

MEMORANDUM OF UNDERSTANDING

by and between

BONNEVILLE POWER ADMINISTRATION

and

PORTLAND GENERAL ELECTRIC COMPANY

This MEMORANDUM OF UNDERSTANDING (MOU) is entered into as of this 11th day of January 2013 by and between Bonneville Power Administration (BPA), and Portland General Electric Company (PGE), hereinafter individually "Party," and collectively "Parties."

RECITALS

This MOU sets forth a framework for the Parties to further explore an option for developing additional transfer capability between Boardman, Oregon and the Willamette Valley through possible transmission system expansion, exchange of assets or transfer capability, and joint implementation of non-wires solutions.

The Parties are further exploring this option as a possible alternative that could significantly reduce the environmental impact of the Cascade Crossing Transmission Project, while at the same time improve the reliability, add capacity and remove constraints on the regional transmission system. The Cascade Crossing Transmission Project was originally proposed and is being permitted as a double-circuit 500 kV transmission line that would extend from Boardman, Oregon to Salem, Oregon and is currently undergoing environmental review pursuant to the National Environmental Policy Act.

Under such an option, as described in greater detail below, PGE would make investments in and own all or a part of certain transmission facilities, and convey to BPA ownership and/or rights to use one or more of the following: assets, transfer capability, investments, or rights to direct the operation of certain PGE generation facilities. Additionally, the ownership of certain assets or transfer capability may be conveyed by PGE to BPA. As a result of such investments and conveyances, PGE would obtain ownership of up to 2,600 MW of transfer capability between Boardman, Oregon and the Willamette Valley. Thereafter, both Parties would make their respectively owned transfer capability available in a manner that is consistent with the applicable provisions of their respective Open Access Transmission Tariffs (OATTs) or as may be authorized by applicable regulatory bodies.

If both Parties, in their sole and absolute discretion, determine that the option set forth below is both operationally acceptable and commercially desirable, they would complete appropriate environmental review as required by applicable law. Additionally, the Parties would prepare one or more proposed agreements (the Agreement) for public review and

comment and, subject to such review and comment and any other appropriate review process, the Parties would enter into such agreement(s). Such agreement(s) would lay out a plan for how the Parties would further develop the option described below, as it may be modified pursuant to further review, study and analysis by the Parties.

1. **TERM**

This MOU shall be effective on the date of execution by the Parties. The MOU shall terminate on the earlier of: 1) execution of the Agreement by the Parties, or 2) December 31, 2014; provided, however, that any Party may withdraw from this MOU at any time, for any reason whatsoever or for no reason, after giving the other Party ninety (90) days' notice of its intent to do so.

2. **GENERAL PRINCIPLES; SCHEDULE**

The provisions of the Agreement, should the Parties decide to enter into it, will be consistent with the general principles described in Appendix A.

Within the next 120 days, the Parties will jointly develop and define a project timeline and plan that lays out the key components and milestones that are required to assist the Parties in completing the necessary studies and analyses, evaluating the merits of the option described below and ultimately reaching final decisions.

3. **NO FINAL DECISION**

Nothing in this MOU constitutes a final decision by either Party regarding the terms and conditions of the Agreement. No such Agreement will be entered into by BPA until such time as any appropriate public review and comment, and any other appropriate processes, have been conducted.

As a Federal agency, BPA has certain obligations and responsibilities under the National Environmental Policy Act (NEPA) and other Federal laws (collectively the NEPA review process) that it must fulfill before it can make a final decision concerning whether to participate in implementation of the option described in Sections 4 and 5. Nothing in this MOU shall be construed as obligating or committing BPA to make a final decision concerning this option before a NEPA review process has been completed. In addition, BPA reserves the right to determine the appropriate NEPA and other environmental compliance strategies for its role in this option, and to choose any alternatives considered in the NEPA process, including the no-action alternative.

4. **TRANSMISSION SYSTEM EXPANSION**

The Parties will further develop and complete necessary studies and analyses of the transmission system expansion described below to increase transfer capability between Boardman, Oregon and the Willamette Valley. If the Parties conclude that such transmission system expansion is both commercially desirable and operationally acceptable, then, in addition to the description of rights and responsibilities below, the Parties will negotiate detailed rights and responsibilities associated with each element of the transmission system expansion as part of the Agreement or other agreement that may be negotiated between the Parties. Pending the outcome of such studies and analysis, the Parties expect that PGE may

obtain and own up to 1,400 MW of additional transfer capability between Boardman, Oregon and the Willamette Valley. Studies will be completed on the following elements:

- (a) *Knight Series Capacitors:* Series capacitor banks would be installed at BPA's Knight Substation on BPA's Knight-Ostrander 500 kV and Knight-Wautoma 500 kV lines (Knight Series Capacitors) to increase the usable transfer capability of existing lines. PGE would own the Knight Series Capacitors and would pay for the Knight Series Capacitors' permitting (permitting) here and throughout this MOU includes any and all analysis BPA undertakes relative to the National Environmental Policy Act, the Clean Water Act, Endangered Species Act, the National Historic Preservation Act, and any other applicable environmental or cultural resource laws regarding the proposal), procurement and installation. BPA would operate and maintain the Knight Capacitors at PGE's expense. BPA would own, operate, and maintain the remainder of the Knight Substation at BPA's expense.
- (b) *Pine Grove Substation:* PGE would construct a new Pine Grove Substation which would be the western terminus of this new single circuit 500 kV option proposed for the eastern portion of Cascade Crossing Transmission Project (see below). The Pine Grove Substation and the eastern portion of the Cascade Crossing Transmission Project would increase the amount of usable transfer capability available from Boardman, Oregon to the Willamette Valley. BPA's John Day-Marion 500 kV, Ashe-Marion 500 kV and Buckley-Marion 500 kV lines would be looped into Pine Grove Substation. Series capacitors would also be installed on BPA's John Day-Pine Grove 500 kV, Ashe-Pine Grove 500 kV and Pine Grove-Marion Nos. 1, 2 and 3 lines. PGE would own Pine Grove Substation, including the series capacitors, and pay for the permitting, development and construction of the Pine Grove Substation and the series capacitors. PGE would also construct Pine Grove Substation in accordance with specifications provided by BPA and good utility practice. BPA would cooperate with PGE's development and permitting by providing information relating to the connection of BPA's transmission lines, noted above, to Pine Grove Substation. BPA would operate and maintain Pine Grove Substation at PGE's cost.
- (c) *East Portion of Cascade Crossing Transmission Project (Coyote Springs-Grassland-Pine Grove) Line:* At PGE's expense, PGE would permit, develop, and construct the Coyote Springs-Grassland-Pine Grove Line (the eastern portion of the Cascade Crossing Transmission Project), which would be a 500 kV transmission line from Coyote Springs Substation to PGE's new Grassland Substation and then to the new Pine Grove Substation. PGE would own and maintain the new transmission line from Coyote Springs – Grassland-Pine Grove. BPA would cooperate with PGE's development and permitting by providing information relating to the connection of BPA's transmission facilities to the new transmission line.

- (d) *Grassland Substation:* Grassland Substation would be the central terminus of the single circuit 500 kV Coyote Springs-Grassland-Pine Grove Line. PGE would own the Grassland Substation and pay for the permitting, development and construction of the Grassland Substation.
- (e) *Longhorn Substation:* If BPA subsequently chooses to develop and construct the Longhorn Substation, PGE would have the option to construct its transmission line to the Longhorn Substation and own one bay, provided it is willing to pay all costs associated with the 500 kV bay at the Longhorn Substation. BPA would cooperate with PGE's development and permitting by providing information relating to the connection of PGE's transmission line to BPA's Longhorn Substation.
- (f) *Transmission Expansion in the Portland and Salem Area:* The Parties would develop and complete necessary studies of transmission system expansion that may be required to support additional transfer capability from Boardman, Oregon to PGE's service territory. Any such reinforcements would be made at PGE's expense and may include one or more of the following: constructing a new Blue Lake-Gresham 230 kV line, re-conductoring its Murray Hill-St. Mary 230 kV line, re-terminating and re-conductoring its McLoughlin-Pearl-Sherwood 230 kV line, separating its Pearl-Sherwood 230 kV lines into new breaker positions that would be placed into service as separated lines, separating the BPA Pearl-Marion and BPA Pearl-Ostrander 500 kV lines, installing a suitably sized shunt capacitor group at BPA's Allston 500 kV Substation, developing the BPA Sifton 230 kV yard or implementing a remedial action scheme-initiated generation trip at Bonneville generation project, expanding PGE's McLoughlin 230 kV Substation, upgrading the BPA Santiam-Chemawa 230 kV line to a higher current rating, and constructing a new Bethel-Salem 230 kV line. Ownership, operation, and maintenance of any such transmission reinforcements would be subject to further negotiations between the Parties.

5. EXCHANGE

The Parties will further explore the possibility of an exchange whereby PGE would obtain, from BPA, ownership of additional transfer capability of up to 600 MW between Boardman, Oregon and the Willamette Valley, and BPA would obtain from PGE ownership and/or rights to use one or more of the following assets, transfer capability, investments, or rights to direct the operation of certain PGE generation facilities to be selected by the Parties:

- (a) North to South transfer capability on the California-Oregon Intertie;
- (b) Transfer capability to serve BPA preference customers that are currently served by PGE's transmission system;
- (c) Grizzly-Round Butte 500 kV Line and 500/230 transformer;

- (d) Round Butte-Redmond 230 kV Line;
- (e) Carlton-Sherwood 230 kV Line;
- (f) Circuit breakers for BPA's Pearl Substation;
- (g) The addition of PGE's Port Westward Plant to BPA's remedial action scheme;
- (h) PGE taking certain actions with its Beaver Generating Plant and its distributed standby generation in the Portland area that would alleviate transmission congestion under specific contingencies and/or conditions specified in the Agreement,
- (i) Copies and the right to utilize any survey, study and inspection data and results that PGE is authorized or permitted to share, pertaining to PGE's proposed and alternative transmission routes from the vicinity of the proposed Pine Grove Substation to the Salem area, including but not limited to: land surveys, engineering studies, environmental and cultural inspections and surveys, together with any geotechnical soil testing results; and,
- (j) Other transmission facilities or investments to be identified by the Parties.

6. **POTENTIAL ADDITIONAL PROJECT**

The Parties will work together to determine the feasibility of additional transmission projects where PGE may obtain up to 600 MW of additional capacity between the Boardman, Oregon area and the Willamette Valley. If the Parties identify such additional transmission projects where PGE may participate, the Parties will further explore such participation in accordance with the principles established in Appendix A.

7. **ADDITIONAL VALUE**

As the Parties continue their evaluation of the transmission system expansion elements found in Section 4 and the exchange elements addressed in Section 5, they will also continue to assess the value provided by each Party to ensure that it is fair and equitable for both. In particular, both Parties acknowledge that as part of the potential expansion and exchange, PGE would also: 1) exchange additional transmission assets, transfer capability and/or provide other operational flexibilities to BPA, some of which may be described in Section 5(a-j) that BPA would find beneficial, and/or 2) make a monetary payment to BPA for use of BPA pre-existing transmission system (i.e. latent capacity and other impacts across BPA flowgates); in each case to the extent BPA is not otherwise sufficiently compensated by PGE.

8. **NON-BINDING NATURE OF MOU**

This MOU is not a binding and enforceable contract but is intended to serve as a basis for further discussion, study, analysis, and negotiations between the Parties with respect to the potential Agreement. In the course of this analysis and negotiation, PGE and BPA may determine that improvements can be made or substituted for the elements of this MOU. This MOU does not constitute an offer, agreement or commitment and does not contain all matters to be reflected in the Agreement or any other agreement the Parties may enter into.

9. **LIMITATION OF LIABILITY**

Each of the Parties acknowledges and agrees that the other Party shall not be liable to it for any claim, loss, cost, liability, damage or expense, including any direct damage or any special, indirect, exemplary, punitive, incidental or consequential loss or damage (including any loss of revenue, income, profits or investment opportunities or claims of third party customers), arising out of or directly or indirectly related to the other Party's performance or nonperformance under this MOU. The rights and obligations under this Section 9 shall survive the expiration and termination of this MOU if an Agreement is not entered into, but shall otherwise be superseded by the provisions of the Agreement.

10. **CAPACITY EXPANSION OR SERVICE ALTERNATIVES**

Both Parties acknowledge that it is always possible that they would not reach agreement on the transmission system expansion contemplated in Section 4 and the exchange contemplated in Section 5 or that environmental review or permitting issues could preclude some or all of the components contemplated from being implemented. PGE, at its own discretion, is choosing to focus on permitting its Project from Boardman to the Pine Grove Substation and will suspend permitting the previously proposed section west of the Maupin area. Both Parties acknowledge that PGE has the option to resume its focus and permitting activities on the originally proposed 215 mile double-circuit Cascade Crossing Transmission Project or to continue receiving transmission service under BPA's OATT and, to the extent PGE may deem appropriate, request additional service from BPA under the OATT.

11. **GENERAL PROVISIONS**

- (a) If transmission studies or other analyses performed by the Parties demonstrate that the transmission system expansion or investments described above do not provide the benefits that were expected by the Parties, then the Parties will cooperate in good faith to identify alternative transmission system expansion or other alternatives that would provide substantially similar benefits as the benefits currently expected from the transmission facilities described herein at a comparable cost.
- (b) This MOU may not be amended except in writing signed by both Parties.

- (c) This MOU is for the sole and exclusive benefit of the Parties and shall not create a contractual relationship with, or cause of action in favor of, any third party.
- (d) Neither Party shall have the right to assign its interest in this MOU without the prior written consent of the other Party, which consent may be withheld by the other Party in its sole and absolute discretion.
- (e) Nothing contained in this MOU shall be construed as creating a corporation, company, partnership, association, joint venture or other entity, nor shall anything contained in this MOU be construed as creating or requiring any fiduciary relationship between the Parties. No Party shall be responsible hereunder for the acts or omissions of the other Party. Nothing herein shall preclude a Party from taking any action (or having its affiliates take any action) with respect to any other transmission facility or investment, including any such project that may compete with any transmission facility or investment identified in this MOU.
- (f) Each Party acknowledges and agrees that the other Party's decision to proceed with an Agreement is within such Party's sole and absolute discretion.
- (g) This MOU shall not be deemed to establish any right or provide a basis, either legal or equitable, by any person or class of persons against the United States, its departments, agencies, instrumentalities or entities, or its officers or employees; or against PGE or its board of directors, employees, or agents.
- (h) Nothing in this MOU will be construed as limiting or affecting in any way the authority or responsibility of the Parties to perform within their authorities, and nothing in this MOU shall be construed as committing the Parties to take any action concerning the items identified in this MOU before they have made provisions for compliance or actually complied with all applicable statutes and regulations.

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IN WITNESS WHEREOF, each of the Parties has caused this MOU to be executed by its authorized representative on the day and year first above written.

PORTLAND GENERAL ELECTRIC COMPANY

By: Bill Nicholson
Name: Bill Nicholson
Title: Senior Vice President Customer Service,
Transmission and Distribution

BONNEVILLE POWER ADMINISTRATION

By: Larry Bekkedahl
Name: Larry Bekkedahl
Title: Senior Vice President for Transmission Services

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APPENDIX A

GENERAL PRINCIPLES FOR FURTHER DEVELOPMENT OF AN OPTION FOR DEVELOPING ADDITIONAL TRANSFER CAPABILITY

1. The Agreement must be good for the Northwest as a whole; the goal is to strengthen the integrity of the transmission grid - removing constraints, adding capacity, and improving reliability for the next 60 + years and maintaining good environmental stewardship. PGE and BPA are interested in providing diversity to the existing transmission ownership model:
 - Leveraging the opportunity to achieve together what neither could accomplish independently.
 - Leveraging ownership and capital financing opportunities.
2. The Agreement must be good for BPA customers as a whole and PGE customers as a whole:
 - There shall be no cost shifting without associated benefits.
 - Changes to revenue streams need early notice and adequate ability to manage impacts.
3. BPA and PGE are committed to cost effective, reliable integration of wind. BPA and PGE are committed to satisfying the regulatory obligations of providing energy for customer and network load consistent with the Renewable Energy Standard.
4. BPA and PGE will respectively own their newly acquired transfer capability, which will be derived from the transmission system investments and conveyances to be made by the Parties in accordance with the Agreement, in a manner that is consistent with the applicable provisions of their respective OATTs, or as may be authorized by applicable regulatory bodies.
5. BPA and PGE are committed to demonstrate a collaborative decision making process to enhance the regional transmission capabilities. Any disputes unable to be resolved by the respective working teams will be elevated to each Party's executives for resolution.

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