BRETT GUTHRIE, KENTUCKY CHAIRMAN FRANK PALLONE, JR., NEW JERSEY RANKING MEMBER

ONE HUNDRED NINETEENTH CONGRESS

Congress of the United States Douse of Representatives COMMITTEE ON ENERGY AND COMMERCE 2125 RAYBURN HOUSE OFFICE BUILDING

WASHINGTON, DC 20515-6115 Majority (202) 225-3641 Minority (202) 225-2927

April 22, 2025

Mr. Tyler H. Norris James B. Duke Fellow Duke University 9 Circuit Drive Box 90328 Durham, NC 27708

Dear Mr. Norris:

Thank you for appearing before the Subcommittee on Energy on Wednesday, March 5, 2025, to testify at the hearing entitled "Scaling for Growth: Meeting the Demand for Reliable, Affordable Electricity."

Pursuant to the Rules of the Committee on Energy and Commerce, the hearing record remains open for ten business days to permit Members to submit additional questions for the record, which are attached. The format of your responses to these questions should be as follows: (1) the name of the Member whose question you are addressing, (2) the complete text of the question you are addressing in bold, and (3) your answer to that question in plain text.

To facilitate the printing of the hearing record, please respond to these questions with a transmittal letter by the close of business on Tuesday, May 6, 2025. Your responses should be mailed to Calvin Huggins Legislative Clerk, Committee on Energy and Commerce, 2125 Rayburn House Office Building, Washington, DC 20515 and e-mailed to Calvin.Huggins1@mail.house.gov.

Thank you again for your time and effort preparing and delivering testimony before the Subcommittee.

Sincerely,

Robert & Statte

Robert E. Latta Chairman Subcommittee on Energy

cc: Kathy Castor, Ranking Member, Subcommittee on Energy

Attachment

Additional Questions for the Record

The Honorable Robert E. Latta

- 1. We all agree on the importance of modernizing our infrastructure to ensure we reliably get power to AI data centers. As the co-chair of the Grid Innovation Caucus, I am interested in grid enhancing technologies that improve the performance of the transmission system. An example is the use of advanced power conductors that can double capacity of the grid using the same right of way.
 - a. Can you please comment on this approach to ensure we get the most out of the current grid by deploying modern technology?
- 2. The report that you co-authored, and referenced in testimony, concludes that 76 GW or 98 GW of headroom may be available (depending on assumed level of load curtailment). This analysis is premised on real-time operations as opposed to long-term planning. The report states that the analysis does not include real-time operational factors: "The analysis does not consider the technical constraints of power plants that impose intertemporal constraints on their operations (e.g., minimum downtime, minimum uptime, startup time, ramping capability, etc.) and does not account for transmission constraints."
 - a. Why were these constraints excluded, and do you have any sense on how they may affect the ultimate conclusion in the report if they were included?
 - b. Given the exclusion in the report of key planning considerations such as ensuring adequate transmission capacity, ramping capacity, and ramp-feasible reserves, should policymakers take away from this study a conclusion that, in concept, certain grids in the United States may have headroom to accommodate new loads?
 - c. What additional work is being done to examine this "headroom" potential?
 - d. In terms of analyzing headroom and maximizing the benefit of investment within this headroom or to meet incremental needs, is an integrated utility planning construct the best way to evaluate such investments for generation and related infrastructure?
- 3. Regarding planning for transmission, what specific impediments have you identified to current state and regional planning for the siting of transmission projects?
 - a. What are examples of impediments you have identified and what is necessary for system planners to overcome these impediments?
 - b. What reforms do you recommend to improve state and regional planning to overcome these impediments?

The Honorable Doris Matsui

1. Given the unprecedented growth in electricity demand and the lack of transmission available to serve that demand, what should utilities and the federal government do to accelerate the use of technologies, such as advanced conductors, that will quickly and cost effectively increase the capacity and efficiency of the existing grid along current rights of way?