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**Subject:** [INTERNET] FERC Acceptance for Filing in ER18-1784-000  
**Date:** Thursday, June 14, 2018 8:52:00 AM

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Notification of Acceptance for Filing  
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This is to notify that the FERC Office of the Secretary has accepted the following electronic submission for filing (Acceptance for filing does not constitute approval of any application or self-certifying notice):

-Accession No.: 201806145049  
-Docket(s) No.: ER18-1784-000  
-Filed By: PacifiCorp  
-Signed By: Matthew McVee  
-Filing Title: Tariff Filing  
-Filing Description: PacifiCorp submits tariff filing per 35: OATT Ancillary Erratum to Compliance Filing to be effective 7/1/2018 under ER18-1784 Filing Type : 80  
-Type of Filing Code: 80  
-Earliest Proposed Effective Date: 7/1/2018  
-Submission Date/Time: 6/14/2018 11:44:39 AM  
-Filed Date: 6/14/2018 11:44:39 AM

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**Amie V. Colby**  
amie.colby@troutman.com

June 14, 2018

**VIA ETARIFF**

The Honorable Kimberly D. Bose  
Secretary  
Federal Energy Regulatory Commission  
888 First Street, NE  
Washington, DC 20426

**RE: PacifiCorp, Docket Nos. ER17-219-005 and -006  
Erratum to Compliance Filing**

Dear Secretary Bose:

On May 18, 2018, PacifiCorp made two filings in compliance with the Federal Energy Regulatory Commission's ("Commission") April 19, 2018 letter order approving the January 31, 2018 Offer of Settlement ("Settlement")<sup>1</sup> filed by PacifiCorp in this proceeding. Specifically, the May 18 submissions included: (1) a filing to place Schedules 3, 3A, 5, and 6 into effect January 1, 2018, in accordance with the Settlement; and (2) a filing to place Attachments U and V regarding the criteria and calculation for self-supply under Schedules 5 and 6 into effect July 1, 2018, in accordance with the Settlement, as well as to make the Schedules 3, 3A, 5, and 6 tariff records effective July 1, 2018 in order to supersede the versions of those schedules previously made effective February 1, 2018 by the Chief Administrative Law Judge's order granting PacifiCorp's motion for interim implementation of settlement rates.<sup>2</sup>

It has since come to PacifiCorp's attention that the incorrect tariff records for Schedules 5 and 6 were included in the May 18 filing. Accordingly, PacifiCorp is hereby filing the correct tariff records for Schedules 5 and 6, reflecting the agreed to Schedules 5 and 6 that were attached to the Settlement. In particular, the attached tariff records for Schedules 5 and 6 include the correct language in the self-supply provisions for each schedule. Additionally, PacifiCorp is filing to correct certain minor typographical errors in Attachment U. Because the parties to the Settlement agreed that the provisions governing self-supply in Schedules 5 and 6

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<sup>1</sup> *PacifiCorp*, Docket No. ER17-219-002 (Apr. 19, 2018) (delegated letter order approving settlement agreement).

<sup>2</sup> *See PacifiCorp*, Docket No. ER17-219-003 (Feb. 8, 2018) (letter order granting motion for interim implementation of settlement rates).

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and Attachment U will become effective July 1, 2018, PacifiCorp respectfully requests an effective date of July 1, 2018 for this erratum.

To the extent required, PacifiCorp requests waiver of the Commission's rules, including the Commission's prior notice requirements, in order to permit this requested effective date. Good cause exists to waive the prior notice requirements because all parties have agreed that the revised terms included in this filing shall become effective July 1, 2018.

PacifiCorp is submitting an eTariff XML filing package that consists of the following materials:

- This Transmittal Letter;
- Revised tariff records for filing in eTariff;
- Redline comparisons of Schedules 5 and 6 and Attachment U showing the changes made to the tariff records filed with the May 18 compliance filings and currently pending in this proceeding; and
- Clean versions of the revised tariff records, for filing in eLibrary.

PacifiCorp respectfully requests that the Commission accept the tariff records contained in this erratum with an effective date of July 1, 2018.

Respectfully submitted,

/s/ Amie V. Colby  
Amie V. Colby

Attorney for PacifiCorp

**CERTIFICATE OF SERVICE**

I hereby certify that on this, the 14<sup>th</sup> day of June, 2018, PacifiCorp has served a copy of this filing on all its transmission customers, state commissions, and each person designated on the official service list compiled by the Secretary in this proceeding.

Dated at Portland, Oregon, this 14th day of June, 2018

/s/ Jessica Zahnow

Jessica Zahnow  
*Senior Compliance Specialist for PacifiCorp*

## **SCHEDULE 5**

### **Operating Reserve - Spinning Reserve Service**

Spinning Reserve Service is needed to serve load in the BAA and to support other transmission usage sourced from generation in the BAA including exports and sales. Spinning Reserve Service may be provided by generating units that are on-line and loaded at less than maximum output and by non-generation resources capable of providing this service. The Transmission Provider must offer this service when the transmission service is used to serve load within its BAA and to support other transmission usage sourced from generation in the BAA including exports and sales. The Transmission Customer must purchase this service from the Transmission Provider, self-supply the service, or make alternative comparable arrangements to satisfy its Spinning Reserve Service obligation. The amount of and charges for Spinning Reserve Service are set forth below. To the extent the BA performs this service for the Transmission Provider, charges to the Transmission Customer are to reflect only a pass-through of the costs charged to the Transmission Provider by that BA.

#### **Charges for Spinning Reserve Service:**

Under the current NERC Regional Reliability Standard BAL-002-WECC, the Transmission Provider is required to maintain a minimum amount of contingency reserve equal to the sum of three percent of hourly integrated load plus three percent of hourly integrated generation with at least half as spinning. Consistent with the Transmission Provider operating in accordance with this reliability standard, the charges for Schedule 5 below apply one and one-half percent to load and one and one-half percent to generation.

For load, the rates below are charged to a Network Customer's hourly integrated load (including losses).

For generation, the rates below are applied to customers by charging actual hourly generation delivered to the Transmission Provider at the Point of Receipt.

The rate shall be an Hourly Rate of:

	Effective Rates from February 13, 2017 through December 31, 2017	Effective Rates beginning January 1, 2018
Schedule 5 (Spinning Reserves)	\$0.16 per MWh	\$0.151 per MWh

**Self-Supply:**

A Transmission Customer may choose to self-supply all or a portion of its reserve obligation. For a Transmission Customer choosing to self-supply a portion of its reserve obligation, detailed hourly calculation procedures are set forth in Attachment V to the Tariff.

The Transmission Customer shall schedule that portion which it will self-supply and/or supply from third parties pursuant to procedures set forth in Attachment U to the Tariff.

**Spinning Reserve Service to be Provided:**

The Transmission Provider, using its generators controlled by automatic generation control, will provide the capacity required to provide Spinning Reserve Service for a Transmission Customer. Upon an outage of a generation resource for which Spinning Reserve Service has been purchased from the Transmission Provider, the Transmission Provider will provide replacement capacity commencing immediately upon such outage until the earlier of (1) the restoration of such resource to service by the Transmission Customer or (2) the end of ten (10) full minutes after the occurrence of such outage.

To the extent that the Transmission Provider determines that a Transmission Customer's specific Spinning Reserve Requirements are not being fully met through the purchase of Spinning Reserve Service as provided above, the Transmission Provider reserves the right (upon filing with the Commission) to require such Transmission Customer to purchase a greater amount of Spinning Reserve Service.

## **SCHEDULE 6**

### **Operating Reserve - Supplemental Reserve Service**

Supplemental Reserve Service is needed to serve load in the BAA and to support other transmission usage sourced from generation in the BAA including exports and sales; however, it is not available immediately to serve load but rather within a short period of time. Supplemental Reserve Service may be provided by generating units that are on-line but unloaded, by quick-start generation or by interruptible load or other non-generation resources capable of providing this service. The Transmission Provider must offer this service when the transmission service is used to serve load within its BAA and to support other transmission usage sourced from generation in the BAA including exports and sales. The Transmission Customer must purchase this service from the Transmission Provider, self-supply the service, or make alternative comparable arrangements to satisfy its Supplemental Reserve Service obligation. The amount of and charges for Supplemental Reserve Service are set forth below. To the extent the BA performs this service for the Transmission Provider; charges to the Transmission Customer are to reflect only a pass-through of the costs charged to the Transmission Provider by that BA.

#### **Charges for Supplemental Reserve Service:**

Under the current NERC Regional Reliability Standard BAL-002-WECC, the Transmission Provider is required to maintain a minimum amount of contingency reserve equal to the sum of three percent of hourly integrated load plus three percent of hourly integrated generation with at least half as spinning. Consistent with the Transmission Provider operating in accordance with this reliability standard, the charges for Schedule 6 below apply one and one-half percent to load and one and one-half percent to generation.

For load, the rates below are charged to a Network Customer's hourly integrated load (including losses).

For generation, the rates below are applied to customers by charging actual hourly generation delivered to the Transmission Provider at the Point of Receipt.

The rate shall be an Hourly Rate of:

	Effective Rates from February 13, 2017 through December 31, 2017	Effective Rates beginning January 1, 2018
Schedule 6 (Supplemental	\$0.16 per MWh	\$0.151 per MWh

**Self-Supply:**

A Transmission Customer may choose to self-supply all or a portion of its reserve obligation.

For a Transmission Customer choosing to self-supply a portion of its reserve obligation, detailed hourly calculation procedures are set forth in Attachment V to the Tariff.

The Transmission Customer shall schedule that portion which it will self-supply and/or supply from third parties pursuant to procedures set forth in Attachment U of the Tariff.

**Supplemental Reserve Service to be Provided:**

The Transmission Provider, using its generators controlled by automatic generation control, will provide the capacity required to provide Supplemental Reserve Service for a Transmission Customer. Upon an outage of a generation resource for which Supplemental Reserve Service has been purchased from the Transmission Provider, the Transmission Provider will provide replacement capacity commencing at the end of ten (10) full minutes after such outage until the earlier of (1) the restoration of such resource to service by the Transmission Customer or (2) the end of the first full hour immediately following such outage.

To the extent that the Transmission Provider determines that a Transmission Customer's specific Supplemental Reserve Requirements are not being fully met through the purchase of Supplemental Reserve Service as provided above, the Transmission Provider reserves the right (upon filing with the Commission) to require such Transmission Customer to purchase a greater amount of Supplemental Reserve Service.



## **ATTACHMENT U**

### **Requirements for Self-Supply of Schedules 5 and 6**

#### **Definitions**

No definitions other than the following, those provided hereinafter, and those currently contained in PacifiCorp's Open Access Transmission Tariff ("OATT") or North American Electric Reliability Corporation ("NERC") reliability standards are required for this Attachment U.

**Customer** - Reference for the purpose of this Attachment U, refers to a customer that has successfully met qualifications to self-supply Ancillary Services.

**Internal Resource** - A resource in a PacifiCorp Balancing Authority Area ("BAA") including one that is dynamically scheduled or pseudo-tied into a PacifiCorp BAA. These resources are classified as either Participating or Non-Participating Resources.

**External Resource** - A resource that does not meet the definition of an Internal Resource but provides self-supply (or third-party supply) service via a capacity tag.

#### **Purpose**

The purpose of this Attachment U is to clarify the practices outlined in the OATT pertaining to self-supply or third-party supply of ancillary services-certification process and requirements.

#### **Practice**

The following are the requirements of PacifiCorp, the Balancing Authority and Transmission Operator, for Customers who wish to self-supply or to arrange for third-party purchase of specific Ancillary Services. PacifiCorp requires that these Ancillary Services satisfy the requirements for Schedules 5 and 6 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 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) or system supplying the service and its Balancing Authority Area, specification of metering and communications equipment, and procedures for data exchange. 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.

### **Telemetry (metering) requirements for reserves**

For an Internal Resource to qualify for self-supply of Operating Reserve-Spinning Reserve Service (Schedule 5) or Operating Reserve - Supplemental Reserve Service (Schedule 6) the following four-second, industry-standard data must be supplied by the designated self-supply resource. Real time data must be supplied through telemetry acceptable to PacifiCorp. In general, an example of an acceptable telemetry method is a Remote Terminal Unit ("RTU") or Inter-Control Center Communication Protocol ("ICCP"). The latter is subject to WECC Operations Network ("WON") guidelines. To the extent any data items are not applicable to a particular resource, they are not required. To the extent applicable data items are already provided through an effective interconnection agreement, they are not separately required.

- 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 generator output metering kWh
- Status of all low and high side breakers
- 10-minute ramp rate, limited by capacity
- PMax

## **Testing and Disqualification for Self-Supply of Reserves in the PacifiCorp Balancing Authority Areas**

Resources designated for self-supply of reserves, spinning or supplemental, may be tested by PacifiCorp at any time throughout the year. The test will be performed upon the physical response of resources designated for self-supply via e-Tag.

Resources called upon to supply reserves and responding to meet Western Electricity Coordinating Council ("WECC") and PacifiCorp requirements for time, output, and power quality, during the calendar year shall be deemed as passing the test. PacifiCorp will monitor resources designated and accepted for self-supply and log the date of successful operation. Failure to respond when called upon to supply reserves may disqualify the resource from self-supplying reserves as described here:

- PacifiCorp will count as a single failure event (each a "Failure Event"), any hour or group of hours that a resource does not successfully respond when called by PacifiCorp to provide reserves and that occurs before PacifiCorp provides written notice of the Failure Event to the resource owner and all Customers relying on the resource for reserves. Upon and with such written notice, a Failure Event may be assessed a "strike," the assessment of which shall be included in the written notice of the underlying Failure Event. "Written notice" for purposes of this Attachment U includes notice given electronically.
- Upon each written notice of a Failure Event as provided above, and before another strike may be assessed to the same resource, PacifiCorp will allow the affected Customer(s) up to three business days in which to provide written notice to PacifiCorp of the specific remedy to the resource failure that has been implemented, of alternative self-supply arrangements that have been made, or of the intent to take the applicable reserve service(s) from PacifiCorp. Absent any such written notice to PacifiCorp, the affected Customer(s) shall be subject to the applicable reserve service(s) as defined in Schedule 5 and/or Schedule 6 of PacifiCorp's OATT.
- A resource that accumulates three strikes within a rolling 12-month period will be disqualified for the balance of the month in which the third Failure Event occurs and the

entirety of the following month. PacifiCorp will give affected Customer(s) written notice of the third strike and resource disqualification and will allow Customer(s) up to three business days in which to formally notify PacifiCorp of alternative self-supply arrangements or be subject to the applicable reserve service(s) as defined in Schedule 5 and/or Schedule 6 of PacifiCorp's OATT. No Customer may designate or utilize a disqualified resource to provide self-supply service. Following the disqualification period, strikes for the resource shall be reset to zero and the resource will be again eligible to provide self-supply service subject to the provisions herein.

PacifiCorp will only test resources that are carrying operating reserves at the time the test is commenced. A resource that is experiencing a unit trip shall not be subject to the test for the operating hour during which the trip occurs. This will be accomplished with PacifiCorp calling on reserves, monitoring results and logging the test. PacifiCorp will provide written reports of all test results to the resource owner and the Customer(s) using the resource for self-supply, if different.

**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 owned or contracted output and which may be used to satisfy the Transmission Customer's reserve obligation. The specific resources from which the service is being provided must be identified and have observable telemetry. The party requesting to self-supply or arranging 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 arranging 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. Use of an External Resource:**

For generation external to PacifiCorp's BAAs to qualify for self-supply or third-party supply service, a dynamic transfer coming into PacifiCorp's energy management system ("EMS") as a dynamic schedule into the balancing authority area where the obligation originates, represented on a dynamic e-Tag, is sufficient for communication with

PacifiCorp's EMS. The author of the e-Tag is responsible for adjusting the energy profile to match the resource output for self-supply until such time as an automated process can be developed and implemented to relieve the author of this responsibility.

B. The following information will be required to demonstrate the self-supply or third-party purchase of spinning reserve service for Internal Resources:

- 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 telemetry.
- Requirements for self-supply or third-party purchase of spinning reserve service shall apply at the unit level if PacifiCorp's network model includes the resource by unit, or at the plant level if PacifiCorp's network model includes the resource at the plant level.
- Documentation that the generation resources are deliverable Network Resources as defined by a current Network Integration Transmission Service Agreement, a legacy load service agreement on file at FERC, or other firm PTP agreement, which may be reported on PacifiCorp's Electric Quarterly Report ("EQR").
- For self-supply arrangements through a power purchase agreement, 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. Resource capability for self-supply of reserves shall mean the operational capability of the unit to actually deliver the reserve energy in the event of a deployment based on the operational capability characteristics of the self-supply resource (i.e., ramp rates, PMax).

- Self-suppliers must provide a monthly reserve supply forecast no less than thirty (30) calendar days before the beginning of the month with amounts (MWs) in all hours for that month based on the forecasted percentage of reserve obligation. This 30-day forecast requirement does not replace or satisfy separate seven-day forecast requirements established by Peak Reliability and the California Independent System Operator ("CAISO").
- Self-suppliers must provide day-ahead information via e-Tag. In the day-ahead, the reserve supply forecast must be updated for the next operating day with the amount (MWs) of reserve obligation the self-supplier expects to actually be providing in all hours.
- A point of contact is always available, all hours, every day to be used to deploy the reserves.

C. 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 will confirm customer reserves are being held via e-Tag.

Once confirmation is validated, PacifiCorp will place a phone call or adjust a capacity tag through an automated process to communicate a loss of generation in the appropriate Balancing Authority and request deployment of reserves for the appropriate length of time. PacifiCorp will provide an annual report to Customers demonstrating non-discriminatory deployment of reserves.

D. 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 compliance-related penalties, charges, or other consequences, to which PacifiCorp is subject related to the failure. If the Customer fails to self-supply its spinning reserves as defined in this section and fails to notify PacifiCorp to make arrangements for service, the Customer will be subject to

spinning reserve service as defined in Schedule 5 of PacifiCorp's OATT.

E. The service hereunder must be available to be called on by PacifiCorp to comply with NERC Standard BAL-002-WECC-2 (or any successor Reliability Standard thereto), 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.

F. 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, PacifiCorp shall make best efforts to request further information no later than thirty (30) calendar days from the customer's request to self-supply or third-party supply.

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

In the event that PacifiCorp rejects the request to self-supply or third-party purchase, or concludes that an existing self-supply or third-party purchase is

impairing reliability, PacifiCorp will provide in writing detailed explanations for such determination and proposed remedy not less than thirty (30) calendar days from the customer's request to self-supply or third-party supply. Notice of rejection to self-supply or third-party purchase does not preclude a customer from reapplication.

G. If the metered Network Load requiring the spinning reserve service has been moved electronically into another BAA, certified by NERC or its successor organization, by means of a pseudo-tie, this Section G shall apply. The pseudo-tie requires identification and observable telemetry of the specific Network Loads for which the service is to be provided. PacifiCorp requires a letter in advance from the BAA that is supplying the spinning reserve ("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 G.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 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, charges, or other consequences to which PacifiCorp is subject 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. PacifiCorp shall make best efforts to request further information no later than thirty (30) calendar days from the customer's request.

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 judgement, 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 judgement, PacifiCorp concludes that such self-supply or third-party purchase is impairing reliability in the relevant PacifiCorp Balancing Authority Area or the interconnected system.

In the event that PacifiCorp rejects the request to self-supply or third-party purchase, or concludes that an existing self-supply or third-party purchase is impairing reliability, PacifiCorp will provide in writing detailed explanations for such determination,

proposed remedy not less than thirty (30) calendar days from the customer's request to self-supply or third-party supply. Notice of rejection to self-supply or third-party purchase does not preclude customer from reapplication.

- H. 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) for External Resources and for Internal Resources not represented in the network model. Resources supplying reserves that are represented in the network model will not receive separate energy settlement. These resources will receive settlements per Schedule 9 of PacifiCorp's OATT for Non-Participating Resources or directly from CAISO for Participating Resources.

Financial settlement for Internal Resources not in the network model and External Resources will be settled based on the integrated tag value multiplied by the hourly settled PACE or PACW ELAP price, adjusted for losses consistent with 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 owned or contracted output which can be fully applied in 10 minutes. The interruptible load must be located within PacifiCorp Balancing Authority Area and must be capable of being interrupted within 10 minutes in the reasonable judgement of PacifiCorp. The specific resources for which the service is being provided must be identified and have observable telemetry. The party requesting to self-supply or arranging 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 arranging 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. Use of an External Resource:

For generation external to PacifiCorp's BAAs to qualify for self-supply or third-party supply service, a dynamic transfer coming into PacifiCorp's EMS as a dynamic schedule into the balancing authority area where the obligation originates, represented on a dynamic e-Tag is sufficient for communication with PacifiCorp's EMS. The author of the e-Tag is responsible for adjusting the energy profile to match the resource output for self-supply until such time as an automated process can be developed and implemented to relieve the author of this responsibility.

B. The following information will be required to demonstrate the self-supply or third-party purchase of supplemental reserve service for Internal Resources:

- 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 telemetry.

- Requirements for self-supply or third-party purchase of supplemental reserve service shall apply at the unit level if PacifiCorp's network model includes the resource by unit or at the plant level if PacifiCorp's network model includes the resource at the plant level.
- Documentation that the generation resources are deliverable Network Resources as defined by a current Network Integration Transmission Service Agreement, a legacy load service agreement on file at FERC, or other firm PTP agreement, which may be reported on PacifiCorp's Electric Quarterly Report ("EQR").
- For self-supply arrangements through a power purchase agreement, 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.
- If interruptible load is used, explicit description of the load, curtailment method, process utilized to trigger the curtailment and interruptible contract.
- Deployment capability must be proven by the self-supply Customer in a fashion acceptable to PacifiCorp. Requirements will depend on the type 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 supplemental reserves are available and not fully loaded, and are capable of being applied as reported. Resource capability for self-supply of reserves shall mean the operational capability of the unit to actually deliver the reserve energy in the event of a deployment based on the operational capability characteristics of the self-supply resource (i.e., ramp rates, PMax).

- Self-suppliers must provide a monthly reserve supply forecast no less than thirty (30) calendar days before the beginning of the month with amounts (MWs) in all hours for that month based on the forecasted percentage of reserve obligation. This 30-day forecast requirement does not replace or satisfy separate seven-day forecast requirements established by Peak Reliability and the California Independent System Operator ("CAISO").
- Self-suppliers must provide day-ahead information via e-Tag. In the day-ahead, the reserve supply forecast must be updated for the next operating day with the amount (MWs) of reserve obligation the self-supplier expects to actually be providing in all hours.
- A point of contact is always available, all hours, every day to be used to call on the reserves.

C. 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 of 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 will confirm customer reserves are being held via e-Tag.

Once confirmation is validated, PacifiCorp will place a phone call or adjust a capacity tag through an automated process to communicate a loss of generation in the appropriate Balancing Authority and request deployment of reserves for the appropriate length of time. PacifiCorp will provide an annual report to Customers demonstrating non-discriminatory deployment of reserves.

D. 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 compliance-related penalties, charges or other consequences which PacifiCorp is subject to related to the failure. If the Customer fails to self-supply its supplemental reserves as defined in this section and fails to notify PacifiCorp to make arrangements for service, the Customer will be subject to

supplemental reserve service as defined in Schedule 6 of PacifiCorp's OATT.

- E. The service hereunder must be available to be called on by PacifiCorp to comply with the NERC Disturbance Control Standard (NERC BAL-002-2 or any successor Reliability Standard thereto), 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 Reserve Sharing Group Contract 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 Sharing event. The supplying party is not required to have a separate relationship or agreement with the Northwest Power Pool Reserve Sharing Group.
- F. 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. PacifiCorp shall make best efforts to request further information no later than thirty (30) calendar days from the customer's request to self-supply or third-party supply.

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

In the event that PacifiCorp rejects the request to self-supply or third-party purchase, or concludes that an existing self-supply or third-party purchase is impairing reliability, PacifiCorp will provide in writing detailed explanations for such determination, proposed remedy not

less than thirty (30) calendar days from the customer's request to self-supply or third-party supply. Notice of rejection to self-supply or third-party purchase does not preclude customer from reapplication.

- G. If the metered Network Load requiring the reserves has been moved electronically into another BAA, certified by NERC or its successor, by means of a pseudo-tie, this Section G shall apply. The pseudo-tie requires identification and observable telemetry of the specific Network Loads for which the service is to be provided.
1. PacifiCorp will accept, in lieu of the showing required in Section A above, a letter in advance from the BAA that is supplying the supplemental reserve ("Supplying Balancing Authority"), which certifies that this service is supplied in accordance with all current policies 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.
  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 load signal through the pseudo-tie equipment, PacifiCorp may call upon the Supplying Balancing Authority to provide supplemental 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 G.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), PacifiCorp reserves the right to bill the responsible party for this service for the duration of the failure, including reimbursement for any penalties, 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 the supplemental reserves, in addition to the above referenced letter, to ensure that this service is supplied in a reliable manner. PacifiCorp shall make best efforts to request further information no later than thirty (30) calendar days from the customer's request.

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 judgement, 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 judgement, PacifiCorp concludes that such self-supply or third-party purchase is impairing reliability in the relevant PacifiCorp Balancing Authority Area or the interconnected system. In the event that PacifiCorp rejects the request to self-supply or third-party purchase, or concludes that an existing self-supply or third-party purchase is impairing reliability, PacifiCorp will provide in writing detailed explanations for such determination, proposed remedy not less than thirty (30) calendar days from the customer's request to self-supply or third-party supply. Notice of rejection to self-supply or third-party purchase does not preclude customer from reapplication.

- H. 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) for External Resources and for Internal Resources not represented in the network model. Resources supplying reserves that are represented in the network model will not receive



separate energy settlement. These resources will receive settlements as uninstructed imbalances per Schedule 9 of PacifiCorp's OATT for Non-Participating Resources or direct from CAISO for Participating Resources.

Financial settlement for Internal Resources not in the network model and External Resources will be settled based on the integrated tag value multiplied by the hourly settled PACE or PACW ELAP price, adjusted for losses consistent with PacifiCorp's OATT.

## **SCHEDULE 5**

### **Operating Reserve - Spinning Reserve Service**

Spinning Reserve Service is needed to serve load in the BAA and to support other transmission usage sourced from generation in the BAA including exports and sales. Spinning Reserve Service may be provided by generating units that are on-line and loaded at less than maximum output and by non-generation resources capable of providing this service. The Transmission Provider must offer this service when the transmission service is used to serve load within its BAA and to support other transmission usage sourced from generation in the BAA including exports and sales. The Transmission Customer must purchase this service from the Transmission Provider, self-supply the service, or make alternative comparable arrangements to satisfy its Spinning Reserve Service obligation. The amount of and charges for Spinning Reserve Service are set forth below. To the extent the BA performs this service for the Transmission Provider, charges to the Transmission Customer are to reflect only a pass-through of the costs charged to the Transmission Provider by that BA.

#### **Charges for Spinning Reserve Service:**

Under the current NERC Regional Reliability Standard BAL-002-WECC, the Transmission Provider is required to maintain a minimum amount of contingency reserve equal to the sum of three percent of hourly integrated load plus three percent of hourly integrated generation with at least half as spinning. Consistent with the Transmission Provider operating in accordance with this reliability standard, the charges for Schedule 5 below apply one and one-half percent to load and one and one-half percent to generation.

For load, the rates below are charged to a Network Customer's hourly integrated load (including losses).

For generation, the rates below are applied to customers by charging actual hourly generation delivered to the Transmission Provider at the Point of Receipt.

The rate shall be an Hourly Rate of:

	Effective <del>rates</del> <u>Rates from</u> February 13, 2017 through December 31, 2017	Effective <del>rates</del> <u>Rates</u> beginning January 1, 2018
Schedule 5 (Spinning Reserves)	\$0.16 per MWh	\$0.151 per MWh

**Self-Supply:**

A Transmission Customer may choose to self-supply all or a portion of its reserve obligation.

~~The total reserve obligation for a Transmission Customer who self-supplies is determined by the currently effective version of the NERC Regional Reliability Standard BAL-002-WECC. The requirement is currently equal to the sum of one and one-half percent of hourly integrated load plus one and one-half percent of hourly integrated generation. For a Transmission Customer choosing to self-supply a portion of its reserve obligation, the billing determinants for supplemental purchases of Schedule 5 reserve service shall be determined by: (1) identifying the difference between the amount self-supplied during each hour each month and the Transmission Customer's full requirement, as determined by NERC Regional Reliability Standard BAL-002-WECC; (2) charging the Transmission Customer the Hourly Rate multiplied by the amount of megawatts identified in (1) where the Transmission Customer failed to supply its full requirement for each hour, if any failure occurred.~~For a Transmission Customer choosing to self-supply a portion of its reserve obligation, detailed hourly calculation procedures are set forth in Attachment V to the Tariff.

The Transmission Customer shall schedule that portion which it will self-supply and/or supply from third parties pursuant to procedures set forth in ~~the business practices of the Transmission Provider. During any period that a Transmission Customer has scheduled self-supply and/or supply from third parties but fails to provide the full amount scheduled due to partial or full forced outage of the generation source or a transmission curtailment or interruption, the Transmission Customer shall purchase the shortfall at the Hourly Rate, as described in the proceeding section~~Attachment U to the Tariff.

**Spinning Reserve Service to be Provided:**

The Transmission Provider, using its generators controlled by automatic generation control, will provide the capacity required to provide Spinning Reserve Service for a Transmission Customer. Upon an outage of a generation resource for which Spinning Reserve Service has been purchased from the Transmission Provider, the Transmission Provider will provide replacement capacity commencing immediately upon such outage until the earlier of (1) the restoration of such resource to service by the Transmission Customer or (2) the end of ten (10) full minutes after the occurrence of such outage.

To the extent that the Transmission Provider determines that a Transmission Customer's specific Spinning Reserve Requirements are not being fully met through the purchase of Spinning Reserve Service as provided above, the Transmission Provider reserves the right (upon filing with the Commission) to require such Transmission Customer to purchase a greater amount of Spinning Reserve Service.

## **SCHEDULE 6**

### **Operating Reserve - Supplemental Reserve Service**

Supplemental Reserve Service is needed to serve load in the BAA and to support other transmission usage sourced from generation in the BAA including exports and sales; however, it is not available immediately to serve load but rather within a short period of time. Supplemental Reserve Service may be provided by generating units that are on-line but unloaded, by quick-start generation or by interruptible load or other non-generation resources capable of providing this service. The Transmission Provider must offer this service when the transmission service is used to serve load within its BAA and to support other transmission usage sourced from generation in the BAA including exports and sales. The Transmission Customer must purchase this service from the Transmission Provider, self-supply the service, or make alternative comparable arrangements to satisfy its Supplemental Reserve Service obligation. The amount of and charges for Supplemental Reserve Service are set forth below. To the extent the BA performs this service for the Transmission Provider; charges to the Transmission Customer are to reflect only a pass-through of the costs charged to the Transmission Provider by that BA.

#### **Charges for Supplemental Reserve Service:**

Under the current NERC Regional Reliability Standard BAL-002-WECC, the Transmission Provider is required to maintain a minimum amount of contingency reserve equal to the sum of three percent of hourly integrated load plus three percent of hourly integrated generation with at least half as spinning. Consistent with the Transmission Provider operating in accordance with this reliability standard, the charges for Schedule 6 below apply one and one-half percent to load and one and one-half percent to generation.

For load, the rates below are charged to a Network Customer's hourly integrated load (including losses).

For generation, the rates below are applied to customers by charging actual hourly generation delivered to the Transmission Provider at the Point of Receipt.

The rate shall be an Hourly Rate of:

	Effective Rates from February 13, 2017 through December 31, 2017	Effective Rates beginning January 1, 2018
Schedule 6 (Supplemental Reserves)	\$0.16 per MWh	\$0.151 per MWh

**Self-Supply:**

A Transmission Customer may choose to self-supply all or a portion of its reserve obligation.

~~The total reserve obligation for a Transmission Customer who self-supplies is determined by the currently effective version of the NERC Regional Reliability Standard BAL-002-WECC. The requirement is currently equal to the sum of one and one-half percent of hourly integrated load plus one and one-half percent of hourly integrated generation. For a Transmission Customer choosing to self-supply a portion of its reserve obligation, the billing determinants for supplemental purchases of Schedule 6 reserve service shall be determined by: (1) identifying the difference between the amount self-supplied during each hour of each month and the Transmission Customer's full requirement, as determined by NERC Regional Reliability Standard BAL-002-WECC; (2) charging the Transmission Customer the Hourly Rate multiplied by the amount of megawatts identified in (1) where the Transmission Customer failed to supply its full requirement for each hour, if any failure occurred.~~ For a Transmission Customer choosing to self-supply a portion of its reserve obligation, detailed hourly calculation procedures are set forth in Attachment V to the Tariff.

The Transmission Customer shall schedule that portion which it will self-supply and/or supply from third parties pursuant to procedures set forth in ~~the Business Practices~~ Attachment U of the Transmission Provider. ~~During any period that a Transmission Customer has scheduled self-supply and/or supply from third parties but fails to provide the full amount scheduled due to partial or full forced outage of the generation source or a transmission curtailment or interruption, the Transmission Customer shall purchase the shortfall at the hourly rate.~~ Tariff.

**Supplemental Reserve Service to be Provided:**

The Transmission Provider, using its generators controlled by automatic generation control, will provide the capacity required to provide Supplemental Reserve Service for a Transmission Customer. Upon an outage of a generation resource for which Supplemental Reserve Service has been purchased from the Transmission Provider, the Transmission Provider will provide replacement capacity commencing at the end of ten (10) full minutes after such outage until the earlier of (1) the restoration of such resource to service by the Transmission Customer or (2) the end of the first full hour immediately following such outage.

To the extent that the Transmission Provider determines that a Transmission Customer's specific Supplemental Reserve Requirements are not being fully met through the purchase of Supplemental Reserve Service as provided above, the Transmission Provider reserves the right (upon filing with the Commission) to require such Transmission Customer to purchase a greater amount of Supplemental Reserve Service.

## ATTACHMENT U

### Requirements for Self-Supply of Schedules 5 and 6

#### Definitions

No definitions other than the following, those provided hereinafter, and those currently contained in PacifiCorp's Open Access Transmission Tariff ("OATT") or North American Electric Reliability Corporation ("NERC") reliability standards are required for this Attachment U.

**Customer** - Reference for the purpose of this Attachment U, refers to a customer that has successfully met qualifications to self-supply Ancillary Services.

**Internal Resource** - A resource in a PacifiCorp Balancing Authority Area ("BAA") including one that is dynamically scheduled or pseudo-tied into a PacifiCorp BAA. These resources are classified as either Participating or Non-Participating Resources.

**External Resource** - A resource that does not meet the definition of an Internal Resource but provides self-supply (or third-party supply) service via a capacity tag.

#### Purpose

The purpose of this Attachment U is to clarify the practices outlined in the OATT pertaining to self-supply or third-party supply of ancillary services-certification process and requirements.

#### Practice

The following are the requirements of PacifiCorp, the Balancing Authority and Transmission Operator, for Customers who wish to self-supply or to arrange for third-party purchase of specific Ancillary Services. PacifiCorp requires that these Ancillary Services satisfy the requirements for Schedules 5 and 6 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 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) or system supplying the service and its Balancing Authority Area, specification of metering and communications equipment, and procedures for data exchange. 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.

### **Telemetry (metering) requirements for reserves**

For an Internal Resource to qualify for self-supply of Operating Reserve-Spinning Reserve Service (Schedule 5) or Operating Reserve - Supplemental Reserve Service (Schedule 6) the following four-second, industry-standard data must be supplied by the designated self-supply resource. Real time data must be supplied through telemetry acceptable to PacifiCorp. In general, an example of an acceptable telemetry method is a Remote Terminal Unit ("RTU") or Inter-Control Center Communication Protocol ("ICCP"). The latter is subject to WECC Operations Network ("WON") guidelines. To the extent any data items are not applicable to a particular resource, they are not required. To the extent applicable data items are already provided through an effective interconnection agreement, they are not separately required.

- 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 generator output metering kWh
- Status of all low and high side breakers
- 10-minute ramp rate, limited by capacity
- PMax

## **Testing and Disqualification for Self-Supply of Reserves in the PacifiCorp Balancing Authority Areas**

Resources designated for self-supply of reserves, spinning or supplemental, may be tested by PacifiCorp at any time throughout the year. The test will be performed upon the physical response of resources designated for self-supply via e-Tag.

Resources called upon to supply reserves and responding to meet Western Electricity Coordinating Council ("WECC") and PacifiCorp requirements for time, output, and power quality, during the calendar year shall be deemed as passing the test. PacifiCorp will monitor resources designated and accepted for self-supply and log the date of successful operation. Failure to respond when called upon to supply reserves may disqualify the resource from self-supplying reserves as described here:

- PacifiCorp will count as a single failure event (each a "Failure Event"), any hour or group of hours that a resource does not successfully respond when called by PacifiCorp to provide reserves and that occurs before PacifiCorp provides written notice of the Failure Event to the resource owner and all Customers relying on the resource for reserves. Upon and with such written notice, a Failure Event may be assessed a "strike," the assessment of which shall be included in the written notice of the underlying Failure Event. "Written notice" for purposes of this Attachment ~~1-U~~ includes notice given electronically.
- Upon each written notice of a Failure Event as provided above, and before another strike may be assessed to the same resource, PacifiCorp will allow the affected Customer(s) up to three business days in which to provide written notice to PacifiCorp of the specific remedy to the resource failure that has been implemented, of alternative self-supply arrangements that have been made, or of the intent to take the applicable reserve service(s) from PacifiCorp. Absent any such written notice to PacifiCorp, the affected Customer(s) shall be subject to the applicable reserve service(s) as defined in Schedule 5 and/or Schedule 6 of PacifiCorp's OATT.
- A resource that accumulates three strikes within a rolling 12-month period will be disqualified for the balance of

the month in which the third Failure Event occurs and the entirety of the following month. PacifiCorp will give affected Customer(s) written notice of the third strike and resource disqualification and will allow Customer(s) up to three business days in which to formally notify PacifiCorp of alternative self-supply arrangements or be subject to the applicable reserve service(s) as defined in Schedule 5 and/or Schedule 6 of PacifiCorp's OATT. No Customer may designate or utilize a disqualified resource to provide self-supply service. Following the disqualification period, strikes for the resource shall be reset to zero and the resource will be again eligible to provide self-supply service subject to the provisions herein.

PacifiCorp will only test resources that are carrying operating reserves at the time the test is commenced. A resource that is experiencing a unit trip shall not be subject to the test for the operating hour during which the trip occurs. This will be accomplished with PacifiCorp calling on reserves, monitoring results and logging the test. PacifiCorp will provide written reports of all test results to the resource owner and the Customer(s) using the resource for self-supply, if different.

**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 owned or contracted output and which may be used to satisfy the Transmission Customer's reserve obligation. The specific resources from which the service is being provided must be identified and have observable telemetry. The party requesting to self-supply or arranging 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 arranging 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. Use of an External Resource:**

For generation external to PacifiCorp's BAAs to qualify for self-supply or third-party supply service, a dynamic transfer coming into PacifiCorp's energy management system ("EMS") as a dynamic schedule into the balancing authority area where the obligation originates, represented on a

dynamic e-Tag, is sufficient for communication with PacifiCorp's EMS. The author of the e-Tag is responsible for adjusting the energy profile to match the resource output for self-supply until such time as an automated process can be developed and implemented to relieve the author of this responsibility.

B. The following information will be required to demonstrate the self-supply or third-party purchase of spinning reserve service for Internal Resources:

- 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 telemetry.
- Requirements for self-supply or third-party purchase of spinning reserve service shall apply at the unit level if PacifiCorp's network model includes the resource by unit, or at the plant level if PacifiCorp's network model includes the resource at the plant level.
- Documentation that the generation resources are deliverable Network Resources as defined by a current Network Integration Transmission Service Agreement, a legacy load service agreement on file at FERC, or other firm PTP agreement, which may be reported on PacifiCorp's Electric Quarterly Report ("EQR").
- For self-supply arrangements through a power purchase agreement, 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. Resource capability for self-supply of reserves shall mean the operational capability of the unit to actually deliver the reserve energy in the event of a deployment based on the operational capability characteristics of the self-supply resource (i.e., ramp rates, PMax).

- Self-suppliers must provide a monthly reserve supply forecast no less than thirty (30) calendar days before the beginning of the month with amounts (MWs) in all hours for that month based on the forecasted percentage of reserve obligation. This 30-day forecast requirement does not replace or satisfy separate seven-day forecast requirements established by Peak Reliability and the California Independent System Operator ("CAISO").
- Self-suppliers must provide day-ahead information via e-Tag. In the day-ahead, the reserve supply forecast must be updated for the next operating day with the amount (MWs) of reserve obligation the self-supplier expects to actually be providing in all hours.
- A point of contact is always available, all hours, every day to be used to deploy the reserves.

C. 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 will confirm customer reserves are being held via e-Tag.

Once confirmation is validated, PacifiCorp will place a phone call or adjust a capacity tag through an automated process to communicate a loss of generation in the appropriate Balancing Authority and request deployment of reserves for the appropriate length of time. PacifiCorp will provide an annual report to Customers demonstrating non-discriminatory deployment of reserves.

D. 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 compliance-related penalties, charges, or other consequences, to which PacifiCorp is subject related to the failure. If the Customer fails to self-supply its spinning reserves as defined in this section and fails to notify PacifiCorp to make arrangements for service, the Customer will be subject to

spinning reserve service as defined in Schedule 5 of PacifiCorp's OATT.

E. The service hereunder must be available to be called on by PacifiCorp to comply with NERC Standard BAL-002-WECC-2 (or any successor Reliability Standard thereto), 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.

F. 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, PacifiCorp shall make best efforts to request further information no later than thirty (30) calendar days from the customer's request to self-supply or third-party supply.

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

In the event that PacifiCorp rejects the request to self-supply or third-party purchase, or concludes that an existing self-supply or third-party purchase is

impairing reliability, PacifiCorp will provide in writing detailed explanations for such determination and proposed remedy not less than thirty (30) calendar days from the customer's request to self-supply or third-party supply. Notice of rejection to self-supply or third-party purchase does not preclude a customer from reapplication.

G. If the metered Network Load requiring the spinning reserve service has been moved electronically into another BAA, certified by NERC or its successor organization, by means of a pseudo-tie, this Section G shall apply. The pseudo-tie requires identification and observable telemetry of the specific Network Loads for which the service is to be provided. PacifiCorp requires a letter in advance from the BAA that is supplying the spinning reserve ("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 G.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 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, charges, or other consequences to which PacifiCorp is subject 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. PacifiCorp shall make best efforts to request further information no later than thirty (30) calendar days from the customer's request.

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 judgement, 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 judgement, PacifiCorp concludes that such self-supply or third-party purchase is impairing reliability in the relevant PacifiCorp Balancing Authority Area or the interconnected system.

In the event that PacifiCorp rejects the request to self-supply or third-party purchase, or concludes that an existing self-supply or third-party purchase is impairing reliability, PacifiCorp will provide in writing detailed explanations for such determination,



proposed remedy not less than thirty (30) calendar days from the customer's request to self-supply or third-party supply. Notice of rejection to self-supply or third-party purchase does not preclude customer from reapplication.

- H. 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) for External Resources and for Internal Resources not represented in the network model. Resources supplying reserves that are represented in the network model will not receive separate energy settlement. These resources will receive settlements per Schedule 9 of PacifiCorp's OATT for Non-Participating Resources or directly from CAISO for Participating Resources.

Financial settlement for Internal Resources not in the network model and External Resources will be settled based on the integrated tag value multiplied by the hourly settled PACE or PACW ELAP price, adjusted for losses consistent with 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 owned or contracted output which can be fully applied in 10 minutes. The interruptible load must be located within PacifiCorp Balancing Authority Area and must be capable of being interrupted within 10 minutes in the reasonable judgement of PacifiCorp. The specific resources— for which the service is being provided must be identified and have observable telemetry. The party requesting to self-supply or arranging 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 arranging 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. Use of an External Resource:

For generation external to PacifiCorp's BAAs to qualify for self-supply or third-party supply service, a dynamic transfer coming into PacifiCorp's EMS as a dynamic schedule into the balancing authority area where the obligation originates, represented on a dynamic e-Tag is sufficient for communication with PacifiCorp's EMS. The author of the e-Tag is responsible for adjusting the energy profile to match the resource output for self-supply until such time as an automated process can be developed and implemented to relieve the author of this responsibility.

B. The following information will be required to demonstrate the self-supply or third-party purchase of supplemental reserve service for Internal Resources:

- 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 telemetry.

- Requirements for self-supply or third-party purchase of supplemental reserve service shall apply at the unit level if PacifiCorp's network model includes the resource by unit or at the plant level if PacifiCorp's network model includes the resource at the plant level.
- Documentation that the generation resources are deliverable Network Resources as defined by a current Network Integration Transmission Service Agreement, a legacy load service agreement on file at FERC, or other firm PTP agreement, which may be reported on PacifiCorp's Electric Quarterly Report ("EQR").
- For self-supply arrangements through a power purchase agreement, 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.
- If interruptible load is used, explicit description of the load, curtailment method, process utilized to trigger the curtailment and interruptible contract.
- Deployment capability must be proven by the self-supply Customer in a fashion acceptable to PacifiCorp. Requirements will depend on the type 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 supplemental reserves are available and not fully loaded, and are capable of being applied as reported. Resource capability for self-supply of reserves shall mean the operational capability of the unit to actually deliver the reserve energy in the event of a deployment based on the operational capability characteristics of the self-supply resource (i.e., ramp rates, PMax).

- Self-suppliers must provide a monthly reserve supply forecast no less than thirty (30) calendar days before the beginning of the month with amounts (MWs) in all hours for that month based on the forecasted percentage of reserve obligation. This 30-day forecast requirement does not replace or satisfy separate seven-day forecast requirements established by Peak Reliability and the California Independent System Operator ("CAISO").
- Self-suppliers must provide day-ahead information via e-Tag. In the day-ahead, the reserve supply forecast must be updated for the next operating day with the amount (MWs) of reserve obligation the self-supplier expects to actually be providing in all hours.
- A point of contact is always available, all hours, every day to be used to call on the reserves.

C. 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 of 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 will confirm customer reserves are being held via e-Tag.

Once confirmation is validated, PacifiCorp will place a phone call or adjust a capacity tag through an automated process to communicate a loss of generation in the appropriate Balancing Authority and request deployment of reserves for the appropriate length of time. PacifiCorp will provide an annual report to Customers demonstrating non-discriminatory deployment of reserves.

D. 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 compliance-related penalties, charges or other consequences which PacifiCorp is subject to related to the failure. If the Customer fails to self-supply its supplemental reserves as defined in this section and fails to notify PacifiCorp to make arrangements for service, the Customer will be subject to

supplemental reserve service as defined in Schedule 6 of PacifiCorp's OATT.

- E. The service hereunder must be available to be called on by PacifiCorp to comply with the NERC Disturbance Control Standard (NERC BAL-002-2 or any successor Reliability Standard thereto), 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 Reserve Sharing Group Contract 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 Sharing event. The supplying party is not required to have a separate relationship or agreement with the Northwest Power Pool Reserve Sharing Group.
- F. 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. PacifiCorp shall make best efforts to request further information no later than thirty (30) calendar days from the customer's request to self-supply or third-party supply.

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

In the event that PacifiCorp rejects the request to self-supply or third-party purchase, or concludes that an existing self-supply or third-party purchase is impairing reliability, PacifiCorp will provide in writing detailed explanations for such determination, proposed remedy not less than thirty (30) calendar days from the customer's

request to self-supply or third-party supply. Notice of rejection to self-supply or third-party purchase does not preclude customer from reapplication.

- G. If the metered Network Load requiring the reserves has been moved electronically into another BAA, certified by NERC or its successor, by means of a pseudo-tie, this Section G shall apply. The pseudo-tie requires identification and observable telemetry of the specific Network Loads for which the service is to be provided.
1. PacifiCorp will accept, in lieu of the showing required in Section A above, a letter in advance from the BAA that is supplying the supplemental reserve ("Supplying Balancing Authority"), which certifies that this service is supplied in accordance with all current policies 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.
  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 load signal through the pseudo-tie equipment, PacifiCorp may call upon the Supplying Balancing Authority to provide supplemental 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 G.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), PacifiCorp reserves the right to bill the responsible party for this service for the duration of the failure, including reimbursement for any penalties, 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 the supplemental reserves, in addition to the above referenced letter, to ensure that this service is supplied in a reliable manner. PacifiCorp shall make best efforts to request further information no later than thirty (30) calendar days from the customer's request.

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 judgement, 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 judgement, PacifiCorp concludes that such self-supply or third-party purchase is impairing reliability in the relevant PacifiCorp Balancing Authority Area or the interconnected system.

In the event that PacifiCorp rejects the request to self-supply or third-party purchase, or concludes that an existing self-supply or third-party purchase is impairing reliability, PacifiCorp will provide in writing detailed explanations for such determination, proposed remedy not less than thirty (30) calendar days from the customer's request to self-supply or third-party supply. Notice of rejection to self-supply or third-party purchase does not preclude customer from reapplication.

- H. 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) for External Resources and for Internal Resources not represented in the network model. Resources supplying reserves that are represented in the network model will not receive separate energy settlement. These resources will receive

settlements as uninstructed imbalances per Schedule 9 of PacifiCorp's OATT for Non-Participating Resources or direct from CAISO for Participating Resources.

Financial settlement for Internal Resources not in the network model and External Resources will be settled based on the integrated tag value multiplied by the hourly settled PACE or PACW ELAP price, adjusted for losses consistent with PacifiCorp's OATT.