Portland General Electric Company
121 SW Salmon Street • Portland, Oregon 97204
PortlandGeneral.com

August 29, 2014

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

RE: **UM 1690 PGE's Comments on Issues List for Voluntary Renewable Energy Tariffs**

Portland General Electric (PGE) appreciates the time that Staff has spent identifying questions and issues for the study of Voluntary Renewable Energy Tariffs (VRETs). Enclosed please find PGE's comments on the revised issues list.

HB 4126 directs that the Commission consider, among other factors, the effect of utilities offering VRETs on the development of a competitive retail market. With regard to direct access being included in the VRET table and issues list for comparison purposes, its inclusion is relevant to the docket only to provide an understanding of what the competitive market currently provides. As PGE does not have access to information regarding what the competitive market provides, we look forward to hearing from the participating ESSs regarding their offerings to nonresidential customers in PGE's service territory.

Should you have any questions or comments regarding this filing, please contact Colin Wright at (503) 464-8011.

Please direct all formal correspondence and requests to the following email address pge.opuc.filings@pgn.com

Sincerely,

Karla Wenzel
Manager, Pricing and Tariffs

Portland General Electric Redlines and Comments to Revised Issues List
Implementation of HB 4126 – Voluntary Renewable Energy Tariffs (VRETs)
August 29, 2014

QUESTIONS RELEVANT TO ALL VRET MODELS

I. How should a Voluntary Renewable Energy Tariff (VRET) be defined and designed?

a) What are the essential features and design options of such a tariff? If the Commission were to allow offering more than one type of tariff design, would it help to satisfy diverse customer demands and program goals?

b) How would a VRET product be distinguished from products that might already be available or able to be offered through affiliates or direct access?

c) Should VRETs be considered for all non-residential customers or only a subset of non-residential customers? If not all, should non-qualifying non-residential customers be permitted to aggregate loads?

d) Should a product under a VRET be delivered through an open transmission service in the form of a firm point to point contract, path, or similar mechanism?

e) Should there be a goal for new renewable energy capacity or customer load served with incremental new renewable resources under a VRET?

f) Should a VRET product provider be entitled to aggregate multiple renewable resources as one VRET product?

g) Should there be a cap on the amount of load that can be served under a VRET, and, if so, why? How should the cap be determined?

II. Whether Further Development of Significant Renewable Energy Resources is Promoted? *(HB 4126 Section 3(3)(a))*

a) What constitutes "further development of significant renewable energy resources"?

b) Should "further development of significant renewable energy resources" mean buying the direct output from a *new* renewable resource power plant? How do you define *new*? From an *existing* renewable resource power plant? From a *recently constructed* renewable resource power plant (e.g. constructed since the start of the decade)?

c) Should there be geographic limits on the source of eligible renewable energy (e.g. Oregon or the Northwest) to be considered "further development of significant renewable energy resources"?

d) How do interactions between the RPS and a VRET influence whether the VRET promotes "further development of significant renewable energy resources?"

III. What may be the Effect on Development of a Competitive Retail Market? *(HB 4126 Section 3(3)(b))*

a) Is the competitive retail market harmed if a regulated utility, affiliate of a utility, or customer (?) is able to offer a VRET product and terms of a VRET product to a non-residential customer?

b) How would the inclusion of ESSs and IPPs as suppliers of renewable energy through a utility under a VRET affect the competitive retail market?

c) If a competitive supplier is able to provide the same or similar product under a VRET, should a utility be able to provide such a product? If so, why and under what conditions should a utility be able to provide that product under a VRET?

IV. What may be the Direct or Indirect Impacts on Non-Participating Customers *(HB 4126 Section 3(3)(c))*

Deleted: Would

Comment [CW1]: Docket is an inquiry into allowing utilities to offer, rather than directing them.

Comment [CW2]: Why would a VRET product need to be distinguished from products that are already available? HB 4126 is not about affiliates or ESSs offering under DA; this is about a utility offering.

Comment [CW3]: This is already possible through a bilateral negotiation between customers and a renewable source. Intention of question is unclear. Is this direct access?

Comment [CW4]: Duplicative with (b).

Deleted: <#>Should "further development of significant renewable energy resources" include buying the direct output and/or bundled RECs from an existing renewable resource power plant? If so, should there be a limit on how old the plant is? ¶

Comment [CW5]: Should not require demonstration. Given that cost shifting is a specific consideration, whether the utility can offer terms that a competitive supplier cannot provide is not a required consideration.

Deleted:

Deleted: that a third party competitive supplier cannot provide?

Comment [CW6]: Moved from models section.

Comment [CW7]: Moved from models section.

a) How should the Commission ensure that the prices paid for products under a VRET reflect the full cost of providing that service and any requisite back-up/supplementary service without any subsidization from non-participating customers?

b) How should the fixed costs of the existing rate-based system be allocated if VRET participants are "leaving" the rate-based system? Does it matter if the load to be served by the VRET product is a new or expanded load, not previously served by the utility?

c) How should the Commission ensure that non-participating utility customers are protected from cost shifts? Should products under a VRET include transition charges to mitigate potential impacts from cost shifting to non-participating customers? If so, should those transition charges be identical to the charges under the Direct Access programs?

d) What VRET design criteria can help limit impacts to non-participating customers? Which designs limit cost and risk shifting?

e) How should the Commission ensure that the utility's cost of providing VRET service and any requisite back-up/supplementary service is separate from the utility's existing rate-based system resources? Should the utility have a separate set of resources used for VRET customers in a "VRET rate base" for which the costs and rate of return are regulated by the PUC?

V. Whether VRETs should rely on a Competitive Procurement Process? *(HB 4126 Section 3(3)(d))*

a) Should the Commission limit resource eligibility to renewable energy developed and supplied through a competitive procurement process? If yes, why? If no, how should the Commission evaluate renewable energy supplied through a (non?)competitive process?

b) Should the PUC's existing processes for competitive bidding be adapted or used?

c) How can a VRET program structure ensure that customers have access to competitively priced resources in the market and provide a level playing field for all market participants? What structure gives customers access to the specific resources that they are interested in procuring?

VI. Other considerations *(HB 4126 Section 3(3)(e))*

a) What would be the impact to RPS resource cost recovery and compliance requirements if a significant amount of VRET load leaves the rate-based system, which includes unrecovered investments in renewable and non-renewable resources? *(HB 4126 Section 3(6))*

b) How will utilities and energy generator avoid over-generation issues if there are new renewable resources added to the system? How will those resources be integrated?

c) Should the Commission protect nonresidential customers by adding additional requirements for Green-E certification or advisory group oversight?

d) How will resources developed for and whose environmental attributes are claimed by customers be represented in power mix disclosures to avoid double-claims?

e) What other factors, if any, should the Commission consider in determining whether and how utilities should offer VRETs to non-residential customers?

EXISTING DIRECT ACCESS COMPARISON TO POTENTIAL VRET MODELS – ESS CONTRACTS WITH NON-RESIDENTIAL CUSTOMER TO SELL ELECTRICITY SERVICES. ESS SCHEDULES ENERGY TO UTILITY, WHICH DELIVERS THE ENERGY TO THE CUSTOMER THROUGH THE DISTRIBUTION SYSTEM. AN AGGREGATOR MAY COMBINE CUSTOMER LOADS INTO A BUYING GROUP FOR PURCHASE OF ELECTRICITY AND RELATED SERVICES.

Comment [CW8]: HB 4126 considers impacts on other customers, not competitive suppliers.

Deleted: or competitive suppliers

Comment [CW9]: Questions (b), (c), and (d) are related. Should combine or rephrase into single question.

Deleted: <#>The above bullets sound somewhat redundant to me now…should be consolidate?¶

Deleted: best

Comment [CW10]: See above.

Deleted:

Comment [CW11]: Moved from models section.

Comment [CW12]: Is this meant to be non-competitive? What is meant by "competitive process "when the answer to the first part is no? The answer may depend on the model?

Deleted: the most

Deleted: best

Comment [CW13]: What is meant by "integrated" as used here? For example, physical integration or integration into portfolio mix?

Deleted: What customer protections may be appropriate for a VRET program (e.g. Green-E certification? Commission or advisory group oversight?)? For which customer classes?

Comment [CW14]: "Customer protections" is confusing. Suggest rephrasing this question.

Comment [CW15]: Seems redundant as other issues should already be implied when considering other factors.

Deleted: Are there other issues that may be pertinent to the study of VRETs in Oregon?

- ***Staff added this row at the suggestion of several parties as a backdrop to the VRET models evaluation to provide a comparison between potential VRET models and the existing direct access model – Please suggest specific questions, if you think they would help to compare with VRET Models below.***

a) What green energy options do the ESS' currently offer in the utilities' service territories?
b) Describe the current competitive retail market for providing green energy options to utilities' non-residential customers.

Comment [CW16]: Understanding the current market and product offerings through direct access is essential to compare with potential VRET models.

MODEL 1(B/X) – Third party owned renewable resource. Regulated Utility is the middleman between a 3rd party and customer(s) that are contracting for renewable energy. Customer and 3rd party negotiate for renewable energy service. Regulated utility takes ownership of power through contract with Third Party. Tariff is set for same price and duration as contract. Contract terminates if customer defaults. Utility remains primary point of contact for billing and (by customer choice) load

management/ancillary services. Utility could credit customer bill for project ouput (at credit amount TBD - e.g. utility's wholesale avoided cost rather than retail rate) and service balance of customer's energy and capacity need (if any) at cost of service rate.

II. Whether Further Development of Significant Renewable Energy Resources is Promoted? *(HB 4126 Section 3(3)(a))*

a) Will this model likely promote "further development of significant renewable energy resources"?

III. What may be the Effect on Development of a Competitive Retail Market? *(HB 4126 Section 3(3)(b))*

a) Can Electricity Service Suppliers (ESS) and Independent Power Producers (IPP) provide renewable energy through a utility as part of a VRET?

b)

c) What should the role of the utility be in developing and offering a product or transacting between customers and an ESS or IPP under VRET?

IV. What may be the Direct or Indirect Impacts on Non-Participating Customers *(HB 4126 Section 3(3)(c))*

a) What are all the utility costs likely associated with this model? How can the Commission ensure that these costs are not shifted to non-participating customers?

VI. Other considerations *(HB 4126 Section 3(3)(e))*

a) Are there other factors the Commission should consider that may be pertinent to this VRET model?

b)

Comment [CW17]: Models should not have to be the "best" in order to be considered, merely that they further development of significant renewable energy resources.

Deleted: best

Deleted: Should

Comment [CW18]: Can apply to all models. Move to first section.

Deleted: How would the inclusion of ESSes and IPPs as suppliers of renewable energy through a utility under a VRET affect the competitive retail market?

Comment [CW19]: Answer is not necessary. Not required to demonstrate a market under HB 4126.

Deleted: Is there a market for this model?

MODEL 1(C/D) –THIRD PARTY OWNED RENEWABLE RESOURCE. REGULATED UTILITY OR THIRD PARTY AGGREGATOR MATCHES VRET LOAD(S) WITH AGGREGATE VRET RE GENERATORS TO MITIGATE ISSUES OF TIMING AND RISK. REGULATED UTILITY OR THIRD PARTY AGGREGATOR COULD AGGREGATE CUSTOMERS INTO "VRET LOAD," PUT THAT AGGREGATED LOAD OUT FOR BID, AND CONTRACT WITH THIRD PARTIES TO SERVE THAT LOAD. AND/OR REGULATED UTILITY OR THIRD PARTY AGGREGATOR COULD AGGREGATE THIRD PARTY RE GENERATORS AND PURCHASE OUTPUT THROUGH FIXED PRICE, LONG TERM CONTRACTS; THE REGULATED UTILITY OFFERS THAT OUTPUT TO THE CUSTOMERS THROUGH A "SUBSCRIPTION" PROCESS.

II. Whether Further Development of Significant Renewable Energy Resources is Promoted? *(HB 4126 Section 3(3)(a))*

a) Will this model likely promote "further development of significant renewable energy resources"?

III. What may be the Effect on Development of a Competitive Retail Market? *(HB 4126 Section 3(3)(b))*

a) Can ESSs and IPPs provide renewable energy through a utility as part of a VRET?
b)
c) What should the role of the utility be in developing and offering a product or transacting between customers and an ESS or IPP under VRET?
d)
e) How does the utility manage the risk and timing of the matched VRET load and/or the obligations to aggregated RE Generators? Could the utility acquire a renewable resource that can be in rates until the resource itself is subscribed by customers interested in the output? Can the facility then be removed from rate base and the remainder paid for by the VRET customers?

IV. What may be the Direct or Indirect Impacts on Non-Participating Customers *(HB 4126 Section 3(3)(c))*

a) What are all the utility costs likely associated with this model? How can the Commission ensure that these costs are not shifted to non-participating customers?

VI. Other considerations *(HB 4126 Section 3(3)(e))*

a) Are there other factors the Commission should consider that may be pertinent to this VRET model?

Comment [CW20]: See comment in 1(B/X).
Deleted: best
Deleted: Should
Deleted: e
Comment [CW21]: See comment in 1(B/X).
Deleted: How would the inclusion of ESSes and IPPs as suppliers of renewable energy through a utility under a VRET affect the competitive retail market?
Comment [CW22]: Already allowed under model description.
Deleted: Should a VRET allow a regulated utility to aggregate load(s), creating competition with existing aggregators?
Comment [CW23]: Additional questions to consider.
Comment [CW24]: See comment in 1(B/X).
Deleted: <#>Is there a market for this model?
Deleted: <#>¶

MODEL 2 – REGULATED UTILITY OWNS AND OPERATES THE RENEWABLE RESOURCE(S) AND DELIVERS POWER TO CUSTOMER. REGULATED UTILITY AND CUSTOMER(S) NEGOTIATE LONG-TERM CONTRACT(S) FOR NON-SYSTEM RENEWABLE ENERGY.

Portland General Electric Redlines and Comments to Revised Issues List
Implementation of HB 4126 – Voluntary Renewable Energy Tariffs (VRETs)
August 29, 2014

II. Whether Further Development of Significant Renewable Energy Resources is Promoted? *(HB 4126 Section 3(3)(a))*

a) Will this model likely promote "further development of significant renewable energy resources"?

III. What may be the Effect on Development of a Competitive Retail Market? *(HB 4126 Section 3(3)(b))*

a)

b) Is there is a negative effect on the ability of competitive suppliers to operate in Oregon? If so, how should the Commission protect the competitive retail market?

IV. What may be the Direct or Indirect Impacts on Non-Participating Customers *(HB 4126 Section 3(3)(c))*

a) What are all the utility costs likely associated with this model? How can the Commission ensure that these costs are not shifted to non-participating customers?

b)

V. Whether VRETs should rely on a Competitive Procurement Process? *(HB 4126 Section 3(3)(d))*

VI. Other considerations *(HB 4126 Section 3(3)(e))*

a) Are there other factors the Commission should consider that may be pertinent to this VRET model?

b)

Comment [CW25]: See comment in 1(B/X).

Deleted: best

Comment [CW26]: Applies to VRET design, not model design. Move to first section.

Deleted: If a competitive supplier is able to provide the same or similar product under a VRET, should a utility be able to provide such a product? If so, why and under what conditions should a utility be able to provide that product under a VRET?

Deleted: f

Deleted: , should the ability to offer products under a VRET be limited to affiliates of Oregon utilities?

Deleted: not

Comment [CW27]: This model does not include affiliates. The task is to determine the impact on the development of a competitive retail market.

Deleted: ensure that competitive suppliers are protected and continue to operate in Oregon?

Comment [CW28]: Applies to VRET design, not model design. Move to first section.

Deleted: How should the Commission ensure that the utility's cost of providing VRET service and any requisite back-up/supplementary service is separate from the utility's existing rate-based system resources? Should the utility have a separate set of resources used for VRET customers in a "VRET rate base" for which the costs and rate of return are regulated by the PUC?

Comment [CW29]: Applies to VRET design. Already addressed in first section.

Deleted: <#>Is there any room for a competitive procurement process in this model? How should the Commission ensure that a utility-owned resource fairly competes in a competitive procurement process?

Deleted: <#>¶

Comment [CW30]: This model does not include affiliates.

Deleted: If a utility is only allowed to offer a VRET product through an affiliate, what rules should govern interaction/communication between the utility and the affiliate?

Comment [CW31]: See comment in 1(B/X).

Deleted: <#>Is there a market for this model?

Deleted: <#>¶

MODEL 2(C/D) – REGULATED UTILITY OWNS AND OPERATES THE RENEWABLE RESOURCE(S), WHICH COULD BE ELIGIBLE TO COMPLETE IN AN RFP FOR SUPPLYING AGGREGATED VRET LOAD (AS DESCRIBED IN MODEL 1(C/D). REGULATED UTILITY COULD AGGREGATE CUSTOMERS INTO "VRET LOAD," PUT THAT AGGREGATED LOAD OUT FOR BID, AND CONTRACT TO SERVE THAT LOAD. AND/OR REGULATED UTILITY COULD AGGREGATE THIRD PARTY RE GENERATORS AND PURCHASE OUTPUT THROUGH FIXED PRICE, LONG TERM CONTRACTS; THE REGULATED UTILITY OFFERS THAT OUTPUT TO THE CUSTOMERS THROUGH A "SUBSCRIPTION" PROCESS.

II. Whether Further Development of Significant Renewable Energy Resources is Promoted? *(HB 4126 Section 3(3)(a))*

a) Will this model likely promote "further development of significant renewable energy resources"?

III. What may be the Effect on Development of a Competitive Retail Market? *(HB 4126 Section 3(3)(b))*

a)

b) Is there is a negative effect on the ability of competitive suppliers to operate in Oregon? If so, how should the Commission protect the competitive retail market?

IV. What may be the Direct or Indirect Impacts on Non-Participating Customers *(HB 4126 Section 3(3)(c))*

a) What are all the utility costs likely associated with this model? How can the Commission ensure that these costs are not shifted to non-participating customers?

b)

c)

d) How does the utility manage the risk and timing of the matched VRET load and/or the obligations to aggregated RE Generators? Could the utility acquire a renewable resource that can be in rates until the resource itself is subscribed by customers interested in the output? Can the facility then be removed from rate base and the remainder paid for by the VRET customers?

V. Whether VRETs should rely on a Competitive Procurement Process? *(HB 4126 Section 3(3)(d))*

VI. Other considerations *(HB 4126 Section 3(3)(e))*

a) Are there other factors the Commission should consider that may be pertinent to this VRET model?

MODEL 4(A/X) – CUSTOMER OWNED RENEWABLE RESOURCE. REGULATED UTILITY ROLE DEPENDS ON THE CUSTOMER'S SPECIFIC LOAD AND RESOURCE. COULD INVOLVE DISTRIBUTION AND BACK/SUPPLEMENTAL SERVICES ("FIRMING/SHAPING"). IF CUSTOMER SELF-GENERATES RENEWABLE ENERGY ON SITE, THEN LIKELY REQUIRES OTHER REGULATED UTILITY SERVICES. COULD BE DISTINCT FROM NET-METERING IF REGULATED UTILITY CREDITS CUSTOMER BILL FOR PROJECT OUTPUT (AT CREDIT AMOUNT TBD - THE UTILITY'S WHOLESALE AVOIDED COST RATHER THAN RETAIL RATE) AND SERVES BALANCE OF CUSTOMER'S ENERGY/CAPACITY NEEDS (IF ANY) AT COST OF SERVICE RATES. UTILITY COULD REMAIN PRIMARY POINT OF CONTACT FOR BILLING AND (BY CUSTOMER CHOICE) LOAD MANAGEMENT AND ANCILLARY SERVICES.

Comment [CW32]: See comment in 1(B/X).

Deleted: best

Comment [CW33]: See comment in 2.

Deleted: If a competitive supplier is able to provide the same or similar product under a VRET, should a utility be able to provide such a product? If so, why and under what conditions should a utility be able to provide that product under a VRET?

Deleted: f

Deleted: , should the ability to offer products under a VRET be limited to affiliates of Oregon utilities?

Deleted: not

Comment [CW34]: See comment in 2.

Deleted: ensure that competitive suppliers are protected and continue to operate in Oregon?

Comment [CW35]: See comment in 2.

Deleted: How should the Commission ensure that the utility's cost of providing VRET service and any requisite back-up/supplementary service is separate from the utility's existing rate-based system resources? Should the utility have a separate set of resources used for VRET customers in a "VRET rate base" for which the costs and rate of return are regulated by the PUC?

Comment [CW36]: Already allowed under model description.

Deleted: Should a VRET allow a regulated utility to aggregate load(s), creating competition with existing aggregators?

Comment [CW37]: See comment in 1(C/D).

Comment [CW38]: See comment in 2.

Deleted: <#>How should the Commission ensure that a utility-owned resource fairly competes in a competitive procurement process?

Deleted: <#>¶

Comment [CW39]: See comment in 1(B/X).

Deleted: <#>Is there a market for this model?

Deleted: <#>¶

Portland General Electric Redlines and Comments to Revised Issues List
Implementation of HB 4126 – Voluntary Renewable Energy Tariffs (VRETs)
August 29, 2014

II. Whether Further Development of Significant Renewable Energy Resources is Promoted? *(HB 4126 Section 3(3)(a))*

a) Will this model likely promote "further development of significant renewable energy resources"?

III. What may be the Effect on Development of a Competitive Retail Market? *(HB 4126 Section 3(3)(b))*

a) If a customer owned renewable resource is off-site, should it be treated as a third party (similar to **Model 1.b/x (Third Party (IPP, ESS)**)? If not, how should it be treated?

b) How would the inclusion of customer-owner off-site renewable resources supplied through a utility under a VRET affect the competitive retail market? What should the role of the utility be in developing and offering a product or transacting like this under a VRET?

IV. What may be the Direct or Indirect Impacts on Non-Participating Customers *(HB 4126 Section 3(3)(c))*

a) What are all the utility costs likely associated with this model? How can the Commission ensure that these costs are not shifted to non-participating customers?

V. Whether VRETs should rely on a Competitive Procurement Process? *(HB 4126 Section 3(3)(d))*

VI. Other considerations *(HB 4126 Section 3(3)(e))*

a) If a customer owned resource is on-site, should it be part of a VRET or be part of the existing Net Metering program? Does its inclusion in the Net Metering program depend on if any excess energy generation is anticipated? If a customer owned resource is on-site, but operated and managed by the regulated utility, should it be distinguished from the Net Metering program?

b) Are there other factors the Commission should consider that may be pertinent to this VRET model?

Comment [CW40]: See comment in 1(B/X).

Deleted: best

Comment [CW41]: Needs more clarity. What is the intention here?

Comment [CW42]: See comment in 2.

Deleted: <#>Is there any room for a competitive procurement process in this model? How should the Commission ensure that a customer-owned resource fairly competes in a competitive procurement process?

Deleted: <#>¶

Comment [CW43]: Needs more clarity. If a customer is eligible under net metering, it is their choice to participate. Net metering statute is clear how excess generation is to be treated. What is this question asking?

Comment [CW44]: See comment in 1(B/X).

Deleted: <#>Is there a market for this model?

Deleted: <#>¶

CERTIFICATE OF SERVICE

I hereby certify that I have this day caused **PORTLAND GENERAL ELECTRIC COMPANY'S COMMENTS ON ISSUES LIST FOR VOLUNTARY RENEWABLE ENERGY TARIFFS** to be served by electronic mail to those parties whose email addresses appear on the attached service list for Docket No. UM 1690.

Dated at Portland, Oregon, this 29th day of August, 2014.

Mary Widman
Specialist, Rates and Regulatory Affairs
Portland General Electric Company
121 SW Salmon St., 1WTC0702
Portland, OR 97204
(503) 464-8223 (Telephone)
(503) 464-7651 (Fax)
mary.widman@pgn.com

SERVICE LIST – 08/29/14
OPUC DOCKET #UM 1690

W		CARL FINK	628 SW CHESTNUT ST, STE 200 PORTLAND OR 97219 cmfink@blueplanetlaw.com
W		JIM STANWAY	jimstanway@fb.com
W	***OREGON DEPARTMENT OF ENERGY**		
		KACIA BROCKMAN SENIOR ENERGY POLICY ANALYST	625 MARION ST NE SALEM OR 97301-3737 kacia.brockman@state.or.us
		JULIE PEACOCK	625 MARION ST NE SALEM OR 97301-3737 julie.peacock@state.or.us
W	**ADOBE SYSTEMS**		
		KEVIN DEVAN	devan@adobe.com
W	**AOC/CREA**		
		DORIS PENWELL	dpenwell@aocweb.org
W	**ATKINS**		
		SUZANNE LETA LIOU SENIOR DIVISION MANAGER	12725 SW MILLIKAN WAY, STE 230 PORTLAND OR 97005 suzanne.liou@atkinsglobal.com
W	**BONNEVILLE ENVIRONMENTAL FOUNDATION**		
		ANGUS DUNCAN PRESIDENT	240 SW FIRST AVE PORTLAND OR 97204 aduncan@b-e-f.org
W	**CH2M HILL**		
		DICK SHEEHY	dick.sheehy@ch2m.com
W	**CITIZENS' UTILITY BOARD OF OREGON**		
		OPUC DOCKETS	610 SW BROADWAY, STE 400 PORTLAND OR 97205 dockets@oregoncub.org
		JEFF BISSONNETTE	610 SW BROADWAY, STE 400

			PORTLAND OR 97205 jeff@oregoncub.org
		G. CATRIONA MCCRACKEN	610 SW BROADWAY, STE 400 PORTLAND OR 97205 catriona@oregoncub.org
W		**CITY OF HILLSBORO**	
		SARAH GARRISON	
			sarah.garrison@hillsboro-oregon.gov
W		**CITY OF PORTLAND**	
		ANDRIA JACOB	
			andria.jacob@portlandoregon.gov
W		**CITY OF PORTLAND - CITY ATTORNEY'S OFFICE**	
		BENJAMIN WALTERS	1221 SW 4TH AVE - RM 430 PORTLAND OR 97204 ben.walters@portlandoregon.gov
W		**CITY OF PORTLAND - PLANNING & SUSTAINABILITY**	
		MICHAEL ARMSTRONG	1900 SW 4TH AVE, STE 7100 PORTLAND OR 97201 michael.armstrong@portlandoregon.gov
		DAVID TOOZE	1900 SW 4TH STE 7100 PORTLAND OR 97201 david.tooze@portlandoregon.gov
W		**CLEARING UP**	
		JUDE NOLAND	X GIG HARBOR WA 00000 jnoland@newsdata.com
W		**CLIMATE SOLUTIONS**	
		ANN ENGLISH GRAVATT	917 SW OAK - STE 303 PORTLAND OR 97205 ann@climatesolutions.org
W		**CONSTELLATION ENERGY COMMODITIES GROUP, INC.**	
		MARY LYNCH	5074 NAWAL DRIVE EL DORADO HILLS CA 95762 mary.lynch@constellation.com
W		**CREA**	
		BRIAN SKEAHAN	
			brian.skeahan@yahoo.com

W	**DAVISON VAN CLEVE**		
		JOSHUA D WEBER	333 SW TAYLOR STE 400 PORTLAND OR 97204 jdw@dvclaw.com
W	**DAVISON VAN CLEVE PC**		
		MELINDA J DAVISON	333 SW TAYLOR - STE 400 PORTLAND OR 97204 mjd@dvclaw.com
W	**ENERGY STRATEGIES LLC**		
		KEVIN HIGGINS	215 STATE ST - STE 200 SALT LAKE CITY UT 84111-2322 khiggins@energystrat.com
W	**ENERGY TRUST OF OREGON**		
		THAD ROTH	421 SW OAK STE 300 PORTLAND OR 97204 thad.roth@energytrust.org
W	**FACEBOOK**		
		ANN BLACKWOOD	561 GARDEN ST SACRAMENTO CA 95815 annb@fb.com
W	**GALLATIN PUBLIC AFFAIRS**		
		KELSEY WILSON	kelseyw@gallatinpa.com
W	**IBERDROLA RENEWABLES**		
		KOURTNEY NELSON	kourtney.nelson@iberdrolaren.com
		SARA PARSONS	sara.parsons@iberdrolaren.com
W	**IBERDROLA RENEWABLES, INC**		
		KEVIN LYNCH	1125 NW COUCH ST STE 700 PORTLAND OR 97209 kevin.lynch@iberdrolaren.com
W	**IBEW L.U. 659**		
		BANJO REED	4480 ROGUE VALLEY HWY #3 CENTRAL POINT OR 97520 banjo@ibew659.org
W	**IDAHO POWER COMPANY**		
		CONNIE	PO BOX 70

	ASCHENBRENNER	BOISE ID 83707-0070 caschenbrenner@idahopower.com
	TAMI WHITE	PO BOX 70 BOISE ID 83707-0070 twhite@idahopower.com
	MICHAEL YOUNGBLOOD	PO BOX 70 BOISE ID 83707 myoungblood@idahopower.com
W	**LEGAL & CONSULTING SERVICES**	
	ANN L FISHER	PO BOX 25302 PORTLAND OR 97298-0302 ann@annfisherlaw.com
W	**MULTNOMAH COUNTY DISTRICT 1**	
	CHRISTINE LEWIS	christine.lewis@multco.us.
W	**NOBLE AMERICAS ENERGY SOLUTIONS, LLC**	
	GREG BASS	401 WEST A ST., STE. 500 SAN DIEGO CA 92101 gbass@noblesolutions.com
W	**NW & INTERMOUTAIN POWER PRODUCERS COALITION**	
	ROBERT D KAHN	PO BOX 504 MERCER ISLAND WA 98040 rkahn@nippc.org
W	**NW ENERGY COALITION**	
	WENDY GERLITZ	1205 SE FLAVEL PORTLAND OR 97202 wendy@nwenergy.org
W	**OBSIDIAN RENEWABLES**	
	IMOGEN TAYLOR	5 CENTERPOINTE DR STE 590 LAKE OSWEGO OR 97035 itaylor@obsidianrenewables.com
	OBSIDIAN RENEWABLES, LLC	
	DAVID BROWN	5 CENTERPOINT DR, STE 590 LAKE OSWEGO OR 97035 dbrown@obsidianfinance.com
W	**OREGON NATIONAL GUARD**	

		COLONEL CHRISTIAN F REES	christian.f.rees.mil@mail.mil
		LTC KENNETH SAFE	kenneth.safe.mil@mail.mil
W		**OXLEY & ASSOCIATES**	
		EVYAN JARVIS	evyanjarvis@oxleyandassociatesinc.com
W		**PACIFIC POWER**	
		ERIK ANDERSSON	825 NE MULTNOMAH STE 800 PORTLAND OR 97232 erik.andersson@pacificorp.com
W		**PACIFIC POWER & LIGHT**	
		JOELLE STEWARD	825 NE MULTNOMAH STE 2000 PORTLAND OR 97232 joelle.steward@pacificorp.com
W		**PACIFICORP**	
		ALISA M DUNLAP	825 NE MULTNOMAH, STE 2000 PORTLAND OR 97232 alisa.dunlap@pacificorp.com
W		**PORTLAND GENERAL ELECTRIC**	
		KARLA WENZEL	121 SW SALMON ST. 1WTC0702 PORTLAND OR 97204 pge.opuc.filings@pgn.com
W		**PORTLAND GENERAL ELECTRIC COMPANY**	
		J RICHARD GEORGE	121 SW SALMON ST 1WTC1301 PORTLAND OR 97204 richard.george@pgn.com
		ELIZABETH PAUL	elizabeth.paul@pgn.com
W		**PORTLAND STATE UNIVERSITY**	
		NOEL MINGO	noel.mingo@pdx.edu
W		**PUBLIC UTILITY COMMISSION OF OREGON**	
		RUCHI SADHIR	PO BOX 1088 SALEM OR 97308 ruchi.sadhir@state.or.us

W	**PUC STAFF--DEPARTMENT OF JUSTICE**	
	MICHAEL T WEIRICH	BUSINESS ACTIVITIES SECTION 1162 COURT ST NE SALEM OR 97301-4096 michael.weirich@state.or.us
W	**RENEWABLE NORTHWEST**	
	RENEWABLE NW DOCKETS	421 SW 6TH AVE., STE. 1125 PORTLAND OR 97204 dockets@renewablenw.org
	MEGAN DECKER	421 SW 6TH AVE #1125 PORTLAND OR 97204-1629 megan@renewablenw.org
W	**RICHARDSON ADAMS, PLLC**	
	GREGORY M. ADAMS	PO BOX 7218 BOISE ID 83702 greg@richardsonadams.com
W	**SCHNITZER STEEL INDUSTRIES, INC**	
	MATT RUCKWARDT	299 SW CLAY ST, STE 350 PORTLAND OR 97201 mruckwardt@schn.com
W	**SOLARCITY**	
	GENEVIEVE DUFAU	gdufau@solarcity.com
W	**WAL-MART STORES, INC.**	
	STEVE W CHRISS	2001 SE 10TH ST BENTONVILLE AR 72716-0550 stephen.chriss@wal-mart.com
W	**WALMART STORES INC**	
	KEN BAKER	2001 SE 10TH ST BENTONVILLE AR 72716 ken.baker@wal-mart.com
W	**WORLD RESOURCES INSTITUTE**	
	LETHA TAWNEY	ltawney@wri.org
W	**YAM SERVICES**	
	JACQUES GRANT	1819 SW 5TH AVE STE 342 PORTLAND OR 97201 electric@yamservices.com