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NUCLEAR ENERGY INSTITUTE

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Via Email: DEEP.EnergyBureau@ct.gov
Dr. Rob Klee
Commissioner
Connecticut Department of Energy and Environmental Protection
79 Elm Street
Hartford, CT 06106

Re: Draft Notice of Request for Proposals from Private Developers for Zero Carbon Energy

Dear Commissioner Klee:

The Nuclear Energy Institute[1] ("NEI") appreciates the opportunity to comment on the draft Notice of Request for Proposals from Private Developers for Zero Carbon Energy ("Draft RFP") put forward by the Department of Energy and Environmental Protection ("DEEP").

The Draft RFP issued by DEEP is intended as a precursor step to executing Public Act 17-3, *An Act Concerning Zero Carbon Solicitation and Procurement,* signed by Governor Malloy in October 2017. This law was passed by the legislature with strong bipartisan support. If implemented, the Draft RFP would delay any compensation for providing clean electricity until an "At Risk Time Period" begins, which DEEP proposes would begin no sooner than June 2023. This approach is both unfounded and risks the loss of the large amount of clean energy Millstone provides. It is not what the Governor and General Assembly intended.

DEEP's approach implies that, over the next five years, Millstone will be able to withstand the economic pressures that are driving it toward closure. The economic pressures Millstone is experiencing have already forced the closures of similar plants, with more expected in the near future.

Millstone provides significant benefits to Connecticut and New England that will be extremely difficult, if not impossible, to replace. DEEP should revise the RFP to immediately recognize the environmental

[1] The Nuclear Energy Institute (NEI) is responsible for establishing unified policy on behalf of its members relating to matters affecting the nuclear energy industry, including the regulatory aspects of generic operational and technical issues. NEI's members include entities licensed to operate commercial nuclear power plants in the United States, nuclear plant designers, major architect and engineering firms, fuel cycle facilities, nuclear materials licensees, and other organizations involved in the nuclear energy industry.

value Millstone provides to Connecticut citizens and allow Millstone to participate in this procurement opportunity with a start date as early as 2019.

Benefits of Millstone

Environmental Benefits. Millstone is the single largest source of non-emitting electricity in New England. Its operation prevents the emission of over 8 million metric tons of carbon dioxide each year.[2] This is more than the carbon dioxide emitted by all of the cars in Connecticut. Millstone's operation also prevents the emission of 2,500 tons of nitrogen oxide and 2,400 tons of sulfur dioxide every year. This is consistent with recent historical examples. The closure of Vermont Yankee at the end of 2014 resulted in higher carbon dioxide emissions.[3]

Economic Impacts. Millstone is an economic driver for Connecticut. The operation of the Millstone station supports over 2,700 jobs in the state including employment at the plant of more than 1,500 workers.[4] Its role in reducing electricity costs for New England supports an additional 8,800 jobs across the region. Millstone annually creates $1.3 billion in economic output and adds $630 million to Connecticut's gross state domestic product each year.

Energy Security. New England faces energy security challenges due to a constrained fuel delivery system and a generating portfolio that increasingly is turning away from coal and nuclear sources. ISO New England has sought to highlight these risks to the Federal Energy Regulatory Commission and others in recent analyses. These analyses found that the unexpected loss of Millstone could result in 47 hours in which electricity demand would not be met during the winter months.[5] When ISO-NE evaluated the cold snap at the beginning of 2018, it estimated that without Millstone, an additional 880,000 barrels of oil would have been needed.[6]

Economic Pressures on Nuclear Plants

Because nuclear generation's environmental and other attributes are not valued by wholesale electricity markets, the economic pressures facing Millstone are not unique. Many nuclear plants operating in organized electricity markets are facing intense pressure to close and many are succumbing to that

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[2] Nuclear Energy Institute, *Economic Impacts of the Millstone Power Station*, January 2017. Available at: https://www.nei.org/CorporateSite/media/filefolder/resources/reports-and-briefs/economic-impacts-millstone-power-station-201701.pdf

[3] ISO New England, *2015 ISO New England Electric Generator Air Emission Report*, January 2017, page 22. Available at: https://www.iso-ne.com/static-assets/documents/2017/01/2015_emissions_report.pdf.

[4] *Economic Impacts of Millstone Power Station*.

[5] ISO New England, *Operational Fuel-Security Analysis*, January 17, 2018. Available at: https://www.iso-ne.com/static-assets/documents/2018/01/20180117_operational_fuel-security_analysis.pdf.

[6] ISO New England Response to Federal Energy Regulatory Commission Order on Grid Resilience in Regional Transmission Organizations and Independent System Operators, Docket No. AD18-7-000, page 7. Available at: https://www.iso-ne.com/static-assets/documents/2018/03/ad18-7_iso_response_to_grid_resilience.pdf.

pressure. The same forces that are driving nuclear plant closures in New York, Pennsylvania, and Ohio are being applied to Millstone.

Nuclear plant owners outside of Connecticut have announced the intention to close 28 reactors – some 25,491 MW of secure, non-emitting baseload capacity – since 2013. These closure announcements have been concentrated in the highly populated and energy intensive Northeast and Mid-Atlantic regions where competitive electricity markets have been established. To date, 4,674 MW have prematurely ceased operations. 9,588 MW of the 25,491 MW of total announcements were subsequently preserved through state programs that compensated nuclear plants for their environmental attributes. The remaining 11,229 MW are planning to close but have not yet done so.

The structure of wholesale electricity markets has increased economic pressure on nuclear plants operating in these markets. Wholesale power markets were designed to improve economic efficiency by focusing solely on short-run costs, which are usually driven by the cost of fuel. Hydraulic fracturing techniques have unleashed vast quantities of natural gas. This expanded supply has driven down fuel costs and therefore the wholesale power prices received by all generators in these markets, including nuclear plants.

These markets have not been designed to advance other policy priorities such as advancing environmental goals or ensuring energy security. Policymakers have turned to other tools such as technology-specific tax credits or renewable portfolio standards to shape the generating portfolio to meet non-market goals. Connecticut's zero-carbon procurement opportunity for existing resources builds on these policies by recognizing that nuclear generation provides tremendous environmental and other benefits. As the Governor and General Assembly recognized, however, delaying the valuation of these benefits puts their continued existence at risk.

Conclusion

Economic headwinds are challenging the future of Millstone, which is a valuable asset for the citizens of Connecticut. Public Act 17-3 was passed to ensure that Millstone will be able to contribute to meeting the state's clean energy policy goals. For this policy goal to be realized, the final RFP should remove the proposed "At Risk Time Period." That action is necessary to produce the economic certainty that will enable the long-term investments that will allow Millstone to continue to provide benefits to Connecticut.

Sincerely yours,

Maria Korsnick

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