

ONE HUNDRED SEVENTEENTH CONGRESS
Congress of the United States
House of Representatives
COMMITTEE ON ENERGY AND COMMERCE
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September 27, 2021

The Honorable Richard Glick
Chairman
Federal Energy Regulatory Commission
888 First Street NE
Washington, DC 20426

Dear Chairman Glick:

Thank you for appearing before the Subcommittee on Energy on Tuesday, July 27, at the hearing entitled “The Changing Energy Landscape: Oversight of FERC.” I appreciate the time and effort you gave as a witness before the Committee on Energy and Commerce.

Pursuant to Rule 3 of the Committee on Energy and Commerce, members are permitted to submit additional questions to the witnesses for their responses, which will be included in the hearing record. Attached are questions directed to you from certain members of the Committee. In preparing your answers to these questions, please address your responses to the member who has submitted the questions in the space provided.

To facilitate the printing of the hearing record, please submit your responses to these questions no later than the close of business on Tuesday, October, 12 2021. As previously noted, this transmittal letter and your responses, as well as the responses from the other witnesses appearing at the hearing, will all be included in the hearing record. Your written responses should be transmitted by e-mail in the Word document provided to Lino Peña-Martinez, Policy Analyst, at Lino.Pena-Martinez@mail.house.gov. To help in maintaining the proper format for hearing records, please use the document provided to complete your responses.

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Thank you for your prompt attention to this request. If you need additional information or have other questions, please contact Lino Peña-Martinez with the Committee staff at (202) 225-2927.

Sincerely,

A handwritten signature in blue ink that reads "Frank Pallone, Jr." in a cursive style.

Frank Pallone, Jr.
Chairman

Attachment

cc: The Honorable Cathy McMorris Rodgers
Ranking Member
Committee on Energy and Commerce

The Honorable Bobby L. Rush
Chairman
Subcommittee on Energy

The Honorable Fred Upton
Ranking Member
Subcommittee on Energy

Attachment—Additional Questions for the Record

**Subcommittee on Energy
Hearing on
“The Changing Energy Landscape: Oversight of FERC”
Tuesday, July 27, 2021**

The Honorable Richard Glick, Chairman, Federal Energy Regulatory Commission

The Honorable Frank Pallone Jr. (D-NJ)

1. In addition to expanding our transmission system, it is important to encourage the deployment of grid enhancing technologies and non-transmission alternatives, both of which have the potential to reduce costs by enhancing the use of the existing transmission system and deferring the construction of new transmission infrastructure. What can FERC do to ensure that these new technologies are considered in transmission planning processes, and how can Congress help support FERC in these efforts?

RESPONSE: I wholeheartedly agree with your statement regarding the importance of deploying these technologies. The Commission has taken a number of steps to address this issue. With respect to transmission planning, in the Advance Notice of Proposed Rulemaking, issued by the Commission in July 2021 in Docket No. RM21-17-000 (ANOPR), the Commission sought input from all interested stakeholders on whether longer-term scenarios for transmission planning should be pursued and whether and how grid-enhancing technologies should be accounted for in determining what transmission is needed. I look forward to reviewing comments on the ANOPR to inform our further consideration of how such technologies should be considered in transmission planning processes.

In a separate proceeding focused on identifying incentives to encourage investment in transmission (Electric Transmission Incentives Policy Under Section 219 of the Federal Power Act), the Commission has held two staff-led workshops (November 5-6, 2019 and September 10, 2021) and issued a proposed rule to examine incentives to encourage deployment of grid-enhancing technologies in Docket Nos. RM20-10-000 and AD19-19-000. Comments on the proposed rule were due July 1, 2020. The Commission is currently reviewing the record to determine next steps.

My understanding is that there is proposed legislative language being contemplated that would promote the use of grid enhancing technologies. Commission staff is available to provide technical assistance on this legislation.

2. The America’s Water Infrastructure Act of 2018 required FERC to establish an expedited process for considering license applications for hydroelectric projects at existing

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nonpowered dams and closed-loop pumped storage projects. FERC finalized the expedited hydro licensing process in 2019.

How many projects have successfully availed themselves of the expedited hydro licensing process since its adoption in 2019, and what challenges, if any, have prevented greater use of that process? What measures is FERC taking to address the challenges you have identified, and how can Congress help support FERC in these efforts?

RESPONSE: To date, no project has completed the expedited hydro licensing process. One project requested to use the expedited process (1,200-MW Goldendale Pumped Storage Project No. 14861 in Washington and Oregon), but the project applicant did not file all required information to meet the deadlines as part of the expedited process. The project is currently being processed as a regular license application. In order to help facilitate the provision from the 2018 America's Water Infrastructure Act, the Commission conducted a workshop to explore potential opportunities for the development of closed-loop pumped storage at abandoned mine sites. Based on the information gathered at the workshop, the Commission then issued guidance on October 17, 2019 for the development of closed-loop pumped storage projects at abandoned mine sites and a list of existing non-powered dams that could be developed.

The Commission will continue to make every effort to facilitate the use of the expedited process and I would be happy to work with Congress on any proposed statutory improvements.

The Honorable G. K. Butterfield (D-NC)

1. When they were first formed, RTO markets promised they would offer wholesale customers more options, greater flexibility, and lower costs as they sought in turn to meet the demands of their customers. As FERC reviews transmission policy and revisions to organized markets, how will FERC assure that transmission policy, market policy, market power review policy, etc., focus on the needs of wholesale customers: increasing their options and flexibility, enhancing the quality of wholesale service, and lowering the cost of wholesale power?

RESPONSE: Under the Federal Power Act (FPA), the Commission must ensure that the rates, terms, and conditions of jurisdictional service are just, reasonable, and not unduly discriminatory or preferential.

Pursuant to that authority, the Commission has recently launched several major initiatives aimed at improving how public utilities, including RTOs/ISOs, develop transmission infrastructure and operate wholesale electricity markets. Those initiatives include an Advanced Notice of Proposed Rulemaking on transmission planning and cost allocation as well as a series of proceedings on modernizing electricity market design. Those initiatives are aimed at updating and improving those critical aspects of the bulk power system and will, in my view, address the points you identify by enhancing customer

choice and the quality of wholesale service all while ensuring customers pay just and reasonable rates.

2. One of the concerns raised about new investment in the transmission grid is that it must balance the size of the investment to appropriately meet expectations for new demands with cost and environmental impact considerations. A robust planning process can help find this balance but also important is giving the users of the grid a real role in the planning process. As FERC reviews cost allocation and planning policies for the transmission system, will it be reviewing proven policies like joint ownership of transmission upgrade investments that ensure that all load-serving entities have equitable input into the planning and development of transmission?

RESPONSE: I wholeheartedly agree that a robust transmission grid is essential to our nation's energy future. As you know, the Commission issued the Advanced Notice of Proposed Rulemaking (ANOPR) in July 2021 in Docket No. RM21-17-000, in which the Commission sought public input on a large number of issues related to transmission planning and generator interconnection. Commission staff also recently announced they will hold a technical conference on November 15, 2021, where staff will solicit additional public input on regional transmission planning reforms. In addition, the Commission – in Order No. 679, recognized that joint-ownership of transmission can offer substantial benefits and I agree. As we move through the ANOPR process, I remain open to potential reforms, such as further encouragement of joint ownership of transmission upgrade investments, which could enhance load-serving entities' voice in transmission planning and development. I look forward to reviewing the comments in the ANOPR on this issue.

The Honorable Kurt Schrader (D-OR)

1. Given the commitment from the interstate natural gas pipeline industry to address climate change by investing in system modernization and lowering greenhouse gas emissions, to what extent is FERC considering allowing companies to recover costs tied to those investments? Will FERC continue to be guided by the principles delineated in its 2015 policy statement, or is FERC envisioning an updated approach to reflect new policy and legal developments since the 2015 statement was issued?

RESPONSE: The Commission will continue to allow interstate natural gas pipelines an opportunity to recover the capital costs associated with system modernization and lowering greenhouse gas emissions. Pipelines may file for recovery of new capital costs through a traditional rate case or through a surcharge based on the Commission's 2015 Modernization Policy Statement. The Commission's 2015 Modernization Policy Statement remains in effect, but the Commission may consider updates to that policy as a result of ongoing proceedings, including, for example, the Commission's upcoming technical conference on greenhouse gas mitigation.

The Honorable Ann M. Kuster (D-NH)

1. New England's grid operator, ISO New England, has committed to working to eliminate the MOPR, but it has also raised concerns that doing so could lead to "inefficient retirements." In effect, this would cause fossil fuel power generators to go offline sooner than expected. Will eliminating the MOPR lower electricity bills for consumers while helping New England meet its clean energy goals? How do you respond to ISO New England's concern about inefficient retirements?

RESPONSE: Elimination of the Minimum Offer Price Rule (MOPR) could result in lower capacity market clearing prices, resulting in lower costs to consumers and more affordable energy to satisfy clean energy goals for a relevant region. Changes to the MOPR could lead to price signals that certain resources are no longer economic and therefore should retire. Certain generation going offline sooner than currently expected is not necessarily inefficient. Market prices should reflect supply and demand fundamentals, and therefore any retirements caused by lower capacity market clearing prices should be considered efficient retirements. I understand that ISO New England Inc. (ISO-NE) is considering whether removal of the MOPR is appropriate, but the Commission has not been presented with such a proposal at this time so I am reluctant to speculate on how I would address such concerns. I can assure you that, in my work as Chairman of the Commission, consumer costs remain at the top of my mind.

2. President Biden has set an ambitious goal to develop 30 gigawatts of offshore wind energy – enough to power the entire New England region, by 2030. New England states are also directly pursuing state policies to develop offshore wind resources. Recently, however, FERC approved an updated Offer Review Trigger Price (ORTP) rule that arbitrarily and artificially inflates the cost of offshore wind energy in New England energy markets. What will the impact on clean energy goals and consumers be if FERC continues to approve market rules, such as the ORTP that put clean energy resources, like offshore wind, at a commercial disadvantage?

RESPONSE: I dissented in part from the order approving ISO-NE's updated ORTP because I strongly believe that ISO-NE's proposed capital cost estimate for offshore wind is not just and reasonable. I believe ISO-NE's proposal will, by definition, push every offshore wind resource into an administrative pricing construct that is particularly ill-suited to an emerging technology. In general, the Commission seeks to establish market rules to ensure a level playing field for all types of resources to compete fairly in the Nation's energy markets. Disadvantaging one type of resource could impede the development of that resource and consumers' ability to choose that type of resource. When the Commission's decisions achieve a level playing field—as I believe they should—the resultant policies do not put clean energy resources at an unfair commercial disadvantage, and therefore do not unfairly and negatively affect clean energy goals or consumers.

3. Can you explain the difference between the siting processes for natural gas pipelines and transmission lines? What were the problems Congress addressed by creating federal

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pipeline siting authority, and are these similar to the problems transmission siting faces today?

RESPONSE: When Congress enacted the Natural Gas Act (NGA) in 1938, it gave the Commission broad, exclusive power to review and act on proposals to construct and operate interstate natural gas pipelines in order to ensure the public interest is protected in the buildout of a national gas pipeline system. In contrast, states have primary siting authority with respect to electric transmission facilities. FERC does have limited “backstop” authority, which can be exercised only after certain preliminary actions by the U.S. Department of Energy (DOE) are completed (including the designation of national interest electric transmission corridors) and when state authorities have not taken affirmative action with regard to covered projects. I will defer to Congress to assess whether the Commission should have siting authority for electric transmission similar to its authority over interstate natural gas pipelines.

4. Beyond what the Office of Public Participation can and will do to help landowners, how can FERC improve its *substantive* decision-making to be fairer to landowners?

RESPONSE: In addition to the activities of the Office of Public Participation, the Commission is reviewing its 1999 Certificate Policy Statement, which sets forth the framework the Commission uses for determining whether proposed projects are required by the public interest. Under the current Policy Statement, the Commission considers a proposed pipeline’s impacts on landowners and the extent to which an applicant expects to acquire property rights by eminent domain. The Commission is presently considering public comments in this docket regarding how the Commission can improve the consideration of landowner interests. In addition, the Commission has taken steps to expedite action on landowner requests for rehearing regarding natural gas authorizations, so that those parties can more quickly seek appellate review. Also, the Commission recently issued a rule that aims to allow landowners to seek appellate review of a Commission decision approving a pipeline certificate before the pipeline developer can commence an action to acquire land by eminent domain. Complementing these actions, I named a Senior Counsel on Environmental Justice and Equity in the Office of the General Counsel to promote further consideration of the concerns of environmental justice communities throughout all of the Commission’s work. I am committed to furthering these priorities and identifying additional steps that will make our decisions fairer for all stakeholders.

The Honorable Lisa Blunt Rochester (D-DE)

1. Communities of color and economically disadvantaged communities are more likely to live near polluting power plants, spend a greater percentage of their incomes on energy and heating expenses, and during the February weather event in Texas predominantly black communities were more than four times as likely as predominantly white communities to suffer a blackout. As we move towards a clean energy economy it is critical that all communities have access to clean, affordable, and reliable energy.

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RESPONSE: I agree. In addition to establishing the Office of Public Participation, I named a Senior Counsel on Environmental Justice and Equity in the Office of the General Counsel, to lead a team to promote further consideration of the concerns of environmental justice communities throughout all of the Commission's work. I am committed to furthering these priorities and identifying additional steps that will make our decisions more equitable.

2. Chairman Glick, how can the Federal Energy Regulatory Commission help states outside of regional transmission organizations and independent system operators explore the full suite of options to cost effectively improve reliability and reduce wholesale electricity costs through enhancing wholesale competition? Could co-hosting a forum such as a technical conference be beneficial for exploring broader market options to enable the least-cost, clean energy resource deployment?

RESPONSE: I fully agree that there are potential benefits to exploring the full suite of options to enhance wholesale competition in the regions outside of the existing RTO/ISOs. We are already seeing the expanded use of organized wholesale market constructs deliver significant benefits, such as the Western Energy Imbalance Market, which has delivered \$1.4 billion in benefits since 2014, as well as integration of renewable resources.

I am interested in going further to identify additional opportunities and benefits we can achieve from additional regional coordination and wholesale market competition. For example, the Commission convened a two-day technical conference in June 2021 to explore ways in which the West could address challenges associated with resource adequacy. At that conference, I was clear that the time is ripe for the states' and region's utilities to give RTO creation more serious attention. I was also pleased to see the recent formation of the Western Markets Exploratory Group by utilities in the West exploring RTO market participation.

The Honorable Tom O'Halleran (D-AZ)

1. You mentioned in your testimony that FERC's decision-making processes include "robust input" from impacted communities. I would like to raise two important issues that are impacting the Navajo Nation in my district.

The Navajo Generating Station closed in 2019, leading to the loss of hundreds of good-paying jobs in the area. As more coal-fired generating stations close in the coming decade, how is FERC considering the economic impact this transition has on these communities?

RESPONSE: Job loss in local communities due to the closure of the Navajo Generating Station is a significant issue. However, pursuant to the Federal Power Act (FPA), the Commission does not have jurisdiction over the potential closure of electric generating facilities, which is subject to the jurisdiction of the states.

2. How is FERC tailoring its decisions to ensure that our transition to clean energy leaves no community behind?

RESPONSE: As the energy sector transitions to a clean energy future, the Commission will continue to carry out its regulatory duty to ensure that the rates, terms, and conditions of service subject to the Commission's jurisdiction are just, reasonable, and not unduly discriminatory or preferential. I also expect that with the creation of the new Office of Public Participation and the designation of a Senior Counsel on Environmental Justice and Equity in the Office of the General Counsel, the Commission will be increasingly sensitive to the voices of all communities.

3. There are over 520 abandoned uranium mines on Navajo Nation land in Arizona. The EPA, the Department of Interior, the Department of Energy, and other regulators have released a ten-year plan of federal action to clean up the contaminated environment, following up on previous five-year plans. The federal government has done a fraction of what is required to make these communities whole.

How does FERC consider the long-term environmental impact of its decisions on tribal communities, many of whom have spent generations providing the raw materials necessary for our modern energy economy?

RESPONSE: Pursuant to the National Environmental Policy Act (NEPA), the Commission considers the environmental impact of energy sector proposals over which the Commission has authority, including certification or licensing of interstate natural gas pipelines, liquefied natural gas import and export facilities, and non-federal hydroelectric projects. The Commission considers environmental impacts on tribal communities in proceedings regarding such proposed projects when tribal community impacts are identified through an environmental impact analysis. The Commission is also currently examining the processes and fora in which we engage with Tribal stakeholders in order to identify potential areas for further analysis and improvement.

4. How much of a priority is long-term oversight of environmental consequences related to energy production?

RESPONSE: The Commission does not have jurisdiction over the production of energy. But the Commission does oversee the siting of interstate natural gas pipelines, liquefied natural gas import and export facilities, and non-federal hydroelectric projects. We are required by statute to ensure that the environmental impacts of these energy infrastructure projects are minimized, and we take this role seriously.

5. On June 25, 2021, FERC issued an order accepting an amendment filed by the California Independent System Operator Corporation (CAISO). In the decision, FERC concluded that CAISO's proposed tariff amendments were just and reasonable, jeopardizing the availability of power for customers outside the CAISO system.

When arriving at this decision, did FERC consider the impact restricting access to

generation in the Pacific Northwest would have on customers in other states such as Arizona?

RESPONSE: In the June 25, 2021 order to which you refer, the Commission accepted, subject to further compliance, revisions to CAISO's Open Access Transmission Tariff to modify load, export, and wheeling priorities in the day-ahead and real-time market optimization process and establish related market rules. The order considered and addressed comments by various parties, including Arizona utilities, regarding potential impacts of the proposal. The Commission approved CAISO's proposal to make these tariff changes only on an interim basis, effective through June 1, 2022. This matter remains pending before the Commission, and I am limited under the Commission's *ex parte* communications rules from commenting on this contested, pending proceeding.

6. FERC received a Request for Rehearing from the Arizona Corporation Commission on July 26. How will you weigh whether to grant this rehearing?

RESPONSE: The Commission's *ex parte* communications rules preclude me from commenting on contested, pending proceedings before the Commission. However, I can assure you that the Commission considers carefully all arguments presented in requests for rehearing of the Commission's orders.

The Honorable Kim Schrier (D-WA)

Risk-Informed Decision-Making is the process of evaluating dam safety that focuses on the likelihood of loading, dam fragility, and consequences of dam failure. This risk-based approach to seismicity allows dam owners to put dollars where the most significant risks occur. "Risk-Informed Decision-Making (RIDM)" was once explored by FERC and is commonly used by the Bureau of Reclamation and United States Army Corps of Engineers. The dam community can, given adequate training and guidance, appropriately apply Risk-Informed Decision-Making to effectively improve dam safety.

1. Chairman Glick, can you elaborate on how the Commission applies Risk-Informed Decision-Making and whether the Commission intends to apply the Risk-Informed Decision-Making framework to the hydro licensing process.

RESPONSE: RIDM in dam safety was initially introduced as an objective of the Commission's Strategic Plan in 2009. In 2016, the Commission published initial guidance on the use and application of RIDM for dam safety projects. Since 2017, the Commission has conducted over 20 licensee-requested pilot studies using RIDM approaches to evaluate dam safety concerns. These pilot studies have been very beneficial in aiding licensees and the Commission in making important dam safety decisions to protect the public, property, and the environment. The results of these pilot studies have been used to help develop risk methodologies and processes that the Commission included as part of last year's notice of proposed rulemaking in proposing revisions to the Commission's dam safety regulations. Part of the proposed revisions to the regulations is the requirement to perform a semi-quantitative risk analysis as part of

the independent consultant inspection report for a comprehensive assessment. These semi-quantitative risk analyses would be performed on a 10-year cycle, and the results of the analyses would be used to identify and prioritize current and future dam safety actions. Because a review of dam safety is a component of license application processing, the results of the RIDM approach, if implemented under the prior license, would carry over into the relicensing process.

The Northwest does not have an organized electricity market or a regional transmission operator. Rather, it relies mainly on bilateral transactions. I understand some former FERC Commissioners have publicly encouraged the Commission to impose Regional Transmission Organizations (RTO) on the Northwest where no RTOs exist.

2. In the event states in the Pacific Northwest would prefer not to participate in an RTO, what steps can FERC take to encourage and support regionally developed solutions that are tailored to the region's unique needs, resources, and strengthens.

RESPONSE: Although I believe RTOs and independent system operators (ISOs) offer significant benefits in terms of consumer savings and increased reliability, I also recognize that some in the Pacific Northwest have been reluctant to support RTO formation. The Commission has long supported voluntary participation in other regionally developed solutions, such as the Western Energy Imbalance Market and the Western Energy Imbalance Services market. Both are voluntary markets that allow participants to take advantage of their geographic diversity to trade real-time energy in order to balance their systems at a lower cost. Earlier this summer, the Commission convened a two-day technical conference with state regulators, public power and investor-owned utility representatives, market participants, and other stakeholders to assess developments regarding resource adequacy in the West, as well as regional approaches to addressing energy challenges, and the Commission is considering whether to take further steps in light of the information received at the conference. The Commission intends to remain engaged with and deferential to the West, including the Pacific Northwest, as regionally developed solutions are considered.

Order No. 1000 required transmission providers to remove provisions in FERC-jurisdictional tariffs and agreements that established a federal right of first refusal ("ROFR") to construct transmission lines, but it did not prohibit states from adopting their own ROFR requirements. At least 10 states now have some form of a state ROFR law.

3. Chairman Glick, how have state ROFR laws affected the development of competitive transmission projects? What can FERC do to ensure that new entrants have the opportunity to propose more efficient or cost-effective transmission solutions in states with ROFR laws, thereby protecting consumers against unjust and unreasonable rates?

RESPONSE: As you note, in Order No. 1000, the Commission addressed federal ROFR provisions in Commission-jurisdictional electric transmission-related tariffs and agreements. In doing so, the Commission sought to strike a balance between removing barriers to participation by potential transmission providers in the regional transmission

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planning process and ensuring that the removal of any federal ROFR from such tariffs and agreements does not result in the regulation of matters reserved to the states. Through the Advance Notice of Proposed Rulemaking that the Commission issued in July 2021 in Docket No. RM21-17-000, the Commission is working to update its rules and regulations to ensure that we are meeting the nation's evolving transmission needs in a cost-effective and efficient fashion. I believe the Commission should seek to understand how the reforms in Order No. 1000 with respect to federal ROFRs have shaped the type and characteristics of transmission facilities developed through regional and local transmission planning processes to ensure that needed transmission is developed at just and reasonable rates.

In recent years, it has become increasingly apparent that the bulk power system and natural gas pipeline system are interdependent. Natural gas is a major fuel source for electric generation, and yet FERC has no legal authority to ensure that natural gas pipelines used to deliver gas for electricity generation are operated safely, reliably, and in a manner consistent with prudent industry practices.

4. Chairman Glick, what additional authorities would FERC need to help ensure the deliverability of natural gas for electricity generation in order to maintain the safe and reliable operation of the bulk power system?

RESPONSE: Unlike the Bulk-Power System, FERC has no authority to require interstate natural gas pipelines to operate reliably. I believe Congress should consider legislation to establish a regime for interstate natural gas pipeline reliability, similar to the regime in place for bulk electric system reliability.

The Honorable Fred Upton (R-MI)

1. What effect will a ban on imports of solar panels linked to China's Xinjiang forced labor camps have on the U.S. solar industry?

RESPONSE:

Estimating the market impacts of U.S. trade policy with China on the solar industry is outside of the Commission's expertise.

2. Does FERC have procedures in place to ensure that electrical equipment operating under FERC jurisdiction is manufactured and installed in a manner that is just and reasonable?

RESPONSE: The Commission does not have authority to determine whether electrical equipment operating under the Commission's jurisdiction is manufactured and installed in a just and reasonable manner, and therefore the Commission has no procedures in place to do so.

- a. Does FERC assess whether FERC jurisdictional electrical equipment, including solar panels, wind turbines, and batteries, is produced using forced labor or unfair economic practices?

RESPONSE: No, the Commission does not have authority to conduct such an assessment.

- b. Does FERC assess whether FERC jurisdictional electrical equipment is produced in a manner that meets or exceeds U.S. environmental standards?

RESPONSE: No, the Commission does not have authority to conduct such an assessment.

3. You have stated that when FERC reviews interstate pipeline projects under the Natural Gas Act (NGA), it should evaluate lifecycle GHG emissions, including reasonably foreseeable upstream and downstream emissions associated with the production and use of natural gas transported by the pipeline.

- a. Under the Federal Power Act (FPA), when determining whether electrical rates are “just and reasonable,” does FERC have authority to conduct an environmental review?

RESPONSE: The Commission’s regulations provide that in the typical electric rate proceeding, neither an Environmental Assessment nor an Environmental Impact Statement will be prepared. 18 C.F.R. § 380.4(a)(15) (2020). However, the Commission’s regulations provide an exception that the Commission could prepare an Environmental Assessment or an Environmental Impact Statement where circumstances indicate that an action may be a major Federal action significantly affecting the quality of the human environment. 18 C.F.R. § 380(b). The Commission has prepared an Environmental Assessment or Environmental Impact Statement for certain major Federal actions, such as Order No. 888—a major rule requiring all public utilities that own, control, or operate facilities used for transmitting electric energy in interstate commerce to offer non-discriminatory transmission service pursuant to an Open Access Transmission Tariff, and Order No. 70—a major rule implementing the requirements of the Public Utility Regulatory Policies Act of 1978.

- i. Does FERC evaluate reasonably foreseeable upstream and downstream emissions associated with electrical equipment under FERC jurisdiction?

RESPONSE: The Commission’s authority under the FPA is to review rates to determine if they are just and reasonable and not unduly discriminatory or preferential. In doing so, the Commission does not evaluate the emissions of electrical equipment that may underlie those rates.

- b. Under the FPA, when determining whether the planning and cost allocation for electric transmission is “just and reasonable” does FERC have authority to conduct an environmental review?

RESPONSE: The Commission has found, and the U.S. Court of Appeals for the District of Columbia Circuit has agreed, that regional transmission planning and cost allocation for electric transmission are subjects within the Commission’s ratemaking authority under the FPA. As noted in response to question 3(a) above, the Commission’s regulations provide that in the typical rate proceeding neither an Environmental Assessment nor an Environmental Impact Statement will be prepared.

- i. Does FERC evaluate reasonably foreseeable upstream and downstream emissions associated with transmission facilities under FERC jurisdiction?

RESPONSE: Please see the response to question 3(a)(i) above. I also note, however, that the Commission has limited backstop siting authority for electric transmission facilities. To date, the Commission has not exercised that authority, in large part due to court decisions on that subject. If the Commission were to have siting authority over transmission, we would need to consider reasonably foreseeable upstream and downstream emissions, as required by NEPA.

- c. Under FERC’s delegated authority under Section 3 of the NGA to authorize border-crossing facilities for the import and export of natural gas, does FERC have authority to conduct an environmental review?

RESPONSE: Yes. The Commission conducts environmental reviews regarding these facilities.

- i. Does FERC evaluate reasonably foreseeable upstream and downstream emissions associated with border-crossing facilities under FERC jurisdiction?

RESPONSE: Because the U.S. Department of Energy (DOE) has exclusive authority to permit the import and export of natural gas, courts, in *Sierra Club v. FERC*, 827 F.3d 36, 48 (D.C. Cir. 2016), have held that upstream and downstream emissions associated with these activities are matters for DOE to analyze. The Commission carefully considers the environmental impacts of the construction and operation of facilities that it authorizes.

- ii. Does FERC have authority to assess reasonably foreseeable international emissions?

RESPONSE: As noted above, these are matters for DOE to assess.

- d. Under FERC's authority under Section 3 of the NGA to authorize the siting and construction of LNG facilities, does have authority to FERC conduct an environmental review?

RESPONSE: Yes. The Commission conducts environmental reviews regarding these facilities.

- i. Does FERC evaluate reasonably foreseeable upstream and downstream emissions associated with LNG facilities?

RESPONSE: As noted above, these are matters for DOE to assess.

- ii. Does FERC have authority to assess reasonably foreseeable international emissions?

RESPONSE: With respect to LNG facilities, these are matters for DOE to assess.

4. What role does hydropower, America's most abundant renewable resource, play in the nation's energy mix?

RESPONSE: Hydropower is a very important source of zero-emissions generation in the United States. According to the US Energy Information Administration's Annual Energy Overview, Hydroelectric facilities accounted for approximately 7% of net electricity generated in calendar year 2020. However, hydropower constitutes a much higher proportion of net renewable electricity generation. For example, net electric generation from conventional hydropower facilities accounted for over 36% of net renewable electricity generation in the US in calendar year 2020.

- a. What are the benefits of hydropower production as it relates to grid resilience and reliability?

RESPONSE: Hydropower is a renewable resource that can have great benefits relating to grid resilience and reliability. Hydropower provides essential reliability services, referred to as "ancillary services," which enhance grid reliability and resilience. For example, hydropower, including pumped storage hydroelectric facilities, provide operating reserves. Hydropower facilities can also provide blackstart capability because they can immediately provide power to the grid without the need to withdraw power from the grid. This capability can help to restore the system's power balance after a blackout.

- b. How do the resource attributes of hydropower compare to other renewables, like wind and solar?

RESPONSE: Like other renewables, hydropower is scalable, so that projects of varying capacity can be constructed and operated. Hydropower, like wind and solar, is also weather dependent.

- 5. With the number of existing hydropower projects that will require Federal relicensing set to double in the coming decade, what steps has FERC to improve and streamline the licensing process to prevent unnecessary delays?

RESPONSE: Unfortunately, many licensing delays are due in part to other agencies with mandatory authorities working to process their permitting actions. That being said, the Commission continues to work collaboratively with these federal and state agencies to set achievable schedules and avoid unnecessary delays. Commission staff also works with licensees to ensure complete applications so missing information does not derail the timing for license processing actions.

- a. How many hydroelectric projects does FERC regulate and how many dams?

RESPONSE: The Commission currently regulates over 1,600 licensed or exempted hydroelectric projects (over 1,000 licenses and 600 exemptions), and about 2,700 dams.

- b. How many licensing/relicensing applications are being processed at this time, and how many are expected over the next decade?

RESPONSE: We are currently processing 99 licensing/relicensing applications. In the next 10 years, we expect over 350 additional licensing/relicensing applications to be filed.

- c. What is a reasonable time frame to license a hydroelectric project?

RESPONSE: Each hydro project licensing process presents its own unique challenges. The Commission makes every effort to work with parties to licensing proceedings, including licensees, federal and state agencies, Tribes, nongovernmental organizations, and local residents to share information and act on licenses applications as quickly as possible.

- d. What is the average time frame to permit other types of energy infrastructure (e.g. equivalent capacity of wind, solar, and, natural gas generation)?

RESPONSE: The Commission does not have permitting or siting authority over electric generation resources other than licensing non-federal hydroelectric projects. Instead, states and local siting boards have the authority to site and

permit electric generation facilities. That process is very complicated, and can vary depending on the type of generator, the size of the facility, the siting location, and a number of other aspects of the project. The U.S. Energy Information Administration used the following estimates for “development, permitting and engineering” to prepare the 2020 Annual Energy Outlook: 18 months for natural gas simple cycle combustion turbine; 18 months for natural gas combined cycle turbine; 12 months for onshore wind; 24 months for offshore wind; and 12 months for solar photovoltaic. However, development times vary widely. For example, the Solar Energy Industries Association states that the permitting and siting of solar facilities can take more than three to five years to complete.

6. You stated your concern that the current approach to transmission planning and cost allocation cannot meet future transmission needs, and you suggested further action, including reforms to interregional transmission planning, cost allocation, and interconnection processes. It appears your position on the need for more transmission is predicated on the expectation that a large amount of renewable resources will come online in rural areas far from population centers where most electricity is consumed.

- a. How many miles of high voltage transmission lines and how many miles of local distribution lines comprise the U.S. electric grid today?

RESPONSE: According to the U.S. Department of Homeland Security, there are approximately 600,000 miles of transmission lines (69 kV and above) in service in the United States. High voltage lines (230 kV and greater) makes up nearly a third (185,546 miles) of these circuit line miles. There are more than 5.5 million miles of local distribution lines in the United States.

- b. How many miles of new transmission lines will be needed to meet President Biden’s new target for the U.S. to achieve a 50% reduction in GHGs by 2030 and net-zero emission by 2050?

RESPONSE: There are multiple possible scenarios for how the United States could meet these energy targets, so it is difficult to estimate exactly how much transmission will be needed. For example, a recent Princeton University study estimated that, in order to meet a net-zero emissions target by 2050, existing high voltage transmission capacity will need to increase by about 60% by 2030 and triple compared to 2020 capacity through 2050 to connect wind and solar.

- c. How much will it cost to build the transmission “grid of the future” cited in your testimony?

RESPONSE: The country’s electric sector is already undergoing a major transformation, as there are a growing number of new resources interconnecting to the transmission system and the differing characteristics of those resources are creating new demands on the transmission system. We do not have a particular

cost estimate. However, it is the Commission's job to ensure that the rates under which utilities seek to recover the costs for these investments be just and reasonable and allocated in a way that is roughly commensurate with benefits.

- d. How many miles of new transmission lines were constructed in the last year? How many miles were constructed in the last 10 years?

RESPONSE: According to the North American Electric Transmission Project Database, the C Three Group, L.L.C., approximately 5,568 miles of 115 kV and higher new transmission lines were placed into service in 2020. Approximately 67,152 miles of 115 kV and higher new transmission lines were developed in the United States between 2010 and the end of 2020.

- e. What is the average time frame to plan and construct a new transmission project?

RESPONSE: The states largely oversee the construction of transmission projects. I understand that the time to plan and construct a new transmission project can vary widely due to a number of factors, such as voltage, length, location of the transmission line, and the siting process, which may include federal, state and local entities. Long-haul, high voltage transmission lines generally take longer to plan and construct. According to the Edison Electric Institute, transmission projects typically take 7 to 10 years to plan, site, permit, construct, and energize.

- f. What types of Federal, State, and local permits may be required to plan and construct a major transmission project?

RESPONSE: The authority to site transmission lines is reserved to the states, except for the Commission's limited backstop siting authority, which has never been exercised, largely due to court decisions. However, I understand that in addition to state siting permits, transmission projects may require various authorizations and reviews at the federal, state, and local levels. At the federal level, transmission projects commonly require right-of-way permits from relevant land management agencies; permits under section 404 of the Clean Water Act, section 10 of the Rivers and Harbors Act, and the Bald and Golden Eagle Protection Act; consultation under section 7 of the Endangered Species Act and section 106 of the National Historic Preservation Act; and reviews under the Federal Aviation Administration Act. At the state and local levels, transmission projects commonly require section 401 water quality certificates under the Clean Water Act, right-of-way permits or easements for state lands, encroachment and accommodation permits, and local zoning permits.

- g. What steps is FERC taking to coordinate Federal and State agencies, and streamline the planning and review process?

RESPONSE: Due largely to court decisions regarding DOE's and the Commission's authorities under FPA section 216, the Commission has not exercised its limited backstop authority over electric transmission siting. However, the Commission recently established a Joint Federal-State Task Force on Electric Transmission, noting that infrastructure implicates a host of different issues, including how to plan and pay for these facilities. Given that federal and state regulators each have authority over transmission-related issues and the impact of transmission infrastructure development on numerous different priorities of federal and state regulators, the Commission determined that the area is ripe for greater federal-state coordination and cooperation.

- 7. There has been a lot of discussion, including in FERC's recent advanced notice of proposed rulemaking, about how to define who benefits from a transmission line and therefore who should pay for it. I am concerned that a broad definition of who "benefits" from a particular project will result in customers who don't directly benefit from the line to bear some of the cost, effectively allowing FERC to put costs on customers far and wide.
 - a. Should there be a limit on who is a "beneficiary" so that customers in Illinois don't have to pay for transmission that supports policy decisions in New Jersey? Wouldn't this be consistent with the cost-causation principles that FERC has applied for years?

RESPONSE: I am mindful that, to ensure that transmission rates are just and reasonable, the costs of jurisdictional transmission facilities must be allocated in a manner consistent with the cost causation principle, which requires that the costs of transmission infrastructure be allocated to its beneficiaries in a manner that is at least roughly commensurate with the benefits that they draw from those facilities. With that principle in mind, in the Advance Notice of Proposed Rulemaking (ANOPR) issued in July 2021 in Docket No. RM21-17-000, the Commission sought public comment on how to appropriately identify and allocate the costs of new transmission facilities in a manner that ensures that costs are allocated to beneficiaries in a manner that is at least roughly commensurate with estimated benefits. I look forward to addressing this issue with my colleagues as the ANOPR proceeding continues.

- 8. Speculating on massive transmission projects is a gamble with customer dollars.
 - a. In a rush to try to get transmission built, is there a risk of the transmission projects ultimately not being necessary?

RESPONSE: While this risk may exist with any large project, the Commission can seek to minimize this risk. I believe that this is best done through a forward-

looking, holistic approach to transmission planning, which would have the potential to identify the more efficient or cost-effective solutions for meeting the transmission needs of a changing resource mix. Specifically, doing so has the potential to address the transmission needs of a future generation mix while costing customers considerably less than they would pay to meet those same needs under the status quo – in turn, ensuring that the rates for transmission service remain just and reasonable as the resource mix changes. The Commission is considering these issues further in the above-noted ANOPR proceeding.

- b. Would you agree regulators should only approve transmission projects that are demonstrably necessary based on need, not speculation about non-existing generation projects?

RESPONSE: The Commission has only limited, backstop statutory authority to issue certificates of public convenience and necessity for electric transmission projects. Largely due to court decisions, that authority has never been exercised. Therefore, it is largely the states' responsibility to issue such certificates, and they typically must find that the transmission project is needed before such certificates are issued.

9. As you are aware, residents in New England have become dependent on Russian LNG imports due to political opposition of much-needed pipeline projects. According to a report from DOE's National Energy Technology Lab, the lifecycle GHG emissions of Russian-produced natural gas is significantly higher than U.S.-produced natural gas.
- a. When reviewing the environmental impact of a potential pipeline project, does FERC evaluate energy security considerations?

RESPONSE: I don't agree with the premise of your question. Additional pipeline capacity has not been built in New England primarily because electric generators and pipeline companies have failed to agree on contracts for additional pipeline capacity. As former FERC Chair Joe Kelliher said several years ago, generators don't want to sign contracts for firm gas service when they may only need the additional gas capacity for a handful of cold days in the winter (Testimony of Joseph Kelliher, U.S. Senate Committee on Energy and Natural Resources (July 12, 2018)). In addition, I understand that liquefied natural gas (LNG) imports into the United States and New England have been predominantly from Trinidad and Tobago (approximately 80% and 95%, respectively, in 2020), with countries like Norway and Nigeria constituting most of the other LNG imports over the last five years. In reviewing proposed natural gas pipeline projects, the Commission examines the need for the project, which could include energy security. In my time on the Commission, the Commission has not rejected any projects proposed to bring natural gas to New England.

- b. Does FERC assess the “no project” alternative of importing natural gas from Russia?

RESPONSE: To my knowledge, we have not done so, because the Commission has no jurisdiction to act on requests to authorize the *importation* of LNG. Regulatory authority over LNG exports and imports rests exclusively with DOE, not the Commission.

- 10. Are you aware that the Majority’s CLEAN Future Act would mandate that every State place their transmission system under the control of a Regional Transmission Office (RTO) or Independent System Operation (ISO)?

RESPONSE: Yes, I am aware that the CLEAN Future Act would mandate that every State place their transmission system under the control of an RTO or ISO.

- a. Do you support this policy?

RESPONSE: RTOs and ISOs have provided tremendous benefits, including by improving reliability, reducing costs to customers, and increasing access to and integration of innovative technologies. I believe that the non-RTO/ISO regions of the country could benefit from the greater coordination and regionalization that comes with RTO/ISO membership. That said, I defer to Congress as to whether or not it should mandate that states require transmission systems under their control to join an RTO or ISO.

- b. You previously stated that the FERC does not have the authority to mandate RTOs. Is that still your opinion?

RESPONSE: FERC certainly does not have authority to require non-jurisdictional utilities, such as government-owned utilities and electric cooperatives, to join RTOs. Therefore, even if FERC has authority to require jurisdictional utilities to form an RTO, the RTO couldn’t function effectively in a particular region without the participation of the non-jurisdictional utilities.

- c. Do you believe that FERC should have the authority to preempt state siting decisions? Should it have the authority to overrule state siting decisions?

RESPONSE: I believe that is a matter for Congress to decide. However, Congress decides the issue, it will likely remain important for the Commission and the states to coordinate on transmission siting matters.

11. Are you aware that the Majority's CLEAN Future Act would mandate a so-called "right to clean energy" that would allow large electricity customers to procure renewables at preferential rates, while shifting the cost of 24/7 reliability to average residential customers?

RESPONSE: My understanding is that the "right to clean energy" provision of the CLEAN Future Act prohibits states from erecting barriers to the purchase of clean energy in interstate commerce. While the Commission has the obligation, under the FPA, to ensure that rates for wholesale electricity are just and reasonable and not unduly discriminatory or preferential, states have exclusive jurisdiction over the retail rates paid by residential customers. Therefore, the Commission has limited ability to assess the retail rate impact of this provision of the CLEAN Future Act.

12. Are you aware that the Majority's CLEAN Future Act would require a pipeline to secure all applicable Federal and State permits before the pipeline can acquire access to the project's route through eminent domain? Do you support the Majority's CLEAN Future Act approach, or do you support FERCs existing policy that requires all permits before construction, while allowing pre-construction activities on the right-of-way?

RESPONSE: I am aware that the CLEAN Future Act would require a pipeline to secure all applicable federal and state permits before the pipeline can acquire access to the project's route through eminent domain. I believe that the prerequisites for exercising eminent domain authority are a matter for Congress to decide. However, the Commission has acted to balance the competing interests at stake, including those of stakeholders that seek to challenge the Commission's ultimate decision before irreparable harm may occur, as well as the project's developer's interests in proceeding with construction when it has obtained all necessary permits. The Commission issued Order No, 871 which precludes construction while the Commission considers requests for rehearing. That prohibition on construction applies until the earlier of either the date that a qualifying rehearing request is no longer pending before the Commission or 90 days following the date that a qualifying request for rehearing may be deemed denied by operation of law. The Commission also adopted a general policy of staying its certificate orders under section 7(c) of the Natural Gas Act (NGA) during the rehearing period and pending Commission resolution of any timely requests for rehearing filed by landowners, subject to a 90-day time limitation. Staying the certificate authority also staying the right of eminent domain conferred with the certificate under 7(h) of the NGA.

- a. Is it true that pipeline developers often need to visit right of way in person to conduct surveys and collect environmental data to obtain State permits?

RESPONSE: While FERC does not require in-person surveys on rights of way, some states and federal agencies may. Developers must conduct surveys and collect environmental data to meet federal requirements under the Endangered Species Act, National Historic Preservation Act, and Clean Water Act. The extent to which this requires on-site versus aerial review and activity varies from project to project.

1. As we have witnessed during recent weather events like the deep freeze across a large portion of the country this February, Americans suffer when they lack access to affordable and reliable electricity. Earlier this month, a coalition of consumer groups wrote a letter to this Committee asking us to examine the cost and reliability impacts of regional transmission organizations (RTOs) and vertically integrated markets and provide an analysis of whether RTO expansion will benefit or harm consumers. Both a 2007 task force report directed by the Energy Policy Act of 2005 and a 2008 report from the GAO determined that there was no clear consensus on the benefits of RTOs to consumers. It is long overdue that the federal government revisit this critical issue.
 - a. What analyses has FERC conducted since these reports to examine the cost and reliability impacts of RTOs on retail consumers?

RESPONSE: The Commission has jurisdiction over RTOs/independent system operators (ISO) that operate organized wholesale electric markets serving wholesale customers. States have jurisdiction over retail rates. For this reason, the Commission has limited ability to examine the rate impact of RTOs/ISOs on retail consumers. Nevertheless, the Commission and its staff have conducted some analyses on the benefits of RTO/ISO markets.

In response to the 2008 Government Accountability Office (GAO) report that you mention, the Commission initiated a Common Metrics initiative to track the performance and benefits of RTO/ISO markets. In response to a 2017 GAO report, the Commission expanded the initiative to improve the quality of the data collected and to address capacity markets. Commission staff produced the following reports under the Common Metrics initiative:

- a 2010 report on ISO/RTO Performance Metrics;
- a 2011 Report to Congress on Performance Metrics for ISOs/RTOs;
- a 2012 report on Performance Metrics in Regions Outside ISOs and RTOs;
- a 2014 report on Common Metrics; and
- a 2016 report on Common Metrics for RTO/ISOs and Individual Utilities.

Commission staff posted the latest report, the 2021 Common Metrics report, in July 2021. In the earlier reports, Commission staff had tracked certain reliability metrics, but, in the latest report, Commission staff did not track reliability metrics because the North American Electric Reliability Corporation (NERC) regularly produces its own comprehensive set of reliability metrics. Commission staff's reports are posted on the Commission website: [RTO/ISO Performance Metrics | Federal Energy Regulatory Commission \(ferc.gov\)](https://www.ferc.gov/energy-reliability/rpt/2021-common-metrics-report).

- b. Do you commit to working with this Committee to analyze the cost and reliability impact of RTOs, and to what extent any cost or reliability benefits of RTOs flow through to retail customers?

RESPONSE: I commit to working with the Committee to address the cost and reliability impact of RTOs and the costs and benefits of RTOs to wholesale customers. As I noted above, however, issues regarding impacts on retail customers fall under state jurisdiction.

2. States also appear to have been stripped of their authority in RTO markets, which makes it difficult to hold people accountable for providing reliable and affordable power.
 - a. What are your thoughts with respect to the design and theory behind organized markets?

RESPONSE: Organized wholesale electric markets are designed to provide consumers with reliable electricity at just and reasonable rates. As I stated in my testimony, while organized wholesale electric markets continue to provide for lower prices, greater efficiencies, and increased innovation, they may in certain regards fail to reflect the changes of the modern electricity sector. As RTOs and ISOs address such changes, I support the involvement of states and others in RTO/ISO stakeholder processes as well as in Commission proceedings to ensure that these markets provide reliable and affordable electricity to consumers.

3. During the hearing, in a response to Rep. Barragan, you stated that you got interested environmental justice reviews when you “actually read an environmental impact statement associated with a proposed LNG facility in southeast Texas, and there was a section in there on environmental justice and basically, the environmental impact statement said: well there are only Hispanic people in this neighborhood, there aren't any other folks, Caucasians or others in this neighborhood so therefore, there is no environmental impact, there is no impact on environmental communities, environmental justice communities.”
 - a. Please identify the specific environmental impact statement to which you were referring, including relevant FERC docket or Environmental Impact Statement Database information.

RESPONSE: I was referring to the Environmental Impact Statement for the Rio Grande LNG Project, CP16-454-000, issued April 26, 2019. The D.C. Circuit found the Commission’s analysis of that project’s environmental impacts deficient, in part because the Commission offered no explanation as to why it considered environmental justice impacts differently, and in a more limited fashion, than other environmental resources—i.e., the Commission limited its environmental justice analysis to those census blocks within two miles of the project site even though it used a study area of over 30 miles for its air quality analysis. *Vecinos para el Bienestar de la Comunidad Costera v. FERC*, 6 F.4th 1321, 1330-31 (D.C. Cir. Aug. 3, 2021).

Energy Infrastructure Permitting

1. When the Federal Energy Regulatory Commission (FERC) acts as the “lead agency” when permitting energy infrastructure that spans state lines – such as gas pipelines – should FERC be able to hold participating agencies to a schedule when permitting interstate energy projects?

RESPONSE: The Commission works closely with other federal and states agencies in the permitting process and takes its lead agency role seriously. The Commission will continue to work with other federal and state agencies to meet anticipated schedules.

2. Can the permitting process be improved to complete interstate energy projects in a timelier manner, especially regarding pipelines?

RESPONSE: Yes, I believe the permitting process can be improved. The Commission is currently reexamining its Pipeline Certificate Policy Statement, with an eye toward providing efficiency, certainty, and equity in the process.

3. Could Congressional direction improve the speed and transparency of the permitting of energy projects?

RESPONSE: The Commission stands ready to implement any Congressional direction regarding the process and timing of permitting.

FERC Rulemaking – Uncertainty and Emissions

4. Do you intend to include upstream and downstream greenhouse gas emission assessments in the environmental assessments for natural gas pipelines?

RESPONSE: NEPA requires the Commission to examine all reasonably foreseeable environmental impacts associated with the proposed pipeline project. The Commission examines each case based on its facts. To date, the Commission has generally not found upstream greenhouse gas emissions to be sufficiently reasonably foreseeable and causally connected to proposed pipelines to be included in environmental analyses. The courts have determined that the Commission is required in most instances to include the impacts of downstream emissions in its analyses, and I expect the Commission to comply with this judicial guidance and the requirements of NEPA.

5. If yes, should this standard also apply to the upstream and downstream emissions associated with other projects within FERC's jurisdiction besides gas pipelines?

RESPONSE: I am not certain that this standard would apply to other Commission-regulated projects, such as hydropower projects, which have no upstream and downstream emissions, or LNG export terminals, regarding which the courts have held that it is the U.S. Department of Energy's (DOE) responsibility to study upstream and downstream emissions.

6. Does FERC have the expertise to investigate the total emissions of these projects?

RESPONSE: Yes. The Commission's Office of Energy Projects is staffed with engineers who have the expertise to evaluate and confirm whether project sponsors include the estimated emissions, including greenhouse gas emissions, in their proposed project applications under the Natural Gas Act (NGA).

Landowner Protections/Eminent Domain

7. Many Texans, especially those who reside in the district I represent, are very concerned about how the use of eminent domain will be used to build infrastructure projects. Will you commit to improving the transparency of the use of eminent domain for projects under FERC's jurisdiction for landowners?

RESPONSE: Yes. I believe this to be a critical issue, and I am committed to improving transparency in this area. Through Order No. 871, the Commission recently modified our regulations to temporarily prohibit construction, on a case by case basis, of an approved natural gas project if a party asks the Commission to reconsider its issuance of a certificate approving that project. Under this policy, the Commission will also stay the project's certificate, including the right of eminent domain conveyed by the certificate, while the landowner's request for rehearing is pending. This policy is intended to strike a balance that both protects the interests of parties like landowners who are affected by a new pipeline and gives project developers the certainty needed to make investments in energy infrastructure.

8. Do you plan to use the newly formed Office of Public Participation to promote transparency for these projects and bring in all stakeholders, including landowners, energy consumers, and energy producers?

RESPONSE: The mission of the Commission's new Office of Public Participation is to coordinate and provide assistance to members of the public to facilitate participation in Commission proceedings. The office anticipates engaging with the public through direct outreach and education to facilitate greater understanding of Commission processes and solicit broader participation in matters before the Commission. The new office is currently assisting stakeholders with procedural questions on how to intervene and otherwise participate in Commission proceedings and is examining ways to improve

outreach. The Commission established the office recently and is in the process of assessing the full scope of the office and its work.

9. How can Congress facilitate these efforts to ensure landowners are best represented when considering the development of new infrastructure?

RESPONSE: I do not currently have any suggestions for proposed Congressional action but would be glad to work Congress on this matter.

Power Equity

10. Recently, a prudence review was filed against a decision by the Mississippi Public Service Commission (MPSC) to uprate the capacity of a nuclear power plant in Port Gibson, MS, despite no such complaint being made when the work was being completed. How does the Commission plan to handle this request?

RESPONSE: This proceeding you mention is contested and pending before the Commission. For that reason, the Commission's *ex parte* communications regulations prevent me from discussing the merits of that proceeding.

11. As new technologies emerge that reduce the costs of electricity generation, improve the environmental impacts, and potentially save rate-payer money, should power producers expect FERC to reconsider or revoke decisions made before those technologies even existed?

RESPONSE: Most power producers in Commission-jurisdictional wholesale markets do not transact using traditional cost of service rates, but rather rely on market-based rate authority to transact with other parties. Under this paradigm, power producers accept the risk that they might not be able to fully recover their costs, in exchange for the ability to compete with other suppliers. Accordingly, these power producers, as a general matter, operate with the knowledge that market dynamics – including other market participants and prevailing market rules – might change as new resources enter and system needs evolve.

- a. Are you concerned about the regulatory uncertainty this would create?

RESPONSE: As noted in my response to the previous question, most sales in Commission-jurisdictional markets operate within the dynamics of an evolving market. Power producers have the ability to assess their relative risk and design their business strategies accordingly.

12. If FERC can rescind long-standing decisions concerning rates, how can long-term energy investments be made?

RESPONSE: As noted in my response to Question 11, most power producers participate in Commission-jurisdictional markets without guaranteed cost recovery at the wholesale

The Honorable Richard Glick

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level and operate with the knowledge that market dynamics might change. Nonetheless, long-term energy investments can be supported in various ways, including through wholesale market revenues, long-term contracts, state policy programs, and traditional cost-of-service regulation at the retail level. Each of these methods have proven successful at attracting investment.

The Honorable Larry Bucshon (R-IN)

1. Chairman Glick, can you comment on the ban on imports of solar panels from China and Xinjiang forced labor camps and how that might affect the U.S. solar industry?

RESPONSE:

Estimating the market impacts of U.S. trade policy with China on the solar industry is outside of the Commission's expertise.

2. The Five-Year Review of the Oil Pipeline Index is one of the most important rulemakings for fuel consumers. It is my understanding that the issue of considering a rehearing for this order, which went into effect on July 1, 2021, has been added and then subsequently removed from the Commissioners' agenda twice in the past several months. Can you provide an update on the status of this issue?

RESPONSE: Yes, rehearing of the Five-Year Review of the Oil Pipeline Index is pending before the Commission. I cannot speak to the timing of future Commission action, but I continue to work with my colleagues on this important matter.

The Honorable Robert Latta (R-OH)

1. In your view, why is it important for FERC to examine grid resilience?

RESPONSE: We have seen over the past few years how the increase in extreme weather conditions have impacted the Nation's energy infrastructure. This is occurring while customers are becoming more reliant than ever on electricity for heating, cooling, communications, and transportation. The reliability and resilience of energy infrastructure is a matter of life and death, as we witnessed in Texas in February and in Louisiana in September, and must remain a top priority for the Commission. In the face of greater electrification, extreme weather patterns have underscored that the electric grid needs not only to be able to meet peak demand over a few hours in a year, but also across several days and perhaps weeks of extreme heat and cold. The Commission will continue to work with industry stakeholders to safeguard the reliable and resilient operation of the electric grid.

2. What are the greatest threats to grid resilience?

RESPONSE: Among the major challenges facing the electric grid are prolonged, extreme weather conditions and events. The Commission has several initiatives underway to examine the impact of climate change and extreme weather on electric grid

reliability. The Commission, along with the North American Electric Reliability Corporation (NERC), is also developing key findings resulting from its formal inquiry into the February 2021 cold weather event that affected the Southwest Power Pool, Inc., Midcontinent Independent System Operator, Inc., and Electric Reliability Council of Texas, Inc. regions.

In addition, cyber and physical attacks from advanced and persistent adversaries represent a significant threat to grid resilience. According to both the Office of the Director of National Intelligence and the Department of Homeland Security Critical Infrastructure Security Agency, foreign adversaries have been targeting U.S. critical infrastructure, including energy facilities. These attacks are sophisticated and can disrupt energy service if they are successful.

3. More generally, what criteria does the commission use to determine resilience?

RESPONSE: The Commission has not formally identified criteria to define or determine resilience. In general, the stresses being placed on the electric grid during periods of extreme heat and cold, and extreme weather events, require that the Commission and industry reevaluate traditional means of determining grid readiness to keep the lights on and to quickly restore the system following such events. The Commission recently held a technical conference on Climate Change, Extreme Weather, and Electric System Reliability, which discussed these issues. The Commission is assessing the record from that conference.

4. What role can NERC (North American Electric Reliability Corporation) play in devising certain criteria or standards for utilities to rely on to help in efforts to harden the grid against external threats?

RESPONSE: Certain reliability standards that NERC developed, and the Commission approved, already address grid resilience. For example, the transmission planning standards require that utilities plan for their systems to provide reliable electricity under a range of future scenarios including geomagnetic disturbances. Additionally, the emergency operations family of standards requires that utilities develop, test, and implement plans for restoration and recovery of the grid. The Commission and NERC have published a series of reports assessing best practices for implementing these standards. NERC has established a series of Critical Infrastructure Protection (CIP) standards that address cyber and physical security. NERC also has a process in place to evaluate the effectiveness of standards on a rolling basis.

Additionally, NERC operates the Electricity Information Sharing and Analysis Center (E-ISAC), which has the mission of supporting electricity grid stakeholders to reduce cyber and physical security risk through quality analysis and timely sharing of actionable electricity industry security information. In addition, NERC E-ISAC issues alerts, reports, and bulletins, and conducts webinars on current and emerging industry threats and trends, featuring insights from experts in the E-ISAC in coordination with its partners in the electricity industry and government.

- a. What is FERC doing to ensure the viability of nuclear energy in the United States?

RESPONSE: Under the Federal Power Act (FPA), the Commission's role is to remain technology neutral and ensure that all types of resources have the opportunity to compete in the wholesale electric markets on a level playing field. Although nuclear energy is an integral part of the generation mix, it is not the role of the Commission to determine the appropriate fuel mix for the U.S. electricity system, but rather to adopt wholesale market rules that provide an opportunity for all resources to compete fairly.

The Honorable Greg Pence (R-IN)

Innovators in the Hoosier state and across the country are leading efforts to develop methods of hydrogen fueled energy production. Hydrogen, the most abundant element on earth, has the potential to play a role across the transportation, power generation, industrial, and manufacturing sectors. Key to the commercialization of these projects will be addressing logistical barriers to efficient delivery of resources. Prospective projects will need access to affordable, high-capacity delivery options to receive large quantities of supply for end use applications. This will almost certainly require moving fuel across state lines through pipelines, the most efficient and environmentally friendly method of transporting fuel.

Studies suggest there are opportunities to utilize existing natural gas pipelines for hydrogen distribution. Our European counterparts have already begun demonstrating efforts to both convert existing pipelines for hydrogen and to blend natural gas pipelines with incremental amounts of hydrogen. Involvement from the nation's interstate pipeline regulator could provide certainty to a growing industry that is experiencing substantial private investment.

1. Does the Commission plan to consider opportunities to develop a regulatory framework for interstate hydrogen pipelines?

RESPONSE: The Commission does not currently have a plan to develop such a framework.

2. Does the Commission plan to consider opportunities to utilize existing natural gas pipeline infrastructure for hydrogen distribution?

RESPONSE: It is possible that a certain amount of hydrogen could be transported blended with natural gas in natural gas pipelines, provided that doing so is consistent with the pipelines' gas quality standards and other tariff provisions and that the pipeline meets Pipeline and Hazardous Materials Safety Administration regulations, including requiring the physical composition of the pipeline to be compatible with the substance being transported. Should proposals of that nature be made to the Commission, the Commission would consider them to the extent consistent with our jurisdiction under the Natural Gas Act.

3. What additional authorities are needed by FERC to advance efforts in hydrogen pipelines?

RESPONSE: The Commission has no precedent establishing jurisdiction over hydrogen pipelines. Should Congress explicitly give the Commission authority over hydrogen, or direct the Commission to take any particular action with respect to the transportation of hydrogen, the Commission would exercise that authority consistent with Congress' directives.

The Honorable Debbie Lesko (R-AZ)

1. In instances where the Commission allows transmission providers to set aside transmission capacity for their own customer loads (native load) needs, those so-called "native load reservations" are reserved by the Load Serving Entity (Utility) before the transmission in question is made available to the market. How is the Commission's order consistent with the Commission's – and the CAISO's for that matter – first-come, first-served approach to accessing transmission?

RESPONSE: I read your question to ask about the Commission's order in *California Independent System Operator Corporation*, 175 FERC ¶ 61,245 (2021), issued on June 25, 2021. Because that proceeding is pending before the Commission, I am limited under the Commission's *ex parte* communications rules from commenting on its merits.

2. Why didn't the Commission simply direct CAISO to develop and file tariff provisions that allow for transmission reservations similar to MISO or PJM?

RESPONSE: As stated above, because the proceeding you mention is pending before the Commission, I am limited under the Commission's *ex parte* communications rules from commenting on its merits.

3. CAISO states this is a short-term solution, and they will come up with something else. They have had a year to work through their issues, how can the Commission have faith that they will be able to develop a long-term solution? What happens if they don't?

RESPONSE: I cannot speculate on whether or how the California Independent System Operator Corporation (CAISO) may react to the June order. However, CAISO launched a stakeholder process over the summer to address these matters and held their initial meeting earlier this fall.

4. If utilities have to shed load because transmission through CAISO is curtailed, will the Commission accept responsibility for disrupting existing market rules without reasonable notice in advance of the summer peak?

RESPONSE: As stated above, because the proceeding you mention is pending before the Commission, I am limited under the Commission's *ex parte* communications rules from commenting on its merits.

5. The current transmission market values firm transmission since it is a reliable product that ensures power is delivered. Since CAISO does not grant firm transmission rights across its system, has there been an assessment of the impacts to the transmission market?

RESPONSE: As stated above, because the proceeding you mention is pending before the Commission, I am limited under the Commission's *ex parte* communications rules from commenting on its merits.

6. In FERC Staff's Summer Energy Market and Reliability Assessment (annual study), Staff noted that CAISO was focused on procuring more generation to ensure resource capacity. Staff made no mention of transmission limitations (wildfires being an exception) increasing reliability problems. If transmission is so limited that CAISO must curtail the transfer of power through their system (wheeling), why wasn't this mentioned in a very thorough report?

RESPONSE: In the 2021 Summer Energy Market and Reliability Assessment (Assessment), Commission staff provided its outlook for energy markets and reliability for the months of June, July, August, and September 2021. On May 20, 2021, Commission staff presented the report at a Commission meeting and posted it to the Commission's website. This report discussed reliability and expected energy reserve margins in California and the West, as well as efforts by CAISO and others to ensure resource adequacy and reliability in California.

While staff's report necessarily took a broad view of expected system conditions in California and concerns about summer reliability there, it did not assess specific transmission scenarios in CAISO or elsewhere that could lead to curtailments of energy. Nonetheless, staff acknowledged concerns about import limitations nationwide on page 23 of the Assessment: "However, extreme conditions, such as prolonged drought, unusually high temperatures, large wildfires, and generator underperformance, may reduce reserve margins or limit energy imports that affected regions depend on from neighboring systems to serve increased demand or compensate for internal forced outages, causing operational challenges and increasing the risk of unserved load."

7. FERC is a proponent of energy markets. How do you think this order will further FERC's goal of creating an energy market in the West when your CAISO tariff revision decision creates isolationist policies?

RESPONSE: As stated above, because the proceeding you mention is pending before the Commission, I am limited under the Commission's *ex parte* communications rules from commenting on its merits but I continue to believe that ensuring truly competitive

energy markets and expanding organized regional markets are the best approaches for achieving just and reasonable rates. [

8. How does FERC go against their own precedent in an open access market for transmission to allow for an interconnected grid that provides a more reliable service to ALL customers?

RESPONSE: As stated above, because the proceeding you mention is pending before the Commission, I am limited under the Commission's *ex parte* communications rules from commenting on its merits.

9. There has been discussion of late in legislation and in the regulatory world of expanding FERC's siting authority for electric transmission facilities. FERC currently has relatively broad authority to site interstate gas pipelines, but problems persist in siting this infrastructure as well. What areas have proven problematic for FERC's current authority to site natural gas infrastructure?

RESPONSE: I do not believe that the Commission lacks necessary authority with respect to siting interstate natural gas pipelines. I acknowledge that over the past several years a number of issues with regard to the Commission's pipeline certificate work has received attention, such as environmental protection, environmental justice and the treatment of stakeholders, and landowners. I am committed to the Commission addressing those important issues.

10. A significant amount of discussion is taking place on the electric transmission infrastructure and FERC has just opened an Advanced Notice of Proposed Rulemaking on the subject; Transmission is expensive to construct, how will any new FERC rules allocate costs to ensure that customers receive measurable benefits from new transmission? How does FERC plan to define benefits and what will the thresholds be to determine if an entity is a beneficiary?

RESPONSE: I am mindful that, to ensure that transmission rates are just and reasonable, the costs of jurisdictional transmission facilities must be allocated in a manner consistent with the cost causation principle. With that principle in mind, in the Advance Notice of Proposed Rulemaking (ANOPR) issued in July 2021 in Docket No. RM21-17-000, the Commission sought public comment on how to appropriately identify and allocate the costs of new transmission facilities in a manner that ensures that costs are allocated to beneficiaries in a manner that is at least roughly commensurate with estimated benefits. I look forward to addressing this issue with my colleagues as the ANOPR proceeding continues.

11. Does FERC plan to mandate an RTO in the West or South, and, if so, how would it propose to do that?

RESPONSE: RTOs and ISOs provide tremendous benefits, including by improving reliability, reducing costs to customers, and increasing access to and integration of

The Honorable Richard Glick
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innovative technologies. I believe that the non-RTO/ISO regions of the country, including both the West and the South, would benefit from the greater coordination and regionalization that comes with RTO/ISO membership. The decision to establish an RTO is probably best made by the regions themselves. In both the West and the South much of the transmission infrastructure is owned by utilities that are exempt from Commission jurisdiction under section 201(f) of the Federal Power Act. So even if FERC were to vote to require RTO formation, I doubt it would be an effective RTO without the inclusion of entities for which FERC couldn't require RTO participation.

The Honorable Jeff Duncan (R-SC)

Greenwood County had been going back and forth with FERC on the type and construction of an emergency fuse plug at the Lake Greenwood Dam. The location of the Fuse Plug was approved previously by FERC, but the Atlanta Regional FERC office later determined that if the fuse plug were to be activated (which has not occurred in the entire existence of the lake, including devastating flooding of 2015), there would be severe damage to the surrounding area. What is FERC doing to ensure the viability of nuclear energy in the United States?

RESPONSE: With regard to your concerns about the Lake Greenwood Dam, please see my response below. With respect to your question about the viability of nuclear energy, the Commission does not have siting authority over nuclear facilities. Further, under the Federal Power Act (FPA), the Commission's role is to remain technology neutral and ensure that all resources have the opportunity to compete on a level playing field. Although nuclear energy is an integral part of the generation mix, it is not the role of the Commission to determine the appropriate fuel mix for the United States electricity system, but rather to adopt market rules that provide an opportunity for all resources to compete.

This Lake Greenwood dam remediation has moved at a glacial pace and has been going on for over 15 years. I think it is emblematic of larger bureaucratic problems with FERC. Not only has Greenwood County spent a lot of time dealing with this, they have also spent a lot of money. FERC mandated they impanel a Board of Consultants, costing Greenwood \$135,000 dollars. Further, there is no assurance on FERC's end that they will accept the Board of Consultant's proposal. This means Greenwood could be paying thousands of taxpayers dollars to ultimately have their proposal rejected. There has to be a better way to do this. Chairman Glick-you noted in your testimony the importance of environmental justice in the context of decision-making. Look at this situation—FERC has made a small, rural county go back and forth for 15 years at the total cost of \$2 million dollars and countless hours and personnel.

1. Could you please provide my office with a status update of the where this is currently at with FERC?

RESPONSE: Substantial progress has been made on the design for the remediation for the emergency spillway at Buzzard's Roost Dam. On January 4, 2021, Greenwood County submitted the second Board of Consultants (BOC) report with the BOC recommendations on the 60% design for the concrete weir downstream of the existing

fuseplug. The Commission approved the 60% design with comments to be addressed in the 90% design. The 90% design package is scheduled to be submitted by December 31, 2021. In addition, Greenwood County submitted a drilling plan for additional geologic borings of the existing fuse plug and proposed concrete weir area to gather additional geologic data to support the final design of the new concrete weir downstream of the existing fuse plug on August 26, 2021. Greenwood County's revision of the plan, responding to Commission staff comments, is due on October 21, 2021. Based on current estimates, construction is expected to start in late 2022 and be completed in Summer 2023.

To ensure coordination on these efforts, Commission staff is holding a bimonthly coordination call with Greenwood County where progress and action items on the remediation work and regular dam safety items are discussed.

2. Recently, the Court of Appeals vacated the certificate FERC issued to the Spire STL Pipeline, which could result in the pipeline being shut down and ceasing operations. What is FERC doing to ensure that the gas utility and its customers that receive natural gas transported on the pipeline continue to have access to gas, especially this winter?

RESPONSE: The Commission has issued Spire an emergency certificate to allow it to continue operation in the short term, while the Commission considers the record developed in response to Spire's request for a longer-term emergency certificate. I expect that the Commission will act in these proceedings in a timely manner.

3. When will FERC finalize its ongoing process to possibly update its Certificate Policy Statement and clarify the scope of its environmental reviews for proposed projects?

RESPONSE: I hope to finish that process in the near future. I will continue to work with my colleagues on this important matter.