

December 22, 2016

Ms. Paige Morris
Deputy Chief Clerk
North Carolina Utilities Commission
430 N. Salisbury Street
Raleigh, NC 27603

**Re: *In the Matter of Application of NTE Carolinas II, LLC
for a Certificate of Public Convenience and Necessity
Docket No. EMP-92, Sub 0
NCUC EMP-92, Sub 0***

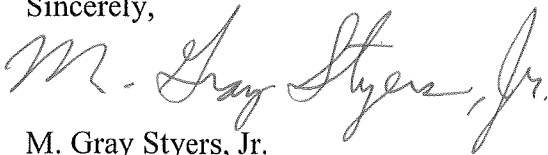
Dear Ms. Morris:

Please find attached the Joint Proposed Order Granting Certificate by both the applicant NTE Carolinas II, LLC and the Public Staff. The Public Staff consents to us filing this Joint Proposed Order on behalf of both parties.

We are herewith electronically submitting, in the above-captioned docket, a Joint Proposed Order Granting Certificate.

If you should have any questions concerning this filing, please do not hesitate to contact me. Thank you for processing this submittal.

Sincerely,



M. Gray Styers, Jr.

cc: Dianna Downey, Esq.
John Runkle, Esq.

Enclosure

**STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH**

DOCKET NO. EMP-92, SUB 0

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

In the Matter of		
Application of NTE Carolinas II, LLC, for)	
a Certificate of Public Convenience and)	JOINT PROPOSED
Necessity to Construct a 500-MW Natural)	ORDER GRANTING
Gas-Fueled Merchant Power Plant in)	CERTIFICATE
Rockingham County, North Carolina)	

HEARD: Rockingham County Courthouse, Superior Courtroom A, 170 Highway 65, Reidsville, North Carolina, on October 25, 2016, at 7:00 p.m., and

Commission Hearing Room 2115, Dobbs Building, 430 North Salisbury Street, Raleigh, North Carolina, on November 2, 2016, at 2:00 p.m.

BEFORE: Commissioner ToNola D. Brown-Bland, Presiding; Commissioner Bryan E. Beatty and Commissioner James G. Patterson

APPEARANCES:

For NTE Carolinas II, LLC:

M. Gray Styers, Jr., Smith Moore Leatherwood, LLP, 434 Fayetteville Street, Suite 2800, Raleigh, North Carolina 27601

For North Carolina Waste Reduction and Awareness Network:

John D. Runkle, 2121 Damascus Church Road, Chapel Hill, North Carolina 27516

For the Using and Consuming Public:

Dianna W. Downey, Staff Attorney, Public Staff - North Carolina Utilities Commission, 4326 Mail Service Center, Raleigh, North Carolina 27699-4326

BY THE COMMISSION: On July 29, 2016, NTE Carolinas II, LLC (NTE), a wholly-owned first-tier subsidiary of NTE Carolinas II Holdings, LLC, and an

affiliate of NTE Energy, LLC (NTE Energy), filed an application pursuant to G.S. § 62-110.1(a) and Commission Rule R8-63 for a certificate of public convenience and necessity (CPCN) authorizing the construction and operation of an approximately 500-megawatt (MW) natural gas-fueled generating facility in Rockingham County, North Carolina, to be known as the Reidsville Energy Center (Facility). On the same date, NTE pre-filed the direct testimony of Michael C. Green, Vice-President, in support of the application.

On August 10, 2016, Dianna W. Downey, Staff Attorney for the Public Staff-North Carolina Utilities Commission, filed a Notice of Completeness stating that the Public Staff had reviewed the application, as required by Commission Rule R8-63(d), and that the Public Staff considered the application to be complete. In addition, the Public Staff requested that the Commission issue a procedural order setting the application for hearing, requiring public notice pursuant to G.S. § 62-82, and addressing other procedural matters.

On August 16, 2016, the Commission issued an order setting the application for hearing, requiring NTE to provide appropriate public notice, establishing deadlines for the filing of petitions to intervene, intervenor testimony, and rebuttal testimony, and requiring the parties to comply with certain discovery guidelines.

On September 21, 2016, NTE filed a letter amending the application to add approximately eighty (80) acres of property as a part of the project site. In addition, NTE filed an updated map showing the new acreage. By Order dated September 23, 2016, the Commission amended the Public Notice to reflect the additional acreage of the project site and required that the amendment to the application be submitted to the Clearinghouse Coordinator of the Office of Policy and Planning of the Department of Administration for distribution by the Coordinator to State agencies having an interest in the amended application.

On September 30, 2016, the Clearinghouse Coordinator of the Office of Policy and Planning of the Department of Administration filed comments with the Commission concerning the original application stating that because of the nature of the comments, no further review is needed by the Commission to determine compliance with the North Carolina Environmental Policy Act.

On October 5, 2016, the North Carolina Waste Awareness and Reduction Network (NC WARN) filed a motion to intervene, which was granted by Order issued on October 7, 2016. On October 11, 2016, NTE filed a motion asking the Commission to reconsider this Order and objecting to such intervention, which the Commission denied by Order issued October 17, 2016.

On October 18, 2016, the Public Staff filed the testimony of Dustin R. Metz, an engineer in the Electric Division of the Public Staff. On October 19,

2016, NC WARN filed the testimony of William E. Powers, the principal of Powers Engineering in San Diego, California.

On October 25, 2016, the Commission conducted a hearing at the Rockingham County Courthouse in Reidsville, North Carolina, as provided in the Commission's August 16 Order and in the published notice, for the purpose of receiving public witness testimony regarding NTE's application. A number of public witnesses spoke at the hearing.

Also on October 25, 2016, NTE filed a motion to strike certain portions of Mr. Powers' testimony and a motion in limine requesting that testimony, arguments, and cross-examination be limited to relevant issues. These motions were denied by Order issued November 1, 2016.

On October 27, 2016, an Affidavit of Publication prepared by the Rockingham County Advertising Sales Manager of the Greensboro News & Record was filed on behalf of NTE indicating that NTE had caused publication of public notice as required by the Commission's August 16 and September 23 Orders. On the same date, NTE filed the rebuttal testimony of Michael C. Green.

On November 1, 2016, the State Clearinghouse filed a response to the amended application stating that because of the nature of the comments, no further review is needed by the Commission to determine compliance with the North Carolina Environmental Policy Act. Also on November 1, 2015, NTE filed the affidavit of Michael C. Green responding to issues raised at the public hearing on October 25, 2016.

On November 2, 2016, the Commission held the evidentiary hearing as scheduled for the purpose of receiving the expert testimony of the parties. On December 1, 2016, NTE filed two late-filed exhibits, as requested at the evidentiary hearing. NTE and the Public Staff filed on December 22, 2016, a joint proposed order for consideration by the Commission.

Based on the testimony presented at the hearings and the entire record of this proceeding, including matters of which judicial notice has been taken, the Commission makes the following

FINDINGS OF FACT

1. NTE is organized under the laws of the State of Delaware with its principal place of business in St. Augustine, Florida, and it is authorized to do business in North Carolina.

2. NTE's affiliate, NTE Energy, plans to develop, construct, own, acquire, and operate independent power plants in the competitive wholesale markets in the United States. NTE Energy companies recently closed financing

and began construction on two projects totaling 950 MW of capacity and involving approximately \$1.25 billion in financing. One of those projects is the Kings Mountain Energy Center, whose CPCN was approved by the Commission in Docket No. EMP-76, Sub 0.

3. In compliance with G.S. § 62-110.1(a) and Commission Rule R8-63, NTE properly filed with the Commission an application for a CPCN authorizing the construction and operation of an approximately 500-MW natural gas-fueled electric generation plant to be located in Rockingham County, North Carolina.

4. The proposed Facility will be located on approximately 20 acres of an approximately 170-acre site in Rockingham County, with the majority of the site being bounded by North Carolina Highway 65 to the east and New Lebanon Church Road to the west.

5. As proposed, the Facility will be constructed as a one-on-one combined cycle electric generating facility and will consist of one combustion turbine generator; one heat recovery steam generator; and one steam turbine generator. Natural gas will be the only fuel burned by the combined cycle unit, consuming about 95,000 MMBtu/Day to operate at full output.

6. Construction of the Facility is anticipated to begin in the first quarter of 2018, with commercial operation scheduled to begin as early as the fourth quarter of 2020, with an expected service life of 30 years.

7. Commission Rule R8-63(e) provides that a certificate shall be subject to revocation if any of the federal, state, or local licenses or permits required for construction and operation of the generating facility are not obtained or, having been obtained, are revoked.

8. In accordance with Commission Rule R8-63(b)(2)(v), NTE's application included a Table of Permits and Approvals, which listed the federal, State, and local permits and approvals required for the Facility and the status of those permits and approvals.

9. The granting of the CPCN in this proceeding should be conditioned upon the requirement that the Facility shall be constructed and operated in strict accordance with applicable laws and regulations, including any local zoning and environmental permitting requirements.

10. The CPCN should also be conditioned upon NTE abstaining from attempting to exercise any power of eminent domain under North Carolina law related to the Facility and NTE's application.

11. In addition, the grant of a CPCN in this docket should be conditioned upon the requirement that the CPCN holder, and all future holders of the CPCN, will obtain the approval of the Commission before selling, transferring, or assigning the CPCN and/or generating facility to an unaffiliated third-party. Any other planned sale, transfer, or assignment of the CPCN and/or generating facility is subject to Commission action as appropriate pursuant to Commission Rule R8-63(e)(4).

12. The required regulatory permits and approvals and conditions imposed by the Commission for the construction of the Facility are sufficient to ensure that the environmental concerns raised by NC WARN and members of the public are satisfied.

13. NTE has made a sufficient showing of need for this proposed Facility. Duke Energy Carolinas, LLC (DEC), and Duke Energy Progress, LLC (DEP), each show a need for over 5,000 MW of additional generating capacity due to load growth and planned retirements over the next 15 years.

14. NTE's proposed merchant plant will be financed by private companies, rather than ratepayers. Under this approach, if assets become stranded, it is the owner that must deal with the financial consequences, not captive North Carolina retail electric customers. Thus, the construction costs of the Facility will not qualify for inclusion in, and will not be considered in a future determination of, the rate base of a public utility pursuant to G.S. 62-133, and construction of the Facility creates no financial risk to North Carolina retail electric customers.

15. It is reasonable and appropriate to grant the requested CPCN to NTE, as conditioned herein.

EVIDENCE AND CONCLUSIONS FOR FINDINGS OF FACT NOS. 1-2

These findings of fact are essentially informational, procedural, or jurisdictional in nature, pertain to the identity of the applicant, and are not in dispute. They are supported by the application and the exhibits thereto and the pre-filed testimony of NTE witness Green and public witness Nick Hendricks.

NTE's verified application stated that NTE's affiliate, NTE Energy, plans to develop, construct, own, acquire, and operate independent power plants in the competitive wholesale markets in the United States. NTE Energy companies recently closed financing and began construction on two projects totaling 950 MW of capacity and involving approximately \$1.25 billion in financing. One of these is the 475 MW Kings Mountain Energy Center (KMEC) in Kings Mountain, North Carolina, for which the Commission issued a CPCN to NTE Carolinas, LLC, in Docket No. EMP-76, Sub 0, on October 28, 2014. The other is a 475-MW natural gas-fueled combined cycle facility in Middletown, Ohio.

NTE Witness Green testified that the KMEC site is under construction, and the construction is on schedule. All piles have been installed, the heat recovery steam generator ("HRSG") and exhaust stack foundations have been placed, the combustion turbine generator ("CTG") and steam turbine generator ("STG") foundations are being formed, and rebar has been installed. Concrete placement for the CTG foundation has recently begun. Excavation for underground water, fuel gas, instrument air, drain piping, and the duct bank is ongoing. The fabrication, installation and backfilling of equipment for the process water, fuel gas, fire water, and raw water pipes, as well as the oily water drains, and the pipe systems for instrument air and hydrogen are ongoing. Mitsubishi Hitachi Power Systems Americas, Inc., has begun fabrication of the CTG, Toshiba America Energy Systems Corporation has begun fabrication of the STG, and Vogt Power International, Inc. has begun fabrication of the HRSG. (T. V. 2, p. 16)

At the public witness hearing, Mr. Nick Hendricks, the Assistant City Manager of the City of Kings Mountain, testified regarding his experiences with NTE and its Kings Mountain facility over the past three years. He expressed that NTE had worked diligently with the city and county to address the issues arising from that facility, and stated that "we are very impressed with what we have seen so far." (T. V. 1, p. 34) He also noted that NTE had been heavily involved in the community and was a good corporate citizen of Kings Mountain. Mr. Green testified that the same management team for the Kings Mountain facility would be involved in the development and construction of the Facility. (T. V. 2, p. 16)

EVIDENCE AND CONCLUSIONS FOR FINDINGS OF FACT NOS. 3-6

These findings are supported by the application and the testimony of NTE witness Green and Public Staff witness Metz.

North Carolina General Statute 62-110.1 and Commission Rule R8-63 provide that no person may begin construction of a facility for the generation of electricity to be directly or indirectly used for furnishing public utility service without first obtaining from the Commission a certificate that the public convenience and necessity requires or will require such construction. The Public Staff notified the Commission on August 10, 2016, that it considered the application of NTE to be complete. An examination of the application, the exhibits attached thereto, and the testimony of the witnesses confirms that NTE has complied with all filing requirements of the statute and the Commission's merchant plant certificate rule.

According to the application and testimony of NTE witness Green, the CPCN application in this docket is for an approximately 500-MW natural gas-fueled electric generation plant to be located in Rockingham County, North Carolina -- very similar to the facility in Kings Mountain. The Facility will be located on approximately 20 acres of an approximately 170-acre site in

Rockingham County. As proposed, the Facility will be constructed as a one-on-one combined cycle electric generating facility and will consist of one combustion turbine generator; one heat recovery steam generator; and one steam turbine generator. (T. V. 2, p. 17)

Construction is anticipated to begin in the first quarter of 2018, with commercial operation scheduled to begin as early as the fourth quarter of 2020, with an expected service life of 30 years. (*Id.*)

Additional equipment to support the Facility includes exhaust stacks, auxiliary boiler, combustion turbine enclosure, turbine air inlet ducts and silencers, continuous emission monitor systems, generator step-up transformers, a station service transformer, switchgears, a gas metering/conditioning station, water treatment trailers, a de-mineralized water tank, transmission equipment, mechanical draft evaporative cooling towers, a standby diesel generator, and a fire protection system. (*Id.*)

Natural gas will be the only fuel burned by the Facility, requiring up to 95,000 MMBtu/Day to operate at full output. Transcontinental Gas Pipe Line Company, LLC (Transco), has existing interstate pipelines crossing the Facility site to which the Facility will be connected via an approximately 650 feet long lateral. NTE anticipates that Piedmont Natural Gas Company, Inc., the local distribution company serving Rockingham County, will construct, own, maintain, and be responsible for compliance testing on the lateral under a special purpose tariff. (T. V. 2, p. 18)

NTE's natural gas procurement strategy for the Facility includes procuring firm delivered natural gas service priced at a Gas Daily index representative of the delivery location from one or more wholesale natural gas suppliers. A natural gas supplier to be selected will be responsible for providing firm delivered natural gas supply to the point of interconnection between Transco's interstate pipelines and the Facility lateral. The Facility will not itself hold, nor have the fixed costs associated with, firm transportation capacity on Transco. (*Id.*)

The Facility will interconnect with the electrical transmission grid via the existing Ernest Switching Station, which is owned by DEC and is located adjacent to NTE's proposed project site. All transmission interconnection-related equipment will be located either on NTE's site or on the Ernest Switching Station site. NTE stated that its application for a CPCN is intended to encompass all ancillary transmission facilities up to the line-side of the Ernest Switching Station. The application for the CPCN is intended to encompass all ancillary transmission facilities up to the Ernest Switching Station. (T. V. 2, pp. 18-19)

Public Staff witness Metz testified that NTE had complied with the Commission's filing requirements, noting that the Public Staff had notified the Commission to that effect by its filing on August 10, 2016. (T. V. 2, p. 165)

Based upon the foregoing, the Commission finds and concludes that NTE has filed a complete and sufficient application for a CPCN in accordance with the requirements of Chapter 62 of the North Carolina General Statutes and Commission Rule R8-63.

EVIDENCE AND CONCLUSIONS FOR FINDINGS OF FACT NOS. 7-12

The evidence supporting these findings is found in the application, the testimony of Public Staff witness Metz, the witnesses testifying at the public hearing, the testimony of NTE witness Green, the affidavit of NTE witness Green filed on November 1, 2016 (Green Affidavit), the testimony of NC WARN witness Powers, and the record as a whole.

As required by Commission Rule R8-63(b)(2)(v), Attachment 6 of NTE's application contained a list of all federal, State, and local permits and approvals related to the Facility and the status of the permits and approvals. As noted in the Green Affidavit, the electric generation facility proposed by NTE in this docket is subject to the regulatory jurisdiction of many local, state, and federal agencies and bodies, each of which has requirements and or permits applicable to various aspects of the Facility. NTE must comply with all of those regulations in order to develop, finance, construct, and operate the Facility. Each of the governmental agencies and bodies has specific areas and issues that it regulates. Commission Rule R8-63(e) states that a certificate shall be subject to revocation if federal, state, or local licenses or permits are not obtained or are revoked, and Commission Rule R8-63(f) requires annual reports, which should include the status of necessary licenses or permits.

In the Green Affidavit, NTE witness Green testified that at the local level, NTE was required to obtain a Special Use Permit from Rockingham County in order to comply with local zoning requirements. On July 11, 2016, the Rockingham County Planning Board conducted a quasi-judicial public hearing on the requested Special Use Permit for the Facility. During the course of that hearing, it was noted that the Facility will be located next to an existing 874 MW power plant (the Duke Rockingham plant) that has been there for about 20 years and that there is a large compressor station on the Williams Gas Pipeline approximately one mile to the north of NTE's proposed Facility. As required by the Rockingham County Unified Development Ordinance, the Planning Board made the following findings -- based upon the competent, material, and substantial evidence presented under oath at the hearing -- in order to grant the Special Use Permit: (a) That the use or development is located, designed, and proposed to be operated so as to maintain or promote the public health, safety, and general welfare; (b) That the use or development complies with all required regulations and standards of this ordinance [Rockingham County Unified Development Ordinance] and with all other applicable regulations; (c) That the use or development is located, designed, and proposed to be operated so as to

maintain or enhance the value of contiguous property; and (d) That the use or development conforms with the general plans for the land use and development of Rockingham County as embodied in the Unified Development Ordinance and in the Rockingham County Land Use Plan. A motion to approve the permit specifically recited these four findings of fact as the basis of approval, and the permit was approved unanimously by the seven-member Rockingham County Planning Board.

Although this Commission is not legally bound by the findings of a local government board, we recognize their knowledge of, and familiarity with, the area and the local issues and concerns that inform their decision. In addition to the granting of the Public Use Permit, local governmental support of the Facility is demonstrated by the testimony of Mr. Ken Allen, Business and Economic Developer for Rockingham County, who spoke in favor of the project, noting that the Facility will significantly increase the County's tax base, create approximately 15 to 20 full-time jobs after construction, and approximately 200 to 300 construction jobs. (T. V. 2, p. 15) Mr. Ronnie Tate, Director of Engineering and Public Utilities for Rockingham County, also testified that his department supported the Facility and a mutually beneficial agreement between NTE and the County allowing for the expansion of county services. (T. V. 2, p. 16)

Many of the issues raised by the public witnesses at the hearing, such as noise, traffic, and impact on property values, are directly addressed by the necessary findings of the Rockingham County Planning Board in its determination in granting the required Special Use Permit. The Special Use Permit, filed in this docket as Appendix B to the Green Affidavit, also contains specific conditions to ensure development in accordance with the site plan, compliance with all required permits and approvals, approval by the North Carolina Department of Transportation of the driveway permit, and satisfaction of all applicable local ordinance requirements for public utilities facilities.

While some concerns were expressed about the quantity of water to be used by the Facility, it was undisputed, and confirmed by a letter from Mr. Ronnie Tate (attached as Appendix A to the Green Affidavit), that the County will permit, own, operate and maintain the new water infrastructure that includes both the supply lines that bring water from the Dan River to NTE's Facility and the discharge lines returning water from the Facility to the river, as well as the intake and discharge structures. As stated in the Green Affidavit, the County will be required to comply with all federal, state, and local permitting requirements to ensure that the locations of the intake and discharge structures are compatible with the river, that the route of the piping is acceptable, and that the intake structure pumps will comply with the County noise ordinance. Specifically, the design of the intake structure, intake flows, discharge structure and discharge flows will have to meet all requirements of sections 316(b), 401, and 404 of Title 40, Code of Federal Regulations (40 CFR), as reviewed and administered by the

North Carolina Department of Environmental Quality and the United States Army Corps of Engineers. (Green Affidavit).

In response to public witness concerns about potential impact on historic sites, NTE witness Green stated in the Green Affidavit that NTE hired expert consultants who have already performed the archeological, historical and cultural resource reviews and field surveys. Those results have been provided to the State Historic Preservation Office ("SHPO") for review. The site was recommended as ineligible for inclusion on the National Register of Historic Place ("NRHP"), and no further work was recommended. SHPO concurred with these recommendations and further agreed that no sites deemed eligible for the NRHP would be impacted by the proposed undertaking.

NC WARN witness Powers testified about his concerns about the environmental impacts of the Facility. He testified that natural gas-fired power generation has a substantially greater greenhouse gas (GHG) emission footprint than previously understood. He also opined that when methane leakage emissions associated with natural gas production and transport are included, the total GHG footprint of the combined cycle plant increases substantially. The total GHG footprint of DEC grid power increases at a much more modest rate when methane emissions are included, as natural gas combustion accounts for only 11 percent of DEC's 2015 power mix. (T. V. 2, p. 93) He testified that under any methane leakage scenario, the total GHG footprint from the NTE Facility will be substantially above the total GHG footprint of DEC grid power. (T. V. 2, pp. 93-96) In support of his assertions, he provided Attachment A to his testimony, which contained the calculations and underlying assumptions. However, on cross-examination, witness Powers admitted that he did not use any specific characteristics of the Facility in preparing Attachment A and had not reviewed the air permit application filed with the State's Department of Environmental Quality. (T. V. 2, pp. 145-148)

The State Clearinghouse provided its comments in review of the original application and the amended application. In both instances, the Clearinghouse determined that no further State Clearinghouse review action is needed for compliance with the North Carolina Environmental Policy Act.

Public Staff witness Metz testified that the Public Staff does not have particular expertise in the area of the impacts of electric generation on the environment. He testified that those issues are best left to the purview of environmental regulators who do have this expertise, and who are responsible for issuing specific environmental permits for electric generating plants. To that end, he recommended that the CPCN be granted subject to certain conditions. These are as follows: (1) the Facility shall be constructed and operated in strict accordance with applicable laws and regulations, including any environmental permitting requirements; (2) NTE will not assert that issuance of the CPCN in any way constitutes authority to exercise an power of eminent domain, and it will

abstain from attempting exercise such power; and (3) the CPCN shall be subject to Commission Rule R8-63(e) and all orders, rules and regulations as are now or may hereafter be lawfully made by the Commission. (T. V. 2, p. 169)

The Commission finds and concludes that the conditions recommended by Public Staff witness Metz should be adopted and that they are sufficient to address the concerns raised by NC WARN. Public Staff witness Metz recommended that the CPCN granted to NTE be subject to a requirement that the Facility be constructed and operated in strict accordance with all applicable laws and regulations, including any environmental permitting requirements. The Rockingham County Planning Board has conducted a public hearing for NTE's requested special use permit for the Facility and approved the zoning permit, making specific findings of fact and placing certain conditions on the permit. Other issues, such as water use and archaeological concerns, will be dealt with by permitting requirements that apply to the Facility or that will be shown not to apply to the Facility. The Commission has considered the testimony of NC WARN witness Powers but concludes that environmental concerns regarding the Facility are appropriately addressed by the imposition of the conditions recommended by the Public Staff. The required regulatory approvals and conditions for the Facility are sufficient to address the environmental concerns raised by NC WARN and members of the public.

Public Staff witness Metz's other recommended conditions also should be imposed. Accordingly, the Commission concludes that any CPCN approved in this docket should be conditioned upon NTE abstaining from attempting to exercise any power of eminent domain under North Carolina law related to the Facility. This conclusion also incorporates the provisions of Commission Rule R8-83, which requires, among other things, that the CPCN shall be subject to revocation under specified circumstances, the CPCN must be renewed if construction is not timely commenced, and that the CPCN holder, and all future holders of the CPCN, will obtain the approval of the Commission before selling, transferring, or assigning the CPCN and/or generating facility to an unaffiliated third-party. Any other planned sale, transfer, or assignment of the CPCN and/or generating facility is subject to Commission action as appropriate pursuant to Commission Rule R8-63(e)(4).

EVIDENCE AND CONCLUSIONS FOR FINDINGS OF FACT NOS. 13-15

The evidence supporting these findings is found in the application, the exhibits attached thereto, and the testimony of NTE witness Green, NC WARN witness Powers, and Public Staff witness Metz.

NTE witness Green testified that the need for new generation in North Carolina is demonstrated in the Integrated Resource Plans (IRPs) filed by DEC and DEP in 2015. Taking into consideration projected load growth, the contributions of demand-side management and energy efficiency programs, and

the planned retirements or older, less efficient plants, DEC's and DEP's 2015 IRPs concluded that 5,711 MW and 5,292 MW, respectively, of firm generating capacity would be needed to support system reliability through 2030. Collectively, the two IRPs projected a combined need for firm generating resources of over 11,000 MW through 2030. (T. V. 2, p. 20)

Witness Green further testified that DEC and DEP had filed more recent IRPs in September 2016, which reduced slightly some of the wholesale and retail load growth projections, but still concluded that a significant amount of firm generating capacity was needed in the Carolinas to maintain system reliability through 2031. DEC's 2016 IRP identifies a 5,002 MW need, and DEP's identifies a 5,453 need, for a combined total need of 10,455 MW of additional, firm generating capacity. (T. V. 2, pp. 165-166)

Based on its assessments and its investigation of market activity by regional load-serving entities, NTE identified specific wholesale customers who are interested in purchasing the output of its proposed Facility and is currently negotiating power supply agreements with them. NTE witness Green concluded that this interest further demonstrates that there is a need for the Facility. Without it, the Facility could not be financed and would not be built. He stated that an additional benefit of the Facility is that it will be developed and financed by private companies, rather than ratepayers. NTE does not have captive customers and is not guaranteed a rate of return, and the construction costs of the Facility will not be considered in a future determination of the rate base of any public utility under Chapter 62 of North Carolina's statutes. (T. V. 2, p. 21)

On cross-examination by NC WARN, Mr. Green was asked a number of questions about DEC's 2010 withdrawal of a CPCN application that DEC filed in 2008 and a statement in DEC's 2008 IRP that it did not need the power. Mr. Green responded that combined cycle generation is needed now in North and South Carolina, as expressed by DEC and DEP in their IRPs and as expressed by the interests of the wholesale customers with which NTE is currently negotiating. (T. V. 2, p. 43)

On redirect, Mr. Green testified about the increase in economic activity in the State and growth of the State's population since 2010. (See NTE Redirect Green Exhibit 1, which is a population overview prepared for the North Carolina Office of State Budget Management).¹ The State has been growing by about 500,000 people every five years, approximately one percent per year generally, and that rate of growth is projected to continue into the future. (T. V. 2, pp. 63-65, Redirect Green Exhibit 1) Mr. Green further testified about the Great Recession being at its height between 2008 and 2010 with no employment growth. In addition, he testified about the extensive plant closings that DEC and DEP had undertaken in the past several years, concluding that the need for supply side

¹ A sequence of webpages demonstrating the source of this exhibit was filed on December 1, 2016, by NTE as Late-Filed Redirect Green Exhibit 1A.

resources in the State of North Carolina was very different in 2016 than it was in 2008. (T. V. 2, p. 68)

In response to NTE Redirect Exhibit Green No. 2, a copy of the Commission's 2015 Annual Report Regarding Long Range Needs for Expansion of Electric Generation Facilities for Service in North Carolina, Mr. Green further testified that DEP had experienced a 14.4 percent increase in its winter peak from 2012 to 2013 and a seven percent increase from 2013 to 2014. Similarly, he testified that DEC had experienced an increase in its summer peak of 3.5 percent and four percent from 2012 to 2013 and from 2013 to 2014, respectively. In addition, he testified that DEC had experienced an increase in its winter peak of 23 percent and 11.8 percent from 2012 to 2013 and from 2013 to 2014, respectively. (T. V. 2, pp. 70-73)

NC WARN witness Powers testified in opposition to the requested CPCN, stating that there is no evidence of actual growth in peak demand or annual electricity usage in DEC's or DEP's service territories in the last decade. He further testified that the IRP peak demand forecasts relied upon by NTE witness Green are in conflict with actual DEC and DEP electric energy usage trends over the last decade. In addition, he testified that DEC and DEP reported anomalously high actual increases in winter peak loads in 2013 and 2014, reaching levels greater than forecast in the 2012 IRPs prepared by each utility. He stated that these have been described as polar vortex events and that there is no reason to build baseload capacity to meet a once-in-a-generation condition. (T. V. 2, p. 88)

Witness Powers further testified that there was no increase in retail electricity consumption between 2007 and 2015 for DEC and none between 2006 and 2015 for DEP. The only area of electricity sales growth for DEC and DEP has been wholesale power sales. He stated that DEC's and DEP's forecasted load growth projections for 2016 through 2030, as set forth in their IRPs and relied upon by NTE witness Green, are wrong. (T. V. 2, p. 90)

NC WARN witness Powers conceded on cross-examination that the Commission's 2015 Annual Report Regarding Long Range Needs for Expansion of Electric Generation Facilities for Service in North Carolina showed a peak winter demand for DEC of 21,101 MWs and 15,151 MWs for DEP. He acknowledged he undertook no independent modeling, no independent analysis of key economic factors, such as income, electricity prices, and industrial production indices, and no independent analysis or modeling of weather projections. He only looked at the last ten years of actual loads reported by DEC and DEP. (T. V. 2, pp. 105-108) He also testified on cross-examination that he did not consider population growth to be necessarily connected to load growth and that he made no assumptions about manufacturing output in North Carolina over the next 20 years. (T. V. 2, p. 112) Finally, he conceded that he did not know that DEC had established a new summer peak in 2016 of 20,671 MW. (T. V. 2, p. 115)

Mr. Powers further testified that the need for 500 MW of capacity of the proposed Facility can be met with existing available regional hydro or combined cycle capacity. He specifically cited the following: (1) four Smoky Mountain Hydro units near the North Carolina-Tennessee border that have a capacity of 378 MW and are connected to DEP West by a single 161 kV line from TVA to the substation at the Walters Hydro Plant in DEP West; (2) the underutilized 525 MW combined cycle merchant plant owned by Columbia Energy outside of Columbia, South Carolina; and (3) the 940 MW Tenaska combined cycle merchant plant located in Virginia, which on average has 350 to 400 MW of unused capacity. (T. V. 2, pp. 90-92)

Mr. Powers presented these as examples of regionally available capacity, while admitting that he had not conducted an exhaustive investigation of available capacity in the Carolinas or neighboring states or the relative cost of power from these resources relative to a new combined cycle plant in Rockingham County. He nevertheless opined that he was reasonably certain that the cost of power from existing available hydro and combined cycle units would be lower than the cost of power from a new combined cycle plant serving the same load. (T. V. 2, p. 92)

On cross-examination, witness Powers conceded that he did not know much about the availability of these plants, their heat rates, or their cost of natural gas. In addition, he admitted that he had not evaluated whether sufficient transmission existed to import enough power from these plants into North Carolina, or what the wheeling costs would be if transmission capacity was available. He also conceded that he had not spoken to load-serving entities in Virginia, Tennessee or South Carolina about how the three examples of plants outside of North Carolina are depended upon for their own native system reliability (T. V. 2, pp. 121-132) and that he did not know if the energy and capacity from his proposed alternatives had been marketed to the customers that signed contracts with NTE for its Kings Mountain facility. (T. V. 2, pp. 150-151).

Turning to battery storage, Mr. Power testified that such storage has been identified in at least one utilities commission proceeding in another state as the preferred resource over combustion turbine capacity to meet peak demand. He further stated that battery storage has the necessary characteristics to maximize the value of renewable energy resources as North Carolina transitions to higher levels of renewable power. (T. V. 2, p. 151)

Public Staff witness Metz testified that with respect to the required showing of need, NTE's projection of need was based upon the IRPs of DEC and DEP, both of which show a need for additional capacity due to load growth and planned plant retirements. Given the future need for generation resources by DEC and DEP, Mr. Metz testified that the proposed Facility will assist in meeting the need. (T. V. 2, pp. 165-166) He also noted that one of the benefits of NTE's

proposed merchant plant is that it will be financed by private companies, rather than ratepayers, and that its construction costs will not be a component of rate base for any North Carolina electric utility. (*Id.*)

On cross-examination by NTE's counsel, Public Staff witness Metz agreed that in its comments in Docket No. E-100, Sub 141, filed on March 2, 2015, the Public Staff found that at the time of very high winter demand on January 7, 2014, DEP's available operating reserves fell to 0.19% at the time of its actual peak, and DEC's available operating reserves fell to 0.24% at the time of its actual peak. (T. V. 2, pp. 176-177)

On rebuttal, NTE witness Green stated that NTE has identified a clear need for additional power generation in the Carolinas in the years ahead that can be met in part by NTE's proposed Facility. The identified need is consistent with the peak demand forecasts filed by DEC and DEP in their approved IRPs and in their most recent 2016 IRP filings. (T. V. 2, p. 183)

Witness Green further testified that Mr. Powers' testimony on behalf of NC WARN is incorrect or irrelevant in a number of respects. One of these is his improper focus on electricity consumption as opposed to peak demand and the need for capacity. The NC WARN approach is fundamentally incorrect in its failure to distinguish between "capacity" and "energy," how load forecasts are prepared for, and approved by, the Commission, and how the reliability of electricity systems during peak times is assured. He further stated that the IRPs address both peak demand growth and energy usage patterns, but the focus of the IRP process is to anticipate peak demand for both summer and winter seasons and then to make sure there is adequate firm generating capacity to meet those peaks with adequate reserve margins to ensure system reliability. (T. V. 2, pp. 184-185)

In addition, Mr. Green testified that accurate forecasting of peak demand and the availability of firm demand-side and supply-side resources to meet that demand are critical in maintaining system reliability. Available firm generation capacity – not energy usage over specified time periods as Mr. Powers analyzes – determines the ability of transmission balancing areas to satisfy fluctuating loads and meet peak demand requirements (at the times of the highest demand) without interruption and with prudent reserves in the system. (T. V. 2, p. 185)

Witness Green further stated that, to the extent NC WARN and Mr. Powers are challenging the load forecasts, reserve margins, and other aspects of the currently-approved IRPs, those challenges have already been reviewed – and litigated – by the utilities, Public Staff, and Intervenor (including NC WARN) before the Commission. The Commission expressly rejected NC WARN's load forecast arguments in its Order Approving Integrated Resource Plans and REPS Compliance Plans, issued June 26, 2015, in Docket No. E-100, Sub 141 ("2015 IRP Order"). Thus, Mr. Green testified that it is appropriate for NTE to utilize

those IRPs in this proceeding and unpersuasive for Mr. Powers to argue that DEC's and DEP's forecasts and analyses are wrong. (T. V. 2, p. 190)

In response to Commission questions as to the sources of information NTE used for the municipalities and cooperatives that are NTE's potential customers, Mr. Green testified that he had spoken directly with the utility directors and management teams of the municipalities and cooperatives about their current loads and projections for growth with an eye toward meeting all of their requirements for peaking, intermediate, and baseload power. (T. V. 2, pp. 206-207)

Witness Green concluded by re-emphasizing that the risks associated with a merchant plant, such as the one NTE has proposed, differ from the risks associated with the construction of a utility-owned, rate-based power plant. Specifically, the costs incurred by a utility to construct power plants become part of the utility's rate base, on which the utility earns an approved rate of return. In contrast, a merchant plant is privately financed, and the financial risks are borne by private investors, not by utility ratepayers. NTE assumes the risk involved in obtaining sufficient wholesale purchasers for its proposed Facility and, if it does not obtain those purchasers, then NTE and its investors bear the consequences. In response to a Commission question, Public Staff witness Metz confirmed that, whatever happens in terms of the business of this Facility, it has no impact on the ratepayers. (T. Vol 2, pp. 177-178).

North Carolina General Statutes Section 62-110.1 is intended to provide for the orderly expansion of electric generating capacity in order to create a reliable and economical power supply and to avoid the costly overbuilding of generation resources. *State ex rel. Utils. Comm'n v. Empire Power Co.*, 112 N.C. App. 265, 278 (1993), disc. rev. denied, 335 N.C. 564 (1994); *State ex rel. Utils. Comm'n v. High Rock Lake Ass'n*, 37 N.C. App. 138, 141, disc. rev. denied, 295 N.C. 646 (1978). A public need for a proposed generating facility must be established before a certificate is issued. *Empire*, 112 N.C. App. at 279-80; *High Rock Lake*, 37 N.C. App. at 140.

Beyond need, the Commission must also determine if the public convenience and necessity are best served by the generation option being proposed. The standard of public convenience and necessity is relative or elastic, rather than abstract or absolute, and the facts of each case must be considered. *State ex rel. Utils. Comm'n v. Casey*, 245 N.C. 297, 302 (1957) (emphasis added). As hereinafter discussed, the Commission has considered all of these factors in determining whether the public convenience and necessity are served by NTE's proposal in this docket and concludes that it does.

NTE witness Green and Public Staff witness Metz testified that the IRPs of DEC and DEP show a need for additional capacity due to load growth and planned plant retirements. DEC's 2016 IRP identifies a 5,002 MW need, and

DEP's identifies a 5,453 need, for a combined total need of 10,455 MW of additional, firm generating capacity. The proposed Facility would help meet only a fraction of that capacity need. The Commission notes that it has repeatedly rejected NC WARN's criticisms of the load forecast models used by DEC and DEP in their respective IRPs, most recently in its *Order Granting Application in Part, with Conditions, and Denying Application in Part* dated March 28, 2016, in Docket No. E-2, Sub 1089 (p. 33). As we stated in that docket, NC WARN's position demonstrated a fundamental lack of understanding as to the difference between capacity and energy, a fundamental lack of understanding as to how load forecasts are prepared and approved, and a fundamental lack of understanding as to how electric systems are planned and maintained for a reliable and least cost system. (*Id.* at p. 34) NC WARN's position in this proceeding is no different.

Further evidence of need is demonstrated by the fact that during periods like the 2014 Polar Vortex, not only DEC and DEP, but nearly all the electric utilities on the East Coast, struggled to avoid service disruptions. As acknowledged by Public Staff witness Metz on cross-examination by NTE's counsel, at the time of very high winter demand on January 7, 2014, DEP's available operating reserves fell to 0.19% at the time of its actual peak, and DEC's available operating reserves fell to 0.24% at the time of its actual peak. NC WARN witness Power's assertions with respect to North Carolina's lack of peak load growth over the last decade are inconsistent with the evidence of the serious winter weather experienced in recent years and the fact that DEC established a new summer peak in 2016. (T. V. 2, pp. 114-116)

The Commission expressly rejected NC WARN's load forecast arguments in its 2015 IRP Order and finds its arguments in this docket equally unpersuasive. Given that the merchant plant rule, specifically Rule R8-63(b)(3), requires a showing of documented need for the facility in the state or region, it is appropriate for NTE to use DEC's and DEP's IRPs as evidence for this purpose.

NTE presented evidence that, based on its assessments and its investigation of market activity by regional load-serving entities, it identified specific wholesale customers in the Carolinas who are interested in purchasing the output of its proposed Facility. NTE is currently negotiating power sale agreements with them. Without such agreements, the Facility cannot be financed and will not be built. The Commission concludes that this market interest, along with the capacity needs demonstrated by DEC's and DEP's IRPs, is sufficient to establish that there is a need for the Facility. In addition, as testified to by NTE witness Green, if NTE is unable to sign agreements with sufficient wholesale purchasers, the Facility cannot be financed and will not be built. Further, as both witness Green and Public Staff witness Metz stated, an aspect of the Facility is that it will be developed and financed by private companies, rather than ratepayers, and the construction costs of the Facility will not be considered in a

future determination of the rate base of any public utility. NTE is a wholesale generator, has no captive customers, and is not guaranteed a rate of return.

NC WARN's evidence as to alternative merchant plants is unpersuasive, as it is based upon general observations about availability, without specific inquiry or analysis. In contrast, Mr. Green testified that, based on his personal conversations with the wholesale customers of the Kings Mountain Energy Center and the prospective customers of the Facility, the wholesale customers are fully aware of other merchant facilities in the region. Obviously, if such alternatives had adequate uncommitted capacity, favorable economic pricing, and could be wheeled with reliable transmission interconnection, these customers would not be interested in NTE's proposed project.

Similarly, NC WARN's evidence as to the availability of battery storage as an alternative is unpersuasive. As conceded by Mr. Powers, battery storage, unlike the combined cycle plant proposed by NTE, cannot be used to meet baseload and intermediate demand.

Based on the evidence, the Commission concludes that NTE has made a sufficient showing of need for its proposed 500-MW merchant electric generating plant in Rockingham County. The Commission also concludes that the proposed Facility will likely provide electric reliability benefits that further support the grant of the CPCN in this proceeding. Therefore, the Commission finds and concludes that a CPCN should be granted to NTE for the proposed combined cycle generating facility, subject to the conditions set forth herein.

IT IS, THEREFORE, ORDERED as follows:

1. That a certificate of public convenience and necessity shall be, and is hereby, issued to NTE Carolinas II, LLC, for the construction of a 500-MW natural gas-fueled combined cycle merchant generating facility, associated equipment, and ancillary transmission facilities.
2. That Appendix A hereto shall constitute the certificate of public convenience and necessity issued for the Facility.
3. That the certificate of public convenience and necessity is conditioned upon the requirement that the Facility be constructed and operated in strict accordance with applicable laws and regulations, including any local zoning and environmental permitting requirements.
4. That the certificate of public convenience and necessity is not intended to confer the power of eminent domain under North Carolina law for the construction of the approximately 500-MW natural gas-fueled combined cycle generating facility certified herein, and NTE and its successors shall abstain from

attempting to exercise eminent domain under North Carolina law in relation to the generating facility authorized by this certificate.

5. That the certificate of public convenience and necessity is conditioned upon a requirement that the certificate holder, including all future holders of the certificate, obtain the approval of the Commission before selling, transferring, or assigning the certificate and/or generating facility to an unaffiliated third-party, and that any other planned sale, transfer, or assignment of the certificate and/or generating facility shall be subject to Commission action as appropriate pursuant to Commission Rule R8-63(e)(4).

6. That the certificate of public convenience and necessity is subject to the conditions set forth in Commission Rule R8-63(e) and (f) as stated in the express language of the attached certificate.

ISSUED BY ORDER OF THE COMMISSION.

This the ____ day of _____, 2016.

NORTH CAROLINA UTILITIES COMMISSION

Martha Lynn Jarvis, Chief Clerk

APPENDIX A

STATE OF NORTH CAROLINA
UTILITIES COMMISSION
RALEIGH

DOCKET NO. EMP-92, SUB 0

NTE Carolinas II, LLC
24 Cathedral Place, Suite 300
St. Augustine, Florida 32084

is hereby issued this

CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY
PURSUANT TO G.S. 62-110.1

for construction of a 500-MW natural gas-fueled combined cycle
merchant plant generating facility to be commenced within three years
of this Certificate, consisting of one combustion turbine,
one heat recovery steam generator,
and one steam turbine generator and ancillary transmission facilities

located

in Rockingham County, North Carolina, between Highway 65 to
the east and New Lebanon Church Road to the west,

subject to the following conditions: (a) NTE Carolinas, II, LLC, will construct and
operate the generating facility in strict accordance with applicable laws and
regulations, including any local zoning and environmental permitting
requirements; (b) NTE Carolinas, II, LLC will not assert that the issuance of the
certificate in any way constitutes authority to exercise any power of eminent
domain, and it will abstain from attempting to exercise such power; and (c) NTE
Carolinas II, LLC, will obtain approval of the Commission before selling,
transferring, or assigning the certificate and/or generating facility.

This certificate is subject to Commission Rule R8-63 and all orders, rules,
regulations and conditions as are now or may hereafter be lawfully made by the
Commission.

ISSUED BY ORDER OF THE COMMISSION

This the _____ day of _____, 2016

NORTH CAROLINA UTILITIES COMMISSION

Martha Lynn Jarvis, Chief Clerk