MINUTES
Regional Transmission Coordination Task Force (RTCTF)
November 15, 2023
1:30 p.m.

The Regional Transmission Coordination Task Force held a public meeting on November 15, 2023, beginning at 1:30 p.m. at the following location:

Microsoft Teams Meeting

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AGENDA:

1. **Call to order, roll call and establishment of quorum.** Chris Brooks, Chairman, opened the meeting at 1:32 p.m.

Task Force Members Present		**Task Force Members Absent**
Senator Chris Brooks	Luke Papez	Asm. Melissa Hardy
Leslie Mujica	Alise Porto	John Seeliger
Carolyn Turner	Hayley Williamson	Kostan Lathouris
Richard Perkins	Ernest Figueroa	Kris Sanchez
Mona Tierney-Lloyd	Dwayne McClinton	Pete Goicoechea
Erik Hansen	Eric Witkoski	Daniele Monroe Moreno
Jeremy Newman	Dallas Harris	
Elizabeth Becker	Carolyn Barbash	

2. **Public Comment and Discussion.** Chairman Brooks opened this agenda item. **No public comment was received.**

3. **Opening Remarks by the Chair – Chris Brooks, RTCTF Chair –** *(For Discussion)*

Chairman Chris Brooks: Welcome everyone to the task force meeting. Please do not use the chat box for anything. We will get started with our first agenda item here in a few minutes, which is going to be NV Energy giving a presentation on their updates on Green Link North and West, but also discuss the status of conversations with Independent System Operator, Regional Transmission Operators and Resource Adequacy Organizations. We will also discuss the future plans of NV Energy for regional transmission and also for transmission in the state of Nevada. This is an exciting time in this industry and an exciting time for transmission. We all are facing some significant challenges right now, but I think we all have some significant opportunities as well. We have a global supply issue that we are still going through based on supply chain disruption in part from the pandemic, but also based on the building boom that's taking place around the world as a result of the response to the supply chain disruptions and the pandemic. Global inflation has changed some of the pictures of how the costs are going to be, and therefore the plans of transmission operators and owners and policy decisions both at the international, federal and state levels have really complicated the issue in some respects. We have in the state of Nevada goals to decarbonize our energy sector and those goals are shared by our neighbors in this country and across the world. We have a desire to incorporate as many renewables as we possibly can into our energy portfolio in the state of Nevada and at the same time, managing peak power needs in the super peak times of the year here in the West and we have a need for access to markets from both transmission operators, but from customers and transmission customers and energy generators.

All these things are coming at a time when we, in the West, are trying to figure out how to best integrate our systems into our neighbors' systems so that we can absolutely provide the best options for our ratepayers. It is a challenging issue, and it is a complicated and difficult issue, but it is exciting to be part of the conversation. That's why we have this very diverse and talented task force assembled that represents many different members of the community. It represents tribal governments, and it represents the industries that both use the transmission system, both from a generator standpoint but from an off-taker standpoint, and most importantly represents all energy consumers in the state of Nevada as a rate payer. This task force is exciting to be on and I'm happy that Governor Lombardo has allowed me to share it again and I look forward to not only the conversation today, but conversations in the future and whatever capacity that I serve in.

I would just like to remind all the task force members and the public that this presentation will be shared on the screen here, but is also available as a link in a download on the Governor's Office of Energy's website under the notices tab and then the Regional Transmission Coordination Task Force tab.

4. **Transmission Update – NV Energy – Update on Greenlink North and West.**

   NV Energy's presentation can be found here:
   https://energy.nv.gov/uploadedFiles/energynvgov/content/Programs/TaskForces/Nevada%20Regional%20Transmission%20Task%20Force%2011-15-23.pdf

5. Question and Answer

Chairman Chris Brooks: I am going to open this up to our task force members, and I took several notes of things that I would like to hear and delve into, but hopefully the task force members will bring those up and I won't have to. I will briefly ask a couple of things and some of them are kind of observations. I know that a lot of industries are seeing this on the load side and on the generation side, but also energy, high voltage breakers and transformers. Could you just touch on what some of those long lead times mean and why you must get started in the design so early and why you have to accelerate certain processes or be flexible and how they get introduced? Could you talk about some of those long lead items?

Carolyn Barbash: NV Energy and Berkshire Hathaway have the benefit of slots where we have production capacity with the manufacturers, so we are lucky in that we can get a transformer in three years. The lead times are longer than we have seen, and a lot of times developers are expecting advanced payments or manufacturers to make sure that they get paid more than they used to. We are taking on some risk financially many times in order to keep the schedule of the project going. Shahzad, do you have anything you would like to add to these supply chains and the long lead time impacts on transmission projects?

Shahzad Lateef: If you are able to get into a production slot, then it is about 24 to 36 months for a high voltage, high-capacity transformer. Some of the transformers we are looking at are 600 MVA, so they are large transformers. The caveat is that it all depends on getting into production slots. When we were procuring some of the transformers for Greenlink, we were told by the manufacturers that if we are able to get into a production slot, it is a 24 to 36 months delivery time frame. If we somehow choose not to take that production slot, then we will be at the tail end of their procurement and then it could be four to five years when we can get it delivered. It will take two or three years for our production slot to come up and then it will take another 24 to 36 months for us to get the transformers. That's the longest lead term item. In addition to that, there are several manufacturers because when the prices of commodities are where they are, we want to make sure that we are dealing with the manufacturers that have existed in this business for a long time, not newcomers that we don't have any idea or folks that do not have great quality controls. We are managing through some of these circuit breakers and managing through existing Berkshire Hathaway contracts and production slots and that is why we were able to achieve some of those supply chain risk mitigation that is at the very high level.

Carolyn M. Turner: My question, going back to the WRAP, and looking at Resource Adequacy kind of through that lens for now, who is it that determines the forecast against which your Resource Adequacy is measured when we get to the forward showing phase? Is that self-reported, in this case, NV Energy?

Lindsey Schlekeway: We provide our data to SPP and they determine a load forecast and the methodology has not been developed for a BPM so we are still waiting on some of the additional details of how they will calculate that. We are also supposed to go to them if we have any known load additions or customers coming online and we do provide that 10-year historical data look and they do a calculation and add in any known additions that we have.

Chairman Chris Brooks: I think I heard that there is a deficiency for us to fully participate in the WRAP program so we would need to have our own generation assets and must increase our generation assets to be able to participate fully in the Resource Adequacy, which then basically guarantees we keep the lights on. Is there any Resource Adequacy or variable resources assigned to certain value from a capacity standpoint versus other ones have a higher capacity value? Is there a prescriptive from WRAP on what our resource mix looks like to be able to get to that Resource Adequacy phase?

Lindsey Schlekeway: They do provide a model for each resource type of how it would apply and contribute towards your requirement. For instance, for solar and wind, they do an effective load carrying capability for those resources and model what sort of percentage they could apply towards meeting that requirement and it's based on capacity critical hours. They are specifically looking for net load peak time frames. They do have that for different resource types and so that will be helpful.

Mona Tierney-Lloyd: I also want to thank the NV Energy team for a very detailed and very helpful presentation. I have a couple of clarifying questions. The first question, the results that you presented today being production cost results from the WMEG, explicitly exclude the capacity savings and I was wondering how do the capacity savings or what is the magnitude of capacity savings that would be incremental to the production savings? Is that something that you can share?

Kiley Moore: I don't know the magnitude of capacity savings at this point. I think that those were outlined in the state study, they were not studied for any of the various footprints.

Carolyn Barbash: I can say those capacity benefits do come again with a Resource Adequacy program which is the market to the east, is the WRAP program and it would be attributed to that and then for CAISO. Most of the other entities that could potentially join EDAM are all members of the SPP Resource Adequacy program. I know that is confusing and a lot of capacity benefits get built through an RTO when you are doing joint planning on regional transmission, which is what the state lead study did from the Utah office. It was applied in several other states and there was a federal grant to do some studies on RTO. Those studies were full RTO's doing transmission planning, allocating costs over the whole region and sharing resource adequacy. In a Day-Ahead market, you are not going to see a lot of those as you would in these studies that have evaluated an entire RTO.

Chairman Chris Brooks: I do not see any other members that have questions. I have a couple on WMEG commissioned E3 study. Was that ordered by any regulatory body or was it ordered by a legislature?

Carolyn Barbash: That's right.

Kiley Moore: Is that correct?

Carolyn Barbash: We jointly funded it as a group of utilities, some investor owned, some publicly owned, but we were all transmission owners and most of us slowed serving.

Chairman Chris Brooks: I have another question. If we are looking at this like Real-time market versus a Day-Ahead market and then NV Energy being a net importer of energy, would we have the most exposure in Day-Ahead or in Real-time?

Carolyn Barbash: I would say that in Real-time, you are forecasting your own load. We are forecasting our load and resources and anything that's mistaken in there will get overtaken by a market charge or a market revenue. Where a Day-Ahead market, you are planning for the next day and what resources you are going to bring online so I would assume it's all designed so that the prices converge between Real-time and Day-Ahead and you are taking some exposure in Real-time and then just adding to it to perfect it in the Day-Ahead.

Lindsey Schlekeway: I would have to look specifically into the benefit study that we received to verify this, but it should be more exposure in the Day-Ahead because you're settling your full load in the Day-Ahead and in Real-time you are scheduling your load and then any imbalances you are exposed to in terms of the market LMP's but in Day-Ahead, your full load is settled so it is exposed to whatever those market LMP's are.

Chairman Chris Brooks: This will help inform some of the positions from policymakers and at the state and county level across the West on the economic basics of export and how there could be a benefit to having generation in our state exported to neighboring markets over transmission lines that are owned and the cost shared. If we told our gold mining industry to not export gold, we wouldn't have much of a gold mining industry. The market study really shows some of those benefits, even in congestion pricing where we could really benefit so that was fascinating. I appreciate the presentation of the E3 study, on behalf of WMEG, is incredibly enlightening. I want to thank Senator Dallas Harris who participates in this task force and who shared the Energy Committee for the Nevada Legislature. This is very informative to policymakers too and I will work with the Office of Energy to share it with other decision makers and policy makers in the legislature because I think this could inform some of their opinions and policies.

6. **Public Comment and discussion**

Chairman Chris Brooks: I'll move to the last agenda item which is a second period of public comment.

Laura Wickham: No public comment was made.

7. **Adjournment:** We can adjourn. I appreciate everyone's participation today and enjoy the rest of your afternoon.

This notice and agenda have been posted on or before 9:00 a.m. on the third working day before the meeting at the following locations:

(1) Governor's Office of Energy principal office at 600 E. William St., Ste. 200, Carson City, NV
(2) Governor's Office of Energy website: https://energy.nv.gov/
(3) Nevada State official website: https://notice.nv.gov
(4) Nevada Legislature Website: https://www.leg.state.nv.us/App/Calendar/A/
(5) Nevada Legislature Building, 401 S. Carson Street, Carson City, NV
(6) Grant Sawyer State Office Building, 555 E Washington, Las Vegas, Nevada