Seminole Electric
COOPERATIVE, INC.

December 11, 2017

Ms. Cindy Mulkey, Administrator
Ms. Amanda Dyer, Environmental Specialist
Office of Siting Coordination
Florida Department of Environmental Protection
2600 Blair Stone Road, MS 5500
Tallahassee, FL 32399

Re: Seminole Combined Cycle Facility
Site Certification Application

Dear Ms. Mulkey,

Seminole Electric Cooperative, Inc. (SECI) is pleased to submit to the Florida Department of Environmental Protection (Department) and other reviewing agencies SECI's application for site certification for the Seminole Combined Cycle Facility (Project) to be located at SECI's existing Seminole Generating Station (SGS) site in Putnam County, Florida. The application seeks certification for a natural gas combined-cycle facility to be wholly located within the existing SGS property. The Project does not include any off-site associated linear or non-linear facilities.

This application is being submitted pursuant to the "Florida Electrical Power Plant Siting Act," Chapter 403, Part II, Florida Statutes, and Chapter 62-17, Florida Administrative Code. This application addresses all aspects of the Project in accordance with the Department's "Application Instruction Guide: Electrical Power Plant Sites and Associated Facilities," dated September 1, 2009.

On December 7, 2017, SECI submitted the application fee via ACH payment to the Department in the amount of $125,000 pursuant to Rule 62-293(1)(b), Florida Administrative Code. A copy of the Prevention of Significant Deterioration/Air Construction Permit for the Project is located in Appendix 10.2.5. A copy of that application is also being independently submitted to the Department's Division of Air Resource Management. Additionally, a copy of the application for revision to the existing SGS National Pollutant Discharge Elimination System (NPDES) permit is located in Appendix 10.2.2. A copy of that application is being independently

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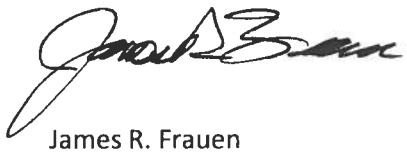
provided to the Department for review.

Copies of the application are being distributed to the other reviewing agencies as indicated on the attached list which includes the number of copies initially sent to those agencies. Additional copies of the application are available upon request.

We look forward to working with you, the Department, and other agencies participating in the site certification process. Should you, your staff, or any other agency representatives have any questions regarding this application, please do not hesitate to contact Lewis Snyder at 813-739-1224 (or at LSnyder@seminole-electric.com).

Sincerely,



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# Seminole Combined-Cycle Facility Site Certification Application

**December 2017**

Seminole Electric COOPERATIVE, INC.


***Prepared by:***

ECT Environmental Consulting & Technology, Inc.

***3701 Northwest 98th Street***
***Gainesville, Florida 32606***
***150658-0100***

# Seminole Electric Cooperative, Inc.
# Seminole Combined-Cycle Facility
# Site Certification Application

Submitted by:

Seminole Electric COOPERATIVE, INC.
IN PARTNERSHIP WITH THOSE WE SERVE

WILLIAM FRANCIS KARL LICENSE No 67498 STATE OF FLORIDA PROFESSIONAL ENGINEER

William F. Karl, P.E.
Florida Professional Engineer Registration No. 67498

December 8, 2017
Date

ECT Environmental Consulting & Technology, Inc.
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# List of Acronyms and Abbreviations

| | |
|---|---|
| ′ | foot |
| ″ | inch |
| °F | degree Fahrenheit |
| µg/m$^3$ | microgram per cubic meter |
| AAQS | ambient air quality standard |
| ac-ft | acre-foot |
| Applicant | Seminole Electric Cooperative, Inc. |
| AQI | air quality index |
| ASTM | American Society for Testing and Materials |
| A-wt | A-weighted decibel |
| B&V | Black & Veatch |
| BCP | business continuity plan |
| BEA | Bureau of Economic Analysis |
| BEBR | University of Florida Bureau of Economic and Business Research |
| BMP | best management practice |
| BOCC | Putnam County Board of County Commissioners |
| BTA | best technology available |
| Btu/scf | British thermal unit per standard cubic foot |
| CAA | Clean Air Act |
| CadnA | Computer-Aided Noise Abatement |
| CFR | Code of Federal Regulations |
| cfs | cubic foot per second |
| CH | very soft to firm clay |
| cm/s | centimeter per second |
| CO | carbon monoxide |
| $CO_2$ | carbon dioxide |
| $CO_2e$ | carbon dioxide equivalent |
| COC | condition of certification |
| CR | County Road |
| CRAS | cultural resource assessment survey |

# List of Acronyms and Abbreviations
**(Continued, Page 2 of 6)**

| | |
|---|---|
| CSXT | CSX Transportation, Inc. |
| CTG | combustion turbine generator |
| CUP | consumptive use permit |
| CWA | Clean Water Act |
| CWIS | cooling water intake system |
| C-wt | C-weighted decibel |
| dB | decibel |
| dBA | A-weighted decibel |
| dBC | C-weighted decibel |
| dBZ | flat-frequency weighted decibel |
| DLN | dry low-nitrogen oxide |
| DOAH | Division of Administrative Hearings |
| EA | environmental assessment |
| ECT | Environmental Consulting & Technology, Inc. |
| EIS | environmental impact statement |
| Ellis | Ellis & Associates, Inc. |
| EPA | U.S. Environmental Protection Agency |
| ESP | electrostatic precipitator |
| F.A.C. | Florida Administrative Code |
| F.S. | Florida Statutes |
| FAS | Floridan aquifer system |
| FBN | fuel-bound nitrogen |
| FDACS | Florida Department of Agriculture and Consumer Services |
| FDEP | Florida Department of Environmental Protection |
| FDHR | Florida Division of Historic Resources |
| FDOT | Florida Department of Transportation |
| FEMA | Federal Emergency Management Agency |
| FGD | flue gas desulfurization |
| FGS | Florida Geological Survey |

# List of Acronyms and Abbreviations
**(Continued, Page 3 of 6)**

| | |
|---|---|
| FGT | Florida Gas Transmission |
| FIM | FWC Fisheries Independent Monitoring Program |
| FIRM | flood insurance rate map |
| FLUCFCS | Florida Land Use, Cover, and Forms Classification System |
| FLUM | future land use map |
| FNAI | Florida Natural Areas Inventory |
| fps | foot per second |
| FPSC | Florida Public Service Commission |
| FR | Federal Register |
| ft | foot |
| $ft^2$/day | square foot per day |
| ft-msl | foot above mean sea level |
| FWC | Florida Fish and Wildlife Conservation Commission |
| FWRI | Fish & Wildlife Research Institute |
| G&T | generation and transmission |
| GE | General Electric |
| GHG | greenhouse gas |
| gpd | gallon per day |
| gpm | gallon per minute |
| gr/100 scf | grain per 100 standard cubic feet |
| GRA | Gainesville Regional Airport |
| $H_2S$ | hydrogen sulfide |
| $H_2SO_4$ | sulfuric acid |
| HAP | hazardous air pollutant |
| HHV | higher heating value |
| hp | horsepower |
| hr/yr | hour per year |
| HRSG | heat recovery steam generator |
| IAS | intermediate aquifer system |

# List of Acronyms and Abbreviations
**(Continued, Page 4 of 6)**

| | |
|---|---|
| IRP | integrated resource planning |
| ISO | International Organization for Standardization |
| km | kilometer |
| kV | kilovolt |
| lb/hr | pound per hour |
| LDC | land development code |
| $L_{eq}$ | equivalent continuous sound level |
| LFA | Lower Floridan aquifer |
| LOS | level of service |
| $m^2$ | square meter |
| Members | nine Member distribution cooperatives |
| MGD | million gallons per day |
| MGS | Richard J. Midulla Generating Station |
| MGY | million gallons per year |
| MMBtu/hr | million British thermal units per hour |
| mph | mile per hour |
| MW | megawatt |
| NAAQS | national ambient air quality standard |
| NAVD88 | North American Vertical Datum of 1988 |
| NEFRC | Northeast Florida Regional Council |
| NEPA | National Environmental Policy Act |
| NESHAP | National Emissions Standards for Hazardous Air Pollutants |
| NFPA | National Fire Protection Association |
| $NO_2$ | nitrogen dioxide |
| NOAA | National Oceanic and Atmospheric Administration |
| $NO_x$ | nitrogen oxide |
| NPDES | National Pollutant Discharge Elimination System |
| NRHP | National Register of Historic Places |
| NSPS | new source performance standard |

# List of Acronyms and Abbreviations
**(Continued, Page 5 of 6)**

| | |
|---|---|
| NWS | National Weather Service |
| PF | Public Facilities |
| PM | particulate matter |
| $PM_{10}$ | particulate matter less than or equal to 10 micrometers |
| $PM_{2.5}$ | particulate matter less than or equal to 2.5 micrometers |
| ppb | part per billion |
| ppm | part per million |
| ppmv | part per million by volume |
| ppmvd | part per million volume dry |
| PPSA | Florida Electrical Power Plant Siting Act |
| Project | Seminole Combined Cycle Facility |
| PUD | Planned Unit Development |
| REA | U.S. Rural Electrification Administration |
| RIMS II | Regional Input-Output Modeling System |
| RUS | USDA Rural Utilities Service |
| RV | recreational vehicle |
| SAS | surficial aquifer system |
| SC | clayey fine sand |
| SCA | site certification application |
| SCCF | Seminole Combined Cycle Facility |
| SCR | selective catalytic reduction |
| SCS | USDA Soil Conservation Service |
| SECI | Seminole Electric Cooperative, Inc. |
| SER | significant emissions rate |
| SGS | Seminole Generating Station |
| SJRWMD | St. Johns River Water Management District |
| SM | silty fine sand |
| SMRC | Stormwater Manager's Resource Center |
| $SO_2$ | sulfur dioxide |

# List of Acronyms and Abbreviations
**(Continued, Page 6 of 6)**

| | |
|---|---|
| SP | very dense fine sand |
| SPCC | spill prevention, control, and countermeasure |
| SPL | sound pressure level |
| SP-SC | fine sand with clay |
| SP-SM | fine sand with silt |
| SR | State Road |
| SRWMD | Suwannee River Water Management District |
| STG | steam turbine generator |
| TDS | total dissolved solids |
| TIA | traffic impact analysis |
| tpy | ton per year |
| UFA | Upper Floridan aquifer |
| ULSD | ultra-low-sulfur diesel |
| US 17 | U.S. Highway 17 |
| USACE | U.S. Army Corps of Engineers |
| USDA | U.S. Department of Agriculture |
| USFWS | U.S. Fish & Wildlife Service |
| USGS | U.S. Geological Survey |
| VMT | vehicle-mile traveled |
| VOC | volatile organic compound |
| WQC | water quality criterion |
| WWTP | wastewater treatment plant |