

BEFORE THE CONNECTICUT SITING COUNCIL

NTE Connecticut, LLC application for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance, and operation of a 550-megawatt dual-fuel combined cycle electric generating facility and associated electrical interconnection switchyard located at 180 and 189 Lake Road, Killingly, Connecticut

Docket No. 470B

Filed: March 21, 2019

INTERVENORS' INTERROGATORIES TO NTE CONNECTICUT, LLC

Connecticut Fund for the Environment, Not Another Power Plant, Sierra Club, and Wyndham Land Trust respectfully request that the petitioner, NTE Connecticut, LLC ("NTE") respond to the following interrogatories concerning its proposed 650 MW combined-cycle natural gas-fired electric generating facility and related and integrated appurtenances ("the Killingly Energy Center" or "KEC"):

Question No. 1: Referring to the Testimony of Timothy Eves dated January 18, 2019, at page 3, please provide a copy of the referenced Engineering Agreement for natural gas pipeline upgrades with Yankee Gas.

Question No. 2: Referring to the Testimony of Timothy Eves dated January 18, 2019, at page 3, please describe in detail the current status of negotiations with Yankee Gas regarding a natural gas pipeline service contract including a copy of a natural gas pipeline service contract if one has been executed and what approvals have been acquired from the State of Connecticut or are still needed with regard to the preservation of the open space, protected lands and wetlands that this gas pipeline would traverse.

Question No. 3: Referring to the Testimony of Timothy Eves dated January 18, 2019, at page 4, please provide a copy of the referenced Water Supply Agreement with Connecticut Water Company.

Question No. 4: Referring to the Testimony of Timothy Eves dated January 18, 2019, at page 4, please provide copies of the referenced Construction Agreements with Connecticut Water Company.

Question No. 5: Referring to the Testimony of Timothy Eves dated January 18, 2019, at page 4, please provide a copy of the Tax Stabilization Agreement executed by the Killingly Town Council.

Question No. 6: Referring to the Testimony of Timothy Eves dated January 18, 2019, at page 4, please provide a copy of the Community Environmental Benefits Agreement.

Question No. 7: Referring to NTE's March 15, 2019 response to Council Interrogatory Nos. 26 and 27, please provide a copy of the executed firm Gas Contract. Will this gas contract result in gas being delivered into New England that would otherwise be unavailable? Please identify which, if any, physical improvements that affect the potential for natural gas flow on the pipeline system in New England during cold winter periods would be made because of the presence of the firm natural gas contract.

Question No. 8: Finding of Fact #344 states that "there is no need for on-site hydrogen for the purposes of generator cooling." Is this still true? Is there a need for on-site hydrogen for other purposes? If so, (a) please identify the quantity and location of hydrogen that would be stored on site; (b) please identify all safety precautions associated with the storage of hydrogen at the site; (c) please provide all analyses NTE has undertaken or commissioned regarding the safety of storing hydrogen in this manner and quantity including any analysis of the blast zone.

Question No. 9: Referring to page 23 of the January 2019 Environmental Overview in Support of Petition for Changed Conditions ("EOSPCC"), please provide a copy of the referenced diversion permit application submitted to the Department of Energy and Environmental Protection ("DEEP") by the Connecticut Water Company ("CWC").

Question No. 10: Referring to page 23 of the EOSPCC, please provide a copy of the amendment to the agreement for the design and permitting of the new natural gas lateral executed with Eversource on October 17, 2017. If this reference is to the same document referenced above in Question No. 1, please simply state as much.

Question No. 11: Referring to page 24 of the EOSPCC, please provide an update on the negotiations with Eversource of a Special Contract for the delivery of natural gas to KEC, including whether State approvals have been sought for any disruption of the open space, protected lands and wetlands resulting from this natural gas delivery. If the Special Contract is finalized, please provide a copy. If this reference is to the same negotiations and information referenced above in Question No. 2, please simply state as much.

Question No. 12: Referring to page 24 of the EOSPCC, please provide an update on the status of the System Impact Study and the coordination between ISO-NE and Eversource regarding the electrical interconnection.

Question No. 13: Referring to the Pre-filed Testimony of Paul J. Hibbard on Behalf of NTE Connecticut LLC dated January 18, 2019 at page 4, did Mr. Hibbard in developing his testimony conduct any analyses of the ability for a combination of existing or new import, generation, demand-side, or storage resources to fully support the expanded integration of variable renewable resources in New England? If so, please provide all such analyses.

Question No. 14: Referring to the Pre-filed Testimony of Paul J. Hibbard on Behalf of NTE Connecticut LLC dated January 18, 2019 at page 4, did Mr. Hibbard in developing his testimony conduct any analyses of the frequency with which KEC would displace higher emitting resources? If so, please provide complete data on the hours per year, for each of the years of KEC's operation beginning in 2022, that its operation will displace other such resources. Please provide all modeling, analysis, and workpapers supporting these calculations, including specific projections of new offshore wind resources, new small scale "behind-the-meter" solar photovoltaic ("PV"); new utility scale solar PV; energy efficiency, or passive demand response, used by ISO-NE to compute net load from gross load; demand response; and new battery storage. To the extent any of these projections differ from ISO-NE's 2018 estimation of these resources or ISO-NE's 2019 CELT estimations of these resources, please so state. Please also provide the specific retirement schedule of any fossil units in New England incorporated into Mr. Hibbard's analysis of the avoided emissions from dispatch.

Question No. 15: Referring to the Pre-filed Testimony of Paul J. Hibbard on Behalf of NTE Connecticut LLC dated January 18, 2019 at page 26, Mr. Hibbard states that: "The ability to reliably dispatch KEC on natural gas during winter peaks could avoid significant additional emissions of CO₂, NO_x, SO₂, and/or Mercury from coal and oil units dispatched to meet reliability needs." Did Mr. Hibbard in developing his testimony conduct any modeling or analysis concerning this statement? If so, please provide this modeling and analysis for all years analyzed.

Question No. 16: Referring to Exhibit 3 to the Pre-filed Testimony of Paul J. Hibbard on Behalf of NTE Connecticut LLC dated January 18, 2019:

- (a) Please provide in Excel file format the underlying data and graph shown in this Exhibit with all formulae intact.
- (b) Please provide in Excel file format a listing of the specific units and the capacity associated with each unit that make up the data shown in this Exhibit.

Question No. 17: Referring to the Pre-filed Testimony of Paul J. Hibbard on Behalf of NTE Connecticut LLC dated January 18, 2019 at page 25, lines 11-18 and page 26, lines 1-4:

- (a) Please provide any modeling supporting claimed CO₂ reductions associated with KEC's operation. If KEC dispatch was modeled for more than one year, provide these data for all years modeled.
- (b) Please confirm whether or not the CPV Towantic combined cycle plant and the Bridgeport Harbor 5 combined cycle plant were included in any modeling identified in part (a). If so, please provide all modeling data.

Question No. 18: Referring to NTE's March 15, 2019 response to Council Interrogatory No. 18, part (c), how does KEC's heat rate vary as it cycles from 47% to 100% of its rated operation? Please provide all data in support of these heat rate values.

Question No. 19: Referring to NTE's March 15, 2019 response to Council Interrogatory No. 18, parts (d) to (h):

- (a) How often and in which hours of the year is it expected that KEC will operate at a full load heat rate of 6500 BTU/kWh?
- (b) How many starts and stops per year is KEC expected to experience in each of the years 2022 to 2050?
- (c) What is KEC's minimum operating level?
- (d) Does KEC's heat rate for any given period depend on its cycling profile? If so, please provide data on how the average actual heat rate will vary depending on cycling rates.
- (e) What is KEC's expected average heat rate for a full year of operation?
- (f) What is KEC's expected average CO2 emissions per MWh of generation for a full year of operation?
- (g) How will the expected average heat rate for a full year of operation change over time, if or as KEC cycles more frequently?

Question No. 20: What were KEC's minimum offer prices in ISO-NE's Forward Capacity Auction ("FCA") 13, FCA 12, and FCA 11, and on what basis were these established?

Question No. 21: Please provide the net hourly load on the New England grid assumed for production output modeling for any estimations made by KEC for benefit or emissions effect once KEC is in operation.

Question No. 22: If any baseline noise measurements have been taken by or on behalf of NTE please provide them. Regardless, please explain whether NTE has decided to employ additional sound abatement measures to address the fact that NTE's initial sound modeling indicated that the Killingly nighttime residential standard of 45dB would be exceeded in certain locations along the KEC property line. Please also explain the protocol that will be put in place for taking actual noise measurements if/when the KEC plant comes online.

Respectfully submitted this 21st day of March, 2019.



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