STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

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October 25, 2019

Kenneth C. Baldwin, Esq.
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280 Trumbull Street
Hartford, CT 06103-3597

RE: **DOCKET NO. 470B** - NTE Connecticut, LLC Certificate of Environmental Compatibility and Public Need for the construction, maintenance, and operation of a 650-megawatt dual-fuel combined cycle electric generating facility and associated electrical interconnection switchyard located at 180 and 189 Lake Road, Killingly, Connecticut. **Development and Management Plan - Phase I - Appendix D – Erosion and Sedimentation Control Plan Resubmission.**

Dear Attorney Baldwin:

At a public meeting of the Connecticut Siting Council (Council) held on October 24, 2019, the Council considered and approved the revised Erosion and Sedimentation Control Plan – Appendix D of the Phase I Development and Management Plan (D&M Plan) submitted for this project on October 1, 2019.

This approval applies only to Appendix D submitted on October 1, 2019. Requests for any changes to Appendix D shall be approved by Council staff in accordance RCSA §16-50j-62(b). Furthermore, the Certificate Holder is responsible for reporting requirements pursuant to Regulations of Connecticut State Agencies Section 16-50j-62.

Please be advised that changes and deviations from this plan are enforceable under the provisions of the Connecticut General Statutes § 16-50u. Enclosed is a copy of the staff report on the revised Appendix D, dated October 24, 2019.

Thank you for your attention and cooperation.

Sincerely,

Melanie A. Bachman
Executive Director

MAB/MP/laf

Enclosure: Staff Report, dated October 24, 2019

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Docket No. 470B
NTE Connecticut, LLC
Phase I Development and Management Plan – Appendix D – E&S Control Plan
Staff Report
October 24, 2019

On June 7, 2019, the Connecticut Siting Council (Council) issued a Certificate of Environmental Compatibility and Public Need (Certificate) for the construction of a 650-megawatt (MW) dual-fuel combined cycle electric generating facility and associated electrical interconnection switchyard located at 180 and 189 Lake Road, Killingly, Connecticut. On August 2, 2019, NTE Connecticut, LLC (NTE) submitted a partial Development and Management Plan (Phase I D&M Plan) for this project. The Phase I D&M Plan only pertains to site clearing and other site preparation work and related information for the project at 180 and 189 Lake Road in Killingly.

On September 13, 2019, the Council approved the Phase I D&M Plan with the exception of the "Appendix D – Erosion and Sedimentation Control Plan (E&S Control Plan)." The condition required that the E&S Control Plan be revised to comply with the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control (2002 Guidelines) and resubmitted to the Council for review and approval. Accordingly, on October 1, 2019, NTE submitted its revised E&S Control Plan (Revised E&S Control Plan). The Council's September 13, 2019 approval noted that the Revised E&S Control Plan should contain the elements/revisions listed below. A description of NTE's compliance with each element is included.

a) **Note #4 on Drawing CG300-B states that, "All cut and fill side slopes are 2H:1V unless otherwise noted." Detention basins are identified as 3:1 slopes. Regrading slope around facility location would be 2:1 slope. No reverse slope benches are proposed. No engineering analysis was provided to show acceptable factor of safety exists for final slopes;**

b) **Page 5-2-7 of the 2002 Guidelines states that, "Reverse slope benches are required whenever the vertical height of any slope steeper than 3:1 exceeds 15 feet, except when engineered slope stabilization structures measures are included in the slope and/or a detailed soil mechanics analysis calculation has confirmed an acceptable factor of safety exists for the finished slope." On the same page, the 2002 Guidelines also state, "For slope designs that include engineered slope stabilization measures and where the change in elevation exceeds 15 feet without the inclusion of a reverse slope bench, perform an engineering analysis to determine the measures required to insure runoff will not damage the slope or other graded areas.";**

c) **A permanent turf reinforcement mat is a form of slope stabilization structure. No reverse slope benches are shown. Vertical elevation changes in several areas exceed 30 feet, which exceeds the 15 feet threshold in the 2002 Guidelines;**

Sections (a), (b) and (c) relate to the 2H:1V slopes that surround the facility and outline requirements of the 2002 Guidelines for slopes steeper than 3:1 that exceed 15 feet in vertical height. Specifically, the 2002 Guidelines state that, "Reverse slope benches are required whenever the vertical height of any slope steeper than 3:1 exceeds 15 feet, except when engineered slope stabilization structures measures are included in the slope

and/or a detailed soil mechanics analysis calculation has confirmed an acceptable factor of safety exists for the finished slope."

Accordingly, NTE's Revised E&S Control Plan includes a detailed Soil Mechanics Analysis Calculation that demonstrates an acceptable factor of safety for the 2H:1V slopes included in the Phase I D&M Plan.

d) The E&S Control Plan only includes minimum contruction practice details, but does not appear to be sufficient to protect the site;

Additional measures (specifically hay bales and straw wattles) have been incorporated into the Revised E&S Control Plan design. Straw wattles will also be installed along the 2H:1V slopes in addition to the turf reinforcement mat.

e) Filter fabric fence (silt fence) should be replaced with silt soxx, filtration rolls, and straw wattles in those areas at the toe of a slope and where flagged wetlands are situated downgradient to minimize soil transport;

Straw wattles have been added at the toe of the slopes in addition to along the 2H:1V slopes. The filter fabric fence and hay bale barrier were retained for additional protection.

f) There are no E&S control measures proposed at the toe of steep slopes which blend directly into stormwater basins. The only change in slopes is the 3:1 slope on basin sidewalls;

Straw wattles have been added at the toe of the slopes which blend directly into stormwater basins.

g) The top of slope at the southern end of the property should have, at a minimum, a row of hay bales, similar to what was proposed along northern construction slopes on the property. A low impact development strategy for this area could also perform well. This is also true for the 2:1 slope, 15 feet elevation along eastern side of the property;

A row of hay bales have been added along the top slope at the southern end of the subject property. Straw wattles have been added at the toe of the slope in addition to along the 2H:1V vertical slopes in this area of the subject property.

h) Referencing E&S Control Plan notes on Drawing CG330-B, "Silt Fence Installation and Maintenance" section, revise this section to incorporate better erosion control measures (e.g. silt soxx, straw wattles) with wetlands identified close by. For the "Sequence of Construction" section, Note #7, language should be added that stumps will be removed (not left on site) to be consistent with the narrative in Appendix B, page 14 of the Phase I D&M Plan. Note #21 states, "Install final course of pavement." Clarify if paving is or is not part of the Phase I D&M Plan. The "Slow the Flow" section should relate to the top of slope along southern cut/fill slope. For the "Reduce On-Site Potential Internally and Install Perimeter Controls" section, in the last sentence, it states, "Grade and landscape around buildings and septic systems to divert water away from them." Indicate what septic systems are are

being referred to. Sanitary wastewater would be directly discharged into the sanitary sewer system per Finding of Fact #483(c) in Docket No. 470B;

A "Straw Wattles" section(s) has been added in both the notes and details sections of the Revised E&S Control Plan. Language has been added to Note #7 of the construction sequence section that stumps are to be removed from the site. Paving is not part of the Phase I D&M Plan, and those details will be provided in a later phase of the D&M Plan. There are no septic systems on site. These references have been removed from Drawing CG330-C[1].

i) Drawing CG300-B plans depict a stone check dam located between two stormwater basins, similar to the stone dike design elevations. Details should be provided;

The stone dike dam shown between TST-3A and TST-3B has been removed, and a weir structure has been added to TST-3A. These basins will act as separate sediment traps during construction.

j) Hydrodynamic separators are noted on Drawing CG334-B. Note #10 states that, "Hydrodynamic separator shall be approved by ConnDOT. As of April 2010,…" This should be updated to 2015, to include newer technologies;

The date in Note #10 pertaining to Hydrodynamic separators has been updated to October 2015. The model/manufacturers list was also updated accordingly.

k) Catch basin design details appear to be missing. Indicate if catch basins will have deep sumps and provide the elevation; and

Catch basins were not included in the Phase I D&M Plan, and those details will be provided in a later phase of the D&M Plan once the catch basin locations are finalized. Such catch basins will have sumps a minimum of four feet deep.

l) Regarding the permanent turf reinforcement mat, the E&S Control Plan should specify the maintenance requirements for mats. Specifically, page 5-4-13 of the 2002 Guidelines states, "Inspect permanent turf reinforcement mats at least once a week and within 24 hours of the end of a storm with a rainfall amount of 0.5 inch or greater for failures until turf has become established…After turf has become established, inspect annually or after major storm events."

A maintenance section for turf reinforcement mats has been added to the notes section of the E&S Control Plan on Drawing CG330-C.

[1] In the Revised E&S Control Plan, drawings that end in "C" are the revised version of the original drawings that end in "B." For example, Drawing CG300-C is the revised version of Drawing CG300-B.