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ATTORNEYS AT LAW

434 Fayetteville Street
Suite 2800
Raleigh, NC 27601

July 29, 2016

Ms. Gail Mount, Chief Clerk
North Carolina Utilities Commission
430 N. Salisbury Street
Raleigh, NC 27603

RE: ***NTE Carolinas II, LLC***
Redacted Application for a Certificate of Public Convenience and Necessity for a Merchant Plant
Docket No. EMP-92, Sub 0

Dear Ms. Mount:

We are herewith electronically submitting, in the above-referenced docket, NTE Carolinas II, LLC's public, redacted Application for a Certificate of Public Convenience and Necessity for Merchant Plant.

NTE is proposing to construct an approximate 500 MW natural gas-fired electric generating facility in Rockingham County, NC, referred to as the Reidsville Energy Center.

If you have any questions or comments regarding this filing, please do not hesitate to call me. Thank you in advance for your assistance.

Very truly yours,

M. Gray Styers, Jr.

M. Gray Styers, Jr.

pbb

Enclosures

cc: Christopher J. Ayers, Esq.
Antoinette Wike, Esq.

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,	)	**APPLICATION FOR A CERTIFICATE**
LLC, for Certificate of Public	)	**OF PUBLIC CONVENIENCE AND**
Convenience and Necessity to	)	**NECESSITY FOR MERCHANT PLANT**
Construct a Natural Gas-Fired	)	
Electric Generating Facility in	)	
Rockingham County, North Carolina	)	

NTE Carolinas II, LLC ("NTE" or "Applicant"), by its undersigned attorneys, hereby applies to the North Carolinas Utilities Commission ("Commission") pursuant to N.C. Gen. Stat. § 62-110.1(a) and Commission Rule R8-63 for a Certificate of Public Convenience and Necessity authorizing the construction of the Reidsville Energy Center, an approximately 500 MW natural gas-fired electric generating facility ("Facility") in Rockingham County, North Carolina. The information required by Commission Rule R8-63 is set forth in this Application, the attachments hereto, and the Direct Testimony of Michael C. Green filed concurrently herewith. Pursuant to the rule, the Application itself is divided in three parts: Exhibit 1 (pertaining to the Applicant), Exhibit 2 (describing the Facility), and Exhibit 3 (explaining the need for the Facility).

As required by Commission Rule R8-63(b)(3), this application has been signed and verified by Michael C. Green for NTE Carolinas II, LLC, who is duly authorized to act on behalf of NTE.

EXHIBIT 1 THE APPLICANT

(i) The Applicant's full and correct name, business address, business telephone number, and electronic mailing address are as follows:

NTE Carolinas II, LLC
24 Cathedral Place, Suite 300
Saint Augustine, Florida 32084
(904) 687-1857
Email: mgreen@nteenergy.com

(ii) NTE is a limited liability company organized under the laws of the State of Delaware with its principal place of business in Saint Augustine, Florida, and is authorized to do business in North Carolina. NTE is a wholly-owned first tier subsidiary of NTE Carolinas II Holdings, LLC, which is an affiliate of NTE Energy, LLC ("NTE Energy"). An organizational chart showing the relationship of the affiliates of NTE is attached as **ATTACHMENT 1** to this Application.

NTE Energy, through its subsidiaries and affiliates, plans to develop, construct, own, acquire and operate electric generating facilities in the competitive wholesale supply markets of North America. NTE Energy companies recently closed financing and began construction on two projects totaling 950 MW of capacity and approximately $1.25 billion in financing. One of these is the 475 MW Kings Mountain Energy Center in Kings Mountain, North Carolina, for which the Commission issued a Certificate of Public Convenience and Necessity to NTE Carolinas, LLC in Docket No. EMP-76, Sub 0 on October 28, 2014. Information about the Kings Mountain facility is contained in Section IV below and also can be found at www.kmenergycenter.com. The other is the

Middletown Energy Center, a 475 MW natural gas-fired combined cycle facility in Middletown, Ohio, information about which can be found at www.middletownenergycenter.com. In addition to these two facilities, NTE Energy, through its subsidiaries, is currently developing approximately 2,835 MW of generating capacity, with projects located in Texas, Ohio, Connecticut, Florida, and North Carolina.

The energy and capacity from the facilities within NTE Energy's corporate structure are marketed to wholesale customers in the United States in accordance with all applicable law. The output of the Facility in Rockingham County likewise will be sold at wholesale and not to any end-user or retail customers in North Carolina, and its construction costs will not be considered in a future determination of the rate base of any public utility under N.C.G.S. § 62-130 et seq.

The officer(s) of NTE are:

Name	Title
Seth Shortlidge	President
Stephanie Clarkson	Vice President
Michael Green	Vice President

Correspondence, documents, and filings regarding this Application should be sent to the following contact for the Applicant:

Mr. Michael Green
Vice President
NTE Carolinas II, LLC
24 Cathedral Place, Suite 300
Saint Augustine, Florida 32084
(904) 687-1857
mgreen@nteenergy.com

and also to:

Mr. Mark Mirabito
Chief Operations Officer
NTE Energy
24 Cathedral Place, Suite 300
Saint Augustine, Florida 32084
(904) 687-1857
mmirabito@nteenergy.com

and

Mr. M. Gray Styers, Jr.
Smith Moore Leatherwood LLP
434 Fayetteville Street, Suite 2800
Raleigh, North Carolina 27601
(919) 755-8741
gray.styers@smithmoorelaw.com

(iii) NTE is not publicly traded. Its most recent balance sheet and income statement are included separately, under seal, as they constitute confidential information, and have been labeled as **ATTACHMENT 2** for identification.

(iv) As noted above, the Commission issued a Certificate of Public Convenience and Necessity to NTE Carolinas, LLC, in Docket No. EMP-76, Sub 0, on October 28, 2014, for the construction and operation of the Kings Mountain Energy Center ("KMEC") in Kings Mountain, North Carolina. Since the issuance of the CPCN, all required permits for construction have been received, and equity and debt financing for the KMEC project has closed and been funded. Construction began in August 2015.

As of this date, the KMEC site is at rough grade. 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. ("Mitsubishi") has begun fabrication of the CTG, Toshiba America Energy Systems Corporation ("Toshiba") has begun fabrication of the STG, and Vogt Power International, Inc. ("Vogt") has begun fabrication of the HRSG. Construction is on schedule. [redacted]

EXHIBIT 2 THE FACILITY

(i) The Facility will be constructed as a one-on-one combined cycle combustion turbine electric generating facility in Rockingham County, North Carolina. The Facility will consist of one (1) CTG, either a Mitsubishi M501GAC or Siemens Energy, Inc. ("Siemens") SGT6-8000H, one (1) HRSG, and one (1) STG. The nominal, gross and net capacities of the CTG and STG are provided in the table below.

[redacted]

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

The expected service life of the Facility is projected to be 30 years. Construction is anticipated to begin as early as First Quarter 2018, with commercial operation expected to be as early as Fourth Quarter 2020.

The estimated construction costs are being provided separately, under seal, as they constitute confidential information, and have been labeled as **ATTACHMENT 3** for identification.

(ii) The Facility will be constructed in Rockingham County, North Carolina, at the location shown in the vicinity map attached as **ATTACHMENT 4.** The Facility will be constructed on approximately twenty (20) acres of an approximately ninety (90) acre site, bounded by North Carolina Highway 65 ("NC-65") to the east and New Lebanon Church Road to the west.

ATTACHMENT 5 includes the proposed site layout of all major equipment, and a diagram showing the generator, plant distribution system, startup equipment, and the provisions and equipment for transmission interconnection. It also shows existing and planned pipelines, roads, water supplies and electric facilities.

(iii) Rockingham County will provide the E911 street address once the building permit application has been filed. This address will be filed in this docket when it is available. The current street address of the future driveway location onto the property is 4781 NC-65, Reidsville, NC 27320. GPS coordinates of the approximate center of the proposed facility are as follows: 36° 20' 03'' N, 79° 49' 55'' W.

(iv) 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. The existing pipelines, the proposed gas interconnection facilities, and the Facility's proposed

Natural Gas Lateral ("Facility Lateral") are reflected in the diagrams of the site layout which are included as **ATTACHMENT 5.**

The Facility Lateral is expected to be approximately 650 feet long, and its sole purpose is to connect the Facility with Transco's interstate natural gas pipelines. NTE is currently in discussions with Piedmont Natural Gas Company, Inc. ("PNG"), the local distribution company ("LDC") serving Rockingham County, regarding construction, ownership, maintenance, and operation of the Facility Lateral. NTE anticipates that PNG will construct, own, maintain, and be responsible for compliance testing on the Facility Lateral. Based on discussions to date, PNG expects to provide natural gas transportation to the Facility on the Facility Lateral under a Special Purpose Tariff specific to the Facility Lateral. The agreements, service contracts, and tariffs referenced above are not yet finalized, but copies will be filed in this docket once finalized.

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.

(v) A list of permits or approvals required to build or operate the Facility, and a report of the status of the application for, such permits and approvals, are included as **ATTACHMENT 6.** A copy of the application related to the exempt wholesale generator

status pursuant to Section 32 of the Public Utility Holding Company Act of 1935 (PUHCA), as amended by the Energy Policy Act of 1992, including attachments, will be filed in this docket once it is submitted to the Federal Energy Regulatory Commission.

(vi) The Facility will interconnect with the electric transmission system of Duke Energy Carolinas, LLC ("DEC"), via the Ernest Switching Station, immediately adjacent to the Facility site. NTE has completed the feasibility study with DEC and has begun the system impact study. Only minor expansion of the Ernest Switching Station is required to accommodate NTE's interconnection.[1] The 230 kV circuits from the CTG and STG's GSUs will meet at the Facility's substation, located on NTE's property. From the Facility's substation, a single 230 kV circuit will run to the Ernest Switching Station. This line will cross only NTE and DEC properties and no other parcels. No third-party private rights-of-way will need to be acquired for any of these facilities. All of the interconnection-related equipment is ancillary to the Facility and will be located entirely on the Facility site and the Ernest Switching Station site. This application for certification is intended to encompass all these ancillary transmission facilities up to the Ernest Switching Station. A color map showing the general location of the transmission facilities is attached hereto as **ATTACHMENT 5** to this Application.

[1] DEC's preliminary feasibility study also indicates the need for some downstream upgrades to transmission lines at specific locations.

EXHIBIT 3 DESCRIPTION OF NEED

The need for new generation in North Carolina[2] is demonstrated in the 2015 Integrated Resource Plans ("IRP") filed by DEC and Duke Energy Progress, LLC ("DEP"). DEC's 2015 IRP projects annual growth rates of 1.5% in summer and winter peak demand for its retail and wholesale customers for the years 2016 through 2030.[3] This growth results in a summer peak demand of 18,764 MW in 2016 that grows to 23,125 MW in 2030, which is an increase of 4,361 MW.[4] With the expected load growth, DEC's IRP concludes that an additional 5,711 MW of capacity is needed to support growth, while maintaining system reliability through 2030.[5]

DEP's 2015 IRP projects growth rates in summer peak demand of 1.5% and in winter peak demand of 1.3% for its retail and wholesale customers for the years 2016 through 2030.[6] This growth results in a summer peak demand of 13,048 MW in 2016 that grows to 15,981 MW in 2030, which is an increase of 2,933 MW.[7] With the expected load growth, DEP anticipates adding 5,292 MW of additional generating resources through 2030.[8] Of the 5,292 MW of new generation, DEP expects 3,483 MW to be natural gas-fired combined cycle facilities. Collectively, DEC and DEP have a projected need for over 11,000 MW of additional generating resources through 2030.

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[2] This need extends outside the state to all areas of the region within the balancing areas of Duke Energy Carolinas and Duke Energy Progress.
[3] Excludes impact of new Energy Efficiency programs.
[4] Load Forecast without Energy Efficiency Programs & Before Demand Reduction Program.
[5] Assumes Carbon Sensitivity.
[6] Excludes impact of new Energy Efficiency programs.
[7] Load Forecast without Energy Efficiency Programs & Before Demand Reduction Program.
[8] Assumes Carbon Sensitivity.

A summary of the new generation requirements, as reported in DEC's and DEP's IRPs, follows:

- Duke Energy Carolinas – Integrated Resource Plan (2015)
  - Service area requires an additional 5,711 MW of capacity by 2030
    - Baseload / Intermediate: 5,711 MW
- Duke Energy Progress – Integrated Resource Plan (2015)
  - Service area requires an additional 5,292 MW of Capacity by 2030
    - Baseload / Intermediate: 3,552 MW
    - Peaking / Simple Cycle: 1,740 MW

Based on its assessments and its investigation of market activity by regional load-serving entities, NTE has concluded that there is a need for additional peaking, intermediate and baseload capacity in North Carolina. NTE has identified specific wholesale customers who are interested in purchasing the output of the Facility, and is currently negotiating power supply agreements. A summary of the proposed power supply contracts relating to the output of the unit being constructed is attached to this Application as **ATTACHMENT 7.** The successful subscription of available electric power and capacity from KMEC, and the successful financing of that project are further evidence of the demand – as recognized both by load serving entities and by the financial markets – and the need for additional electric power generation facilities in the region.

An additional benefit of the Facility is that this plant will be developed and financed by private companies, rather than ratepayers. The construction costs of the Facility will not be considered in a future determination of the rate base of any public utility under N.C.G.S. § 62-130 et seq. The information in this Application demonstrates

that North Carolina needs additional electric generation capacity. The Facility will be a contributor to the solution, meeting future needs for electricity in the state and region.

WHEREFORE, NTE Carolinas II, LLC, respectfully requests that the Commission approve this application and issue a Certificate of Public Convenience and Necessity pursuant to N.C.G.S. § 62-110.1 and NCUC Rule R8-63 for the construction of NTE's proposed 500 MW natural gas-fired generating facility and ancillary transmission facilities in Rockingham County, North Carolina.

Respectfully submitted, this 29th day of July, 2016.

SMITH MOORE LEATHERWOOD, LLP

M. Gray Styers, Jr.
NC State Bar No. 16844
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Raleigh, North Carolina 27601
Telephone: 919-755-8741
E-mail: gray.styers@smithmoorelaw.com

Counsel *for NTE Carolinas II, LLC*

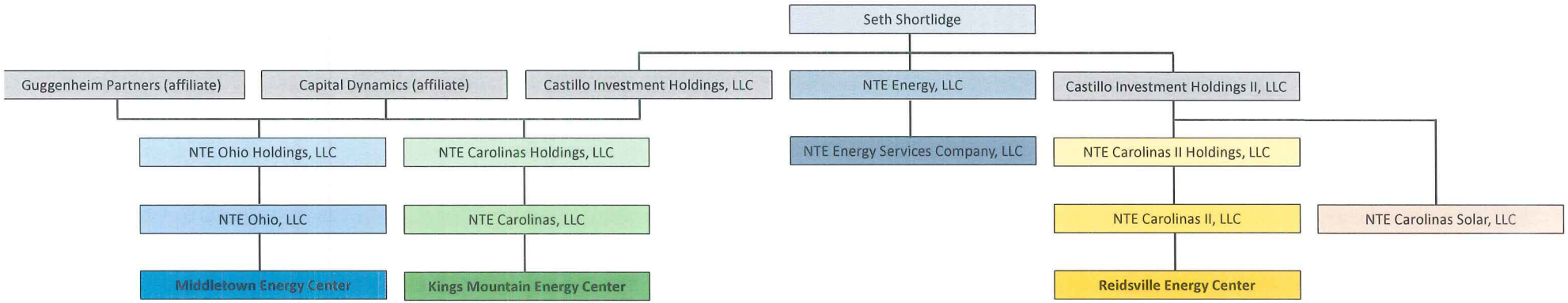
LIST OF ATTACHMENTS

Attachment 1	Corporate Organization Chart
Attachment 2	Balance Sheet and Income Statement of NTE Carolinas II, LLC (Confidential/Submitted Under Seal)
Attachment 3	Estimated Costs of Construction (Confidential/Submitted Under Seal)
Attachment 4	Vicinity Map Showing Location of Site
Attachment 5	Diagram of Site and Equipment, Natural Gas Supply, and General Location of Transmission Facilities
Attachment 6	Table of Permits and Approvals
Attachment 7	Summary of Power Supply Agreements

ATTACHMENT 1

Corporate Organizational Chart

Corporate Organizational Chart



ATTACHMENT 2

Balance Sheet and Income Statement

NTE Carolinas II, LLC

(Confidential/Submitted Under Seal)

NTE CAROLINAS II, LLC

NTE Carolinas II, LLC
Balance Sheet (Unaudited)
as of May 31, 2016

NTE CAROLINAS II, LLC

NTE Carolinas II, LLC
Income Statement (Unaudited)
January 1, 2016 through May 31, 2016

ATTACHMENT 3

Estimated Costs of Construction

(Confidential/Submitted Under Seal)

Attachment 3

Estimated Costs of Construction

[redacted]

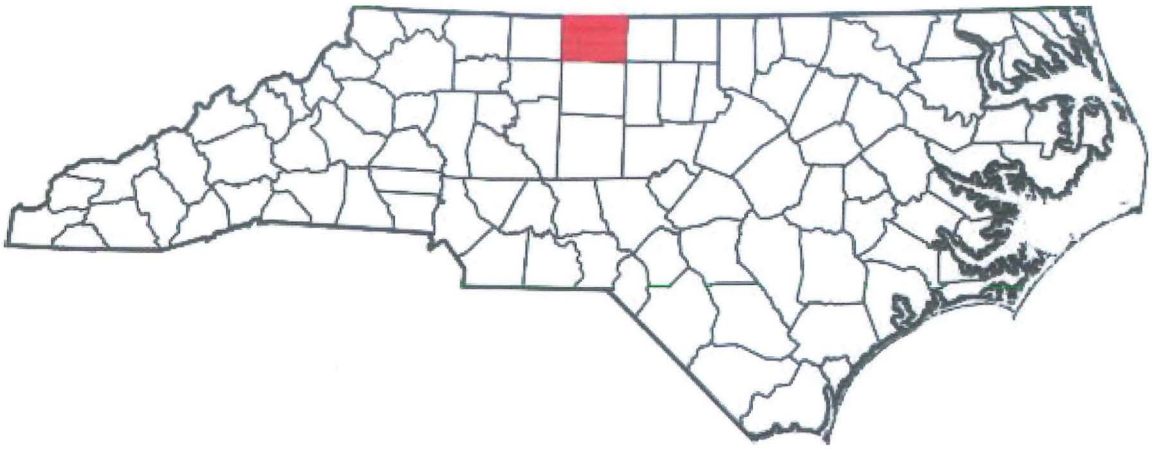
[redacted]

ATTACHMENT 4

Vicinity Map Showing Location of Site

Attachment 4

Vicinity Map – Site Location



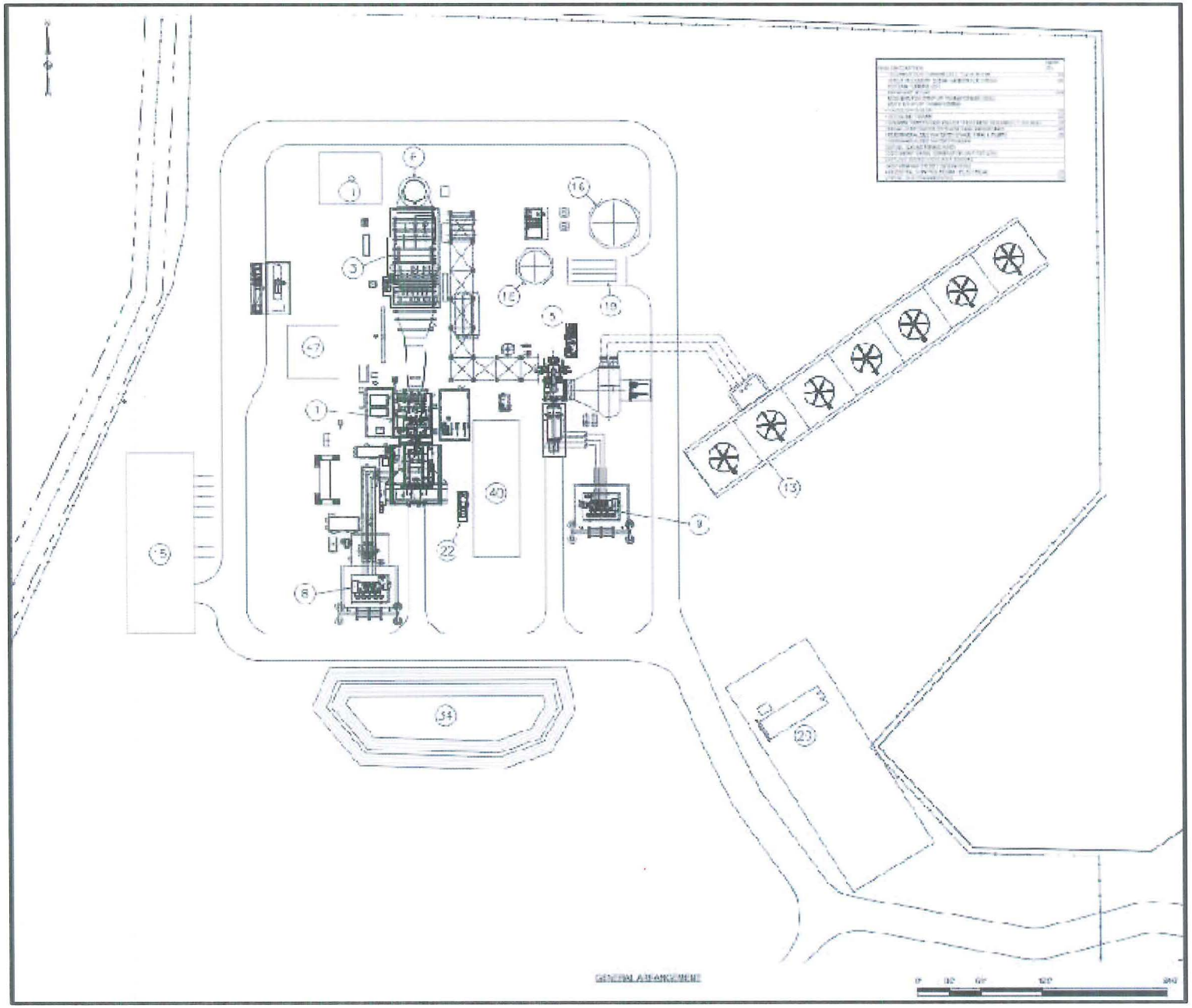
Rockingham County, NC shaded in red

Project Site

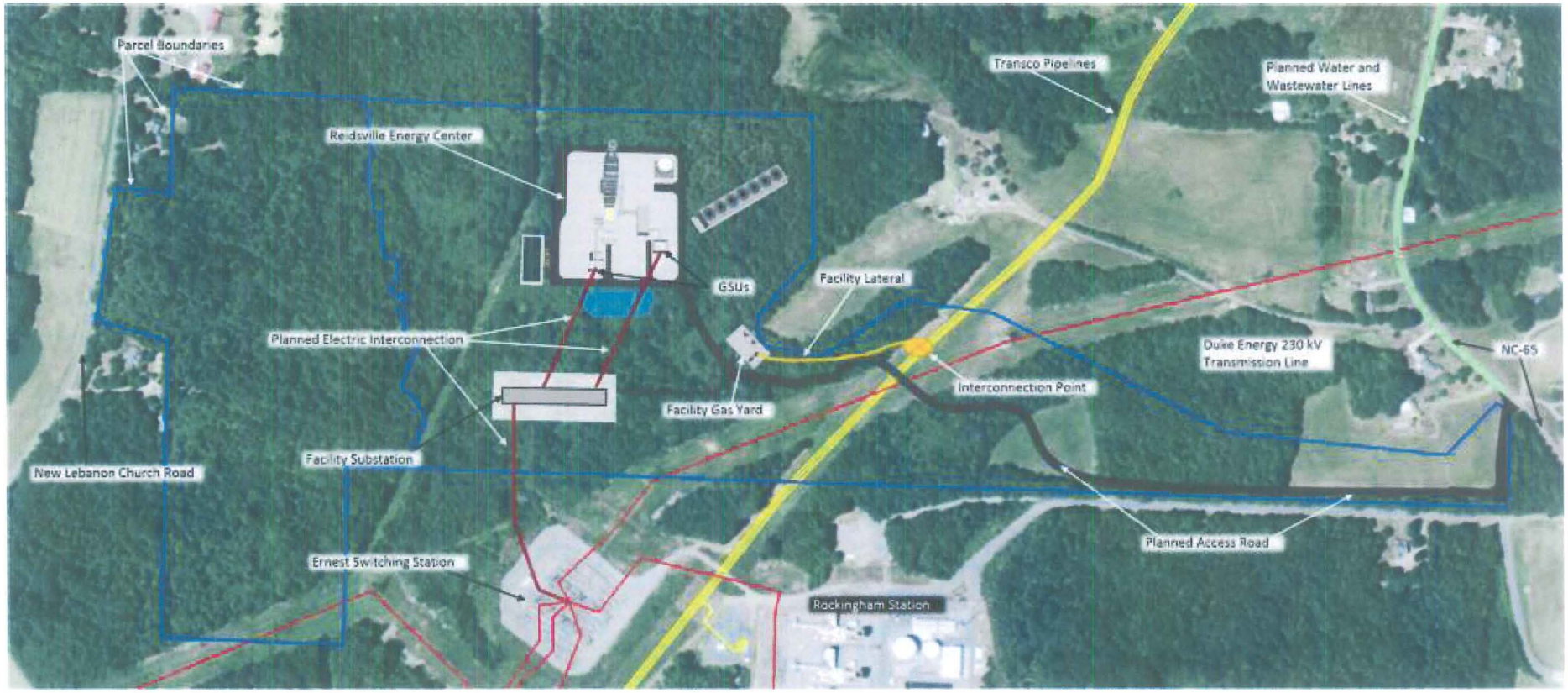
ATTACHMENT 5

Diagram of Site and Equipment, Natural Gas Supply, and General Location of Transmission Facilities

The Facility– Preliminary Location of Power Island, Cooling Towers, and Gas Yard



The Facility – Planned Locations of Major Equipment, Natural Gas and Electric Interconnection Facilities, Access Road, Water and Wastewater Pipelines



ATTACHMENT 6

Table of Permits and Approvals

Attachment 6

Table of Permits and Approvals

Agency	Permit / Approval	Status
Federal Permits, Notices and Approvals		
United States Army Corps of Engineers	Clean Water Act Section 404 Permit	Expected filing: August 2016
Department of Energy	Fuel Use Act – 10 CFR 503	Expected filing: December 2016
Federal Aviation Administration	Notice of Proposed Construction or Alteration	Expected filing: December 2016
Federal Energy Regulatory Commission	Exempt Wholesale Generator Status	To be requested prior to start of construction
	Market-based Rate (MBR) Authority	To be requested 180 days prior to startup and performance testing
State Permits and Approvals		
North Carolina Utilities Commission	Certificate of Public Convenience and Necessity (CPCN)	Application submitted
N.C. Department of Environmental Quality	Air Quality Permit (PSD)	Application Submitted: April 2015
	Title IV Acid Rain Permit	To be submitted at least 24 months prior to operation
	Title V Operating Permit	To be submitted within 12 months following commencement of operation
	NPDES General Permit for Storm water – Construction	To be submitted 6 months prior to commencement of construction
	NPDES General Permit for Storm water – Operation	To be submitted at least 180 days prior to operation
	Clean Water Act Section 401 Permit	Expected filing: August 2016
N.C. Department of Transportation	Street and Driveway Access Permit	To be submitted 6 months prior to commencement of construction
Local Permits and Approvals		
Rockingham County	Special Use Permit	Approved July 11, 2016
	Building Permit	To be submitted prior to construction
	Improvement Permit (Septic System)	To be submitted prior to construction

ATTACHMENT 7

Summary of Power Supply Agreements Relating to Facility Output

Summary of Key Terms
Contract for the Sale of Block Capacity and Energy
("Block Scheduled PSA")

Seller:	NTE Carolinas II, LLC
Buyer:	One or several Municipalities, Electric Cooperatives, and Investor Owned Utilities located within the Duke Energy Carolinas and Duke Energy Progress Control Areas
Source:	Reidsville Energy Center – Rockingham County, NC
Technology:	Natural Gas-Fired Combined Cycle Gas Turbine
Service Term:	January 1, 2021 through December 31, 2040
Purchase Amount:	Contract Capacity and associated Energy, escalating during the Service Term to meet growing demand in the region expected to equal full output of the Source
Scheduling:	The Contract Capacity and associated Energy is scheduled by an Energy Manager on an hour-by-hour basis in fixed amounts up to the Maximum Available Energy

VERIFICATION

STATE OF NORTH CAROLINA)
)
COUNTY OF Gaston)

Michael C. Green, being first duly sworn, deposes and says:

That he is the Vice President of the Applicant, NTE Carolinas II, LLC, and has authority to verify this Application on its behalf; that he has read the foregoing Application and knows the contents thereof; and that the same contents are true to the best of his information and belief.

Michael C. Green
NTE Carolinas II, LLC

Sworn and subscribed to before me this 28th day of July, 2016

Vickie A. Wiggins
Vickie A. Wiggins
Notary Public

My commission expires March 19, 2021

VICKIE A. WIGGINS NOTARY PUBLIC GASTON COUNTY, NC

CERTIFICATE OF SERVICE

It is hereby certified that the foregoing Application for Certificate of Public Convenience and Necessity for Merchant Plant has been served this 29th day of July, 2016, by hand delivery, electronic mail or by depositing copies of same in a depository under the exclusive care and custody of the United States Postal Service in postage prepaid envelopes and properly addressed as follows:

Christopher J. Ayers, Esq.
Executive Director
North Carolina Public Staff
430 N. Salisbury Street
Raleigh, NC 27611

Antoinette Wike, Esq.
Legal Division
North Carolina Public Staff
430 N. Salisbury Street
Raleigh, NC 27611

SMITH MOORE LEATHERWOOD, LLP

M. Gray Styers, Jr.

M. Gray Styers, Jr.