STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

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VIA ELECTRONIC MAIL

March 15, 2019

TO: Parties and Intervenors

FROM: Melanie Bachman, Executive Director MAB

RE: **DOCKET NO. 470B** – 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. Reopening of this application based on changed conditions pursuant to Connecticut General Statutes §4-181a(b).

Comments have been received from the Drinking Water Section of the Connecticut Department of Public Health, dated March 14, 2019. A copy of the comments is attached for your review.

MB/MP/lm

c: Council Members

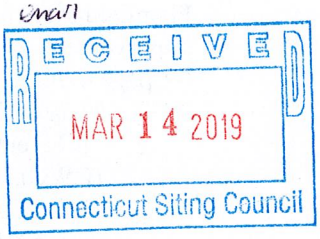
STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH

Raul Pino, M.D., M.P.H.
Commissioner

Ned Lamont
Governor

Susan Bysiewicz
Lt. Governor

Drinking Water Section



March 14, 2019

Melanie Bachman
Executive Director
Connecticut Siting Council
Ten Franklin Square
New Britain, CT 06051

Re: Docket No. 470B NTE Connecticut, LLC application for a Certificate of Environmental Compatibility and Public Need (CECPN) for the construction, maintenance and operation of a 550-megawatt dual fuel combined cycle electric generating facility and associated electrical interconnection and switchyard located at 180 and 189 Lake Road, Killingly, Connecticut.
DPH Project #2016-0214

Dear Ms. Bachman:

The Drinking Water Section (DWS) of the Department of Public Health (DPH) has reviewed the information submitted in support of the CECPN application for the above noted Docket Number for the Killingly Energy Center (KEC). The applicant requested to reopen Docket Number 470 due to "Changed Conditions." The Docket submission notes that this project proposes to obtain up to 400,000 gallons per day of process water and drinking water from the Connecticut Water Company (CWC) Crystal Division (PWSID# CT0690011). The DWS submitted the attached comments for Docket No. 470 on October 20, 2016. The DWS has reviewed Exhibits 1, 2 and 3 submitted in support of Docket No. 470B to ascertain whether NTE appropriately addressed the DWS's previous comments. The following is a summary of the DWS's comments:

- **DWS Comment #1 Level A Aquifer Protection Area mapping for the CWC's KIP Wellfield:** The final Level A Aquifer Protection Area (APA) mapping that would designate the regulated area surrounding the wells is still not completed. Comment #1 from the DWS's October 20, 2016 letter remains valid.
- **DWS Comment #2 Water Supply Analysis:** The DWS reviewed a letter dated December 14, 2016 from David Radka of the Connecticut Water Company to Mark Mirabito, Chief Operating Officer of NTE Energy that was posted to Docket No. The letter contains water supply demand and margin of safety analyses for the CWC's Crystal Division projected out to the year 2060.

The available potable water analysis included accounting for system demands, functional limitations of the distribution system and CWC's existing commitments to sell water to other entities in addition to the registered and permitted diversion amounts for the sources of supply. The analysis was performed for average day, peak day and maximum month demands. The analysis indicated that with the planned interconnection between CWC's Crystal System and Plainfield system (PWSID# CT1090081), CWC would be able to maintain an adequate margin of safety to serve the KEC and CWC's other water supply commitments.

- **DWS Comment #3 Interconnection between CWC's Crystal and Plainfield Systems:** Since CWC's water supply analysis includes use of an interconnection between the Crystal and Plainfield systems to demonstrate an adequate margin of safety, then water supply infrastructure improvements must be constructed and approved for use prior to construction of the KEC plant. On page 4 of the Testimony of Timothy Eves, Senior Vice President of NTE Energy (the applicant) dated January 14, 2019, Mr. Eves states the following:
  - "NTE entered into a Water Supply Agreement with the Connecticut Water Company (CWC)."
  - "NTE also entered into two separate Construction Agreements with the CWC through which NTE has committed to pay all costs associated with (i) the installation of a new water service line connecting the KEC facility to the local CWC system, and (ii) the interconnection between CWC's Plainfield and Crystal Water Company System"
- **DWS Comment #4:** Components of the proposed water supply infrastructure improvements may require DPH review and approval remains valid and needs to be addressed.
- **DWS Comments #5 through 8** regarding the regulatory requirements of cross connection control and backflow prevention remain valid and need to be addressed.

Thank you for the opportunity to comment on this Docket. If you have any questions, you may contact Pat Bisacky at (860)509-7333.

Sincerely,

Lori J. Mathieu
Public Health Section Chief
Drinking Water Section

Attachment

Cc w/attachment: Craig Patla, Connecticut Water Company
Brian Lynch, Putnam Water Pollution Control Authority

STATE OF CONNECTICUT
DEPARTMENT OF PUBLIC HEALTH

Raul Pino, M.D., M.P.H.
Commissioner

Dannel P. Malloy
Governor

Nancy Wyman
Lt. Governor

Drinking Water Section

October 20, 2016

Melanie Bachman
Acting Executive Director
Connecticut Siting Council
Ten Franklin Square
New Britain, CT 06051

Re: Docket No. 470 NTE Connecticut, LLC application for a Certificate of Environmental Compatibility and Public Need (CECPN) for the construction, maintenance and operation of a 550-megawatt dual fuel combined cycle electric generating facility and associated electrical interconnection and switchyard located at 180 and 189 Lake Road, Killingly, Connecticut.

Dear Ms. Bachman:

The Drinking Water Section (DWS) of the Department of Public Health (DPH) has reviewed the CECPN application for the above noted Docket Number for the Killingly Energy Center (KEC). The Docket submission notes that this project proposes to connect to the Connecticut Water Company (CWC) Crystal Division (PWSID# CT0690011) public water system to obtain up to 400,000 gallons per day of process water and drinking water, therefore the DWS offers the following comments:

- This project is located approximately 4,000 feet from the Killingly Industrial Park Wellfield (KIP), a source of public drinking water for the customers of the (CWC) Crystal Division. It is not located within the source water protection area as delineated by the DWS; however the final Level A Aquifer Protection Area (APA) mapping that would designate the regulated area surrounding the wells is not completed. If the proposed facility falls within the Level A APA and *is not constructed prior to completion of the Level A mapping, the DWS requests an opportunity* to review the project for potential impacts to the sources of public drinking water.
- A water supply analysis was provided by the applicant, however it does not sufficiently document that the CWC Crystal Division has adequate water available with the appropriate margin of safety to supply the KEC plant. The available water analysis needs to account for system demands, functional limitations of the distribution system and CWC's existing commitments to sell water to other entities in addition to the registered and permitted diversion amounts for the sources of supply. The analysis must also be performed for average day, peak day and maximum month demands. This analysis should be provided to the DWS for review and concurrence prior to construction of the facility.
- If the available water analysis indicates that interconnection with the CWC Plainfield system is necessary to ensure that the CWC Crystal Division maintains an adequate margin of safety under the KEC maximum demand scenario, then water supply infrastructure improvements must be constructed and approved for use prior to construction of the KEC plant.

DPH
Connecticut Department of Public Health

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- Components of the proposed water supply infrastructure improvements may require DPH review and approval.
- Because the proposed facility will receive water from CWC, it will be required to be constructed in compliance with the backflow prevention requirements specified in the Regulations of Connecticut State Agencies (RCSA) Section 19-13-B38a: "Permissible Arrangements for Connection to Public Water Supply Lines".
- CWC, per RCSA Section 19-13-B37, is prohibited from providing new water service to any site, which is not in compliance with RCSA Section 19-13-B38a.
- Note that per RCSA Section 19-13-B38a(f)(7) the owner and CWC will be required to have annual tests performed on reduced pressure principle backflow preventers, double check valve assemblies and pressure vacuum breakers that are installed at this site and that these tests shall only be performed by a person who is actively certified as a CT DPH Backflow Prevention Device Tester.
- Note that per RCSA Section 19-13-B102(f), CWC will be required to perform inspections for cross connections, should any of the five categories of concern be known to exist at this site, and that these inspection must be performed by a person who is certified as a CT DPH Cross Connection Survey Inspector.

Thank you for the opportunity to comment on this Docket. If you have any questions, you may contact Pat Bisacky at (860)509-7333.

Sincerely,

Lori J. Mathieu
Public Health Section Chief
Drinking Water Section

Cc: David Radka, Connecticut Water Company
Gerard Beausoleil, Putnam Water Pollution Control Authority

Connecticut Water Company
93 West Main Street
Clinton, CT 06413-1600

Office: 860.669.8636
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Customer Service: 800.286.5700

ConnecticutWater

December 14, 2016

Mark Mirabito, Chief Operating Officer
NTE Energy
24 Cathedral Place Suite 300
Saint Augustine, FL 32084

Re: Proposed Killingly Energy Center
180/189 Lake Road, Killingly

Dear Mr. Mirabito:

I am enclosing demand and margin of safety analyses for the Connecticut Water Crystal System. These tables, which include available supply, demand and margin of safety calculations, conform to methodologies promulgated in Sec 25-32d of the Regulations of Connecticut State Agencies (individual water supply planning regulations).

Briefly, available water is the maximum amount of water a system can dependably supply from its active, approved sources, taking into account hydraulic, treatment or other limitations. Quantities of available water are assessed based on 24-hour and 18-hour pumping days for all groundwater supplies. These supply quantities are compared to system demand in order to assess each system's ability to satisfy various demands over the full fifty-year planning period and plan for additional supply development needs. Demands realized over the most recent five years are averaged and used as the basis for future projections, with the historical ratios of Maximum Month Average Day Demand (MMADD) and Maximum Day Demand (MDD) to Average Day Demand (ADD) remaining constant for demand projection purposes. ADD growth is estimated based on historical growth, known projects in the service area having significant demand consequences, or other factors, and generally ranges from 0.5 to 1.0 percent. Finally, Margin of Safety values are obtained by dividing available water by demand and are shown as decimal equivalents.

As shown in Table 1.0, available supply in the Crystal System is sufficient to meet projected water demands for the entire 50-year planning period (at the end of the period MOS remains some 89%, 49% & 35% above projected ADD, MMADD & MDD, respectively). As noted above, this analysis is based on historical demand, which includes all water used for residential, commercial, industrial and public use, as well as non-revenue water losses. While Table 1.0 does not include any demands associated with the KEC project, it does include demands realized by all other customers, including the Town of Putnam.

In order to assess the MOS with anticipated KEC demands, several modifications were necessary, and are shown in Table 2.0. First, system available supply was increased to reflect the planned interconnection with the Plainfield system. This augmentation adds some 0.54 mgd over a 24-hour pumping period (0.40 mgd on an 18-hour basis). Second, projected average day demands were increased by 0.40 mgd to reflect peak plant use when operating on distillate, while projected maximum day and maximum month average day demands were increased by 0.10 mgd to reflect plant demands when operating on natural gas and with higher ambient air temperatures, such as would be anticipated during summer peak demand periods. These potential demands are consistent with the water needs described in your letter of July 21, 2016. Note that while the ADD would not actually increase by 0.4 mgd over a full calendar year, the projection was done in order to assess the impact such a demand would have during off-peak months.

Lastly, projected MMADD and MDD figures were adjusted upward to reflect potential Putnam water demands. This was done because transfers to the Putnam system have historically tended to be less than the maximum quantity (0.8 mgd) identified in our agreement. Actual use by the Town was averaged over the historical period of record and the difference between their actual use (0.12 mgd MMADD and 0.22 MDD) and 0.8 mgd was conservatively added to future MMADD and MDD projections. Table 2.0 suggests the system would be able to maintain an adequate MOS through 2060 with both KEC as a customer and increased transfers to Putnam.

If you have any questions, please feel free to contact me at 860.664.6059.

Very truly yours,

David L. Radka
Director of Water Resources & Planning

Encs: Tables 1.0, 2.0
Cc: C. Patla

CWC Crystal System Demand Margin of Safety

DEMAND/MARGIN OF SAFETY

TABLE 1.0

CRYSTAL SYSTEM

HISTORICAL DEMAND (MGD)

						AVAILABLE SUPPLY (MGD)		
						2.490	2.490	3.320
Year	ADD	MMADD	MDD	MMADD/ADD	MDD/ADD	MOS ADD,18hr	MOS MMAD,18hr	MOS MDD,24hr
2011	1.24	1.66	2.42	1.33	1.95	2.01	1.50	1.37
2012	1.14	1.56	2.30	1.37	2.02	2.18	1.60	1.44
2013	1.23	1.49	2.48	1.21	2.02	2.03	1.67	1.34
2014	1.11	1.32	1.76	1.19	1.59	2.25	1.89	1.88
2015	1.25	1.54	2.22	1.23	1.77	1.99	1.62	1.50
5 Yr Mean	1.19	1.51	2.24	1.27	1.87	2.09	1.65	1.49
Maximum	1.25	1.66	2.48			1.99	1.50	1.34

PROJECTED DEMAND (MGD)

Year	ADD	MMADD	MDD	MMADD/ADD	MDD/ADD	MOS ADD,18hr	MOS MMAD,18hr	MOS MDD,24hr
2020	1.21	1.53	2.26	1.27	1.87	2.06	1.63	1.47
2030	1.23	1.56	2.30	1.27	1.87	2.02	1.60	1.44
2060	1.32	1.67	2.47	1.27	1.87	1.89	1.49	1.35

ADD = AVERAGE DAY DEMAND
MMADD = MAX. MONTH AVERAGE DAY DEMAND
MDD = MAX. DAY DEMAND
MOS = MARGIN OF SAFETY

NOTES:
HISTORICAL PRODUCTION DATA FROM TABLE 4.1.1
AVAILABLE SUPPLY VALUES FROM TABLE 4.6.1 - CRYSTAL SYSTEM ONLY
PROJECTED DEMANDS FROM TABLE 4.5.5

CWC Crystal System Demand Margin of Safety

DEMAND/MARGIN OF SAFETY TABLE 2.0

CRYSTAL SYSTEM

HISTORICAL DEMAND (MGD)

						AVAILABLE SUPPLY (MGD) 2.893	2.893	3.857
Year	ADD	MMADD	MDD	MMADD/ADD	MDD/ADD	MOS ADD,18hr	MOS MMAD,18hr	MOS MDD,24hr
2011	1.24	1.66	2.42	1.34	1.95	2.33	1.74	1.59
2012	1.14	1.56	2.30	1.37	2.02	2.54	1.85	1.68
2013	1.23	1.49	2.48	1.21	2.02	2.36	1.94	1.56
2014	1.11	1.32	1.76	1.19	1.59	2.61	2.19	2.19
2015	1.25	1.54	2.22	1.23	1.77	2.31	1.88	1.74
5 Yr Mean	1.19	1.51	2.24	1.27	1.87	2.42	1.91	1.72
Maximum	1.25	1.66	2.48			2.31	1.74	1.56

PROJECTED DEMAND (MGD)

Year	ADD	MMADD	MDD	MMADD/ADD	MDD/ADD	MOS ADD,18hr	MOS MMAD,18hr	MOS MDD,24hr
2020	1.61	2.31	2.94	1.43	1.83	1.80	1.25	1.31
2030	1.63	2.34	2.98	1.44	1.83	1.77	1.24	1.29
2060	1.72	2.45	3.15	1.42	1.83	1.68	1.18	1.22

ADD = AVERAGE DAY DEMAND

MMADD = MAX. MONTH AVERAGE DAY DEMAND

MDD = MAX. DAY DEMAND

MOS = MARGIN OF SAFETY

NOTES:

HISTORICAL PRODUCTION DATA FROM TABLE 4.1.1

AVAILABLE SUPPLY VALUES FROM TABLE 4.6.1 - INCLUDES CRYSTAL/PLAINFIELD INTERCONNECTION

PROJECTED DEMANDS FROM TABLE 4.5.5

PROJECTED DEMAND INCLUDES KEC ADD OF 0.4 MGD, MMADD OF 0.1 MGD, & MDD OF 0.1 MGD.

MMAD & MD PROJECTED DEMAND ADJUSTED FOR 0.8 MGD TRANSFER TO PUTNAM SYSTEM.