

Program Summaries

(Results provided through 12/31/2015)

Current Programs:

1. Solar Net Energy Metering
2. Residential Energy Tax Credit (RETC)
3. Renewable Energy Development Grant (RED)
4. Small-Scale Energy Loan (SELP)
5. Renewable Portfolio Standard (RPS)
6. Public Utilities Regulatory Policy Act (PURPA)
7. Energy Trust of Oregon Solar Program
8. Rural Renewable Energy Development Zone (RRED)
9. Property Tax Exemption for Alternative Energy Systems
10. Fee In Lieu Of Property Tax

Pending Programs:

11. Resource Value of Solar
12. SB 1547 Community Solar
13. Solar Incentive Program

Expired or Expiring Programs:

14. Business Energy Tax Credit (BETC)
15. Volumetric Incentive Rate Pilot (VIR)

Solar Net Energy Metering

Oregon's net energy metering (NEM) program began in 1999 and requires that investor-owned utilities, people's utility districts, municipal utilities, and electric cooperatives allow customers to install renewable generation facilities on their property and offset the energy purchased from the utility with their own generation ("net meter").

Net energy metering means measuring the difference between the electricity supplied by a utility and the electricity generated by a customer and fed back to the utility over the applicable billing period. Net energy metering uses a bi-directional meter to measure the net kilowatt hours (kWh) delivered to and received from the customer.

In a billing period in which the utility delivers more kWh than it receives, the customer receives a bill for each kWh-based charge in addition to the standard monthly charges. If the customer sends more kWh to the utility than it receives, the kWh credit is carried over to a future billing period.

The customer is not allowed to sell excess generation back to the utility. If any excess remains at the end of the 12-month will be transferred to customers enrolled in the public utility's low-income assistance programs. The public utility will value any unused kWh credit at the applicable average annual avoided cost tariff rate.

Solar Project Statistics:

NEM Projects: 10,060



50K

kW Installed: 80,227



100K

NEM Quick Facts

Funding Source:
Ratepayers

Who Participates:

- Residents and Businesses

Lead Organizations:

- PUC
- Consumer Owned Utilities (COUs)

Created: 1999

Years active: 17

Expires: No expiration, cap exists but has been exceeded.

Projects: 10,047

Utilities Participating:
All Oregon utilities

Related Policy:

- ORS 757.300
- OAR 860-039-0005 to 860-039-0080

Residential Energy Tax Credit

The Residential Energy Tax Credit (RETC) program launched in 1978 and is administered by the Oregon Department of Energy (ODOE) to promote energy conservation and renewable energy resource development. Under the RETC program, ODOE issues personal income tax credits to Oregon homeowners, renters, and landlords who purchase energy efficient equipment/devices and renewable energy systems for their homes.

Tax credit amounts vary based on the alternative energy device and the amount of energy saved or produced; credits can range from about \$100 to \$6000. The types of devices and appliances eligible for the tax credit are reviewed each year and have changed over time. In 2005, the Legislature increased the solar electric tax credit to \$6,000, which is equal to \$1,500 taken over four years.

RETC continues to be well utilized, contributing to meeting Oregon's energy efficiency and renewable energy goals. Over the years, ODOE issued nearly 600,000 tax credits to Oregonians for eligible projects.

Solar PV Projects Receiving a RETC Incentive:

Number of Projects: 10,391



kW Installed: 43,576



Annual Energy kWh: 40,630,065



Total Installed Cost: \$229,039,242



Total Incentives (One -Time \$): \$57,101,267



*This includes installed costs covered not just by RETC but also by Energy Trust, grants, and/or Federal tax credits.

RETC Quick Facts

Funding Source:
Taxpayers

Who Participates:
Homeowners, renters or owners of rental properties

Lead Organization: ODOE

Created: 1978

Years active: 38

Expires: 2018

Incentives Given: \$43.8M

Projects: 7,923

Applicable Utility Service Territory: All

Related Policy:

- OAR 330-070-0022
- ORS 316.116

Renewable Energy Development Grant

The Renewable Energy Development (RED) Grant program began in 2010 and is administered by the Oregon Department of Energy. Eligible recipients include Oregon businesses, organizations, public bodies, nonprofits, tribes and residential rental properties that install and operate a renewable energy system that produces electricity.

RED grants are awarded through a competitive selection process and can total up to 35 percent of eligible project costs, with a cap of \$250,000 per project. Funding for the grants comes from tax credit auctions administered by the Oregon Department of Revenue.

Eligible projects include systems that use biomass, solar, geothermal, hydroelectric, wind, landfill gas, biogas or wave, tidal or ocean thermal energy technology to produce energy.

Solar Project Statistics:

RED Projects: 11



kW Installed: 426



Annual Energy kWh: 526,683



Total Installed Cost: \$1,337,999



Total Incentives (One -Time \$): \$301,773



RED Quick Facts

Funding Source:
Taxpayers

Who Participates:
businesses, public
bodies, non-profits,
tribes, residential,
rental properties

Lead Organization:
ODOE

Created: 2010

Years active: 6

Expires: 2018

Incentives Given:
\$301,773

Projects: 11

Applicable Utility
Service Territory: All

Related Policy:
• OAR 330-200-
0000

Small Scale Energy Loan

ODOE's Small-Scale Energy Loan Program (SELP) provides loans for conservation, renewable energy, and other energy projects. It is one of the nation's oldest green-lending programs. SELP provides access to funding for eligible energy projects, from installing photovoltaic and hydropower systems to more efficient furnaces and lighting systems. SELP serves individuals, businesses, non-profit organizations, schools, and local, state, federal and tribal governments.

SELP has issued 874 loans – more than \$611 million – over its 30-plus year history. The program has about \$214 million in its active portfolio. SELP made its first loan in 1981.

The program issues four types of bonds:

- Governmental Purpose, for energy projects in publicly owned and operated facilities.
- Private Activity, for projects that use renewable resources to produce energy or for energy projects for non-profit organizations.
- Federally Taxable, for energy-saving projects in homes and businesses.
- Qualified Energy Conservation Bonds, for energy conservation projects for states, tribes, and local governments.

Solar Project Statistics:

SELP Solar PV Projects: 44



Total Loans Given: \$10,658,954



SELP Quick Facts

Funding: Revolving loan fund initiated by taxpayers

Who Participates:
Individuals
Businesses
Non-profits
Schools
Governments

Lead Organization:
ODOE

Created: 1981

Years active: 35

Expires: None

Loans Given: \$7.6M

Projects: 44

Applicable Utility Service Territory: All

Related Policy:

- OAR 330-070-0022
- SB 1507
- HB 3672

Renewable Portfolio Standard

As part of the Oregon Renewable Energy Act of 2007 (SB 838), the state of Oregon established a renewable portfolio standard (RPS) for electric utilities and retail electricity suppliers. The RPS was updated by [SB 1547](#) in 2016 to raise the target to 50 percent eligible renewable electricity by 2040.

Different RPS targets apply depending on a utility's size. Electricity service suppliers must meet the requirements applicable to the electric utilities that serve the territories in which the electricity service supplier sells electricity to retail consumers. Large investor-owned utilities -- those with 3 percent or more of the state's load -- must ensure that a percentage of the electricity sold to retail customers in-state be derived from eligible renewable energy resources according to the following schedule:

- **5% by 2011**
- **15% by 2015**
- **20% by 2020**
- **27% by 2025**
- **35% by 2030**
- **45% by 2035**
- **50% by 2040**

Smaller utilities are subject to smaller standards. Utilities with less than 1.5 percent of state load must meet a 5 percent RPS by 2025. Utilities with more than 1.5 percent, but less than 3 percent of state load must meet a 10 percent RPS by 2025.

RPS compliance must be demonstrated through the purchase of renewable energy certificates (RECs) through the Western Renewable Energy Generation Information System (WREGIS). RECs may be either bundled with, or purchased separately from, electricity contracts. RECs must come from a facility located within the Western Electricity Coordinating Council (WECC).

RPS Quick Facts

Funding Source:
Ratepayers

Who Participates:
All ratepayers

Lead Organizations:
OPUC and ODOE

Created: 2007

Years active: 9

Expires: Ongoing

Applicable Utility
Service Territories:
All

Related Policy:

- ORS 469
- SB 1547
- SB 838

Public Utilities Regulatory Policy Act

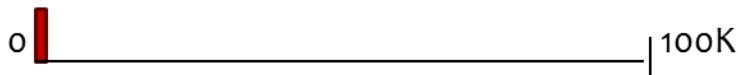
Congress adopted the Public Utilities Regulatory Policy Act (PURPA) in 1978 in response to the 1973 energy crisis. PURPA was designed to promote energy conservation through reduced electricity demand and promote greater use of domestic energy and renewable energy .

Under PURPA both publicly- and investor-owned utilities must purchase energy generated and offered for sale by qualifying facilities (QFs), which include renewable energy facilities of up to 80 MW. The prices for purchases from QFs are set at the purchasing utility's avoided cost (the cost at which the utility would have paid to acquire the energy absent the purchase from the QF). Although PURPA is a federal program, implementation is left largely to the states.

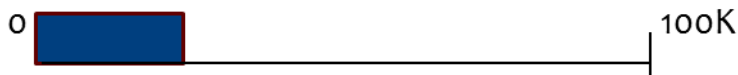
The Commission has adopted policies intended to encourage QF development while protecting ratepayers from paying QFs more than the utilities' avoided costs for energy.

Solar Project Statistics:

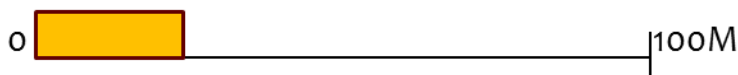
PURPA Projects: 3 operating (59 under contract*)



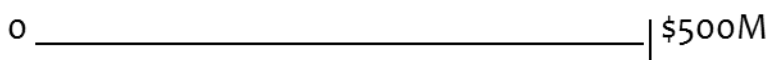
kW Installed: 2,600 kW operating (434,230 contracted)



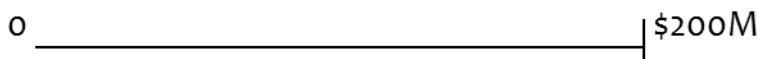
Annual Energy kWh: TBD



Total Installed Cost: Not Available



Total Paid OUT: Not Applicable



*Only three QFs are operating at this time, all in PGE area. However , there are 59 under contract, to include PAC with 27 upcoming projects for 230 MW ; PGE with 26 projects for 146.5 MW; and Idaho Power with 6 projects for 60 MW.

PURPA Quick Facts

Funding Source:
Ratepayers

Who participates:
Project Developers

Lead Organization:
OPUC

Created: 1978

Years active: 38

Expires: None

Applicable Utility
Service Territory:
All

Related Policy:

- OAR 860-029-001 to 0100

Energy Trust of Oregon Solar Program

Senate Bill (SB)1149, directed that 17.1 percent of all funds collected under the public purpose charge be directed toward renewable resource development, by specifically offsetting a portion of project costs that exceeds the market cost of electricity, commonly referred to as the above-market cost.

Since 2002 Energy Trust of Oregon (Energy Trust) has overseen and managed the expenditures of these PPC funds, which has ranged between \$7.2 million in 2002 to \$14.9 million in 2015 for all eligible renewable technologies.

Customers receiving a standard solar program incentive must also have a net metering agreement with their utility, and were not eligible for the VIR program when it was operational.

In 2007, through SB 838 the focus of the Energy Trust Renewables Program was narrowed to funding projects of 20 megawatts or smaller in size. This was done to separate the public purpose charge use from the utilities' obligation to meet the state's RPS requirement. In effect this separation also kept the PPC's ratepayer funds focused on developing the market for small-scale, distributed renewable resources.

Solar Project Statistics:

Energy Trust Solar Program Projects: 9,143



kW Installed: 83,247



Annual Energy kWh: 91,929,957



Total Installed Cost: \$452M*



Total Incentives (One-Time \$): \$87M



Energy Trust Solar Program Quick Facts

Funding Source:
Ratepayers

Who Can Participate:
Portland General Electric and PacifiCorp Customers

Lead Organizations:
Energy Trust with OPUC oversight

Created: 1999

Launched: 2002

Years active: 14

Expires: 2025

Incentives Given: \$87M

Projects: 9,161

Applicable Utility Service Territory:
Portland General Electric and PacifiCorp

Related Policy:

- ORS 757.612
- OAR 860-038-0480
- SB 1149
- SB 838

*This includes installed costs covered not just by the Energy Trust Incentive Program but also by RETC, BETC, Grants, and/or Federal Tax credits.

Rural Renewable Energy Development Zones

Rural Renewable Energy Development Zones

(RRED Zones) offer an incentive to encourage new investments that either: harness wind, geothermal, solar, biomass, or other unconventional forms of energy in Oregon to generate electricity; or produce, distribute or store any of a wide variety of biofuels.

Throughout Oregon, a city, county, or several contiguous counties can set up a RRED Zone that covers all the territory in the jurisdiction(s) outside the urban growth boundary (UGB) of any large city or metropolitan area.

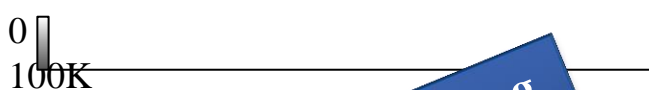
The abatement is the standard (3 to 5 year) exemption from local taxes on qualified property available in any enterprise zone, except that in a RRED Zone it is only for renewable energy activities (which also are eligible in an enterprise zone). In addition, the total amount of property (among one or more projects) that can qualify is subject to a locally-set cap with each RRED Zone designation of \$250 million or less in initial market value.

Since 2013, the local government sponsor (county) may waive the requirement to create full-time employment with a new project, if the cost of the investment is \$5 million or more.

RRED Projects: 10



kW Installed: TBD



Total Incentives (One-Time \$): 2013-14 \$140,000,000 property taxes exempted.*



*By 2016 3.6 Million of property taxes are expected to be exempted.

RRED Quick Facts

Funding Source:
Taxpayers

Who Participated:
Businesses

Lead Organization:
Business Oregon

Created: 2003

Years active: 15

Expires: Zones
terminate after 10
years

Incentives Given:
\$140M property tax
exempted

Projects: 10

Applicable Utility
Service Territory: All

Property Tax Exemption for Alternative Energy Systems

The property tax exemption for Alternative Energy Systems exempts the additional taxable value of equipping a property with net metering or with alternative systems for onsite electricity or climate control as compared to a conventional system until 2017.

In 2011, the Oregon Legislature passed HB 2536 which provided a property tax exemption for any changes in the real market value of a property due to installing a qualifying renewable energy system. The governing body of a county and the owner or person in possession or control of a solar project located within the county and outside the boundaries of any incorporated city may enter into an agreement that exempts from property taxes the property constituting the solar project and allows the payment of a fee in lieu of property taxes imposed on the property. An agreement may not be entered into for a term longer than 20 consecutive years.

This exemption means that any increase in a property value due to the installation of solar photovoltaics would be exempt from the property's tax assessment. Projects must be net-metered or provide an offset to on-site electricity use. The property tax exemption will expire in 2018.

Property Tax Exemption for Alternative Energy Systems Quick Facts

Funding Source:
Taxpayers

Who Participates
Property Owners

Lead Organization:
Department of Revenue

Created: 2011

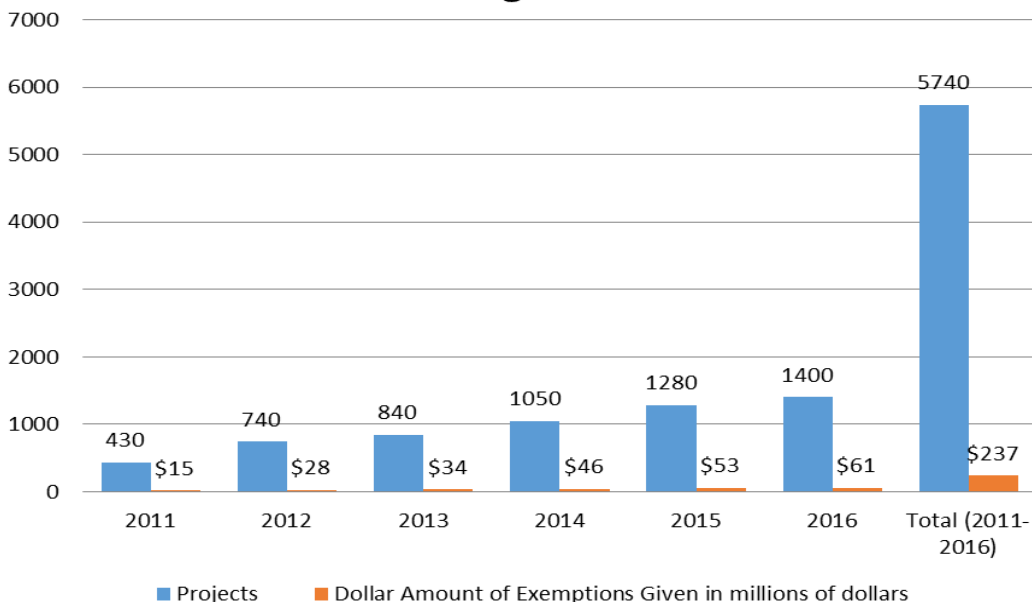
Years active: 6

Expires: 2018

Projects: 5,740

Incentives Given: \$237M

Alternative Tax Exemption Projects in Oregon



Fee In Lieu Of Property Tax

Pursuant to executing an agreement with the county (and city, if inside one), any solar project may be exempt for up to 20 years, contingent on annual payment to the county/city of a fee equal to \$7,000 per megawatt of the project's nameplate capacity, and provided that the project is or was not subject to any other exemption.

The governing body of a county and the owner or person in possession or control of a solar project located within the county and outside the boundaries of any incorporated city may enter into an agreement that exempts from property taxes the property constituting the solar project and allows the payment of a fee in lieu of property taxes imposed on the property. An agreement may not be entered into for a term longer than 20 consecutive years.

The developer will get agreement from the relevant county and pay \$7000 per MW instead of property taxes.

Fee In Lieu Of Property Tax Quick Facts

Funding Source:
Taxpayers

Who participates:
Solar Project Owners

Lead Organizations:
Local jurisdictions

Created: 2015

Years active: 1

Expires: 2022

Incentives Given: XX

Projects: XX

Related Policy:

- Oregon Law
2015 Chap. 571
- HB 3492

Resource Value of Solar

Oregon's resource value of solar (RVOS) will define a methodology to determine the market value of distributed solar photovoltaic projects for Oregon. Oregon is in the process of defining this methodology.

In 2013, the Oregon Legislature enacted HB 2893 which added reporting and study requirements to ORS 757.365. The Public Utility Commission (Commission) prepared and submitted to the Legislature a comprehensive "investigation into the Effectiveness of Solar Programs in Oregon" on July 1, 2014. In that report, the Commission committed to opening a formal proceeding to determine the RVOS. The Commission opened this docket, UM 1716, on January 27, 2015, to address those issues.

PUC staff began holding workshops in 2015 to discuss the attributes of solar generation that should be considered in the determination of RVOS. All parties filed comments on the list of elements, making recommendations to the Commission as to those that should be included. The Commission clarified that it would consider only those elements that could directly impact the cost of service to utility customers.

The Commission adopted a two-phase contested case process to complete its investigation of RVOS. The first phase addresses elements and methodologies for RVOS, and the second phase will examine the values for each utility using those adopted methodologies. PUC Staff hired consulting firm E3 to create a methodology for the RVOS and developed a model. Parties are reviewing the model and methodology and submitting testimony to the Commission. Hearings will begin in August 2016.

RVOS Quick Facts

Funding Source:
Ratepayers

Who Participates:
To be determined

Lead Organization:
OPUC

Created: 2013

Years active: N/A

Expires: N/A

Incentives Given: N/A

Applicable Utility
Service Territory:
To be determined

Related Policy:

- ORS 757.365(13)
- Order No. 12-396
- Order No. 15-296
- HB2893 (2013)
- HB2941 (2015)

SB 1547 Community Solar

Community solar programs allow electric customers the opportunity to buy solar energy from a shared solar resource as opposed to installing solar capacity on their own property. Community solar customers share in the costs, risks, and benefits of solar projects through their utility bill.

House Bill 2941 (2015) directed the Public Utility Commission of Oregon (OPUC) to hold proceedings and recommend a set of preferred attributes for the design of a community solar program and to report back to the Legislature by November 1, 2015. The PUC recommended a definition of community solar, attributes, and features of the program to incorporate into any proposed legislation.

SB1547 passed in early 2016 and this created a new and altered policy framework for Community Solar, specifically the new legislation called for utility ownership of community solar projects.

A rulemaking will begin in Oregon, led by the OPUC in Fall of 2016 to determine the attributes of Community Solar for Oregon.

SB 1547 Community Solar Quick Facts

Funding Source:
Voluntary utility
customers

Who participates:
TBD

Lead Organization:
OPUC

Created: 2016

Years active: N/A

Expires: N/A

Incentives Given:
To be determined

Applicable Utility
Service Territory:

Related Policy:

- HB 2941
- SB 1547

*Consumer owned utilities in Oregon can also provide Community Solar programs to their members. This fact sheet and discussion refers to the requirements that the OPUC write administrative rules to implement Community Solar programs at its regulated utilities.

Solar Incentive Program

The 2016 Legislature passed HB 4037 which created a new clean technology program to provide incentives to owners of photovoltaic energy systems that collect solar energy and distribute electricity. The Oregon Business Development Department will establish this program to encourage the development of solar energy projects in Oregon with a nameplate capacity of between 2 and 10 megawatts.

The Solar Incentive Program is a production incentive, qualifying projects will receive a monthly payment of one-half cent per kilowatt hour of electricity generated for a period of five years.

Qualifying systems must be located in Oregon, be between 2 and 10 MW, and have to have a commercial operation date of January 1, 2016 or later. This program is closed to new applicants once 150 MW of cumulative capacity has been enrolled or January 2, 2017.

The program sunsets on January 2, 2023.

Solar Incentive Quick Facts

Funding Source:
Taxpayers

Who Participates:
2 to 10 MW solar projects in Oregon

Lead Organization:
Business Oregon

Created: 2016

Years active: 0

Expires: Jan 2, 2023

Incentives Given: N/A

Applicable Utility
Service Territory: All

Related Policy:

- HB 4037

Business Energy Tax Credits

BETC operated for 35 years and provided incentives that helped thousands of businesses, schools, nonprofits, tribal governments, and others save money and energy.

BETC led to investments in renewable energy resources, both large and small and supported the development and use of alternative modes of transportation, which lowered energy costs and reduced emissions.

BETC reached its final sunset on July 1, 2014. As of that date, 24,743 business energy tax credits had been issued for projects that leveraged nearly \$6 billion in total investments in Oregon. Of that total, 802 BETC incentives were for solar PV installations.

The vast majority of BETC solar installations have occurred within the past ten years (~95 percent). The credit is \$2.10 per installed watt, up to 50 percent of total installation cost, and capped at \$6,000. The credit is available to all Oregon taxpayers, whether their electric utility is consumer or investor owned.

Solar PV Projects under the BETC Program:

Number of Projects: 802



kW Installed: 41,722



Annual Energy kWh: 58,733,665



Total Installed Cost: \$235,972,732



Total Incentives (One -Time \$): \$116,286,869



BETC Quick Facts

Funding Source:
Taxpayers

Who Participated:
Commercial solar
projects in Oregon

Lead Organization:
ODOE

Created: 1979

Years active: 35

Expired: 12/01/2014

Incentives Given: \$116M

Projects: 786

Related Policy:

- OAR 330-090-0105 to 330-090-0350
- ORS 315.354
- HB 3672

Volumetric Incentive Rate

In 2009, the Oregon legislature adopted HB 3039 requiring the Commission to implement Volumetric Incentive Rate (VIR) Pilot Programs for Idaho Power Company, PacifiCorp, and Portland General Electric Company.

Under the VIR Pilot Program, customers are allowed to install solar photovoltaic production facilities on their property and are paid a VIR for the electricity they generate and consume themselves. Customer generation that exceeds the customer's usage in a billing period is rolled into the next billing period, and any net generation at the end of a 12-month period is donated. The VIR Pilot Program was available to all customers.

Oregon's VIR program is a production-based (per kWh) incentive, under which the customer is paid for the power they generate over time. Under the program, residential and other small customers enter a 15-year agreement with their utility, and receive a fixed incentive price for the energy they generate.

This incentive is paid through a combination of cash payments and electric bill credits. Larger commercial- and industrial-sized systems receive an incentive rate determined through a competitive bid rather than a fixed rate, resulting in lower incentive rates for these larger systems.

VIR Quick Facts

Funding Source:
Ratepayers

Who participated:
Residential Homes
Commercial
Industrial

Lead Organization:
OPUC

Created: 2009

Years active: 7

Expired: 03/31/2016

Projects: 2,170

Applicable Utility
Service Territory:
PGE
PAC
Idaho Power

Related Policy:

- ORS 757.365
- OAR 860-084-0000 to OAR 860-084-0450

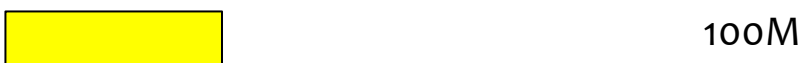
VIR Projects: 2,171



kW Installed: 27,886



Annual Energy kWh: 27,067,835



Total Installed Cost: \$118,668,347

