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

Compelling Reasons to Expand this Docket

comments respectfully submitted to the Commissioners by

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SUMMARY

SPP is not our only RTO choice, and may not be the best way for Coloradans to obtain the regional transmission and competitive wholesale markets that are essential for a 21st century electricity system.

RTO membership is a huge and probably permanent decision, so we better get it right. But how can we possibly get it right if MWTG's process has been opaque and there has been no discussion at the PUC of other RTO options nor of lessons learned by RTO states?

All other Western utilities considering an RTO are looking toward CAISO, and none toward SPP.
We must ask why!

Selected conclusions from below: 1) Colorado's values are more closely aligned with California than with Arkansas; 2) Nevada's on-going stakeholder process has many lessons we could take; 3) SPP is a bad fit for Colorado on multiple counts; 4) We should ask experts which RTO solution is best for Colorado (as opposed to best for MWTG); and 5) The bigger picture of on-going Western grid regionalization demands our attention and analysis before we make an RTO decision.

The current informational docket is too narrow. The Commissioners deserve to hear meaningful input from independent experts, energy thought leaders, and consumer and environmental advocates about current Western grid regionalization efforts. From a notable white paper on Western grid integration [1]:

"Activities underway in the Interconnection will shape the direction of the industry for the next 50 years and are critically important to develop a solid foundation for future progress."

A broader investigatory docket is called for. The purpose could be to characterize a 21st century electricity system that is appropriate and advantageous for Colorado, or at a minimum, to fully investigate our RTO options. The docket should include a transparent stakeholder process, expert testimony and workshops, and public input, with the aim of setting Colorado on a course toward the high-renewables, economically-efficient, distributed energy future that we need.

The RTO decision will have too great an impact on Colorado to be made by MWTG alone.

IMPORTANT QUESTIONS

Why is everyone else in the Western Interconnection who is considering an RTO looking toward CAISO?

Those entities include: *PacifiCorp; NV Energy; Arizona Public Service; Idaho Power; Portland General Electric; Puget Sound Energy;* and others in progress [2,3]. Perhaps MWTG's investigation of CAISO, which it initially favored, terminated too early (i.e., they're a victim of bad timing).

If there will be a multi-state Western RTO (as CAISO expands), don't we want to be part of it? If it existed today, surely we would join. Most Western states are already represented in the CAISO EIM [2,3]. I'm told by a knowledgeable insider that CAISO expansion is likely to proceed in 2018 as the Governance issues in California get worked out. Let's not let a timing issue of a year or two control our entire energy future.

Whose values align better with Colorado's, SPP or CAISO, Arkansas or California? SPP has even more fossil generation than we do, and shows little inclination to get rid of their coal. California is a leader in the renewable energy transition, and has a clean energy future mapped out [5]. Colorado was the first state whose citizens voted for a Renewable Portfolio Standard (2004). Clearly, Colorado values are more aligned with California's than Arkansas's. "Values" should influence the PUC's thinking about the RTO choice.

Why is Xcel driving the SPP option in particular? Surely it's profit-motivated, which is fine, but the PUC must look out for citizens to ensure that decisions are in our interest too. It's interesting to note that Xcel recently got into transmission development in SPP territory [6], which sounds profitable but not necessarily a good reason to go with SPP from a Colorado consumer's perspective. The PUC and the public need to hear from independent grid experts and consumer advocates who may have insights about the RTO choice that most of us lack.

Is a new Western RTO a viable option? Mountain West says 'no' because it would be too expensive, but of course that's the only possible answer if one considers only the "cost" portion of a "cost-benefit" analysis. Are there long-term benefits from a second Western RTO that might exceed the additional start-up costs? Let's ask some experts in a transparent process, rather than guess or ask only Mountain West. We would certainly have more influence on Governance in a new RTO than the small role we would have in SPP.

LESSONS FROM NEVADA'S ON-GOING PROCESS

- **Nevada's "Governor's Committee on Energy Choice" has a broad and transparent stakeholder process** to deeply investigate their options for a 21st century electricity system, including both wholesale markets and retail choice. They are inviting input from utilities, RTOs and market operators, other states' Commissioners, business representatives, environmental groups, the PUCN, and importantly, the public. All presentations and meeting recordings are available on their webpage [7], which Commissioners may wish to skim to see clearly how relatively minimal our process has been so far.
- **Suggestion #1: Let's embark on a thoughtful evaluation of Colorado's energy future**, or at least of our RTO options. The Nevada Committee has asked the PUCN to open a parallel Investigatory Docket with hearings and workshops to produce *"a comprehensive product that has been developed from a wide array of diverse perspectives."* [8].
- **Suggestion #2: Ask PUC Staff to produce an overview of Nevada's process and findings-to-date**, and keep an eye on their meetings and website as the proceeding evolves. The purpose would be to inform Commissioners about a good process for determining the best RTO decision.
- **For organizational insight and ideas**, please see reference [9] for a bullet point summary of Nevada's committee-assigned issues to be investigated.
- **SPP suggested that Nevada could hire them to set up a new wholesale market**, as an alternative to joining an existing RTO [10, page 14]. This suggests the possibility that MWTG (and Nevada?) could form the core of a new Western RTO and leverage SPP's experience to set it up.
- **Retail choice may be coming to Colorado too**, sooner or later, because generation monopolies can no longer be justified given successful retail competition in many other states [11]. Monopolies and associated perverse incentives are also at odds with developing a high-renewables, richly distributed grid of the future that is more transactional than capital-intensive. We should consider the possible implications of retail restructuring when making our long-term RTO and wholesale market decision.

REASONS WHY SPP IS A BAD MATCH FOR COLORADO (and/or CAISO may be better)

- **Energy import vs export.** Colorado's economic interests may be harmed by providing SPP with 20% more load, making Colorado an electricity importer. We have copious renewable resources and we should aim to become an electricity exporter rather than importer. There is little market for Colorado exports to the East because Eastern load centers are on the far side of SPP, but there is a large amount of demand for renewables to our West in California. We would obviously prefer energy dollars to flow into our state than out

of it. An RTO situation that promotes renewables generation within Colorado is also good for jobs and economic development. A key point: What's best for MWTG may not be what's best for Colorado.

- **Topological differences.** The East has experience with short transmission lines; the West with long-haul transmission. Eastern lines are generally thermally constrained; Western lines are more congestion constrained. Who would best manage our portion of the Western grid, an Eastern entity or a Western entity?
- **The Interconnection seam.** There is no in-phase electrical connection to SPP, only four DC ties (which sounds like a recipe for building lots of profitable new transmission, unfortunately mainly for imports). Differences between SPP and MWTG are substantial enough that a high-level distinction between "SPP East" and "SPP West" must be made, including cost allocation rules, intermittent generation rules, and the unique need for two balancing authorities within a single RTO [4]. SPP and MWTG are not natural partners.
- **Duplication of Reliability Coordination.** Peak Reliability must continue to oversee the entire Western Interconnection because the wide-area view is essential, yet SPP would also need to perform that function.
- **Colorado citizens and state policies demand a cleaner grid.** SPP has even more coal than we do, and doesn't show any sign of dumping it via markets as is happening in other Eastern RTOs that have unbundled their vertically-integrated IOUs. Joining SPP may harm our decarbonization efforts, whereas joining CAISO would enhance them.

CONCLUSION — A PROPOSED INVESTIGATORY DOCKET

RTO membership is a decision with enormous long-term consequences, so we better get it right.

Obviously this is impossible if we consider only the one proposal put forward by the vested interests. The above facts and reasoning hopefully provide a sufficient case that Coloradans deserve a full airing of our RTO options and, more generally, of what shape our 21st century electricity system should take.

Proceeding with the Mountain West proposal seems premature until we hear from independent experts on Western Grid Integration. We also need to hear from energy thought leaders and consumer advocates, and from the other Western entities that are pursuing membership in CAISO rather than SPP.

Please expand the current docket, or initiate a new investigatory docket to explore all of our RTO options and the bigger picture of Colorado's energy future. This is a bigger decision than MWTG alone can make on our behalf.

Although joining SPP would probably be better than nothing, it might entrench us in the past rather than position us to prosper in the future. Let's think bigger about optimizing the Western Interconnection and about Colorado's possible major role in its evolution.

Granted, this would be a major undertaking, accomplishable only by Hero Commissioners! The PUC's leadership is critical, given the tremendous long-term impact of this decision for Colorado and the rest of the Western Interconnection.

Thank you for your consideration!

REFERENCES

[1] *Grid Integration in the West: Bulk Electric System Reliability, Clean Energy Integration, and Economic Efficiency*, Rebecca Johnson – Hewlett Foundation (July 2015).

<http://americaspowerplan.com/wp-content/uploads/2015/08/Grid-Integration-in-the-West-07-19-15-Updated.pdf>

[2] *Transmission developers power forward in West as move to single market inches along*, Herman Trabish - Utility Dive (10/12/2017). Describes the status of Western Grid Integration today.

<http://www.utilitydive.com/news/transmission-developers-power-forward-in-west-as-move-to-single-market-inch/505687/>

- [3] *CAISO Expansion in Question as EIM Grows*, Robert Mullin - RTO Insider (10/7/2017).
<https://www.rtoinsider.com/caiso-eim-2017-36294/>
- [4] *Mountain West Transmission Group (MWTG) Introduction and Process*. Presentation to SPP and MWTG Stakeholders (10/13/2017).
<https://www.spp.org/Documents/53883/SPP-Mountain West Stakeholder Presentation.pdf>
- [5] *Electricity 2030: Trends and Tasks for the Coming Years (Discussion Paper)*, CAISO (October 2017).
<http://www.caiso.com/Documents/Electricity2030-TrendsandTasksfortheComingYears.pdf>
- [6] *Xcel Energy CEO: Competitive projects will be “icing on the cake” for transmission strategy*, Jennifer Delony – Transmission Hub (1/29/2015).
<http://www.transmissionhub.com/articles/2015/01/xcel-energy-ceo-competitive-projects-will-be-icing-on-the-cake-for-transmission-strategy.html> (requires login; PDF available upon request)
- [7] *Nevada Governor's Committee on Energy Choice*.
<http://energy.nv.gov/Programs/TaskForces/2017/EnergyChoice/>
- [8] Nevada Committee - *Request for PUCN Investigatory Docket*.
<http://energy.nv.gov/uploadedFiles/energynvgov/content/Programs/TaskForces/2017/EC Request For Investigatory Docket.pdf>
- [9] Nevada Committee - *Questions and issues on wholesale and retail markets to be investigated*.
http://energy.nv.gov/uploadedFiles/energynvgov/content/Programs/TaskForces/2017/Technical Advisory Committee Workstreams_Issues Assigned by Chairman.pdf
- [10] Nevada Committee - *SPP presentation*.
http://energy.nv.gov/uploadedFiles/energynvgov/content/Programs/TaskForces/2017/8_8_2017_Agendalte m5 Southwest Power Presentation.pdf
- [11] *Why restructure monopolies?* Energy Freedom Colorado - a group researching competitive wholesale and retail electricity markets in Colorado.
<http://energyfreedomco.org/why-restructure.php>

ADDITIONAL RESOURCES

Jerry Brown and Warren Buffett Want to Rewire the West, Sammy Roth - The Desert Sun (2/1/2017). Good overview of CAISO expansion.
<http://www.desertsun.com/story/tech/science/energy/2017/02/01/caiso-pacificcorp-california-solar-wind/96201888/>

Considerations in Establishing a Western Regional System Operator, Ronald Binz – Hewlett Foundation. California Energy Commission docket 16-RGO-01 (4/29/2016).
http://docketpublic.energy.ca.gov/PublicDocuments/16-RGO-01/TN211283_20160429T073623_Considerations_in_Establishing_a_Western_Regional_Grid_Operator.pdf

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