

#	Submitter	Date	Comment Summary	Disposition	Disposition Comment
1	Doug Tucker (WECC)	11/11/2024	We keep getting questions on this transfer path from AESO to Wasatch, the reason we do is that line from AESO to the US is only rated for 300 MW and is controlled by a PST, however in this transfer scenario we have circulating flows that are coming in from BCH that is the reason that the transfer is higher than anyone is expecting. I wonder if putting a footnote that explains why this value is larger than expected is warranted.	Updated	Addressing via in-report language (see next comment)
2	Doug Tucker (WECC)	11/11/2024	Proposed language: In the Western Interconnection Path Rating are established throughout the west. Path Rating Studies look at a specific cut plain in determining the max flows across a certain path, however in this study it is looking for the TTC between source/sink combination. This means that you are considering all the lines that go into the sink area. Below is an example of the Washington area as a sink and Wasatch area as the Source. The TTC is calculated by summing up all the lines going into the Washington area which also includes a path (red arrow) in the Western Interconnection.	Updated	Added the following language at the outset of the Western Interconnection results: The TTC results in this study, which are based on a combination of source and sink TPRs, may differ from the path ratings that have been established throughout the Western Interconnection. Path ratings examine a specific subset of facilities, whereas this study method considers all facilities connecting the source and sink TPRs, including third-party connections.
3	Sharon Darwin (SOCO)	11/11/2024	The FERC definition of “prudency” as used by NERC in this study would be better referenced by highlighting instead of listing in the footnote.	Reject	While not elaborated when providing an overview of the study parts, the prudency definition is covered - and highlighted - later in the executive summary (page 8)
4	Sharon Darwin (SOCO)	11/11/2024	The two references used for FERC’s definition are both based on whether costs were prudently incurred which was not included as part of this study. Southern recommends that NERC develop its own definition of what it believes to be “prudent” and believes that is what Congress was requesting in the Fiscal Responsibility Act.	Reject	NERC's definition is already clearly stated in this section as improving energy adequacy.
5	Sharon Darwin (SOCO)	11/11/2024	Determining prudent additions for increased transfer capability should take into account not only the potential to enhance system reliability but also the associated costs, the ability to allocate those costs to the beneficiaries, and the overall cost/benefit ratio compared to other options like adding generation resources, utilizing demand side management, or implementing operational measures.	Reject	The report is clear that this is a reliability-only study and other factors, such as economics, were not considered.
6	Sharon Darwin (SOCO)	11/11/2024	Table ES.1 does not reflect “prudent” recommendations for reliability. Southern would request NERC consider two issues before using the term “prudent”. First, the Total Transfer Capability values used in determination are from a 2024 model, and the energy adequacy numbers are based on 2033 assumptions. This is an apples-to-oranges comparison and brings into question the validity of the recommendations. Secondly, Southern believes the regions, as defined by NERC in this study, are invalid. The combination of regions (e.g., SERC-E) are not valid when reserving and procuring transmission service through OASIS. Additionally, to state that increased transfer capability is needed for a region such as SERC-E could lead to inefficiencies since that region is comprised of three separate and distinct Transmission Service Providers. In the future, Southern recommends NERC rely on the entities performing Transmission and IRP planning to determine prudency.	Reject	Congress mandated recommendations for prudent additions and we are fulfilling that mandate with explanation of how TPRs were selected and abundant notes that future transmission build is not reflected and may address the recommendations.

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7	Sharon Darwin (SOCO)	11/11/2024	In the “Key Findings – Part 2 and 3”, NERC states that “With sufficient available generation from neighboring systems, interregional transmission could mitigate certain extreme conditions...”. This statement seems to indicate that neighboring systems should maintain sufficient generation to share (above meeting their own needs). This is concerning and seems to shift responsibility to other regions in terms of resource adequacy. The better recommendation from NERC would be for regions identified with energy adequacy challenges to add additional generation resources within their respective areas instead of building costly transmission to import from neighbors to mitigate extreme conditions. Adding transfer capability to enhance reliability and resiliency – especially during extreme weather – is done with the assumption that generation will be available for transfer under such conditions. Increasing transfer capability through upgrades to existing transmission facilities or building additional transmission does not guarantee that the transfer capability will be available during the event or that sufficient generation will be available to use the transfer capability. These factors must be balanced during consideration of any transmission upgrades.	Updated	The statement is mis-construed. Updating to: Interregional transmission could mitigate certain extreme conditions by distributing resources more effectively, underscoring the value of transmission as an important risk mitigation tool, if there is sufficient available generation in neighboring systems at the times of need. However, there are numerous barriers to realizing these benefits in a timely fashion.
8	Sharon Darwin (SOCO)	11/11/2024	Interregional transfer capability needs should be informed by the same entities responsible for determining transmission security and resource adequacy needs (i.e., the Transmission Service Providers). Those entities have complex models of the system. This puts them in the best position to ensure resource adequacy, transmission security, and an understanding of enhanced needs during extreme weather conditions.	Updated	The report is clear that this is not the end of the process and that the study is intended to provide directional guidance to industry and policymakers regarding the identified risks. Nevertheless, added "system planners and" in the executive summary.
9	Will Sayers (SPP)	11/11/2024	Page 47 states that it is “not possible to always maintain a particular level of transfer capability in the operations horizon”. However, a few paragraphs later (under “Regulatory of Policy Mechanisms and NERC Reliability Standards”), it states that “statutory changes could require entities to plan for and maintain recommended levels of transfer capability”, and “any statutory recommendations must ensure that the mandates result in actual transfer capability being available for entities to use...”.	Updated	Removed "and maintain" from second sentence in the first paragraph of this section. Also changed "meet and maintain" to "establish" in the third paragraph.
10	Sean Bodkin (Dominion)	11/12/2024	LNG storage which would be helpful for resource adequacy during extreme weather events when fuel shortages are a concerns. Battery and pumped hydro storage is explicitly mentioned, but not fuel storage on site for facilities.	Reject	Storage references in the report are in relation to storage of electrical energy. While on-site fuel storage may be beneficial under certain conditions, that is not the intended meaning.
11	Sean Bodkin (Dominion)	11/12/2024	It appears that NERC has performed a national CETO (Capacity Emergency Transfer Objective) study, especially in part 2 & 3 study since it considers the generation needs. NeRC should consider limiting the study to the parameters specified by Congress.	Reject	The study looked at energy adequacy, not capacity planning. However, resource assumptions were needed to perform the study.

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12	Sean Bodkin (Dominion)	11/12/2024	<p>In part 2 & 3 study, the study uses 12 years (2007 - 2013 & 2019 - 2023) of historical weather data to predict future years load and resources mix (2024 & 2033). The data does not appear to include future expected weather. These kind of energy resource adequacy studies and CETO studies should consider the trend of weather change. Purely relying on the historical data may be misleading and over generalizing future weather patterns. Also consider adding a co-efficient factor for weather for the future.</p> <p>If you look at the list of extreme weather events listed on page 16 (part 2 report), the last 6 of total 8 events happned after 2020, 3 or 4 years from today. The first two events happened in 2010 and 2011 and might have been much less severe compared with the other more recent 6 events, which might have very little value for predicting future energy deficiencies. Dominion Energy data indicates some 2024 loading peak values are higher than some of the annual loading peak values in previous years. This changing trend should be analyzed and considered in the report.</p> <p>In Figure 2.1 on page 23 (part 2), except for the traditional energy resources (coal, gas and nuclear), all the others in the figure appear to be heavily impacted by weather. Assumptions should be consistent</p>	Reject	Potential future climate impacts are noted as an area of Future Work in the report.
13	Sean Bodkin (Dominion)	11/12/2024	<p>While it appears this part of study uses the traditional transfer limit study methodology, Dominion Energy has questions about a number of factors.</p> <ol style="list-style-type: none"> 1. Should a traditional transfer capability study does consider loss of a facility, not just individual units? 2. What about the other contingencies, like the failure breaker, bus, etc? 3. What cases and contingency files does this study use? Listing all of study files in some Appendix parts would be valuable. 	Reject	The report is clear that the Part 1 study used Category P1 contingencies. Contingency files are available to Planning Coordinators upon request.
14	Sean Bodkin (Dominion)	11/12/2024	The transfer limit numbers between PJM East & PJM South are less than the numbers from Dominion Energy studies. We will continue to review the methodology of this study to determine if it is appropriate to change our internal methodology for studying transfer limits.	Reject	As noted, the TTC values are heavily dependent on the assumptions in the cases - including load levels, dispatch, and topology - and cannot be represented by a single number. Nevertheless, the study attempted to derive values applicable to stressed summer and winter conditions.
15	Sean Bodkin (Dominion)	11/12/2024	More information on the process used to arrive at "Observation 4: Future studies should include stability analysis." would be beneficial to assisting us in our own study processes.	Reject	This is clearer later in the report and is not necessary detail for the executive summary.
16	Sean Bodkin (Dominion)	11/12/2024	For each pair of TPRs in part 1 of the study, are both importing/exporting transfer analysis for each TPR included? What about part 2? Does part 2 conduct both importing/exporting studies for each TPR within each TPRs pair?	Reject	The Part 1 studies, which include region-to-region transfer limits and simultaneous import limits, are used in Part 2 of the report.
17	Sean Bodkin (Dominion)	11/12/2024	The statement "under the most challenging condition" is misleading. This study does not consider the "most challenging condition" because it is just evaluating historical extreme conditions rather than possible future ones that could be more extreme.	Updated	Prior language was not intended to be absolute - we can always envision a worse scenario. Changed "the most" to "especially" (2 places) and removed "the most" in the remaining instance.
18	Sean Bodkin (Dominion)	11/12/2024	This study explores the benefit of geographical diversity to mitigate the energy (resouce) deficiency at certain period of time in one TPR. What about the wide area extreme weather events that covers many TPRs? If every TRP is suffering the energy deficiency situation under the same extreme weather event, who will support whom?	Reject	As explained in the prudent additions process, additional transfer capability was only recommended where neighboring TPRs had surplus energy at the relevant times.
19	Sean Bodkin (Dominion)	11/12/2024	For the PJM-S raw, the 2800 MW additional transfer capability for 2033 might be too small, considering the load (especially data center load) increase and the resource mix in this area. Dominion Energy will continue to independently study this area.	Reject	The study used load forecasts from the 2023 LTRA.

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20	Sean Bodkin (Dominion)	11/12/2024	Please expand the discussion of ELCC (Effective Load Carrying Capability) of different kinds of resources, specifically including an ELCC concept explanation in order to make the readers understand it better.	Reject	Additional detail can be found in the advisory group materials - we are trying to manage the size of the report while still providing an appropriate level of detail. The specific additions for each resource type, by TPR, can be found in the Appendix.
21	Sean Bodkin (Dominion)	11/12/2024	Should these be GWs instead of MWs for the units?	Updated	Corrected in the final report.
22	Sean Bodkin (Dominion)	11/12/2024	There is a statement "can be found in Appendix H. Figure 2-2", but in Appendix H, the figure number is "Figure H.2". Please review this and other references to ensure they are consistent.	Updated	There are two separate links in two separate sentences. Added "Below, " in between to help clarify.
23	Sean Bodkin (Dominion)	11/12/2024	The labels in the figure are confusing. For example, the labels with the arrows and then the comment about "reliability import if available" makes it unclear what you're referring to exactly.	Reject	The figures show that reliability imports (if available) occur when a TPR drops below the tight margin level
24	Sean Bodkin (Dominion)	11/12/2024	There should be an "arrow" sign between SERC-SE and SERC-E.	Updated	Corrected in the final report.
25	Sean Bodkin (Dominion)	11/12/2024	Remedial action schemes (RAS) should be included only in conditions where it really is a large scale transfer and not a local stability issue. It's important to make sure all unnecessary complications aren't included in the study so you can simply where possible. Also, consider that "generator redispatching" is another options that can achieve certain transfer capability - and could be considered across a larger array of scenarios.	Reject	Both of these comments are already addressed in the report.
26	Sean Bodkin (Dominion)	11/12/2024	"Power flow control devices, such as Flexible AC Transmission Systems (FACTS), ..." should be specified so that the exact FACTS devices which truly can control the power flow, like UPFC (Unified Power Flow Controller), is specified. It is currently unclear what device is being referred to. For example, the well used STATCOM does not control power flow.	Reject	The intent was not to specify every technology, just the capability.
27	Sean Bodkin (Dominion)	11/12/2024	There appears to be a typo as it should be "zero load events" rather than "0 load events".	Updated	Corrected in the final report.
28	Sean Bodkin (Dominion)	11/12/2024	Please list all the meanings of the elements in the two figures, especially Figure H.2.	Reject	This is elaborated in the associated text.
29	Sean Bodkin (Dominion)	11/12/2024	Please provide clarity around the meaning of the yellow part (Tight Margin Level) and purple part (Minimum Margin Level), like Figure 2.3 and Figure 2.4 on page 25 and 26.	Reject	This is explained in the "Margin Levels" section just above figure 2.3
30	Danielle Moskop (Ameren)	11/12/2024	The ITCS study report is recommending prudent additions based on Resource Deficiency. The Resource Deficiency should consider a simultaneous Resource Deficiency in multiple TPR's at the same time.	Reject	The study identified instances of simultaneous resource deficiency (in multiple TPRs). An example is shown in the Resource Saturation effects section.
31	Danielle Moskop (Ameren)	11/12/2024	Ameren recommends the NERC ITCS team consider the potential for transfers flowing through a region, as was experienced during Winter Storm Uri, where heavy flows were experienced on MISO system for the flows going from PJM to SPP region. Prudent additions should consider the second tier TPR (Neighbor's Neighbor).	Reject	This is noted in Future work section but was not mandated in the Fiscal Responsibility Act.
32	Danielle Moskop (Ameren)	11/12/2024	Ameren observes that the prudent additions recommended in the report focused mostly on Transmission Planning Regions. Ameren recommends that prudent additions should also consider more granular Local Transmission Planning areas.	Reject	Alternative study regions can be explored as noted in the Future Work section.
33	Gregory Campbell (Exelon)	11/12/2024	Exelon appreciates that the analysis performed by NERC focused on capturing energy adequacy under extreme weather scenarios. With a resource shift towards larger quantities of solar and wind resources, the use of consistent historical and synthetic weather inputs to drive both resource performance and load, as well as the use of forced outage rates aggregated to capture potential correlated extreme weather mechanical failure and fuel supply disruptions, were sensible choices.	No change requested	

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34	Gregory Campbell (Exelon)	11/12/2024	Exelon agrees that the future iterations of this study should include transfer capability analyses with the system generation dispatched and load modeled to represent relevant historic extreme weather events. These events drive the results and significant differences in the results may be observed. Exelon expects that application of the NERC TPL-008 standard will identify needs similarly through appropriate modeling of extreme heat and extreme cold benchmark events.	No change requested	
35	Gregory Campbell (Exelon)	11/12/2024	Considering the “pipe-and-bubble” model used for the transfer capability representation of the US transmission system, please clarify whether the reader should interpret the analysis of prudent additions as identifying non-simultaneous region-to-region transfer needs based on isolated non-overlapping extreme weather events.	Reject	The model applied chronological, correlated, and consistent data so that all TPRs were evaluated simultaneously.
36	Gregory Campbell (Exelon)	11/12/2024	Exelon observes that the results for the PJM-S sub-region (containing Exelon’s BGE and Pepco utilities) show a need for additional transfer capability from the PJM-E sub-region. As acknowledged in the report, given the 2024/25 transmission model, this identified need reinforces the value of the various projects already planned to address this need. Exelon has developed transmission upgrade solutions to support generation resource changes and load growth in the region. Exelon will continue to work towards and support the timely completion of these regionally planned projects to ensure reliability within the region.	No change requested	
37	Gregory Campbell (Exelon)	11/12/2024	Exelon notes the increase in the identified PJM-E to PJM-S transfer need under the Tier-1-only sensitivity. This need further reinforces the importance of the planned transmission projects as well as the need to reliably connect more local generation. Exelon actively supports the increase in the efficiency of generator interconnection through the PJM queue reform.	No change requested	
38	Gregory Campbell (Exelon)	11/12/2024	Exelon also notes the opportunity to support the MISO region from the PJM-W subregion (which contains Exelon’s ComEd utility). Exelon continues to participate in both MISO long-range and PJM-MISO interregional planning processes to promote and develop a more reliable interconnected system.	No change requested	
39	Gregory Campbell (Exelon)	11/12/2024	Exelon agrees that the 4 options identified in part 3 of the report can increase transfer capability in certain circumstances. However, while “upgrade transmission infrastructure” can be an effective option for Planning purposes, options like “dynamic line ratings” (DLR) would be limited to an operational deployment, used to provide operator flexibility and, possibly, reduce transmission congestion in real time. We do not support using DLR as a planning tool since key factors impacting ratings such as wind direction/speed, temperature and solar insolation are unpredictable and inappropriate for ratings increases in certain situations, for example, during extreme hot summer events. Especially for DLR and power flow control devices, the report should clearly note that the viability of each option depends on the specific application and related transmission system characteristics.	Reject	Existing language points out this challenge.
40	Michael Fleck (ITC)	11/12/2024	ITC has reviewed the recommendations and is generally supportive of the results. There is already much work taking place on a regional basis, especially within the MISO region, with the LRTP (Long Range Transmission Plans). Through the RTO process the needs, shown through building the futures, justified the ultimate project portfolio. This ITCS study, along with many similar studies, continue to show the benefits and needs for an interregional portfolio of projects. It should be noted that MISO is already working on some form of interregional study on the MISO-SPP and MISO-PJM interface. While MISO, SPP, and PJM are taking a more proactive approach than some regions, their efforts are voluntary in nature. Federal support will be needed to reap the benefits needed to support the interregional projects. The next logical question is, where do we go from here?	Reject	Next steps, in addition to the FERC filing and comment period, are in the Future Work section, including incorporation into the LTRA.

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41	Michael Fleck (ITC)	11/12/2024	It is recognized that this study will be ran on a reoccurring basis. ITC would strongly support that future studies include all regionally approved projects. If there is sufficient bandwidth in the study period, ITC would also support regional projects that are well defined but not yet approved to provide a more holistic view of the needs.	Reject	Appreciate the comment - future study assumptions will be developed at a later date.