

PUBLIC UTILITY COMMISSION OF OREGON  
STAFF REPORT  
PUBLIC MEETING DATE: March 8, 2016

REGULAR \_\_\_\_\_ CONSENT  X  EFFECTIVE DATE \_\_\_\_\_  Upon Commission Approval

DATE: February 26, 2016

TO: Public Utility Commission

FROM: Brittany Andrus 

THROUGH: Jason Eisdorfer and Aster Adams  

SUBJECT: OREGON PUBLIC UTILITY COMMISSION STAFF:  
(OAR 860-038-0300) Memorializes Agreements Between Parties Related to Labeling Requirements.

**STAFF RECOMMENDATION:**

This memorandum is informational.

**ISSUE:**

The Commission revised rules related to Portfolio Options Labeling Requirements in Order No. 14-067 and directed Staff and parties to hold additional workshops regarding spent nuclear fuel reporting, how often reporting should be done and the format for the label template. OARs 860-038-0005 and 860-038-0300 address Definitions for Direct Access Regulation, and Electric Company and Electricity Service Suppliers Labeling Requirements, respectively. The Commission adopted changes to these OARs in Order No. 14-067 and instructed parties to address three issues in subsequent workshops: 1) whether and how to provide any information about nuclear power, 2) schedule for reporting requirements, and 3) label template format. Staff reports on those additional workshops in this memorandum.

**ANALYSIS:**

In addition to Staff, parties participating in the workshops for Part 2 of Docket No. AR 555 include PacifiCorp, Portland General Electric (PGE), Oregon Department of Energy (ODOE), Renewable Northwest (RNW), and Citizens' Utility Board of Oregon (CUB).

### Nuclear Power Reporting

As part of the labeling requirement, electric companies must report annual emission factors for the expected production level for each of their sources of supply under OAR 860-038-0300(6)(d). In Order No. 14-067, the Commission deleted the requirement that companies report “spent nuclear fuel, measured in mg/KWh of spent fuel.” The Commission encouraged parties to follow up on this change by discussing whether and how to provide any information about nuclear power.<sup>1</sup> During those subsequent workshops, parties discussed a letter from the ODOE addressing whether the spent nuclear fuel can be quantified for environmental impact reporting (Attachment 1). The parties concluded that no reporting requirement regarding nuclear power is appropriate.

### Schedule for Reporting Requirements

In Part 1 of the Docket No. AR 555 rulemaking, Staff and parties proposed changing the frequency of reporting required in the rule from quarterly to “consistent with the requirements and frequency” prescribed by the Commission. The Commission declined to adopt this change, instead directing parties to address the frequency issue in conjunction with the outstanding label template format issue in workshops. The parties have done this, and recommend changing the rule so that reporting is required “annually, or at a frequency prescribed by the Commission.”<sup>2</sup> This proposed rule change was posted in the Oregon Bulletin and Staff anticipates that the Commission will address this proposed rule change in March 2016.

### Label Template Format

In Part 1 of the rulemaking, parties did not reach agreement on the format for the label template. As directed in Order No. 14-067, parties and Staff participated in multiple workshops, and agreed to the following changes:

- Report price information based on the average monthly bill and price per kilowatt-hour, eliminating the reporting for specific usage levels (250, 500, 1,000 and 2,000 kilowatt hours). This change provides the most relevant information for consumers, and reduces the amount of information portrayed in the limited label space.
- PacifiCorp will now represent its unspecified market purchases by generation type alongside the generation types for its own resources, rather than portraying those market purchases as “other.” PGE will continue to include its unspecified market purchases in the “slice” of the chart for each generation type.

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<sup>1</sup> Order No. 14-067 at 3.

<sup>2</sup> Notice of Proposed Rulemaking, filed January 15, 2016, p. 5.

Because the label template formats are provided to consumers, “consistent with the requirements prescribed by the Commission,” and not specified in rule, Staff and parties have agreed on principles for the type of format changes that would be substantive and require Staff and stakeholder involvement, and those that would be considered insignificant. Staff has attached both companies’ final templates for power source disclosure labels (Attachments 2a for PGE, and 2b for PacifiCorp), which are scheduled to be provided to customers in early 2016.

Examples of non-substantive changes include but are not limited to modifying the color, font, graphics, and changes in non-specified wording in the template. PacifiCorp and PGE have committed to working with Staff before implementing any substantive changes to the template. Examples of substantive changes include but are not limited to adding a new power option, or adding, deleting, or making a major modification to the components of the data portrayed in the price, power source, and environmental impact information that are specified in the administrative rules as required elements in the template.

#### Comments

PacifiCorp and PGE submitted comments in support of the label template changes. PGE also requests that the Commission confirm that the annual frequency specified in OAR 860-038-0300(2) for residential customers also applies to the non-residential customers in subsection (3).

#### **CONCLUSION:**

Staff appreciates the collaboration of parties in resolving the outstanding issues in this docket.

Staff supports PGE’s proposal that the application of an annual frequency applies to both residential and nonresidential customers. Staff believes this clarification can be made in any order adopting the proposed rule change.

With respect to the other two issues remaining in this docket, whether there should be any reporting requirements related to nuclear power and labeling format requirements, Staff believes those issues are adequately addressed by agreement of the parties and that no Commission action is required.

#### **PROPOSED MOTION:**

No Commission motion is proposed.



## MEMORANDUM

**To:** Oregon Public Utility Commission

**From:** Ken Niles, Assistant Director for Nuclear Safety and Emergency Preparedness  
Julie Peacock, Energy Policy Analyst, Energy Planning and Innovation Division

**Date:** April 23, 2015

**Subject:** Measurement of Spent Fuel at Nuclear Facilities in the Northwest

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As a part of the Public Utility Commission of Oregon Administrative Rulemaking (AR) 555, the Department was asked to describe the feasibility of determining the Oregon portion, determined by the state's electricity consumption, of spent nuclear waste from operating nuclear facilities in the Northwest. The AR 555 docket addresses the investor owned utilities' retail label and will determine the manner and frequency each utility's electricity resource mix is communicated to customers on the retail label under OAR 860-038-0300. Until 2014, Oregon Administrative Rule has required utilities to specify the amount of spent nuclear fuel measured in mg/kWh. After stakeholder discussion, it was concluded that providing a milligram per kilowatt hour calculation was a difficult, if not impossible, annual process. The Department agreed with the provision to delete the requirement to report on spent nuclear fuel per kilowatt hour.

### Background

Energy Northwest operates the only commercial nuclear reactor in the Pacific Northwest, the Columbia Generating Station. It is located just north of Richland, WA. According to their website, the Columbia Generating Station produces approximately 1,170 megawatts of electricity, equivalent to about 10 percent of Washington's power and four percent of all the electric power used in the Pacific Northwest. All of its output is provided to the Bonneville Power Administration.

The nuclear reactor is refueled every other year, at which time a portion of the nuclear fuel is removed and new fuel inserted into the reactor. The fuel that has been removed is stored underwater for at least five years, before it has thermally cooled enough to be moved to dry storage. All of the fuel that has been removed from the reactor (called "spent" or "used" fuel) is stored at the reactor site, as the federal government does not yet have a permanent disposal site for the fuel.

### Conclusion

Calculating the amount of waste generated per unit of electricity used within the State of Oregon would be a tremendously difficult calculation – assuming data was even available to do that calculation. The utility would have to know: when and how much nuclear-generated electricity was provided within Oregon over a specific period of time; and the amount of spent fuel generated during that same period of time (it is usually tracked in terms of fuel rods or fuel assemblies – sometimes it is tracked in metric tons). The Department agrees that maintaining the deletion of the milligram per kilowatt hour measurement is appropriate.

## Renewable power options

Make a difference for the environment and reduce your carbon footprint.

### GREEN SOURCE™

100 percent of your energy use is offset with renewable power.

### GREEN FUTURE™ SOLAR


Solar power generated right here in Oregon, sold in 1 kilowatt blocks. Each block is about 14 percent of an average PGE renewable power customer's monthly usage.

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Wind power in 200 kilowatt-hour blocks. Each block is about 28 percent of an average renewable power customer's monthly usage.

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Add to any renewable option for \$2.50 per month. The money goes to the Nature Conservancy for habitat restoration.

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No. 1 renewable program in America  
Latest National Renewable Energy Laboratory ranking for number of renewable power customers and most renewable energy sold.



120,000+ people have chosen a renewable power option from PGE.

## Understanding your power options

[PortlandGeneral.com/PowerOptions](http://PortlandGeneral.com/PowerOptions)

### Information on environmental impacts

The environmental impact charts compare the environmental performance of this electricity product with the average profile for electricity generation in the Northwest, with respect to emission of key air pollutants (SO<sub>2</sub>, NO<sub>x</sub>), toxins (mercury), and greenhouse gases (CO<sub>2</sub>) associated with energy generation from fossil fuels. Impacts also occur due to the effects of waste from nuclear power plants but are not represented in these charts. More information about the public health and environmental costs of those emissions can be obtained from the U.S. Environmental Protection Agency at [epa.gov/cleanenergy/energy-and-you/affect/index.html](http://epa.gov/cleanenergy/energy-and-you/affect/index.html), [epa.gov/air/airpollutants.html](http://epa.gov/air/airpollutants.html) and [epa.gov/climatechange](http://epa.gov/climatechange) or by calling the Oregon Department of Environmental Quality at 503-229-5696.

**Portland General Electric**  
121 SW Salmon Street | Portland, Oregon 97204  
1-800-543-8818



## Pricing plans

### BASIC SERVICE

This is the way most customers have traditionally paid for electricity.

### TIME OF USE

You pay different rates for electricity you use depending on the time of day, day of week and season. If you can significantly shift your energy use to off-peak hours, you may save money with Time of Use. More details on pricing, peak time periods and a calculator can be found at [PortlandGeneral.com/PowerOptions](http://PortlandGeneral.com/PowerOptions).

### Want to know more or change your current option?

To enroll in an option, or find more details including calculators that show you how each option can impact your bill and carbon footprint, visit [PortlandGeneral.com/PowerOptions](http://PortlandGeneral.com/PowerOptions) or call 1-800-542-8818.

# Where does your power come from? COMPARE YOUR OPTIONS

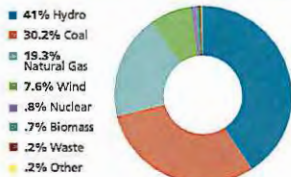


Estimate your bill at  
[PortlandGeneral.com/PowerOptions](http://PortlandGeneral.com/PowerOptions)  
**Attachment 2A**

## PRICING PLANS

### Basic Service and Time of Use

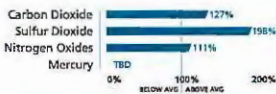
#### SUPPLY MIX



Includes Renewable Energy Credits associated with the eligible renewable energy (wind, biomass and some hydro) that may be saved or used to comply with Oregon's Renewable Portfolio Standard.

#### ENVIRONMENTAL IMPACT

Amount of pollutants per kilowatt-hour of supply, compared to the Northwest U.S. average.



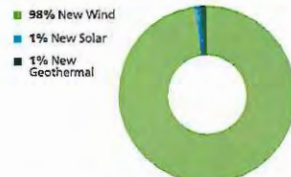
#### AVERAGE MONTHLY BILL

Basic Service: \$101.04 | 11.8 cents per kWh  
 Time of Use: \$98.28 | 11.5 cents per kWh

## RENEWABLE POWER

### Green Source™

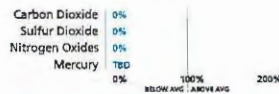
#### SUPPLY MIX



For 2015, the new wind comes from Oregon, Washington, Idaho or Wyoming. The new geothermal and new solar comes from Oregon.

#### ENVIRONMENTAL IMPACT

Amount of pollutants per kilowatt-hour of supply, compared to the Northwest U.S. average.



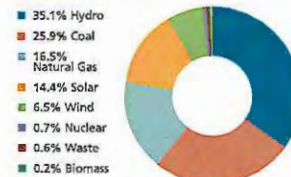
#### ADDITIONAL COST \$0.008 per kWh

#### AVERAGE MONTHLY BILL

\$108.10 | 12.6 cents per kWh

### Green Future™ Solar Basic Service + 1 Block Green Future Solar

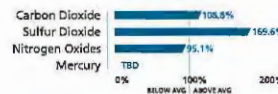
#### SUPPLY MIX



The additional new solar comes from Oregon.

#### ENVIRONMENTAL IMPACT

Amount of pollutants per kilowatt-hour of supply, compared to the Northwest U.S. average.



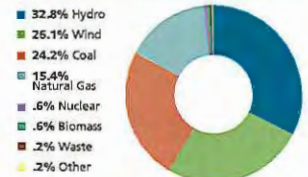
#### ADDITIONAL COST \$5 per 1 kW block

#### AVERAGE MONTHLY BILL

\$106.55 | 12.4 cents per kWh

### Clean Wind™ Basic Service + 1 Block Clean Wind

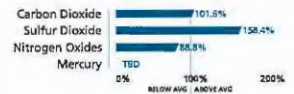
#### SUPPLY MIX



For 2015, the additional Clean Wind comes from Oregon, Washington, Idaho or Wyoming.

#### ENVIRONMENTAL IMPACT

Amount of pollutants per kilowatt-hour of supply, compared to the Northwest U.S. average.



#### ADDITIONAL COST \$2.50 per 200 kWh block

#### AVERAGE MONTHLY BILL

\$103.97 | 12.1 cents per kWh

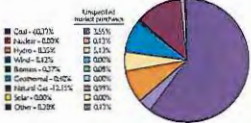
Note: Pricing based on the PG&E residential customer using 450 kWh per month and the typical Time of Use customer (at 10pm-7pm) 13% on-peak, 37% mid-peak, and 44% off-peak. Charts show 2012 mix for Basic Service and Time of Use and projected 2015 mix of renewable energy for Green Source, Green Future Solar and Clean Wind (new). \*New power comes from facilities that have not yet received the test 15-year

### Basic Service

Service you receive from the company's diverse resource mix.

### Time of Use<sup>2</sup>

Shift your electricity usage to lower-priced, off-peak times.

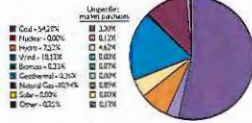


<sup>2</sup>Not all power may use the renewable energy credits associated with the electric renewable energy (wind, hydro and solar) in our Basic Service resource mix to comply with Oregon's Renewable Portfolio Standard beginning in 2011. For more information visit [pacifienergy.com/RECs](http://pacifienergy.com/RECs).

### Blue Sky<sup>SM</sup> Block<sup>3</sup>

Allows you to support fixed price, 100 kilowatt-hour "blocks" of Western region wind energy and help fund new community-based renewable energy projects in Oregon. Blue Sky is a Green-e<sup>®</sup> energy certified program.

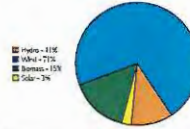
#### Basic + one Blue Sky Block



<sup>3</sup>For every unit of renewable energy generated an equivalent amount of renewable energy credits are produced. Each REC represents the environmental attributes of 1 megawatt-hour (MWh) of renewable energy. RECs are sold to the utility and then sold to renewable energy users into the electrical grid on behalf of the end customer who uses the RECs. The RECs are exclusively owned and retired on behalf of all Blue Sky customers. The company does not use the RECs for any other purpose. Environmental benefits of purchasing one 100 kWh block are equivalent to not driving 1,162 miles.

### Blue Sky Usage<sup>4</sup>

Allows you to support 100 percent Pacific Northwest renewable resources equal to your monthly electricity usage. Blue Sky is a Green-e<sup>®</sup> energy certified program.



<sup>4</sup>For every unit of renewable energy generated an equivalent amount of renewable energy credits are produced. Each REC represents the environmental attributes of 1 megawatt-hour (MWh) of renewable energy. RECs are sold to the utility and then sold to renewable energy users into the electrical grid on behalf of the end customer who uses the RECs. The RECs are exclusively owned and retired on behalf of all Blue Sky customers. The company does not use the RECs for any other purpose.

### Blue Sky Habitat<sup>5</sup>

Allows you to support 100 percent Pacific Northwest renewable resources equal to your monthly electricity usage plus a contribution to help restore and preserve native fish habitats in Oregon. Blue Sky is a Green-e<sup>®</sup> energy certified program.



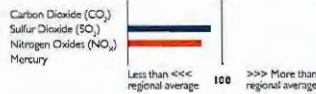
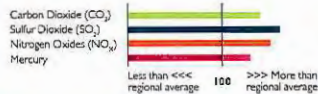
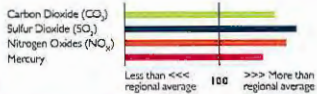
<sup>5</sup>For every unit of renewable energy generated an equivalent amount of renewable energy credits are produced. Each REC represents the environmental attributes of 1 megawatt-hour (MWh) of renewable energy. RECs are sold to the utility and then sold to renewable energy users into the electrical grid on behalf of the end customer who uses the RECs. The RECs are exclusively owned and retired on behalf of all Blue Sky customers. The company does not use the RECs for any other purpose.

Monthly electricity usage <sup>6</sup>	Basic 1,000 kwh	Time of Use 1,000 kwh
0-1,000 kwh		
Basic @ \$1.65¢ per kwh	\$51.65	\$16.93
TOU On-peak @ \$1.289¢ per kwh	-	\$34.34
TOU Off-peak @ \$0.40¢ per kwh	-	
<b>Basic energy cost</b>	<b>\$51.65</b>	<b>\$51.27</b>
Additional option charges per month: \$1.50 per meter fee (TOU only)	-	\$1.50
<b>Adjusted energy cost</b>	<b>\$51.65</b>	<b>\$52.77</b>

Monthly electricity usage <sup>6</sup>	1,000 kwh
0-1,000 kwh @ \$1.65¢ per kwh	\$51.65
<b>Basic energy cost</b>	<b>\$51.65</b>
Additional option charges per month: \$1.95 per 100 kwh increment (block)	\$1.95
<b>Adjusted energy cost with 1 block</b>	<b>\$53.60</b>

Monthly electricity usage <sup>6</sup>	1,000 kwh
0-1,000 kwh @ \$1.65¢ per kwh	\$51.65
<b>Basic energy cost</b>	<b>\$51.65</b>
Blue Sky Usage @ 1.050¢ per kwh	\$10.50
<b>Adjusted energy cost</b>	<b>\$62.15</b>

Monthly electricity usage <sup>6</sup>	1,000 kwh
0-1,000 kwh @ \$1.65¢ per kwh	\$51.65
<b>Basic energy cost</b>	<b>\$51.65</b>
Blue Sky Usage @ 1.050¢ per kwh	\$10.50
Additional option charges per month: \$2.50 donation to The Freshwater Trust	\$2.50
<b>Adjusted energy cost</b>	<b>\$64.65</b>





Electricity can be generated in a number of ways. This annual brochure helps you compare the prices, fuel sources and environmental impact of electricity options available to you.

For more information about your options or to enroll, please visit [pacificpower.net](http://pacificpower.net) or call us, Monday through Friday, 8 a.m. to 5 p.m., toll free at 1-800-769-3717.

To learn about Pacific Power's implementation plan to comply with Oregon's Renewable Portfolio Standard, visit [pacificpower.net/ORrps](http://pacificpower.net/ORrps).

<sup>1</sup> The environmental impact charts compare the environmental performance of this electricity product with the average profile for electricity generation in the Northwest, with respect to emission of key air pollutants (SO<sub>2</sub>, NO<sub>x</sub>), toxics (mercury), and greenhouse gases (CO<sub>2</sub>) associated with conventional energy generation. Impacts also occur due to the waste from nuclear power plants, but are not represented in these charts.

More information about the public health and environmental costs of these emissions can be obtained from the U.S. Environmental Protection Agency at <http://www.epa.gov/cleanenergy/energy-and-you/affect/index.html>, [www.epa.gov/air/pollutants.html](http://www.epa.gov/air/pollutants.html) and [www.epa.gov/climatechange/](http://www.epa.gov/climatechange/), or by calling the Oregon Department of Environmental Quality at 503-229-5699.

<sup>2</sup> Based on summer Time of Use rates, average usage pattern with no shifting of electricity usage (15% on-peak, 85% off-peak)

<sup>3</sup> The Blue Sky Block charge is in addition to your regular electric bill and is listed as a separate line item. Funds received from participating customers are used to purchase renewable energy certificates (RECs) from Western region wind energy facilities equal to your block purchase; to provide funds to help the installation of community-based, non-residential renewable energy projects; to support renewable energy through customer education; and to cover the costs of the program. Pacific Power is required to assign the costs associated with the Blue Sky program to those customers who choose to participate; we do not make a profit by offering this program.

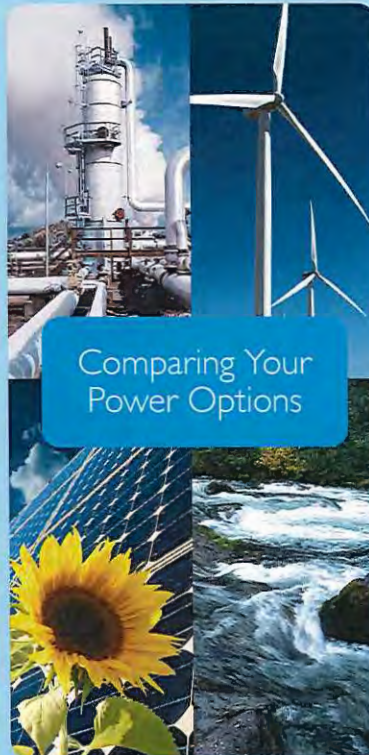
<sup>4</sup> The Blue Sky Usage charge is in addition to your regular electric bill and is listed as a separate item. Funds received from participating customers are used to purchase renewable energy certificates (RECs) from Pacific Northwest renewable energy facilities based on your monthly usage; to support renewable energy through customer education; and to cover the costs of the program. Pacific Power is required to assign the costs associated with the Blue Sky program to those customers who choose to participate; we do not make a profit by offering this program.

<sup>5</sup> The Blue Sky Habitat charge is in addition to your regular electric bill and is listed as a separate item. Funds received from participating customers are used to purchase renewable energy certificates (RECs) from Pacific Northwest renewable energy facilities based on your monthly electricity usage along with an additional contribution to help restore and preserve native fish habitats in Oregon directed to the nonprofit organization The Freshwater Trust. Funds received also go to support renewable energy through customer education; and to cover the costs of the program. Pacific Power is required to assign the costs associated with the Blue Sky program to those customers who choose to participate; we do not make a profit by offering this program.



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Let's turn the answers on.



## Comparing Your Power Options

### Power source (mix)

During the 2011 calendar year Pacific Power had this mix of power sources (may not add to 100% due to rounding).

Based on energy production, an average customer's supply of electricity is made up of the following power sources: 20% coal, 20% natural gas, 10% wind, 10% hydro, 10% nuclear, 10% solar, 10% biomass, 10% geothermal, 10% other. The actual mix of power sources varies by location and time of day. Power's power source mix includes natural resources and purchased generating capacity. For complete information on generation, visit [www.pacificpower.net](http://www.pacificpower.net).

### Cost comparison and Price formula

These examples are based on levels of use. Please refer to your bill to find how much electricity you use each month. Prices are current as of January 1, 2013.

The price formula relates only to the electricity price and does not reflect Supply Service adjustment rate schedule 203, Delivery Service charges, other adjustment rate schedules or local taxes and fees.

Costs in this brochure are based on an average month of 30-12 days. Actual billed amounts will be prorated to the nearest whole kWh based on the number of days in the monthly period. See Pacific Power's Rule 10 at [pacificpower.net/rates](http://pacificpower.net/rates) for details.

<sup>1</sup>The average Oregon residential customer uses 1,000 kWh each month.

### Environmental impact<sup>1</sup>

Relative environmental impact per kilowatt-hour compared to the Northwest U.S. average.

The Northwest U.S. includes Pacific Power, Puget Sound Energy, and other utilities operating in the states of Washington, Oregon, Idaho, and Montana. Renewable energy generation includes Pacific Northwest Hydro, Geothermal, Biomass, Solar, Wind, and Nuclear. For more information, visit [www.pacificpower.net](http://www.pacificpower.net).