Western Area Power Administration, Desert Southwest Region
Energy Imbalance Markets in the West Discussion
July 15, 2019
Phoenix, Arizona

Intro: WAPA’s Desert Southwest region hosted a customer meeting to discuss energy imbalance options as it relates to DSW customers and entities within WAPA’s Western Area Lower Colorado Balancing Authority (WACL BA). The discussion centered on participating in an energy imbalance service, not joining a full market. Exploring options ensures continued reliable delivery of hydropower to WAPA’s diverse customer base, while seeking solutions that help us all adapting to changes in the energy landscape. VP of Power Marketing Jim Kendrick provided an introduction on energy imbalance markets in the West, followed by an open discussion on the topic with webinar participants based on the available information, as of July 15. Below is a summary of the questions, answers and comments discussed during the meeting.

QUESTIONS:

1. What is WAPA’s role in helping their customers understand more about energy imbalance markets/services?
   Answer: WAPA has put together eleven YouTube videos to help customers have a better understanding of energy imbalance markets/services. In addition, there is a lot of information online by searching EIM. WAPA will be looking to provide additional information session soon for those customers who want it.

2. Why is WAPA interested in EIM and EIS and what are WAPA’s balancing authority (BA) limitations?
   Answer: WAPA needs to identify the best path forward for the future and be prepared. Customers provided feedback that WAPA has been looking at this for 25 years and they would like to see progress. Purchasing power real-time is becoming more difficult as more trading partners join the California Independent System Operator Energy Imbalance Market (EIM). Using residual hydro capacity which is not being used to serve Firm Electric Service and supplementing with real-time purchases for balancing BA loads is most likely not an option for the future as more renewables come online.

3. A customer referenced consolidation of WAPA’s backup control centers, and expressed concern that WAPA will make a single energy imbalance decision for all its regions. Is there more than one option being considered?
   Answer: WAPA recognizes that there are geographical differences and those differences need to be taken into consideration. Both DSW and the Colorado River Storage Project (CRSP) Management Center staff clarified that no decision has been made. CRSP is still analyzing the Southwest Power Pool (SPP) Western Energy Imbalance Service (WEIS) proposal and discussing it with customers. DSW is working with Arizona Electric Power Cooperative (AEP CO), Central Arizona Water Conservation District (CAWCD), and Southwest Public Power Agency (SPPA) on a study that would look at the benefits of joining either the proposed SPP WEIS or CAISO EIM compared to how the WALC BA would operate outside of a market.
4. **If CRSP takes part in SPP WEIS, what are the customers’ options?**
   Answer: If DSW were to join either CAISO EIM or SPP WEIS, imbalances would be settled in that respective market for the WALC BA inclusive of those entities who decide to remain within the WALC BA. CRSP does not plan to make a decision to join SPP WEIS based on the results of the DSW study. CRSP will continue to analyze the SPP WEIS proposal and evaluate its energy imbalance rate structure to determine how customers would be charged if the Western Area Colorado Missouri (WACM) BA were to join SPP WEIS.

5. **Please explain the last bullet point on page 6 of the PowerPoint presentation regarding WAPA’s Sierra Nevada (SN) region considering CAISO’s EIM.**
   Answer: WAPA’s SN region is studying the option of joining CAISO EIM. No decision has been made regarding the SN region’s participation.

6. **Why did WAPA select SPP as the Reliability Coordinator (RC)?**
   Answer: Being a member of the SPP RC allows WAPA the ability to have more input on policies and procedures that affect us. Taking RC services from SPP should render no change to our customers.

7. **Will there be a discussion on dynamic signaling for CRSP customers? A customer asked WAPA to look at modeling Glen Canyon as a dynamic resource.**
   Answer: Deferred to CRSP representatives to follow up directly with requestor.

8. **What are the cost savings if WACM BA joins SPP WEIS? What footprint is included in the $9.5M cost for the SPP WEIS proposal?**
   Answer: The $9.5M is the total cost for the entire footprint of the entities to which SPP sent the WEIS proposal. This cost would be recovered over an 8-year period. Cost savings are expected to vary.

9. **What is SPP’s critical mass criteria?**
   Answer: The more participation, the less cost to each entity. SPP and prospective WEIS customers will need to evaluate whether they move forward based on the number of commitments received later this year.

10. **Which entities are evaluating SPP WEIS?**
    Answer: WAPA and some of the other 17 entities to which SPP sent the initial proposal.

11. **In the end, is it correct to say WAPA’s BAs will join EIM or EIS?**
    Answer: WAPA does not believe the status quo is an option.

12. **Does the unacceptability of the status quo apply to WAPA DSW or the entire WAPA organization? Please clarify.**
    Answer: WAPA’s SN region and sub-BA will continue to study participation in the CAISO EIM. CRSP/LAP and UGP West will continue to study the SPP WEIS and coordinate with their customers. DSW will participate in the study looking at SPP WEIS and the CAISO EIM.

13. **What is the $9.5 million for in the SPP WEIS proposal?**
    Answer: The $9.5M represents SPP WEIS start-up costs, which will be recovered over an 8-year period. If all 17 entities decide to participate in the SPP WEIS, WAPA estimates its share to be
approximately $300K. WAPA’s Rocky Mountain (RM) region is roughly 3-percent of the total SPP WEIS projection, and the CRSP and LAP projects are 7-percent of the WACM BA.

14. **What feedback has WAPA received from CRSP Utah customers?**
   Answer: Based on initial discussions they are supportive of the SPP WEIS proposal.

15. **Can customers have access to the SPP agreement?**
   Answer: If you request a copy, WAPA will provide it.

16. **Does WAPA believe it needs to act now for CRSP and LAP regarding the SPP WEIS proposal, and not wait to sign up at the six-month interval after the service is stood up?**
   Answer: That is a fair statement.

17. **When looking at the options, what part of Western transmission capability are you talking about?**
   Answer: As part of the study that DSW is participating in with AEPCO, CAWCD and SPPA, we are looking at the transfer capability between WACM and WALC. The full study will look at benefits of joining either the SPP WEIS or CAISO EIM compared to how the WALC BA would operate outside of a market. We are currently working on the non-disclosure agreement and we are projecting study results sometime in the spring.

18. **Customers are concerned about non-disclosure agreements (NDA) and the ability to get information regarding the DSW study. How is WAPA addressing this concern?**
   Answer: WAPA took customer concerns into consideration while working on the draft NDA for the DSW study. We are confident that we will be able to share information with our customers, and that only confidential data will be precluded from sharing.

19. **How will DSW customer interests be covered in the proposed study?**
   Answer: DSW plans to work with customers as the study moves forward. Argonne National Lab will be assisting DSW with the study. WAPA will share details of the study in collaboration with other study participants.

20. **Is it correct to say no decision will be made until the DSW study is done?**
   Answer: CRSP’s decision is not dependent upon the study in which DSW is participating. DSW plans to conduct the study, complete necessary internal analysis, and work with the customers to focus on finding solutions.

21. **Will there be another CRSP meeting to discuss the SPP WEIS proposal?**
   Answer: CRSP plans to conduct one-on-one outreach and will host a meeting in Phoenix soon. *(Note: The meeting was scheduled and held on Aug. 1, 2019).*

22. **Is the study going to look at certain generators and individual resources from the EIM?**
   Answer: The study is being conducted by E3. Study participants will provide E3 with market participation assumptions related to the CAISO EIM and SPP WEIS. The study will be similar to previous studies conducted by E3, but there is always the option to delve deeper into specific aspects if needed.

23. **Will units be dispatched by markets or self-scheduled?**
Answer: Some hydro units will be self-scheduled but options may be available for other units. Ultimately, hydro units will continue to be governed by generation output requirements, regardless of which market footprint they reside.

24. **What is the timeline on the DSW study?**
   Answer: DSW plans to start study work this fall, and results are anticipated in spring 2020.

25. **A customer requested an educational meeting or two regarding CAISO EIM and SPP WEIS options and training for customers.**
   Answer: Staff are unsure if CAISO and SPP would have the in-depth knowledge of WAPA and its customers to provide such training. DSW staff will look at opportunities to provide more detailed information for customers.