

Business Practice # 34: Self-Supply or Third-Party Supply of Ancillary Services-Certification Process and Requirements

Posted: January 24, 2013 Effective: February 8, 2013 TBD

Revision No.: 11.0 12.0

NOTICE

A redline version showing the latest revisions to this business practice is available at: https://www.oasis.oati.com/woa/docs/PPW/PPWdocs/BP34red.pdf

To start the Self-Supply or Third-Party reserve certification process, please send an email request to:

businesspractices@pacificorp.com

As part of the certification process, you will be asked to provide the information requested in Appendix A: Application for Self-Supply or Third-Party-Supply of Ancillary Services. Appendix A is now attached at the end of this business practice.

Policy Reference

According to Section 3 of PacifiCorp's Open Access Transmission Tariff ("OATT"), the Transmission Provider must provide is required to offer to provide (or offer to arrange with the local Balancing Authority ("BA")) the following Ancillary Services to Transmission Customers serving load in the Transmission Provider's Balancing Authority Area or, under Schedule 9, for any Transmission Service used to deliver energy from a generator located within the Transmission Provider's Balancing Authority Area: ("BAA").

- Schedule 3 Regulation and Frequency Response Service;
 - Schedule 3A Generator Regulation and Frequency Response Service;
- Schedule 4 Energy Imbalance Service;
- Schedule 5 Operating Reserve Spinning Reserve Service;
- Schedule 6 Operating Reserve Supplemental Reserve Service; and

In addition, the Transmission Provider is required to offer to provide (or offer to arrange with the local BA) the following Ancillary Services to Transmission Customers when transmission service is provided for a generator physically or electrically located in the Transmission Provider's BAA.

- Schedule 3A Generator Regulation and Frequency Response Service
- Schedule 9 Generator Imbalance Service.



Pursuant to the OATT, a customer may either purchase these services from the Transmission Provider, arrange with third-parties to supply those services, or self-supply. This business practice describes PacifiCorp's certification process and requirements for customers electing to self-supply or to arrange for third-party purchase of specific Ancillary Services within the PacifiCorp Balancing Authority Area.'s BAAs.¹

Definitions

No definitions other than the following and those currently contained in PacifiCorp'sthe OATT orand, as applicable, North American Electric Reliability Corporation—("NERC") reliability standards's ("NERC") Glossary of Terms, Western Electricity Coordinating Council ("WECC") Regional Criteria, and the North American Energy Standards Board's ("NAESB") Electronic Tagging Functional Specification document are required for this business practice.

<u>Customer</u>- reference for the purpose of this business practice, refers to a customer that has successfully met qualifications to self-supply Ancillary Services.

Purpose

The purpose of this business practice is to clarify the practices outlined in the OATT pertaining to self-supply or third-party supply of ancillary services—Ancillary Services, including the certification process and requirements.

Practice

The following are the requirements of PacifiCorp, the Balancing Authority BA and Transmission Operator, for Customers who wish to self-supply or to arrange for thirdparty purchase of specific Ancillary Services. PacifiCorp requires that these Ancillary Services satisfy the requirements for Schedules 3, 3A, 4, 5, 6, and 9 under the currently effective PacifiCorp OATT and satisfy the relevant reliability standards of NERC or any successor organization. In addition to these requirements and the requirements listed below, the party requesting to self-supply or to arrange for third-party purchase shall also execute an Umbrella applicable Transmission Service Agreement or a revision to an existing transmission agreement, as applicable, with PacifiCorp specifying the detailed arrangements made to supply the services including, but not limited to, specification of the amount of service required to meet the party's obligation, identification of the generation resource(s) supplying the service and its Balancing Authority AreaBAA, specification of metering and communications equipment, and procedures for data exchange. A customer desiring to change its supplier of reserves must submit a request in writing or by email to the PacifiCorp Account Manager. The customer must state whether they intend to obtain reserves from a third party, self-supply reserves, or purchase reserves from PacifiCorp.

PacifiCorp Business Practices

¹Customers subject to applicable unauthorized use charges under Schedule 9 may also be subject to applicable unauthorized use charges under Schedule 11- Unauthorized Use of Transmission Service. For a PTP Customer or Interconnection Customer that has over-delivered energy on PacifiCorp's transmission system in excess of scheduled amounts, a negative generator imbalance charge plus a charge for unauthorized use will apply for the amount of excess generation over reserved transmission. ¹



If the Transmission Customer elects to obtain reserves from a third-party or from self-supply. PacifiCorp will review the customer's proposed arrangements for supplying reserves to assure that they meet all requirements as set forth in this business practice. PacifiCorp will notify the Transmission Customer, no later than thirty days from receipt of Customer request, whether the proposed reserves arrangements are acceptable. PacifiCorp reserves the right to request additional information from the party requesting self-supply or third-party supply and/or its supplier in addition to the information listed in this business practice, to ensure that this service is supplied in a reliable manner. In addition. PacifiCorp reserves the right to require pre-acceptance testing of the units identified (and periodic testing, at such times determined by PacifiCorp, thereafter) to ensure that the service can be provided in accordance with reliability standards and the contractual agreement. Formal PacifiCorp approval for the request to self-supply or arrange for third-party purchase of specific Ancillary Services will be dependent on completion of all requirements as set forth in this business practice as well as the completion of internal PacifiCorp system changes. The effective date will be the first of the month following PacifiCorp's formal approval.

PacifiCorp reserves the right to reject the request to self-supply such service or purchase it from another source, or to terminate the self-supply or third-party purchase in the event that PacifiCorp, in its reasonable judgment, concludes that such self-supply or third-party purchase would impair the reliability of the impacted PacifiCorp BAA.

SCADA (metering) requirements for reserves

For generation to qualify for self-supply service, the following data must be supplied by <u>for</u> the designated self-supply resource. Real time data must be supplied through telemetry acceptable to PacifiCorp.

- Net Generation MW
- Net Generator MVAr
- Real power flow through each of the low side feeder breakers
- Reactive power flow through each of the low side feeder breakers
- Reactive power flow from each of the shunt capacitor banks
- A phase high side transmission voltage
- B phase high side transmission voltage
- C phase high side transmission voltage
- Accumulator pulses for interchange metering kWh
- Status of all low and high side breakers

Annual Testing for Self-Supply of Reserves in the PacifiCorp-Balancing Area's BAAs

Resources designated <u>as for</u> self-supply of reserves, spinning or supplemental, must be tested annually.

Resources called upon to supply reserves and responding to meet Western Electricity Coordinating Council ("WECC")WECC and PacifiCorp requirements for time, output and power quality, during the calendar year shall be deemed as passing the annual test. PacifiCorp Grid Operations will monitor units as designated and accepted for self-supply-



and log the date of successful operation. Units not called upon to supply reserves during each calendar year between January 1 and December 1 will be designated for testing during December to meet compliance requirements. This will be accomplished with Grid Operations calling on reserves, monitoring results and logging the test. Successful operation will then be recorded and serve as the annual test.

Test operations that do not fully comply with WECC requirements and PacifiCorp business practices will be disqualified as self-supply resources until such at time as an operating test can establish that the unit(s) can respond in accordance with WECC requirements and PacifiCorp business practices.

Frequency Response Schedules (Schedules 3 and 3A)

Regulation and Frequency Response Service (Schedule 3) and Generator Regulation and Frequency Response Service (Schedule 3A):

Regulation and Frequency Response Service (Schedule 3): This service must be supplied for specified Network Loads by a Balancing Authority certified by NERC, or by its successor organization.

Part A below applies to both Schedules 3 and 3A.

- A. If The following requirements apply if the Network Load or generator requiring regulation and frequency response service Regulation and Frequency Response Service remains in the PacifiCorp Balancing Authority Area, then it shall be subject to the requirements of this Section APacifiCorp's BAAs.
 - <u>1.</u> The following information will be required to demonstrate the self-supply or third-party purchase of <u>regulation and frequency responsethe</u> service:
 - The generation resources providing the service should be located in the same PacifiCorp Balancing Authority AreaBAA as the generator(s) or Network Load for which self-supply is being provided and must have real time metering observable by the Balancing AuthorityBA.
- Documentation that the generation resources are deliverable resources as defined by a current Network Integration Transmission Service Agreement, or the legacy load service agreement on file at the Federal Energy Regulatory Commission ("FERC")FERC, or generating resources that are interconnected to PacifiCorp's system and have an active generation interconnection agreement with PacifiCorp. Non-network resources (or temporarily undesignated Network Resources) with firm point-to-point transmission in or to the Balancing Authority AreaBAA may qualify as regulating resources as long as they are willing to relinquish intra hour control of their capacity to the PacifiCorp Balancing Authority AreaBA.
 - A copy of the capacity agreement(s) or contract(s) that can be used to verify that the capacity used for this service is dedicated to the generator or Network Load service requirements for which self-supply is being provided, and is not being used to satisfy any other capacity obligations.



- Adequate generation resources must be placed under automatic generation control Automatic Generation Control ("AGC") as required to satisfy all reserve requirements in real time and as required to compensate for instantaneous load swings or generation swings or losses within the PacifiCorp Balancing Authority AreaBAA. The AGC target for the self-supplied resource shall be set to the customer export schedule for each hour of service. The Transmission Provider reserves the right to determine the quantity, unit priority, and physical location of generation resources proposed for AGC within the PacifiCorp Balancing Authority AreaBAA to meet the requirements under this sectionPart A.
- A point of contact at the generation resource (or a resource dispatch center) that is available any time the resource is designated for regulation and frequency response supply of the service.
- Transmission Customer is required to demonstrate the capability to self-supply and/or supply from third parties before PacifiCorp approves the request.
- 2. In the event that any of the above requirements fail to be not met, then PacifiCorp reserves the right to bill the responsible party for this service as supplied by PacifiCorp for the duration of the failure, including reimbursement for any penalties, charges or other consequences which PacifiCorp is subject to related to as a result of the failure. If a Transmission Customer fails to self-supply its regulation and frequency response the service as defined in this section and fails to notify PacifiCorp BA to make arrangements for alternative service, the Transmission Customer will be subject to and pay for regulation and frequency response the service as defined in Schedule 3 and 3A and Schedule 11 (if applicable) of PacifiCorp's the OATT.
- 3. The service hereunder must be available to be called on by PacifiCorp to comply with its NERC requirements for Control Performance Standards Nos. I and 2¹, the NERC Disturbance Control StandardResource and Demand Balancing ("BAL Standards"), and any such other related criteria or standards which may be imposed by a national or regional reliability council or governing regulatory body. The service may be used by PacifiCorp to comply with its obligations under the Northwest Power Pool Reserve Sharing Group Contractagreement and any future Reserve Sharing Group, of which PacifiCorp is a member. The supplying party must, at its own expense, make the necessary arrangements, in coordination with PacifiCorp, to be able to respond to a reserve sharing event. All requirements will be defined in a separate agreement between the parties. The supplying party is not required to have a separate relationship or agreement with the Northwest Power Pool Reserve Sharing Group.

⁺Specific to Control Performance Standard No. 2 ("CSP 2") —As a participant of the Reliability Based



Control Field Trail, PacifiCorp has been granted waiver for compliance with CPS 2 measures for the duration of the field test.

4. PacifiCorp reserves the right to request more information from the party requesting self-supply or third-party supply and/or its supplier of regulationand frequency response service, in addition to the above-listed information, to ensure that this service is supplied in a reliable manner. Further, PacifiCorp reserves the right to reject the request to self-supply such service, or purchase it from another source, in the event that PacifiCorp, inits reasonable judgment, concludes that such self-supply or third-party purchase wouldimpair reliability of the relevant PacifiCorp Balancing Authority Area or the interconnected electric system. PacifiCorp also reserves the right toterminate the self-supply or third-party purchase if, in its reasonablejudgment, PacifiCorp concludes that such self-supply or third-party purchase is impairing reliability in the relevant PacifiCorp Balancing Authority Area or the interconnected system. The PacifiCorp Balancing Authority will notify the party a minimum of 48 hours prior to the hour of operation if **PacifiCorp**

elects to reject or terminate the self-supply or usage of third-party request.

Parts B and C below apply only to Schedule 3.

- B. He a metered Network Load requiring regulation and frequency response service has been moved electronically into another Balancing Authority Area ("Supplying Balancing Authority") supplying BA, certified by NERC or its successor organization, by means of a pseudo-tie or, dynamically, a generator in the PacifiCorp Balancing Authority Area following the load in Supplying Balancing Authority Area, this Section dynamic schedule, this Part B shall apply.
 - 1. 1. This service may only be supplied by a pseudo-tie connection of the Network Load to a Balancing Authority Area BAA that will assume responsibility for the service. The pseudo-tie requires identification and observable real-time metering of the specific Network Loads for which the service is to be provided. Documentation of a firm transmission path from the supplying resource(s) to the PacifiCorp system is required. PacifiCorp requires a letter in advance from the Supplying Balancing Authority supplying BA which certifies that this service is supplied in accordance with all current policies and guidelines of the NERC Operating Manual, or any successor manual, NERC Reliability Standards that apply to supplying Ancillary Services to loads that are located physically in another Balancing Authority Area BAA. The party requesting to self-supply or arrange for third-party purchase shall, at its own expense, install or have installed, the necessary pseudo-tie equipment (including but not limited to metering and telecommunications equipment) for providing data to the Supplying Balancing Authority supplying BA. The party requesting to self-supply or arrange for third-party purchase shall also



reimburse PacifiCorp or its affiliates for any expenses incurred to accommodate the request for self- supply or third-party supply.

2. PacifiCorp reserves the right to review and approve the equipment configuration to arrange for the self-supply or third-party supply and to

request more information from the Supplying Balancing Authority, in addition to the above referenced letter, to ensure that this service is supplied in a

reliable manner. Further, PacifiCorp reserves the right to reject the request to self-supply such service, or purchase it from another source, in the event that

PacifiCorp, in its reasonable judgment, concludes that such self-supply or third-party purchase would impair reliability in the relevant PacifiCorp Balancing Authority Area or the interconnected system. PacifiCorp also reserves the right to terminate the self-supply or third-party purchase if, in its reasonable judgment, PacifiCorp concludes that such self-supply or third-party purchase is impairing reliability in the relevant PacifiCorp Balancing Authority Area or the interconnected system.

- 2. 3.—This service must be supplied in its entirety for the designated metered loads. Either an undersupply or an oversupply of this service, for twenty-four consecutive hours or more, shall be considered a failure to regulate for the Network Load, and in such event PacifiCorp reserves the right to bill the responsible party for the full charges for the duration of the failure for this service as supplied by PacifiCorp, including any and all costs or penalties incurred by PacifiCorp related to the failure.
- 3. 4.—In the event that the pseudo-tie equipment providing Network Load's data to PacifiCorp is not used and/or not useable, then PacifiCorp reserves the right to bill the responsible party for this service as supplied by PacifiCorp for the duration of the period in which the Network Load's signal was unavailable, including any and all costs or penalties incurred by PacifiCorp related to its provision of the service. Inability of the Balancing AuthorityBA that is supplying the Network Load to receive the load signal by means of the pseudo-tie equipment shall not give rise to charges for this service, unless PacifiCorp is also not able to receive the load signal and is therefore unable to exclude the Network Load from PacifiCorp Balancing Authority's BA responsibilities. However, it shall be the responsibility of the Balancing Authority BA that is supplying the Network Load to make arrangements to appropriately account for the Network Load in its Balancing Authority BA obligations and to correct the failure to receive the load signal as soon as practicable. If, in the sole judgment of PacifiCorp, restoration of the load signal to the Supplying Balancing Authority BA is not made expeditiously, the self-supply or third-party supply will be



terminated and the responsible party shall be billed for regulation and frequency response service.

- C. A resource located in another Balancing Authority Area ("Supplying Balancing Authority")supplying BA, certified by NERC or its successor organization, may be utilized to supply regulation and frequency response service by means of a pseudo-tie or, dynamic schedule, to the PacifiCorp Balancing Authority Area's BAAs. If so, this Section C shall apply.
- 1.—This service may only be supplied by pseudo-tie or dynamic connection of the resource to a PacifiCorp Balancing Authority Area BAA. The pseudo-tie or dynamic signal requires identification and observable real-time metering of the specific resource for which the service is to be provided. Documentation of a firm transmission path from the supplying resource(s) to the PacifiCorp System is required. PacifiCorp requires a letter in advance from the Supplying Balancing Authority supplying BA which certifies that this service is supplied in accordance with all current policies and guidelines of the NERC Operating Manual, orany successor manual, NERC Reliability Standards that apply to supplying Ancillary Services to loads that are located physically located in another Balancing Authority AreaBAA. The party requesting to self-supply or arrange for third-party purchase shall, at its own expense, install or have installed, the necessary pseudo-tie or dynamic signaling equipment (including but not limited to metering and telecommunications equipment) for providing data to the Supplying Balancing Authoritysupplying BA. The party requesting to self-supply or arrange for third-party purchase shall also reimburse PacifiCorp or its affiliates for any expenses incurred to accommodate the request for self- supply or third-party supply.
 - 2. PacifiCorp reserves the right to review and approve the equipment configuration to arrange for the self-supply or third-party supply and to request more information from the Supplying Balancing Authority, in addition to the above referenced letter, to ensure that this service is supplied in a reliable manner. Further, PacifiCorp reserves the right to reject the request to self-supply such service, or purchase it from another source, in the event that PacifiCorp, in its reasonable judgment, concludes that such self-supply or third-party purchase would impair reliability in the relevant PacifiCorp Balancing Authority Area or the interconnected system. PacifiCorp also reserves the right to terminate the self-supply or third-party purchase if, in its reasonable judgment, PacifiCorp concludes that such self-supply or third-party purchase is impairing reliability in the relevant PacifiCorp Balancing Authority Area or the interconnected system.
 - 1. 3.—This service must be supplied in its entirety for the designated resource. Either an undersupply or an oversupply of this service, for twenty-four consecutive hours or more, shall be considered a failure to



regulate, and in such event PacifiCorp reserves the right to bill the responsible party for the full charges for the duration of the failure for this service as supplied by PacifiCorp, including any and all costs or penalties incurred by PacifiCorp related to the failure.

4.—In the event that the pseudo-tie equipment providing the resource's data to PacifiCorp is not used and/or not useable then PacifiCorp reserves the right to bill the responsible party for this service as supplied by PacifiCorp for the duration of the period in which the signal was unavailable, including any and all costs or penalties incurred by PacifiCorp related to its provision of the service. Inability of the Balancing Authority BA that is supplying the resource to receive the signal by means of the pseudo-tie equipment shall not give rise to charges for this service, unless PacifiCorp is also not able to receive the resource signal and is therefore unable to include the resource into thee PacifiCorp Balancing AuthorityBA responsibilities, accounting, or control. However, it shall be the responsibility of the Balancing Authority BA that is supplying the resource to make arrangements to appropriately account for the resource in its Balancing Authority BA obligations and to correct the failure to receive the signal as soon as practicable. If, in the sole judgment of PacifiCorp, restoration of the signal to the Supplying Balancing Authoritysupplying BA is not made expeditiously, the self-supply or third-party supply will be terminated and the responsible party shall be billed for regulation and frequency response service.

Generator Regulation and Frequency Response Service (Schedule 3A): The Transmission Provider must offer this service when Transmission Service is provided for a generator physically or electrically located in the Transmission Provider's Balancing Authority Area and the load served is external to the Transmission Provider's Balancing Authority Area. Generator Regulation and Frequency Response Service applies to the extent that a Transmission Customer is not already subject to Regulation and Frequency Response Service provided under Schedule 3.

- A. If the generator requiring Generator Regulation and Frequency Response Service remains in the PacifiCorp Balancing Authority Area, then it shall be subject to the requirements of this Section A.
 - 1. The following information will be required to demonstrate the self-supply or third-party purchase of Generator Regulation and Frequency Response Service:
 - The generation resources providing the service should be located in the same PacifiCorp Balancing Authority Area as the generator(s) for which self-supply is being provided and must have real time metering observable by the Balancing Authority.
 - Documentation that the generation resources are deliverable resources as defined by a current transmission service agreement on file with or reported at FERC, or generating resources that are interconnected to



PacifiCorp's system and have an active generation interconnection agreement with PacifiCorp.

- A copy of the capacity agreement(s) or contract(s) that can be used to verify that the capacity used for this service is dedicated to the generator(s) for which self-supply is being provided, and is not beingused to satisfy any other capacity obligations.
- Adequate generation resources must be placed under AGC as required to satisfy all reserve requirements in real time and as required to compensate for instantaneous generation swings or losses within the PacifiCorp Balancing Authority Area. The AGC target for the self supplied resource shall be set to the customer export schedule for each hour of service. The Transmission Provider reserves the right to determine the quantity and physical location of generation resources proposed for AGC within the PacifiCorp Balancing Authority Area to meet the requirements under this section A.
- A point of contact at the generation resource (or a resource dispatch center) that is available any time the resource is designated for Generator Regulation and Frequency Response Service.
- 2. In the event that any of the above requirements fail to be met, then PacifiCorp reserves the right to bill the responsible party for this service as supplied by PacifiCorp for the duration of the failure, including reimbursement for any penalties, charges or other consequences which PacifiCorp is subject to related to the failure. If a Transmission Customer fails to self-supply its Generator Regulation and Frequency Response Service as defined in this section and fails to notify PacifiCorp to make arrangements for alternative service, the Transmission Customer will be subject to and payfor Generator Regulation and Frequency Response Service as defined in Schedule 3A and Schedule 11 (if applicable) of PacifiCorp's OATT.
- 3. The service hereunder must be available to be called on by PacifiCorp to comply with its NERC requirements for Control Performance Standards Nos.
 - 1 and 2², the NERC Disturbance Control Standard, and any such other related criteria or standards which may be imposed by a national or regional reliability council or governing regulatory body. The service may be used by PacifiCorp to comply with its obligations under the Northwest-Power Pool Reserve Sharing Group Contract and any future Reserve Sharing Group, of which PacifiCorp is a member. The supplying party must, at its own expense, make the necessary arrangements, in coordination with PacifiCorp, to be able to respond to a reserve sharing event. All requirements will be defined in a separate agreement between



the parties. The supplying party is not required to have a separate relationship or agreement with the Northwest Power Pool Reserve Sharing Group.

4. PacifiCorp reserves the right to request more information from the party requesting self-supply or third-party supply and/or its supplier of Generator Regulation and Frequency Response Service, in addition to the above-listed information, to ensure that this service is supplied in a reliable manner. Further, PacifiCorp reserves the right to reject the request to self-supply such service, or purchase it from another source, in the event that PacifiCorp, in its reasonable judgment, concludes that such self-supply or third-party purchase would impair reliability of the relevant PacifiCorp Balancing Authority Area or the interconnected electric system. PacifiCorp also reserves the right to terminate the self-supply or third-party purchase if, in its reasonable judgment, PacifiCorp concludes that such self-supply or third-party purchase is impairing reliability in the relevant PacifiCorp Balancing Authority Area or the interconnected system. The PacifiCorp Balancing Authority will notify the

party a minimum of 48 hours prior to the hour of operation if PacifiCorp elects to reject or terminate the self-supply or usage of third-party request.

Imbalance Schedules (Schedules 4 and 9)

Energy Imbalance Service (Schedule 4) and Generator Imbalance Service (Schedule 9):

If a Transmission Customer requests to acquire these services by self-supply or from a third party, PacifiCorp will review the feasibility of the request on an individual basis due to the necessary inclusion of the California Independent System Operator ("CAISO") and potential complexities of their Imbalance Service Business Practices and those of PacifiCorp.

Operating Reserve Schedules (Schedule 5 and Schedule 6)

The party requesting to self-supply or arrange for third-party purchase shall, at its own expense, install or have installed, the necessary equipment (including but not limited to metering and telecommunications equipment) for providing the service. The party requesting to self-supply or arrange for third-party purchase shall also reimburse PacifiCorp or its affiliates for any expenses incurred to accommodate the request for self-supply or third-party supply.

²Specific to Control Performance Standard No. 2 ("CSP 2") As a participant of the Reliability Based Control Field Trail, PacifiCorp has been granted waiver for compliance with CPS 2 measures for the duration of the field test.



Operating Reserve - Spinning Reserve Service (Schedule 5): This service may be self-supplied or purchased from any unit or system that has uncommitted available capacity which is on-line and loaded at less than maximum output and which may be used to satisfy the Transmission Customer's reserve obligation. The specific Network Loads for which the service is to be provided must be identified and have observable real-time metering. The party requesting to self-supply or arrange for third-party purchase shall, at its own expense, install the necessary equipment (including but not limited to metering and telecommunications equipment) for providing the service. The party requesting to self-supply or arrange for third-party purchase shall also reimburse PacifiCorp or its affiliates for any expenses incurred to accommodate the request for self-supply or third-party supply.

- A. If the Network Load or generation export requiring the spinning reserve service remains in the PacifiCorp Balancing Authority Area, then it shall be subject to the requirements of this Section A.
 - 1. The following information will be required to demonstrate the self-supply or third-party purchase of spinning reserve service:
 - The generation resources providing the service must be located in the same PacifiCorp Balancing Authority Area as the Network Load or contractual point of receipt and must have observable real time metering.
 - For Network Load, documentation that the generation resources are deliverable Network Resources as defined by a current Network Integration Transmission Service Agreement or legacy load service agreement on file at FERC.
 - For Network Load, a copy of the capacity agreement(s) or contract(s) that can be used to verify that the capacity used for this service is dedicated to serve the designated metered Network Load, and is not being used to satisfy any other capacity obligations.
 - Access to logs, dispatch records and test data that can be used to verify that spinning reserves are actually spinning and not fully loaded and are capable of being applied as reported.
 - Self suppliers must provide day ahead information via tag, spreadsheet, or other means mutually acceptable to both parties. Day ahead information shall list the specific generation units and capacity levelsdesignated for reserves to meet obligations.
 - A point of contact is always available, all hours, every day to be used to deploy the reserves.



- For self-supply and third-party purchases of this service, reserves must be scheduled using a capacity e-Tag consistent with PacifiCorp Business-Practice
 - #39, E tagging Reserves. Also consistent with Business Practice #39, when the service is needed, the reserves must be deployed by the Customer through a mid-hour tag adjustment to the energy profile. PacifiCorp Grid Operations will confirm customer reserves are being held-via e-Tag. Once confirmation is validated, PacifiCorp will place a phone-call to communicate a loss of generation in the appropriate Balancing Authority and request deployment of reserves for the appropriate length of time. All reserves, when required, will be deployed on a non-discriminatory basis.
- 3. In the event that any of the above requirements fail to be met, then PacifiCorp reserves the right to bill the responsible party for this service as supplied by PacifiCorp for the duration of the failure, including reimbursement for any penalties, charges or other consequences, which PacifiCorp is subject to related to the failure. If the Network Load fails to self-supply its spinning reserves as defined in this section and fails to notify PacifiCorp to make arrangements for service, the Network Load will-be

subject to unauthorized spinning reserve service as defined in Schedule 5 and

Schedule 11 (if applicable) of PacifiCorp's OATT.

4. The service hereunder must be available to be called on by PacifiCorp to comply with its NERC requirements for Control Performance Standards Nos.

1 and 2³, the NERC Disturbance Control Standard, and any such other related criteria or standards which may be imposed by a national or regional reliability council or governing regulatory body. The service will-also be used

by PacifiCorp to comply with its obligations under the Northwest Power-Pool

Reserve Sharing Group Contract and any future Reserve Sharing Group of which PacifiCorp is a member. The supplying party must, at its own expense, make the necessary arrangements, in coordination with PacifiCorp, to be able to respond to a reserve sharing event. The supplying party is not required to have a separate relationship or agreement with the Northwest Power Pool Reserve Sharing Group.

5. PacifiCorp reserves the right to request more information from the party requesting self-supply or third-party supply and/or its supplier of spinning reserve service, in addition to the above-listed information, to ensure that this service is supplied in a reliable manner. Further, PacifiCorp reserves the right to reject the request to self-supply such service, or purchase it from another

³-Specific to Control Performance Standard No. 2 ("CSP 2") — As a participant of the Reliability Based Control Field Trail, PacifiCorp has been granted waiver for compliance with CPS 2 measures for the duration of the field test.

source, in the event that PacifiCorp, in its reasonable judgment, concludes that such self-supply or third-party purchase would impair reliability in the relevant PacifiCorp Balancing Authority Area or the interconnected system. PacifiCorp also reserves the right to terminate the self-supply or third-party purchase if, in its reasonable judgment, PacifiCorp concludes that such self-supply or third-party purchase is impairing reliability in the relevant PacifiCorp Balancing Authority Area or the interconnected system.

- 6. Customers may transfer their spinning reserve obligation to another party. The following requirements must be met and verified by PacifiCorp in order to effect such transfer:
 - Within the PacifiCorp Balancing Authority Area, the purchase power agreement or other commercial agreement between Transmission Customers shall be provided to PacifiCorp for proper crediting of spinning reserve obligations.
 - Customers with a desire to shift spinning reserve responsibility to another Balancing Authority are required to provide to PacifiCorp Grid Operations written details of the transaction, including the term and estimated volume of spinning reserves with a forecast of hours the transaction will occur for the duration of the proposed transaction.
 - The receiving Balancing Authority must accept the spinning reserve responsibility in writing and the writtenauthorization must be submitted and approved by PacifiCorp in advance before the reserve obligation will be shifted to the receiving Balancing Authority. PacifiCorpwill submit written approval to the Customer requesting this service upon receipt of all requiredinformation.
 - Once a transaction is approved in writing by the PacifiCorp

Balancing Authority, Customers are required to submit updated, in writing, day ahead forecasts for all spinning reserve transfers to another Balancing Authority, by quantity and hour, during the pre-schedule window. Pre-schedule forecasts will



- be considered firm commitments for the operatingday.
- All sales which shift spinning reserve responsibility to another Balancing Authority shall be tagged as such, and Customers are required to notify, via phone, the PacifiCorp-Balancing Authority within 5 minutes of a unit trip so the tag can be immediately curtailed. PacifiCorp reserves the right to charge Customers for spinning reserves for any salewhich shifts spinning reserve responsibility to another-Balancing Authority if such notification is not made within 5 minutes of a unit trip.
- B. If the metered Network Load requiring the spinning reserve service has been moved electronically into another Balancing Authority Area ("Supplying Balancing Authority"), certified by NERC or its successor organization, by means of a pseudo-tie, this Section B shall apply. The pseudo-tie requires identification and observable real-time metering of the specific Network Loads for which the service is to be provided. PacifiCorp requires a letter in advance from the Supplying Balancing Authority which certifies that this service is supplied in accordance with all current policies and guidelines of the NERC Operating

Manual and/or the North American Energy Standards Board ("NAESB") standards, or any successor manual or standards, that apply to supplying Ancillary Services to loads that are located physically in another Balancing Authority Area.

- 1. PacifiCorp will accept, in lieu of the showing required in Section A.1 above, a letter in advance from the Supplying Balancing Authority which certifies that this service is supplied in accordance with all current policies and guides of the NERC Operating Manual and/or NAESB standards, or any successor manual or standards, that apply to supplying Ancillary Services to loads that are physically located in another Balancing Authority Area.
- 2. Whenever the pseudo-tie equipment providing the Network Load's data to PacifiCorp and/or the Supplying Balancing Authority is not used and/or not useable, the dispatcher for the entity that is not receiving the load signal shall immediately contact the dispatcher for the other entity to inform it of the loss of the signal. Thereafter, until both entities are again receiving the load signal through the pseudo-tie equipment, PacifiCorp may call upon the Supplying Balancing Authority to provide (or, if it is not the supplier of the Network Load's spinning reserves, call upon the supplier of such spinning reserves to provide) spinning reserves when and to the extent requested.
- 3. If the Supplying Balancing Authority or the supplier of spinning reserves fails to meet the requirements set forth in Section B.2 (i.e., fails to notify



PacifiCorp of the Supplying Balancing Authority's loss of its ability toreceive the Network Load's signal and/or fails to supply spinning reserves when

called upon by PacifiCorp), PacifiCorp reserves the right to bill the responsible party for this service for the duration of the failure, including reimbursement for any penalties, including unauthorized spinning reserve service according to Schedule 5 in the PacifiCorp OATT, charges or other consequences which PacifiCorp is subject to related to the failure.

4. PacifiCorp reserves the right to request more information from the Supplying Balancing Authority and/or the Network Load's supplier of spinning reserve service, in addition to the above referenced letter, to ensure that this service is supplied in a reliable manner. Further, PacifiCorp reserves the right to reject the request to self-supply such service, or purchase it from another source, in the event that PacifiCorp, in its reasonable judgment, concludes that such self-supply or third-party purchase would impair reliability in the relevant PacifiCorp Balancing Authority Area or the interconnected system.

PacifiCorp also reserves the right to terminate the self-supply or third-party purchase if, in its reasonable judgment, PacifiCorp concludes that such self-supply or third-party purchase is impairing reliability in the relevant PacifiCorp Balancing Authority Area or the interconnected system.

C. During periods when reserve deployment is required, PacifiCorp will notify the Customer either through electronic means or by phone call that reserves are required, the amount of reserves to deploy and the appropriate length of time of deployment. Specific notice arrangements will be agreed to between the Customer and PacifiCorp during the certification process.

Energy supplied by a Customer during periods of reserve deployment will be settled financially for the amount of energy deployed as represented on the Customer adjusted energy profile of the capacity tag(s). Financial settlement will be based on 100% of the Hourly Pricing Proxy in accordance with Schedules 4 and 9 of PacifiCorp's OATT.

Operating Reserve - Supplemental Reserve Service (Schedule 6): This service may be self-supplied or purchased from any qualifying unit, system, or qualifying interruptible load to meet the Network Load Transmission Customer's reserve obligation. The unit or system must consist of one or more quick-start units that are off-line but capable of serving demand in 10 minutes, or uncommitted available capacity that is on-line and loaded at less than maximum output which can be fully applied in 10 minutes. The interruptible load must be located within PacifiCorp-Balancing Authority Area's BAAs and must be capable of being interrupted within 10 minutes in the reasonable judgment of



PacifiCorp. The specific Network Loads for which the service is to be provided must be identified and have observable real-time metering. The party requesting to self-supply or arrange for third-party purchase shall, at its own expense, install the necessary equipment (including but not limited to metering and telecommunications equipment) for providing the service. The party requesting to self-supply or arrange for third-party purchase shall also reimburse PacifiCorp or its affiliates for any expenses incurred to accommodate the request for self-supply or third-party supply.

- A. If the Network Loadload or generation export requiring the reserves remains in theis located within or telemetered into PacifiCorp Balancing Authority Area's BAAs, then it shall be subject to the requirements of this Section A.
 - 1.—The following information will be required to demonstrate the self-supply or <u>purchase from a third-party purchase of supplemental reserve service:</u> both Spinning (Schedule 5) and Supplemental (Schedule 6) Reserve Service:
 - The generation resources providing the service must be located in the samea PacifiCorp Balancing Authority Area as the Network Load or contractual point of receiptBAA and must have observable real time metering.
- For Network Loadload, documentation that the generation resources are deliverable Network Resources as defined by a current Network integration Integration Transmission Service Agreement or legacy load service agreement on file at FERC.
 - For Network Loadload/generation, a copy of the capacity agreement(s) or contract(s) that can be used to verify that the capacity used for this service is dedicated to supply the designated metered Network Loadload, and is not being used to satisfy any other capacity obligations.
 - <u>Access to logs, dispatch records and test data that can be used to verify that the spinning and supplemental reserves are available and are capable as reported.</u>
 - A point of contact is always available, all hours, every day to be used to call on the reserves and modify Capacity e-Tag(s).
 - <u>Transmission Customer is required to demonstrate the capability to self-supply and/or supply from third parties before PacifiCorp approves the request.</u>
 - Self-suppliers must provide day-ahead information via e-Tag. Day-ahead information shall list the specific generation units and capacity levels designated for reserves to meet obligations. (Schedule 5 only)
 - An explicit description of the load, curtailment method, and process utilized to trigger the curtailment, if interruptible load is used. (Schedule 6 only)
 - 2. Deployment capability must be proven by the self-supply Customer in a fashion acceptable to PacifiCorp. Requirements will depend on the type of resource claimed as supplemental reserves and may include load trip testing or requesting an unplanned start on a reserve generator. Procedures must be validated prior to certification and also may require at least bi-annual validation.



- Access to logs, dispatch records and test data that can be used to verify that the supplemental reserves are available and are capable asreported.
- A point of contact is always available, all hours, every day to be used to call on the reserves.2. (Schedule 6 only). For self-supply and third-party purchases of this service, reserves must be scheduled using a capacity Capacity e-Tag consistent with PacifiCorp Business Practice #39, Electronic Tagging of E-tagging Reserves. Also, consistent with Business Practice #39, when the service is needed, the reserves must be deployed, when called on, by the Customer through a mid-hour tage-Tag adjustment to the energy profile. The PacifiCorp Grid Operations BA will confirm customer reserves are being held via e-Tag. Once confirmation is validated, PacifiCorp will place a phone call to communicate a loss of generation in the appropriate Balancing Authority BA and request deployment of reserves for the appropriate length of time. All reserves, when required, will be deployed on a non-discriminatory basis.
- 3. In the event that any of the above requirements fail to be is not met, then PacifiCorp reserves the right to bill the responsible party for this service as supplied by PacifiCorp for the duration of the failure, including reimbursement for any penalties-including unauthorized supplemental reserve service as defined in Schedule 6 and Schedule 11 (if applicable) of the PacifiCorp OATT, charges or other consequences which PacifiCorp is subject to related to the failure to PacifiCorp as a result of the failure. If the load fails to self-supply its reserves as defined in this section and fails to notify the PacifiCorp BA to make arrangements for service, the load will be subject to Unauthorized Use of Transmission Service as defined in Schedule 11 (if applicable) of the OATT.

4. The service hereunder must be available to be called on by PacifiCorp to comply with its NERC requirements for Control PerformanceBAL Standards Nos.1 and 2⁴, the NERC Disturbance Control Standard, and any such other related criteria or standards which may be imposed by a national or regional reliability council or governing regulatory body. The service will also be used by PacifiCorp to comply with its obligations under the Northwest Power Pool Reserve Sharing Group Contractagreement and any future Reserve Sharing Group of which PacifiCorp or its affiliates are a member. The supplying party must, at its own expense, make the necessary arrangements, in coordination with PacifiCorp, to be able to respond to a Reserve Sharingreserve sharing event. The supplying party is not required to have a separate relationship or agreement with the Northwest Power Pool Reserve Sharing Group.

5. PacifiCorp reserves the right to request more information from the party requesting self-supply or third-party supply and/or its supplier of supplemental reserve service, in addition to the above listed information, to ensure that this service is supplied in a reliable manner. Further, PacifiCorp reserves the right to reject the request to self-supply such



service, or purchase it from another source, in the event that PacifiCorp, in its reasonable judgment, concludes that such self-supply or third-party purchase would impair reliability in the relevant PacifiCorp Balancing Authority Area or the interconnected system. PacifiCorp also reserves the right to terminate the self-supply or third-party purchase if, in its reasonable judgment, PacifiCorp concludes that such self-supply or third-party purchase is impairing reliability in the relevant PacifiCorp Balancing Authority Area or the interconnected system.

- 6. Customers may transfer the supplemental reserve obligation to another party.
 - Within the PacifiCorp balancing area, the purchase power agreement or other commercial agreement between Transmission Customersshall be provided to PacifiCorp for proper crediting of supplemental reserve obligations.
 - Customers with a desire to shift supplemental reserveresponsibility to another Balancing Authority are required to provide to PacifiCorp written details of the transaction, including the term and estimated volume of supplementalreserve with a forecast of hours the transaction will occurfor the duration of the proposed transaction.
 - The receiving Balancing Authority must accept the supplemental reserve responsibility in writing and the written authorization must be submitted and approved by PacifiCorp in advance before the reserve obligation will be shifted to the receiving Balancing Authority. PacifiCorp will submit written

approval to the Customer requesting this service uponreceipt of all required information.

- Once a transaction is approved, Customers are required to submit updated, in writing, day-ahead forecasts for allsupplemental reserve transfers to another Balancing-Authority, by quantity and hour, during the pre-schedulewindow. Pre-schedule forecasts will be considered firmcommitments for the operating day.
- All sales which shift spinning reserve responsibility to another Balancing Authority shall be tagged as such and Customers are required to notify, via phone, the PacifiCorp-Balancing Authority within 5 minutes of a unit trip so the

⁴⁻Specific to Control Performance Standard No. 2 ("CSP 2") — As a participant of the Reliability Based Control Field Trail, PacifiCorp has been granted waiver for compliance with CPS 2 measures for the duration of the field test.



tag can be immediately curtailed. PacifiCorp reserves the right to charge Customers for supplemental reserves for any unit contingent sale if such notification is not made within 5 minutes of a unit trip.

- 4. Customers may transfer their reserve obligation to another party as described in PacifiCorp Business Practice # 64 found on PacifiCorp's Open Access Same-Time Information System ("OASIS") in the Business Practices folder.²
- B. If the metered Network Loadload or generation requiring the reserves reserve service has been moved electronically into another Balancing Authority Area ("Supplying Balancing Authority") supplying BA, certified by NERC or its successor, by means of a pseudo-tie, this Section B shall apply. The pseudo-tie requires identification and observable real-time metering of the specific Network Loadsloads for which the service is to be provided. PacifiCorp requires a letter in advance from the supplying BA which certifies that this service is supplied in accordance with the NERC Reliability Standards and/or the NAESB standards, which apply to supplying Ancillary Services to loads that are located physically in another BAA.
 - 1.—PacifiCorp will accept, in lieu of the showing required in Section A.1 above, a letter in advance from the Supplying Balancing—Authority, supplying BA which certifies that this service is supplied in accordance with all current policies of the NERC Operating Manual Reliability—Standards and/or NAESB standards, or any successor manual or standards, that which apply to supplying Ancillary Services to loads that are located physically located in another Balancing Authority Area BAA.
 - 2. Whenever the pseudo-tie equipment providing the Network Loadload's data or generation signal to PacifiCorp and/or the Supplying Balancing Authoritysupplying BA is not used and/or not useable, the dispatcherBA for the entity that is not receiving the load signal shall immediately contact the dispatcher for the other BA entity to inform it of the loss of the signal. Thereafter, until both entities are again receiving load the signal through the pseudo-tie equipment, PacifiCorp may call upon the Supplying Balancing Authority to provide supplemental supplying BA to provide (or, if it is not the supplier of the reserves, call upon the supplier of such reserves to provide) reserves when and to the extent requested.
- 3. If the Supplying Balancing Authoritysupplying BA or the supplier of spinningthe reserves fails to meet the requirements set forth in Section B.2 (i.e., fails to notify PacifiCorp of the Supplying Balancing Authority's loss of its ability to receive the load signal and/or fails to supply supplemental reserves when called upon by PacifiCorp), 2. PacifiCorp reserves the right to bill the responsible party for this service for the duration of the failure, including reimbursement for any penalties-including unauthorized-

² https://www.oasis.oati.com/ppw/index.html



supplemental reserve service as defined inSchedule 6 of, including Unauthorized Use of Transmission Service according to Schedule 11 in the PacifiCorp OATT, charges or other consequences which to PacifiCorp is subject to related to as a result of the failure.

- 4. PacifiCorp reserves the right to request more information from the Supplying Balancing Authority and/or the Network Load's supplier of the supplemental reserves, in addition to the above referenced letter, to ensure that this service is supplied in a reliable manner. Further, PacifiCorp reserves the right to reject the request to self-supply such service, or purchase it from another source, in the event that PacifiCorp, in its reasonable judgment, concludes that such self-supply or third-party purchase would impair reliability in PacifiCorp's Balancing Authority Area or the interconnected system. PacifiCorp also reserves the right to terminate the self-supply or third-party purchase if, in its reasonable judgment, PacifiCorp concludes that such self-supply or third-party purchase is impairing reliability in the relevant PacifiCorp Balancing Authority Area or the interconnected system.
- C. —During periods when reserve deployment is required, the PacifiCorp BA will notify the Customer-either through electronic means or by phone call that reserves are required, the amount of reserves to deploy and the appropriate length of time of deployment. Specific notice arrangements will be agreed to between the Customer and the PacifiCorp BA during the certification process.
- D. Energy supplied by a Customer during periods of reserve deployment will be settled financially, either via EIM generation settlements if the resource is in the network model and settled through EIM, or for the amount of energy deployed as represented on the Customer adjusted energy profile of the eapacity tagCapacity e-Tag(s). Financial settlement will be based on 100% of the Hourly Pricing ProxyPACE or PACW ELAP price, excluding the loss price component, in accordance with Schedules 4 and 9 of PacifiCorp's OATT.the OATT for deployment from resources not in the network model.

Energy Imbalance Service (Schedule 4): This service may be self-supplied or purchased on behalf of any metered Network Load from any unit or system that has capacity which may be used to satisfy the Network Load's obligation. The specific Network Loads for which the service is to be provided must be the total Network Load obligation within the PacifiCorp Balancing Authority Area and have observable real-time metering and telemetry. The party requesting to self-supply or arrange for third-party purchase shall, at its own expense, install the necessary equipment (including but not limited to metering and telecommunications equipment) for providing the service. The party requesting to self-supply or arrange for third-party purchase shall also reimburse PacifiCorp or its affiliates for any expenses incurred to accommodate the request for self-supply or third-party supply.



- A. If the Network Load requiring imbalance service remains in the PacifiCorp Balancing Authority Area, then it shall be subject to the requirements of this Section A.
 - 1. The following information will be required to demonstrate the self-supply or third-party purchase of imbalance service:
 - The generation resources providing the service must be located in the same PacifiCorp Balancing Authority Area as the Network Load and must have observable real time metering.
 - Documentation that the generation resources are deliverable Network Resources and the Network Loads are defined by a current Network Integration Transmission Service Agreement or legacy load service agreement on file at FERC.
 - A copy of the capacity agreement(s) or contract(s) that can be used to verify that the capacity used for this service is dedicated to serve the designated metered Network Load, and is not being used to satisfy any other capacity obligations.
 - Adequate designated generation resources to satisfy the Network
 Load obligation at all times.
 - Adequate designated generation resources under automatic generation control as required, satisfying all reserve requirements in real time and as required to compensate for instantaneous load swings or generation losses within the PacifiCorp Balancing Authority Area. The Transmission Provider reserves the right to determine the quantity and location of generation resources placed under AGC within the PacifiCorp Balancing Authority Area.
 - A point of contact is always available, all hours, every day to be used to call on resources necessary for load coverage.
 - 2. In the event that any of the above requirements fail to be met, then PacifiCorp reserves the right to bill the responsible party for this service as supplied by PacifiCorp for the duration of the failure, including reimbursement for any penalties, charges or other consequences which PacifiCorp is subject to related to the failure. If the Network Load fails to self-supply its imbalance service as defined in this section and fails to notify PacifiCorp to make arrangements for service, the Network Load will be subject imbalance service as defined in Schedule 5 or 9 (and Schedule 11 if applicable) of PacifiCorp's OATT.



3. The service hereunder must be available to be called on by PacifiCorp to comply with its NERC requirements for Control Performance Standards Nos.

1 and 2⁵, the NERC Disturbance Control Standard, and any such other related criteria or standards which may be imposed by a national or regional reliability council or governing regulatory body. The service may be used by

PacifiCorp to comply with its obligations under the Northwest Power-Pool Reserve Sharing Group Contract and any future Reserve Sharing Group of which PacifiCorp is a member. The supplying party is not-required to have a separate relationship or agreement with the Northwest-Power Pool Reserve Sharing Group.

- 4. PacifiCorp reserves the right to request more information from the party requesting self-supply or third-party supply and/or its supplier of imbalance service, in addition to the above-listed information, to ensure that this service is supplied in a reliable manner. Further, PacifiCorp reserves the right to reject the request to self-supply such service, or purchase it from another source, in the event that PacifiCorp, in its reasonable judgment, concludes that such self-supply or third-party purchase would impair reliability in the relevant PacifiCorp Balancing Authority Area or the interconnected system. PacifiCorp also reserves the right to terminate the self-supply or third-party purchase if, in its reasonable judgment, PacifiCorp concludes that such self-supply or third-party purchase is impairing reliability in the relevant PacifiCorp Balancing Authority Area or the interconnected system.
- B. If the metered Network Load requiring imbalance service has been moved electronically into another Balancing Authority Area ("Supplying Balancing Authority"), certified by NERC or its successor organization, by means of a pseudo-tie, this Section B shall apply. The pseudo-tie requires identification and observable real-time metering of the specific Network Loads for which the service is to be provided. PacifiCorp requires a letter in advance from the Supplying Balancing Authority which certifies that this service is supplied in accordance with all current policies and guidelines of the NERC Operating Manual, or any successor manual, that apply to supplying Ancillary Services to loads that are located physically in another Balancing Authority Area.
 - 1. PacifiCorp will accept, in lieu of the showing required in Section A.1 above, a letter in advance from the Supplying Balancing Authority which

⁵Specific to Control Performance Standard No. 2 ("CSP 2") As a participant of the Reliability Based Control Field Trail, PacifiCorp has been granted waiver for compliance with CPS 2 measures for the duration of the field test.



certifies that this service is supplied in accordance with all current policies and guides of

the NERC Operating Manual and/or NAESB standards, or any successor manual or standards, that apply to supplying Ancillary Services to loads that are physically located in another Balancing Authority Area.

- 2. Whenever the pseudo-tie equipment providing the Network Load's data to PacifiCorp and/or the Supplying Balancing Authority is not used and/or not useable, the dispatcher for the entity that is not receiving the load signal shall immediately contact the dispatcher for the other entity to inform it of the loss of the signal. Thereafter, until both entities are again receiving the load signal through the pseudo-tie equipment, the Network Customer should provide fixed schedules from the Supplying Balancing Authority each hour to minimize the impact of load imbalance.
- 3. If the Supplying Balancing Authority or the supplier of imbalance service fails to meet the requirements set forth in Section B.2 (i.e., fails to notify PacifiCorp of the Supplying Balancing Authority's loss of its ability to receive the Network Load's signal and/or fails to supply fixed schedule adjustments when called upon by PacifiCorp), PacifiCorp reserves the right to bill the responsible party for this service for the duration of the failure, including reimbursement for any penalties according to Schedules 4 or 9 in the PacifiCorp OATT, charges or other consequences which PacifiCorp is subject to, related to the failure.
- 4. PacifiCorp reserves the right to request more information from the Supplying Balancing Authority and/or the Network Load's supplier of imbalance service, in addition to the above referenced letter, to ensure that this service is supplied in a reliable manner. Further, PacifiCorp reserves the right to reject the request to self-supply such service, or purchase it from another source, in the event that PacifiCorp, in its reasonable judgment, concludes that such self-supply or third party purchase would impair reliability in the relevant PacifiCorp Balancing Authority Area or the interconnected system. PacifiCorp also reserves the right to terminate the self-supply or third-party purchase if, in its reasonable judgment, PacifiCorp concludes that such self-supply or third-party purchase is impairing reliability in the relevant PacifiCorp Balancing Authority Area or the interconnected system.

Generator Imbalance Service (Schedule 9):

A. For load serving entities who have certified as a self-supply entity for regulation and frequency response service (Schedule 3) under the requirements of this business practice, and request generator imbalance self-certification, this Section A shall apply. Generator Imbalance Service may be



self-supplied from Resources or undesignated Network Resources located within the PacifiCorp Balancing Authority Area under the limited set of conditions defined below. The party requesting to self-supply imbalance service must at its own expense, install the necessary equipment (including but not limited to metering and telecommunications equipment) for providing the service.

Self-supply of Generator imbalance service created by fixed point-to-point-schedules can only be provided for resources located in the PacifiCorp-Balancing Authority Area.

- 1. The following information will be required to demonstrate the self-supply of generator imbalance service created by point-to-point schedules during generator derates or unit tripping:
 - The generation resources providing the service must have observable real time metering. In addition, PacifiCorp will define specific OASISscheduling points of receipt which will apply to Customer's requesting

self supply. Customers will be obligated to demonstrate self supply form these specific OASIS points of receipt within the PacifiCorp Balancing Authority Area for purposes of this section. The current list of Open Access Same Time Information System ("OASIS") points of receipt for section is ("PACE", "PACEW", and "PACW"). PacifiCorp reserves the right to modify this list without notice as required to maintain transmission system reliability and compliance with the PacifiCorp OATT.

- Documentation that the generation resources are deliverable Resources or Network Resources and are defined by a current Network Integration Transmission Service Agreement, interconnection agreement, or legacy load service agreement on file at FERC.
- Any Network Resources used to supply point-to-point imbalance service must be undesignated according to the PacifiCorp business practice, "Termination of Network Resources", consistent with section 30.3 of the PacifiCorp OATT. The resources utilized must be undesignated from within specified OASIS points of receipt toself-supply point-to-point transactions originating from that particular point of receipt.
- Resources or undesignated Network Resources must be on-line, spinning, and responsive to the loss of another undesignated unit.
- •—The hourly quantity of resources or undesignated Network Resources



with a point of receipt plus the purchases made and delivered on point-to-point service into each PacifiCorp point of receipt must exceed the total quantity of point-to-point transactions exiting the defined point of receipt and PacifiCorp Balancing Authority Area for each hour.

- Adequate generation resources must remain 'designated' and available
 for load service as required to satisfy the Customer's Network Load
 obligation at all times during any period of point to point self supply.
- The party claiming generation imbalance self-supply must be previously certified as self-providing, or purchasing from third parties, regulation and frequency response service (Schedule 3) as specified in this business practice.
- A point of contact is always available, all hours, every day to be used to call on resources necessary for load coverage.
- 2. In the event that any of the above requirements fail to be met, then PacifiCorp reserves the right to bill the responsible party for this service as supplied by PacifiCorp for the duration of the failure, including reimbursement for any penalties, charges or other consequences which PacifiCorp is subject to related to the failure. If the point-to-point Customer fails to self-supply its

imbalance service as defined in this section and fails to notify PacifiCorpto make arrangements for service, the Network Load will be subject imbalance service as defined in Schedule 5 or 9 (and Schedule 11 if applicable) of PacifiCorp's OATT.

- 3. The service hereunder must be available to be called on by PacifiCorp to comply with its NERC requirements for Control Performance Standards ("CPS1" and "CPS2" criteria), the NERC Disturbance Control Standard, and any such other related criteria or standards which may be imposed by a national or regional reliability council or governing regulatory body. The service may be used by PacifiCorp to comply with its obligations under the Northwest Power Pool Reserve Sharing Group Contract and any future Reserve Sharing Group of which PacifiCorp is a member. The supplying party is not required to have a separate relationship or agreement with the Northwest Power Pool Reserve Sharing Group.
- 4. PacifiCorp reserves the right to request more information from the party-requesting self-supply or third-party supply and/or its supplier of point-to-point imbalance service, in addition to the above-listed information, to-ensure that this service is supplied in a reliable manner. Further, PacifiCorp reserves the right to reject the request to self-supply such service, or purchase it from another source, in the event that PacifiCorp, in-



its reasonable judgment, concludes that such self-supply or third-party-purchase would impair reliability in the relevant PacifiCorp Balancing-Authority Area or the

interconnected system. PacifiCorp also reserves the right to terminate the self-supply or third-party purchase if, in its reasonable judgment, PacifiCorp concludes that such self-supply or third-party purchase is impairing reliability in the relevant PacifiCorp Balancing Authority Area or the interconnected system.

B. If the Resource requiring imbalance service has been moved electronically into another Balancing Authority Area ("Supplying Balancing Authority"), certified by NERC or its successor organization, by means of a pseudo-tie, this Section B shall apply. The point-to-point transmission service for the pseudo-tie resource will be established as a dynamic reservation. Intra-hour transfers and the associated transmission service provided will be defined as the instantaneous output of the generator, therefore imbalance will be deemed to be self-supplied.

End of hour true-ups of actual hourly integrated values are required for Balancing

Authority Area energy accounting purposes.

The pseudo-tie requires identification and observable real-time metering of the specific Resource for which the service is to be provided. PacifiCorp requires a letter in advance from the Supplying Balancing Authority which certifies that this

service is supplied in accordance with all current policies and guidelines of the NERC Operating Manual and/or NAESB standards, or any successor manual or standards, that apply to supplying Ancillary Services to loads that are located physically in another Balancing Authority Area.

- 1. PacifiCorp will accept, in lieu of the showing required in Section A.1 above, a letter in advance from the Supplying Balancing Authority which certifies that this service is supplied in accordance with all current policies and guides of the NERC Operating Manual and/or NAESB standards, or any successor manual or standards, that apply to supplying Ancillary Services to generators that are electronically transferred into another Balancing Authority.
- 2. Whenever the pseudo-tie equipment providing the Resource's data to PacifiCorp and/or the Supplying Balancing Authority is not used and/or-

⁶ Specific to Control Performance Standard No. 2 ("CSP 2") — As a participant of the Reliability Based Control Field Trail, PacifiCorp has been granted waiver for compliance with CPS 2 measures for the duration of the field test.



not useable, the dispatcher for the entity that is not receiving the load signal shall immediately contact the dispatcher for the other entity to inform it of the loss of the signal. Thereafter, until both entities are again-receiving the load signal through the pseudo-tie equipment, the Network-Customer should provide fixed schedules from the Supplying Balancing-Authority each hour to minimize the impact of generator imbalance.

- 3. If the Supplying Balancing Authority or the supplier of imbalance service fails to meet the requirements set forth in Section B.2 (i.e., fails to notify PacifiCorp of the Supplying Balancing Authority's loss of its ability to receive the Network Load's signal and/or fails to supply fixed schedule adjustments when called upon by PacifiCorp), PacifiCorp reserves the right to bill the responsible party for this service for the duration of the failure, including reimbursement for any penalties according to Schedules 4 or 9 in the PacifiCorp OATT, charges or other consequences which PacifiCorp is subject to, related to the failure.
- 4. PacifiCorp reserves the right to request more information from the Supplying Balancing Authority and/or the resource's supplier of imbalance service, in addition to the above referenced letter, to ensure that this service is supplied in a reliable manner. Further, PacifiCorp reserves the right to reject the request to self-supply such service, or purchase it from another source, in the event that PacifiCorp, in its reasonable judgment, concludes that such self-supply or

third-party purchase would impair reliability in the relevant PacifiCorp Balancing Authority Area or the interconnected system. PacifiCorp also reserves the right to terminate the self-supply or third-party purchase if, in its reasonable judgment, PacifiCorp concludes that such self-supply or third-party purchase is impairing reliability in the relevant PacifiCorp Balancing Authority Area or the interconnected system.

Contacts for Assistance: businesspractices@pacificorp.com

Revision History

Version	Date	Change Summary			
<u>12.0</u>	<u>3/14/17</u>	Revisions made to clarify self-supply process and procedures and to			
		align with PacifiCorp's OATT and relevant industry standards.			
11.0	01/24/13	Revisions made to clarify self-supply procedures and other general			
		clean-up edits.			
10.0	12/4/12	Notice section updated with new web OASIS link.			
9.0	12/19/11	Effective January 1, 2012- edits to add ancillary service Ancillary			
		Service, Schedule 3A,			
		Generator Regulation and Frequency Response Service.			
8.0	8/18/11	Revised to add further clarity.			
7.0	2/11/11	Added SCADA (metering) requirements for reserves, Annual Testing			
		for Self-Supply of Reserves in PacifiCorp Balancing Area &			
		language that PacifiCorp Grid Operations will confirm third party			
		reserves are being held via e-Tag.			
6.0	12/11/09	Added unit contingent sale requirement for reserves			
5.0	5/29/09	Additional deployment language added.			
4.0	8/14/08	Added Application as Appendix A. Added notice to first section.			
3.0	7/11/08	Modifications related to Customer requirements in pre-schedule			
2.0	6/4/08	No additional comments received — Post to OASIS			
2.0	4/28/08	Re-Post to OASIS for comment			
1.0	3/20/08	Posted to OASIS			
Draft	2/15/08	Initial draft posted			

Appendix A Application for Self-Supply or Third-Party-Supply of Ancillary Services

Transmission Customer Name:
Address:
Contact Name:
Contact Phone:
Pursuant to the PacifiCorp OATT and Business Practice #34, the above-listed Transmission Customer requests to self-supply the following ancillary services Ancillary Services: (Please check all that apply)
Regulation and Frequency Response Service — Schedule 3
Generator Regulation and Frequency Response Service — Schedule 3A
Energy Imbalance Service – Schedule 4
Operating Reserve — Spinning Reserve Service — Schedule 5
Operating Reserve — Supplemental Reserve Service — Schedule 6
Energy Imbalance Service Schedule 4
Generator Imbalance Service — Schedule 9

Transmission Customer has sufficient resources to self-supply the ancillary services Ancillary Services selected above in conformance with the requirements outlined in PacifiCorp Business Practice #34 and asks that Transmission Provider forward the appropriate agreement(s) for execution. Transmission Customer further submits the attached data (Attachment A, B, C, D, E) in support of each service for which it seeks self-supply certification. In addition, Transmission Customer understands that Transmission Provider may request additional information as needed to further support the documentation given herein.

Formal PacifiCorp approval for the request to self-supply or arrange for third-party purchase of specific Ancillary Services will be dependent on completion of all requirements as set forth in this business practice as well as the completion of internal PacifiCorp system changes. The effective date of will be the first of the month following PacifiCorp's formal approval.





(Transmission Customer Signature)							



Attachment A Frequency Response Service Load/Resource Information

(Schedules 3 and 3A, please separate loads/resource by Schedule if applying for both)

<u>1.</u>	1. Name and amount of each Network Load (only applicable for Schedule 3 self-supply). Note: If load is telemetered outside PacifiCorp's Balancing Authority Area BAA, please state so and include the name of the Supply Balancing Authority supply BA for that Balancing Authority Area. BAA.
2_Res	source(s) providing the service. Note: If resource(s) is within PacifiCorp's cine Authority. Area and BAAs and is being used to provide service to loads
teleme locațe service	source(s) providing the service. Note: If resource(s) is within PacifiCorp's ing Authority. Afea and BAAs and is' being used to provide service to loads tered outside PacifiCorp's Batancing Authority AreaBAAs, or if resource is a outside PacifiCorp's Balancing Authority AreaBAAs and is being used to provide to load within PacifiCorp's Balancing Authority AreaBAAs, please state so.
<u>2.</u>	3.—Please indicate by what means the resource(s) listed above are deliverable (i.e., Network Agreement, Network Integration Transmission Service Agreement, legacy load service agreement on file at FERC, or generation interconnection agreement with PacifiCorp). Please list applicable agreement for each resource identified above. Note: If the resource is within PacifiCorp's Balancing Authority Area and is being used to provide service to loads telemetered outside PacifiCorp's Balancing Authority Area, please specify the firm transmission path and attach the applicable transmission agreement for each load/resource pair. If resource is located outside PacifiCorp's Balancing Authority Area and is being
PacifiC	orp Self/Third-party Supply Application 3



used to provide service to loads within PacifiCorp's Balancing Authority Area, please state so.

4. If ar tempora willings	ny resource(s) providing this service is/are Non-Network Resources or are arily Un-Designated Network Resources, please state Transmission Customer's ness to relinquish intra-hour control to the Pacific orp Balancing Authority Area.
5.	Please attach a copy of the capacity agreement(s) or contract(s) that can be used to verify that the capacity and/or transmission rights used for this service is dedicated to self-supply requirements, and is not being used to satisfy any other capacity obligations.
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	Note: If the resource is within PacifiCorp's Balancing Authority Area and is being used to provide service to loads telemetered to a Supply Balancing Authority (outside PacifiCorp's Balancing Authority Area), or if resource is located outside PacifiCorp's Balancing Authority Area and is being used to provide service to loads within PacifiCorp's Balancing Authority Area, please attach a letter from the Supplying Balance Authority which certifies that the service is supplied in accordance with all current policies and guidelines of the NERC Operating Manual, or any successor manual, that apply to supplying ancillary services to loads that are located physically in another Balancing Authority Area. If any resource(s) providing this service is/are Non-Designated Network Resources or are temporarily Un-Designated Network Resources, please state Transmission Customer's willingness to relinquish intra-hour control to the PacifiCorp BA.



Transmission Business Practices Transmission Business Practices 6.—Please provide a point of contact at each generation resource (or a resource dispatch center) that is available any time the resource is designated for regulation and frequency response service. Regulation and Frequency Response Service.

Attachment B Spinning or Supplemental Reserve Service Load/Resource

Information Load/Resource Information

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PacifiCorp Self/Third-party Supply Application 6



to the load service requirements, and is not being used to satisfy any other capacity obligations.

4.	Please attach a copy of the capacity agreement(s) or contract(s) that can be used
	to verify that the capacity used for this service is dedicated to the network load
	service requirements, and is not being used to satisfy any other capacity
	obligations. Note: If the resource is within PacifiCorp's Balancing Authority
	Area and is being used to provide service to loads telemetered to a Supply
	Balancing Authority (outside PacifiCorp's Balancing Authority Area), please
	attach a letter from the Supplying Balance Authority which certifies that the
	service is supplied in accordance with all current policies and guidelines of the
	NERC Operating Manual, or any successor manual, that apply to supplying
	ancillary services to loads that are located physically in another Balancing
	Authority Area
	11 VVVI VOI VV V 111 VVV.

5	Please provide a point of contact at each generation resource (or a
٥.	Trease provide a point of contact at each generation resource (or a
	resource dispatch center) that is available any time the resource is called
	for reserves.

Attachment

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Supplemental Reserve
Service Load/Resource
Information (Schedule 6)

1. Name and amount of each Network Load. Note: (1) If same as Attachment B, please state so. (2) If load is telemetered outside PacifiCorp's Balancing Authority Area, please state so and include the name of the Supply Balancing Authority for that Balancing Authority Area.

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2.	Resource(s) providing the service. Note: (1) If same as Attachment B, please state so. (2) If resource(s) is within PacifiCorp's Balancing Authority Area and is being used to provide service to loads telemetered outside PacifiCorp's Balancing Authority Area, please state so. (3) All resources must be located within the same PacifiCorp's Balancing Authority Area as they load they are serving.
3.	Please indicate by what means the resource(s) listed above are deliverable (i.e., Network Integration Transmission Service Agreement or legacy load service agreement on file at FERC). Please list applicable agreement for each resource identified above. Note: If the resource is within PacifiCorp's Balancing Authority Area and is being used to provide service to loads telemetered outside PacifiCorp's Balancing Authority Area, please specify the firm transmission path and attach the applicable transmission agreement for
	each load/resource pair.

4. Please attach a copy of the capacity agreement(s) or contract(s) that can be used to verify that the capacity used for this service is dedicated to the network load service requirements, and is not being used to satisfy any other capacity obligations. Note: If the resource is within PacifiCorp's Balancing Authority Area and is being used to provide service to loads telemetered to a Supply Balancing Authority (outside PacifiCorp's Balancing Authority Area), please attach a letter from the Supplying Balance Authority which certifies that the service is supplied in accordance with all current policies and guidelines of the NERC Operating Manual, or any successor manual, that apply to supplying ancillary services to loads that are located physically in another Balancing

Authority Area.

5.	For interruptible loads, please provide an explicit description of each load, curtailment method, and process utilized to trigger the curtailment. Attach additional documents if needed.
6.	Please provide a point of contact at each generation resource (or a resource dispatch center) that is available any time the resource is called for reserves.
-	
-	Attachment D
-	
	Energy Imbalance Service
	Load/Resource
	Information (Schedule 4)
1.	Name and amount of each Network Load. Note: If load is telemetered outside PacifiCorp's Balancing Authority Area, please state so and include the name of the Supply Balancing Authority for that Balancing Authority Area.
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2.	Resource(s) providing the service. Note: (1) If resource(s) is within
	PacifiCorp's Balancing Authority Area and is being used to provide service
	to loads telemetered outside PacifiCorp's Balancing Authority Area, please
	state so. (2) All resources must be located within the same PacifiCorp's Balancing Authority Area as the load they are serving. (3) Applicant must
	have enough designated generation resources to satisfy the network load
	obligation at all times. (4) The resources listed must be designated Network
	Resources.

3. Please confirm that the generation resources are deliverable Network

PacifiCorp Self/Third-party Supply Application 9



Resources and the network loads are defined by a current Network Integration Transmission Service Agreement or legacy load service agreement on file at FERC. Please list applicable agreement for each resource and load identified above. Note: If the resource is within PacifiCorp's Balancing Authority Area and is being used to provide service to loads telemetered outside PacifiCorp's Balancing Authority Area, please specify the firm transmission path and attach the applicable transmission agreement for each load/resource pair.

4	Please provide a point of contact at each generation resource (or a
т.	Trease provide a point of contact at each generation resource (or a
	resource dispatch center) that is available any time the resource is
	resource dispatch center) that is available any time the resource is
	needed for load coverage.

Attachment

E

Generator Imbalance Service Resource Information (Schedule 9)

1. Resource(s) providing the service and resource(s) using the service. Note: (1)
All resources must be located within the same PacifiCorp's Balancing
Authority Area as the resource they are serving. (2) Any Network Resource
used to supply point-to-point imbalance service must be undesignated
according to PacifiCorp's business practice, "Termination of Network
Resources", consistent with section
30.3 of the PacifiCorp OATT. (3) All resources or undesignated
Network Resources must be on-line, spinning, and responsive to the
loss of another undesignated unit.

PacifiCorp S	selt/ i nira- pa	arty Supply Ar	oplication 10		

2	Places provide decumentation that the supplying concretion resources are
2	. Please provide documentation that the supplying generation resources are deliverable Resources or Network Resources and are defined by a current
	Network Integration Transmission Service Agreement, interconnection
	agreement, or legacy load agreement on file at FERC. Note: If the
	supplying resource is within PacifiCorp's Balancing Authority Area and is
nuovid	being used to
provia (outsid	e service to a generator that is telemetered to a Supply Balancing Authority le PacifiCorp's Balancing Authority Area), please attach a letter from the ing Balance Authority which certifies that the service is supplied in accordance le current policies and guidelines of the NERC Operating Manual, or any succe. I, that apply to supplying ancillary services to generators that are telemetered in Balancing Authority Area.
Supply	ing Bålance Authority which certifies that the service is supplied in accordance
wun at manua	i current policies and guiaetines of the NERC Operating Manual, or any succe, l. that apply to supplying ancillary services to generators that are telemetered t
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Transmission Business Practices

3.	3. Please provide a point of contact at each generation resource (or a			
	resource dispatch center) that is available any time the resource is			
	needed for load coverage.			
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Description	BP34
Document 2 ID	file://N:\TRANSMISSION\BPs & Procedures\BPs\BPs\BP #34 Self-Supply Ancillary Services\BP 34 v12 DRAFT\BP34.doc
Description	BP34
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Legend:			
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