

Submitted by email, 2.27.2024:

Here are some reactions and comments for your consideration:

- You intend to roll up current transmission work, referencing utility Order 1000 planning , CCPG and any independent plans. What about prior work and prior experience? The energy office produced the REDI study, in 2009, wherein you will find a lot of information relevant to your current work. Are there other studies, reports, references that would complete a picture of where we are today? As a proud college history major, I hold that you can't understand today, much less the future unless you study history. WECC Scenario Planning, for example, shows how the GBN scenario planning process can accurately portray the future, at least across the 15 years since we were doing that work. What about the SLV transmission application and its travails at the hands of Mr. Bacon? Lots to be learned about the socio-economic impacts of bazillionaires on transmission plans. There was a plan to run a line down from Wyoming to New Mexico. Mr. Green will recall its name, memory fails me. Why wasn't it built?
- Your scope appears to only consider Colorado located resources (by the way resources should include all of them, even all those on the demand side. . .) and Colorado busbars. Why? In the 2045 future, do you think "Colorado Autonomy" will have long ago proved itself too expensive and unreliable to be the order for system planning and operations? Is it more likely that we'll be in another world by then, using resources across the region to meet regional requirements and economics? Please don't limit this study to state borders. The electric system and climate requirements don't work well with those limits long term.
- Seems heroic at best to assume that market operations won't have impacts on transmission requirements. SPP and MISO, for example, have spent millions and decades trying to master their seams inefficiencies, without substantial success. CAISO and SPP report that they have had some discussions about potential seams in the WI, but don't, so far as I am aware, take these tasks seriously or pursue them appropriately. This assumption really is heroic. If these market seams won't settle in a "decade" as Keegan claims, then the market benefits are cut in half, roughly, so how will transmission not reflect this level of market inefficiency?
- Three scenarios to capture all the complexity of a twenty year future? Really? If budget requirements are limiting the study this way, please raise more funding and consider a broad range of scenarios, not just three.
- How often have EIA AEO fuel cost projections been accurate over the last twenty years? How often will they be accurate over the next twenty years? Count me deeply skeptical about this assumption. Higher fuel assumption are prudent, since spike risks are deeply asymmetrical from a consumer perspective. Better to be wrong and too high than wrong and too low, since you will inevitably be wrong.
- Will discounting to present value be a feature in this study work? At what rates? If used, will alternative rates, including zero, be employed?
- Please compare the resource zones presented in the REDI report with those in what you claimed was "SB07-100 planning." What you showed was **not** "SB07-100 planning. What you portray is PSCo's version of these zones, which they expanded so they could get all of their transmission

into the rider that was legislated, instead of the tighter focus that was intended in adapting the CREZ model for Colorado. This bastardized outcome was noted when Alice Jackson testified in support of Power Pathways that SB07-100 was “ten years ahead of its time” (backhanded compliment?) where instead the company promised Joan Fitzgerald, Senate President at the time, to “build it and they will come” and instead delayed. In my book “later” is simply another form of “no.”

- Does the Bacon “private national park” trauma over expansion to serve SLV solar suggest that you should be mapping adjacent bazillionaire ownership as a land use constraint?
- Another land use constraint I’d like to see, in a better world than this one, is where wildlife migration corridors would impact location decisions, assuming that someday we valued those corridors. Audubon has some consideration for birds. What about large herds of ungulates? Are you familiar with the Buffalo Commons? Do you know what’s happening to the Ogallala Aquifer on Colorado’s Eastern Plains?
- Do you anticipate creating a file of comments you received and how you address them? If you want comments to be taken seriously, then have a response that addresses them. If not, then don’t.

Thanks for the recording.

Hope these comments help.

Ron Lehr

With the benefit of some additional time to think, one additional historical reference occurred to me that might be useful to consider. In 2006 or so, the WECC Seams Steering Committee—Western Interconnection of “SSIG-WI” reported work lead by Dean Perry ( <https://www.energy.gov/oe/articles/western-interconnection-2006-congestion-assessment-study> ) that showed that most western transmission pathways, including those across Tot 3 and Tot 2, were not congested most of the time. They were not available for use because of institutional factors, not physical ones, like contracted use on the pathways. So it raised the question: if congestion is so rare, why consider building more lines, if building them simply engages transmission investment to solve institutional and contractual barriers? Why not solve the institutional and contractual barriers instead, resulting in more use of existing investment? Given its raising hard questions for the industry, the data for this work quickly disappeared, as WECC, bent to the desires of its dominant utility members, decreed the data CEII, eliminating it from visibility by analysts like Dean Perry. Doug Larson led the ranting and raving against this retrograde data seclusion, that had the result of cutting off inquiry into why spend transmission investment money instead of pursuing more efficient changes, without success. Ask him about it if you want to hear the many gory details. Applied to this Colorado study, the SGG-WI work raises two questions: Will the study investigate Tot 3 and Tot 2 congestion? Will assuming SPP markets resolve transmission reservations by contract that lead to less than ideal capacity factors, or will self scheduling and RMR or other practices within the market still result in the

conundrum: firm use requirements that block maximum use, versus building around contractual and institutional constraints?

In addition, will the study investigate and build on current work on the AC-DC-AC interties from Colorado to the SPP market? Can we safely assume that the geniuses in Little Rock, CCPG, or elsewhere have this alternative fully covered?

In addition, there's a perfectly good 345 KV line that I believe CUEA (Colorado Ute) built at the time, jointly owned by PRPA, TSG&T, and Western, constructed with Ute's Craig coal generators that runs from Ault to Bonanza in Utah. Would recondelting this line and expanding its capacity provide another pathway off the "Colorado Island" along with the N (Tot 3), S (Tot 2), and E (AC-DC-AC interties) alternatives? How much interior Colorado transmission would be needed in view of the alternatives to tie Colorado better to its neighbors? Do we believe we in Colorado should be part of a transmission system bigger than a week or more of Dunkelflaute, the schadenfreude dreamland of gas advocates?