

From: [SADHIR Ruchi](#)
To: [PF-PUC Hearings](#)
Subject: FW: Deadline extension to 12/12 - UM 1690 (VRETs) - Comments on Issues List and VRET Models Summary Table
Date: Wednesday, December 03, 2014 5:08:34 PM
Attachments: [Issues List - Final.docx](#)
[VRET Table Pared Down Version - Final.xlsx](#)

Hello, could you post this to the UM 1690 eDocket please? Thanks—Ruchi

From: SADHIR Ruchi
Sent: Wednesday, December 03, 2014 5:07 PM
To: 'dockets@oregoncub.org'; 'dockets@renewablenw.org'; 'greg@richardsonadams.com'; 'erik.andersson@pacificcorp.com'; 'michael.armstrong@portlandoregon.gov'; 'caschenbrenner@idahopower.com'; 'ken.baker@wal-mart.com'; 'jbarnes@kfwlaw.com'; 'gbass@noblesolutions.com'; 'jeff@oregoncub.org'; 'annb@fb.com'; BROCKMAN Kacia; 'dbrown@obsidianfinance.com'; 'stephen.chriss@wal-mart.com'; 'pcosgrove@lindsayhart.com'; 'mjd@dvclaw.com'; 'megan@renewablenw.org'; 'devan@adobe.com'; 'gdufau@solarcity.com'; 'aduncan@b-e-f.org'; 'alisa.dunlap@pacificcorp.com'; 'cmfink@blueplanetlaw.com'; 'ann@annfisherlaw.com'; 'sarah.garrison@hillsboro-oregon.gov'; 'heidi.genkuong@atkinsglobal.com'; 'richard.george@pgn.com'; 'wendy@nwenergy.org'; 'electric@yamservices.com'; 'ann@climatesolutions.org'; 'khiggins@energystrat.com'; 'andria.jacob@portlandoregon.gov'; 'evyanjarvis@oxleyandassociatesinc.com'; 'rkahn@nippc.org'; 'kkooles@kfwlaw.com'; 'christine.lewis@multco.us'; 'suzanne.liou@atkinsglobal.com'; 'kevin.lynch@iberdrolaren.com'; 'mary.lynch@constellation.com'; 'catriona@oregoncub.org'; 'noel.mingo@pdx.edu'; 'kourtney.nelson@iberdrolaren.com'; 'jnoland@newsdata.com'; 'sara.parsons@iberdrolaren.com'; 'elizabeth.paul@pgn.com'; PEACOCK Julie; 'dpenwell@aocweb.org'; 'rhonda.rasmussen@pacificcorp.com'; 'banjo@ibew659.org'; 'christian.f.rees.mil@mail.mil'; 'thad.roth@energytrust.org'; 'mruckwardt@schn.com'; SADHIR Ruchi; 'kenneth.safe.mil@mail.mil'; 'dick.sheehy@ch2m.com'; 'brian.skeahan@yahoo.com'; 'jimstanway@fb.com'; 'joelle.steward@pacificcorp.com'; 'ltawney@wri.org'; 'itaylor@obsidianrenewables.com'; 'david.tooze@portlandoregon.gov'; 'ben.walters@portlandoregon.gov'; 'jdw@dvclaw.com'; WEIRICH Michael; 'pge.opuc.filings@pgn.com'; 'twhite@idahopower.com'; 'kelseyw@gallatinpa.com'; 'myoungblood@idahopower.com'
Subject: Deadline extension to 12/12 - UM 1690 (VRETs) - Comments on Issues List and VRET Models Summary Table

UM 1690 Participants:

Staff has received requests for an extension to the upcoming comment deadline this Friday. While we try to keep to the deadlines that were communicated to all participants, Staff wants to encourage thoughtful and complete comments. Please see below for revisions to the schedule (in red):

— **Public Comment:**

- **Due COB Friday, December 12, 2014** – Answering questions in Issues List. Summarize key points and complete pink (statutory considerations) & green (conditions) columns in VRET Models Table.
- **Due COB Friday, January 9, 2015** – Reply comments on answers to questions in Issues List and VRET Models Table.

— **(target) February 2015** – Draft Staff memo summarizing Study.

- **(target) February 2015** – Feedback on draft Staff memo & potential workshop (if needed).

— **(target) March Public Meeting** – Staff takes final memo to public meeting. Close Phase 1.

As a reminder, here is a description of the comments that Staff is requesting **by COB Friday, December 12, 2014:**

- **Issues List: Please answer the questions in the issues list.** There may be some questions that are directed to and better suited to be answered by utilities or Independent Power Producers (IPPs), but all participants are welcome to comment on all questions. Note that all participants will also be able to comment on answers provided by utilities and IPPs (among others) during the reply-comment period.
- **VRET Models Summary Table: After answering the questions in the Issues List, use your answers to inform your position in this summary table –**
 - **Summarize your comments for each statutory consideration for each model in the pink columns** (e.g. Model 1(b/x) would likely not have an effect on the competitive retail market because ____; Model 2 would likely have a direct impact on non-participating customers because ____; or Model 1(c/d) should rely on a competitive procurement process because ____).
 - **List conditions that should be applied to each model, which support your comments for each statutory consideration, in the green columns** (e.g. 10 aMW VRET cap for each utility to limit risk of cost-shifting on non-participating customers, VRET transition charges to prevent cost-shifting, or VRET resources limited to solar, wind, or geothermal facilities constructed in Oregon after 2012).

We are looking forward to receiving your comments by **COB Friday, December 12, 2014.** Thanks—
Ruchi

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Ruchi Sadhir

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From: SADHIR Ruchi

Sent: Friday, November 07, 2014 2:25 PM

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Subject: UM 1690 (VRETs) - Comments due 12/05/2014 on Issues List and VRET Models Summary Table

UM 1690 Participants:

Thank you for your patience as Staff reviewed comments to the draft issues list and VRET Models Summary Table. Based on comments, consultation with the Commissioners, and internal Staff discussion, Staff has revised the Issues List and VRET Models Summary Table; please see attached.

We are seeking comment on these materials by COB Friday, December 5, 2014:

- **Issues List: Please answer the questions in the issues list.** There may be some questions that are directed to and better suited to be answered by utilities or Independent Power Producers (IPPs), but all participants are welcome to comment on all questions. Note that all participants will also be able to comment on answers provided by utilities and IPPs (among others) during the reply-comment period.
- **VRET Models Summary Table: After answering the questions in the Issues List, use your answers to inform your position in this summary table –**
 - **Summarize your comments for each statutory consideration for each model in the pink columns** (e.g. Model 1(b/x) would likely not have an effect on the competitive retail market because _____; Model 2 would likely have a direct impact on non-participating customers because _____; or Model 1(c/d) should rely on a competitive procurement process because _____).
 - **List conditions that should be applied to each model, which support your comments for each statutory consideration, in the green columns** (e.g. 10 aMW VRET cap for each utility to limit risk of cost-shifting on non-participating customers, VRET transition charges to prevent cost-shifting, or VRET resources limited to solar, wind, or geothermal facilities constructed in Oregon after 2012).

As a reminder, we are in phase 1 of the UM 1690 docket. Phase 1 is a statutorily required phase intended to be educational by conducting a study to consider the impact of allowing electric companies to offer voluntary renewable energy tariffs (VRETs). The remainder of Phase 1 of this docket has been revised as follows:

— **Public Comment:**

- **Due COB Friday, December 5, 2014** – Answering questions in Issues List. Summarize key points and complete pink (statutory considerations) & green (conditions) columns in VRET Models Table.
- **Due COB Wednesday, December 31, 2014** – Reply comments on answers to questions in Issues List and VRET Models Table.

— **(target) January 2015** – Draft Staff memo summarizing Study.

- **(target) January 2015** – Feedback on draft Staff memo & potential workshop (if needed).

— **(target) February Public Meeting** – Staff takes final memo to public meeting. Close Phase 1.

We are looking forward to receiving your comments **COB Friday, December 5, 2014.**

Please let me know if you have any questions. Thanks--Ruchi

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Implementation of HB 4126 – Voluntary Renewable Energy Tariffs (VRETs)

REVISED by PUC Staff after 8/29/2014 Comments

11/07/2014 Issues List

The issues list below is categorized by general issues and issues relevant to the five statutory considerations listed in HB 4126 Section 3(3). Within each category of issues, there may be specific questions related to VRET Models discussed during UM 1690 workshops. Please refer to the VRET Models Summary Table for a description of each Model.

I. How should a Voluntary Renewable Energy Tariff (VRET) be defined and designed? *(context/general issues)*

1. What are the essential features of such a tariff (e.g. ability to purchase power at a long term, fixed rate)? If the Commission were to allow VRETs, would more than one type of VRET design help to satisfy diverse customer demands?
2. Should a regulated utility continue to plan for VRET load through integrated resource planning? Should VRET customers be included in a regulated utility's total retail sales?
 - a) Should VRETs be considered for all non-residential customers or only a subset of non-residential customers (e.g. only large customers)?
 - b) Should there be a cap on the amount of load that can be served under a VRET to protect against risk of large amounts of load leaving the existing cost-of-service system (e.g. the 300 average MW cap for direct access in PGE's 400 series cost-of-service opt-out schedules)?
3. What portion of a customer's load should a VRET be able to serve? All load? Partial load? Service at a given Point of Delivery (POD)? Should VRET customers be able to aggregate multiple sites/PODs?
4. Should VRET load be met with multiple renewable resources that are aggregated? If so, how should the regulated utility disclose the renewable resources provided as an aggregated product?
5. Given the variability of renewable energy generation, what services should be included in a VRET to enable delivery of renewable energy (e.g. back-up/supplemental services or firming/shaping)?
6. For comparison, with regard to **existing Direct Access** as summarized in the **VRET Models Table**:
 - a) Are there service requirements (e.g. transition charges, enrollment windows, etc.) applicable to direct access that should not be required in provision of service under a VRET? If so, what is the rationale for differentiating between direct access requirements and VRET requirements?
 - b) What "green energy" options do Energy Service Suppliers (ESS) currently offer in utility service territories under direct access?
 - c) Are there new or additional ESS offerings that regulated utilities can enable through direct access that will meet the requirements of direct access laws and improve customer access to the kinds of "green energy" products that they are seeking?

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

1. Should VRET renewable resources be defined to include the same types of renewable energy resources as the Renewable Portfolio Standard (RPS) (e.g. solar power, wind power, only certain types of hydroelectric power)? Should "further development of significant renewable energy resources" include buying the direct output and/or bundled Renewable Energy Certificates (RECs) from a *new* renewable resource power plant? From an *existing* plant? How should "new" and "existing" plants be defined? Should there be a limit on how old the plant is? (e.g. recently constructed or constructed since a selected year)?
2. In order to be considered "further development of significant renewable energy resources," should there be geographic limits on the source of eligible renewable energy (e.g. Oregon or the Northwest)?
3. Given that the RPS is a minimum threshold for utilities in the existing cost-of-service rate based system, what should be the minimum renewable energy required in a VRET product (not including non-renewable resources that may be needed for back-up/supplemental service or firming/shaping)?

Implementation of HB 4126 – Voluntary Renewable Energy Tariffs (VRETs)

REVISED by PUC Staff after 8/29/2014 Comments

11/07/2014 Issues List

4. Of **all the models** in the **VRET Models Table**, which model is most likely to 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))*

1. How should a VRET’s effect on competitive suppliers and the direct access market be assessed?
2. Is the competitive retail market harmed if a regulated utility is able to make offerings under a VRET to non-residential customers that a third party competitive supplier is not permitted to provide under the terms of current direct access tariffs (e.g. enrollment windows and transition adjustments)? If so, how?
3. With respect to **Model 1(b/x) [third party owned resource & regulated utility facilitated]** and **Model 1(c/d) [third party owned resource with aggregation]**:
 - a) What are the effects, if any, on the competitive retail market if Independent Power Producers (IPPs) supply power through the regulated utility as part of VRET design in these models?
 - b) What should the role of the regulated utility be in developing and offering a product or transacting between customers and an IPP under these VRET models?
 - c) Would these VRET models comport with the requirements of a filed tariff (e.g. must list prices and be accessible to all similarly situated customers [see HB 4126 Section 3(4) and ORS 757.205, 757.210, 757.212, 757.215])? Can these models be implemented such that an IPP is not required to provide confidential pricing data to a regulated utility (e.g. non-disclosure agreements)?
4. With respect to **Model 1(c/d) [third party owned resource with aggregation]** and **Model 2(c/d) [regulated utility owned resource with aggregation]**, if aggregation is allowed, should a regulated utility be prohibited from acting as an aggregator such that the VRET would only permit aggregation by registered aggregators (see OAR 860-038-0380)?
5. With respect to **Model 2 [regulated utility owned resource]** and **Model 2(c/d) [regulated utility owned resource with aggregation]**, what are the effects, if any, on the competitive retail market if a regulated utility owns or operates resources as part of VRET design in these models?
6. With respect to **Model 4(a/X) [customer owned resource]**:
 - a) What are the effects, if any, on the competitive retail market if a customer owns or operates resources as part of VRET design in this model?
 - b) Can this model already occur through Partial Requirements tariffs (e.g. PGE schedules 75, 76R, 575 or PacificPower schedules 47, 247, 747)? If not, how is it differentiated from partial requirements service?
 - c) Would this VRET model comport with the requirements of a filed tariff (e.g. must list a price and must be accessible to all similarly situated customers [see HB 4126 Section 3(4) and ORS 757.205, 757.210, 757.212, 757.215])?
 - d) If a customer owned renewable resource is off-site, should it be treated as a third party supplier (e.g. similar to the IPPs role in **Model 1(b/x) [third party owned resource & regulated utility facilitated]**)? If not, why? May a customer that generates more power at an off-site resource than needed at a given time sell the excess power to other customers?
 - e) Should on-site resources be limited to the Net Metering program? Does inclusion as a net metered resource depend on if any excess energy generation is anticipated? If a customer owned resource is on-site, but is permitted to be operated and managed by the regulated utility or IPP as a service provided through a VRET, should it be distinguished from the Net Metering program?

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

1. What regulatory tools or VRET design elements (e.g. transition charges for customers that leave the cost-of-service system) would ensure that the prices paid for products under a VRET reflect all costs

Implementation of HB 4126 – Voluntary Renewable Energy Tariffs (VRETs)

REVISED by PUC Staff after 8/29/2014 Comments

11/07/2014 Issues List

- associated with providing that service, including any requisite back-up/supplementary service (e.g. firming/shaping), without subsidization from non-participating customers?
2. What regulatory tools or VRET design elements would ensure that non-participating customers do not face increased risk of VRET obligations (e.g. costs of under-subscribed VRET resources or unfulfilled power purchase agreement obligations)?
 3. How should the fixed costs of the existing cost-of-service rate based system be allocated to VRET participants that completely or partially leave the cost-of-service rate based system?
 4. Assuming that VRET load is part of “total retail electric sales,” what would be the impact to RPS resource cost recovery and compliance requirements if a significant amount of VRET load leaves the cost-of-service rate-based system? Would VRET customers continue to pay for RPS compliance requirements (e.g. their share of rate-based RPS renewable resources and RAC filings)?
 5. With respect to **Model 2 [regulated utility owned resource]** and **Model 2(c/d) [regulated utility owned resource with aggregation]**, should the regulated 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? How should the regulated utility account for separate capital investments and costs of capital related to a VRET?
 6. With respect to **Model 2(c/d) [regulated utility owned resource with aggregation]** and **Model 1(c/d) [third party owned resource with aggregation]**, if the regulated utility is allowed to aggregate retail load through a VRET, how should the regulated utility manage the risk and timing of the matched VRET load and/or the obligations to the aggregated RE generators?

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

1. Should the Commission limit VRET resource eligibility to renewable energy developed and supplied through a competitive procurement process? With an independent evaluator? If yes, why? If no, how should the Commission evaluate renewable energy not supplied through a competitive process?
2. Should the PUC’s existing processes for competitive bidding (currently for “major resources” defined as quantities greater than 100 MW and duration greater than five years [UM 1182, Order Nos. 12-007 and 11-340]) be adapted for use with VRET resources and, if so, how should it be changed?
3. With respect to **Model 2 [regulated utility owned resource]** and **Model 4(a/x) [customer owned resource]**, is there any room for a competitive procurement process in these models?
4. With respect to **Model 2(c/d) [regulated utility owned resource with aggregation]**, what regulatory tools or VRET design elements would ensure that a regulated utility-owned resource fairly competes in a competitive procurement process?

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

1. What customer protections may be appropriate for VRET resources (e.g. Green-E certification? Commission or advisory group oversight)? For which customer classes or subsets of classes?
2. How will resources developed for a VRET, for which environmental attributes will be claimed by customers, be represented in power mix disclosures (e.g. regulated utility disclosures pursuant to OAR 860-038-0300)? Assuming that a VRET could be used for partial loads with continued use of the existing cost-of-service rate based system, how would such a customer claim its renewable resource use (e.g. claim a portion of the RPS in its “green” marketing)?
3. What other factors, if any, should the Commission consider in determining whether and how utilities should offer VRETs to non-residential customers?

Study of Potential Model VRETs

8/15/2014

Basic Structure				Statutory Considerations					Potential Conditions
Resource Owner	Utility Role	Relationships	Notes/Comments	Further Dev of Significant RE	Effect on Dev of Competitive Retail Markets	Impacts on Non-Participating Customers	Competitive Procurement Process	Other Considerations	to mitigate issues or cons in the statutory considerations (e.g. VRET cap, transition adjustment charges)
Third Party - Existing Direct Access Comparison to Potential VRET Models	Existing Direct Access- "Direct access" means the ability of a retail electricity consumer to purchase electricity and certain ancillary services directly from an entity other than the distribution utility. (860-038-0005(13))	<p>*ESS contracts with non-residential customer to sell electricity services.</p> <p>*ESS schedules energy to utility, which delivers the energy to the customer through the distribution system.</p> <p>*ESS could provide back-up/supplemental (firming/shaping) services, but may not; instead those services may be provided by the regulated utility.</p> <p>*An aggregator may combine customer loads into a buying group for purchase of electricity and related services.</p>	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.						
(1.) Third Party (IPP, ESS)	(1.b/x) Third party owned renewable resource. Regulated Utility facilitates between a 3rd party and customer(s).	<p>*Regulated Utility facilitates between a 3rd party and customer(s).</p> <p>*Customer and 3rd party negotiate for renewable energy service.</p> <p>*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.</p> <p>*Utility remains primary point of contact for billing and (by customer choice) load management/ancillary services. Utility could credit customer bill for project output (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.</p>	This model is generally described in the Rocky Mountain Power filing in Utah (Docket 14-035-112), but staff removed the "second contract" language because it may not be legal in Oregon. Instead, staff replaced "second contract" with tariff. Also, staff added elements of RNW's (1.x) model without the specifics of the RFP (which will be examined in the statutory considerations and potential conditions sections of the study).						
	(1.c/d) Third party owned renewable resource. Regulated utility or third party aggregator matches VRET loads with aggregate VRET RE generators to mitigate issues of timing and risk.	<p>*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.</p> <p>*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.</p> <p>*Regulated utility or third party aggregator could match VRET load(s) with aggregate VRET RE generators to mitigate issues of timing and risk.</p>	Combined 1(c) and 1(d) to create this row 1(c/d). Issues of timing and risk depending on when and how aggregation occurs.	Added option for third party aggregator (not just utility) to aggregate load or supply.					
(2.) Regulated Utility	(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.	General concerns in comments about ability of regulated utility to prevent cost-shifting and effects on competitive market - which will be explored through consideration of the statutory factors.						
	(2.c/d) Regulated utility owns and operates the renewable resource(s), which could be eligible to compete in a Request for Proposal (RFP) for supplying aggregated VRET load (as described in Model 1(c/d)).	<p>*Similar to relationships in the aggregation-related model 1.c./d.</p> <p>*Regulated utility could aggregate customers into "VRET load," put that aggregated load out for bid, and contract to serve that load.</p> <p>*And/or regulated utility could aggregate third party RE generators and purchase output through fixed price, long term contracts; the regulated utility could then offer that output to customers through a "subscription" process.</p>	General concerns in comments about ability of regulated utility to prevent cost-shifting and effects on competitive market - which will be explored through consideration of the statutory factors.						
(4.) Customer Owned	(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").	<p>* If customer self-generates renewable energy on site, then likely requires other regulated utility services and may fall under Net Metering.</p> <p>*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.</p> <p>*Utility could remain primary point of contact for billing and (by customer choice) load management/ancillary services.</p>	<p>General concerns in comments about interaction with net metering and whether customer-owned resources should be treated like third-party IPPs.</p> <p>Continued open questions and potential confusion about on-site or off-site customer owned resources.</p> <p>Staff added elements of RNW's (1.x) model without the specifics of the RFP (which will be examined in the statutory considerations and potential conditions sections of the study).</p>						

Study of Potential Model VRETs

8/15/2014

Basic Structure				Statutory Considerations					Potential Conditions
Resource Owner	Utility Role	Relationships	Notes/Comments	Further Dev of Significant RE	Effect on Dev of Competitive Retail Markets	Impacts on Non-Participating Customers	Competitive Procurement Process	Other Considerations	to mitigate issues or cons in the statutory considerations (e.g. VRET cap, transition adjustment charges)
Third Party - Existing Direct Access Comparison to Potential VRET Models	Existing Direct Access- "Direct access" means the ability of a retail electricity consumer to purchase electricity and certain ancillary services directly from an entity other than the distribution utility. (860-038-0005(13))	*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.	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.						
(1.) Third Party (IPP, ESS)	(1.a.) Regulated utility "passes-through" the renewable energy without taking ownership.	*3rd party and customer negotiate contract for renewable energy service. *Regulated utility and customer have relationship that may be similar to direct access structure.	Basic structure already available under existing laws and regulations.	<i>Already available under existing laws and regulation.</i>					
	(1.b.) Third party owned renewable resource. Regulated Utility is the middleman between a 3rd party and customer(s) that are contracting for renewable energy.	Regulated utility takes ownership of power through one contract and sells it to customer(s). Customer and 3rd party negotiate for renewable energy service. First contract is between 3rd party and the regulated utility to purchase electricity. Tariff is set for same price and duration as first contract.	This is the model generally described in the Rocky Mountain Power filing in Utah (Docket 14-035-T02), but staff removed the "second contract" language because it may not be legal in Oregon. Instead, staff replaced "second contract" with tariff.	<i>Collapsed with (1.x) - see new model in row (1.b/x)</i>					
	(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.	*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 output (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.	This is the model generally described in the Rocky Mountain Power filing in Utah (Docket 14-035-T02), but staff removed the "second contract" language because it may not be legal in Oregon. Instead, staff replaced "second contract" with tariff. Also, staff added elements of RNW's (1.x) model without the specifics of the RFP (which will be examined in the statutory considerations and potential conditions sections of the study).						
	(1.c/d) Third party owned renewable resource. Regulated utility or third party aggregator matches VRET loads 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.	Combined 1(c) and 1(d) to create this row 1(c/d). Issues of timing and risk depending on when and how aggregation occurs. Added option for third party aggregator (not just utility) to aggregate load or supply.						
	(1.x.) Third party owns renewable resource. Regulated Utility takes delivery of energy from renewable energy project(s), credits customer bill for project output (at credit amount TBD - the utility's wholesale avoided cost rather than retail rates), and serves balance of customer's energy/capacity need (if any) at cost of service rates. Utility remains primary point of contact for billing and (by customer choice) load management and ancillary services.	Customer and third party negotiate bilateral contract for energy output and RECs from new renewable energy project(s). Contract terminates if customer defaults.	Staff included this Model at RNW's suggestion. ~Row 1.x is different from 1.a./Direct Access in the following ways: renewable energy only, allows partial load, customer may simplify aggregation for large customers with multiple meters by having utility as single point of contact. ~This is similar to 1.b. but avoids contract price and terms being visible to regulated utility which may also be seeking to serve VRET market. ~Rate credit methodology needs further development; looking to other states would be beneficial. ~Risks are lower because customer, not utility, enters long-term contract.	<i>Collapsed with (1.b) - see new model in row (1.b/x)</i>					

Study of Potential Model VRETs

8/15/2014

Basic Structure				Statutory Considerations					Potential Conditions
Resource Owner	Utility Role	Relationships	Notes/Comments	Further Dev of Significant RE	Effect on Dev of Competitive Retail Markets	Impacts on Non-Participating Customers	Competitive Procurement Process	Other Considerations	to mitigate issues or cons in the statutory considerations (e.g. VRET cap, transition adjustment charges)
(2.) Regulated Utility	(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.	General concerns in comments about ability of regulated utility to prevent cost-shifting and effects on competitive market - which will be explored through consideration of the statutory factors.						
	(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).	Same as relationships in the aggregation-related 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.	General concerns in comments about ability of regulated utility to prevent cost-shifting and effects on competitive market - which will be explored through consideration of the statutory factors.						
(3.) Utility Affiliate	(3.a.) Regulated utility "passes-through" the renewable energy without taking ownership.	Utility affiliate and customer negotiate contract for renewable energy service. Regulated utility and customer have relationship that may be similar to direct access structure.	Basic structure already available under existing laws and regulations. Utilities generally commented that they are unlikely to offer a product as an affiliate.	<i>Already available under existing laws and regulation. Unlikely to occur.</i>					
	(3.b.) Regulated utility is the middleman between a utility affiliate and customer(s) that are contracting for renewable energy. Regulated utility takes ownership of power through one contract and sells it to the customer(s) through a second contract(s).	Customer and utility affiliate negotiate for renewable energy service. First contract between utility affiliate and the regulated utility to purchase electricity for resale. Second contract(s) between customer(s) and regulated utility for the same price and duration as first contract. The first contract terminates if customer(s) defaults on second contract(s).	Basic structure already available under existing laws and regulations. Utilities generally commented that they are unlikely to offer a product as an affiliate.	<i>Already available under existing laws and regulation. Unlikely to occur.</i>					
(4.) Customer Owned	(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.	General concerns in comments about interaction with net metering and whether customer-owned resources should be treated like third-party ESSes. Continued open questions and potential confusion about on-site or off-site customer owned resources. Staff added elements of RNW's (1.x) model without the specifics of the RFP (which will be examined in the statutory considerations and potential conditions sections of the study).						
	(4.x) Customer owns renewable resource. Regulated Utility takes delivery of energy from renewable energy project(s), credits customer bill for project output (at credit amount TBD- the utility's wholesale avoided cost rather than retail rates), and serves balance of customer's energy/capacity need (if any) at cost of service rates.	Utility remains primary point of contact for billing and (by customer choice) load management and ancillary services. Customer negotiates for energy output and RECs from new renewable energy project(s). Contract terminates if customer defaults.	General concerns in comments about interaction with net metering and whether customer-owned resources should be treated like third-party ESSes.	<i>Collapsed with (4) - see new model (4.a/x)</i>					
(5.) Market-Based (REC Product)	(5.a.) Regulated utility continues to provide energy and services as it does with a cost-of-service customer today.	Customer buys renewable attributes only (unbundled RECs) from the market (marketer website, regulated utility program, etc.). The entity from which the customer buys unbundled RECs retires them on behalf of the customer.	Basic structure already available under existing laws and regulations.	<i>Already available under existing laws and regulation.</i>					
	(5.b.) Regulated utility buys bundled RECs from the market and re-sells them to the customer(s).	Customer buys energy together with renewable attributes (bundled RECs) from regulated utility. Regulated utility retires bundled RECs on behalf of the customer.	Bundled RECs are Power + Renewable Energy Attributes, which may be used as part of other models that offer power and renewable energy attributes as a product.	<i>Power + Renewable Energy Attributes as a Bundled REC may be used as part of other models.</i>					
(6.) 3rd Party (distribution level OATT-like VRET)	Open access, transmission and distribution service by regulated utility	*3rd Party and customer contract for energy with a specific threshold of renewable content. *Transmission and distribution model to deliver renewable energy to customer facilities.	Staff is researching whether this model may require new legislation because of interplay with existing PUC requirements. Utilities are required to comply with Direct Access regulations, whereas the VRET is voluntary. Utilities indicated they would be unlikely to offer this type of model.	<i>Unlikely to occur.</i>					

Study of Potential Model VRETs

8/15/2014

Basic Structure				Statutory Considerations					Potential Conditions
Resource Owner	Utility Role	Relationships	Notes/Comments	Further Dev of Significant RE	Effect on Dev of Competitive Retail Markets	Impacts on Non-Participating Customers	Competitive Procurement Process	Other Considerations	to mitigate issues or cons in the statutory considerations (e.g. VRET cap, transition adjustment charges)
(7.) Hybrid	Customer or utility or third party owns renewable resource, meeting majority of customer's demand. Utility offers RECs or another renewable resource product to get customer to desired 100% renewable energy.	Regulated utility could be owner and is likely operator of renewable resource, and also provides customer services and offers other products to meet customer's renewable energy goals (which may mitigate risk to customer). Third party or customer could be owner of renewable resource, but purchase customer services and other products from the regulated utility that meet the customer's renewable energy goals. Or third party is the developer or seller of renewable resource output, and could be the potential seller of RECs or other renewable product to meet customer's renewable energy goals.	Staff included this Model at PGE's suggestion: "This model allows for the utility flexibility in adhering to HB 4126's goals, while meeting each customer's particular needs." The components of this hybrid approach are contained in other models. The VRET Models Table is not intended to limit a VRET to only one type of model.	<i>The components of this hybrid approach are contained in other models.</i>					