

**BEFORE THE STATE CORPORATION COMMISSION  
OF THE STATE OF KANSAS**

In the Matter of the Application of The )  
Empire District Electric Company for ) Docket No. 15-EPDE-228-ACA  
Approval of its Annual Energy Cost )  
Adjustment ("ACA") Filing. )

**NOTICE OF FILING OF  
STAFF'S REPORT & RECOMMENDATION**

The Staff of the State Corporation Commission of the State of Kansas (Staff and Commission, respectively) files the attached Report and Recommendation and states as follows:

1. Staff hereby files the attached Report and Recommendation analyzing The Empire District Electric Company's (Empire's) Application for approval of its Annual Energy Cost Adjustment (ACA). Staff recommends that the Commission approve Empire's Application and authorize the use of its 2014 ACA factor of \$0.00145 per kWh.

WHEREFORE Staff submits its Report and Recommendation for Commission review and consideration and for such other relief as the Commission deems just and proper.

Respectfully submitted,

  
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## **REPORT AND RECOMMENDATION UTILITIES DIVISION**

**TO:** Chairman Jay Scott Emler  
Commissioner Shari Feist Albrecht  
Commissioner Pat Apple

**FROM:** Katie Figgs, Auditor  
Tim Rehagen, Auditor  
Chad Unrein, Auditor  
Andria Jackson, Managing Auditor  
Justin Grady, Chief of Accounting and Financial Analysis  
Jeff McClanahan, Director of Utilities

**DATE:** March 22, 2016

**SUBJECT:** Docket No. 15-EPDE-228-ACA – In the Matter of the Application of The Empire District Electric Company for Approval of its Annual Energy Cost Adjustment (ACA) Filing.

### **EXECUTIVE SUMMARY:**

The Empire District Electric Company (Empire) filed an Application requesting approval of its Annual Energy Cost Adjustment (ACA). Empire requests an ACA factor of \$0.00145 per kWh in order to collect \$340,635 of under recovered fuel and purchased power expenses from retail customers during the ACA period ending October 31, 2014. Staff conducted an audit of Empire's Application, as discussed below, and recommends approval of Empire's requested 2014 ACA factor.

### **BACKGROUND:**

On December 3, 2014, Empire filed an Application requesting approval of its ACA. Attached as Attachment A, Schedules 1-5, to Empire's filing is the annual calculation of the over/under recovery of energy costs for the Energy Cost Adjustment (ECA) year ending October 31, 2014, and the annual calculation of over/under refund of the prior year's off system sales margins (Kansas jurisdictional) that flow through the ECA. Attachment A, Schedule 2 shows a cumulative under recovery of \$340,635, which reflects a \$344,943 under recovery of 2014 ECA costs and a \$4,308 under refund of off-

system sales margins. Based on this under recovery, Empire calculated a new ACA factor of \$0.00145 per kWh to be collected from Kansas customers.

Mr. Todd W. Tarter, Manager of Strategic Planning for Empire, provides testimony describing Empire's fuel supply and generation planning practices during the ACA year ending October 31, 2014. Mr. Tarter also discusses how the implementation of the Southwest Power Pool (SPP) Integrated Marketplace (IM) has impacted Empire's cost to serve retail customers.

On March 1, 2014, SPP implemented the IM.<sup>1</sup> The IM is a regional day-ahead energy and operating reserve market featuring the following major functions:

- Day-ahead energy and operating reserve markets;
- Day-ahead and intra-day Reliability Unit Commitment processes;
- Real-time balancing market;
- Price-based, co-optimized energy and operating reserve procurement;
- Market-based congestion management processes including Transmission Congestion Rights and Auction Revenue Rights;
- Consolidation of 16 Balancing Authority Areas in the SPP footprint into a single Balancing Authority Area operated by SPP;
- Multi-Day Reliability assessment performed prior to the day-ahead market to manage the commitment of long-start resources; and
- Market Monitoring and Mitigation with an internal Market Monitoring Unit.<sup>2</sup>

With the implementation of the IM, Empire sells energy and operating reserves produced from its company-owned generating resources to SPP in the Day-Ahead (DA) and Real-Time Balancing Market (RTBM) and it purchases the energy and operating reserves it needs to serve its native load obligations on a daily basis. Because revenues and expenses from the IM are recorded in FERC accounts allowed to be recovered under Empire's ECA tariff, Staff expanded the scope of our typical ACA audit in order to include a review of Empire's participation in the SPP IM during the year 2014.

## **ANALYSIS:**

### **Traditional Fuel and Purchased Power Review**

Staff solicited from Empire, via formal discovery requests and emails, documentation supporting its Application and Attachment A, Schedules 1-5. Staff performed the majority of its audit in-house using the information gathered through this process. Once the desk audit was complete, Staff met with Empire at its corporate office in Joplin, Missouri. This meeting allowed Staff to further question Empire about information

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<sup>1</sup> See FERC, *Order on Compliance Filing*, January 29, 2014, Docket Nos. EL12-1179 and EL13-1173; [http://elibrary.ferc.gov/idmws/file\\_list.asp?accession\\_num=20140129-3063](http://elibrary.ferc.gov/idmws/file_list.asp?accession_num=20140129-3063).

<sup>2</sup> *Southwest Power Pool, Inc.*, 141 FERC ¶ 61,048 (2012) (October 2012 Order).

provided in response to discovery requests and to review Empire's coal and rail transportation contracts. Staff notes that Empire personnel were open and forthcoming when answering questions and provided requested supporting documentation. Staff audited Empire's actual fuel costs for the following months: March, April, May and June 2014.<sup>3</sup> For these months, Staff conducted an audit of the Application that consisted of:

- Testing the accuracy of the monthly Settlement Computations;
- Ensuring the actual cost adjustment computed by the utility reflects the actual over/under recoveries and the actual sales to Kansas jurisdictional customers;
- Ascertaining that the actual Fuel and Purchased Power costs recovered through the ECA are actual costs supported by vendor invoices and general ledger entries;
- Verifying that the ECA factor used to calculate the customer's bill agrees with the calculation that the Company files with the Commission; and
- Ensuring the ACA balance reflects the elimination of the gains/losses associated with financial instruments used to hedge the cost of natural gas and the sale of excess natural gas during the twelve-month ACA period ending October 31, 2014.

During this portion of Staff's audit, no material irregularities were found in the information provided.

#### SPP Integrated Marketplace Review

As referenced in the Background Section above, Staff expanded the scope of our typical ACA audit to include Empire's participation in the SPP IM during the year 2014. In order to complete this review, Staff conducted several interviews and meetings with Empire at the Kansas Corporation Commission (KCC or Commission) offices in Topeka, Kansas, via conference calls. Additionally, Staff solicited formal discovery requests to document Empire's processes and procedures involving its day-to-day operations within the IM. The objectives of Staff's audit of Empire's participation in the IM were as follows:

1. Determine whether Empire has robust control procedures in place to validate the accuracy of the billing statements it receives from SPP.
2. Determine whether Empire is diligently managing the risks associated with the IM and taking the steps necessary to maximize the possibility for success in the IM.
3. Determine whether Empire is utilizing the appropriate allocation factors to fairly and consistently apportion the costs/revenues of the IM between jurisdictions.
4. For the months being audited in this year's ACA audit, determine whether Empire has accurately accounted for Kansas' actual share of IM costs/revenues pursuant to the provisions of the current ECA tariff.

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<sup>3</sup> Staff typically audits four months out of the ACA year in these audits. The four months usually consist of at least two months from the summer cooling season.

5. Determine whether Empire's participation in the IM is providing benefits to Empire's Kansas ratepayers.

Each of the five objectives of the audit, including Staff's findings on each objective, is discussed below.

***Determine whether Empire has robust control procedures in place to validate the accuracy of the billing statements it receives from SPP***

In order to examine Empire's control procedures entailing verification of its SPP IM billing statements, Staff issued several formal discovery requests and interviewed personnel from Empire's settlements and fuel accounting departments. Staff requested information regarding the software application that Empire utilizes to interact with the IM on a daily basis and to perform shadow settlement calculations of the SPP settlement statements.<sup>4</sup> In response to Staff Data Request No. 13, Empire confirmed that it uses Power Costs, Inc. (PCI), and more specifically PCI's GenBase and GenManager suite to manage its generation portfolio and Application Programmable Interface (API) interactions with the SPP IM. Empire explained that the software allows Empire to store and utilize generation unit data, such as operating limits and heat rates, to create unit offers that are submitted to SPP via API on a daily basis.<sup>5</sup> This program also allows Empire to perform shadow settlements, as well as importing actual SPP IM settlement statements. Shadow settlement calculations are prepared for initial, final, and resettlement statements. This process allows Empire to perform an independent check against the SPP IM invoices it receives and investigate discrepancies should they arise. Additionally, Empire spot checks random settlement transactions from SPP's Electric Quarterly Report (EQR) to verify the information in the report matches the SPP settlement statements.

Empire also explained that it acts as its own meter agent for the SPP IM.<sup>6</sup> Empire has a comprehensive process in place to verify all hourly meter data reported by SPP's Calibration Report and the Interchange Report.<sup>7</sup> This data is compared to Empire's internal meter data and the data Empire receives from external counterparties.

Staff examined the processes that Empire has in place to verify that all Bilateral Settlement Schedules<sup>8</sup> (BSS) involving Empire as a party have been submitted to the SPP

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<sup>4</sup> Shadow settlements are settlement statements independently recalculated by the utility to check against the daily settlement statements produced by SPP. A settlement statement contains all of the daily charges related to the IM for that operating day by charge type.

<sup>5</sup> Forecasted load data is imported into PCI and used to produce Demand Bids and Virtual Bids/Offeres which are submitted to SPP on a daily basis. Meter data is imported into PCI to generate XML that is submitted to SPP for settlement purposes.

<sup>6</sup> Empire is the meter agent for all its meters with the exception of Iatan and Iatan 2, which Kansas City Power & Light Company (KCP&L) is the meter agent for those submissions.

<sup>7</sup> These are private reports that can be viewed by a utility or its meter agent. The reports provide verification of the meter data submissions for load, generation, interchange, etc., for each Meter Data Submission Location that a utility or meter agent is responsible for submitting.

<sup>8</sup> A Bilateral Settlement Schedule is an agreement between two market participants to transfer energy or operating reserve obligations between the parties. These agreements can be arranged through the SPP IM.

IM portal. Empire was able to provide a report verifying all of its BSS submissions during the months we audited were submitted to SPP. Additionally, Staff examined the dispute processes that Empire has in place to submit and monitor disputes that it files with SPP. In response to Staff Data Request No. 21, Empire provided Staff a list of the disputes it submitted in 2014 and the results of the disputes. Empire submitted several disputes to SPP that were granted involving an incorrect Day-Ahead Make Whole Payment (DA MWP), incorrect AEP meter data, and correcting meter data for Plum Point.

Staff's opinion is that Empire has several robust control procedures in place to verify the accuracy of the settlement statements and invoices it receives from SPP for its activity in the IM. Additionally, Empire has a comprehensive process in place to verify meter data with internal and external counterparties and with SPP. Furthermore, Empire has a process in place to verify all BSS are submitted to SPP, and it has a defined process in place to submit and monitor disputes with SPP.

***Determine whether Empire is diligently managing the risks associated with the IM and taking the steps necessary to maximize the possibility for success in the IM***

In order to examine whether Empire was diligently managing its risks associated with the IM in 2014, Staff issued formal discovery requests regarding Empire's procedures for determining the profitability of incremental market sales associated with the SPP IM. The actual accounting processes, calculations and strategies are very complex and highly confidential.

Staff also issued formal discovery requests regarding Empire's strategy for offering in its generating resources into the IM and bidding for the daily load necessary to serve customers. Staff examined Empire's practices for developing and updating fuel costs and variable operating and maintenance costs associated with developing its resource offers. While the details of Empire's strategies are confidential due to their competitive and market-sensitive nature, Empire has developed sophisticated strategies that allow it to manage risks (including risks of recovery of variable O&M costs and fuel cost changes) and position itself to be successful in the IM.

Staff issued several formal discovery requests regarding Empire's hedging strategies and procedures regarding the Auction Revenue Rights (ARRs) and Transmission Congestion Rights (TCRs) congestion management processes within the SPP IM.<sup>9</sup> In these responses, Empire discussed that its strategy was to self-convert all of its ARRs into

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<sup>9</sup> Auction Revenue Rights (ARRs) and Transmission Congestion Rights (TCRs) are congestion management products that allow market participants to hedge their exposure to Marginal Congestion Costs (MCCs) in the IM. ARRs are allocated to entities with firm transmission rights on the transmission system, for example, a vertically-integrated, investor-owned utility that uses its Network Integrated Transmission Service (NITS) to serve its retail load. An ARR entitles the holder to a share of revenues generated in an applicable TCR auction, or the ARR may be converted into a TCR. A TCR allows a holder to be compensated or charged for congestion between two settlement locations in the day-ahead market. ARRs (indirectly) and TCRs (directly) derive their value based on the difference between the congestion price at the source settlement location less the congestion price at the sink settlement location multiplied by the awarded MW quantity over the specific path.

TCRs in 2014. Under this strategy, Empire was successful in converting 97.9% of the ARRs which provided a 104.3% congestion hedge to offset the day-ahead congestion exposure of the day-ahead load for 2014. Empire is also actively involved in the monthly TCR auction processes as needed. The strategies Empire uses appears to have been successful as the value provided by the self-converted TCR's covered all of Empire's realized day-ahead congestion in the IM during 2014.

Staff's opinion is that Empire diligently managed the risks associated with the IM and is taking the steps necessary to be successful in the IM.

***Determine whether Empire is utilizing the appropriate allocation factors to fairly and consistently apportion the costs/revenues of the IM between jurisdictions***

Staff issued formal discovery requests to Empire requesting a list of allocation factors used within Empire's accounting and IM software systems to allocate costs between Empire's native load jurisdictions and to separate costs between native load and off-system sales. Empire does not allocate costs to native load and off-system sales. The overall amount of market revenues provided mainly from energy and ancillary services are used to offset the generation costs of the units.

***For the months being audited in this year's ACA audit, determine whether Empire has accurately accounted for Kansas' actual share of IM costs/revenues pursuant to the provisions of the current ECA tariff***

Prior to the go-live date of the IM, Staff implemented a monthly review process to be used to monitor the IM activity of the three vertically-integrated, investor-owned electric utilities in the State of Kansas. That process involves the submission of monthly financial reports to the KCC's Utilities Division that details each company's operations in the SPP IM (KCC Monthly IM Activity Report).<sup>10</sup> These reports provide a summary-level view of how each electric utility is faring in the marketplace, by IM charge type. For example, Staff can view at a glance the amount of MWs of day-ahead or real-time asset energy Empire sold into the IM and for what total dollar amount. Likewise, the report summarizes by charge type what energy and operating reserve products Empire purchased from the IM for the month, the MWs associated, and the net dollar impact of those products. Not only do these monthly reports provide Staff the ability to monitor on a monthly basis how Kansas electric utilities are performing in the IM, the reports also serve as a useful audit tool during the ACA audit. These reports provide the foundation for reconciling the monthly IM charges from SPP settlement statements and invoices to the journal entries recorded in the company's general ledger and ultimately back to the company's ACA Application to true-up over/under recovery of actual costs.

In addition to the KCC Monthly IM Activity Report detailing IM energy and operating reserve activity, Staff also receives a monthly report from each Kansas jurisdictional

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<sup>10</sup> Empire and KCP&L each voluntarily agreed to the reporting requirements originally approved by the Commission for Westar Energy in Docket No. 14-WSEE-208-TAR (14-208 Docket). See items 15 and 16 in Attachment A of the Order Approving Tariff Revisions issued on February 25, 2014, in the 14-208 Docket.

electric utility detailing any virtual transactions undertaken in the SPP day-ahead market (KCC Monthly Virtual Transaction Report). These reports are reviewed to ensure that only virtual transactions with a legitimate hedging basis are recovered from Kansas ratepayers.

During Staff's audit of Empire's participation in the IM, Empire provided Staff with a reconciliation that documented and verified all Empire IM activity for the audited months. This reconciliation relied on the KCC Monthly IM Activity Report discussed above, weekly SPP settlement statements, and a reconciliation spreadsheet prepared by Empire that tied net general ledger accounting data for the month back to the corresponding settlement statement and KCC Monthly IM Activity Report. Staff verified the weekly settlement invoices and compared the invoice totals with those in the invoice reconciliation spreadsheet. Staff also verified Empire's IM purchase and sales amounts were as presented in the KCC Monthly IM Activity Report. Staff was also able to verify that the financial impact of the SPP statements and KCC Monthly IM Activity Report were accurately reported on Empire's general ledger. Ultimately, this data was tied back to Empire's ACA Application for the sample months reviewed in the audit.

***Determine whether Empire's participation in the IM is providing benefits to Empire's Kansas ratepayers***

To evaluate whether Empire's participation in the IM provided benefits to its Kansas customers in 2014, Staff issued formal discovery and examined other anecdotal data. This information suggests Empire's participation in the SPP IM produced benefits for Kansas ratepayers in 2014. At the highest level, Empire's total ECA eligible costs were \$7,862,811 for the ACA year ending October 31, 2014. This is \$1,041,218 (15.26%) more than the 2013 ACA period. However, kWh delivered to Kansas during this period increased by 13.73%. Therefore, the total fuel and purchased power per kWh was only 1.21% higher than the same time period in 2013. This is impressive considering that this occurred during a period in which the average on-peak, day-ahead, spot price of electricity increased 18% in the SPP region.<sup>11</sup>

The SPP has estimated that the IM has provided a net benefit to the region of \$210 million over the twelve-month period from April 2014 to March 2015. Staff issued formal discovery requesting whether Empire had prepared an estimate of the overall cost to serve its retail customers during the year 2014 under the IM versus the costs to serve retail customers with company generation if the SPP Energy Imbalance Service (EIS) market was still active. In response, Empire provided a simulation using a back-cast PROSYM model, running each month from March 1, 2014, through December 31, 2014. The model estimates the net cost of fuel and purchased power to supply native load using Empire-owned generation. Unit availability, cost of fuel, renewables output, and actual load are inputs to the model, and the results were analyzed and adjusted to include costs which would be present in both scenarios. The results showed that by participating in the IM, Empire reduced costs by an estimated 3.33% from inception of the IM through the end of 2014.

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<sup>11</sup> Annual SPP State of the Market Report, delivered to FERC Commissioners March 19, 2015.



Based on the data that Staff has observed regarding Empire's overall cost to serve its load after the implementation of the IM and the modeled results that Staff has observed from both SPP and Empire, Staff is convinced that the IM is benefitting Empire's Kansas customers.

**RECOMMENDATION:**

Staff recommends that the Commission approve Empire's ACA factor of \$0.00145 per kWh. Staff will continue to monitor Empire's performance and participation in the IM and will provide period updates to the Commission regarding this issue as often as desired.

## CERTIFICATE OF SERVICE

15-EPDE-228-ACA

I, the undersigned, certify that a true and correct copy of the above and foregoing Notice of Filing of Staff's Report and Recommendation was served via electronic service this 29th day of March, 2016, to the following:

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/s/ Vicki Jacobsen

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