Senate Energy and Natural Resources Committee

Philip Tatro 271-1403

SB 307-FN, relative to electric transmission service agreements.

Hearing Date: January 23, 2024

Time Opened: 9:02 a.m. **Time Closed**: 10:41 a.m.

Members of the Committee Present: Senators Avard, Pearl, Birdsell, Watters and Altschiller

Members of the Committee Absent : None

Bill Analysis: This bill allows for electric transmission service agreements by New Hampshire electric distribution utilities with the developer of any New England transmission project which has been awarded a grant from, or entered into a transmission capacity contract with, the United States Department of Energy.

Sponsors:
Sen. Avard Sen. Watters Sen. Pearl
Rep. Vose

Who supports the bill: Heather McGrail (Greater Manchester Chamber of Commerce), Kirsten Koch (Business Industry Association of NH), Joe Casey (International Brotherhood of Electrical Workers), Bruce Berke (National Federation of Independent Business), Terron Hill (National Grid), Tim Brennan (National Grid), Sam Evans-Brown (Clean Energy NH), Nick Krakeff (Conservation Law Foundation), Sherry Boschert, Suzanne Fournier, Evan Oxenham, Sherrie Trefry, Daniel Richardson, Em Friedrichs, Susan Richman, Margaret Longley, William Coder, Richard DeMark, A Thomas, Ruth Perencevich, Lois Cote, Johanna Davis, Ellen Farnum, Lorna Austin, Mary Raven, Denise Clark, Fred Portnoy, Mary Till, Ann Rettew, Kate Coon, Andrew Jones, Gary Devore, Margaret Keeler, Sandy Blanchard, Susan Moore, Donna Reardon, and Claudia Istel.

Who opposes the bill: Molly Connors (New England Power Generators).

Who is neutral on the bill: Matthew Fossum (NH Office of the Consumer Advocate), Josh Elliott (NH Department of Energy), Daniel Phelan (NH Department of Energy), and Michael Licata (Eversource).

Summary of testimony presented in support:

Senator Kevin Avard

Senate District 12

- Sen. Avard introduced SB 307-FN, highlighting its significance in allowing electric transmission service agreements between New Hampshire Electric Distribution Utilities and developers of New England transmission projects.
- Sen. Avard emphasized the purpose of the bill, creating a mechanism for electric distribution companies to review Department of Energy-financed transmission projects and assess their public interest, providing an opportunity for cost savings for New Hampshire customers.
- Sen. Avard specifically mentioned the Twin State Clean Energy Link project, expressing the need for New Hampshire to evaluate and consider its benefits, especially in supporting the growing renewable energy industry.
- Sen. Avard noted the project's capacity of 1,200 megawatts of bi-directional transmission, essential for accommodating the expected increase in renewable energy over the next decade.
- Sen. Avard stressed the importance of supporting SB 307-FN to ensure the Twin State Clean Energy Link can contribute long-term benefits to New Hampshire, including economic and environmental advantages.
- Sen. Avard highlighted New Hampshire's current need for transmission lines despite having an abundance of energy generation, citing the urgency to address this gap.
    - Sen. Watters questioned the importance of increasing transmission capacities to enhance energy policy, emphasizing the need for resilience and diversity in the state's energy supply.
    - Sen. Watters highlighted the goal of mitigating spikes in energy costs, as witnessed in the previous year with natural gas and other sources.
    - Sen. Watters suggested that addressing transmission capacity issues is crucial for achieving a more stable and reliable energy system in the state.
- Sen. Avard acknowledged the significance of resiliency in the context of energy infrastructure, emphasizing its importance. Sen. Avard highlighted the multifaceted nature of transmission, indicating its importance in enhancing grid stability.

Sam Evans-Brown

Clean Energy NH

- Mr. Brown emphasized the need for a mechanism to build the transmission line and highlighted the difficulty of achieving this through traditional means.
- Mr. Brown responded to concerns about Hydro Quebec's (HQ) role in solving winter reliability issues, noting that the primary focus is on cost savings rather than addressing winter challenges.
- Mr. Brown defended the flexibility provided by the bill, suggesting that limiting the agreement size to 10 percent is arbitrary and that the state should have the

flexibility to maximize benefits if found beneficial by the Public Utilities Commission (PUC).
- Mr. Brown provided information on Hydro Quebec's capacity expansion plans, including wind, solar, and storage additions, to address concerns about meeting New England's demands.
- Mr. Brown expressed support for the bill, stating that interregional transmission is crucial for achieving a clean energy economy in New England.

Joe Casey

International Brotherhood of Electrical Workers

- Mr. Casey expressed strong support for SB 307-FN, emphasizing its role in enabling new clean energy projects like the Twin State Clean Energy Project, a 1,200-megawatt bidirectional transmission line between New England and Canada.
- Mr. Casey highlighted the potential benefits of the Twin State project, including providing clean and dispatchable power, lowering carbon emissions, reducing utility bills, creating jobs, and generating revenues.
- Mr. Casey emphasized the importance of federally selected projects like Twin State, chosen through a competitive nationwide process, in bringing cost and carbon reduction benefits to New Hampshire customers.
- Mr. Casey cited an independent market report projecting over $8 billion in energy market savings for all New England customers in the first 12 years of Twin State's operation, with New Hampshire's share of the savings exceeding $800 million.
- Mr. Casey noted additional projections of 17.5 million metric tons of carbon emissions reductions over the same period.

Terron Hill

National Grid

- Mr. Hill described SB 307-FN as enabling legislation, creating a pathway for transmission service agreements with developers of federally selected projects.
- Mr. Hill emphasized flexibility in contracting, allowing for up to 240 megawatts of capacity to benefit customers. Mr. Hill also highlighted the bill's flexibility regarding the duration of agreements, with up to 40 years to maximize cost savings.
- Mr. Hill stated the bill would require New Hampshire utilities to evaluate federally selected projects, advancing the process with the PUC if they offer savings and benefits.
- Mr. Hill focused on the unique benefits of the Twin States Clean Energy Link for New Hampshire, addressing the critical shortage of clean, reliable resources in New England.

- Mr. Hill cited an independent market assessment showing annual average energy market savings of $68 million in New Hampshire over the first 12 years of Twin States operation.
- Mr. Hill noted additional savings for customers through direct contracting for capacity over Twin States, locking in costs for affordable electricity.
- Mr. Hill emphasized the bi-directional capability of Twin States, enabling energy producers in New England to export excess capacity to Quebec during times of lower demand.
- Mr. Hill projected contributions to New Hampshire's GDP during the construction period and increased property tax revenue for host communities.
- Mr. Hill mentioned the assembly of community benefits programs totaling more than $100 million for New Hampshire towns and cities along the route.

Tim Brennan

National Grid

- Mr. Brennan emphasized that the benefits of the Twin States Clean Energy Link aren't solely dependent on a constant 1200 megawatts flowing from Canada to New England.
- Mr. Brennan compared the project to a line in Maine with a firm contract of over 1000 megawatts flowing from New England to Canada.
- Mr. Brennan explained that the modeling, submitted with the DOE application, assumed dynamic use of the line, not a constant flow. He also predicted scenarios where clean energy export to Canada could occur during low prices in New England.
- Mr. Brennan highlighted that during low prices, renewable resources may compete, and some could even pay to stay generating for the value of renewable energy certificates.
- Mr. Brennan anticipated that at high prices in New England, the model predicted a return flow from Canada to New England, optimizing the benefits for both regions.
- Mr. Brennan clarified that the modeling results were based on a net import to New England of over one terawatt-hour, not the entire 10.5 terawatt-hour capacity of the line.
- Mr. Brennan reiterated that the projected benefits, including the $8 billion and 17.5 million metric tons of carbon reductions, weren't contingent on Canada having excess power.
- Mr. Brennan addressed potential concerns about energy flow and assured that the legislation allows consideration of mechanisms, such as energy storage agreements, to regulate flows and ensure predicted benefits.
- Mr. Brennan clarified the origin of the 240-megawatt figure, linking it to SB 54 and the proportional load share calculation.
- Mr. Brennan calculated New Hampshire's load share at about 10%, aligning with expectations. Mr. Brennan also advocated for regional sharing of the project's benefits and costs, emphasizing the importance of flexibility.

- Mr. Brennan provided an example scenario where one state might not contribute, but others do, stressing the need for New Hampshire's flexibility in adjusting its share. Mr. Brennan also stressed the necessity of flexibility in the legislation, allowing New Hampshire to adapt its contribution based on varying circumstances.
- Mr. Brennan discussed the potential scenario where benefits far outweigh costs, suggesting a need to reconsider the contribution percentage.
- Mr. Brennan highlighted the risk of restricting the project's potential by fixing the contribution at 120 megawatts.
- Mr. Brennan addressed the 40-year contract provision, acknowledging the long lifespan of transmission assets. Mr. Brennan also pointed out that the benefits from transmission projects continue indefinitely.
- Mr. Brennan offered reasons for the flexibility in the contract duration, including the desire to retain usage rights over a longer period. Mr. Brennan discussed the impact of contract duration on the recovery of costs, suggesting a potential sweet spot between 20 and 40 years.
    - Sen. Pearl proposed the inclusion of an annual evaluation provision in long-term transmission service agreements to assess the actual use, allowing for adjustments based on the evolving energy landscape, potential shifts in usage patterns, and the state's role as an energy importer or exporter.
- Mr. Brennan again emphasized the ideal scenario of having each state pay its load share to cover the entire line's cost at the start.
- Mr. Brennan highlighted the flexibility for parties involved to adjust ownership and usage rights during the course of the project.
- Mr. Brennan clarified the concept of purchasing transmission capacity as a mechanism for states to support the project's costs and gain corresponding usage rights.

Summary of testimony presented in opposition:

Molly Connors

New England Power Generators Association

- Ms. Connors stressed the association's skepticism about long-standing assumptions regarding Hydro Quebec's (HQ) surplus capacity.
- Ms. Connors highlighted changes in the New England and Quebec energy systems over the past decade.
- Ms. Connors pointed out challenges faced by Quebec in meeting its peak demand due to aggressive electrification goals.
- Ms. Connors emphasized the parallel demand growth in both Quebec and New England during peak times.
- Ms. Connors referenced a report indicating Hydro Quebec's projected electricity shortage by 2026. Ms. Connors also cautiously presented the association's doubts about Hydro Quebec's ability to meet its demand and potential implications for New England.

- Ms. Connors discussed Hydro Quebec's need for an additional 5,000 megawatts of electricity within the next decade.
- Ms. Connors raised questions about the source of the additional power required by Hydro Quebec.
    - Sen. Avard stated that New Hampshire will be able to transmit energy to Quebec as well upon completion of this project.
- Ms. Connors questioned the Twin States' claim of acting as a large battery for offshore wind, emphasizing their reliance on exports. Ms. Conners also highlighted the implicit need for export from New England to stabilize rates and reduce carbon emissions.
- Ms. Connors pointed out the paradox where Twin States requires New England's power to support its reservoirs for winter demand.
- Ms. Connors emphasized that if Hydro Quebec could meet New England's energy demand independently, the need for New England exports would be unnecessary.
- Ms. Connors criticized the Twin States' reliance on offshore wind, highlighting its expected commercial viability only by 2031.
- Ms. Connors referenced the "2050 Transmission Study" by ISO New England.
- Ms. Connors highlighted the enormous, estimated costs ($17 billion to $26 billion) for upgrading New England's transmission system due to increased electricity demand. She also emphasized the significant financial implications of necessary reliability projects within New England. Ms. Conners also expressed concerns about the proposed $1.72 billion subsidization for the Twin States Clean Energy Link, particularly considering uncertainties surrounding the electricity supply.
- Ms. Connors highlighted challenges that Hydro-Quebec (HQ) is facing, as publicized by HQ, emphasizing their struggle to meet peak demand due to aggressive electrification goals.
- Ms. Connors focused on winter challenges, stressing that both New England and Quebec face increased electricity demand during the winter, creating a dependency on each other.
- Ms. Connors shared examples of HQ's challenges during cold snaps, underscoring the interconnectedness of reliability between New England and Quebec.
- Ms. Connors discussed HQ's difficulties during peak times and referenced news articles and statements from the Energy Minister in Quebec about the need for energy efficiency and potential shortfalls.
- Ms. Connors raised questions about the reliability of HQ's commitments, referencing their exclusion from a recent ISO New England auction and the implications for New England's reliability in 2026.
- Ms. Connors discussed stress conditions in New England, linking two out of three recent capacity shortage conditions to HQ's cutoff of supplies.
- Ms. Connor urged the committee to reconsider assumptions about abundant supply at the end of the transmission line and highlighted the importance of challenging long-held beliefs in the dynamic electricity landscape.

Neutral Information Presented:

Joshua Elliott

NH Department of Energy

- Mr. Elliott highlighted the importance of considering certain factors before passing the bill to safeguard ratepayers in the contractual process.
- Mr. Elliot emphasized that, to the department's knowledge, only the Twin State Clean Energy Connection Link project would be eligible for participation in the outlined process.
- Mr. Elliot acknowledged the department's collaboration with National Grid and provided clarification that the funds were from the U.S. Department of Energy, not the NH Department of Energy.
- Mr. Elliot emphasized the need to scrutinize projects and contracts for their direct benefits to ratepayers. He also identified concerns such as pricing, winter reliability, and options to reduce future costs and alleviate price volatility as key factors to consider.
    - Sen. Avard encouraged consideration of an amendment to encapsulate all relevant aspects when executing the project, emphasizing the importance of a comprehensive approach.
    - Sen. Watters expressed uncertainty regarding the need for changes in the limits specified as 240 and 40.
- Mr. Elliot emphasized the consideration of risk to ratepayers. He also questioned the committee and legislature's willingness to accept a certain level of risk.
- Mr. Elliot advocated for proportional cost-sharing based on New Hampshire's consumption in ISO New England. Mr. Elliot also highlighted the potential benefits and risks associated with the project.
- Mr. Elliot discussed the importance of finding a balance between risk reduction and reaping benefits.

Daniel Phelan

NH Department of Energy

- Mr. Phelan proposed that any agreement under the potential legislation should limit New Hampshire's participation to reflect its 10% share of the New England energy load, advocating for a reduced size of 120 megawatts.
- Mr. Phelan suggested a maximum term of 20 years for agreements, aligning with the principles of SB 54 passed the previous year.
- Mr. Phelan raised concerns about the legislation's lack of clear criteria for the Public Utilities Commission's (PUC) approval of agreements.
- Mr. Phelan recommended adding a new section to allow for the recovery of agreement costs and proposed specific criteria for the PUC to consider in its approval process.

- Mr. Phelan suggested specific criteria for the PUC's assessment, covering aspects like avoiding ratepayer burdens, ensuring energy savings, fostering price stability, mitigating future investments, preventing premature retirements, and enhancing system reliability during extreme weather events.
    - Sen. Watters highlighted the ongoing energy supply transformation, including offshore wind auctions, increased energy efficiency, and emerging technologies like hydrogen.
    - Sen. Watters emphasized the importance of addressing the potential bottleneck in transmission to facilitate the electrification of larger parts of the economy in the evolving energy landscape.
- Mr. Phelan emphasized the focus of the legislation on a specific project, highlighting the characteristics of the transmission project linking New Hampshire to the Quebec hydro system.
- Mr. Phelan stressed that the direct connection to the hydro system limits the opportunity for different resources to connect along the way.
- Mr. Phelan clarified that, per recommendations, the power associated with the line would not be included, and benefits would be derived from market forces and economic decisions of resources.
    - Sen. Watters highlighted the advantageous synergy between offshore wind capacity and the extensive storage supply capacity in Hydro Quebec.
    - Sen. Watters addressed the complexity of determining what "disproportionately burden" means, especially in the evolving energy landscape with a transition to 20-year planning.
    - Sen. Watters raised concerns about distinguishing state versus regional benefits in the long term, emphasizing the challenges in defining such terms given the dynamic nature of the energy system's development.
- Mr. Phelan emphasized the project's focus on linking the New England grid directly to the Hydro Quebec hydroelectric system. He also pointed out that the legislation primarily targets one specific project, highlighting the project's characteristics as important considerations.
- Mr. Phelan clarified that the bill, following recommendations, excludes the power associated with the transmission line from the legislation, leaving it subject to market forces and economic decisions of resources.
    - Sen. Watters inquired about the method or criteria for the Public Utilities Commission (PUC) to ascertain market energy savings over the entire duration of a 20-year agreement and the feasibility of making such predictions.
- Mr. Phelan emphasized the burden of proof should rest on utilities presenting agreements, advocating that they must demonstrate the benefits for New Hampshire ratepayers. He also discouraged prolonged legislative sessions to determine energy market savings, highlighting the need for a clear and convincing case from utilities.
    - Sen. Watters emphasized the need to understand the potential impact of the transmission project on existing resources and questioned the meaning of "unduly induced retirements" in the broader context of transitioning away from fossil fuels.

- Mr. Phelan highlighted that the increase in supply from the transmission project could impact the overall supply mix. He also emphasized that the concerns extend beyond fossil resources to include struggling nuclear resources.
- Mr. Phelan stressed the importance of addressing potential market dynamics that could adversely affect various types of resources.
    - Sen. Avard raised the question about the necessity of additional transmission.
- Mr. Phelan emphasized the importance of determining the purpose behind the need for additional transmission. He also highlighted the significant costs associated with transmission, underscoring the importance of justifying such investments.

Michael Licata

Eversource Energy

- Mr. Licata shared the twofold purpose of testifying: to explain the role of electric distribution utilities, specifically Eversource, in the legislation and to address comments from the committee.
- Mr. Licata described the requirement for electric distribution utilities to review and respond to proposals from transmission developers selected by the U.S. Department of Energy within three months.
- Mr. Licata explained the subsequent process where, if a proposal is found favorable, the electric distribution utility files with the Public Utilities Commission (PUC) for approval, and the regulator assesses whether the proposal is in the public interest.
- Mr. Licata responded to points raised in the NH Department of Energy's (NHDOE)testimony, indicating that, according to their interpretation, energy and storage services might be a separate process, while Mr. Licata emphasized that these could be included in the proposal and reviewed by the PUC.
- Mr. Licata addressed the NHDOE's concerns about cost recovery, expressing readiness to collaborate on any needed changes or clarifications while asserting that the current legislation is fairly clear.
- Mr. Licata mentioned that the 240 megawatts align with the Senate Bill 54 passed last year, explaining that it aims to match transmission capacity with allowable energy procurement under that bill.
- Mr. Licata clarified the "shall not exceed" aspect, indicating that 240 megawatts is a ceiling, not a floor, providing flexibility in procurement.
- Mr. Licata addressed concerns about the length of the agreement, pointing out that transmission projects are substantial investments with extended cost recovery periods, and a long-term approach is not uncommon in the industry.
    - Sen. Pearl sought insight on utility planning adapting to load changes, particularly with upcoming projects like offshore wind and small-scale nuclear, and how it addresses the associated transmission infrastructure needs.

- Mr. Licata detailed the 10-year load forecast process, considering historic usage, industry trends, and economic predictions.
- Mr. Licata emphasized a granular evaluation, starting from distribution to transmission infrastructure. Mr. Licata also clarified the focus on transmission and distribution infrastructure, excluding generation planning.
- Mr. Licata highlighted ISO New England's role in addressing supply, considering factors like offshore wind and evolving predictions.
    - Sen. Pearl sought clarification on what models Eversource uses to forecast usage and load generation as technology evolves within the industry.
- Mr. Licata mentioned reliance on various models, including those from third parties like ISO. Mr. Licata also acknowledged the absence of a crystal ball for making 10-year forecasts.
- Mr. Licata emphasized the importance of these forecasts for capital planning. Mr. Licata also highlighted internal evaluations complemented by third-party assessments, with ISO being a significant contributor.

Matthew Fossum

NH Office of the Consumer Advocate

- Mr. Fossum indicated a position similar to the Department of Energy's stance.
- Mr. Fossum raised concern about the unclear need for electric distribution utilities to buy transmission capacity. Mr. Fossum also pointed out the requirement for immediate resale of purchased capacity, questioning the role of distribution utilities in this process.
- Mr. Fossum expressed the need for clarification on the policy reasons behind involving distribution utilities in this capacity purchase.
- Mr. Fossum stated that the Office of the Consumer Advocate (OCA) agrees with the Department of Energy that customers in New Hampshire should not bear a disproportionate share of any transmission capacity or related costs.
- Mr. Fossum noted that New Hampshire uses about 10 percent of the regional load, which has been relatively steady over time. Mr. Fossum also acknowledged potential changes in electrification and energy usage but emphasized that these changes would likely affect the entire region.
- Mr. Fossum expressed personal skepticism about a significant change in New Hampshire's 10 percent share over the next 20 years.
- Mr. Fossum raised concern about the potential ambiguity in the legislation regarding pro rata share allocation among distribution utilities, suggesting a need for clarification to avoid disproportionate cost burdens on specific companies.

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Date Hearing Report completed: January 25, 2024