Re:



July 25, 2014

Attention: Filing Center Public Utility Commission of Oregon 3930 Fairview Industrial Drive SE P.O. Box 1088 Salem, OR 97308-1088

In the Matter of PORTLAND GENERAL ELECTRIC COMPANY, 2013 Integrated

Resource Plan

PUC Docket No.: LC 56

DOJ File No.: 330030-GN0114-13

Enclosed for filing with the Commission today are an original and five copies of the Reply Comments of the Oregon Department of Energy in the above-captioned matter.

Sincerely,

Renee M France

Senior Assistant Attorney General

Natural Resources Section

Matt De Vore

Enclosures RMF:jrs/#5569445 c: LC 56 service list

# BEFORE THE PUBLIC UTILITY COMMISSION

#### OF OREGON

#### LC 56

In the Matter of	)	
	) REPLY COMMEN	ITS OF
PORTLAND GENERAL ELECTRIC	) OREGON DEPAR	TMENT OF
	) ENERGY	
2013 Integrated Resource Plan	)	
	, )	

The Oregon Department of Energy (the "department") submits these comments in response to other parties' opening comments on Portland General Electric's ("PGE") 2013 Integrated Resource Plan ("IRP") and to PGE's reply comments submitted July 3, 2014. Our reply comments address four topics: 1) carbon dioxide (CO<sub>2</sub>) price risk analysis, 2) method for calculating capacity contribution, 3) energy storage, and 4) cost forecast for renewable resources.

## 1. CO<sub>2</sub> price risk analysis

The department recommends the Public Utility Commission (the "Commission") find PGE's 2013 IRP in compliance with IRP Guideline 8. In its reply comments, PGE correctly explained that the CO<sub>2</sub> trigger point scenario in its 2013 IRP resulted in a 2050 CO<sub>2</sub> price of approximately \$565 per ton,<sup>1</sup> which is significantly higher than the \$295 per ton price suggested by the department. The department acknowledges that the trigger point analysis indicated that a CO<sub>2</sub> price lower than \$565 per ton would not have resulted in the selection of a different preferred portfolio, and therefore, would not change PGE's 2013 Action Plan.

<sup>&</sup>lt;sup>1</sup> PGE's reply comments, at 9.

## 2. Method for calculating capacity contribution

The Commission should open a docket to establish the appropriate methodology for calculating capacity contribution of variable energy resources. The value assigned to the capacity contribution of variable energy resources has grown in importance. It is now used not only to evaluate resource portfolio options in the IRP, but also to calculate avoided cost rates for wind and solar qualifying facilities (see Docket No. UM 1610) and to determine the incremental cost of utility compliance with Oregon's Renewable Portfolio Standard (see Docket No. UM 1616). Decisions in both of those dockets pointed to the IRP process as the forum in which the methodology for determining the capacity contribution should be considered. While the department acknowledges and appreciates PGE's consideration of parties' suggestions, the department is finding that the IRP process is not the right forum for parties to effectively argue for changes in methodology. The IRP process is not adjudicated and results only in Commission acknowledgment of specific IRP action items. A separate proceeding is required to fully consider and establish the appropriate methodology for determining capacity contribution of variable energy resources.

In its July 1, 2014, report on the "Investigation into the Effectiveness of Solar Programs in Oregon" the Commission stated that it "will open a formal proceeding to determine the resource value of solar and the extent of cost-shifting, if any, from net metering." That proceeding will necessarily address the capacity contribution of solar. It should also evaluate and establish the appropriate methodology for determining the capacity contribution of solar. Similarly, the Commission should open a docket related to capacity contribution of wind generation.

<sup>&</sup>lt;sup>2</sup> Report available at <a href="http://www.puc.state.or.us/electric\_gas/Solar%20Report%202014.pdf">http://www.puc.state.or.us/electric\_gas/Solar%20Report%202014.pdf</a>.

## 3. Energy storage

The department supports Staff's comments that energy storage technologies should be included in some resource portfolios evaluated in the IRP, "especially in light of the poor decremental capacity capability brought out in the Company's flexibility study." We are pleased that PGE stated in its reply comments that it expects to "include storage resources such as batteries in the portfolio analysis for its next IRP"4 and we look forward to seeing that analysis in the 2015 IRP.

# 4. Cost forecast for renewable resources

The department supports Renewable Northwest's recommendation that PGE conduct cost sensitivities or a trigger point analysis that would indicate how lower renewable resource costs would change the preferred portfolio.<sup>5</sup> In particular, the department recommends that PGE include in its next IRP futures that represent different plausible cost trends for utilityscale solar photovoltaic generation and flow battery storage.

#### Conclusion

First, the Commission should find that PGE's CO<sub>2</sub> risk analysis complied with IRP Guideline 8. Second, the Commission should open a docket to evaluate and establish the methodology for determining capacity contribution of variable energy resources. The solar resource value docket proposed by the Commission in its 2014 solar report to the Legislature ///

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<sup>&</sup>lt;sup>3</sup> Staff's opening comments, at 7. <sup>4</sup> PGE's reply comments, at 4.

<sup>&</sup>lt;sup>5</sup> Renewable Northwest's opening comments, at 3.

may serve this purpose for solar photovoltaic generation. Third, PGE should include in its 2015 IRP one or more resource portfolios that include storage, and an analysis of how sensitive portfolio results are to different resource cost assumptions, particularly for solar and storage.

Dated this 25<sup>th</sup> day of July, 2014.

Respectfully submitted,

ELLEN ROSENBLUM Attorney General

Matt De Vore #063103

for

Renee M. France, #004472 Assistant Attorney General Of Attorneys for Oregon Department of Energy

#### CERTIFICATE OF SERVICE/SERVICE LIST

I hereby certify that on July 25, 2014, I served the foregoing REPLY COMMENTS OF THE OREGON DEPARTMENT OF ENERGY upon all parties of record in this proceeding by delivering a copy by electronic mail only as all parties of the service list have waived paper service.

OPUC Dockets Citizens' Utility Board of Oregon 610 SW Broadway, Suite 400 Portland OR 97205 dockets@oregoncub.org

James Birkelund (C) Small Business Utility Advocates 548 Market Street, Suite 11200 San Francisco CA 94104 james@utilityadvocates.org

Ralph Cavanagh Natural Resources Defense Council 111 Sutter Street, Floor 20 San Francisco CA 94104 rcavanagh@nrdc.org

Angus Duncan (C)
Natural Resources Defense Council
2373 NW Johnson Street
Portland OR 97210
angusduncan@b-e-f.org

Wendy Gerlitz (C) NW Energy Coalition 1205 SE Flavel Portland OR 97202 wendy@nwenergy.org

Diane Henkels (C) CleanTech Law Partners PC 6228 SW Hood Portland OR 97239 dhenkels@cleantechlawpartners.com

G. Catriona McCracken (C) Citizens' Utility Board of Oregon 610 SW Broadway, Suite 400 Portland OR 97205 catriona@oregoncub.org Oregon Dockets
PacifiCorp, dba Pacific Power
825 NE Multnomah St., Suite 2000
Portland OR 97232
oregondockets@pacificorp.com

Kacia Brockman (C) Oregon Department of Energy 625 Marion Street NE Salem OR 97301-3737 kacia.brockman@state.or.us

John Crider (C)
Public Utility Commission of
Oregon
PO Box 1088
Salem OR 97308-1088
john.crider@state.or.us

Nancy Esteb, Ph D PO Box 490 Carlsborg WA 98324 esteb44@centurylink.net

Patrick G. Hager (C)
Portland General Electric
121 SW Salmon St – 1WTC0702
Portland OR 97204
Pge.opuc.filings@pgn.com
patrick.hager@pgn.com

Robert Jenks (C) Citizens' Utility Board of Oregon 610 SW Broadway, Suite 400 Portland OR 97205 bob@oregoncub.org

Stewart Merrick Northwest Pipeline GP 295 Chipeta Way Salt Lake City UT 84108 stewart.merrick@williams.com Renewable NW Dockets Renewable Northwest Project 421 SW 6<sup>th</sup> Ave., Suite 1125 Portland OR 97204 dockets@rnp.org

Phil Carver Oregon Department of Energy 625 Marion Street NE Salem OR 97301-3737 phil.carver@state.or.us

Megan Decker (C) Renewable Northwest Project 421 SW 6<sup>th</sup> Ave #1125 Portland OR 97204-1629 megan@rnp.org

Renee M. France (C) Oregon Department of Justice Natural Resources Section 1162 Court St NE Salem OR 97301-4096 renee.m.france@doj.state.or.us

Teresa Hagins Northwest Pipeline GP 8907 NE 219<sup>th</sup> Street Battle Ground WA 98604 teresa.l.hagins@williams.com

John Lowe Renewable Energy Coalition 12050 SW Tremont Street Portland OR 97225-5430 jravenesanmarcos@yahoo.com

Thomas H. Nelson PO Box 1211 Welches OR 97067-1211 nelson@thnelson.com Tyler C. Pepple (C)
Davison Van Cleve, PC
333 SW Taylor – Suite 400
Portland OR 97204
tcp@dvclaw.com

Sarah Wallace Pacific Power 825 NE Multnomah St., Suite 1800 Portland OR 97232 sarah.wallace@pacificorp.com V. Denise Saunders (C)
Portland General Electric
121 SW Salmon Street –
1WTC1301
Portland OR 97204
denise.saunders@pgn.com

Michael T. Weirich (C) PUC Staff--Department of Justice Business Activities Section 1162 Court Street NE Salem OR 97301-4096 michael.weirich@state.or.us S. Bradley Van Cleve Davison Van Cleve PC 333 SW Taylor - Suite 400 Portland OR 97204 bvc@dvclaw.com

(C)= Confidential

Dated this 25<sup>th</sup> day of July, 2014.

Matt De Vore #063103

for Renee M. France, OSB #004472

Senior Assistant Attorney General