b># Applications Received*</b>	<b>Preliminary Tax Credits**</b>	<b>First Year Savings in Gasoline Gallons Displaced</b>	<b>First Year Savings in Diesel Gallons Displaced</b>	<b>First Year Energy Savings in MMBtus</b>	<b>Final Certificates Issued</b>	<b>Final Tax Credits Issued</b>
2012	18	\$8,615,890	8,768,719	0	1,096,090	5	\$2,659,495
2013	6	\$4,437,484	5,233,987	0	654,248	2	\$1,797,290
2014	6	\$3,949,945	2,118,169	0	264,771	0	\$0
<b>Total</b>	<b>30</b>	<b>\$17,003,319</b>	<b>16,120,875</b>	<b>0</b>	<b>2,015,109</b>	<b>7</b>	<b>\$4,456,785</b>

\*Number of applications received is the total number of applications, not all applications are offered an incentive.

\*\*Amount of tax credits offered refers to the preliminary certificates issued by ODOE.

Data as of December 31, 2014