

August 1, 2014

Justin B. Green
Robert F. Bull
Siting Coordination Office
Florida Department of Environmental Protection
2600 Blair Stone Road, MS 5500
Tallahassee, FL 32399

Re: Duke Energy Florida Citrus County Combined Cycle Project
Site Certification Application

Dear Mr. Green,

Duke Energy Florida is pleased to submit to the Florida Department of Environmental Protection (Department) and other reviewing agencies Duke Energy Florida's (DEF) application for site certification for the Citrus County Combined Cycle Project to be located at a proposed Site in Citrus County, Florida. The application seeks certification for a 1640 megawatt (MW) (nominal) natural gas combined-cycle facility. The application also seeks certification of on- and off-Site associated facilities, including electrical transmission lines and water pipelines, all proposed to be located on DEF-owned property.

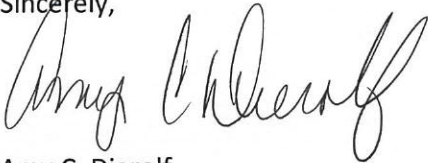
This application is being submitted pursuant to Section 403.501, et seq., Florida Statutes, the "Florida Electrical Power Plant Siting Act," Chapter 403, Part II, Florida Statutes, and Chapter 62-17, Florida Administrative Code. This application addresses all aspects of the Citrus County Combined Cycle Project in accordance with the Department's "Application Instruction Guide; Electrical Power Plant Sites and Associated Facilities," dated September 1, 2009.

Enclosed is a DEF check payable to the Department in the amount of \$129,000 pursuant to Rule 62-17.293(1)(b), Florida Administrative Code. A copy of the Air Construction Permit for this Project is located in Appendix 10.2.5. A copy of that application is being independently submitted to the Department's Bureau of Air Regulation. Additionally, a copy of the application for revision to the existing Crystal River Energy Complex National Pollutant Discharge Elimination System (NPDES) permit is located in Appendix 10.2.2. A copy of that application is also being independently submitted to the Department.

Copies of the application are being distributed to the other reviewing agencies as indicated on the attached list which indicates 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 me at 727-820-5657 (or at Amy.Dierolf@duke-energy.com).

Sincerely,

A handwritten signature in black ink, appearing to read "Amy C. Dierolf", written in a cursive style.

Amy C. Dierolf

Lead Environmental Specialist

DISTRIBUTION LIST FOR DUKE ENERGY FLORIDA, INC. CITRUS COMBINED CYCLE PROJECT

SITE CERTIFICATION APPLICATION

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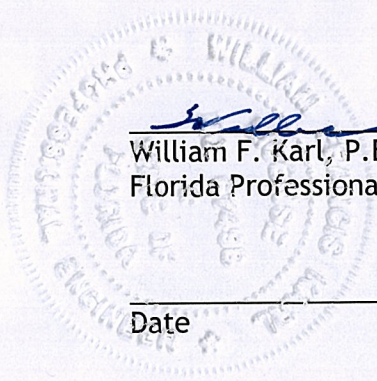


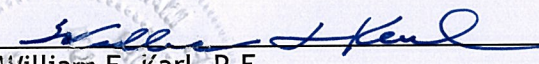
August 2014

Volume 1

Duke Energy Florida, Inc. Citrus Combined Cycle Project Site Certification Application

Submitted by:





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

August 1, 2014
Date

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No. 0170004-042-AV

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List of Acronyms and Abbreviations

°F	degree Fahrenheit
µg/m ³	microgram per cubic meter
µmhos/cm	micromhos per centimeter
AAQS	ambient air quality standard
ACSR	aluminum conductor steel reinforced
AEC	U.S. Atomic Energy Commission
ANSI	American National Standards Institute
AQI	air quality index
ASTM	American Society for Testing and Materials
BEA	U.S. Department of Commerce Bureau of Economic Analysis
BEBR	Bureau of Economic and Business Research
BMP	best management practice
BOCC	Board of County Commissioners
BTA	best technology available
Btu/gal	British thermal unit per gallon
Btu/lb	British thermal unit per pound
Btu/scf	British thermal unit per standard cubic foot
CAA	Clean Air Act
CadnaA	Computer-Aided Noise Abatement
CCC	Citrus Combined Cycle
CCC Project	Citrus Combined Cycle Project
CFR	Code of Federal Regulations
cfs	cubic foot per second
CL	Low Intensity Coastal and Lakes Residential
CL MH	Low Intensity Coastal and Lakes Residential with Mobile Homes
cm	centimeter
CO	carbon monoxide
CO ₂	carbon dioxide
CO ₂ e	carbon dioxide equivalent
COC	conditions of certification
CON	Conservation
CR	County Road
CREC	Crystal River Energy Complex
CTG	combustion turbine generator
CWA	Clean Water Act
dBA	A-weighted decibel
dBZ	C-weighted decibel
dBZ	flat frequency weighted decibel
DEF	Duke Energy Florida, Inc.
Duke Energy	Duke Energy Corporation
EMF	electric and magnetic fields
EMG	emergency management guide
EMS	emergency medical services
EPA	U.S. Environmental Protection Agency
ERP	environmental resource permit
ESI	Environmental Services, Inc.

List of Acronyms and Abbreviations

(Continued, Page 2 of 4)

ET _o	reference evapotranspiration
ET _p	potential evaporation
EXT	Extractive
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
FDLES	Florida Department of Labor and Employment Security
FDOT	Florida Department of Transportation
FEMA	Federal Emergency Management Agency
FERC	Federal Energy Regulatory Commission
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
FR	Federal Register
ft	foot
ft bls	foot below land surface
ft-msl	foot above mean sea level
ft-NAD83	feet North American Datum of 1983
FWC	Florida Fish and Wildlife Conservation Commission
FWRI	Florida Fish and Wildlife Research Institute
GHG	greenhouse gas
GIS	geographic information system
GOES	Geostationary Operational Environmental Satellites
gpd	gallon per day
gpm	gallon per minute
gpm/ft	gallon per minute per foot
GPR	ground-penetrating radar
gr/100 scf	grain per 100 standard cubic feet
H ₂ SO ₄	sulfuric acid
HAP	hazardous air pollutant
HDPE	high-density polyethylene
HHV	higher heating value
Holcim	Holcim (US), Inc.
hr/yr	hour per year
HRSG	heat recovery steam generator
IRP	integrated resource planning
ISO	International Organization for Standardization
IWW	industrial wastewater
kCmil	thousand-circular-mil
km	kilometer

List of Acronyms and Abbreviations

(Continued, Page 3 of 4)

kV	kilovolt
kV/m	kilovolt per meter
kW	kilowatt
L ₁₀	sound level that is exceeded 10 percent of the time
lb/hr	pound per hour
lb/MMscf	pound per million standard cubic feet
lb/MW-hr	pound per megawatt-hour
LDC	land development code
L _{eq}	equivalent continuous sound level
L _{eq} [24]	24-hour equivalent sound level
LFAS	Lower Floridan aquifer system
L _{max}	maximum sound level
L _{min}	minimum sound level
LOS	level of service
mG	milliGauss
mg/L	milligram per liter
MGD	million gallons per day
MGD/MW	million gallons per day per megawatt
MMBtu/hr	million British thermal units per hour
mph	mile per hour
MW	megawatt
NAAQS	national ambient air quality standard
NCDC	National Climatic Data Center
NESHAP	National Emission Standard for Hazardous Air Pollutants
NMFS	National Marine Fisheries Service
NO ₂	nitrogen dioxide
NOAA	National Oceanic and Atmospheric Administration
NO _x	nitrogen oxides
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
NSPS	new source performance standard
NSR	New Source Review
NWI	National Wetlands Inventory
NWS	National Weather Service
OFW	Outstanding Florida Water
OSHA	Occupational Safety and Health Administration
PEF	Progress Energy Florida
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
PPSA	Florida Electrical Power Plant Siting Act
ppt	part per thousand

List of Acronyms and Abbreviations

(Continued, Page 4 of 4)

Project	Citrus Combined Cycle Project
PSC	Florida Public Service Commission
PSD	Prevention of Significant Deterioration
RIMS II	Regional Input-Output Modeling System
RO	reverse osmosis
s.u.	standard unit
Sabal Trail	Sabal Trail Transmission, LLC
SAS	Surficial aquifer system
SAV	submerged aquatic vegetation
SCA	site certification application
SCR	selective catalytic reduction
SDI	service deionization
SEARCH	Southeastern Archaeological Research, Inc.
Site	Citrus Combined Cycle Project Site
SO ₂	sulfur dioxide
SO _x	sulfur oxides
SPT	standard penetration test
SRCC	Southeast Regional Climate Center
STG	steam turbine generator
STORET	U.S. Environmental Protection Agency Storage and Retrieval
SWFWMD	Southwest Florida Water Management District
TCU	Transportation, Communications, and Utilities
TDS	total dissolved solid
TIA	Tampa International Airport
TIITF	Trustees for the Internal Improvement Trust Fund
tpy	ton per year
TRO	total residual oxidant
U.S. 19	U.S. Highway 19
U.S. 41	U.S. Highway 41
U.S. 44	U.S. Highway 44
UFAS	Upper Floridan aquifer system
ULSD	ultra low-sulfur diesel
UMAM	Uniform Mitigation Assessment Methodology
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
UTM	Universal Transverse Mercator
VMT	vehicle-mile traveled
VOC	volatile organic compound
WRPC	Withlacoochee Regional Planning Council
WUP	water use permit