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## DIVISION'S COMMENTS

**To:** Public Service Commission

**From:** Chris Parker, Director  
Artie Powell, Energy Section Manager  
Joni Zenger, Technical Consultant  
Bob Davis, Utility Analyst  
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**Date:** August 8, 2014

**Re:** Docket No. 14-035-64, Rocky Mountain Power's Application for Approval of Advance Authorization to Transfer Spare Transformers Pursuant to a Sharing Agreement.

### **RECOMMENDATION (APPROVAL WITH CONDITIONS)**

The Division of Public Utilities (Division) recommends that the Public Service Commission (Commission) approve the request for advance authorization to transfer spare transformers pursuant to a sharing agreement with conditions as described below.

### **ISSUE**

On May 21, 2014, PacifiCorp, dba Rocky Mountain Power (Company), filed an application with the Commission for approval of advance authorization to transfer spare transformers pursuant to a sharing agreement (Application). The Company provided a copy of the spare transformer sharing agreement (Agreement), attached as Exhibit A to its filing. On May 22, 2014, the Commission issued an Action Request to the Division requesting a review and recommendation in this docket. On June 3, 2014, the Commission held a scheduling conference in this matter,

superseding the Action Request and setting a schedule for discovery, comments, and reply comments. This memo is in response to the Commission's request for comments in its scheduling order.

## **BACKGROUND**

Large substation transformers are a component of the Company's electric transmission system because they convert high voltage electricity to lower voltage electricity. In order to enable electric utilities to more quickly replace a transformer, national utilities have collaborated to establish the Spare Transformer Equipment Program (STEP), which is a coordinated approach to increase the electric power industry's inventory of spare transformers and streamline the process of transferring those transformers to affected utilities in the event of a transmission outage caused by an act of terrorism. The industry group, Edison Electric Institute (EEI) coordinated the STEP program, which requires each participating electric utility to maintain and, if necessary, acquire a specified<sup>1</sup> number of spare transformers if requested by any other participating utility that suffers a "triggering event," which is defined by the Homeland Security Act and is listed in Section 1.1. of the Agreement as:

an act or coordinated acts of deliberate, documented terrorism, as defined in the Homeland Security Act of 2002, 6 U.S.C. §101(15), as the same may be amended from time to time, resulting in (1) the destruction or long-term disabling of one or more electric transmission substations, and (2) the declaration of a state of emergency by the President of the United States pursuant to the National Emergencies Act, 50 U.S.C. §1601 et seq., as the same may be amended from time to time.

Utilities elect which equipment classes they wish to participate in, and a mathematical formula determines the number of transformers that each participating utility must maintain in its inventory or have rights to own.<sup>2</sup>

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<sup>1</sup>Docket No. 14-035-64, Exhibit A, Spare Transformer Sharing Agreement, Article I, Section 1.1, pp. 2-3; Exhibit B shows the calculation of the Required Obligations that Company would be responsible for under the sharing agreement, estimated to be two spare transformers. The rating of the first transformer is 500-230 kV and 193 MVA. The rating of the second transformer is 345-138 kV and 141 MVA.

<sup>2</sup>Id.

The Agreement was negotiated among more than 50 utilities through a multi-year, industry-wide process. The Agreement provides each participating utility with legally enforceable rights to access readily available spare transformer capacity that has been committed to STEP. Should a triggering event occur, affected participating utilities are entitled to exercise call rights to acquire any of the spare transformers committed under STEP in the relevant voltage class. Unlike a voluntary mutual assistance program, these call rights are self-executing and are legally enforceable through rights to seek specific performance.<sup>3</sup>

On July 18, 2006, EEI, on behalf of the then participating utilities, filed an application with the Federal Energy Regulatory Commission (FERC) for approval for jurisdictional public utilities to engage in the future transfers of transformers pursuant to a sharing agreement. (This is the sharing agreement referenced above as Attachment A to this filing). The FERC approved the Agreement on September 22, 2006 and noted the following:

Without the Agreement utilities would have to purchase substantially more transformers to achieve the same recovery capability incurring substantially higher costs or experience the inherent time delay associated with finding, negotiating for ordering, transporting, and testing a replacement transformer. Furthermore, the Agreement establishes the obligation to share spare transformers with Participating Utilities if there is a Triggering Event. Accordingly, we find that the sharing arrangement in the Agreement is prudent.<sup>4</sup>

On December 6, 2013, the Company entered into the Agreement with the then participating utility companies across the United States. However, according to terms of the Agreement, the Company cannot not become a full participating member of STEP until the Company can demonstrate to EEI that it has received all required state regulatory approvals.<sup>5</sup>

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<sup>3</sup>Id. at Article IV, Section 4.1.

<sup>4</sup> FERC Declaratory Order 116 FERC ¶ 61,280 at ¶ 39.

<sup>5</sup> Docket No. 14-035-64, Exhibit A, Spare Transformer Sharing Agreement, Article I, Section 1.1.

## **DISCUSSION AND FINDINGS**

The Division reviewed the Company's Application and accompanying Agreement. As part of its review, the Division asked several rounds of discovery in the matter and conducted its own independent research on the EEI website and on alternative mutual sharing programs, such as the North American Electric Reliability Corporation (NERC) Spare Equipment Database (SED).

In addition, the Division prepared a list of questions and presented those to the Company at a Technical Conference that was scheduled by the Commission on July 8, 2014. The Company facilitated the information sharing by bringing its experts in the field to the meeting, including Mr. Doug Bennion and Mr. Brandon Prescott, who were able to explain the Company's Application and to answer most of the Division's questions, as well as those from other parties in attendance at the meeting. The Company informed parties that Mr. Doug Bennion, was recently elected to serve on the Executive Committee<sup>6</sup> as a member representative of the western region.

The Company explained that its participation in STEP is a way to increase resources for responding to terrorist attacks. The Company will be able to receive spare transformers from other participating utilities and send transformers to participating affected utilities in such circumstances. In order to participate in the transformer exchange program, the Company will have to pay an enrollment fee of \$10,000 and annual dues of \$7,500 to EEI to administer the program.<sup>7</sup>

The Company states that its obligation under the sharing agreement will be two spare transformers. The first transformer is rated 500-230 kV and 193 megavolt amperes (MVA), and the second transformer is rated 345-138 kV and 141 MVA.<sup>8</sup> This obligation is subject to adjustment as determined by the commitment formula<sup>9</sup> in the Agreement. This means that the Company would be a member of two Equipment Classes the 500-230 kV and 345-138 kV.<sup>10</sup> The Company has determined that it will meet the obligation by committing existing available spare transformers that are already maintained by the Company for potential use. The

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<sup>6</sup> Docket No. 14-035-64, Exhibit A, Spare Transformer Sharing Agreement, Article VI, Sections 6.1 and 6.2.

<sup>7</sup> Id. at Article II, Section 2.1.

<sup>8</sup> Docket No. 14-035-64, Exhibit B, Required Obligations of Participating Utilities.

<sup>9</sup> Docket No. 14-035-64, Exhibit A, Spare Transformer Sharing Agreement, Article I, Section 1.1.

<sup>10</sup> Id. at Exhibit A, Equipment Classes and Minimum Standards.

commitment of the two transformers does not prohibit the Company from utilizing the equipment for its own needs as long as the spare transformers are replaced within 18 months.<sup>11</sup> The Company will transfer spare transformers only if called upon by another participating utility that experiences loss or disablement of a transmission substation due to an act of terrorism and cannot reinstate such substation with its own resources. In return, the Company would be able to exercise call rights to acquire any of the spare transformers it might need, thus eliminating significant delays in time when the triggering event could mean time is critical.

Because the possible transfer and sale of transformers is executory, appropriate bookkeeping entries will be made at the time of any future transfer and sale of transformers. The allowable purchase price for transformer(s) transferred to a utility experience a triggering event is defined in the Agreement, but provides the seller the option to set the price as replacement cost or net book value, at the seller's option, plus equipment preparation, transportation costs, and taxes.<sup>12</sup> The Division understands that the Company would seek replacement cost for the transaction.<sup>13</sup>

According to the Company's responses to the Division's data requests, a transaction under the STEP program—transferring or selling a transformer to a participating utility and the subsequent purchase of a replacement—should have a negligible impact on ratepayers. The final impact depends on the difference between the net book value<sup>14</sup> of the existing transformer and the replacement cost for a new transformer. This difference is unknown at this time. However, the Company indicates that relative to the overall rate base, this difference would be negligible. Alternatively, for the Company to maintain the same level of reliability as provided by its participation in STEP program, would require the purchase of several additional transformers that potentially would have a noticeable impact on ratepayers. Therefore, the Division suggests that the selling price should adequately compensate Utah ratepayers so that the purchase of a replacement transformer(s) under the agreement will not cause substantial increases to rate base or expenses. Although the Agreement does not state it specifically, the Division assumes a

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<sup>11</sup> Id. at Article III, Section 3.3.

<sup>12</sup> Id. at Article IV, Definitions, Section 4.7.

<sup>13</sup> Docket No. 14-035-64, Technical Conference on July 8, 2014.

<sup>14</sup> The Division understands NBV to be original cost less depreciation including residual or salvage value. Inventory is not typically depreciated but may have some physical or functional obsolescence as part of long-term inventory. Inventory is booked at Lower of Cost or Market (LCM).

transaction would never occur below net book value of the existing transformer. The Division would review the facts of any transaction under the STEP at the time the Company seeks recovery of any costs, most likely in a rate case subsequent to the transaction.

The NERC, whose mission is to ensure the reliability of the bulk power system in North America, has been developing and enforcing mandatory reliability standards that focus attention, resources, and actions on issues most important to bulk power system reliability. The NERC has determined that terrorist attacks should be addressed in transmission planning and has developed a standard that will require utilities to incorporate spare transformers into their planning. The standard TPL-001-4, Requirement 2, Section 2.1.5 will go into effect on January 1, 2016. By granting the Company approval to transfer spare transformers as part of the STEP program, the Company should be in compliance when the new standard goes into effect.

## **RECOMMENDATIONS**

The Division believes it is in the public interest to allow the Company to participate in the spare transformer sharing program under the terms and conditions in the Agreement. The Division recommends the Commission approve the Company's Application for advance authorization to transfer spare transformers conditional on the Company satisfying ongoing reporting requirements concerning the Agreement, and certain accounting protocols. The Division's analysis and recommendations are based on the following items:

- The Company has evaluated the risk of having to sell a spare transformer to another STEP participating utility and believes that the combination of committing existing spare transformers and the low probability of a triggering event occurrence result in an acceptable risk.
- The ability to obtain access on an expedited basis to a more extensive inventory of transformers will assist the Company in restoring service in the event of a disabling or destruction of a substation due to an act of terrorism, thereby, moderating the effects of the event on customers.

- The sharing of spare transformers with other electric utilities under the program will enhance the overall reliability of the nation's transmission system.
- The Company states that it has an adequate number of qualified spare transformers for eligibility and will meet its obligation by committing existing available spare transformers that are already maintained by the Company for potential use.
- The Company will only be required to provide spare transformers in limited circumstances.
- STEP is a reasonable method of making efficient use of spare transformers, minimizing the duplicate purchases of transformers. The program saves the Company and its customers the cost of maintaining a spare transformer inventory large enough to allow full system restoration following a worse-case scenario terrorist attack.
- The reliability of the Company's electric system does not appear to be jeopardized by its participation in the STEP, as the Agreement allows the Company to decline a sale of its transformers if the Company needs it for one or more of its own substations. Therefore, the Company's inventory needed to respond to its own maintenance and outage response requirements will not be compromised.
- FERC has recognized that the STEP helps utilities avoid delays when they do need to find, negotiate, order, transport, and test a replacement transformer.
- The Company does not seek approval of any ratemaking treatment for the sharing agreement fees or any new inventory required by the terms of the Agreement at this time, and rate impacts to customers will be minimal.

The Division recommends approval subject to the following conditions:

- 1) The Company will maintain accounting records sufficient to separately track all expenses and costs associated with the transformer STEP Program. The Company will provide to the Commission a Chart of Accounts indicating the accounts used to serve this program.

- 2) The Company will notify the Commission within 30 days after the Company provides a transformer required by the terms of the Agreement.
- 3) The Company will notify the Commission within 30 days of any changes to the Agreement, including changes to the fee schedule, changes to the number of transformers required by the Agreement, and/or changes to the accounting of the STEP program.

## **CONCLUSION**

As described above, the Department of Homeland Security, the FERC, NERC, and EEI have all recognized the threat of a terrorist attack and the catastrophic impact that it could have on the electric transmission grid of the country. The Division believes it is prudent to plan for such a triggering event by allowing the Company to participate in the STEP program. The Division recognizes benefits that will accrue in the form of cost savings, efficiencies, reliability, and safety assurances that are in the public interest should the Commission approve the Application and allow the Company to participate in the STEP program.

The Division recommends that the Commission approve the Company's Application granting advance authorization to transfer spare transformers pursuant to the Agreement. The Commission's approval should only be granted conditioned on the Company satisfying ongoing reporting requirements concerning the Agreement, the transfer of assets, and accounting protocols as described above.

CC Dave Taylor, Rocky Mountain Power  
Michele Beck, Office of Consumer Services  
Yvonne Hogle, PacifiCorp