To: Chair Bobby L. Rush (D-IL), House Energy Subcommittee
Senator Tammy Duckworth (D-IL)
Senator Richard Durbin (D-IL)
From: Sara Kuse, Illinois Resident
Subject: Accelerating US decarbonization under Federal Energy Regulatory Commission

Introduction

Decarbonization requires a network of high voltage transmission lines to deliver cheaper and cleaner power to its demand centers. A vast network of transmission lines will lower electricity bills and clean up the energy system. While the recently enacted Infrastructure Act of 2021 contains some provisions for the construction of new high-voltage transmission lines, it has yet to implement a comprehensive strategy to build a much-needed national supergrid. To streamline the siting and construction of a national electric grid Congress should take two steps. It should adopt the Streamlining Interstate Transmission of Electricity Act into the Build Back Better Bill and amend the Federal Power Act to revitalize the National Interest Electric Transmission Corridor (NIETC) designation program under the purview of the Federal Energy Regulatory Commission (FERC).

Decarbonization of the global energy system is one of the biggest challenges of this generation and it is a task that requires a coordinated national strategy. While the effort to achieve decarbonization is immense, it is still affordable[i]. Key to this big effort is the buildout of a national electricity grid. As the price of renewable energy has dropped precipitously, the challenge is to deliver power to people where they are, when they need it[ii]. Lower cost renewable energy generation creates a need for transmission, it does not facilitate investment in building the necessary infrastructure. Low-cost renewable energy sources are often located far from demand-centers, requiring the buildout of a network of long-distance high-voltage transmission lines. The US will need to triple its transmission infrastructure to decarbonize by 2050[iii].

Background

The good news is that the US is equipped to meet this challenge. The US successfully permitted and built over 100,000 miles of gas pipeline[iv] in the last decade. This national network of energy infrastructure was built because the bipartisan Natural Gas Act of 1978 removed unnecessary barriers for pipeline construction in the aftermath of significant energy shortages. Congress streamlined the process under the sole purview of FERC, allowing for projects to run more efficiently in the face of decreased bureaucratic hurdles. As the urgency of climate change demands electrification, Congress needs clear the path for electric infrastructure projects in the same way it has for fossil fuels.

Discussion

(1) Adopt the SITE Act into the Build Back Better Bill

States oversee the process of transmission line siting and grant siting permits. This slow and bureaucratic process is a significant obstacle to transmission line construction, often taking as long as ten years[v]. State authorization requires overcoming extensive administrative hurdles, opposition from landowners, and obtaining separate approval from every state the transmission line passes through. Current federal law[vi] grants the Federal Energy Regulatory Commission (FERC) narrow authority to issue a federal permit in areas designated as National Interest Energy

Transmission Corridors (NIETCs). However, FERC can issue federal permits only in cases where a state "impermissibly stalls" a project proposed within an NIETC, but not when outright rejected[vii]. The latest Infrastructure Act[viii] takes a conservative approach and simply amends Section 216 to expand FERC's backstop authority to cases in which states have denied an application in an NIETC.

Congress should adapt the Streamlining Interstate Transmission of Electricity (SITE) Act[ix] into the final Build Back Better Bill to create a consolidated and streamlined process for siting managed by FERC. The SITE Act, grants FERC automatic and exclusive authority to permit all transmission projects that cross at least two states and carry more than 1,000 megawatts.[x] The SITE Act removes the complex hurdle of coordination between states, federal agencies, regulators, industry, and local landowners.[xi]

FERC has a proven record of success in building out an interstate energy system. FERC manages the entire process of the natural gas pipeline siting through the authority granted in the Natural Gas Act[xii]. Natural gas pipelines have and continue to benefit greatly from federal authority over the siting process. Unlike electric transmission lines, interstate gas pipelines require single approval from FERC. The commission approved more than four-hundred natural gas pipeline proposals, rejecting only two since 1999[xiii]. In the last decade, the US has added 107,400 miles of gas pipelines[xiv] and zero miles of ultrahigh voltage transmission[xv].

(2) Amend the Federal Power Act to grant corridor designation authority to FERC

Success of expanding FERC's siting authority and construction of new transmission lines relies on the expansion of areas designated as National Interest Electric Transmission Corridors (NIETCs). Under current law, FERC may only issue federal permits within an NIETC designated by DOE[xvi]. Without new corridors, FERC can't exercise its enhanced authority.

Despite significant changes in demand for clean electricity, DOE has not designated any new corridors since 2007[xvii]. This is due in part to the lengthy and bureaucratic designation process managed by DOE and reviewed by FERC. Siting and corridor designation each require a separate consultation, NEPA review, and agency process before a transmission project is approved, taking 6 years on average.[xviii] The Infrastructure Act makes updates to the criteria for new corridor designation[xix], but does little to address the procedural obstacles faced by DOE in designating new transmission corridors.

Congress can remove barriers in the corridor designation process by amending the Federal Power Act to grant FERC exclusive authority to designate new NIETCs. Consolidating authority under FERC can reduce the time and cost of transmission development and provide a quick and practical approach to corridor designation.[xx]

Current federal statute gives DOE legal authority to delegate corridor designation to FERC. Delegation was considered and ultimately rejected by DOE in 2011 due to concerns over maintaining Congress' intent of a narrow transfer of jurisdiction to FERC. FERC's proposal was viewed as a "re-write rather than a re-implementation" of Section 216[xxi]. However, over the last decade, the view has changed. Congressional committees agree that a rewrite of Section 216 is a necessary step to address the growing demand for transmission infrastructure[xxii].

Conclusion

A decarbonized energy system demands a national supergrid to unlock renewable capacity and connect high renewable capacity with high demand. A strategic national grid transports high volumes of energy across vast distances, optimizing energy resource and maximizing system efficiency. Through streamlining corridor designation and permitting of transmission projects under FERC, the Congress Energy Committee Chairs have an opportunity to accelerate the deployment of clean energy and build the transmission infrastructure of the new clean economy.

End Notes

[i] Seltzer, Molly. "Big but Affordable Effort Needed for America to Reach Net-Zero Emissions by 2050, Princeton Study Shows." *Princeton University*, 20 Dec. 2020, https://www.princeton.edu/news/2020/12/15/big-affordable-effort-needed-america-reach-net-zero-emissions-2050-princeton-study.

[ii] Cicala, Steve. "Decarbonizing the U.S. Economy with a National Grid." *Energy Policy Institute at The University of Chicago*, 1 June 2021, https://epic.uchicago.edu/area-of-focus/decarbonizing-the-us-economy-with-a-national-grid/

[iii] Seltzer, Molly. "Big but Affordable Effort Needed for America to Reach Net-Zero Emissions by 2050, Princeton Study Shows." *Princeton University*, 20 Dec. 2020, https://www.princeton.edu/news/2020/12/15/big-affordable-effort-needed-america-reach-net-zero-emissions-2050-princeton-study. and Meyer , Robinson. "Unfortunately, I Care About Power Lines Now." *The Atlantic* , 28 July 2021, https://www.theatlantic.com/science/archive/2021/07/america-is-bad-at-building-power-lines-lets-fix-that-transmission-climate/619591/.

[iv] Meyer , Robinson. "Unfortunately, I Care About Power Lines Now." *The Atlantic* , 28 July 2021, https://www.theatlantic.com/science/archive/2021/07/america-is-bad-at-building-power-lines-lets-fix-that-transmission-climate/619591/. and Gas Industry Miles of Pipeline and Main by Type." *American Gas Association*, 1 May 2020, https://www.aga.org/contentassets/71fe352cf6fa4291a29be724ab0622b8/table5-1.pdf.

[v] "Solving the Climate Crisis: The Congressional Action Plan for a Clean Energy Economy and a Healthy, Resilient, and Just America." *House Select Committee on the Climate Crisis* , 1 June 2020, https://climatecrisis.house.gov/sites/climatecrisis.house.gov/files/Climate%20Crisis%20Action%20Plan.pdf. (page 60)

[vi] "SUMMARY OF REGULATIONS IMPLEMENTING FEDERAL POWER ACT SECTION 216(h)." *Department of Energy*, 1 Sept. 2008, https://www.energy.gov/sites/default/files/oeprod/DocumentsandMedia/Summary_of_216_h__rules_clean.pdf.

[vii] Also known as "backstop" authority, Section 216 Federal Power Act
Eames, Frederick. "Resurrecting Federal 'Backstop Siting' Authority for Interstate Transmission." *The National Law Review* , 27 Jan. 2021, https://www.natlawreview.com/article/resurrecting-federal-backstop-siting-authority-interstate-transmission and Zevin, Avi, et al. "Building a New Grid without New Legislation: A Path to Revitalizing Federal Transmission Authorities." *Columbia SIPA Center on Global Energy Policy*, 14 Dec. 2020, https://www.energypolicy.columbia.edu/research/report/building-new-grid-without-new-legislation-path-revitalizing-federal-transmission-authorities (Executive Summary, section 216 description)

[viii] Barrowes, Brooksany, et al. "Massive Bipartisan Infrastructure Bill Includes Billions in Funding and Process Improvements for Energy and Infrastructure." *Kirkland & Ellis Energy Blog* , 10 Aug. 2021, https://www.kirkland.com/publications/blog-post/2021/08/bipartisan-infrastructure-bill.

[ix] "H.R. 4971." *Congress*, 6 Aug. 2021, https://www.congress.gov/117/bills/hr4971/BILLS-117hr4971ih.pdf.

[x] "WHITEHOUSE & QUIGLEY INTRODUCE BILLS TO POWER CLEAN ENERGY FUTURE." *Sheldon Whitehouse United States Senator for Rhode Island* , 6 Aug. 2021, https://www.whitehouse.senate.gov/news/release/whitehouse-and-quigley-introduce-bills-to-power-clean-energy-future., Meyer , Robinson. "Unfortunately, I Care About Power Lines Now." *The Atlantic* , 28 July 2021, https://www.theatlantic.com/science/archive/2021/07/america-is-bad-at-building-power-lines-lets-fix-that-transmission-climate/619591/

[xi] "WHITEHOUSE & QUIGLEY INTRODUCE BILLS TO POWER CLEAN ENERGY FUTURE." *Sheldon Whitehouse United States Senator for Rhode Island* , 6 Aug. 2021, https://www.whitehouse.senate.gov/news/release/whitehouse-and-quigley-introduce-bills-to-power-clean-energy-future.

[xii] "An Overview of the Federal Energy Regulatory Commission and Federal Regulation of Public Utilities." *Federal Energy Regulatory Commission* , 1 June 2018, https://www.ferc.gov/sites/default/files/2020-07/ferc101.pdf.

[xiii] Zevin, Avi, et al. "Building a New Grid without New Legislation: A Path to Revitalizing Federal Transmission Authorities." *Columbia SIPA Center on Global Energy Policy*, 14 Dec. 2020, https://www.energypolicy.columbia.edu/research/report/building-new-grid-without-new-legislation-path-revitalizing-federal-transmission-authorities (Section A)

[xiv] Gas Industry Miles of Pipeline and Main by Type." *American Gas Association*, 1 May 2020, https://www.aga.org/contentassets/71fe352cf6fa4291a29be724ab0622b8/table5-1.pdf and Meyer , Robinson. "Unfortunately, I Care About Power Lines Now." *The Atlantic* , 28 July 2021, https://www.theatlantic.com/science/archive/2021/07/america-is-bad-at-building-power-lines-lets-fix-that-transmission-climate/619591/

[xv] Fairley, Peter. "CHINA'S AMBITIOUS PLAN TO BUILD THE WORLD'S BIGGEST SUPERGRID." *IEEE Spectrum* , 21 Feb. 2019, https://spectrum.ieee.org/chinas-ambitious-plan-to-build-the-worlds-biggest-supergrid. https://www.theatlantic.com/science/archive/2021/07/america-is-bad-at-building-power-lines-lets-fix-that-transmission-climate/619591/

[xvi] "SUMMARY OF REGULATIONS IMPLEMENTING FEDERAL POWER ACT SECTION 216(h)." *Department of Energy*, 1 Sept. 2008, https://www.energy.gov/sites/default/files/oeprod/DocumentsandMedia/Summary_of_216_h__rules_clean.pdf.

[xvii] "NATIONAL ELECTRIC TRANSMISSION CONGESTION STUDY." *US Department of Energy*, 1 Aug. 2006, https://www.energy.gov/sites/default/files/Congestion_Study_2006_ES.pdf. and "NATIONAL ELECTRIC TRANSMISSION CONGESTION STUDY." *US Department of Energy*, 1 Sept. 2020, https://www.energy.gov/sites/default/files/2020/10/f79/2020%20Congestion%20Study%20FINAL%2022Sept2020.pdf. (page vi)

[xviii] Zevin, Avi, et al. "Building a New Grid without New Legislation: A Path to Revitalizing Federal Transmission Authorities." *Columbia SIPA Center on Global Energy Policy*, 14 Dec. 2020, https://www.energypolicy.columbia.edu/research/report/building-new-grid-without-new-legislation-path-revitalizing-federal-transmission-authorities (Section A.1.c)

[xix] Barrowes, Brooksany, et al. "Massive Bipartisan Infrastructure Bill Includes Billions in Funding and Process Improvements for Energy and Infrastructure." *Kirkland & Ellis Energy Blog* , 10 Aug. 2021, https://www.kirkland.com/publications/blog-post/2021/08/bipartisan-infrastructure-bill.

[xx] For example, currently double environmental review for NEPA review (by FERC) and for corridor designation (by DOE) Barrowes, Brooksany, et al. "Massive Bipartisan Infrastructure Bill Includes Billions in Funding and Process Improvements for Energy and Infrastructure." *Kirkland & Ellis Energy Blog* , 10 Aug. 2021, https://www.kirkland.com/publications/blog-post/2021/08/bipartisan-infrastructure-bill. (Section A.1.c)

[xxi] Bingaman, Jeff. "ON DOE DELEGATING GRID AUTHORITY." *United States Senate Committee on Natural Resources* , 12 Sept. 2011, https://perma.cc/QR86-8NRT.

[xxii] "Solving the Climate Crisis: The Congressional Action Plan for a Clean Energy Economy and a Healthy, Resilient, and Just America." *House Select Committee on the Climate Crisis* , 1 June 2020, https://climatecrisis.house.gov/sites/climatecrisis.house.gov/files/Climate%20Crisis%20Action%20Plan.pdf. (page 60)