United States House of Representatives
Select Committee on the Climate Crisis

Hearing on May 20, 2021
"Powering Up Clean Energy:
Investments to Modernize and Expand the Electric Grid"

Questions for the Record

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The Honorable Kathy Castor

1. **Mr. Skelly, you alluded to the February 2021 winter storm in Texas and the mid-continent in your testimony. This storm led to the freezing of critical equipment, power outages, and even deaths. The Southwest Power Pool (SPP) region was able to import power from the PJM Interconnection, which limited power outages. Unfortunately, Texas could not do the same because of much smaller ties to the other interconnections. Experts concluded that SPP would have been even better off had there been more transmission between PJM and the Midcontinent Independent System Operator (MISO) and between the northern and southern parts of MISO. How can transmission lines promote grid reliability as climate change increases the frequency of extreme weather?**

As I stated in my testimony, no grid system covered itself in glory during the tragic events of February's deep freeze. It is clear, however, the system operators who had access to bulk power flows from neighboring regions were better positioned to mitigate the worst of the effects from the freeze. With its limited transmission ties to other regions, the ERCOT power system was only able to import about 800 MW while trying to balance its short supply and heavy demand. Its neighbors, SPP and MISO were able to import roughly 15 times that amount during the winter storm because of stronger interregional transmission connections.

As climate change increases the frequency of extreme weather events, high-voltage transmission lines will play a critical role in ensuring the resilience and reliability of our power systems. Winter Storm Uri broadly impacted multiple regions. However, like other such events we have seen in the past, Uri was at its most extreme only in areas much smaller than the size of the Eastern and Western Interconnections. Strong transmission connections across regions allowed power to be exported from regions not experiencing stressed power demands to areas with the worst of the extreme weather.

More regional transmission ties inherently create a more climate resistant system. Had the proposed Southern Cross transmission line been operational during storm Uri, its 2000 MW of

capacity could have powered 400,000 homes within the ERCOT system. If the ERCOT region had multiple such ties, Uri would have been a much less harmful event—perhaps even mitigated entirely.

2. **Mr. Skelly, we have hundreds of gigawatts of wind, solar, and storage projects stuck in interconnection queues. I am working on legislation to help reduce interconnection costs and clear out these queues through broader cost allocation and deployment of grid-enhancing technologies. I am also working on legislation to help develop new interstate transmission lines by providing technical assistance and incentives to state and local governments. How would consumers benefit from clearing out the interconnection queues for new wind, solar, and storage projects? Would federal technical assistance and incentives to state and local governments help speed up consideration of interstate transmission lines?**

Any technical assistance that can be given to state and local governments to help speed along system-wide transmission planning would be a welcomed new development.
Clearing interconnection queues across the country is the key to reaching ambitious de-carbonization goals. The wind, solar, and storage projects currently trapped in these queues will remain stuck absent robust policy changes in transmission planning. The best wind and solar capacity in the country is located in sparsely-populated regions with relatively modest load centers, and—importantly—weak existing transmission lines to tie into.

Current transmission planning methodologies in RTOs and ISOs across the country place the burden of network system planning on generators. By more broadly cost-allocating interconnection upgrades, individual costs to consumers will be reduced because more low cost renewables will get built.

Consumers will benefit from the clearing out of interconnection queues around the country through the lower cost wholesale energy prices of wind and solar projects relative to other forms of power generation. This will mean lower emissions of pollution and cleaner air as more fossil fuel plants are retired and replaced with clean energy.

3. **Mr. Skelly, you stated in your testimony that an investment tax credit could support transmission expansion. According to a recently released report from the American Council on Renewable Energy (ACORE), an investment tax credit for transmission could spur 4,000 miles of high-capacity lines, capable of serving 30 gigawatts of new renewable energy projects. If completed, these lines and new projects would create over 600,000 jobs and spur $15 billion in new investment. Please describe the kinds of benefits you anticipate from an Investment Tax Credit.**

An Investment Tax Credit (ITC) of the kind identified in the ACORE report would allow more projects to pass the benefit-to-cost ratio test by lowering the denominator of this test. If more transmission lines are built, we will realize lower carbon emissions, lower cost electricity prices as more renewables escape interconnection queues, and more resilient systems to extreme

weather events caused by climate change. Not only will cost-allocated projects reap the benefits of an ITC, but the economics of more merchant transmission lines improve with a 30% ITC.

For “merchant” lines that are not cost allocated, reducing the cost of the projects via an ITC will allow transmission developers to lower their transmission charges and thus more projects to get built.