

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF COLORADO
PROCEEDING NO. 16I-0816E

IN THE MATTER OF THE COMMISSION'S INTEREST IN THE ACTIVITIES OF THE
MOUNTAIN WEST TRANSMISSION GROUP

ENERGY FREEDOM COLORADO
COMMENTS ON WHOLESALE MARKET OPTIONS FOR COLORADO UTILITIES

Energy Freedom Colorado (EFCO) is a non-profit, volunteer organization that researches and advocates for more competition in the electricity sector, both wholesale and retail competition [1]. We appreciate that the Commission is providing a transparent public forum for investigating all of Colorado's options for participation in wholesale electricity markets and/or a Regional Transmission Organization (RTO).

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1. SUMMARY

It was clear from the fifth Commissioners' Information Meeting (CIM) of March 20, 2018, that reliability coordination and development of regional wholesale markets in the Western Interconnection can proceed in a variety of possible ways.

EFCO suggests that the Commission can best support the interests of Colorado ratepayers, as well as the future evolution of the Western Interconnection, by fully

exploring the costs and benefits of the available regional market alternatives. If a superior approach becomes clear, then the recommendations of the Commission and other Western stakeholders should carry great weight, and would hopefully be irresistible to the Mountain West Transmission Group (MWTG) and other interested Western utilities.

This Comment presents information, arguments and "food for thought" that represent EFCO's position and is intended for consideration by the Commissioners, members of the MWTG, and other potentially-interested Western utilities and Western stakeholders. We believe that the impact of this decision on the entire Western Interconnection is far too large and long-term to be determined by the MWTG alone, with only the interests of the member utilities in mind, and based upon their decision made prior to the existence of the new market options.

We fully support the thoughtful comments of Western Resource Advocates (WRA), Western Grid Group (WGG), and Natural Resources Defense Council (NRDC), collectively called the "Joint Commenters" [2]. Those comments provide a logical roadmap and specific suggestions for evaluating the market alternatives both quantitatively and qualitatively. We also recommend herein several additional factors that merit consideration when evaluating the market alternatives.

Finally, we recommend conducting a CIM with presentations by invited experts and independent thought leaders who possess broad and deep knowledge of studies and ideas about Western Grid Integration, to provide us with a high-level view that encompasses the long-term future of the Western Interconnection.

2. OPTIONS FOR WHOLESALE MARKETS

The wholesale market options described below range from full RTO membership in SPP from the start, to increasing levels of participation in the western Energy Imbalance Market toward possible eventual membership in CAISO, to options for new

Western regional markets that include the Peak/PJM offering, or association with Nevada and its on-going evaluation of its own wholesale market options.

1. Full membership in SPP from the start, as proposed by the MWTG [3].

2. Step-wise increasing involvement with CAISO [4,5], in the following order:

a. Join the growing Energy Imbalance Market (EIM). This is a low-cost, low-risk approach with immediate financial benefits, and the options remain open for further involvement with CAISO or a complete change of direction.

b. Expanded EIM to include day-ahead markets (EIM+). This is also a low-cost, low-risk option (no exit fees), with much greater financial benefits. Governance is under the EIM structure (not CAISO RTO governance), which seems broadly acceptable to diverse states. The timeline for implementation is similar to the MWTG initiative.

c. Full membership in CAISO eventually. This remains an "upgrade" option for the future, if CAISO governance becomes less vested in the California legislature. However, other RTO options may be available by that time, or the EIM+ may serve our needs well.

3. New RTO options in the Western Interconnection.

a. Peak/PJM offering [6,7]. These partners bring expertise in both reliability and markets. They intend to offer a lower-cost solution for reliability coordination and stakeholder-determined market design and governance design. Therefore, the Peak/PJM solution has promise for superior governance and market design if best-practices and lessons from history are adopted. Details on costs, exit fees, timeline and other matters remain unknown, but are promised soon.

b. Other, including Nevada + SPP (not discussed at the 5th CIM). The Nevada Committee on Energy Choice (CEC) is also evaluating their wholesale market options. SPP presented to the CEC on August 8, 2017, where they described a possible alternative to joining an existing RTO (either SPP or CAISO), by forming a new Western RTO and hiring SPP to design the markets (similar to PJM's role in the Peak/PJM proposal) [8, page 14]. Therefore, another option might involve setting up a new Western RTO that initially consists of interested MWTG members

plus Nevada and any other interested Western utilities, with markets set up by SPP. Note that all CEC presentations and meeting recordings are available on the CEC webpage [9]. Also, a quite interesting historical overview of the development of wholesale markets, given by former FERC Commissioner Marc Spitzer, was presented orally on March 7, 2018 [10, at time 28:00].

3. FACTORS TO CONSIDER WHEN EVALUATING THE MARKET OPTIONS

This section describes several factors that merit consideration and comparison among the available market options.

- **Market types**. EFCO considers it to be a positive factor that SPP has only energy and ancillary services markets but not a capacity market, and that Peak/PJM does not plan to have a capacity market initially, and presumably the EIM+ will not have one. Demand, and therefore future resource needs, has proven more difficult to predict than in the past, and future resource planning may need to be more flexible and adaptable, and driven by market forces. ERCOT attributes billions in ratepayer savings to their avoidance of a capacity market [11]. Also, from Energy Innovation: *"Markets can reward flexibility by moving money **out of capacity markets** that only reward peak capacity and keep unneeded inflexible capacity online, and instead modify rules in energy and ancillary services markets to raise revenues for resources that can adjust rapidly."* [12]
- **Governance**. SPP's insular governance model, with voting power vested only in generation and transmission owners, as well as its decision-making being consensus-driven rather than more democratic across many stakeholder groups, is a recipe for maintaining the status quo at a time when adaptability to a changing energy landscape is needed. We feel that additional stakeholder groups need more influence; these groups include independent power producers and renewable generators, consumer and environmental advocates, and state Commissions. The EIM (and EIM+) governance structure collaborates with, but is independent of CAISO, and seems to have broad and open stakeholder input and is broadly accepted by utilities in diverse states. The Peak/PJM model has great promise to

be designed by the participating jurisdictions to meet the needs of the West and the future, but the model is not known at this time.

- **Membership costs and terms**. EFCO concurs with comments made orally at a previous CIM by WRA, as well as comments in a disclosed meeting with Commissioners by NRDC [13], that high annual membership fees and extraordinarily high exit fees pose an insurmountable barrier to meaningful participation in SPP decision-making by not only these groups, but also by any non-owners of assets, including third-party developers and consumer advocates. The EIM and EIM+ options are low-cost with no exit fees, and therefore are low-risk options. Furthermore, the EIM governance structure promotes broader stakeholder participation. The Peak/PJM proposal is aiming for lower costs, but details of the costs and governance are not yet known.
- **Adaptability**. The future of our electrical system will likely be quite different from the past: the mix of energy sources is changing; technology is improving; major new subsectors like electric vehicles and energy storage will increase in importance; there will be more generation, demand management and asset aggregation at the distribution level; etc. Furthermore, these changes will occur on difficult-to-forecast timescales. These factors are fundamentally important when choosing the best wholesale market scenario for Colorado (and the West), because the choice must be flexible and responsive enough to allow for effective adaptation to these changes. Therefore, it is important to consider the governance structures and other factors of the available market options in terms of their Adaptability. EFCO feels that the SPP governance structure described above is inherently more suited to maintaining the status quo than to adapting to rapid change, while the EIM+ option engages more stakeholders and seems more amenable to change, and the Peak/PJM option (or any new market or new RTO option) inherently has more promise if designed with Adaptability in mind.
- **"Values and Culture"**. While we don't explicitly define these terms here, a Western market or RTO is inherently closer to "Colorado culture" than an Eastern RTO headquartered in Arkansas. While all of the available market options are

adding more renewable energy to their systems as a response to market forces, the options are less equal regarding values-based motivation to decarbonize their systems. Colorado was the first state whose citizens voted for a Renewable Portfolio Standard (in 2004), and both state-level and consumer pressure for more renewable energy is strong here. SPP has even more fossil generation than Colorado does, and SPP shows little inclination to retire their coal generation early, while California is a leader in the renewable energy transition and has a clean energy future clearly mapped out [14]. EFCO feels that "values" are a legitimate factor for the PUC to consider when evaluating our market choices.

- **Electrical connectivity**. The SPP option differs from the other options that are all within the Western Interconnection in that there is no in-phase (AC) electrical connectivity, only 4 DC-ties. Furthermore, the East has more experience with relatively short transmission lines that are generally thermally constrained, while the West has more long-haul transmission that is generally congestion constrained. A Western entity would clearly have a lesser "learning curve" for managing the Western grid. Differences between SPP and MWTG are substantial enough that a high-level distinction between "SPP East" and "SPP West" was introduced to accommodate MWTG membership, including distinctions regarding cost allocation rules, intermittent generation rules, and the unique need for two balancing authorities within a single RTO, suggesting that SPP and MWTG are not natural partners. We also note that the DC-ties connecting East and West can still be used more efficiently by mutual agreement, even without joining SPP.
- **Retail choice** ("restructuring") may be coming to Colorado, sooner or later, because monopolies on generation can no longer be justified given the success of retail competition in many other states [15,16]. Monopolies and the associated "perverse incentives" of the cost-of-service utility model are at odds with a more distributed, more innovative, and less capital-intensive grid of the future. The possible implications of retail restructuring should be considered when making a wholesale market or RTO decision, given the long time horizon.

4. WHAT MIGHT MOUNTAIN WEST'S PERSPECTIVE BE?

The perspective of the MWTG members regarding the evolving suite of alternatives that have developed since they initiated their proposal to join SPP is unknown, yet highly relevant. Will utilities be open to considering new and possibly superior options? Will they consider more than just what is best for MWTG, and also consider what is best for ratepayers, for other stakeholders in Colorado and neighboring states, and even what is best for the future of the Western Interconnection as a whole?

The following observations and questions are related to the possibility of MWTG members rethinking the RTO situation in light of the new and competing alternatives. These are relevant considerations not only for the Mountain West members, but also for other Western utilities, and for the Commissioners of Colorado and other states:

- MWTG's hard work to develop a common transmission tariff – the early goal of the group – is already done. This work remains relevant regardless of the market option that is ultimately adopted.
- Mountain West is not a monolith. SPP was chosen because it was the only option at the time that all members could get behind, but no doubt each member has their own perspective on that choice. It would be logical to assume that internal differences exist and realignments are possible, as are potential new members, in response to the new options and new understanding of the SPP option. Are the new options worthy of new internal discussion within companies and between the MWTG members, as well as broader discussion with potential new members, other stakeholders, and with forward-thinking Western Grid Integration experts?
- Can the MWTG members see the forest for the trees? Much effort has been invested in the SPP option by individuals and departments whose job it is to bring their choice to fruition. Can some of the members step back and see the big picture, and consider the alternatives from a broader perspective, and if warranted, break from the past to pursue a potentially superior vision of the future for both their companies and others?

5. COMMENTS ON THE COMMISSION'S AUTHORITY IN THIS MATTER

EFCO has minimal legal expertise, and therefore, we cannot quote relevant statutes and precedents as perhaps others can. However, we make the following "common sense" argument that the Commission may have far more authority than does FERC, where FERC can only approve or deny a request based on a "just and reasonable" criterion.

- MWTG members are businesses that are free to enter into voluntary markets or an RTO (subject to FERC approval, and to PUC approval for the regulated members). However, MWTG's decision will directly impact others far beyond their membership. Those affected deserve some consideration, especially if the impacts are negative or even if sub-optimal.
- Within MWTG territory, a few of the impacted stakeholders include: all ratepayers (residential, commercial and industrial); the Commissioners (regarding governance and the ability to represent Coloradans' interests); third-party developers and suppliers of electricity (regarding their competitive opportunities); and environmental and consumer advocates (regarding their influence or lack thereof).
- The MWTG decision will also fundamentally affect the evolution of the entire Western Interconnection, including how it is governed, the economic efficiency of its operation, and the manner and effectiveness of renewable energy integration. Since FERC can only say 'yay' or 'nay', the burden of deciding whether a given path is or is not the best available path for the future of both the states and the Western Interconnection lies primarily in the hands of state Commissions. It is important to investigate forward-thinking visions of where our electricity system is (or should be) headed, and choose the best market structure to enable the best path forward.

We hope that the Commission or others can identify a solid legal basis for the argument that the Commission has the authority to represent the interests of diverse stakeholders, especially within Colorado, but hopefully also in conjunction with other state Commissions, to steer the path of Western Grid Integration and markets in the best direction.

6. RECOMMENDATIONS FOR NEXT STEPS BY THE COMMISSION

We offer the following suggestions as possible next steps by the Commission for consideration of organized wholesale markets in the West:

- The WRA/WGG/NRDC ("Joint Commenters") filing of March 12, 2018 [2] offers many thoughtful and constructive suggestions of questions to be answered, studies designed to answer those questions, and additional qualitative factors that merit consideration when evaluating the available market options. EFCO believes this is a valuable contribution, and we place the Joint Commenters' recommendations at the top of our own list of recommendations.
- We need to understand and compare the financial costs and benefits, the governance structures, and the approach to reliability and seams issues for all of the options, in a way that allows apples-to-apples comparisons.
- An assessment of the Adaptability of each option is needed, to better understand how each option would respond to the rapidly evolving energy landscape and energy technology (including software).
- It may be fruitful to appoint a liaison between the Commission and the Nevada Committee on Energy Choice (CEC) to learn about their perspective and possibly coordinate on the evaluation of wholesale market options, as we are both asking many of the same questions.
- **A CIM with presentations by experts on Western Grid Integration** would provide the Commissioners and the public with meaningful input from the perspective of independent experts, energy thought leaders, and/or consumer and environmental advocates. Such experts may have insights about markets and RTOs that most of us lack. They could give us a perspective that differs from that of directly vested interests, and they could broaden our perspective on the possible futures of the Western Interconnection. A few such experts, offered as "food for thought," include:
 - Rebecca Johnson - Transmission Advisor at WAPA, and former Colorado PUC Staff member.

- Sonia Aggarwal - VP at Energy Innovation and Director of America's Power Plan.
- Rebecca Wagner - Former Nevada PUC Commissioner, currently working on regional grid expansion issues.
- Jon Wellinghoff - Former FERC Commissioner; strong advocate of wholesale markets.
- Doug Larson - Formerly ran Western Interstate Energy Board (WIEB), and a consultant to Energy Foundation.
- Travis Kavulla - Montana PUC Commissioner, known for being "plain spoken."

Note: Contact information and biographical links are available upon request.

7. CONCLUSIONS

Market and/or RTO membership is a decision with enormous long-term consequences. Given the potentially large impact of any market choice on ratepayers, other stakeholders, and the future of the Western Interconnection, the decision should not be made by MWTG alone.

It is appropriate to invest the time and consideration needed to identify the optimal market/RTO choice. We ask the Commission to take the time required to fully consider this matter, and continue the transparent process of evaluating the available market options in a way that they can be compared.

A solid next step for the Commission would be to pursue the recommended cost/benefit studies and the questions posed by the Joint Commenters. EFCO also recommends that the Commission host a CIM designed to elicit the perspectives of independent experts and thought leaders on Western Grid Integration.

Colorado needs a market choice that is adaptable to the on-going change in the energy sector, and a choice that will position ratepayers and other stakeholders to prosper in the future. We should think big about optimizing the Western Interconnection, and about Colorado's role in its evolution.

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