

## **Appendix A - Staff's Analysis of The Empire District Electric Company**

### **Introduction:**

On June 5, 2019, the Commission directed Staff to begin an investigation into the self-commit and self-scheduling practices of Missouri's investor-owned utilities ("IOU").<sup>1</sup> The following report documents Staff's analysis and conclusions based on the information provided by The Empire District Electric Company ("Empire").

### **Empire's Operation Strategy:**

At Staff's request, Empire provided the general reasons behind its decisions to self-commit its power plants. Staff found that the explanation provided was consistent with Staff's understanding of typical industry practices within the integrated marketplace.

Empire stated as follows:

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<sup>1</sup> EW-2019-0370, "Order Opening An Investigation of Missouri Jurisdictional Generation Self-Commitments and Self-Scheduling"

[illegible]

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2\*\*

Empire provided additional information about how unit testing impacts commitments.

Empire further stated as follows:

[illegible]

<sup>2</sup> Empire District Electric Company Response to Commission order EW-2019-0370 confidential Exhibit C.

3\*\*

[illegible]

Self-commitment of generation continues to be a concern because it does not allow the market software to determine the most economic market solution. Furthermore, it can contribute to market uplifts and low prices. Some of the reasons for self-committing may include contract terms for coal plants, low gas prices that reduce the opportunity for coal units to be economically cleared in the day-ahead market, long startup times, and a risk averse business practice

<sup>4</sup> Empire District Electric Company Response to Commission order EW-2019-0370 confidential exhibit C.

approach. Generation offers in the day-ahead market averaged almost 53 percent as “market” commitment status followed by “self-commit” status at 30 percent of the total capacity commitments for 2018. These levels almost exactly match those in 2017, however the overall trend is still downward, as 2016 had 48 percent as “market” commitment status, and 35 percent as “self-commit” status. While the overall increase in market commitments and decrease in self-commitments highlights an improvement, self-commitments still represent over 30 percent of generation, a trend that has existed since the Integrated Marketplace began in 2014. In order to improve market commitment in the SPP market, we recommend that SPP and stakeholders look to find ways to address this issue.<sup>5</sup>

The SPP-IMM also addressed the limitation of the day-ahead market model. The SPP-IMM recognizes that self-commitment in the market may be occurring due to limitations of the day-ahead market with respect to generating resources with long minimum run times. Large coal plants are more likely to have long minimum run times. The SPP-IMM also discussed changes that are already under consideration within the SPP Market that may address some of these issues.

In its 2018 State of the Market Report, the SPP-IMM stated:

The clearing engine may see that it is economic on the first day and issue the commitment, and then in future days the resource will stay on until its minimum run-time is met even if it is uneconomic. As such, many resources that have multi-day minimum run times avoid the market clearing process and instead self-commit in the market based not on an evaluation by the market, but on their own evaluation of market conditions.

Adding multi-day unit commitment logic is at the top of the current SPP stakeholder market design initiative list and has been discussed in 2018 and 2019 in the stakeholder process. SPP staff has proposed a multi-part approach to address multi-day unit commitment. First, they have indicated that they prefer to provide a multi-day forecast of prices or schedules as it would be quicker, easier, and less expensive to implement. The multi-day forecast would serve to provide information to aid market participants that self-schedule to do so in periods that would be more favorable for their resources and for the market. Second, SPP staff has indicated that after the multi-day forecast was made available, they would consider developing a multi-day unit commitment process. The MMU [Market Monitoring Unit] is currently in the process of reviewing the SPP staff proposal to provide multi-day forecast information. At this time, it is not clear if the benefits of this approach outweigh costs and concerns.<sup>6</sup>

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<sup>5</sup> <https://www.spp.org/documents/59861/2018%20annual%20state%20of%20the%20market%20report.pdf> pg. 5

<sup>6</sup> State of the Market 2018 Report, Pgs. 243-244.

**Staff Analysis:**

Staff's task was to investigate whether the self-commit and self-scheduling practices of Missouri's investor owned electric utilities benefit their ratepayers.

It is important to take into account the entire bid when evaluating the revenue in excess of generation costs. Each variable a utility changes in its unit offer curve that is not tied to physical constraints or realities can and will influence the amount a unit may be dispatched above the self-commit economic minimum and thus impact the revenue in excess of generation costs.

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Generation Facility	Ownership	%	<div><div><div><div><div>Name</div><div>Plate</div><div>Capacity</div><div>[MW]</div></div></div></div></div>				Source
			2016	2017	2,018		
Iatan	Owned	12	210.47	210.47	210.47	FERC Form 1	
Plum Point	Owned	7.52	50.00	50.00	50.00	FERC Form 1	
Plum Point	PPA	7.52	50.00	50.00	50.00	FERC Form 1	
Asbury	Owned	100	212.80	212.80	212.80	FERC Form 1	

Table 1: Empire Coal Plants

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**Conclusion:**

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