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October 16, 2007

Diane Davis, Regulatory Operations
Public Utility Commission of Oregon
550 Capitol Street, N.E., Suite 215
Salem, Oregon 97301-2551

Re: AR 521, PGE's comments on the OPUC Staff's Proposed Oregon Small Generator Interconnection Rules

PGE appreciates the opportunity to provide a few additional comments on the proposed Oregon Small Generator Interconnection Rules. Our comments are intended to add further refinement to the rules.

The following is a summary of our comments:

860-082-0010 (31) - We have expanded the definition of parallel operation. The original definition is technically adequate, but we offer the additional wording to aid in clarity for the lay person.

860-082-0015 (3)(b)(B) – For consistency, change the spot network wording to match that used in 860-082-0045 (1)(b)(B).

860-082-0045 (3)(i) – Insert “current” to clarify as a current imbalance and match language elsewhere in the proposed rule.

860-082-0045 (3)(j) - Replace (f) with (g) to correct the reference.

860-082-0045 (3)(l) – PGE suggests adding new wording to exclude synchronous generators on circuits with high speed reclosing from Level 2 and 3 consideration and make them subject to Level 4 review. The use of high speed reclosing, PGE's system wide standard for distribution circuits with reclosing, presents a significant risk to synchronous machines that might remain connected to the circuit when the reclosing occurs. PGE's approach, when synchronous generators are to be paralleled, has been to add relaying at the substation to block reclosing until the generator has disconnected from the line, determined by the absence of voltage on the line. This substation work is beyond that listed in 860-082-0045 (4)(g).

This requirement will have the tendency to keep small synchronous generators off circuits with high speed reclosing because of the additional cost of the substation work necessary to accommodate the generator. Projects with larger machines will more likely be able to afford the necessary substation work. The risk of damage to the customer's generator is quite high if it is connected without dead line checking/hot line blocking. The cost of implementing the dead line check/hot line block function is well beyond the "minor modifications" stated in the rule. Without the synchronous generator language, Level 2 and Level 3 applications for synchronous generators on circuits with high-speed reclosing would be rejected based on 860-082-0045 (3)(j) or 860-082-0050 (3)(f). This additional language will notify Level 2 and 3 applicants in advance of a condition where a small synchronous generation application would be rejected. Under the Level 4 rules, the issues of synchronous machines can be properly addressed and measures taken to reduce the risk to the customer's machine.

860-082-0050 (1)(c) - Change "reverse" power relay to "low forward" power relay. In network applications a reverse power relay can not respond quickly enough to prevent network protector operation. Minimum import levels must be maintained at all times.

860-082-0050 (3)(c) - See 860-082-0050 (1)(c) above.

860-082-0050 (3)(f) – Replace (f) with (g) to correct the reference.

860-082-0050 (3)(g) - See 860-082-0045 (3)(l) above, for Level 3.

Our proposed edits to the rules are enclosed as Attachment A. We may provide further review and comment as we proceed in the rule development.

Please direct questions or comments regarding this submittal to me (503) 464-7891.

Sincerely,



Doug Kuns
Manager, Pricing and Tariffs

Enclosure

cc: Service List AR 521

860-082-0010 - Definitions

(31) "Parallel Operation" or "Parallel" means a Small Generator Facility is connected electrically to a T&D System and the potential exists for electricity to flow from the Small Generator Facility to the T&D System or for the Small Generator Facility and the T&D system to simultaneously feed the same electrical load.

860-082-0015 - General Interconnection Provisions

(3)(b)(B) The proposed connection is to a radial distribution circuit, or to a Spot Network ~~that is limited to serving one customer premise~~ { match the language of 860-082-0045 (1)(b)(B) }.

860-082-0045 - Level 2 Interconnection

(3)(i) If the proposed Small Generator Facility is single-phase and is to be interconnected on a center tap neutral of a 240 volt service line, its addition must not create an current imbalance between the two sides of the 240 volt service of more than 20 percent of the nameplate rating of the service transformer.

(3)(j) Except as provided in subsection (4)(fg), the interconnection must only use existing EDC facilities and the Applicant's proposed facilities.

(3)(l) If the EDC's distribution circuit utilizes high speed reclosing with less than 2 seconds of interruption and the proposed generator is a synchronous machine, the proposed Small Generator Facility will be subject to Level 4 review. If the proposed Small Generator Facility is not a synchronous machine Level 2 review will apply.

860-082-0050 - Level 3 Interconnection

(1)(c) The Small Generator Facility does not export power beyond the point of interconnection and utilizes ~~reverse-low forward~~ power relays or other protection functions that prevent power flow onto the Area Network;

(3)(c) The Small Generator Facility utilizes ~~reverse-low forward~~ power relays or other protection functions that prevent power flow on to the Area Network;

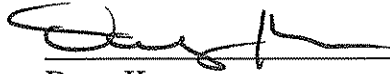
(3)(f) Except as allowed in subsection (5)(fg) of this rule, the interconnection must use only existing EDC facilities and the Applicant's proposed facilities.

(3)(g) If the EDC's distribution circuit utilizes high speed reclosing with less than 2 seconds of interruption and the proposed generator is a synchronous machine, the proposed Small Generator Facility will be subject to Level 4 review. If the proposed Small Generator Facility is not a synchronous machine Level 3 review will apply.

CERTIFICATE OF SERVICE

I hereby certify that I have this day caused **PGE's Comments on AR 521 - OPUC Staff's Proposed Oregon Small Generator Interconnection Rules**, to be served by electronic mail to those parties whose email addresses appear on the attached service list, and by First Class US Mail, postage prepaid and properly addressed, to those parties on the attached service list who have not waived paper service from OPUC Docket No. AR 521.

Dated at Portland, Oregon, this 16th day of October 2007.



Doug Kuns,
Manager, Pricing and Tariffs

SERVICE LIST

OPUC DOCKET # AR 521

* Waived Paper

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