

**STATE OF FLORIDA
SITING BOARD**

**IN RE: FLORIDA POWER AND LIGHT)
COMPANY; DANIA BEACH ENERGY)
CENTER PROJECT POWER PLANT SITING)
APPLICATION NO. PA89-26A2)**
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**OGC CASE NO. 17-0922
DOAH CASE NO. 17-4388EPP**

FINAL ORDER ON CERTIFICATION

An Administrative Law Judge (ALJ) with the Division of Administrative Hearings (DOAH) submitted a Recommended Order on Certification (RO) on July 30, 2018, in this certification proceeding. The RO indicates that copies were served upon counsel for Florida Power and Light Company (FPL) and counsel for the Department of Environmental Protection (DEP or Department). The RO also shows that copies were served on counsel for other designated state, regional and local agencies. A copy of the RO is attached hereto as Exhibit A. On August 10, 2018, the Department filed exceptions to correct several typographical errors in the RO. On August 14, 2018, Sierra Club (Sierra Club or Sierra) filed exceptions to the RO. This matter is now before the Governor and Cabinet, sitting as the Siting Board, for final action under the Florida Electrical Power Plant Siting Act (PPSA), sections 403.501 *et seq.*, Florida Statutes.

BACKGROUND

In this proceeding, FPL seeks certification from the Siting Board under the PPSA for construction and operation of the Dania Beach Energy Center Project (DBEC or Project), also known as Unit 7, to be located within the existing boundaries of the previously certified FPL Lauderdale Site.

On October 27, 2017, FPL filed a Petition for Determination of Need for the DBEC with the Florida Public Service Commission (PSC), requesting the PSC to determine the need for construction of DBEC Unit 7 at FPL's Lauderdale Site. On March 19, 2018, the PSC issued the order granting FPL's Petition for a Determination of Need for the DBEC (Need Determination), finding a need for DBEC.

DOAH PROCEEDINGS

The DOAH proceeding was conducted under the PPSA to consider FPL's application for certification of the Project. On July 27, 2017, FPL filed with DEP a power plant site certification application (Application) to construct and operate the DBEC. DEP transmitted the file to DOAH, on August 3, 2017. On October 27, 2017, DEP issued its determination that the Application was complete.

The various reviewing agencies submitted their reports to DEP that recommended approval and certification of the Project. On April 2, 2018, DEP issued its final Project Analysis Report (PAR), which incorporated the comments of the reviewing agencies, and recommended approval of DBEC subject to the proposed Conditions of Certification, which are attached to, and are part of, the PAR. DEP recommended certification of the project, subject to a set of Conditions of Certification (COCs), attached hereto as Exhibit B.

Pursuant to section 403.508(3)(e), Florida Statutes, Sierra Club filed a Motion to Intervene on April 16, 2018. On May 4, 2018, Sierra was granted party status as an intervenor in this proceeding, subject to limitations on the issues for which evidence and argument could be presented at the final hearing, and subject to demonstrating its standing as a party whose substantial interests are affected by this site certification proceeding.

The site certification hearing was held on May 15 through May 18, 2018, in Davie, Florida. FPL, DEP, and Sierra appeared and presented evidence and argument at the hearing. Other than DEP, no other agencies filed a notice of intent to be a party to the certification hearing, and none appeared at the hearing. Additionally, no other agency or domestic nonprofit corporation or association described in section 403.508, Florida Statutes, filed a notice of intent to be a party to the certification hearing, and none appeared at the hearing.

At the final hearing, FPL called the following witnesses: Jacqueline Kingston, senior project manager for FPL; Dr. Steven R. Sim, director of Integrated Resource Planning for FPL; Kennard Kosky, P.E., of Golder Associates, consulting project director for DBEC; John Barranco, P.E., of Black and Veatch, an engineering consultant who was responsible for design of management systems for DBEC; and Dr. George Maul, professor of oceanography, Florida Institute of Technology. FPL Exhibit Nos. 1, 4, 7 through 9, 22, 24, 27, 28, 31 through 34, 40, 41, 46, 48, 49, and 51 were admitted into evidence without objection, and FPL Exhibit Nos. 5, 21, 26, 30, 37 through 39, 45, 47, and 50 were admitted into evidence over objection.

DEP called Cynthia Mulkey, program administrator for DEP's Siting Coordination Office (SCO). Pursuant to the parties' stipulation, the deposition transcript of Syed Arif, program administrator for DEP's Division of Air Resource Management, Office of Permitting and Compliance, was admitted in lieu of in-person testimony at the hearing. DEP Exhibit Nos. 1, 3, 4, 6, 7, 9, and 10 were admitted into evidence without objection. Sierra-DEP Joint Exhibit A also was admitted into evidence without objection.

Sierra presented the testimony of Christy Ann Costello; Mayor Phillip Stoddard; Robert Mahoney; Winston Mark Walters; Dr. Harold Wanless, professor and chair of the Department of Geological Sciences at the University of Miami; Dr. Frank Ackerman, principal economist at

Synapse Energy Economics, Inc.; and Susannah Randolph, Sierra's representative for the Beyond Coal Campaign in Florida. Sierra Exhibit Nos. 3, 7, 12, 15, 46 through 51, 53 through 61, 64, 65, 69, 74 (resume only), 75, 76, 78 through 81, 85, 87, and 90 through 92 were admitted into evidence without objection. Sierra Exhibit Nos. 21, 35 through 38, 77, 84, 88, and 89 were admitted over objection. Sierra Exhibits 4, 68, and 82, and the deposition of Ann Seiler (unmarked) were tendered for admission but were excluded from evidence; Sierra preserved its proffer of Exhibit 82 for the record.

A public hearing at which unsworn comments were provided by members of the public was held from 6:30 p.m. to 8:30 p.m., on May 15, 2018. Thirty-one members of the public offered comments, which, along with the sworn testimony presented during the evidentiary hearing, were preserved and transcribed as part of the record. Additionally, some participants signed a sign-in sheet that was provided at the public hearing; that sign-in sheet also is part of the record.

The last volume of the seven-volume transcript was filed at DOAH on June 15, 2018; and, pursuant to Florida Administrative Code Rule 28-106.216, the parties were given ten days to file proposed recommended orders (PROs). The parties timely filed their PROs on June 25, 2018. On June 26, 2018, DEP filed an amended PRO, which was accepted by the ALJ as DEP's PRO in this proceeding. On July 2, Sierra filed an amended PRO, which was accepted by the ALJ as Sierra's PRO in this proceeding. The ALJ entered her RO on July 30, 2018.

SUMMARY OF THE RECOMMENDED ORDER

I. The Parties

FPL is the applicant for site certification for the DBEC electrical power plant at issue in this proceeding. FPL is the largest electric utility in Florida, serving approximately 4.9 million

customer accounts. Its service territory covers approximately 28,000 square miles, in all or part of 35 counties in Florida, and in Georgia. (RO ¶ 1). DEP is the state agency charged with administering the PPSA, which is codified at chapter 403, part II. Specifically, the SCO administers the PPSA and coordinates the site certification process, including receiving comments from the affected agencies and preparing the PAR, which contains the proposed Conditions of Certification. (RO ¶ 2). Sierra is a national non-profit environmental advocacy organization. A key component of Sierra's mission is to advocate for the use of clean energy sources. (RO ¶ 3).

II. The DBEC Electrical Power Plant

FPL's Lauderdale Site

FPL owns and operates the Lauderdale Site, an existing electrical power generating facility site located on approximately 392 acres in the City of Dania Beach and the City of Hollywood, in Broward County, Florida. The Site is approximately one mile west of Interstate 95 and approximately 1/4 mile south of Interstate 595. It has served as an operating power plant site for more than 90 years, and has existing infrastructure consisting of a transmission switch yard, a gas yard, an existing gas transmission pipeline, an existing electrical transmission system, water lines, fuel storage tanks, and a sewer line. (RO ¶ 4). Currently, the Lauderdale Site features five electrical power generation units: Units 4 and 5, which consist of four combined cycle units comprised of four 1990s-vintage combustion turbines (CTs), four heat recovery steam generators (HRSGs), and two 1950s-vintage steam turbines; Unit 6, which consists of five 200-MW single cycle CTs used as "peakers" to generate additional electrical power during periods of peak demand; and two 35 MW units. (RO ¶ 5).

Location of DBEC

FPL proposes to construct DBEC on the portion of the Lauderdale Site located within the City of Dania Beach. (RO ¶ 6). FPL also proposes to construct and operate DBEC on the portion of the Lauderdale Site on which Units 4 and 5 currently are located. Units 4 and 5 will be completely dismantled and removed before construction of DBEC commences. (RO ¶¶ 6-7). DBEC will use much of the existing infrastructure that currently serves Units 4 and 5, including existing fuel and storage tanks, an existing gas transmission pipeline, existing electrical transmission lines, existing cooling water intake at the Dania Cutoff Canal, and existing cooling water discharge structures. (RO ¶ 8). The major new components of DBEC will be constructed at an elevation of 11.5 feet above mean sea level. The existing infrastructure that will be used by DBEC will not be raised above its current elevation above mean sea level. (RO ¶ 9).

DBEC Unit 7 Technology

DBEC Unit 7, as proposed, will consist of a new two-on-one combined cycle electrical power generation unit with a nominal rating of 1,200 MW. (RO ¶ 10). A combined cycle electrical generation system generates electrical power in two cycles. In the first cycle, ambient air is drawn into the multistage compressor, where it is compressed, then directed to the combustor section, where fuel--in this case, natural gas--is introduced, ignited, and burned. The hot combustion gases are diluted with additional cool air and directed to the turbine section, where they expand, causing the CT, which is connected to a generator, to rotate, producing electricity. The captured gases are then routed to a HRSG, which begins the second cycle. In this cycle, the heat from the captured gases is used to convert water to steam, which drives a steam turbine generator (STG), producing additional electricity. (RO ¶ 11).

Combined cycle systems, such as the one that will constitute Unit 7, are significantly more efficient than single cycle units that involve only combustion turbines. This increased efficiency is due to the addition of the second cycle, which uses captured exhaust heat from the first cycle to create steam, which is then used to turn a steam turbine, thereby generating an additional 400 MW of electricity per total amount of fuel burned. (RO ¶ 13).

Operating efficiency for combined cycle units is measured in terms of "heat rate," which is an expression of how efficiently the fuel is converted to electrical energy. The lower the heat rate, the more efficient the electrical power generation unit. Unit 7 is a modern combined cycle plant and is expected to achieve a heat rate of approximately 6,119 British Thermal Units (BTUs) per kilowatt hour. By contrast, Units 4 and 5--which are also combined cycle units but use older, less efficient equipment--have an average heat rate of approximately 7,800 BTUs per kilowatt hour. (RO ¶ 14). Unit 7 will use natural gas as its primary fuel. The natural gas will be delivered to the DBEC site through an existing natural gas pipeline, which originates offsite and is not part of this site certification proceeding. (RO ¶ 15).

DBEC Unit 7 Effect on FPL System-wide Natural Gas Consumption

Unit 7 will use the most modern combined cycle technology. (RO ¶ 16). Dr. Steven Sim, FPL's director of Integrated Resource Planning, prepared a projection of the effect Unit 7 will have on natural gas consumption by FPL's electrical power generation units on a system-wide basis. (RO ¶ 17).

Using a model that simulates the operation of all electrical generating units on FPL's system, FPL compared, for natural gas fuel consumption on a system-wide basis, two scenarios: one in which Units 4 and 5 continue to operate indefinitely and Unit 7 is not constructed and operated; and one in which Units 4 and 5 are retired in the fourth quarter of 2018, and Unit 7 is

constructed and commences operation in mid-2022. (RO ¶ 18). The model projected a significant reduction in natural gas consumption by FPL on a system-wide basis over a 30-year horizon if Units 4 and 5 are retired in late 2018 and Unit 7 commences operation in 2022. Conversely, if Units 4 and 5 are not retired and continue to operate--which will be the case if Unit 7 is not certified--the model showed that FPL will consume substantially more natural gas on a system-wide basis over a 30-year horizon, from 2018 through 2047, than if Unit 7 is certified, constructed, and begins operating in 2022. (RO ¶ 21).

Assuming Units 4 and 5 are retired in 2018 and Unit 7 commences operation in 2022, the model-generated comparative natural gas consumption amounts shows a consistent system-wide decrease in natural gas consumption in amounts ranging from slightly over two million cubic feet per year to slightly over six million cubic feet per year, for a projected total decrease in system-wide natural gas consumption of nearly 134 million cubic feet over the 30-year horizon. This is because the operation of Unit 7 will displace less-efficient gas burning units that otherwise would be used if Unit 7 does not operate. (RO ¶ 22). Dr. Sim acknowledged that the social costs of carbon were not considered as part of modeling FPL's system-wide projected natural gas consumption. However, he noted that because Unit 7 will operate more efficiently, FPL will demand less natural gas on a system-wide basis to fuel its electrical power generating units. Because of reduced demand, less natural gas will need to be transported by pipeline to fuel FPL's electrical power plant generating system. (RO ¶ 24).

III. Public Service Commission Need Determination

Pursuant to section 403.519, Florida Statutes, FPL filed a petition for determination of need for DBEC with the PSC in October 2017. Sierra intervened in the need determination proceeding. The PSC held the final hearing on January 17, 2018. The PSC issued the Need

Determination for DBEC Unit 7 on March 19, 2018. This PSC Order, which constitutes final agency action, was not appealed. (RO ¶ 26). During the need determination proceeding, Sierra contended that renewal energy sources and technologies, such as solar facilities, could be deployed incrementally to delay or potentially forestall the need for Unit 7. Thus, as part of the need analysis, the PSC specifically considered the feasibility of using renewable generation options and sources, including solar facilities. (RO ¶ 27).

The PSC specifically determined that the use of such generation options and sources, including solar facilities, was less cost-effective than DBEC. The PSC found that: "[n]o additional cost-effective renewable resource has been identified in this proceeding that can mitigate the need for new generation. Similarly, no additional cost-effective [Demand Side Management] has been identified in this proceeding that can mitigate the need for new generation." (RO ¶ 28). Based on the evidence and argument presented in the need determination proceeding, the PSC granted the Need Determination for DBEC Unit 7, specifically finding and concluding that "the Dania Beach Clean Energy Center Unit 7 is the most cost-effective alternative that maintains Florida Power & Light Company's system and Southeastern Florida area reliability compared to other alternatives[.]" (RO ¶ 29).

Section 403.519(3) states:

The commission shall be the sole forum for the determination of [need], which accordingly shall not be raised in any other forum or in the review of proceedings in such other forum. In making its determination, the commission shall take into account the need for electric system reliability and integrity, the need for adequate electricity at a reasonable cost, the need for fuel diversity and supply reliability, whether the proposed plant is the most cost-effective alternative available, and whether renewable energy sources and technologies, as well as conservation measures, are utilized to the extent reasonably available. The commission shall also expressly consider the conservation measures taken by or reasonably available to the applicant or its members which might mitigate the need for the proposed plant and other matters within its jurisdiction which it deems relevant. The commission's determination of need for an electrical power plant shall create

a presumption of public need and necessity and shall serve as the commission's report required by s. 403.507(4). An order entered pursuant to this section constitutes final agency action.

§ 403.519(3), Fla. Stat. (2018) (emphasis added). (RO ¶ 30).

Pursuant to this statute, the PSC is the only entity authorized to determine whether an electrical power plant is needed, and whether, given the need for the power plant, the applicant should be required to implement renewable energy sources and technologies, including the use of solar generation facilities. (RO ¶ 31). Here, the PSC determined that DBEC is needed, and that the use of renewable energy sources and technologies, such as solar technology, were not cost-effective, and, therefore, not reasonably available. Moreover, under this statute's plain language, it is beyond the scope of this proceeding for the Siting Board to require, as a condition of site certification for DBEC, the use of alternative energy sources or technologies, such as solar or other forms of renewable energy, or to deny DBEC's site certification on the basis that such technologies are not part of the Project. (RO ¶ ¶ 32-33).

IV. DBEC Emissions and Air Construction/Prevention of Significant Deterioration Permit/Florida's Air Quality Regulatory Program

In Florida, DEP implements the federal air regulatory programs under the Clean Air Act, subject to approval and oversight by the United States Environmental Protection Agency (EPA). Under this system, DEP is the permitting authority, while EPA retains commenting authority. (RO ¶ 34). DEP rules implementing the Clean Air Act consist of several air quality regulatory programs. Pertinent to this proceeding are the National Ambient Air Quality Standards (NAAQS) and Prevention of Significant Deterioration (PSD) programs. (RO ¶ 35).

Under the Clean Air Act, EPA is required to promulgate NAAQS for certain air pollutants called "criteria" pollutants. The primary NAAQS establish levels of air quality that are necessary to protect public health, with an adequate margin of safety to protect sensitive

populations. Secondary NAAQS also may be established to protect the public welfare. 40 C.F.R. § 50.2(b). NAAQS have been developed for six air pollutants: sulfur dioxide, nitrogen dioxide, carbon monoxide, ozone, certain sizes of particulate matter, and lead. NAAQS have not been established for greenhouse gases (GHGs). (RO ¶¶ 36-37).

For each of the six criteria air pollutants for which NAAQS have been developed, EPA has designated areas within each state that either meet or do not meet the NAAQS for that specific pollutant. Areas in which the NAAQS for a specific criteria air pollutant is met are termed "attainment" areas for that pollutant. Attainment areas are classified as Class I, which need special air quality protection; or Class II, which do not need special air quality protection. (RO ¶ 38). Broward County, including the DBEC site, is in a Class II attainment area for all NAAQS. (RO ¶ 40).

The PSD program applies in attainment areas to limit the air quality impacts that may result from new or modified major sources of air pollution. Its purpose is to assure that the air quality in areas meeting the NAAQS does not significantly deteriorate below an established baseline. (RO ¶ 41). Under the PSD program, all major new sources of air pollution are subject to preconstruction review to determine whether significant air quality deterioration will result from the facility. (RO ¶ 42).

As part of the PSD review, the new source is required to demonstrate compliance with PSD increments, which effectively constitute small amounts of air quality impacts that new or modified major sources of air pollution cannot exceed. PSD increments are more stringent than NAAQS, and, as such, they protect against air quality degradation in attainment areas. If an area meets the NAAQS for a specific criteria pollutant, PSD increments prevent the addition of that pollutant in greater than that incremental amount over an established baseline concentration for

that pollutant. (RO ¶ 43). No PSD increments have been established for GHGs. (RO ¶ 44). The PSD program also requires demonstration that the air pollution source will use the Best

Available Control Technology (BACT). BACT is defined, in pertinent part, as:

an emission limitation based on the maximum degree of reduction of each pollutant subject to regulation under this chapter emitted from or which results from any major emitting facility, which the permitting authority, on a case-by-case basis, taking into account energy, environmental, and economic impacts and other costs, determines is achievable for such facility through application of production processes and available methods, systems, and techniques, including fuel cleaning, clean fuels, or treatment or innovative fuel combustion techniques for control of each such pollutant.

40 U.S.C. § 7479(3). (RO ¶ 45). More simply stated, BACT is the maximum degree of emission reduction that is available and feasible for the source, taking into account environmental, energy, economic impacts, and other costs. (RO ¶ 46). BACT requires a "top-down" analysis, which starts with the most stringent emission limits demonstrated feasible for a specific air pollution source category, as applied throughout the country. (RO ¶ 47). BACT also must be at least as stringent as new source performance standards (NSPS), which are EPA-developed emissions limits for specific pollutants emitted by new or modified air pollution sources within a particular source category. The NSPS applicable to combined cycle combustion turbines, such as those that will comprise Unit 7, are nitrogen oxides, sulfur dioxide, and GHGs. (RO ¶ 48).

DBEC Emissions

DBEC will have several sources of air emissions. These consist of the two CTs that are part of the CT/HRSG trains; an auxiliary boiler; two emergency diesel generators; two natural gas heaters; a fire water pump diesel engine; a 14-cell auxiliary cooling system; and circuit breakers containing sulfur hexafluoride located in the Unit 7 power block. Of these, the CTs constitute the most significant air emissions source. (RO ¶ 49). DBEC's air emissions sources will emit nitrogen oxides, carbon monoxide, volatile organic compounds, sulfur dioxide, sulfuric

acid, particulate matter (PM) 10 and PM2.5, and GHGs. (RO ¶ 50). The GHGs emitted by DBEC will consist primarily of carbon dioxide, with small amounts of methane. (RO ¶ 51).

DBEC's Air Construction/PSD Permit

FPL applied to DEP for an air construction/PSD permit for DBEC in July 2017. DEP issued the air construction/PSD permit for DBEC (Air Permit) in December 2017. The Air Permit was not challenged and became final agency action on December 24, 2017. It is valid through December 31, 2027. (RO ¶ 52). Pursuant to section 403.509(5), Florida Statutes, the Air Permit is not subject to revision or modification in this proceeding. (RO ¶ 53). Under Florida and federal law, FPL was required to obtain an air construction/PSD permit for DBEC. (RO ¶ 54). As part of the PSD review, FPL was required to perform a control technology review; demonstrate that all applicable state and federal emission limiting standards would be met; and determine and implement BACT to control the emissions. (RO ¶ 55). Projected emissions of carbon monoxide, volatile organic compounds, sulfur dioxide, sulfuric acid, PM10 and PM2.5, and GHGs underwent PSD review. (RO ¶ 56).

FPL demonstrated that DBEC would comply with the incremental standards for carbon monoxide, sulfur dioxide, PM10, and PM2.5 emissions. (RO ¶ 58). DBEC also meets BACT for volatile organic compounds emissions. (RO ¶ 59). The primary BACT for GHG emissions for Unit 7, as a combined cycle unit, is the efficiency of the unit itself in producing electrical power using low-GHG emitting fuels, such as natural gas. As previously discussed, Unit 7 will be an extremely efficient combined cycle unit that will use natural gas as its primary fuel. (RO ¶ 60).

The Air Permit limits the emissions rates for, and amounts of, GHG emissions. These are consistent with BACT, as determined comparing DBEC's control technology to all other types of GHG control technology for CTs throughout the country. The Air Permit also imposes an

extremely stringent methane monitoring requirement. Pursuant to these measures, DBEC was determined to meet the BACT requirement applicable to GHGs. (RO ¶ 61). Additionally, DBEC will meet the NSPS applicable to CTs. (RO ¶ 62). Specifically, DBEC emissions of nitrogen oxides will be 7.5 times lower than the NSPS limit for that pollutant, and DBEC emissions of sulfur dioxide will be ten times lower than the NSPS standard for that pollutant. Accordingly, DBEC will meet the NSPS for these pollutants. (RO ¶ 63).

DBEC also will meet the applicable NSPS for GHGs. The NSPS for GHG emissions applicable to combined cycle CTs is 1,000 pounds per MW hour (lbs/MWh). DBEC is projected to produce 727 lbs/MWh of GHGs when burning natural gas--well below the 1,000 lbs/MWh NSPS limit. (RO ¶ 64). The Air Permit also imposes emissions standards for carbon monoxide, PM10 and PM2.5, sulfur dioxide, sulfuric acid mist, volatile organic compounds, and GHGs. (RO ¶ 65). The competent, credible evidence established that replacing Units 4 and 5 with Unit 7 will reduce the emissions of nitrogen oxides, PM10 and PM2.5, volatile organic compounds, sulfur dioxide, and carbon monoxide by approximately 6.6 million pounds for the period from 2018 to 2047. (RO ¶ 66). The evidence also established that replacing Units 4 and 5 with Unit 7 is projected to result in an approximately 22-percent reduction in GHGs generated, measured in lbs/MWh, assuming Unit 7 is operated at the same frequency as Units 4 and 5. Additionally, the credible evidence established that the operation Unit 7 will result in a system-wide reduction of GHG emissions for the period from 2018 to 2047. (Emphasis in RO). (RO ¶ 68).

The retirement of Units 4 and 5 in 2018 and commencement of operation of Unit 7 in 2022 may not result in reduced total amounts of GHG emissions generated at the Lauderdale Site. This is because even though Unit 7 is substantially more efficient than Units 4 and 5-so

will burn substantially less natural gas-it may operate more often, because it will be the most efficient electrical power generating unit in FPL's electrical power generation system. (RO ¶ 69).

However, the competent, credible evidence showed that the operation of Unit 7 will reduce GHG emissions across FPL's electrical power generating system, because it will be operated more often than other, less efficient units, thereby displacing the use of those units across FPL's electrical power generation system. Stated another way, because Unit 7 will be a significantly more efficient electrical power generating unit-meaning that it will produce more electricity per cubic foot of natural gas than FPL's less efficient units-it will be operated more frequently than FPL's less efficient units, resulting in reduced consumption of natural gas on a system-wide basis. (RO ¶ 70). Reduced natural gas consumption on a system-wide basis will result in a reduced total amount of GHGs generated on a system-wide basis from FPL's electrical power generating plants. (RO ¶ 71). The competent, credible evidence establishes that the retirement of Units 4 and 5 in 2018 and the addition of Unit 7 in 2022 will result in a total reduction of approximately 8.1 million tons of GHG emissions in the form of carbon dioxide across FPL's electrical power generation system for the period from 2018 to 2047. (RO ¶ 72).

Sierra contends that DBEC will "[e]mit millions of tons more [GHGs] every year than the units it replaces." (RO ¶ 73). The evidence shows that the operation of Unit 7 in conjunction with the retirement of Units 4 and 5 in 2018 may not result in reduced GHG emissions at the Lauderdale Site because, due to its efficiency, Unit 7 may be operated more frequently and at higher capacity. However, the competent, credible, and persuasive evidence establishes that the total GHG emissions from FPL's electrical power plant generating units will be reduced on a system-wide basis by approximately 8,123,624 tons over the period between 2018 and 2047. (RO ¶ 74).

Sierra's position that retiring Units 4 and 5 in 2018 and operating Unit 7 beginning in 2022 will result in a greater total amount of GHGs being emitted appears grounded in the assumption that if Unit 7 does not go into operation, FPL will retire Units 4 and 5 by 2033. However, this assumption is not supported by any competent substantial evidence in the record, and was directly contradicted by Dr. Sim, who testified that Units 4 and 5 realistically could operate indefinitely. (RO ¶ 75). The competent, credible, and persuasive evidence shows that if DBEC does not commence operation in 2022, and Units 4 and 5 continue to operate indefinitely, FPL's GHG emissions on a system-wide basis will be approximately 8,123,624 tons more for the period between 2018 and 2047 than if Units 4 and 5 are retired in 2018 and Unit 7 commences operation in 2022. (RO ¶ 76). FPL demonstrated that DBEC meets all applicable state and federal air regulatory and permitting requirements for DBEC and, specifically, for Unit 7. (RO ¶ 77).

FPL demonstrated that DBEC will meet the applicable BACT requirement for GHG emissions, as well as other emissions from Unit 7. Additionally, the air construction/PSD permit establishes emissions limits for DBEC. FPL demonstrated, to DEP's satisfaction, that its emissions control technology will meet the applicable standards, which are more stringent than applicable NSPS limits. Thus, FPL demonstrated that DBEC will meet state and federal law regarding emissions limitations for GHGs and other pollutants emitted by DBEC. (RO ¶ 78).

Sierra's Contentions Regarding GHG Emissions from DBEC

Notwithstanding that FPL demonstrated that DBEC meets all applicable air rules and regulations, Sierra contends that the Siting Board should either deny the site certification for DBEC or approve it with conditions (addressed below) because, it alleges, FPL and/or DEP failed to consider or address numerous environmental issues regarding projected GHG emissions

for DBEC. These alleged deficiencies are: failure of FPL and/or DEP to perform modeling of "the environmental impact" of DBEC's GHG emissions; failure of FPL and/or DEP to analyze the "social costs of carbon" emitted by DBEC; failure of FPL and/or DEP to perform a "life-cycle analysis" to analyze DBEC's GHG emissions "from start to finish, . . . from gas generation to gas burn"; failure of FPL and/or DEP to consider the cumulative impacts of DBEC's emissions combined with GHG emissions "from other existing and foreseeable permitted sources in Florida and elsewhere"; and failure of FPL and/or DEP to consider the use of solar electrical power generation. (RO ¶ 79).

A. Failure to Model Endpoint Environmental Impact

With respect to FPL's and/or DEP's alleged failure to perform modeling of "the environmental impact" of DBEC's GHG emissions, the evidence establishes that FPL and DEP complied with the applicable state rules and federal regulatory requirements in addressing GHG emissions from DBEC. Syed Arif, who performed DEP's air construction/PSD permit application review, testified that modeling of the environmental impacts of DBEC's projected GHG emissions offsite was not performed because it is not required by the applicable state rules and federal regulations. EPA's PSD Guidance document states that "[w]hen conducting a BACT analysis for GHG's, the environmental impact analysis should continue to concentrate on impacts other than direct impacts due to emissions of the regulated pollutant in question." This document further states, in pertinent part:

When weighing any trade-offs between emissions of GHGs and emissions of other regulated NSR pollutants, EPA recommends that permitting authorities focus on the relative levels of GHG emissions rather than the endpoint impacts of GHGs. As a general matter, GHG emissions contribute to global warming and other climate changes that result in impacts on the environment and society. However, due to the global scope of the problem, climate change modeling and evaluations of risks and impacts of GHG emissions currently is typically conducted for changes in emissions orders of magnitude larger than the emissions

from individual projects that might be analyzed in PSD permit reviews. Quantifying these exact impacts attributable to the specific GHG source obtaining a permit in specific places is not currently possible with climate change modeling. Given these considerations, an assessment of the potential increase or decrease in the overall level of GHG emissions from a source would serve as the more appropriate and credible metric for assessing the relative environmental impact of a given control strategy.

EPA Prevention of Significant Deterioration Guidance, at pp. 41-42 (emphasis added).

(RO ¶ 80).

In sum, state and federal PSD permitting law does not require an analysis of endpoint impacts of GHGs, and, further, expressly recognizes that due to the global scope of GHG emissions' contribution to climate change, climate change modeling and risk/impact evaluation of GHG emissions is conducted on a scale orders of magnitude larger than the emissions from individual projects. Additionally, the guidance expressly recognizes that determining the exact climate change impacts due to GHGs emitted on a source-specific basis is not currently possible with climate change modeling. (emphasis in RO) (RO ¶ 81).

Sierra's contention that the site certification for DBEC should be denied or additional GHG-related conditions imposed due to project-specific environmental endpoint impacts is not persuasive, because it is not grounded in applicable law and, as discussed above, is not possible using current climate change modeling. (RO ¶ 82).

B. Failure to Consider and Address Social Costs of Carbon

Sierra also contends that the site certification for DBEC should be denied or additional GHG-related conditions imposed because FPL and/or DEP failed to analyze the social costs of carbon emitted by DBEC, and failed to mitigate or minimize those costs. (RO ¶ 83). The social cost of carbon is defined as the present monetary value of the additional damages caused by emitting one more ton of carbon dioxide. In general terms, the social cost of carbon is the

economic cost per ton of emissions. For each incremental ton of carbon emissions, there is an incremental amount of harm. (RO ¶ 84). There are different methods, or models, for determining the social cost of carbon. They vary depending on the types of data used in the model, as well as how the models address issues such as the rate of climate change; whether the models adequately and accurately address catastrophic risk; and whether the models address "tipping points" at which climate change becomes abruptly and irreversibly worse. (RO ¶ 85).

Sierra's expert on the social cost of carbon, Dr. Frank Ackerman, presented the results of integrated assessment models used to estimate the social cost of carbon. These types of models have been applied in various studies to estimate, in 2017 dollars, the cost per metric ton of carbon dioxide. These studies generated estimates of the social cost of carbon ranging from as low as \$39 per metric ton in 2020 to as high as \$1,821 in 2050, with each study generating a range of projected values for the first year modeled-either 2020 or 2025-through the last year modeled-either 2050 or 2055. These widely-ranging values for the modeled years over these 30-year periods are due to the substantial uncertainty and disagreement regarding the rate and extent of climate change, and whether there are tipping points that must be taken into consideration. (RO ¶ 86). Dr. Ackerman estimated the social cost of carbon, as of 2012, as ranging from \$33 to \$1,048 per metric ton of carbon dioxide in 2020, to \$75 to \$1,821 per metric ton of carbon dioxide in 2050. (RO ¶ 87).

Dr. Ackerman prepared a report analyzing the social cost of carbon from DBEC's projected GHG emissions. He attempted to compare the costs of DBEC's emissions with the benefits of DBEC's operation. (RO ¶ 88). In assessing the social cost of carbon emitted by DBEC, Dr. Ackerman considered the damage to tourism; human health; unique wildlife and ecosystems, including the Everglades; and property loss due to sea level rise and exacerbated

king tides. (RO ¶ 89). He acknowledged that while it can be very difficult to estimate the true monetary value of the social cost of carbon for a project due to the aforementioned uncertainties, it is possible to arrive at estimates that represent a "floor," or minimum value, of damage due to GHG emissions from a specific project. (RO ¶ 90).

Dr. Ackerman used the federal government's estimated social cost of carbon of \$70 per ton of carbon dioxide. Using two different annual GHG emissions projections for DBEC-4.13 million metric tons or 3.04 million metric tons-he determined that the value of damages due to carbon dioxide emitted by DBEC would range from \$213 million to \$289 million on an annual basis. (RO ¶ 91).

Dr. Ackerman attempted to quantify DBEC's proportion of that impact on Florida. Using the two values of projected carbon dioxide emissions from DBEC and comparing them to global carbon dioxide emissions projections, Dr. Ackerman estimated that DBEC accounts for approximately 1/115,000th to 1/120,000th of total global carbon dioxide emissions on an annual basis. Using those proportions and the valued damage of global climate change to Florida, he estimated that the present value of the damages resulting from DBEC's annual carbon dioxide emissions would range from \$8.4 million and \$27 million per year. (RO ¶ 93). Dr. Ackerman also compared these annual projected social costs of carbon dioxide to the assumed \$8.29 million annual benefits of the DBEC project to FPL's ratepayers. Based on this comparison, he concluded that the damages from DBEC's carbon emissions greatly outweigh DBEC's benefits to FPL ratepayers. (RO ¶ 94).

Dr. Ackerman did not perform any analysis of DBEC's economic effects on the local community. (RO ¶ 95). He also did not take in account the effect that the increased efficiency of Unit 7 would have on FPL's system-wide emissions of GHGs through 2040. (RO ¶ 96). He

acknowledged that if greenhouse gas emissions are reduced as a result of Unit 7, then the overall harm and damage from the social costs of carbon would also be reduced. As he put it: "[t]he social cost is a per ton harm, so if fewer tons, smaller harm. . . . A reduction in emissions is a reduction in harm." (RO ¶ 97). Dr. Ackerman testified that emitting any amount of GHGs has a social cost, but that "[a] smaller amount of emission is better. A smaller amount of emissions represents a smaller harm." (RO ¶ 98).

While the evidence shows that GHG emissions from DBEC will result in increased social costs of carbon on a per-ton basis compared to a zero emissions baseline, the competent, substantial, and persuasive evidence establishes that the operation of Unit 7 will reduce FPL's GHG emissions on a system-wide basis by approximately 8.1 million tons by 2047, due to the retirement of older, less-efficient Units 4 and 5 and the reduced use of older, less-efficient generating units that produce greater quantities of GHG emissions. (emphasis in RO) (RO ¶ 99).

Based on the foregoing, it is determined that retiring Units 4 and 5 in 2018 and operating Unit 7 commencing in 2022 will result in a net total reduction in the amount of GHG emissions from FPL's electrical power generating units on a system-wide basis-which, in turn, will result in lower social costs of carbon than if Unit 7 is not operated and Units 4 and 5 continue to operate indefinitely into the future. (RO ¶ 100).

C. Failure to Perform Life-Cycle Analysis

Additionally, Sierra contends that the site certification for DBEC should be denied or additional conditional GHG-related conditions imposed because FPL and/or DEP failed to perform a "life-cycle analysis" to analyze DBEC's GHG emissions "from start to finish, . . . from gas generation to gas burn," which would include GHGs emitted by natural gas production and

transport by pipeline to the DBEC site. This contention disregards that such an analysis is beyond the scope of this proceeding. (RO ¶ 101).

This proceeding specifically applies only to "electrical power plants" as that term is defined in section 403.503(14), Florida Statutes. Pursuant to that definition, the scope of this proceeding is limited only to considering the impacts of, and imposing conditions on, facilities that fall within that definition. By this statute's plain terms, associated facilities that are directly or indirectly connected to the electrical power plant are to be considered only if they are owned by the applicant. (emphasis in RO). As discussed above, the evidence establishes that Florida Gas Transmission Company owns the pipeline that transports natural gas to the DBEC site. No evidence was presented showing that FPL has any ownership interest in this pipeline, or that FPL has any ownership in sources which may produce gas that is ultimately transported to DBEC for use as fuel for Unit 7. (RO ¶ 102). Any GHG impacts associated with the operation of the pipeline to transport natural gas to DBEC are beyond the scope of this proceeding. (RO ¶ 103).

D. Failure to Consider Cumulative Impact of GHG Emissions

Sierra also contends that the site certification for DBEC should be denied or additional GHG-related conditions imposed because FPL and/or DEP did not consider the cumulative impacts of DBEC's GHG emissions combined with those from "other existing and foreseeable permitted sources in Florida and elsewhere." (RO ¶ 104).

As previously discussed, Florida and federal air statutes and rules do not impose cumulative impacts assessment in the PSD permitting process. Further, EPA's PSD Guidance expressly recognizes that climate change modeling and impacts evaluation of GHG emissions is conducted for changes in GHG emissions that are orders of magnitude larger than those from

individual projects, and that determining the exact impacts attributable to a specific GHG source is not possible under current climate change modeling. (RO ¶ 105).

E. Failure to Consider Using Solar Power Generation Technology

Sierra also contends that the site certification for DBEC should be denied or additional conditions imposed because FPL and/or DEP "did not consider using solar generation." As discussed above, the PSC's Need Determination for Unit 7 considered and specifically rejected the use of photovoltaic (solar) facilities as a cost-effective alternative to Unit 7. (RO ¶ 106). The PSC is the sole forum for determining need for electrical power plants subject to the PPSA. § 403.519, Fla. Stat. (2018). The PSC's need determination considers, among other things, the need for electric system reliability, the need for fuel diversity, whether the proposed plant is the most cost-effective alternative, and whether renewable energy resources may mitigate the need for the proposed electrical power plant. (RO ¶ 107). Section 403.519, Florida Statutes, vests sole jurisdiction in the PSC to determine, as part of the need determination process, whether solar facilities should be required to be implemented as part of an electrical power plant's need determination. Therefore, the decision whether to impose a requirement for DBEC to implement solar facilities is beyond the scope of this proceeding. (RO ¶ 108).

V. DBEC Stormwater Management System and Flooding Issues

The DBEC stormwater management system was designed to ensure that stormwater received onsite does not flood onsite facilities and to ensure that stormwater leaving the site does not cause offsite flooding or pollution. (RO ¶ 109). The stormwater management system for DBEC consists of a system of culverts, catch basins, ditches, storm sewer inlets, an underground storm sewer system, and ponds. The collection and conveyance structures collect the stormwater

onsite and convey it to ponds, which collect and store the water, then release it offsite at a controlled rate. (RO ¶ 110).

Compliance with Applicable Stormwater Management Requirements

The DBEC stormwater management system is designed in accordance with, and meets, all applicable stormwater management requirements of the City of Dania Beach, the City of Hollywood, Broward County, and the South Florida Water Management District (SFWMD). (RO ¶ 111). Broward County's land development code regulations require the floor elevation of the power plant facilities to be elevated to at least 5.5 feet North American Vertical Datum of 1988 (NAVD88), or approximately 6.5 feet above mean sea level, to withstand flooding from a 100-year, 72-hour storm event. (RO ¶ 112). The City of Dania Beach requires new or substantially improved power generation structures to be elevated three feet above the Federal Emergency Management Agency's (FEMA) 100-year Base Flood Elevation established on the FEMA Flood Insurance Rate Map (FEMA Map). FEMA's 100-year Base Flood Elevation is three feet NAVD88; thus, the City of Dania Beach requires DBEC's power generation structures to be elevated to six feet NAVD88, which is approximately seven feet above mean sea level. (RO ¶ 113). To be conservative, FPL proposes to elevate the minimum floor elevation of DBEC's power generation structures to 10.5 feet NAVD88, or 11.5 feet above mean sea level-an additional five feet above Broward County's flood elevation requirement. This far exceeds both Broward County's and Dania Beach's minimum flood elevation requirements. (RO ¶ 114).

Broward County also required FPL to compare the base elevation of the stormwater management ponds to future groundwater elevation established on the Broward County Future Conditions Average Wet Season Groundwater Map (Groundwater Map), to ensure that the ponds would be sufficiently elevated to hold enough water to prevent flooding during storm events.

The Groundwater Map depicts a projected future average wet season groundwater elevation of 2.5 feet above mean sea level, i.e., 1.5 feet NAVD88, in the year 2060. The base of the onsite stormwater storage ponds will be constructed one to two feet above this elevation. Additionally, the stormwater management system ponds have been designed to provide adequate storage to accommodate a 100-year, 72-hour storm event, so that the project does not have stormwater offsite impacts. (RO ¶ 115).

Projected Sea Level Rise and DBEC Design

The design elevation of DBEC's power block and stormwater management ponds adequately accounts for sea level rise. (RO ¶ 116). At Broward County's request, FPL compared the base flood elevation of the DBEC power block to the 2015 Unified Sea Level Rise Projection for Southeast Florida (USLRP) document. This document, which was prepared by a technical working group on behalf of Palm Beach, Broward, Miami-Dade and Monroe counties, projects future sea level rise in South Florida, including Broward County. (RO ¶ 117). The USLRP contains a graph consisting of four curves depicting projected sea level rise from 1992 (the baseline year) to 2100 for southeast Florida region. The area between the IPCC AR5 Curve and the United States Army Corps of Engineers (USACE) High Curve is recommended in planning design elevation for most projects that fall within a short-term planning horizon, and applies to "most infrastructure projects, especially those with a design life expectancy of less than 50 years." (RO ¶ 119). The USLRP also states that "[p]rojects in need of a greater factor of safety related to potential inundation should consider designing for the [USACE High Curve]. Examples of such projects may include evacuation routes planned for reconstruction, communications and energy infrastructure, and critical government and financial facilities." (RO ¶ 120).

DBEC has a design life of 40 years and constitutes energy infrastructure. Therefore, the USACE High Curve is appropriate to use in designing the DBEC project to account for projected sea level rise by 2060. (RO ¶ 121).

By contrast, the National Oceanic and Atmospheric Administration (NOAA) High Curve is used to plan high-risk projects that will be constructed after 2060; projects that are not easily replaceable or removable, have a long design life-i.e., more than 50 years; or are critically interdependent with other infrastructure or services. Examples of infrastructure expressly identified in the USLRP document to which the NOAA High Curve is appropriately applied include nuclear power plants, wastewater treatment facilities, levees or impoundments, bridges along major evacuation routes, airports, seaports, railroads, and major highways. DBEC does not fall within any of these categories; accordingly, the NOAA High Curve is not recommended for use in designing the DBEC project to account for projected sea level rise by 2060. (RO ¶ 122).

Nonetheless, FPL took a conservative approach in determining the appropriate design elevation for the project over its projected design-life. Specifically, FPL added one inch to the USACE High Curve projection to account for two additional years of sea level rise beyond the end of DBEC's design-life in 2060. This resulted in a projected 27 inches of sea level rise by 2062. FPL then added this projection to the Broward County existing flood level requirement of 6.5 feet above mean sea level to determine potential flood levels in 2062. This calculation showed that an elevation of 8.75 feet above mean sea level is necessary to protect against sea level rise by 2062, using the USACE High Curve as the design benchmark. Because the minimum concrete base on which the power block will be elevated to 11.5 feet above mean sea

level, it will be sufficiently elevated to protect against projected sea level rise by 2062. (RO ¶ 123).

To further ensure that the design elevation of 11.5 feet above mean sea level is adequate to protect against a realistic, reasonably-projected "worst case" scenario, FPL compared the design elevation of 11.5 feet above mean sea level to the 34-inch sea level rise projected by the NOAA High Curve by 2060. Adding the 34 inches to Broward County's existing flood level requirement of 6.5 feet above mean sea level results in a design elevation of approximately 9.5 feet above mean sea level needed to address the NOAA High Curve projection by 2062. Thus, DBEC's minimum floor elevation of 11.5 feet above mean sea level exceeds the recommended design elevation, even when compared to sea level rise projected by the NOAA High Curve in 2062. (RO ¶ 124).

FPL also used the NOAA Sea, Lake, and Overland Surges from Hurricanes (SLOSH) model to address potential storm surge in determining the design elevation for DBEC's power block. This model projects storm surges for different categories of hurricanes and tidal events. FPL applied the SLOSH model to sea level rise projected by the USACE High Curve to predict storm surge height at the DBEC site by 2060, and then compared those results to the FEMA Map. The SLOSH model indicated lower elevations than the FEMA Map, which takes storm surge into account in determining the 100-year flood elevation. Accordingly, the 11.5 foot above mean sea level design elevation on which the DBEC power block will be constructed is more conservative than, and, thus, more protective than, a design based on the SLOSH model. (RO ¶ 125).

As discussed above, FPL used the Groundwater Map to establish the bottom elevation of DBEC's stormwater ponds. The Groundwater Map, which relies on the USACE High Curve,

projects groundwater levels at the DBEC site will be at approximately 1.5 feet NAVD88 by 2060. Because the bottom elevation of the stormwater ponds will be one to two feet above this projected level, they will adequately account for projected sea level rise by 2060. (RO ¶ 126).

As noted above, certain existing infrastructure is not being replaced, so will not be elevated. These structures, which were constructed in compliance with the regulatory requirements in effect at the time they were approved, are constructed at six to seven feet NAVD88 above mean sea level. The highest flood elevation on the FEMA Map is at elevation 5.5 feet NAVD88 in 2060. Thus, it is unlikely that these structures will be subject to flooding by 2060. (RO ¶ 127).

In designing DBEC, FPL reasonably relied on the sea level rise projections in the USLRP. That document, which was developed specifically for use in structural design and land use planning to address projected sea level rise, was created by the local governments in south Florida and provides the best scientific consensus view of future sea level rise. (RO ¶ 128).

FPL's expert, Dr. George Maul, concurred that FPL reasonably relied on the USACE High Curve in designing the floor of DBEC's power block at 11.5 feet above mean sea level. In Dr. Maul's opinion, the USACE High Curve's projection for sea level rise is reasonable and appropriate for use in southeast Florida over the next 60 years. (RO ¶ 129).

Dr. Maul questioned the reliability of the NOAA High Curve, which predicts a rate of sea level rise twice as high as that experienced exiting the last Ice Age. He further noted that, in any event, the USACE High Curve and the NOAA High Curve differ by only a few inches in projected sea level rise by 2060. (RO ¶ 130).

Dr. Harold Wanless testified on behalf of Sierra regarding the relationship between climate change and sea level rise, hurricanes, and their effects on coastal marine environments.

(RO ¶ 131). Dr. Wanless testified regarding a range of factors that may cause the rate of sea level rise to accelerate. According to Dr. Wanless, research shows that sea level rise began to accelerate in approximately 1993 due to melting of the Greenland and Antarctic ice sheets. Based on this research, Dr. Wanless disputes the accuracy of government predictions that do not take this phenomenon into account. (RO ¶ 132). In his testimony regarding the projected rate and extent of sea level rise over time, Dr. Wanless presented a graphic adapted from a January 2017 NOAA publication showing three global sea level curves-the "intermediate/high," "high," and "extreme" curves-projecting sea level rise through the year 2100. All of these curves on Dr. Wanless' adapted graphic assume Greenland and Antarctic ice sheet loss. (RO ¶ 133). Notably, no evidence was presented regarding the probability of this projected sea level rise scenario. (RO ¶ 134).

To depict local sea level rise in southeast Florida through 2100, Dr. Wanless added "local influences" to the 2017 NOAA curves, which consisted of higher water levels on the western side of the Gulf Stream due to its deceleration, and the gravitational redistribution of water due to decreasing ice sheet mass in Antarctica and Greenland. Specifically, Dr. Wanless added to the 2017 NOAA extreme curve sea level rise projection of three feet by 2062, 15 percent additional sea level rise to account for deceleration of the Gulf Stream, and 52 percent additional sea level rise to account for redistribution of water due to decreased gravitational pull by Greenland and Antarctica. Applying these local influences, Dr. Wanless projected that there "could be" an approximate 5.2 feet of local sea level rise by 2062. Again, no evidence was presented regarding the probability with which this projected local sea level rise scenario may occur. (RO ¶ 135).

Upon full consideration of the testimony by FPL's expert Dr. George Maul and Sierra Club's expert Dr. Harold Wanless, the ALJ concluded, based on the competent, substantial, and

persuasive evidence, that the USACE High Curve, rather than Dr. Wanless' local influence sea level projection curve, is the more reasonable benchmark to apply in determining the appropriate design elevation for the DBEC power block. (RO ¶ 136).

Dr. Wanless' local sea level rise projection is substantially based on the assumption that redistribution of the Earth's mass will significantly contribute to local sea level rise; however, he noted that this phenomenon only recently has become the focus of research, and that "we're still learning." (RO ¶ 137). Dr. Maul recommended against attempting to project long-term sea level rise using record data from a short time period. To that point, he testified that trends derived from short records are less reliable as projections, because they are affected by inter-annual and decadal climate and oceanographic patterns that are superimposed on the long-term rise of global sea level. (RO ¶ 138). Dr. Maul's research of historical 19-year periods over which sea level rise rates have been observed by use of tidal gauges shows significant variability between 19-year periods. The ALJ noted he testified, credibly, that in his recent review of tidal and sea level records for Key West, "I found we can pick a 19-year period where that particular 19 years is twice the long-term [sea level] range and other times where it's half the long-term range." He also testified that in looking at 19-year records a year at a time, "I find times when that short time scale is much, much higher than a long-term average and other times when it's much less than the long-term average. So you can either overestimate or underestimate what's happening when choosing short records." On that basis, Dr. Maul disputes that "since the year 2000, there has been a rapid acceleration in sea level rise." The ALJ also noted he testified, credibly, that he has not observed any statistically significant increase in sea level at Key West since 2000. (RO ¶ 139). Dr. Maul also opined, based on his own research, that there is no statistically significant

slowing of the Gulf Stream. The ALJ found that Sierra did not present persuasive evidence specifically refuting Dr. Maul's conclusion regarding slowing of the Gulf Stream. (RO ¶ 140).

In any event, the DBEC power block minimum floor elevation has been set at 11.5 feet above minimum sea level-well above the 34- to 37-inch global sea level rise projected by the 2015 NOAA High Curve and the 2017 NOAA Extreme Curve, and also well above Dr. Wanless' projected local 5.2-foot local sea level rise by 2060. (RO ¶ 141).

Sierra also contends that the minimum design elevation for the DBEC power block does not adequately consider storm surges associated with hurricanes. In support, Dr. Wanless presented graphics generated using LiDar, a light-detection and ranging technology, showing the elevation above mean sea level of Broward County, including the DBEC site. One graphic shows the current elevation of the DBEC site as approximately two feet above mean sea level. Other graphics assume a two-foot global mean sea level rise by 2060; a four-foot rise by 2089; a six-foot rise by 2110; an 8-foot rise by 2127; and a ten-foot rise in 2142. Each of these graphics shows the DBEC site as being inundated by sea level rise by 2060. (RO ¶ 142). Dr. Wanless also presented graphics for the period from 2018 to 2060, depicting the effect of adding storm surges of four feet and nine feet to regional sea level influences, king tides, and global mean sea level. According to these graphics, adding a four-foot storm surge may result in water heights of as much as 11 feet above present global mean sea level on the DBEC site by 2060, and adding a storm surge of nine feet may result in water heights of as much as 15 feet above present global mean sea level on the DBEC site by 2060. (RO ¶ 143).

The ALJ found that Dr. Wanless' storm surge scenarios entail layering contingencies on top of contingencies-each contingency fraught with uncertainty. Stated another way, each assumed condition on which Dr. Wanless relies to project storm surge heights of 11 and 15 feet

has its own inherent uncertainty. To that point, the evidence showed that while it is well-accepted that global sea levels are rising, there is substantial lack of consensus in the scientific community and regulatory agencies regarding the extent and rate of global sea level rise in the future. Further, as discussed above, currently there is not a consensus that the Gulf Stream is slowing or that water mass is being redistributed due to the melting of the Greenland and Antarctic ice sheets-two contingencies that substantially contributed to Dr. Wanless' projection of a 5.2-foot local sea level rise by 2060. Additionally, as with Dr. Wanless' other projections, the ALJ found that no evidence was presented regarding the probability that his projected water height scenarios on the DBEC site, assuming four- and nine-foot storm surges, would occur. (RO ¶ 144).

Based on the foregoing, the ALJ found that the 11.5 foot above mean sea level design elevation for DBEC adequately addresses future storm surges. (RO ¶ 145).

As previously discussed, certain existing infrastructure will be used for DBEC. These components were built years ago, complied with code requirements for elevation at the time they were constructed, and currently comply with those code requirements. (RO ¶ 146). The ALJ found that the competent substantial evidence establishes that the DBEC site design, as currently proposed, complies with all applicable state and local regulatory requirements. The ALJ also found that the competent, substantial, and persuasive evidence further establishes that DBEC site design elevation, which exceeds all applicable regulatory requirements, will adequately protect against flooding and inundation due to global and local sea level rise and storm surges. (RO ¶ 147).

VI. Other Impacts

Water Resource Impacts

The construction and operation of DBEC will not adversely impact water resources. (RO ¶ 148). The primary water uses for DBEC consist of cooling water, process water, service water, irrigation, and potable water. (RO ¶ 149). The cooling system for DBEC will use cooling water withdrawn from the Dania Cutoff Canal, which currently serves, and since 1927 has served, as the cooling water source for the electrical power generating facilities on the Lauderdale Site. DBEC will not require an increase in the rate or amount of cooling water withdrawn from the canal. Because the withdrawal rate will not increase, the through-screen velocity through the cooling water intake structure will not increase. This helps ensure that the project will not adversely impact fish or shellfish by impingement or entrainment. (RO ¶ 150).

Additionally, no increase in the authorized quantity of industrial wastewater discharge will be required. The cooling system has been designed to ensure that DBEC will meet existing permitted National Pollutant Discharge Elimination System (NPDES) thermal discharge limits. (RO ¶ 151). The average amount of process water used is anticipated to decrease. (RO ¶ 152). DBEC will continue to receive potable water from the City of Hollywood, and potable water use is not anticipated to increase. (RO ¶ 153).

Sanitary Waste Disposal and Solid and Hazardous Waste

The City of Hollywood will provide sanitary waste disposal services to DBEC. (RO ¶ 154). The operation of DBEC will generate small amounts of solid waste, which will be recycled, reused, disposed onsite, disposed in licensed offsite landfills, or otherwise appropriately disposed via approved disposal methods. (RO ¶ 155).

The Lauderdale Site is a conditionally-exempt small quantity generator of hazardous waste and is anticipated to remain so during the construction and operation of DBEC. Hazardous waste generation by DBEC is anticipated to be less than 100 kilograms per month. FPL will contract with an approved and licensed hazardous waste disposal entity to handle and dispose of any hazardous waste generated by DBEC in a manner that complies with all federal, state, and local environmental regulations. (RO ¶ 156).

Terrestrial Impacts

The DBEC project will affect approximately 134 acres of the 392-acre Lauderdale site, which has continuously been used for industrial activities for the past 90 years. As such, the Lauderdale site is disturbed and does not constitute prime wildlife habitat for unique wildlife species. The upland and wetland habitat onsite are low-quality, and consist of a mixture of nuisance exotic and native species. (RO ¶ 157). Due to the disturbed nature of the site and the lack of significant wildlife habitat, no change in floral or faunal populations, including commercially- or recreationally-important species, is anticipated due to DBEC. Additionally, the site does not contain significant areas of preferred habitat for nesting, roosting, or foraging by state and/or federal endangered, threatened, or candidate species. (RO ¶ 158).

Approximately 18.67 acres of low-quality wetlands, 0.12 acres of disturbed exotic and native hardwood systems, and a small area of low-quality isolated freshwater marsh will be impacted by dredging and filling. These wetland impacts will be mitigated through purchase of mitigation credits from the Everglades Mitigation Bank. (RO ¶ 159).

Impacts on Aquatic Species

DBEC project will continue to withdraw water from the existing Dania Cutoff Canal and to discharge cooling water into ponds and, ultimately, offsite. Proximate aquatic systems are

subject to tidal influences and fresh water discharges through SFWMD canals. The waters in the vicinity of the DBEC site are designated Class III marine waters. Existing stresses on aquatic systems near DBEC include altered hydrology, altered salinity, elevated nutrient and organic loads, power plant intake/discharge, physical alterations, and pressures from fishing and boating. (RO ¶ 160). DBEC will address impacts to these aquatic systems, as appropriate, through obtaining an NPDES permit for the cooling water discharge. (RO ¶ 161). FPL also will use best management practices during construction to control erosion, sedimentation, and runoff to prevent water quality degradation. Significant impacts to aquatic resources and biological communities are not anticipated. (RO ¶ 162). During DBEC construction, FPL will continue to discharge warm water consistent with the Manatee Protection Plan established under the NPDES permit for the existing electrical power plant facility. The Lauderdale Site will continue to provide a warm water refuge for manatees during and after DBEC is constructed. (RO ¶ 163).

Transportation Impacts

A traffic analysis for construction and operation of DBEC was performed and provided in the site certification application. During peak construction, approximately 500 vehicles per day are anticipated to enter and exit the DBEC site. A traffic impact analysis showed that additional construction-related traffic will not degrade roadway system operating conditions. (RO ¶ 164). FPL will develop a traffic management plan to minimize level of service deficiencies due to construction traffic. FPL has agreed, pursuant to the Conditions of Certification, to work with the City of Hollywood to improve roadway operations at site access locations. (RO ¶ 165).

No adverse impacts to traffic flow are anticipated from DBEC's operation. (RO ¶ 166).

Archaeological and Historical Site Impacts

A cultural resource assessment of the DBEC site determined that no archaeological or historical structures that are listed, eligible, or potentially eligible for listing in the National Register of Historic Places, are present. (RO ¶ 167).

Noise

A computer program predicted environmental noise impacts from DBEC. Most of the noise sources, which consist of the steam turbine, the gas turbines, the electric generators, and the compressors, are in enclosed structures, which helps mitigate impacts. (RO ¶ 168). The DBEC sound profile will not be significantly different than that for Units 4 and 5. The Lauderdale Site is in a highly-developed area having other proximate industrial and urban uses, including a waste-to-energy center, a shipping center, a recycling center, the Fort Lauderdale-Hollywood International Airport, and several major highways. (RO ¶ 169). DBEC is projected to comply with the Broward County and City of Hollywood noise ordinances. (RO ¶ 170). DBEC's normal operation is not anticipated to exceed the City of Dania Beach's maximum permissible noise levels. However, as part of the site certification application, FPL has requested a variance from the City of Dania Beach noise ordinance, chapter 17, article IV, sections 17-79 through 17-90, for noise levels that may occur on an infrequent and short-term basis during startup, shutdown, and upset conditions. The City of Dania Beach does not object to FPL's request for the variance. (RO ¶ 171).

The ALJ recommended approval of FPL's request for a variance from the City of Dania Beach noise ordinance, chapter 17, article IV, sections 17-79 through 17-90. (RO ¶ 172).

VII. Climate Change

"Climate change" is a term used to describe changes in global temperature, global sea level rise, and other conditions associated with those effects, including changes in precipitation, winds, waves, and climates. (RO ¶ 173). The ALJ made the following findings regarding climate change. Climate change is occurring globally and locally, including in southeast Florida. (RO ¶ 174). Climate change is caused by the emission of GHGs. Water vapor, carbon dioxide, and methane are the most significant GHG contributors to climate change. (RO ¶ 175). Most of the increase in atmospheric carbon dioxide concentration has occurred since World War II and is primarily due to human population increase, global industrialization, and increased burning of fossil fuels on a global basis. (RO ¶ 177). Climate change is responsible for causing sea level to rise on a global and local basis. (RO ¶ 179). The main drivers of sea level rise are atmospheric and ocean warming, which increase the ocean's mass through melting land and sea ice and increase the ocean's volume through thermal expansion. (RO ¶ 180).

Increasing the concentration of carbon dioxide in the atmosphere increases the rate of climate change, which, in turn, accelerates sea level rise. (RO ¶ 181). The evidence shows that global sea level does not rise in a gradual linear manner, but instead rises in rapid pulses followed by pauses. (RO ¶ 183). Although sea level is rising on a global and local basis, there currently is little consensus regarding the rate of sea level rise. (RO ¶ 184). Many urban areas in southeast Florida experience substantial flooding during rainfall events. The evidence shows that sea level rise is likely a contributing cause. (RO ¶ 186).

Sea level rise causes substantial coastal hazards, including inundation of land, higher storm surges, higher king tides, increased flood height and frequency, coastal erosion and destruction of coastal mangroves and other ecosystems, erosion and destruction of coastal barrier

islands, and saltwater intrusion into freshwater aquifers and ecosystems. These impacts will worsen or accelerate with sea level rise. (RO ¶ 187). The cumulative addition of carbon dioxide to the atmosphere is warming the atmosphere, which, in turn, is causing ocean temperatures to rise on a global basis. The upper ocean has warmed substantially on a global basis since 1997, due to increasing human population and the corresponding increased burning of fossil fuels. (RO ¶ 188). Some scientific studies indicate that climate change will cause more severe storm and weather events. (RO ¶ 190). Some scientific studies indicate that climate change will result in threats to human health, native wildlife and ecosystems, agriculture, and the tourism industry. (RO ¶ 191).

In sum, the ALJ found that the competent, persuasive evidence establishes that climate change is occurring, that it is primarily caused by GHGs emissions, and that every ton of GHGs emitted into the atmosphere contributes to climate change. (RO ¶ 192). The ALJ also found that competent, persuasive evidence also establishes that as a result of climate change, sea level is rising globally, and, to a certain extent, locally, and that sea level rise already is causing environmental adverse impacts. (RO ¶ 193).

VIII. SCO and Affected Agencies' Review of Application

The PPSA establishes a centralized, coordinated process for licensing electrical power plants that generate 75 MW or more of electrical power. §§ 403.502, and 403.503(14), Fla. Stat. (2018). Site certification for an electrical power plant constitutes a license that addresses and encompasses the regulatory requirements of the agencies that are involved in the site certification application review process. (RO ¶ 194). The SCO is an office within DEP's Division of Air Resource Management. It is responsible for coordinating and overseeing the electrical power plant site certification application review process. The SCO also serves as administrative staff

for the Siting Board. (RO ¶ 195). The SCO's responsibilities include receiving site certification applications, preparing a schedule of deadlines and milestones applicable to the site certification application review process, determining completeness of the application based on the recommendations of affected agencies, receiving each affected agency's preliminary statement of issues, receiving each affected agency's report, and preparing the PAR. §§ 403.5064, 403.5066, and 403.507, Fla. Stat. (2018). (RO ¶ 196). The PAR addresses the proposed electrical power plant's compliance with all applicable non-procedural requirements of the affected agencies, and contains copies of the affected agencies' reports; comments from other agencies or persons; any variances and waivers from applicable regulatory requirements that have been requested and the SCO's recommendation regarding the request; the SCO's recommendation regarding whether site certification should be approved, denied, or approved with conditions; and proposed conditions of certification. § 403.507(5)(a), Fla. Stat. (2018). (RO ¶ 197).

The affected agencies' reports provide the agencies' specialized knowledge on matters within their jurisdiction and expertise, so are a crucial component of the PAR. Each affected agency conducts a substantive review of the site certification application to determine whether the electrical power plant complies with that agency's applicable substantive rules, regulations, ordinances, standards, and criteria. The affected agency's report must specifically address these topics and must state whether, based on its substantive review, the agency recommends that the electrical power plant be approved, denied, or approved with conditions. The report also must include any conditions of certification that the agency recommends be imposed regarding matters within its jurisdiction. § 403.507(3), Fla. Stat. (2018). (RO ¶ 198).

Conditions of certification are regulatory requirements imposed to minimize and mitigate the potential adverse effects of the construction and operation of the electrical power plant with

respect to the environment and public health. Because the conditions of certification are regulatory requirements, each affected agency that recommends a specific condition of certification must possess the legal authority to impose that condition. § 403.507(3)(c), Fla. Stat. (2018). (RO ¶ 199). Because each affected agency possesses legislatively or constitutionally delegated regulatory authority over specific matters, the SCO does not conduct an independent review as to whether the proposed electrical power plant meets those affected agencies' nonprocedural requirements, and instead relies on each affected agency's specific regulatory knowledge and expertise regarding matters that are within its substantive regulatory jurisdiction. (RO ¶ 200).

FPL submitted the Application for DBEC to the SCO on July 27, 2017. The Application was referred to DOAH and distributed to the affected agencies for review and comment regarding completeness of the Application. The affected agencies needed additional information, so the Application was determined incomplete. After FPL provided the requested information, the Application was deemed complete on October 27, 2017. (RO ¶ 201).

Pursuant to section 403.507(3), Florida Statutes, the SFWMD; Florida Fish and Wildlife Conservation Commission (FWCC); Florida Department of Transportation (DOT); Florida Department of Economic Opportunity (DEO); Florida Department of State, Division of Historical Resources (DHR); DEP; Broward County; the City of Dania Beach; and the City of Hollywood reviewed the Application and submitted agency reports to the SCO. (RO ¶ 202). Each of these affected agencies submitted recommended conditions of certification to be included in the site certification as conditions specifically designed to address matters within that agency's regulatory jurisdiction. (RO ¶ 203). Each agency concluded that if DBEC complies with the conditions of certification recommended by that agency, it will meet all applicable non-

procedural requirements, rules, and ordinances within that agency's jurisdiction. Each agency recommended that DBEC be approved, subject to the conditions of certification recommended by that agency. (RO ¶ 204).

PSC Need Determination

The PSC issued the Need Determination for DBEC on March 19, 2018. Pursuant to section 403.507(4)(a), Florida Statutes, the Need Determination constitutes the PSC's agency report for DBEC. (RO ¶ 205). In determining the need for DBEC, the PSC considered critical components of need, including forecasted load, necessary reserve margin, projected load generation and imbalance, and area reliability margin. (RO ¶ 206). The PSC determined that FPL demonstrated the need for DBEC Unit 7 in the 2024-to-2026 timeframe to maintain its electrical system reliability and integrity. The PSC found that:

No cost-effective [Demand Side Management] or renewable resources have been identified that could mitigate the need for DBEC Unit 7. DBEC Unit 7 is expected to provide adequate electricity at a reasonable cost to FPL's customers. DBEC Unit 7 is projected to reduce overall natural gas consumption and reduce emissions compared to maintaining the existing Lauderdale units. DBEC Unit 7 is the most cost-effective alternative that maintains FPL's system and Southeastern Florida area reliability compared to other alternatives.

(RO ¶ 207).

South Florida Water Management District

SFWMD determined that there will be no increase in water use for DBEC, and that the cooling water, potable water, and process water sources will remain the same as for the units currently existing at the Lauderdale Site. (RO ¶ 208). SFWMD determined that if DBEC complies with SFWMD's recommended conditions of certification, it can be constructed and operated in compliance with the applicable statutes and rules within SFWMD's jurisdiction. (RO ¶ 209).

Florida Fish and Wildlife Conservation Commission

FFWCC's report noted that several listed wildlife species were observed onsite or have a moderate to high likelihood of occurrence onsite. Additionally, the West Indian Manatee will be affected by ceasing operation of Units 4 and 5 before the construction of DBEC. FWCC recommended conditions of certification requiring biological surveys, monitoring for impacts to listed species, and recommended a condition of certification to require temporary heaters to be used during DBEC construction to maintain a warm water refuge for manatees. (RO ¶¶ 210-11).

Department of Transportation

DOT determined that except for construction-related traffic, DBEC is not anticipated to adversely affect the State Highway System near the plant. (RO ¶ 212). DOT recommended certification of DBEC, contingent on DBEC's compliance with its recommended conditions of certification. (RO ¶ 213).

Department of Economic Opportunity

DEO anticipates that DBEC will provide economic and fiscal benefits to the City of Dania Beach, Broward County, and the surrounding area. DEO recommended approval without any recommended conditions of certification. (RO ¶ 214).

Division of Historical Resources

DHR did not object to DBEC, noting that all current matters pertaining to historical resources were addressed. (RO ¶ 215).

Department of Environmental Protection

DEP reviewed solid waste and hazardous waste, environmental resource permitting, industrial wastewater, and stormwater management issues within its jurisdiction and determined that DBEC will meet all applicable regulatory requirements, provided it complies with the

proposed conditions of certification. (RO ¶ 216). DEP recommended conditions of certification to address solid waste and hazardous waste, environmental resource permitting, industrial wastewater, and stormwater management issues within its jurisdiction. (RO ¶ 217).

Local Governments

Broward County, the City of Dania Beach, and the City of Hollywood each recommended approval of DBEC, subject to recommended conditions of certification regarding matters within its regulatory jurisdiction. (RO ¶ 218). The City of Dania Beach did not object to a variance sought by FPL from noise limits in the City's code of ordinances for transient and infrequent noises associated with unit startup, shutdown, and upset conditions. (RO ¶ 219).

Preliminary Analysis Report and Recommended Approval with Conditions of Certification

On April 2, 2018, the SCO issued the PAR for DBEC. Based on the agencies' reports, recommended conditions of certification, and unanimous approval recommendation, the SCO determined that FPL has provided reasonable assurance that, considering and balancing the factors in section 403.509(3)(a) - (g), Florida Statutes, DBEC can be certified. (RO ¶ 220). The PAR recommends approval of the site certification for DBEC, subject to the proposed Conditions of Certification, which were compiled from the affected agencies' recommended conditions of certification submitted as part of their agency reports. (RO ¶ 221).

Sierra contends that because the SCO did not conduct an independent review of whether DBEC meets the nonprocedural requirements of the affected agencies, it was not able to determine whether FPL provided reasonable assurance that the site certification complies with the agencies' applicable statutes, rules, regulations, and other requirements. (RO ¶ 222). The Siting Board rejects this contention. The purpose of the affected agency's review and report submittal requirement in section 403.507, Florida Statutes, is to ensure that the agency legally

and factually vested with the substantive jurisdiction and expertise over a specific regulated area is an integral part of the site application review process. To that end, each agency is charged with submitting recommended conditions of certification that are specifically keyed to addressing issues within that agency's substantive jurisdiction and expertise. The purpose of affected agency involvement in the site certification process would be defeated if the SCO, which is not an expert over the matters within the various affected agencies' substantive jurisdiction, was authorized to second-guess these agencies' determinations and modify or reject their recommended conditions of certification. (RO ¶ 223).

Further, and fundamentally, the SCO is not statutorily authorized to conduct such an independent review. Notably, Sierra has not cited any statutory, rule, or case law authority to support its position. (RO ¶ 224).

Notice, Public Outreach, and Public Hearing

All public notices required by the PPSA were provided. (RO ¶ 225). FPL timely published the notice of filing the Application, as required by section 403.5115(1)(a), Florida Statutes, and notice of the certification hearing, as required by section 403.5115(1)(e), Florida Statutes. (RO ¶ 226). DEP published notice of filing the Application and the certification hearing in the Florida Administrative Register, as required by section 403.5115(4), Florida Statutes. (RO ¶ 227). FPL also provided direct written notice that the Application had been filed to property owners and residents within three miles of the project area, as required by section 403.5115(6)(a), Florida Statutes. (RO ¶ 228). FPL also engaged in public outreach for the project, including providing a toll-free phone number at which information regarding the project could be obtained, a website containing information about the project, and electronic mail contact information. Additionally, FPL sent 310 letters to residents of the neighborhood closest

to the project and sent 1,600 notices to residents and property owners near the site, inviting them to an open house that was held on May 24, 2017. FPL hosted another open house in June 2017 for residents of the neighborhood immediately south of the Project site. (RO ¶ 229).

A public hearing was held on May 15, 2018, from 6:00 p.m. until 8:03 p.m. Many members of the public provided comments on the DBEC project, and were allowed to ask questions of representatives from FPL and DEP. The public hearing comments were recorded and transcribed as part of the Transcript of the certification hearing. (RO ¶ 230).

Federal Permits

As discussed above, an air construction/PSD permit has been issued for DBEC. (RO ¶ 231). FPL has applied for an NPDES permit and a permit from the United States Army Corps of Engineers under section 404 of the Clean Water Act. (RO ¶ 232). These permits and approvals are not part of, or subject to revision, modification, or revocation in, this proceeding. (RO ¶ 233).

Variance

As discussed above, FPL has requested a variance from the City of Dania Beach noise ordinance in Chapter 17-86 of the City's Code of Ordinances, which establishes the permissible sound levels for receiving land use categories. Specifically, FPL requested a variance from the City's maximum permissible sound levels for:

Noise due to emergency or upset conditions for all time periods and all receiving land use categories; Noise due to transient conditions associated with unit startup and shutdown shall be limited to 70 dB(A) for all time periods and all receiving land use categories, except for Industrial land use which shall retain a limit of 75 dB(A).

(RO ¶ 234). Currently, the area in which the Lauderdale Site is located experiences significant noise from the combined effect of a range of industrial and urban activities, including the operation of Units 4 and 5 at the Lauderdale Site. (RO ¶ 235). DBEC's projected noise profile is

not materially different than that of the existing power plant operation at the Lauderdale Site. (RO ¶ 236). Transient and infrequent conditions at the Lauderdale Site, including unit startup, shutdown, and upset conditions occasionally occur for short periods of time. These conditions also are expected to occur occasionally at DBEC. (RO ¶ 237).

The variance is limited in nature, and the noise levels necessitating a variance are expected to be infrequent and short-lived during unit startup, shutdown, or upset conditions. (RO ¶ 238). The City of Dania Beach does not oppose the variance. (RO ¶ 239). Given the limited nature of the variance, lack of opposition, and that similar noise levels currently occur at the Lauderdale Site, the requested variance is reasonable; and, therefore, should be granted. (RO ¶ 240).

IX. The Siting Board's Role and Authority

Section 403.509(3), Florida Statutes, sets forth the Siting Board's authority and duty under the PPSA. (RO ¶ 241). In considering whether to approve, approve with conditions, or deny a power plant site certification license, the Siting Board must consider all factors in section 403.509(3)(a) through (g), Florida Statutes. (RO ¶ 242).

The Siting Board possesses broad authority under the PPSA in considering whether to certify an electrical power plant. Except for the need determination and federal permits, the Siting Board is not bound by the conditions of certification proposed by the SCO or the affected agencies, and may modify, remove, or add conditions of certification, as authorized, to protect the broad interests of the public and minimize adverse impacts of the electrical power plant on the environment and human health. *See* § 403.502(2), Fla. Stat. (2018). (RO ¶ 243).

X. Comparative Impacts and Benefits of DBEC

As discussed above, DBEC will emit GHGs into the atmosphere. Therefore, DBEC's emissions will increase the amount of carbon dioxide in the atmosphere when compared to a zero emissions scenario, i.e., no GHG emissions at all. However, the alternatives in this proceeding do not entail a zero GHG emissions alternative to DBEC. (RO ¶ 244).

The PSC found and concluded, in the Need Determination, that with the retirement of Units 4 and 5, DBEC is needed to meet a projected future electrical power demand. As part of the Need Determination, the PSC concluded that no additional cost-effective renewal resource, such as solar or wind generation technology, could mitigate the need for DBEC. The PSC also concluded that no new demand side management, such as conservation, could mitigate the need for DBEC. In so determining, the PSC established, as a baseline condition to this proceeding, that DBEC, a natural gas-fueled facility, is the most cost-effective means of meeting projected future electrical power demands if Units 4 and 5 are retired. (RO ¶ 245). Thus, given the Need Determination, the only alternative available to constructing DBEC is to continue operating Units 4 and 5 indefinitely. (RO ¶ 246).

Units 4 and 5 are less efficient units that burn substantially more natural gas than will Unit 7. Therefore, if Units 4 and 5 continue to operate indefinitely, as will be the case if DBEC is not certified, they will burn more natural gas, resulting in the emission of greater amounts of GHGs over their operation life than would the construction and operation of Unit 7, combined with FPL's reduction of the use of less efficient units in its system. (RO ¶ 247).

The ALJ found that the competent, substantial, and persuasive evidence establishes that the retirement of Units 4 and 5 in 2018, along with the construction and operation of DBEC in 2022 and FPL's concomitant reduction in the use of other less-efficient, more-polluting units in

its system, will result in the emission of approximately 8.1 million tons less GHGs into the atmosphere over a 30-year period than if DBEC is not approved and Units 4 and 5 continue to operate indefinitely. (RO ¶ 248). Because DBEC will, through system-wide reduced GHG emissions, result in a net environmental benefit as compared to the alternative of continuing to operate Units 4 and 5 indefinitely, DBEC should be weighed as a net positive in considering and balancing the site certification criteria in section 403.509(3), Florida Statutes. (RO ¶ 249).

Other measures, discussed above, that DBEC will include and implement to minimize offsite impacts include using the existing transmission line system, existing natural gas pipeline, existing site access, and using a previously-developed power generation site. DBEC will not require new water sources, will not result in a new or expanded surface water discharge, and will reduce the use of processed water by approximately 22 percent. Additionally, upon its operation, DBEC will provide a warm water refuge for manatees. (RO ¶ 250).

In sum, the ALJ found that DBEC's benefits, discussed at length above, outweigh its adverse impacts. (RO ¶ 251).

XI. Sierra's Standing

Sierra has intervened in this proceeding pursuant to section 403.508(3)(e), Florida Statutes, which confers party status on persons or entities who demonstrate that their substantial interests will be affected by this proceeding. (RO ¶ 252). Sierra is a national non-profit organization committed to protecting the environment. Sierra focuses extensive effort and resources toward advocating the displacement of fossil-fuel energy sources, which emit GHGs, in favor of renewable energy sources and energy sources, such as solar power, wind power, and energy storage and batteries. (RO ¶ 253). Consistent with that mission, Sierra's members are

actively involved in efforts aimed at reducing GHG emissions on a global and local basis. (RO ¶ 254).

Several Sierra members testified at the certification hearing regarding the environmental and personal harms they allege they will suffer due to climate change, to which, Sierra alleges, DBEC will contribute. These alleged harms include rising sea level, saltwater intrusion, contamination of drinking water aquifers, property damage due to flooding and increased storm intensity, adverse impacts on recreational activities due to degradation of coral reef and mangrove ecosystems, algal blooms, and human health impacts. (RO ¶ 255). Sierra has nearly 38,000 members who live in Florida. Approximately 18,000 Sierra members live in FPL's service territory. (RO ¶ 256).

Generally, Sierra requests either that the site certification for DBEC be approved, subject to additional conditions that Sierra proposes, or denied. (RO ¶ 257).

XII. Relief Requested by Sierra

On May 2, 2018, Sierra filed Sierra's Statement on Relief (Statement on Relief), identifying the relief it seeks in this proceeding. That relief was set forth in nine sequentially numbered paragraphs. On May 8, 2018, FPL filed Florida Power & Light Company's Motion to Strike paragraphs 1 through 7 of the Statement on Relief. On May 11, 2018, Sierra filed Sierra Club's Opposition to Florida Power & Light Company's Motion to Strike. (RO ¶ 258).

At the commencement of the certification hearing, the ALJ struck paragraphs 6 and 7 of the Statement on Relief and reserved ruling on the other forms of relief requested in paragraphs 1 through 5, 8 and 9, pending development of the evidentiary record in this proceeding. The ALJ ruled on these paragraphs in her Conclusions of Law. (RO ¶ 259).

Sierra requests the following relief in paragraphs 1 through 5, 8, and 9 of its Statement on Relief, which remain at issue in this proceeding:

A. Paragraph 1 of Sierra's Statement of Relief requested the ALJ to require FPL to limit the annual emission of GHGs from DBEC to the existing annual GHG emission levels from Units 4 and 5, and require FPL to terminate GHG emissions from DBEC at the same date that FPL planned to retire Units 4 and 5, in 2033, subject to any required operation to meet electric reliability needs. The ALJ denied this requested relief. (RO ¶¶ 260, 336-339).

B. Paragraph 2 of Sierra's Statement of Relief requested the ALJ to require FPL to comply with FPL's stated system-wide GHG commitment to DEP and the PSC, and upon which FPL relies in seeking approval for DBEC-specifically, that DBEC's operation reduces FPL's system-wide annual emissions of GHGs from its current baseline by at least the amount committed by FPL. As part of this requirement, approval of DBEC should be conditioned on FPL's system-wide annual emissions of GHGs being lower than its current baseline by at least the amount committed by FPL, and never exceed that reduced level of GHGs during each year of the lifespan of DBEC. The ALJ denied this requested relief. (RO ¶¶ 260, 340-342).

C. Paragraph 3 of Sierra's Statement of Relief requested the ALJ to require FPL to develop a locally-sited public stakeholder process that provides municipalities and other governmental entities that have adopted, or that in the future adopt, carbon reduction or clean energy commitments, a means to work with FPL to develop a binding plan to meet the commitments of the municipalities and other governmental entities, subject to any governmental approvals required by law, and that such processes allow interested persons, including non-governmental organizations, a meaningful opportunity to participate. The ALJ denied this requested relief. (RO ¶¶ 260, 343-346).

D. Paragraph 4 of Sierra's Statement of Relief requested the ALJ to require FPL to evaluate, every five years, in a detailed, transparent process with opportunity for meaningful public participation, the Climate Change Damages resulting from 40 years of GHG pollution from building and operating DBEC as proposed, and approve DBEC subject to the opportunity for the Siting Board to reevaluate the approval of DBEC, including whether there are additional reasonable and available methods that should be adopted to minimize the Climate Change Damages caused by DBEC, and to impose further conditions, including future emissions reductions of DBEC. The impacts of DBEC must be evaluated individually, as well as in the context of cumulative impacts from other GHG emissions. In this evaluation, FPL must examine reasonable and alternative methods to minimize the adverse effects of DBEC's emissions, including sequestration of GHGs and the ability to avoid the emissions. The ALJ denied this requested relief. (RO ¶¶ 260, 347-350).

E. Paragraph 5 of Sierra's Statement of Relief requested the ALJ to require FPL and DEP to reevaluate, on a five-year basis, and in a detailed, transparent process with opportunity for meaningful public participation, the Climate Change Damages which pose a risk to the DBEC facility specifically, and approve DBEC subject to the opportunity for the Siting Board to reevaluate the approval of DBEC, including whether there are additional reasonable and available methods that should be adopted to minimize the Climate Change Damages to the DBEC facility, and to impose further conditions, including future emissions reductions of DBEC. The ALJ denied this requested relief. (RO ¶¶ 260, 351-353).

F. Paragraph 8 of Sierra's Statement of Relief requested the ALJ to deny DBEC's site certification. The ALJ denied this requested relief. (RO ¶¶ 260, 354-356).

G. Paragraph 9 of Sierra's Statement of Relief requested the ALJ provide such relief as is just and reasonable. The ALJ denied this requested relief. (RO ¶¶ 260, 357-359).

STANDARDS OF REVIEW OF DOAH RECOMMENDED ORDERS

Section 120.57(1)(l), Florida Statutes, prescribes that an agency reviewing a recommended order (here the Governor and Cabinet sitting as the Siting Board) may not reject or modify the findings of fact of an ALJ, “unless the agency first determines from a review of the entire record, and states with particularity in the order, that the findings of fact were not based on competent substantial evidence.” § 120.57(1)(l), Fla. Stat. (2018); *Charlotte Cnty v. IMC Phosphates Co.*, 18 So. 3d 1079, 1082 (Fla. 2d DCA 2009); *Wills v. Fla. Elections Comm’n*, 955 So. 2d 61, 62 (Fla. 1st DCA 2007). The term “competent substantial evidence” does not relate to the quality, character, convincing power, probative value or weight of the evidence. Rather, “competent substantial evidence” refers to the existence of some evidence (quantity) as to each essential element and as to its admissibility under legal rules of evidence. *See e.g., Scholastic Book Fairs, Inc. v. Unemployment Appeals Comm’n*, 671 So. 2d 287, 289 n.3 (Fla. 5th DCA 1996).

Accordingly, the Siting Board may not reweigh the evidence presented at a DOAH final hearing, attempt to resolve conflicts therein, or judge the credibility of witnesses. *See e.g., Rogers v. Dep’t of Health*, 920 So. 2d 27, 30 (Fla. 1st DCA 2005); *Belleau v. Dep’t of Envtl. Prot.*, 695 So. 2d 1305, 1307 (Fla. 1st DCA 1997); *Dunham v. Highlands County Sch. Bd.*, 652 So. 2d 894, 896 (Fla. 2d DCA 1995). The ALJ’s decision to accept the testimony of one expert witness over that of another expert is an evidentiary ruling that cannot be altered by a reviewing agency, absent a complete lack of any competent substantial evidence of record supporting this decision. *See e.g., Peace River/Manasota Regional Water Supply Authority v. IMC Phosphates*

Co., 18 So. 3d 1079, 1088 (Fla. 2d DCA 2009); *Collier Med. Ctr. v. State, Dep't of HRS*, 462 So. 2d 83, 85 (Fla. 1st DCA 1985); *Fla. Chapter of Sierra Club v. Orlando Utils. Comm'n*, 436 So. 2d 383, 389 (Fla. 5th DCA 1983).

If the DOAH record discloses any competent substantial evidence supporting a challenged factual finding of the ALJ, the agency is bound by such factual finding in preparing the Final Order. *See, e.g., Walker v. Bd. of Prof'l Eng'rs*, 946 So. 2d 604, 605 (Fla 1st DCA 2006); *Fla. Dep't of Corr. v. Bradley*, 510 So. 2d 1122, 1123 (Fla. 1st DCA 1987). If there is competent substantial evidence to support an ALJ's findings of fact, it is irrelevant that there may also be competent substantial evidence supporting a contrary finding. *See, e.g., Arand Construction Co. v. Dyer*, 592 So. 2d 276, 280 (Fla. 1st DCA 1991); *Conshor, Inc., v. Roberts*, 498 So. 2d 622, 623 (Fla. 1st DCA 1986). In addition, an agency has no authority to make independent or supplemental findings of fact. *See, e.g., Fla. Power & Light Co. v. Siting Bd.*, 693 So. 2d 1025, 1026-1027 (Fla. 1st DCA 1997); *North Port, Fla. v. Consol. Minerals*, 645 So. 2d 485, 487 (Fla. 2d DCA 1994).

Section 120.57(1)(l), Florida Statutes, authorizes an agency to reject or modify an ALJ's conclusions of law and interpretations of administrative rules "over which it has substantive jurisdiction." *See Barfield v. Dep't of Health*, 805 So. 2d 1008, 1012 (Fla. 1st DCA 2001); *Deep Lagoon Boat Club, Ltd. v. Sheridan*, 784 So. 2d 1140, 1141-42 (Fla. 2d DCA 2001). However, the agency should not label what is essentially an ultimate factual determination as a "conclusion of law" in order to modify or overturn what it may view as an unfavorable finding of fact. *See, e.g., Stokes v. State, Bd. of Prof'l Eng'rs*, 952 So. 2d 1224, 1225 (Fla. 1st DCA 2007).

Thus, the Siting Board's review of legal conclusions in a recommended order is restricted to those that concern matters within the agency's field of expertise or "substantive jurisdiction."

See, e.g., Charlotte County v. IMC Phosphates Co., 18 So. 3d at 1088; *G.E.L. Corp. v. Dep't of Env'tl. Prot.*, 875 So. 2d 1257, 1264 (Fla. 5th DCA 2004). Furthermore, agency interpretations of statutes and rules within their regulatory jurisdiction do not have to be the only reasonable interpretations. It is enough if such agency interpretations are “permissible” ones. *See e.g., Suddath Van Lines, Inc., v. Dep't of Env'tl. Prot.* 668 So. 2d 212 (Fla. 1st DCA 1996).

The determination of need made by the PSC is “binding on all parties to any certification proceeding” and “constitutes final agency action.” *See Fla. Power Corp. v. State, Siting Bd.*, 513 So. 2d 1341, 1344 (Fla. 1st DCA 1987). However, the finality of the PSC’s determination does not in any way preclude the Siting Board from effecting a reasonable balance between the need for a proposed project and the resulting impact it may have on the public, as required by section 403.509(3)(e), Florida Statutes. *Id.* The PPSA does not permit a redetermination of the factual finding of need made by the PSC. Rather, it allows the Siting Board to determine, after consideration of the statutory criteria, whether the proposed project should be approved, approved with modifications, or denied. *Id.*

In addition, agencies do not have jurisdiction to modify or reject rulings on the admissibility of evidence. Evidentiary rulings of the ALJ that deal with “factual issues susceptible to ordinary methods of proof that are not infused with [agency] policy considerations,” are not matters over which the agency has “substantive jurisdiction.” *See Martuccio v. Dep't of Prof'l Regulation*, 622 So. 2d 607, 609 (Fla. 1st DCA 1993); *Heifetz v. Dep't of Bus. Regulation*, 475 So. 2d 1277, 1281 (Fla. 1st DCA 1985); *Fla. Power & Light Co.*, 693 So. 2d at 1028. Evidentiary rulings are matters within the ALJ’s sound “prerogative . . . as the finder of fact” and may not be reversed on agency review. *See Martuccio*, 622 So. 2d at 609

If an ALJ improperly labels a conclusion of law as a finding of fact, the label should be disregarded, and the item treated as though it were actually a conclusion of law. *See, e.g., Battaglia Properties, Ltd., v. Fla. Land and Water Adjudicatory Comm'n*, 629 So. 2d 161, 168 (Fla. 5th DCA 1994). However, neither should the agency label what is essentially an ultimate factual determination as a “conclusion of law” to modify or overturn what it may view as an unfavorable finding of fact. *See, e.g., Stokes*, 952 So. 2d at 1225.

RULINGS ON EXCEPTIONS

The case law of Florida holds that parties to formal administrative proceedings must alert reviewing agencies to any perceived defects in DOAH hearing procedures or in the findings of fact of ALJs by filing exceptions to DOAH recommended orders. *See, e.g., Comm'n on Ethics v. Barker*, 677 So. 2d 254, 256 (Fla. 1996); *Henderson v. Dep't of Health, Bd. of Nursing*, 954 So. 2d 77 (Fla. 5th DCA 2007); *Fla. Dep't of Corrs.*, 510 So. 2d at 1124. Having filed no exceptions to certain findings of fact the party “has thereby expressed its agreement with, or at least waived any objection to, those findings of fact.” *Env'tl. Coalition of Fla., Inc. v. Broward County*, 586 So. 2d 1212, 1213 (Fla. 1st DCA 1991); *see also Colonnade Medical Ctr., Inc. v. State of Fla., Agency for Health Care Admin.*, 847 So. 2d 540, 542 (Fla. 4th DCA 2003). However, even when exceptions are not filed, an agency head reviewing a recommended order is free to modify or reject any erroneous conclusions of law over which the agency has substantive jurisdiction. *See* § 120.57(1)(l), Fla. Stat. (2018); *Barfield v. Dep't of Health*, 805 So. 2d 1008 (Fla. 1st DCA 2001); *Fla. Public Employee Council, 79 v. Daniels*, 646 So. 2d 813, 816 (Fla. 1st DCA 1994).

Finally, in reviewing a recommended order and any written exceptions, the agency’s final order “shall include an explicit ruling on each exception.” *See* § 120.57(1)(k), Fla. Stat. (2018). However, the agency need not rule on an exception that “does not clearly identify the disputed

portion of the recommended order by page number or paragraph, that does not identify the legal basis for the exception, or that does not include appropriate and specific citations to the record.”

Id.

SIERRA CLUB’S EXCEPTIONS

Sierra Club’s Exception No. 1 to Paragraph 15 and Endnote 8

Sierra Club takes exception to paragraph 15 and endnote 8 in the RO, summarizing the paragraph to find that Unit 7 will be primarily gas-fueled, but then concluding that the fuel pipeline to Unit 7 “is not part of this site certification proceeding.” Sierra Club asserts that this conclusion must be rejected as a matter of law.

We conclude that the statements in paragraph 15 are findings of fact, and that endnote 8 is merely a finding reciting the definition of “electrical power plant” in section 403.503(14), Florida Statutes. The ALJ’s findings in paragraph 15 and endnote 8 are supported by competent substantial evidence in the form of expert testimony by FPL expert Mr. Kingston and several DEP exhibits. The record supports the finding that the natural gas pipeline, which provides gas to the current site, and which will provide gas to DBEC, is not owned by FPL and is not being altered as a part of the DBEC Project. (Kingston, T. May 15, 2018, pp. 96, 104, and 109; DEP Ex. 3, p. 001784). Moreover, expert Kingston testified at hearing that “[t]he gas burned for this project would come from an existing natural gas pipeline that connects to the site. It’s through Florida Gas Transmission, commonly called FGT.” (Kingston, T. May 15, 2018, p. 104).

Sierra Club contends that the ALJ wrongly interpreted the statutory definition of “electrical power plant” in section 403.503(14), Florida Statutes. However, the ALJ merely quoted the statutory definition of “electric power plant” in section 403.503, Florida Statutes. Findings of fact that track the statutory language and are “accompanied by a concise and explicit

statement of the underlying facts of record which support the findings” are not conclusions of law. § 120.569(2)(m), Fla. Stat. (2018).

“Electrical power plant” is defined in section 403.503(14), Florida Statutes, as follows:

“Electrical power plant” means, for the purpose of certification, any steam or solar electrical generating facility using any process or fuel, including nuclear materials, except that this term does not include any steam or solar electrical generating facility of less than 75 megawatts in capacity unless the applicant for such a facility elects to apply for certification under this act. This term also includes the site; all associated facilities that will be owned by the applicant that are physically connected to the site; all associated facilities that are indirectly connected to the site by other proposed associated facilities that will be owned by the applicant; and associated transmission lines that will be owned by the applicant which connect the electrical power plant to an existing transmission network or rights-of-way to which the applicant intends to connect. **At the applicant’s option, this term may include any offsite associated facilities that will not be owned by the applicant;** offsite associated facilities that are owned by the applicant but that are not directly connected to the site; any proposed terminal or intermediate substations or substation expansions connected to the associated transmission line; or new transmission lines, upgrades, or improvements of an existing transmission line on any portion of the applicant’s electrical transmission system necessary to support the generation injected into the system from the proposed electrical power plant.

§ 403.503(14), Fla. Stat. (2018) (emphasis added).

Furthermore, “associated facilities” is defined in section 403.503(7), Florida Statutes, in pertinent part, as follows:

for the purpose of certification, those onsite and offsite facilities which directly support the construction and operation of the electrical power plant such as electrical transmission lines, substations, and fuel unloading facilities; pipelines necessary for transporting fuel for the operation of the facility or other fuel transportation facilities; water or wastewater transport pipelines; construction, maintenance, and access roads; and railway lines necessary for transport of construction equipment or fuel for the operation of the facility.

§ 403.503(7), Fla. Stat. (2018) (emphasis added).

Since the pipeline provides fuel to the current site, and will provide fuel to DBEC 7, it is an “associated facility” under the PPSA. *See also* (Kingston, T. May 15, 2018, pp. 95-96; FPL Ex. 1, pp. 1-4). Sierra Club suggests that FPL’s simple mention of the Florida Gas Transmission pipeline in the site certification application indicates that FPL exercised its option to include the Florida Gas Transmission natural gas pipeline as a part of the electrical power plant to be certified in this proceeding. FPL’s simple mention of an existing pipeline does not make it a part of the Project subject to certification. FPL would have needed to identify the pipeline as part of the “electric power plant” in its application for certification, to reflect an election to include the pipeline in the electrical power plant to be certified in this proceeding. The existing pipeline was not included as part of the electrical power plant in the site certification application. Instead, it was merely described as a source of gas, which is supported by competent substantial evidence. (FPL Ex. 1, pp. 1-4, 3-1, 3-14, 4-1, and 4-2).

Sierra Club cited to *Conservancy, Inc. v. Vernon Allen Builder, Inc.*, 580 So. 2d 772, 778 (Fla. 1st DCA 1991) with a parenthetical stating that “environmental impact analysis includes consideration [of] ‘the cumulative impacts of similar projects which are existing, under construction, or reasonably expected in the future.’” Sierra Club’s reliance on this case, and the implication that a cumulative impacts analysis is needed under the PPSA is misplaced. The case bears no relation to the PPSA. The *Conservancy* case involved a since-repealed, statute addressing a cumulative impacts analysis for Florida dredge and fill permits, which specifically required the Department’s predecessor agency to perform a cumulative impact analysis when evaluating dredge and fill permits. A cumulative impacts analysis is required for environmental resource permits (the successor to the dredge and fill permit) in accordance with section 373.4131, Florida Statutes, chapter 62-330, Florida Administrative Code, and the Applicant’s

Handbook, which is incorporated by reference in chapter 62-330. However, the PPSA, and specifically section 403.509(3), Florida Statutes, contain no such requirement. *See* § 403.509(3), Fla. Stat. (2018).

Statutory requirements to consider cumulative impacts exist for other types of permits, unlike section 403.509(3), Florida Statutes, which contains no such requirement. *See* § 403.509(3), Fla. Stat.; *c.f.* § 373.4131, Fla. Stat. (2018), and Chapter 62-330, Florida Administrative Code (requiring dredge and fill permits to address cumulative impacts).

Finally, Sierra Club makes a vague and ambiguous assertion that the ALJ's interpretation of the law prevents the Siting Board "from consider[ing] the interests of the public because they 'are not part of the definition of an electrical power plant.'" Sierra Club provides no clear explanation for its position nor legal basis for its assertion. An agency need not rule on an exception "that does not identify the legal basis for the exception." § 120.57(1)(k), Fla. Stat. (2018). This alone is a sufficient basis to reject Exception No. 1.

Based on the foregoing reasons, Sierra Club's exception No. 1 is denied.

Sierra Club's Exception No. 2 to Paragraphs 17 to 24

Sierra Club takes exception to paragraphs 17 to 24 of the RO, alleging that the findings that replacing Units 4 and 5 with Unit 7 (DBEC) will reduce GHG emissions should be rejected, because "they are contrary to law, are not supported by competent, substantial evidence, and amount to unsound policy recommendations." Specifically, Sierra Club disputes the findings related to the "indefinite operation of Units 4 and 5" and the comparison of emissions between the continued operation of Units 4 and 5 versus the construction and operation of Unit 7.

Sierra Club contends that FPL's evidence showing the reduction in GHG emissions is "contrary to law" because it does not show "that Unit 7's adverse effects will be minimized or

reduced to the smallest possible degree.” The PPSA, however, does not required reductions to the “smallest possible degree.” *See* Sections 403.501, et seq., Fla. Stat. (2018). Moreover, competent substantial evidence demonstrates that FPL compared GHG emissions with and without the construction of DBEC to show that if Unit 7 (DBEC) was denied certification and Units 4 and 5 were left in operation, FPL’s GHG emissions fleet wide would increase not decrease. (Kingston, T. May 15, 2018, p. 76; Kosky, T. May 16, 2018 (a.m.), pp. 60-64, and 68; FPL Ex. 39, p. 1; FPL Ex. 45, p. 1.

Sierra Club’s argument on this point appears to be related to the retirement dates projected for existing Units 4 and 5, suggesting that Units 4 and 5 will be retired in 2018 regardless of whether Unit 7 is constructed. Sierra Club’s position appears to mischaracterize the record. Competent substantial evidence was provided at the hearing that Unit 7 will replace Units 4 and 5. (FPL Ex. 1, p. 1-1; FPL Ex. 9, p. 4) (“Unit 7 will replace Units 4 and 5.”). Replacement of Units 4 and 5 with Unit 7 necessitates a retirement date in 2018 for Units 4 and 5, because Unit 7 will occupy the same physical location as Units 4 and 5. (FPL Ex. 9, p. 4) (“Construction will occur ... in the same general area as Units 4 and 5.”); (FPL Ex. 9, p. 6 (showing renderings of Unit 7 in same location as Units 4 and 5); (FPL Ex. 9, App. II-1, pp. 9-10 (“DBEC Unit 7 would be located on approximately 392 acres of FPL-owned land within the cities of Dania Beach and Hollywood. The site is currently supporting the Lauderdale 4 and 5 Units.”). Absent certification of Unit 7, Units 4 and 5 would not be retired in 2018 and would operate well past 2018, against FPL’s recommendation and the decision of the PSC. The PSC specifically stated:

The table and chart above illustrate that the continued operation of Lauderdale Units 4 and 5 is uneconomic. The retirement of the Lauderdale units and replacement with DBEC Unit 7 will yield an estimated NPV [Net Present Value] savings of approximately \$299 million to \$364 million for FPL customers. Both

Sierra Club and OPC assert that retiring the Lauderdale units in 2018 and delaying the in-service date of DBEC Unit 7 until 2024 is more economic than FPL's proposed plan. We agree that such a resource plan would result in projected savings for the customers; however, this approach ignores the diminished Southeastern Florida area regional reliability. We find that the increased reliability risk is not worth the potential economic savings to FPL's customers.

FPL Ex. 9, App. II-1, p. 16.

Sierra Club also appears to allege that FPL should have compared GHG emissions between DBEC and Sierra Club's preferred alternative use of solar energy. The only evidence required of FPL in this case was the Site Certification Application and DEP's PAR. *See* § 120.569(2)(p), Fla. Stat. (2018).

Sierra Club also objects to the findings that operation of DBEC will reduce GHG emissions compared to denial of DBEC's certification, alleging the findings "are not supported by competent, substantial evidence, and amount to unsound policy recommendations."¹ We find that the reduction of GHG emissions due to DBEC is a finding of fact. As explained above within the response to this exception, these findings are supported by competent substantial evidence, and cannot be rejected by the Siting Board.

Based on the foregoing reasons, Sierra Club's exception No. 2 is denied.

Sierra Club's Exception No. 3 to Paragraph 24

Sierra Club takes exception to all of paragraph 24 of the RO, except for the findings of fact in the first sentence, concluding that the ALJ's findings are wrong as a matter of law.

Specifically, Sierra Club contends that paragraph 24 must be modified as follows:

24. Dr. Sim acknowledged that the social costs of carbon were not considered as part of the modeling of FPL's system-wide projected natural gas consumption. ~~However, he noted that as a practical matter, because Unit 7 will operate more~~

¹ Sierra Club's citations to § 187.201(11)(a) and § 377.601, Florida Statutes, in footnote 14 to Exception No. 2 are unpersuasive. These statutory provisions provide goal or policy statements, and not criteria the Siting Board is obligated to consider under the PPSA.

~~efficiently, FPL will demand less natural gas on a system-wide basis to fuel its electrical power generating units. As a result of reduced demand, less natural gas will need to be produced and transported by pipeline to fuel FPL's electrical power plant generating system.~~

Sierra Club's Exception No. 3 to RO, paragraph 24, pp. 18-21.

However, the ALJ's findings of fact in paragraph 24 are supported by competent substantial evidence in the form of expert testimony by FPL witness Dr. Steven Sim. Dr. Sim testified that because Unit 7 will operate more efficiently, FPL will demand less natural gas on a system-wide basis to fuel its electrical power generating units. (Sim, T. May 15, 2018, pp. 152-154, p. 166, and pp. 191-192). He also testified that there would be less gas produced and less gas transmitted through the pipeline because of DBEC. (Sim, T. May 15, 2018, p. 174).

FPL witness Dr. Sim also prepared an exhibit showing natural gas use across FPL's fleet under two scenarios, one with existing Units 4 and 5 continuing to operate indefinitely and DBEC not constructed, and one where DBEC becomes operational in 2022, and Units 4 and 5 are retired in 2018, as proposed by the application. (Sim, T. May 15, 2018, p. 153; FPL Ex. 45, p. 1). By subtracting the projected natural gas use in the second scenario from the fuel use projected in the first scenario, FPL calculates a projected savings of 133,966,983 million cubic feet (MCF) of natural gas through 2047. (FPL Ex. 45, p. 1). Dr. Sim testified that construction and operation of DBEC would require less natural gas to be produced and transported by pipeline to FPL's electrical power plant generating system. (Sim, T. May 15, 2018, p. 174).

Sierra Club seeks to have the Siting Board reweigh the evidence. However, the Siting Board is not authorized to reweigh the evidence presented at a DOAH final hearing, attempt to resolve conflicts therein, or judge the credibility of witnesses. *See, e.g., Rogers*, 920 So. 2d at 30; *Belleau*, 695 So. 2d at 1307. If there is competent substantial evidence to support the ALJ's findings of fact, it is irrelevant that there may also be competent substantial evidence supporting

a contrary finding. *See, e.g., Arand Construction Co.*, 592 So. 2d at 280; *Conshor, Inc.*, 498 So. 2d at 623.

Based on the foregoing reasons, Sierra Club's exception No. 3 is denied.

Sierra Club's Exception No. 4 to Paragraphs 27, 28, 31, and 32

Sierra Club takes exception to paragraphs 27, 28, 31 and 32 of the RO, alleging that the ALJ "reached erroneous legal conclusions mislabeled as findings of fact."

Each of the findings of fact in paragraphs 27, 28, 31, and 32 of the RO describe the factual record of the occurrences and findings of the PSC, as set forth in the PSC's Order finding an affirmative need for Unit 7, and are not mislabeled legal conclusions. (FDEP Ex. 3, pp. 001791-93). The PSC's affirmative determination of the need for Unit 7 was a statutory condition precedent to the site certification proceeding under the PPSA and serves as the PSC's statutorily required agency report, pursuant to section 403.507(4)(a) and (b), Florida Statutes. The PSC's Order was discussed and included in the PAR issued by the Department (FDEP Ex. 3, pp. 001791-93, and FDEP Ex. 3, Attachment II-1, pp. 001878-001897), and entered into the record without objection. Thus, the findings of fact set out in paragraphs 27, 28, 31, and 32 of the RO are supported by competent substantial evidence in the record.

Sierra Club requests that the Siting Board modify paragraphs 27, 28, 31 and 32 of the RO, to correct the alleged erroneous legal conclusions. As explained above these paragraphs are not legal conclusions, but instead the factual record of occurrences and findings of the PSC. Sierra Club's request to add text to each of the four paragraphs is actually a request for the Siting Board to make supplemental findings of fact. However, the Siting Board has no authority to make independent or supplemental findings of fact. *See, e.g., Fla. Power & Light Co.*, 693 So. 2d at 1026-1027; *North Port, Fla.*, 645 So. 2d at 487. *See also* § 120.57(1)(l), Fla. Stat. (2018).

Based on the foregoing reasons, Sierra Club's exception No. 4 is denied.

Sierra Club's Exception No. 5 to Paragraph 33

Sierra Club takes exception to paragraph 33 of the RO, alleging that it is a mislabeled, legal conclusion. Sierra alleges that the ALJ incorrectly concluded that the PSC's consideration of alternate energy technologies to mitigate the need for Unit 7, somehow precludes consideration of such technologies to minimize the adverse effects of Unit 7 under section 403.509(3), Florida Statutes.

We agree that paragraph 33 is a legal conclusion and not a finding of fact, but reject Sierra Club's interpretation of section 403.509(3), Florida Statutes. *See, e.g., Battaglia Properties*, 629 So. 2d at 168.

Application and interpretation of section 403.509, Florida Statutes, is within the Siting Board's field of expertise or regulatory jurisdiction. *See, e.g., Charlotte County v. IMC Phosphates Co.*, 18 So. 3d at 1088; *G.E.L. Corp.*, 875 So. 2d at 1264. Agency interpretations of statutes and rules within their regulatory jurisdiction do not have to be the only reasonable interpretations. It is enough if such agency interpretations are "permissible" ones. *See, e.g., Suddath Van Lines, Inc. v. Dep't of Envtl. Prot.*, 668 So. 2d 209, 212 (Fla. 1st DCA 1996).

The ALJ's conclusions in paragraph 33 of the RO are consistent with our interpretation of section 403.509(3), Florida Statutes, over which the Siting Board has regulatory jurisdiction. Section 403.509(3), Florida Statutes, does not require the Siting Board to consider "alternate energy technologies," which is in the purview of the PSC and not the Siting Board. Instead, section 403.509(3), Florida Statutes, directs the Siting Board to

Consider whether, and the extent to which, the location, construction, and operation of the electrical power plant will:

- (a) Provide reasonable assurance that operational safeguards are technically sufficient for the public welfare and protection.
- (b) Comply with applicable nonprocedural requirements of agencies.
- (c) Be consistent with applicable local government comprehensive plans and land development regulations.
- (d) Meet the electrical energy needs of the state in an orderly, reliable, and timely fashion.
- (e) Effect a reasonable balance between the need for the facility, as established pursuant to s. 403.519 and the impact upon air and water quality, fish and wildlife, water resources, and other natural resources of the state resulting from the construction and operation of the facility.
- (f) Minimize, through the use of reasonable and available methods, the adverse effects on human health, the environment, and the ecology of the land and its wildlife and the ecology of state waters and their aquatic life.
- (g) Serve and protect the broad interests of the public.

§ 403.509(3), Fla. Stat. (2018) (emphasis added). Instead of considering “alternative energy technologies,” which is in the purview of the PSC, the Siting Board is directed to consider whether, and the extent to which, the location, construction and operation of the plant will minimize the adverse effects on human health, and the flora and fauna “through the use of reasonable and available methods.” “Reasonable and available methods” identified in the PPSA do not equate to “alternative energy technologies” identified in the PSA.

Based on the foregoing reasons, Sierra Club’s exception No. 5 is denied in part and granted in part. Sierra Club’s exception that paragraph 33 is a conclusion of law is granted, but Sierra Club’s exception to the ALJ’s interpretation of section 403.509(3), Florida Statutes, is denied.

Sierra Club’s Exception No. 6 to Paragraph 46

Sierra Club takes exception to paragraph 46 of the RO, in which the ALJ summarized Best Available Control Technology (BACT), stating that “[a] lower emission rate should not be confused with a net emission decrease.” Sierra Club contends that the ALJ misstated the law in the BACT summary in paragraph 46 of the RO. An examination of the BACT definition from

the U.S. Code, quoted by the ALJ in the immediately preceding paragraph 45 of the RO, reveals that the ALJ did not misstate the BACT summary. Sierra Club concludes that the way to correct this alleged misstatement of law is to add three lengthy sentences filled with new findings of fact. Sierra Club's argument is not persuasive. More importantly, the Siting Board has no authority to make independent or supplemental findings of fact to the ALJ's RO. *See, e.g., Fla. Power & Light Co.*, 693 So. 2d at 1026-1027; *North Port, Fla.*, 645 So. 2d at 487.

In addition, the "misstatement of law" alleged by Sierra Club is irrelevant to the Siting Certification Application for the DBEC, which is the only authorization under challenge here. Paragraph 46 of the RO applies to the Air Permit for DBEC, and not to the Siting Certification Application. As explained by the ALJ, the Air Permit for DBEC was issued in December 2017, not challenged, and became final agency action on December 24, 2017. *See* RO ¶ 52. Furthermore, pursuant to section 403.509(5), Florida Statutes, the Air Permit is not subject to revision or modification in this proceeding. *See* RO ¶ 53 and endnote 12.

Based on the foregoing reasons, Sierra Club's exception No. 6 is denied.

Sierra Club's Exception No. 7 to Paragraphs 47 and 48

Sierra Club takes exception to paragraphs 47 and 48 of the RO, which provide a partial description of the BACT process applied in the review of an air permit application, which is not under challenge here. As explained above in response to Exception No. 6, the Air Permit for DBEC was issued and became final in December 2017.

Sierra Club appears to be claiming that the Air Permit regulates "emission **rate** limits," but there is a difference between emission limits and emission rate limits. Sierra alleges that the Air Permit has a narrow scope, and the Siting Certification has a broader scope. Sierra contends that the Siting Board must fill in the gap left by the Air Permit through the power plant siting

certification. However, Sierra Club cites no statutory, rule or case law authority for this legal proposition. Instead, Sierra Club merely cited a DOAH recommended order that stated that the Siting Board's authority under section 403.509, Florida Statutes, is not just limited to an air permit.

Sierra Club concludes that the way to fill in this alleged gap is to add new findings of fact to the ALJ's RO. We do not find Sierra Club's argument persuasive. More importantly, the Siting Board has no authority to make independent or supplemental findings of fact to the ALJ's RO. *See, e.g., Fla. Power & Light Co.*, 693 So. 2d at 1026-1027; *North Port, Fla.*, 645 So. 2d at 487.

Based on the foregoing reasons, Sierra Club's exception No. 7 is denied.

Sierra Club's Exception No. 8 to Paragraph 61 and Endnote 13

Sierra Club takes exception to paragraph 61 and endnote 13 of the RO, in which the ALJ stated that "[t]he Air Permit limits the emissions rates for, and amounts of, GHG emissions," and that under the Air Permit's measures, "DBEC was determined to meet the BACT requirement applicable to GHGs." Sierra Club contends that the ALJ continued to mischaracterize the BACT determination. Paragraph 61 and endnote 13 apply to the Air Permit, which is not under challenge here. As explained above in response to Exception No. 6, the Air Permit for DBEC was issued and became final in December 2017.

Sierra Club concludes that the way to correct this alleged mischaracterization is to add new findings of fact to the ALJ's RO. We do not find Sierra Club's argument persuasive. More importantly, the Siting Board has no authority to make independent or supplemental findings of fact to the ALJ's RO. *See, e.g., Fla. Power & Light Co.*, 693 So. 2d at 1026-1027; *North Port, Fla.*, 645 So. 2d at 487.

Based on the foregoing reasons, Sierra Club's exception No. 8 is denied.

Sierra Club's Exception No. 9 to Paragraph 67

Sierra Club takes exception to paragraph 67 of the RO, alleging that the ALJ's findings in this paragraph are either an erroneous legal conclusion or a policy recommendation. We do not find Sierra Club's argument persuasive, and conclude that paragraph 67 contains findings of fact.

Sierra Club disagrees with the ALJ's findings regarding reductions in GHGs generated by replacing Units 4 and 5 with Unit 7. The ALJ's findings regarding these reductions, however, are supported by competent substantial evidence in the form of testimony by FPL experts Kingston and Kosky, and FPL exhibits. (Kingston, T. May 15, 2018, p. 76; Kosky, T. May 16, 2018 (a.m.), pp. 60-64, and 68; FPL Ex. 39, p. 1; FPL Ex. 45, p. 1). Moreover, FPL expert witness Mr. Kosky used the results of the fuel use modeling to show that GHG emissions would go down across FPL's fleet. (Kosky, T. May 16, 2018 (a.m.), pp. 60-64, and 68; FPL Ex. 39, p.1; FPL Ex. 45, p. 1).

Sierra Club seeks to have us reweigh the evidence. However, the Siting Board is not authorized to reweigh the evidence presented at a DOAH final hearing, attempt to resolve conflicts therein, or judge the credibility of witnesses. *See e.g., Rogers*, 920 So. 2d at 30; *Belleau*, 695 So. 2d at 1307; *Dunham*, 652 So. 2d at 895. If there is competent substantial evidence to support an ALJ's findings of fact, it is irrelevant that there may also be competent substantial evidence supporting a contrary finding. *See, e.g., Arand Construction Co*, 592 So. 2d at 280; *Conshor, Inc.*, 498 So. 2d at 623.

Based on the foregoing reasons, Sierra Club's Exception No. 9 is denied.

Sierra Club's Exception No. 10 to Paragraph 68 and Endnote 16

Sierra Club takes exception to paragraph 68 and endnote 16 of the RO, alleging that the ALJ erred by finding that replacing Units 4 and 5 with Unit 7 will result in a system-wide reduction of GHG emissions.

Sierra Club seeks to have us reweigh the evidence. However, the Siting Board is not authorized to reweigh the evidence presented at a DOAH final hearing, attempt to resolve conflicts therein, or judge the credibility of witnesses. *See e.g., Rogers*, 920 So. 2d at 30; *Belleau*, 695 So. 2d at 1307; *Dunham*, 652 So. 2d at 895. If there is competent substantial evidence to support an ALJ's findings of fact, it is irrelevant that there may also be competent substantial evidence supporting a contrary finding. *See, e.g., Arand Construction Co.*, 592 So. 2d at 280; *Conshor, Inc.*, 498 So. 2d at 623.

The ALJ's findings in paragraph 68 and endnote 16 are supported by competent substantial evidence in the form of testimony by FPL experts Kingston and Kosky, and FPL exhibits. (Kingston, T. May 15, 2018, p. 76; Kosky, T. May 16, 2018 (a.m.), pp. 60-64, and 68; FPL Ex. 39, p. 1; FPL Ex. 45, p. 1).

Based on the foregoing reasons, Sierra Club's Exception No. 10 is denied.

Sierra Club's Exception No. 11 to Paragraph 69

Sierra Club takes exception to paragraph 69 of the RO, alleging that the ALJ erred by finding that replacing Units 4 and 5 with Unit 7 "may not result in reduced total amounts of GHG emissions generated at the Lauderdale Site" (emphasis in RO), because Unit 7 "may operate more often."

Sierra Club seeks to have us reweigh the evidence. However, the Siting Board is not authorized to reweigh the evidence presented at a DOAH final hearing, attempt to resolve

conflicts therein, or judge the credibility of witnesses. *See e.g., Rogers*, 920 So. 2d at 30; *Belleau*, 695 So. 2d at 1307; *Dunham*, 652 So. 2d at 894. If there is competent substantial evidence to support an ALJ's findings of fact, it is irrelevant that there may also be competent substantial evidence supporting a contrary finding. *See, e.g., Arand Construction Co.*, 592 So. 2d at 280; *Conshor*, 498 So. 2d at 623.

The ALJ's findings in paragraph 69 are supported by competent substantial evidence in the form of testimony from FPL expert Mr. Kosky. (Kosky, T. May 16, 2018 (a.m.), p. 61) (Kosky testified that "the Dania Beach Energy Center just may operate more than what the Lauderdale Units 4 and 5 have, historically.")

Sierra Club concludes that the way to correct this alleged error is to change the findings of fact in the RO. However, the Siting Board has no authority to make independent or supplemental findings of fact to the ALJ's RO. *See, e.g., Fla. Power & Light Co.*, 693 So. 2d at 1026-1027; *North Port, Fla.*, 645 So. 2d at 487.

Based on the foregoing reasons, Sierra Club's Exception No. 11 is denied.

Sierra Club's Exception No. 12 to Paragraphs 70 and 72

Sierra Club takes exception to paragraphs 70 and 72 of the RO, reasserting arguments from previous exceptions, seeking to strike the ALJ's finding that "Unit 7 will reduce GHG emissions across FPL's electrical power generating system because it will be operated more often than other, less efficient units, thereby displacing the use of those units across FPL's electrical power generation system." (emphasis in RO). As previously noted above, the ALJ's finding is supported by competent, substantial evidence. (Sim, T. May 15, 2018, pp. 191-192; Kosky, T. May 16, 2018 (a.m.), pp. 37-38).

Sierra Club also seeks to strike a finding that Unit 7 will reduce the consumption of natural gas on a system-wide basis, and result in a reduction of 8.1 million tons of carbon dioxide emissions. This finding is also supported by competent, substantial evidence. (Kosky, T. May 16, 2018 (a.m.), pp. 63-64, 67-69; FPL Ex. 38 at 1; FPL Ex. 39 at 1).

Sierra Club seeks to have the Siting Board reweigh the evidence. However, the Siting Board is not authorized to reweigh the evidence presented at a DOAH final hearing, attempt to resolve conflicts therein, or judge the credibility of witnesses. *See, e.g., Rogers*, 920 So. 2d at 30; *Belleau*, 695 So. 2d at 1307. If there is competent substantial evidence to support the ALJ's findings of fact, it is irrelevant that there may also be competent substantial evidence supporting a contrary finding. *See, e.g., Arand Construction Co.*, 592 So. 2d at 280; *Conshor, Inc.*, 498 So. 2d at 623.

Based on the foregoing reasons, Sierra Club's Exception No. 12 is denied.

Sierra Club's Exception No. 13 to Paragraph 74

Sierra Club takes exception to paragraph 74 of the RO, disputing the ALJ's finding that "replacing Units 4 and 5 with Unit 7 'may' not result in reduced GHG emissions, but that FPL projects a slight decrease in system-wide GHG emissions from replacing Units 4 and 5 with Unit 7." As noted above in reply to Exception No. 11, this finding is supported by competent, substantial evidence. (Kosky, T. May 16, 2018 (a.m.), p. 61) (Kosky testified that "the Dania Beach Energy Center just may operate more than what the Lauderdale Units 4 and 5 have, historically.") (Kosky, T. May 16, 2018 (a.m.), pp. 37-38).

Sierra Club seeks to have the Siting Board reweigh the evidence. However, the Siting Board is not authorized to reweigh the evidence presented at a DOAH final hearing, attempt to resolve conflicts therein, or judge the credibility of witnesses. *See, e.g., Rogers*, 920 So. 2d at 30;

Belleau, 695 So. 2d at 1307. If there is competent substantial evidence to support the ALJ's findings of fact, it is irrelevant that there may also be competent substantial evidence supporting a contrary finding. *See, e.g., Arand Construction Co.*, 592 So. 2d at 280; *Conshor, Inc.*, 498 So. 2d at 623.

Sierra Club also requests that the Siting Board change the findings of fact in paragraph 74 of the RO. However, the Siting Board has no authority to make independent or supplemental findings of fact. *See, e.g., Fla. Power & Light Co.*, 693 So. 2d at 1026-1027; *North Port, Fla.*, 645 So. 2d at 487.

Based on the foregoing reasons, Sierra Club's Exception No. 13 is denied.

Sierra Club's Exception No. 14 to Paragraphs 75 and 76, and Endnote 20

Sierra Club takes exception to paragraphs 75 and 76, and endnote 20 of the RO, alleging that the ALJ's findings that "Units 4 and 5 can operate indefinitely" and that replacement of Units 4 and 5 with Unit 7 (DBEC) will reduce FPL's GHG emissions system-wide should be denied.

The ALJ's finding that Units 4 and 5 could operate indefinitely is supported by competent, substantial evidence in the form of testimony from FPL's expert witness Dr. Sim. (Sim, T. May 15, 2018, p. 183). Dr. Sim also pointed out that Sierra Club's own expert witness held the same view in the PSC Need Determination proceeding. (Sim, T. May 15, 2018, p. 183). FPL's expert witness Mr. Kosky also testified that Units 4 and 5 could operate indefinitely. (Kosky, T. May 16, 2018 (a.m.), pp. 147-148). He explained that aging units, like Units 4 and 5, can continue to operate indefinitely by adding new parts. (Kosky, T. May 16, 2018 (a.m.), pp. 117-118).

Sierra Club cites no basis for its apparent position to strike the ALJ's rejection of a 2033 retirement date for Units 4 and 5 (if DBEC were not constructed) or the ALJ's statement in endnote 20 that the only basis for this date was excluded as evidence from the hearing. Failure to articulate a basis to reject these findings and provide appropriate citations to the record are sufficient reasons alone to reject Sierra Club's exception on these points. § 120.57(1)(k), Fla. Stat. (2018).

Because the DOAH record contains competent substantial evidence supporting the ALJ's findings of fact identified in Sierra Club's Exception No. 14, the Siting Board is bound by such factual findings in preparing the Final Order and cannot reject the ALJ's findings. *See, e.g., Walker*, 946 So. 2d at 605; *Fla. Dep't of Corr.*, 510 So. 2d. at 1123.

Based on the foregoing reasons, Sierra Club's Exception No. 14 is denied.

Sierra Club's Exception No. 15 to Paragraph 77

Sierra Club takes exception to paragraph 77 of the RO, seeking to add new findings of fact to the ALJ's findings. Sierra Club alleges that the ALJ mistakenly conflated the nonprocedural requirements with other requirements under section 403.509, Florida Statutes, and that the finding is not supported by competent, substantial evidence.

However, the ALJ's finding in paragraph 77 that "FPL demonstrated that DBEC meets all applicable state and federal air regulatory and permitting requirements for DBEC and, specifically, for Unit 7," is supported by competent, substantial evidence.

In Florida, DEP implements the federal air regulations under the Clean Air Act with approval of the United States Environmental Protection Agency (EPA). § 403.061(35), Fla. Stat. (2018), and § 403.503(16), Fla. Stat. (2018); (Kosky, T. May 16, 2018 (a.m.), p. 38). Under this system, DEP acts as the decision-maker, while EPA retains commenting authority. (Kosky, T.

May 16, 2018, p. 38). DEP's regulations implementing the Clean Air Act contain several different programs, including Prevention of Significant Deterioration (PSD) and National Ambient Air Quality Standards (NAAQS). (Kosky, T. May 16, 2018 (a.m.), p. 38).

DEP issued an air construction permit for the DBEC project on December 4, 2017, in accordance with DEP's federally-approved major source Air Construction permit program under Florida's federally-required State Implementation Plan. (DEP Ex. 4; FPL Ex. 22). The Air Permit was not challenged, and is final.

Sierra Club's allegation that the ALJ "failed to specify whether these requirements refer exclusively to the 'nonprocedural requirements of agencies,' defined in section 403.509(3), Fla. Stat.," is vague and ambiguous. Moreover, Sierra Club presented no evidence or legal basis to support its assertion. An agency need not rule on an exception "that does not identify the legal basis for the exception." § 120.57(1)(k), Fla. Stat. (2018). This alone is a sufficient basis to reject Exception No. 15.

Sierra Club confuses the requirements of the PPSA by suggesting "all applicable state and federal air regulatory and permitting requirements" refers exclusively to the "nonprocedural requirements of agencies." While certain state and local procedural requirements are preempted by the PPSA, federal permitting procedural requirements, including those air permitting requirements delegated to the state, are not preempted by the PPSA. Specifically, section 403.511 of the PPSA, provides that "[t]he certification shall authorize the licensee named therein to construct and operate the proposed electrical power plant, subject only to the conditions of certification set forth in such certification, and except for the issuance of department licenses or permits required under any federally delegated or approved permit program." (emphasis added).

Sierra Club also requests that the Siting Board add new findings of fact in Paragraph 77 of the RO. However, the Siting Board has no authority to make independent or supplemental findings of fact. *See, e.g., Fla. Power & Light Co.*, 693 So. 2d at 1026-1027; *North Port, Fla.*, 645 So. 2d at 487.

Based on the foregoing reasons, Sierra Club's Exception No. 15 is denied.

Sierra Club's Exception No. 16 to Paragraph 78

Sierra Club takes exception to paragraph 78 of the RO, contending that the ALJ misinterpreted DEP's BACT determination and "thereupon impermissibly limited the Siting Board's jurisdiction." The ALJ's finding in paragraph 78 is nothing more than a statement that DBEC meets the state and federal BACT requirements, which is supported by competent substantial evidence in the record. (Kosky, T. May 16, 2018 (a.m.), pp. 45-47; FPL Ex. 22, pp. 8-28).

Sierra Club contends that the ALJ conflates the finding that best available control technology (BACT) requirements have been met with the factors in section 403.509(3), Florida Statutes, regarding minimizing adverse effects. The ALJ finds that DBEC will meet the BACT requirements for GHG emissions, and then concludes that "*Thus*, FPL demonstrated that DBEC will meet state and federal law regarding emissions limitations." Use of "thus" ties the final sentence to the earlier sentence regarding BACT, and indicates that the finding is focused solely on state and federal air emission regulations, not section 403.509(3), Florida Statutes, which the ALJ addresses elsewhere.

Sierra Club does not contend that the ALJ's finding is not supported by competent substantial evidence; instead, it seeks to have the Siting Board reweigh the evidence. However, the Siting Board is not authorized to reweigh the evidence presented at a DOAH final hearing,

attempt to resolve conflicts therein, or judge the credibility of witnesses. *See, e.g., Rogers*, 920 So. 2d at 30; *Belleau*, 695 So. 2d at 1307. If there is any competent substantial evidence to support the ALJ's findings of fact, it is irrelevant that there may also be competent substantial evidence supporting a contrary finding. *See, e.g., Arand Construction Co.*, 592 So. 2d at 280; *Conshor, Inc.*, 498 So. 2d at 623.

Sierra Club also requests that the Siting Board add new findings of fact in paragraph 78 of the RO. However, the Siting Board has no authority to make independent or supplemental findings of fact. *See, e.g., Fla. Power & Light Co.*, 693 So. 2d at 1026-1027; *North Port, Fla.*, 645 So. 2d at 487.

Based on the foregoing reasons, Sierra Club's Exception No. 16 is denied.

Sierra Club's Exception No. 17 to Paragraphs 80 and 82

Sierra Club takes exception to paragraphs 80 and 82 of the RO, continuing to allege that the ALJ misinterpreted DEP's BACT determination and "thereupon impermissibly limited the Board's jurisdiction." Sierra Club does not actually challenge any of the ALJ's findings in paragraphs 80 and 82 other than to say the ALJ's reliance on EPA guidance is "misplaced" and criticizing the ALJ's interpretation of the guidance. Moreover, Sierra Club contends that the ALJ's findings of fact were actually erroneous legal conclusions.

Nowhere does Sierra Club allege that the ALJ's findings are not supported by competent substantial evidence. However, the findings of fact in paragraphs 80 and 82 are supported by competent substantial evidence. BACT is based on the maximum degree of reduction of each air pollutant which, on a case-by-case basis, taking into account energy, environmental and economic impacts, and other costs, is achievable through available methods, systems and technologies. (Kosky, T. May 16, 2018 (a.m.), p. 41; R. 62-210.200(32), Fla. Admin. Code). For

GHG emissions, the primary BACT requirement for a combined cycle unit like DBEC is its efficiency in producing electric power and the use of low-GHG emitting fuels. (Kosky, T. May 16, 2018 (a.m.), pp. 52-54; DEP Ex. 6, pp. 002514-15; SC Ex. 85, p. 55).

In addition, DEP expert Syed Arif's testimony provides competent substantial evidence to support the ALJ's findings in paragraphs 80 and 82. He testified in his deposition, admitted as an exhibit at hearing, that DEP did not perform air impact modeling with respect to GHGs outside the facility boundary, because it was not required by federal law that was incorporated by reference in state law, relying on the EPA guidance quoted by the ALJ in paragraph 80. (SC Ex. 85, pp. 39-40).

Sierra Club seeks to have the Siting Board reweigh the evidence. However, the Siting Board is not authorized to reweigh the evidence presented at a DOAH final hearing, attempt to resolve conflicts therein, or judge the credibility of witnesses. *See, e.g., Rogers*, 920 So. 2d at 30; *Belleau*, 695 So. 2d at 1307. If there is any competent substantial evidence to support the ALJ's findings of fact, it is irrelevant that there may also be competent substantial evidence supporting a contrary finding. *See, e.g., Arand Construction Co.*, 592 So. 2d at 280; *Conshor, Inc.*, 498 So. 2d at 623.

Based on the foregoing reasons, Sierra Club's Exception No.17 is denied.

Sierra Club's Exception No. 18 to Paragraphs 83 to 100

Sierra Club takes exception to paragraphs 83 to 100 of the RO, contending that the findings reached by the ALJ in paragraphs 83 to 100, regarding the social cost of carbon, are erroneous legal conclusions, mislabeled as findings of fact. Sierra Club's exception is cumulative and fails to clearly identify the legal basis for the exception. The title of Sierra Club's Exception No. 18 suggests the exception applies to paragraphs 83 through 100; however,

in the text of the exception, Sierra Club only appears to find exception to the findings in paragraphs 96 and 99. An agency is not required to respond to exceptions that are cumulative or that do not identify the legal basis for the exception. § 120.57(1)(k), Fla. Stat. (2018).

The only specific exceptions by Sierra Club in Exception No. 18 are to paragraphs 96 and 99 regarding the testimony of Sierra Club witness Dr. Ackerman, who testified to the “social cost of carbon.” In paragraph 96 of the RO, the ALJ notes that Dr. Ackerman did not take into account the effect of Unit 7 on FPL’s fleetwide GHG emissions. This is supported by competent substantial evidence by Dr. Ackerman’s testimony that he had no knowledge about what FPL’s fleet would look like in the next 5 to 20 years. (Ackerman, T. May 17, 2018 (p.m.), pp. 320-21). Furthermore, he specifically stated he had not looked at the impact of DBEC on the overall efficiency of FPL’s fleet. (Ackerman, T. May 17, 2018 (p.m.), p. 321). Paragraph 99 of the RO states that Unit 7 will reduce FPLs GHG emissions on a fleetwide basis by 8.1 million tons due to the displacement of older less efficient units in the fleet by Unit 7. This finding is supported by ample competent substantial evidence. (Kosky, T. May 16, 2018 (a.m.), p. 68).

Primarily, Sierra Club uses Dr. Ackerman’s testimony to reiterate its argument that the Siting Board must consider the impacts of GHGs under section 403.509, Florida Statutes; the ALJ was wrong for finding that DBEC will cause a fleet-wide reduction in GHG emissions; and, FPL should be required to build some form of solar energy facility. However, as explained in response to Sierra Club’s Exception No. 2 above, there is substantial competent evidence to support the ALJ’s finding of reduced GHG emissions fleet-wide; it is not contrary to law; and, while the fleet-wide reduction in GHG emissions is highly relevant to whether DBEC should be certified, such a finding does not intrude on the Siting Board’s jurisdiction to make such a decision.

Sierra Club also requests that we remand the case to DOAH, because the ALJ “wrongly barred Sierra Club from presenting evidence that was necessary for the Board to render an informed judgement regarding how much alternate energy technologies FPL must use to actually minimize Unit 7’s massive adverse effects. See May 4 Order.” The Siting Board finds no basis, legal or factual, to remand this case to DOAH; and thus, we reject Sierra Club’s remand request. Moreover, because evidentiary rulings are matters within the ALJ’s sound “prerogative . . . as the finder of fact,” the ALJ’s rulings may not be reversed by the Siting Board. *See Martuccio*, 622 So. 2d at 609.

Sierra Club also requests that the Siting Board modify the findings of fact in paragraph 90 of the RO. However, the Siting Board has no authority to make independent or supplemental findings of fact. *See, e.g., Fla. Power & Light Co.*, 693 So. 2d at 1026-1027; *North Port, Fla.*, 645 So. 2d at 487.

Based on the foregoing reasons, Sierra Club’s Exception No. 18 is denied.

Sierra Club’s Exception No. 19 to Endnote 27

Sierra Club takes exception to endnote 27 of the RO, in which the ALJ finds that FPL Units 4 and 5 can operate indefinitely. Endnote 27 is a note to finding of fact paragraph 99 of the RO. In paragraph 99, the ALJ finds that DBEC Unit 7 will reduce FPL’s GHG emissions on a system-wide basis based on the retirement of Units 4 and 5 and the reduced use of less efficient units in FPL’s fleet.

In endnote 27 to paragraph 99 of the RO, the ALJ rejects Sierra Club’s contention that construction and operation of DBEC Unit 7 will result in greater carbon emissions than continuing to operate Units 4 and 5, based on an assumption that Units 4 and 5 will be retired in 2033 and replaced with lower or no emission technology. While Sierra Club takes exception to

the findings in endnote 27, there is competent substantial evidence to support the ALJ's finding. (Sim, T. May 15, 2018, pp. 181-183; Kosky, T. May 16, 2018 (a.m.), pp. 147-148; Kosky, T. May 16, 2018 (a.m.), pp. 117-118) (competent substantial evidence demonstrates that continuing to run Units 4 and 5 indefinitely was possible and realistic if DBEC Unit 7 is not added to FPLs fleet). There is also competent substantial evidence that just because the PSC determined that "the continued operation of Lauderdale Units 4 and 5 is uneconomic," does not mean that it is not feasible. (FPL Ex. 9, App. II-1, p. 16).

The PSC determined that there were no available alternative energy resources to mitigate the need for DBEC Unit 7. (FPL Ex. 9, App. II-1, p. 8). Pursuant to section 403.519, Florida Statutes, the PSC is the exclusive forum for the determination of need, including an analysis of the availability of alternative energy technologies.

In Exception No. 19, Sierra Club reiterates its position that the ALJ "wrongly barred Sierra Club from introducing evidence" regarding its position that "FPL could add alternate energy technologies such as solar and batteries in the future," recommending that the Siting Board consider remanding the matter to the ALJ to take additional evidence. The Siting Board finds no basis, legal or factual, to remand this case to DOAH; and thus, we reject Sierra Club's remand request. Moreover, because evidentiary rulings are matters within the ALJ's sound "prerogative . . . as the finder of fact," the ALJ's rulings may not be reversed by the Siting Board. *See Martuccio*, 622 So. 2d at 609.

Based on the foregoing reasons, Sierra Club's Exception No. 19 is denied.

Sierra Club's Exception No. 20 to Paragraph 95

Sierra Club takes exception to paragraph 95 of the RO, asserting that the ALJ "erred by concluding that 'Ackerman did not perform any analysis of DBEC's economic effects on the

local community.’” This finding, however, is supported by competent, substantial evidence in the form of Dr. Ackerman’s testimony on cross-examination:

Q: Okay. So, you would agree with me, you did not do any research or look into DBEC’s economic impact on the local community, aside from your work on emissions of pre-mass gasses and global warming or climate change?

A: That’s correct.

(Ackerman, T. May 17, 2018 (p.m.), pp. 317-318). *See also* Ackerman, T. May 17, 2018 (p.m.), pp. 320-321.

Based on the foregoing reasons, Sierra Club’s Exception No. 20 is denied.

Sierra Club’s Exception No. 21 to Paragraph 100

Sierra Club takes exception to paragraph 100 of the RO, which finds that because DBEC Unit 7 will reduce GHG emissions across FPL’s fleet, it will cause a reduction in the social cost of carbon. Sierra Club contends that the ALJ “erred in finding that [DBEC] Unit 7 will result in lower social costs of carbon relative to the indefinite operation scenario.” The ALJ’s finding in paragraph 100 is supported by competent substantial evidence. Dr. Ackerman, Sierra Club’s own expert, testified that a reduction in GHG emissions will result in a lower social cost of carbon. (Ackerman, T. May 17, 2018 (p.m.), p. 321). *See also* the citations to the transcript in response to Exception Nos. 2 and 3 above.

Based on the foregoing reasons, Sierra Club’s Exception No. 21 is denied.

Sierra Club’s Exception No. 22 to Endnote 28

Sierra Club takes exception to endnote 28 of the RO, alleging that the ALJ “erred in concluding that ‘no state or federal rules or regulations applicable to permitting electrical power plants impose [the consideration of the social cost of carbon as] a requirement.’”

Endnote 28 consists of two sentences. The first sentence states there is no existing “requirement” to consider or address the social cost of carbon to which Dr. Ackerman testified on behalf of the Sierra Club. The second sentence says it is “extremely difficult” to perform a cost/benefit analyses regarding climate change because of the lack of consensus regarding the extent, rate and effects of climate change.

Both sentences are supported by competent, substantial evidence. Other than section 403.509(3), Florida Statutes, Sierra Club cites no authority that requires the Siting Board to consider the social cost of carbon. While section 403.509(3), Florida Statutes, provides a list of broad factors that the Siting Board must consider, none of the factors specifically mention the social cost of carbon. The ALJ does not suggest that the Siting Board cannot consider the social cost of carbon, only that it is not required by statute.

The second sentence is supported by competent, substantial evidence in the form of Dr. Ackerman’s testimony. Dr. Ackerman, Sierra Club’s own expert witness, testified that there’s “an immense range of possible values for the social cost of carbon,” that “climate change is full of uncertainties about how fast and how bad it will be,” and that estimating the pace of climate change was “very difficult.” (Ackerman, T. May 17, 2018 (p.m.), p. 318). This uncertainty, agreed Dr. Ackerman, produces a range of uncertainty in the social cost of carbon. (Ackerman, T. May 17, 2018 (p.m.), p. 320).

If the DOAH record discloses any competent substantial evidence supporting a challenged factual finding of the ALJ, the Siting Board is bound by such factual finding in preparing the Final Order and cannot reject the ALJ’s findings. *See, e.g., Walker*, 946 So. 2d at 605; *Fla. Dep’t of Corr.*, 510 So. 2d. at 1123.

Based on the foregoing reasons, Sierra Club’s Exception No. 22 is denied.

Sierra Club's Exception No. 23 to Paragraphs 101 to 103 and Endnote 29

Sierra Club takes exception to paragraphs 101 to 103, and endnote 29 of the RO, alleging that DEP was required, but failed, to perform a "life-cycle analysis" to analyze DBEC's GHG emissions "from start to finish . . . from gas generation to gas burn." Sierra Club contends that the ALJ reached several erroneous legal conclusions, mislabeled as findings of fact.

The Siting Board concludes that paragraphs 101 and 102 of the RO are mixed findings of fact and conclusions of law in which the ALJ identified and rejected the position that Sierra Club has taken regarding the need to perform a "life-cycle analysis" regarding DBEC's GHG emissions. The Siting Board also concludes that paragraphs 101 to 103, and endnote 29 of the RO contain conclusions of law.

Even though the Siting Board concludes that the last sentence of paragraph 101, paragraphs 102 to 103, and endnote 29 of the RO contain conclusions of law mislabeled as findings of fact, we reject Sierra Club's exceptions to these paragraphs of the RO. We find Sierra Club's exceptions to paragraphs 101 to 103 and endnote 29 to be unpersuasive.

The Siting Board agrees with the ALJ's conclusions of law in paragraphs 101 to 103 and endnote 29 of the RO. We agree that the plain language of section 403.519, Florida Statutes, provides that the PSC is the exclusive forum for the determination of need, including any "life-cycle analysis," and consideration of such issues in any other forum is inappropriate. As explained in response to Exception No. 1 above, the provisions of the PPSA only apply to an "electrical power plant" as that term is defined in section 403.503(14), Florida Statutes.

"Electrical power plant" is defined in section 403.503(14), Florida Statutes, as follows:

"Electrical power plant" means, for the purpose of certification, any steam or solar electrical generating facility using any process or fuel, including nuclear materials, except that this term does not include any steam or solar electrical generating facility of less than 75 megawatts in capacity unless the applicant for

such a facility elects to apply for certification under this act. This term also includes the site; all associated facilities that will be owned by the applicant that are physically connected to the site; all associated facilities that are indirectly connected to the site by other proposed associated facilities that will be owned by the applicant; and associated transmission lines that will be owned by the applicant which connect the electrical power plant to an existing transmission network or rights-of-way to which the applicant intends to connect. **At the applicant's option, this term may include any offsite associated facilities that will not be owned by the applicant:** offsite associated facilities that are owned by the applicant but that are not directly connected to the site; any proposed terminal or intermediate substations or substation expansions connected to the associated transmission line; or new transmission lines, upgrades, or improvements of an existing transmission line on any portion of the applicant's electrical transmission system necessary to support the generation injected into the system from the proposed electrical power plant.

§ 403.503(14), Fla. Stat. (2018) (emphasis added). As articulated by the ALJ, pursuant to this definition of “electrical power plant,” the scope of a PPSA hearing is limited to considering the impacts of facilities that fall within that definition. We agree with the ALJ's conclusion that by this statute's plain terms, “associated facilities that are directly or indirectly connected to the electrical power plant are to be considered only if they are owned by the applicant.” (RO ¶ 102) (emphasis in RO).

The ALJ's finding that Florida Gas Transmission Company, and not FPL, owns the pipeline that transports natural gas to the DBEC site is supported by competent substantial evidence. Ms. Kingston testified that FPL does not own the pipeline. (Kingston, T. May 15, 2018, p. 104). Beyond the gas pipeline, the natural gas may come from a variety of sources. (Kingston, T. May 15, 2018, pp. 104-105). Accordingly, the Siting Board agrees with the ALJ's legal conclusion that GHG impacts associated with the operation of the pipeline to transport natural gas to DBEC are beyond the scope of this proceeding.

In endnote 29, the ALJ noted that in support of its position that a “life-cycle analysis” that includes emissions generated by natural gas production and transport to DBEC should have

been performed, Sierra Club cites section 377.601(2)(j), Florida Statutes. Section 377.601(2)(j), Florida Statutes, states that “[i]t is the policy of the State of Florida to: . . . (j) [c]onsider, in its decision-making, the social, economic, and environmental impacts of energy-related activities, including the whole-life-cycle impacts of any potential energy use choices, so that detrimental effects of these activities are understood and minimized.” The Siting Board agrees with the ALJ’s conclusion that “[n]either DEP nor the Siting Board are statutorily authorized to implement this provision through the air construction permitting program or the PPSA. *See Schiffman v. Dep’t of Prof’l. Reg.*, 581 So. 2d 1375, 1379 (Fla. 1st DCA 1991) (under Florida law, administrative agencies only have the authority conferred by statute).” (RO Endnote 29). As noted by the ALJ, section 377.601(2)(j), Florida Statutes, is administered by the Florida Department of Agriculture and Consumer Services. The Siting Board has been granted no legislative authority to administer section 377.601(2)(j), Florida Statutes; and thus, application of this statutory provision is inapplicable to the site certification for the DBEC facility.

Sierra Club also contends that the ALJ erroneously precluded Sierra Club from introducing evidence on Unit 7’s (DBEC) life-cycle impacts, and directs that the Siting Board remand the case to the ALJ “to take evidence on life-cycle impacts.” However, the Siting Board does not have jurisdiction to modify or reject an ALJ’s rulings on the admissibility of evidence. Evidentiary rulings are matters within the ALJ’s sound “prerogative . . . as the finder of fact” and may not be reversed on agency review. *See Martuccio*, 622 So.2d at 609. In essence, Sierra Club is requesting that the case be remanded to DOAH for the ALJ to reverse her evidentiary ruling regarding excluding “life-cycle impacts” in this hearing. Since the Siting Board has no jurisdiction over evidentiary rulings, Sierra Club’s request that we remand to DOAH is rejected.

Based on the foregoing reasons, Sierra Club's Exception No. 23 is granted in part, and denied in part. The Siting Board only grants Sierra Club's allegations that portions of paragraphs 101 to 103 and endnote 29 of the RO are conclusions of law mislabeled as findings of fact. All other allegations in Exception No. 23, including the request to remand the case to DOAH, are denied.

Sierra Club's Exception No. 24 to Paragraphs 104 and 105

Sierra Club takes exception to paragraphs 104 and 105 of the RO, alleging that section 403.509(3), Florida Statutes, requires the Siting Board to consider the cumulative impact to climate of DBEC's GHG emissions combined with other existing and foreseeable sources in Florida and elsewhere.

In paragraph 104 of the RO, the ALJ merely recites Sierra Club's position regarding the applicability of cumulative impacts. This is directly out of Sierra Club's Statement on Relief, in which Sierra Club listed its proposed conditions for certification. *See* "Sierra Club's Statement on Relief," at p. 4 ("The impacts of DBEC's emissions must be evaluated individually as well as in the context of the cumulative impacts from other greenhouse gas emissions."). Since the ALJ's statement in paragraph 104 of the RO is merely a recitation of Sierra Club's position from its Statement on Relief, it constitutes a finding of fact supported by competent, substantial evidence.

If the DOAH record discloses any competent substantial evidence supporting a challenged factual finding of the ALJ, the Siting Board is bound by such factual finding in preparing the Final Order and cannot reject the ALJ's findings. *See, e.g., Walker*, 946 So. 2d at 605; *Fla. Dep't of Corr.*, 510 So. 2d. at 1123.

Paragraph 105 of the RO does not say, as Sierra Club suggests, that the Siting Board is prohibited from considering a cumulative impact analysis, only that the PSD permitting process *does not require* a cumulative impacts analysis. Sierra Club does not contradict this finding, but insists that the Siting Board should consider cumulative impacts, citing to *Conservancy, Inc. v. A. Vernon Allen Builder, Inc.*, 580 So. 2d 772 (Fla. 1st DCA 1991). However, *Conservancy, Inc. v. A. Vernon Allen Builder, Inc.* is inapplicable to a permit authorized under the PPSA. A cumulative impact analysis under this case applies to a dredge and fill permit, currently known as an environmental resource permit, which is authorized under chapter 373, Florida Statutes. Section 373.4131, Florida Statutes, chapter 62-330, Fla. Admin. Code, and the Applicant's Handbook, which is incorporated by reference in chapter 62-330, require DEP to consider cumulative impacts for environmental resource permits. However, neither the PPSA nor the rules adopted under this Act, require consideration of cumulative impacts.

Lastly, Sierra Club does not allege in its Exception No. 24 that EPA's BACT guidance requires the Siting Board to consider cumulative impacts, only that the ALJ's interpretation of this EPA guidance was incorrect. We accept the ALJ's interpretation of EPA's guidance, because it is nearly a direct quote from the guidance. *See PSD and Title V Permitting Guidance for Greenhouse Gases, U.S. Environmental Protection Agency Office of Air and Radiation*, at 42 (March 2011).² Sierra Club's arguments merely quote other portions of the EPA guidance regarding PSD and Title V air permitting to support its view that a cumulative impacts analysis should be considered by the Siting Board. These quotations, however, do not indicate that a

² The Siting Board acknowledges that this EPA PSD and Title V permitting guidance document is not part of the record in this case. Accordingly, this specific information did not form the basis of the agency's decision.

cumulative impacts analysis is required, because this EPA guidance document is not relevant to a PPSA certification.

Based on the foregoing reasons, Sierra Club's Exception No. 24 is denied.

Sierra Club's Exception No. 25 to Paragraphs 106 to 108

Sierra Club takes exception to paragraphs 106 to 108 of the RO, alleging that the findings of fact in paragraphs 106, 107, and 108, regarding consideration of alternative energy resources in this proceeding, are legal conclusions mislabeled as findings of fact. Sierra Club's exception cites to no legal basis for the exception, and reads in its entirety, as follows:

The Judge's conclusion that section 403.519, Fla. Stat., precludes the Board from considering alternate energy technologies is wrong as [a] matter of law for the reasons discussed in the foregoing exceptions. Paragraphs 106 to 108, which reassert this conclusion, mislabeled as findings of fact, must be rejected in their entirety.

Sierra Club's exception is vague and ambiguous, cites to no legal basis for the exception, and does not include any citations to the record. Sierra Club merely asserts that the ALJ's findings were "wrong as [a] matter of law for the reasons discussed in the foregoing exceptions," but does not specify what law or which foregoing exceptions. An agency need not rule on an exception that does not identify clearly the disputed portion of the recommended order by page number or paragraph, that does not identify the legal basis for the exception, or that does not include appropriate and specific citations to the record. § 120.57(1)(k), Fla. Stat. (2018); *Dep't of Transportation v. First Coast Outdoor Advertising, Inc.*, DOAH Case No. 91-4938T, Final Order, at 11 (rejecting an exception based on a "conclusory assertion that the hearing officer's conclusion was vague as insufficient to identify the legal basis").

If an ALJ improperly labels a conclusion of law as a finding of fact, the label should be disregarded, and the item treated as though it were actually a conclusion of law. *See, e.g.,*

Battaglia Properties, 629 So. 2d at 168. The Siting Board concludes that paragraph 106 of the RO is a finding of fact in which the ALJ merely identified the position that Sierra Club has taken regarding the need to consider solar facilities as a cost-effective alternative. The Siting Board however concludes that paragraphs 107 and 108 of the RO are conclusions of law.

Even though the Siting Board finds that paragraphs 107 and 108 of the RO are conclusions of law mislabeled as findings of fact, we reject Sierra Club's exception to paragraphs 107 and 108. Sierra Club's exception to paragraphs 107 and 108 fails to establish, let alone address, why these conclusions of law are erroneous. Moreover, the Department is not required to consider exceptions that do not clearly identify the legal basis for the exception. *See* §120.57(1)(k), Fla. Stat. (2018).

The Siting Board agrees with the ALJ's conclusions of law in paragraphs 107 and 108 of the RO. We agree that the plain language of section 403.519, Florida Statutes, clearly provides that the PSC is the exclusive forum for the determination of need, including any analysis regarding the availability of alternative energy technologies, and consideration of such issues is beyond the scope of a PPSA proceeding. In support thereof, section 120.569, Florida Statutes, states that findings of fact that track statutory language and are "accompanied by a concise and explicit statement of the underlying facts of record which support the findings" are not erroneous conclusions of law. § 120.569(2)(m), Fla. Stat. (2018).

Based on the foregoing reasons, Sierra Club's Exception No. 25 is granted in part, and denied in part. The Siting Board only grants Sierra Club's allegations that paragraphs 107 and 108 of the RO are conclusions of law mislabeled as findings of fact. All other allegations in Exception No. 25 are denied.

Sierra Club's Exception No. 26 to Paragraphs 121 to 126, 128 to 130, and 136

Sierra Club takes exception to paragraphs 121 to 126, 128 to 130, and 136 of the RO, alleging that the ALJ's finding that the proposed elevation for Unit 7 (DBEC) should be measured against the sea level rise projection known as the "USACE high curve"; should be rejected; and that the "NOACC high curve is the more reasonable choice." Sierra Clubs claims that the ALJ's findings are questions of law and policy for the Board to decide.

Sierra Club provides no explanation for why the ALJ's findings in paragraphs 121 to 126, 128 to 130, and 130 should be treated as questions of law. The ALJ's finding that the elevation for DBEC should be measured against the USACE high curve as opposed to Sierra Club's preferred choice of the NOAA high curve is a finding within the purview of the ALJ and not a question of law. Sierra Club merely disagrees with the ALJ's findings. An agency may not relabel what is a factual determination as a "conclusion of law" in order to modify or overturn what it, or in this case what Sierra Club, views as an unfavorable finding of fact. *See, e.g., Stokes*, 952 So. 2d at 1225. As a result, we reject Sierra Club's position that the ALJ's findings in these paragraphs are really mislabeled questions of law.

The findings of fact in paragraphs 121 to 126, 128 to 130, and 136 are supported by competent, substantial evidence and may not be rejected by the Siting Board. FPL's expert, Mr. Barranco introduced FPL Exhibit 41, the Unified Sea Level Rise Projection for Southeast Florida, dated October 2015, identified in the RO as "USLRP." (RO ¶ 117). As described by the ALJ, the projection consists of four curves, each making predictions about the amount of future sea level rise through 2100 for the southeast Florida region. (RO ¶ 118). It was developed by a working group of scientists in Southeast Florida that included Sierra Club's expert witness, Dr. Harold Wanless. (Wanless, T. May 17, 2018 (p.m.), p. 233; FPL Ex. 41, p. 34). Mr. Barranco

testified that at the request of Broward County he compared the planned elevation of DBEC to the USLRP, and that he specifically chose the curve predicting the second highest amount of sea level curve, the “USACE high” curve, for comparison. (Barranco, T. May 16, 2018 (p.m.), pp. 56-57, and 58-59). The curve in the USLRP projecting the highest amount of sea level rise is called the “NOAA high” curve, and is the curve advocated by Sierra Club in Exception No. 26. (Barranco, T. May 16, 2018 (p.m.), p. 58). Mr. Barranco testified that he compared the DBEC site elevation to the USACE high curve “based on guidance in the document for infrastructure of facilities that have a design life of less than fifty years” and not the NOAA high curve because it was intended for “facilities that have a design life of either greater than 50 years, that was going to be constructed after the year 2060 or was the type of facility, as I notated in the documents, such as nuclear energy facilities.” (Barranco, T. May 16, 2018 (p.m.), p. 59).

Ultimately, the distinction between the USACE high curve and NOAA high curve is irrelevant relative to construction and operation of the DBEC facility. As explained by FPL’s witness Mr. Barranco during the hearing, while DBEC’s power block elevation was initially compared against the USACE high curve, DBEC’s power block was ultimately designed to a base elevation of 11.5 feet above mean sea level. (Barranco, T. May 16, 2018 (p.m.), p. 60). The NOAA high curve predicts a sea level that is at most 9.5 feet above current mean sea level. (Barranco, T. May 16, 2018 (p.m.), pp. 60-61). Regardless of which curve is used for comparison to DBEC, DBEC is safely above both curves for the projected sea level rise. *See* (Barranco T. May 16, 2018 (p.m.), pp. 60-61).

The ALJ was entitled to rely on the expert opinion of Mr. Barranco in finding that the USACE high curve was the most appropriate projection of sea level rise. If there is competent substantial evidence to support an ALJ’s findings of fact, it is irrelevant that there may also be

competent substantial evidence supporting a contrary finding. *See, e.g., Arand Construction Co.*, 592 So. 2d at 280; *Conshore, Inc.*, 498 So. 2d at 623. The weight given to conflicting evidence is a matter reserved for the ALJ, as the trier of fact. Moreover, the ALJ's decision to accept the testimony of one expert witness over that of another expert is an evidentiary ruling that cannot be altered by a reviewing agency, absent a complete lack of any competent substantial evidence of record supporting this decision. *Peace River/Manasota Reg'l Water Supply Auth.*, 18 So. 3d at 1088; *Hamilton Downs Horsetrack, LLC v. State Dep't of Bus. & Prof'l Regulation, Div. of Pari-Mutuel Wagering*, 226 So. 3d 1046, 1050 (Fla. 1st DCA 2017) (*quoting Stinson v. Winn*, 938 So. 2d 554, 555 (Fla. 1st DCA 2006) "Credibility of the witnesses is a matter that is within the province of the [ALJ], as is the weight to be given the evidence. The [ALJ] is entitled to rely on the testimony of a single witness even if that testimony contradicts the testimony of a number of other witnesses.")

Based on the foregoing reasons, Sierra Club's Exception No. 26 is denied.

Sierra Club's Exception No. 27 to Paragraph 127

Sierra Club takes exception to paragraph 127 of the RO, which discusses existing structures at DBEC that are not being replaced or modified, and therefore, not being elevated. Sierra Club seeks to strike two sentences from paragraph 127 of the RO, and add two sentences.

Paragraph 127 of the RO reads, as follows:

127. As noted above, certain existing infrastructure is not being replaced, so will not be elevated. These structures, which were constructed in compliance with the regulatory requirements in effect at the time they were approved, are constructed at six to seven feet NAVD88 above mean sea level. The highest flood elevation on the FEMA Map is at elevation 5.5 feet NAVD88 in 2060. Thus, it is unlikely that these structures will be subject to flooding by 2060.

Paragraph 127 of the Recommended Order at p. 44.

Sierra Club has not challenged the first two sentences in paragraph 127 of the RO in its exception. Having filed no exception to the first two sentences to paragraph 127 of the RO, Sierra Club “has thereby expressed its agreement with, or at least waived any objection to, those findings of fact.” *Envtl. Coalition of Fla., Inc.*, 586 So. 2d at 1213; *see also Colonnade Medical Ctr., Inc.*, 847 So. 2d at 542. Moreover, competent substantial evidence supports these first two sentences in paragraph 127. Because these structures complied with the regulatory requirements at the time they were constructed, and remain in compliance, they are not being modified as part of the DBEC project. Consequently, there is no regulatory requirement to change these structures, since they are not being modified as part of the DBEC project. (Kingston, T. May 15, 2018, pp. 61-62; Barranco, T. May 16, 2018 (p.m.), p. 88). Simply put, they are existing structures, they are not changing, and there is no requirement to elevate them.

The Siting Board has been unable to locate competent substantial evidence to support the last two sentences in paragraph 127 of the RO that read “The highest flood elevation on the FEMA Map is at elevation 5.5 feet NAVD88 in 2060. Thus, it is unlikely that these structures will be subject to flooding by 2060.” As a result, Sierra Club’s exception to these two sentences is granted.

Sierra Club has also directed the Siting Board to add supplemental findings of fact to paragraph 127 of the RO. However, the Siting Board has no authority to make independent or supplemental findings of fact. *See, e.g., Fla. Power & Light Co.*, 693 So. 2d at 1026-1027; *North Port, Fla.*, 645 So. 2d at 487.

Based on the foregoing reasons, Sierra Club’s Exception No. 27 is granted in part and denied in part. The Siting Board grants Sierra Club’s request to delete the last two sentences of paragraph 127 of the RO. All other exceptions in Exception No. 27 are denied.

Sierra Club's Exception No. 28 to Paragraphs 246 and 247, and Endnote 55

Sierra Club takes exception to paragraphs 246 and 247, and endnote 55 of the RO, alleging that neither “the notion that Units 4 and 5 can operate indefinitely,” nor the finding that operating Units 4 and 5 indefinitely is the “only alternative” to constructing Unit 7, is supported by competent, substantial evidence. Moreover, Sierra Club alleged that the PSC’s need determination found multiple alternatives.

Paragraph 246 of the RO finds that “given the Need Determination, the only alternative available to constructing DBEC is to continue operating Units 4 and 5 indefinitely.” Endnote 55 to paragraph 246 notes that “there is no competent substantial evidence in the record to support Sierra’s assumption that Units 4 and 5 must or will retire by 2033 if DBEC does not go into operation.” As previously discussed above in response to Sierra Club’s exception Nos. 2, 14, and 19, competent substantial evidence demonstrates that Units 4 and 5 could operate indefinitely if Unit 7 was not added. (Sim, T. May 15, 2018, pp. 181-183; Kosky, T. May 16, 2018 (a.m.), pp. 117-118).

Sierra Club also takes exception to the ALJ’s finding that operating Units 4 and 5 indefinitely is the “only alternative” to constructing Unit 7. In fact, Sierra Club alleged that the PSC’s need “determination found multiple alternatives.” The Siting Board rejects Sierra Club’s exception, because the evidence does not support its allegations. The PSC’s need determination did not find “multiple alternatives” to DBEC. Rather, the PSC found that, after reviewing multiple alternatives and considering the criteria in section 403.519(3), Florida Statutes, “no additional cost-effective renewable resource has been identified that can mitigate the need for new generation” and “no additional cost-effective demand-side management has been identified

that can mitigate the need for new generation.” (DEP Ex. 3, pp. 001792-93; FPL Ex. 9, App. II-1, pp. 8 and 18).

Furthermore, as the ALJ held in the Order Granting Intervention and Limiting Matters to be Considered in the Proceeding, section 403.519(3), Florida Statutes, designates the PSC as the exclusive forum for the determination of need, which includes an analysis of the availability of alternative energy technologies. The ALJ’s order limiting matters to be considered in the DOAH hearing constituted a ruling on the admissibility of evidence. The Siting Board does not have jurisdiction to modify or reject rulings on the admissibility of evidence, since such evidentiary rulings are matters within the ALJ’s sound “prerogative . . . as the finder of fact” and may not be reversed on agency review. *See Martuccio*, 622 So. 2d at 609; *Heifetz*, 475 So. 2d at 1281; *Fla. Power & Light Co.*, 693 So. 2d at 1028.

Based on the foregoing reasons, Sierra Club’s Exception No. 28 is denied.

Sierra Club’s Exception No. 29 to Paragraphs 248 and 249

Sierra Club takes exception to paragraphs 248 and 249 of the RO, alleging that the ALJ’s findings in these two paragraphs that rely on FPL’s projection of a slight decrease in system-wide GHG emissions from replacing Units 4 and 5 with Unit 7 must be rejected. The ALJ’s findings in paragraphs 248 and 249 regarding the decrease in GHG emissions across FPL’s fleet, as a result of replacing Units 4 and 5 with Unit 7, are supported by competent substantial evidence. (Kingston, T. May 15, 2018, p. 76; Kosky, T. May 16, 2018 (a.m.), pp. 60-64 and 68; FPL Ex. 39, p. 1; FPL Ex. 45, p. 1). Competent substantial evidence also supports additional environmental benefits from replacing Units 4 and 5 with Unit 7. (Kingston, T. May 15, 2018, pp. 95-96).

Sierra Club seeks to have us reweigh the evidence. However, the Siting Board is not authorized to reweigh the evidence presented at a DOAH final hearing, attempt to resolve conflicts therein, or judge the credibility of witnesses. *See e.g., Rogers*, 920 So. 2d at 30; *Belleau*, 695 So. 2d at 1307; *Dunham*, 652 So. 2d at 895. If there is competent substantial evidence to support an ALJ's findings of fact, it is irrelevant that there may also be competent substantial evidence supporting a contrary finding. *See, e.g., Arand Construction Co*, 592 So. 2d at 280; *Conshor, Inc.*, 498 So. 2d at 623.

Based on the foregoing reasons, Sierra Club's Exception No. 29 is denied.

Sierra Club's Exception No. 30 to Paragraph 250

Sierra Club takes exception to paragraph 250 of the RO, alleging this paragraph must be revised as follows:

250. ~~Other measures, discussed above, that DBEC will include and implement to minimize offsite impacts include using the existing transmission line system, existing natural gas pipeline, existing site access, and using a previously developed power generation site.~~ DBEC will not require new water sources, will not result in a new or expanded surface water discharge, and will reduce the use of processed water by approximately 22 percent. Additionally, upon its operation, DBEC will provide a warm water refuge for manatees.

Sierra Club's only explanation is that it "repeats errors that for the reasons previously discussed in Exceptions 1, 23, and 27 must be corrected." An agency need not rule on an exception that does not identify the legal basis for the exception. § 120.57(1)(k), Fla. Stat. (2018). This alone is a sufficient basis for rejection of Exception No. 30.

The ALJ's findings in paragraph 250, which list various measures that DBEC will implement to minimize offsite impacts, are supported by competent substantial evidence in the form of testimony by FPL witnesses Kingston and Kosky (Kingston, T. May 15, 2018, pp. 95-96; Kosky, T. May 16, 2018 (a.m.), pp. 34-35; DEP Ex. 3, p. 001777-99). Because the findings

in paragraph 250 are supported by competent substantial evidence and fail to meet the requirements of section 120.57(1)(k), Florida Statutes, this exception must be rejected.

Based on the foregoing reasons, Sierra Club's Exception No. 30 is denied.

Sierra Club's Exception No. 31 to Paragraph 251

Sierra Club takes exception to paragraph 251 of the RO, stating only that "[b]ecause Paragraph 251 relies on all of the prior error-filled paragraphs to find that Unit 7's benefits outweigh its adverse impacts, this paragraph must be rejected." Sierra Club's exception is vague, fails to cite to any record to support its claim, and fails to identify which of DBEC's environmental benefits it believes must be rejected. An agency need not rule on an exception that does not identify clearly the disputed portion of the recommended order by page number or paragraph, that does not identify the legal basis for the exception, or that does not include appropriate and specific citations to the record. § 120.57(1)(k), Fla. Stat. (2018).

Assuming Sierra Club intended to object to the ALJ's prior findings in paragraphs 248 and 249 regarding the decrease in GHG emissions across FPL's fleet, as a result of replacing Units 4 and 5 with Unit 7 – these findings are supported by competent substantial evidence. (Kingston, T. May 15, 2018, p. 76; Kosky, T. May 16, 2018 (a.m.), pp. 60-64 and 68; FPL Ex. 39, p. 1; FPL Ex. 45, p. 1). Moreover, competent substantial evidence also supports additional environmental benefits from replacing Units 4 and 5 with Unit 7. (Kingston, T. May 15, 2018, pp. 95-96).

Based on the foregoing reasons, Sierra Club's Exception No. 31 is denied.

Sierra Club's Exception No. 32 to Paragraph 259

Sierra Club takes exception to paragraph 259 of the RO, alleging that the ALJ wrongly struck paragraphs 6 and 7 of Sierra Club's Statement on Relief. Sierra Club alleged that

paragraph 259 of the RO must be rejected as an erroneous legal conclusion, mislabeled as a finding of fact. The Siting Board rejects Sierra Club's allegation that paragraph 259 is an erroneous legal conclusion. The ALJ in paragraph 259 of the RO merely articulated a factual statement summarizing an evidentiary ruling from the commencement of the DOAH certification hearing. This constitutes a finding of fact and not a conclusion of law. The ALJ stated in paragraph 259 that "At the commencement of the certification hearing, the undersigned struck paragraphs 6 and 7 of the Statement on Relief and reserved ruling on the other forms of relief requested in paragraphs 1 through 5, 8 and 9, pending development of the evidentiary record in this proceeding." This finding of fact is supported by competent substantial evidence in the transcript. (ALJ Sellers, T. May 15, 2018, pp. 10-12).

Moreover, the ALJ's ruling at the commencement of the DOAH hearing constituted an evidentiary ruling. The Siting Board does not have jurisdiction to modify or reject rulings on the admissibility of evidence, since such evidentiary rulings are matters within the ALJ's sound "prerogative . . . as the finder of fact" and may not be reversed on agency review. *See Martuccio*, 622 So. 2d at 609; *Heifetz*, 475 So. 2d at 1281; *Fla. Power & Light Co.*, 693 So. 2d at 1028.

Based on the foregoing reasons, Sierra Club's Exception No. 32 is denied.

Sierra Club's Exception No. 33 to Paragraph 298

Sierra Club takes exception to paragraph 298 of the RO, alleging that the ALJ's conclusion that construction and operation of Unit 7 (DBEC) will result in a net environmental benefit through system-wide GHG emission reductions must be rejected, because the conclusion is contrary to law and policy and is not supported by competent substantial evidence. The ALJ's conclusion of law that considers and balances the certification factors in section 403.509(3), Florida Statutes, and relies upon the ALJ's previous finding of fact that Unit 7 will reduce GHG

emissions across FPL's fleet, is supported by competent substantial evidence. (Kingston, T. May 15, 2018, p. 76; Kosky, T. May 16, 2018 (a.m.), pp. 60-64, and 68; FLP Ex. 39, p. 1; FPL Ex. 45, p. 1).

As explained above in response to Exception No. 2, the ALJ's finding that construction and operation of DBEC versus continuing to operate Units 4 and 5 will reduce GHG emissions by FPL on a system-wide basis is not "contrary to law" nor a policy question.

Moreover, Sierra Club failed to identify the legal basis for its exception to paragraph 298 of the RO, and failed to offer a substitute legal conclusion that is "as or more reasonable" than that which it proposes be rejected. § 120.57(1)(l), Fla. Stat. (2018). Instead, Sierra Club summarily rejected the ALJ's conclusion of law in paragraph 298 without providing any legal basis for the exception or citation to the record. *See* § 120.57(1)(j) and (k), Fla. Stat. (2018).

Based on the foregoing reasons, Sierra Club's Exception No. 33 is denied.

Sierra Club's Exception No. 34 to Paragraphs 300 to 302

Sierra Club takes exception to paragraphs 300 through 302 of the RO in which the ALJ concluded, "[b]ased on the competent, substantial, and persuasive evidence in the record, . . . DBEC has provided reasonable assurance that its operational safeguards are technically sufficient for the public welfare and protection." Sierra Club contends that the ALJ wrongly ignored the competent, substantial evidence in the record that FPL failed to address the substantial risk that the existing structures and adjacent neighborhood will be inundated by corrosive salt water from sea level rise and storm surges. Sierra contends that "[i]nstead the Board should adopt the conclusion proposed by Sierra Club," citing to Sierra Club's own proposed recommended order.

Sierra Club seeks to have the Siting Board reweigh the evidence and reject the ALJ's findings regarding expert opinion testimony. The ALJ's decision to accept the testimony of one expert witness over that of another expert is an evidentiary ruling that cannot be altered by a reviewing agency, absent a complete lack of any competent substantial evidence of record supporting the ALJ's decision. *See, e.g., Peach River/Manasota Regional Water Supply Authority*, 18 So. 3d at 1088. Specifically, the Siting Board is not authorized to reweigh the evidence presented at a DOAH final hearing, attempt to resolve conflicts therein, or judge the credibility of witnesses. That is a matter reserved for the ALJ, as the trier of fact. *See e.g., Rogers*, 920 So. 2d at 30; *Belleau*, 695 So. 2d at 1307.

If there is competent substantial evidence to support the ALJ's findings of fact, it is irrelevant that there may also be competent substantial evidence supporting a contrary finding. *See, e.g., Arand Construction Co.*, 592 So. 2d at 280; *Conshor, Inc.*, 498 So. 2d at 623. The record is replete with competent substantial evidence to support the ALJ's conclusion that FPL has provided reasonable assurances "that its operational safeguards are technically sufficient for the public welfare and protection."

Sierra Club asserts that DBEC has not provided reasonable assurance that its operational safeguards are technically sufficient for the public welfare and protection. The ALJ's conclusion, as noted by the ALJ, is supported by persuasive, competent, substantial evidence. Mr. Kosky, FPL's expert in power plant siting, testified that in his opinion DBEC's operational safeguards were sufficient. (Kosky, T. May 16, 2018 (a.m.), p. 71). He explained the basis for this opinion is that DBEC is in compliance with the standards that are set to protect public health, welfare and the environment, and in many cases, DBEC exceeds the minimum required by regulation (or, more accurately, often falls below regulated discharge or impact levels). (Kosky,

T. May 16, 2018 (a.m.), pp. 71-72). He also cited the improved technology of DBEC, as well as the fuel, location, design, and proposed conditions of certification. (Kosky, T. May 16, 2018 (a.m.), p. 71). Specifically, Mr. Kosky noted that DBEC is using the highest efficiency and cleanest fuel, and it will be reusing much of the infrastructure associated with Units 4 and 5. (Kosky, T. May 16, 2018 (a.m.), pp. 71-72). He added that the design includes continuous monitoring systems regulating the operation of the plant and tracking environmental conditions, which are required in the Conditions of Certification and the federal permit. (Kosky, T. May 16, 2018 (a.m.), p. 72). Kosky's testimony supports the findings supporting the ALJ's conclusion.

Other testimony also provides competent, substantial evidence to support the ALJ's conclusion. Mr. Barranco testified for FPL that DBEC is adequately protected against sea level rise and storm surges. (Barranco, T. May 16, 2018 (p.m.), pp. 59-61, and 85-86). Mr. Kosky testified to DBEC's compliance with BACT. (Kosky, T. May 16, 2018 (a.m.), pp. 23-54). That DBEC will result in a reduction in GHG emissions across FPL's fleet as noted repeatedly is also supported by competent, substantial evidence. (Kingston, T. May 15, 2018, p. 76; Kosky, T. May 16, 2018 (a.m.), pp. 60 -64, 68; FPL Ex. 39, p.1; FPL Ex. 45, p.1).

The sole reason given by Sierra Club for rejecting paragraphs 300 to 302 is that existing facilities near proposed Unit 7 are not being elevated as part of the new construction. As explained in more detail above, it is not necessary or appropriate to elevate the existing structures adjacent to DBEC. Sierra Club – who bears the burden of proof – produced no evidence (even *if* flooding occurs due to future sea level rise) of any risk to human health or the environment as a result.

Based on the foregoing reasons, Sierra Club's Exception No. 34 is denied.

Sierra Club's Exception No. 35 to Paragraph 317

Sierra Club takes exception to paragraph 317 of the RO, contending that the ALJ wrongly concluded that DBEC (also known as Unit 7) “will comply with all applicable environmental regulatory requirements.” Sierra Club’s Exception No. 35 is vague and ambiguous. Sierra Club does not assert that the conclusion is not supported by competent substantial evidence or include any citations to the record as to what requirements the Siting Act includes that have not been met by Unit 7. Sierra Club also fails to identify the legal basis for its exception and fails to offer a substitute legal conclusion that is “as or more reasonable” than that which it proposed be rejected, which alone is a sufficient basis for denying Sierra Club’s Exception No. 35. See § 120.57(1)(l), Fla. Stat. (2018).

Based on the foregoing reasons, Sierra Club’s Exception No. 35 is denied.

Sierra Club's Exception No. 36 to Paragraph 318

Sierra Club takes exception to paragraph 318 of the RO, reiterating its position that the reduction in GHG emissions on a system-wide basis is contrary to law and policy, and is not supported by competent, substantial evidence. However, the findings of fact supporting this conclusion are supported by competent, substantial evidence. (Kingston, T. May 15, 2018, p. 76; Kosky, T. May 16, 2018 (a.m.), pp. 60-64, and 68; FPL Ex. 39, p. 1; FPL Ex. 45, p. 1).

In addition, Sierra Club fails to identify any legal basis for its exception and fails to offer a substitute legal conclusion that is “as or more reasonable” than that which it proposed be rejected, which alone is a sufficient basis for denying Sierra Club’s Exception No. 35. See § 120.57(1)(l), Fla. Stat. (2018).

Based on the foregoing reasons, Sierra Club’s Exception No. 36 is denied.

Sierra Club's Exception No. 37 to Paragraph 319

Sierra Club takes exception to paragraph 319 of the RO, contending that the ALJ's conclusion of law that "evaluating the impact of sea level on the power plant facility itself is not part of the analysis under section 403.509(3)(e), Florida Statutes" is erroneous, and should be modified. The ALJ's conclusion in paragraph 319 of the RO is a straightforward reading of section 403.509(3)(e), Florida Statutes, which directs the Siting Board to consider whether the power plant seeking certification will "[e]ffect a reasonable balance between the need for the facility as established pursuant to s. 403.519 and the impacts upon air and water quality, fish and wildlife, water resources, and other natural resources of the state resulting from construction and operation of the facility." (emphasis added). The possible impact of sea level rise is not contemplated under section 403.509(3)(e), Florida Statutes. In fact, the plain language of this statutory provision says nothing about evaluating the impacts of "sea level rise" on the facility. Moreover, Sierra Club cites no support in the record for its contention that environmental contamination from the alleged flooding "could" occur. § 120.57(1)(l), Fla. Stat. (2018).

An agency's interpretation of statutes and rules within its regulatory jurisdiction does not have to be the only reasonable interpretation. It is enough if such agency interpretation is a "permissible" one. *Suddath Van Lines, Inc.*, 668 So. 2d at 212. If the reviewing agency modifies or rejects a conclusion of law set out in the ALJ's recommended order, it must state with particularity the reasons for the modification or rejection, and must find that its substituted conclusion of law "is as or more reasonable than that which was rejected or modified." § 120.57(1)(l), Fla. Stat. (2018). Sierra Club has the burden of proof, and failed to provide an explanation for how its interpretation of section 403.509(3)(e), Florida Statutes, is as or more reasonable than the ALJ's interpretation of section 403.509(3)(e), Florida Statutes.

Sierra Club does not take exception to the second sentence of paragraph 319 which states that, even if such impacts to the facility “were germane to the analysis under section 403.509(3)(e), the competent substantial evidence establishes that DBEC’s power block will be sufficiently elevated to protect against reasonably-projected local sea level rise and storm surges.” Having filed no exception to this second sentence, Sierra Club “has thereby expressed its agreement with, or at least waived any objection to, those findings of fact.” *Envtl. Coalition of Fla., Inc.*, 586 So. 2d at 1213; *see also Colonnade Medical Ctr., Inc.*, 847 So. 2d at 542. Thus, Sierra Club has waived any exception to the findings in the second sentence of paragraph 319 of the RO. Moreover, the findings in the second sentence of paragraph 319 are supported by competent substantial evidence in the form of Mr. Barranco’s testimony. (Barranco, T. May 17, 2018, pp. 59-61, and 85-86). In addition, the ALJ’s findings are a reasonable inference from the hearing testimony. The ALJ can “draw permissible inferences from the evidence.” *Heifetz*, 475 So. 2d at 1281. *See also Walker*, 946 So. 2d at 605. (“It is the hearing officer’s function to consider all the evidence presented, resolve conflicts, judge credibility of witnesses, draw permissible inferences from the evidence, and reach ultimate findings of fact based on competent, substantial evidence.”).

Based on the foregoing reasons, Sierra Club’s Exception No. 37 is denied.

Sierra Club’s Exception No. 38 to Endnote 61

Sierra Club takes exception to endnote 61 of the RO, alleging that the ALJ wrongly interpreted section 403.511(4), Florida Statutes, to “bar” the Siting Board’s consideration of the costs borne by the public due to DBEC’s (also known as Unit 7) adverse effects. Sierra Club then states that “[t]he costs at issue here are not merely those that FPL will incur, but also those that the residents of the adjacent neighborhood and the rest of Southeast Florida will incur.”

Sierra Club's Exception No. 38 must be denied for several reasons. It is unclear what "bar" by the ALJ to which Sierra Club is referring. The ALJ has issued several rulings that related to the PSC's exclusive jurisdiction. It is also unclear what costs Sierra Club thinks are "at issue here," aside from the costs identified in endnote 61 of the RO. The Siting Board need not rule on an exception that does not clearly identify the legal basis for the exception. This alone is a sufficient basis for rejection of Exception No. 38. § 120.57(1)(k), Fla. Stat. (2018).

Second, Sierra Club has alleged in Exception No. 38 new claims that it did not assert prior to hearing. The conclusions of the ALJ in both paragraph 319 and endnote 61 of the RO relate only to potential damages to Unit 7 itself from climate change. The only allegation that Sierra Club has made regarding impact to Sierra Club's members arising from damages to the DBEC itself is found in paragraph 13 at page 7 of Sierra Club's Petition to Intervene. Sierra Club's petition indicated that Sierra Club's members would be harmed if required to "absorb costs to repair the Project." The Siting Board cannot consider new claims raised for the first time by Sierra Club in its exceptions to the ALJ's RO. Sierra Club has raised a new claim that costs arising from damages to DBEC apply beyond FPL's customer bills to "those that the residents of the adjacent neighborhood and the rest of Southeast Florida will incur." The Siting Board cannot consider such allegations raised at this late stage of the litigation. *See Ameraquatic, Inc. v. Dep't of Natural Res.*, Case No. 93-1629RP, Final Order (July 19, 1993) (in a rule challenge, the ALJ disregarded claims raised for the first time in a proposed final order).

Sierra Club's exception also fails, because matters regarding customer costs are outside the scope of this proceeding under the PPSA; the cost of the proposed facility is a consideration within the PSC's exclusive jurisdiction. *See* § 366.04, Fla. Stat. (2018) ("In addition to its existing functions, the commission shall have jurisdiction to regulate and supervise each public

utility with respect to its rates and service); § 403.511(4), Fla. Stat. (2018) (The PPSA shall have no impact on the Public Service Commission's ratemaking authority).

Finally, the ALJ concluded in the Order Granting Intervention and Limiting Matters to be Addressed in the Certification Hearing, dated May 4, 2018, that matters within the exclusive jurisdiction of the PSA are not material to this proceeding pursuant to section 403.511(4), Florida Statutes. The rulings in this order constitute evidentiary rulings of the ALJ. The Siting Board does not have jurisdiction to modify or reject rulings on the admissibility of evidence, since such evidentiary rulings are matters within the ALJ's sound "prerogative . . . as the finder of fact" and may not be reversed on agency review. *See Martuccio*, 622 So. 2d at 609; *Heifetz*, 475 So. 2d at 1281; *Fla. Power & Light Co.*, 693 So. 2d at 1028. Thus, the Siting Board cannot reject the evidentiary rulings from the ALJ's order that limited matters to be addressed in the PPSA certification hearing, including the ALJ's rulings regarding matters within the exclusive jurisdiction of the PSA.

Based on the foregoing reasons, Sierra Club's Exception No.38 is denied.

Sierra Club's Exception No. 39 to Paragraph 321

Sierra Club takes exception to paragraph 321 of the RO, alleging that the air permit never contemplated whether alternate technologies such as solar should be required and the ALJ's "conclusion that the Board must defer to whatever DEP decided in the air permit is thus wrong as a matter of law."

Although Sierra Club's Exception No. 39 is titled "Paragraph 321," it is not clear if Sierra Club's Exception No. 39 is intended to take exception to paragraph 320 or 321 of the RO. Because the ALJ's conclusions regarding the Siting Board's lack of authority to require solar or other renewable technology upon DBEC in this proceeding is better understood by examining

both paragraphs, the Siting Board has examined the ALJ's conclusions in both paragraphs 320 and 321.

In paragraph 320 of the RO, the ALJ rejects Sierra Club's assertion that section 403.509(3)(g), Florida Statutes, permits the Siting Board to require DBEC to include a solar component and reduce GHG emissions through the use of carbon capture and sequestration technology, because such a requirement would circumvent the air permit issued by the Department by imposing "conditions that are inconsistent with DEP's BACT determinations regarding the feasibility and cost-effectiveness of such technologies." The PSC's jurisdiction and determination of need preclude the Siting Board from applying solar technology, regardless of the conditions of the air permit. §§ 403.519 and 403.511(6), Fla. Stat. (2018). In paragraph 321 of the RO, the ALJ rejects Sierra Club's contention that the Siting Board in this proceeding could require that FPL replace DBEC with a solar power facility, because such a condition would encroach upon the PSC's jurisdiction pursuant to section 403.519 and chapter 366, Florida Statutes.

Finally, Sierra Club's mere "belief" that the Siting Board may require solar technology as a condition of the air permit under section 403.509(3)(e), Florida Statutes, does not provide a legal basis to support that its legal conclusion is "as or more reasonable" than the conclusion made by the ALJ after consideration of all the evidence presented.

Based on the foregoing reasons, Sierra Club's Exception No. 39 is denied.

Sierra Club's Exception No. 40 to Paragraph 322

Sierra Club takes exception to paragraph 322 of the RO, in which the ALJ concludes that Sierra Club's reliance on *In re: Florida Power & Light Company West County Energy Center Unit 3*, DOAH Case No. 07-2198 (Fla. DEP Nov. 15, 2008), to support its position that the

Siting Board is authorized to require FPL to implement a renewable energy component as a condition of certification, is incorrect. Sierra Club contends that the ALJ's conclusion is misplaced and should be rejected.

Sierra Club continues to assert that the PPSA and other power plant site certification cases "establish the [Siting] Board's authority to impose conditions that are not pre-authorized by the PSC," despite the ALJ's conclusion of law in paragraph 322 and the ALJ's Order Granting Intervention and Limiting Matters to be Addressed in the Certification Hearing, concluding that section 403.519, Florida Statutes, bars consideration of such issues in any other forum beyond the PSC. We find that the cases cited by Sierra Club in support of its contention are distinguishable from this proceeding, as noted by the ALJ, and thus are not controlling.

Sierra Club also attempts to rely on *Miami - Dade County v. FPL*, 208 So. 3d 111, (Fla. 3rd DCA 2016) to suggest that the ALJ's finding regarding *West County* is wrong. *See In Re: Florida Power and Light Company West County Energy Center Unit 3 Power Plant Siting Application* No. PA 05-47SA1, 2008 WL 5206183, at *10-12 (Fla. Dep't Env'tl. Prot. 2008). While the court in that case did find that "[t]he general grant of power in the PPSA to 'impose conditions' upon certification, other than those listed in the PPSA, gave the Siting Board the power to impose the condition of requiring that the power lines be installed underground at FPL's expense," it also clearly noted that "[u]ndergrounding of the transmission lines is a condition upon certification encompassed by the Siting Board's ability to impose "site specific criteria, standards, or limitations" on FPL's project. *Miami-Dade County*, 208 So. 3d at 119; *see* 403.511(2)(b)1., Fla. Stat. (2018). Furthermore, the case revolved around the Siting Board's authority to require undergrounding of transmission lines, not require renewable energy. At the time this case was heard, neither the PPSA nor section 403.519, Florida Statutes, which governs

the PSC's jurisdictional authority in determining need, included an explicit statement regarding the PSC's jurisdiction regarding the location of transmission lines. However, section 403.519, Florida Statutes, did explicitly provide, and continues to provide, the PSC with the sole jurisdictional authority to evaluate whether renewable resources or conservation measures are available.

Sierra Club also relies on *Seminole Elec. Co-op., Inc. v. Dep't of Env'tl. Prot.*, 985 So. 2d 615 (Fla. 5th DCA 2008). However, the Siting Board does not find this case applicable. The issue in *Seminole Elec. Co-op., Inc.* did not involve the authority of the Siting Board to require conditions. The issue in *Seminole Elec. Co-op., Inc.*, was whether DEP could issue an order denying a site certification application despite a stipulation by DEP and all other parties that it should be certified. The only mention of conditions was regarding a voluntary stipulation entered by Seminole Electric to, among other things, purchase fluorescent light bulbs and commit to a program to develop additional renewable energy resources. Again, the case did not go before the Siting Board, but instead went to DEP for issuance of the final order because of the stipulation. As with *West County*, a voluntary stipulation does not confer jurisdiction on either DEP or the Siting Board. Because *Seminole Elec. Co-op., Inc.*, was based on a voluntary stipulation, it cannot stand for the proposition that the Siting Board can mandate construction of a solar energy facility.

Sierra Club's second paragraph in Exception No. 40 makes vague and ambiguous arguments regarding the 75 MW PPSA threshold. Sierra Club appears to make statements of fact without citation, that have no basis in the record. For example, there is no basis in the record for the statement "FPL routinely builds 74.5 MW projects for that very reason. But, whatever the amount of alternate energy technologies that the Board decides is necessary to minimize Unit

7's massive adverse effects, thereafter FPL can always submit its proposed alternate energy technology projects for PSC review thereafter." An agency need not rule on an exception that does not identify clearly the disputed portion of the recommended order by page number or paragraph, that does not identify the legal basis for the exception, or that does not include appropriate and specific citations to the record. § 120.57(1)(k), Fla. Stat. (2018). This alone is a sufficient basis to reject Exception No. 40.

Based on the foregoing reasons, Sierra Club's Exception No. 40 is denied.

Sierra Club's Exception No. 41 to Paragraph 323

Sierra Club takes exception to paragraph 323 of the RO, alleging that the Siting Board should reject the ALJ's conclusion that "the competent substantial evidence establishes that DBEC, as proposed and subject to the proposed Conditions of Certification, effects a reasonable balance between the need for the facility and the environmental impacts considered under section 403.509(3)(e)." Sierra Club's exception is vague, providing no explanation for its exception other than it "is a question of law and policy for the Board, not the Judge, to decide" and, "for the reasons discussed in the foregoing exceptions." Sierra Club provides no further legal basis for its exception, and does not identify what law or policy was incorrect, or what "reasons enumerated" in which "forgoing exceptions" were being referred. An agency need not rule on an exception that does not identify the legal basis for the exception. § 120.57(1)(k), Fla. Stat. (2018). Therefore, the Siting Board need not rule on this vague exception.

The conclusions reached by the ALJ in paragraph 323 of the RO are squarely within the ALJ's purview and wholly appropriate. The criteria identified in section 403.509(3), Florida Statutes, are those upon which the ultimate decision must be made by the Siting Board. The only issues that may be raised at the Siting Board's hearing are those that were raised in the

certification proceeding before the administrative law judge or raised in the recommended order. § 403.509(2), Fla. Stat. (2018).

Moreover, the facts upon which the conclusion in paragraph 323 of the RO is based are supported by substantial competent evidence. The PSC determined “that there is a need for the Dania Beach Clean Energy Center Unit 7 in the 2024 to 2026 timeframe to maintain Florida Power & Light Company’s system reliability and integrity.” (FPL Ex. 9, PAR, App. II-1, p. 18). FPL presented additional evidence that DBEC would comply with all environmental regulatory requirements of the pertinent regulatory agencies when built and operated in accordance with the proposed Conditions of Certification. (Kingston, T. May 15, 2018, pp. 81 and 135; Kosky, T. May 16, 2018 (a.m.), p. 71; Sim, T. May 15, 2018, p. 64). The agencies that provided comments to the Siting Office at DEP reached the same conclusion in their reports to DEP as contained in the PAR. (FPL Ex. 9, pp. 15-19; and FPL Ex. 9, App. II-2 through II-9). These environmental regulatory criteria in the PAR are designed to prevent harmful impacts to public health, welfare, and the environment. (Kosky, T. May 15, 2018 (a.m.), pp. 71-72).

Based on the foregoing reasons, Sierra Club’s Exception No. 41 is denied.

Sierra Club’s Exception No. 42 to Paragraphs 324 to 330

Sierra Club takes exception to paragraphs 324 to 330 of the RO, which summarizes the basis for the ALJ’s conclusion in paragraph 330 that “competent substantial evidence demonstrates that DBEC will minimize, through the use of reasonable and available methods, adverse effects on human health, the environment, and the ecology of the land and its wildlife and the ecology of state waters and their aquatic life.” (RO ¶ 330). *See* § 403.509(3)(f), Fla. Stat. (2018).

Sierra Club alleges that the methods that FPL must use to “minimize” DBEC’s adverse effects are “a question of law and policy for the Board, not the Judge, to decide,” and that the ALJ’s findings and conclusions reflected in paragraphs 324 through 330 of the RO must be rejected. Sierra Club’s exception is vague, providing no explanation for its exception other than it “is a question of law and policy for the Board, not the Judge, to decide” and, “for the reasons discussed in the foregoing exceptions.” Sierra Club provides no further legal basis for its exception, and does not identify what law or policy was incorrect, or what “reasons enumerated” in which “forgoing exceptions” were being referred. An agency need not rule on an exception that does not identify the legal basis for the exception. § 120.57(1)(k), Fla. Stat. (2018). Therefore, the Siting Board need not rule on this vague exception.

The conclusions, and underlying findings, reached by the ALJ in paragraphs 324 through 330 of the RO are squarely within the ALJ’s purview and wholly appropriate. The criteria identified in section 403.509(3), Florida Statutes, are those upon which the ultimate decision must be made by the Siting Board. The only issues that may be raised at the Siting Board’s hearing are those that were raised in the certification proceeding before the administrative law judge or raised in the recommended order. § 403.509(2), Fla. Stat. (2018).

Moreover, the findings upon which the conclusions in paragraphs 324 through 330 of the RO are based are supported by competent substantial evidence or a direct recitation of the PPSA. Paragraph 324 of the RO is merely a factual recitation of the Siting Board’s criteria in section 403.509(3)(f), Florida Statutes. Therefore, there is no legal basis to reject this paragraph.

Paragraph 325 of the RO finds that the technology being used at DBEC is BACT for air emissions according to DEP’s analysis. BACT is based on the maximum degree of reduction of each air pollutant which, on a case-by case basis, taking into account energy, environmental, and

economic impacts, and other costs, is achievable through available methods, systems and technologies. (Kosky, T. May 16, 2018 (a.m.), p. 41). The following technologies will help minimize adverse effects associated with DBEC's air emissions: the use of natural gas as a primary fuel, ultra-light sulfur distillate as a back-up fuel, an efficient design using the latest combined cycle technology, and post-combustion emission control technology, when available. (FPL Ex. No. 1, pp. 1-3 to 1-4; Kosky, T. May 16, 2018 (a.m.), pp. 71-72).

Paragraph 326 of the RO is supported by competent substantial evidence, which establishes that DBEC will emit less GHGs per MWh than Units 4 and 5. (Kosky, T. May 16, 2018 (a.m.), p. 59). Nitrogen oxide and sulfur dioxide emissions from DBEC will, respectively, be 7.5 and ten times lower than the required NSPS, and total emissions of all specific criteria pollutants will be reduced by 6.6 million pounds. (Kosky, T. May 16, 2018 (a.m.), pp. 47 and 58; FPL Ex. No. 38, p. 1; FPL Ex. No. 39, p. 1). Additionally, operation of DBEC will reduce air pollution, including GHG emissions, across FPL's electrical generating system. Thus, operation of DBEC constitutes a net environmental benefit, compared to the continued operation of Units 4 and 5 on an indefinite basis. (FPL Ex. No. 39, p. 1).

Paragraph 327 of the RO finds that DBEC will not withdraw more water for use as cooling water than did Units 4 and 5; and, it will implement technology to avoid impingement and entrainment of aquatic life at the cooling water intake structures. (Kingston, T. May 15, 2018, p. 96; FPL Ex. No. 1, p. 6.1).

Paragraph 328 of the RO finds that by using the same footprint and many of the existing facilities, DBEC avoids new impacts to the environment surrounding the existing site; thus, minimizing the adverse effects of DBEC. (Kingston, T. May 15, 2018, pp. 95-96).

Paragraph 329 of the RO finds that the various environmental regulatory criteria with which DBEC will comply are designed to prevent harmful impacts to public health, welfare, and the environment. (Kosky, T. May 16, 2018 (a.m.), p. 71). Consequently, compliance with these criteria supports the ALJ's conclusion that DBEC will minimize effects on human health, the environment, the ecology of the land and its wildlife, and the ecology of state waters and its aquatic life.

Each of the above findings supports the ALJ's overall conclusion in paragraph 330 of the RO that competent substantial evidence demonstrates that DBEC will minimize, by using reasonable and available methods, adverse effects on human health, the environment, the ecology of the land and its wildlife, and the ecology of state waters and their aquatic life.

Based on the foregoing reasons, Sierra Club's Exception No. 42 is denied.

Sierra Club's Exception No. 43 to Paragraphs 331 to 334

Sierra Club takes exception to paragraphs 331 to 334 of the RO, alleging that the Siting Board should reject the ALJ's finding that competent substantial evidence shows that DBEC will "serve and protect the broad interest of the public," and her conclusion that "DBEC effects a reasonable balance between the need for the power plant and the environmental and other impacts, as required under section 403.509(3)(a) through (g), for site certification." Sierra Club's exception is vague, stating that "whether and on what conditions certification of Unit 7 will 'serve and protect the broad interest of the public' is . . . [a] question of law and policy . . . for the Board, not the Judge, to decide" and "[f]or this reason, and the reasons enumerated in the foregoing exceptions, the Judge's opinions in Paragraphs 331 to 334 must be rejected, because it wrongly rests on the predicate permits, without the additional scrutiny that is inherently necessary in the Board's final, administrative disposition of this case." Sierra Club fails to

provide further explanation or legal basis for its exception, identify what law or policy was incorrect, or identify what “reasons enumerated” in which “foregoing exceptions” were being referenced.

The reference to *AES Cedar Bay, Inc. v. Dep’t Env’tl. Reg.* is also vague. Sierra Club provides no explanation for the reference, nor provides any discussion of how it relates to the present case. An agency need not rule on an exception that does not identify the legal basis for the exception. § 120.57(1)(k), Fla. Stat. (2018). Therefore, the Siting Board need not rule on this vague exception.

The conclusions, and underlying findings, reached by the ALJ in paragraphs 331 through 334 of the RO are squarely within the ALJ’s purview and wholly appropriate. “The presiding officer shall complete and submit to the agency and all parties a recommended order consisting of findings of fact, conclusions of law, and recommended disposition or penalty, if applicable, and any other information required by law to be contained in the final order.” § 120.57(1)(k), Fla. Stat. (2018). Despite Sierra Club’s suggestion that it is not for the ALJ to decide, it is wholly appropriate for the ALJ to take evidence and reach the conclusion set out in paragraphs 331 through 334. The criteria identified in section 403.509(3), Florida Statutes, are those upon which the ultimate decision must be made by the Siting Board. The only issues that may be raised at the Siting Board’s hearing are those that were raised in the certification proceeding before the administrative law judge or raised in the recommended order. § 403.509(2), Fla. Stat. (2018).

The ALJ did not rest her recommendation solely on the reviews by party agencies for the technical areas within the delegated jurisdiction of each. Compliance with the non-procedural requirements of the agencies is only one of the criteria in section 403.509(3), Florida Statutes.

As the ALJ explained in paragraph 332 of the RO, the competent substantial evidence establishes that DBEC will satisfy the site certification criteria in *all* of the prior subsections in section 403.509(3), Florida Statutes. Satisfaction of the criteria in section 403.509(3)(a) through (d), Florida Statutes, is uncontested by any party to this proceeding. *See Sierra Club's Proposed Pre-Hearing Statement*, p. 53 (*citing* section 403.509(3)(e)-(g), Florida Statutes, as an issue of law which remains for the Administrative Law Judge). As explained above in the responses to Sierra Club's Exception Nos. 41 and 42, competent substantial evidence shows that the criteria in section 403.509(3)(e) and (f), Florida Statutes, have been met. It is this meeting of *all* the criteria from section 403.509(3)(a) through (f), Florida Statutes, that serve as the basis for the ALJ's conclusion in paragraph 333 of the RO that "the competent substantial evidence establishes that DBEC will serve and protect the broad interests of the public." It is this basis that is found in *In Re: Florida Power and Light Company Okeechobee Clean Energy Center Power Plant Siting Application No. PA15-58*, Case No. 15-0607 (Fla. DEP Final Order June 29, 2016), to which the ALJ cites, and which Sierra Club fails to distinguish. The ALJ reviewed and balanced all the criteria before reaching the conclusion in paragraph 334 of the RO that, "DBEC effects a reasonable balance between the need for the power plant and the environmental and other impacts, as required under section 403.509(3)(a) through (g), for site certification."

Competent substantial evidence supports the ALJ's findings of fact supporting the conclusions in paragraphs 331 to 334 of the RO, as identified above in response to Sierra Club's Exception Nos. 41 and 42. Moreover, Sierra Club has provided no legal analysis that is "as or more reasonable" than that provided by the ALJ in paragraphs 331 through 334.

Based on the foregoing reasons, Sierra Club's Exception No. 43 is denied.

Sierra Club's Exception No. 44 to Paragraphs 336 to 358

Sierra Club takes exception to paragraphs 336 to 358 of the RO, which discuss the ALJ's rejection of the proposed relief sought in paragraph 3 of Sierra Club's statement of relief.

Sierra Club's exception is vague, providing no explanation for its exception other than it "is a question of law and policy for the Board, not the Judge, to decide" and, "for the reasons discussed in the foregoing exceptions." Sierra Club provides no further legal basis for its exception, and does not identify what law or policy was incorrect, or what "reasons enumerated" in which "forgoing exceptions" were being referred. None of the prior exceptions dealt with a ruling by the ALJ on Sierra Club's relief except for Exception No. 32, and that exception dealt with different relief than those discussed in paragraphs 336 to 358 of the RO. An agency need not rule on an exception that does not identify the legal basis for the exception. § 120.57(1)(k), Fla. Stat. (2018). Therefore, the Siting Board need not rule on this vague exception.

The conclusions reached by the ALJ on Sierra Club's requested relief are within the ALJ's purview, and wholly appropriate. "The presiding officer shall complete and submit to the agency and all parties a recommended order consisting of findings of fact, conclusions of law, and recommended disposition or penalty, if applicable, and any other information required by law to be contained in the final order." § 120.57(1)(k), Fla. Stat. (2018). Moreover, Sierra Club failed to provide a conclusion of law that is "as or more reasonable" than the conclusion of the ALJ in paragraphs 336 through 358; and thus, its Exception No. 44 should be rejected.

Based on the foregoing reasons, Sierra Club's Exception No. 44 is denied.

DEP'S EXCEPTIONS

DEP Exception No. 1 to Paragraph 197

DEP takes exception to the portion of paragraph 197 in the RO that cites only to section 403.507(5)(a), Florida Statutes. DEP explains that because paragraph 197 in the RO addresses all the requirements contained in section 403.507(5)(a) - (e), Florida Statutes, the statutory authority support for paragraph 197 should be cited as “§ 403.507(5), Fla. Stat.” After reviewing the RO and the statutory references, we conclude that paragraph 29 is a mixed statement of law and fact. *See J.J. Taylor Companies v. Dep't of Business and Prof. Reg.*, 724 So. 2d 192, 193 (Fla. 1st DCA 1999), and *Battaglia Properties*, 629 So. 2d at 168. Because paragraph 197 does address all the requirements contained in section 403.507(5)(a)-(e), Florida Statutes, the Siting Board concludes that the exception merely requests correction of a scrivener's error in a statutory citation.

Based on the foregoing reasons, DEP's Exception No. 1 is granted.

DEP Exception No. 2 to Paragraph 226

DEP takes exception to the citation in the sentence in paragraph 226 of the RO that states “FPL timely published the notice of filing of the Application, as required by section **430.5115(1)(a)**” (emphasis added). Chapter 403, Florida Statutes, contains the statutory authority for the Power Plant Siting Act, while Chapter 430, Florida Statutes, contains the statutory authority to regulate elder affairs. Moreover, DEP notes that the correct citation should be to “section 403.5115(1)(b)” and not (1)(a). DEP explains that subsection (1)(b) applies to the requisite notice for filing a power plant siting application, while subsection (1)(a), applies to the notice for filing a notice of intent.

After reviewing the RO and the statutory references, the Siting Board concludes that paragraph 226 is a mixed statement of law and fact, and that DEP is merely requesting a correction to a scrivener's error in a statutory citation. *See J.J. Taylor Companies*, 724 So. 2d at 193, and *Battaglia Properties*, 629 So. 2d at 168.

Based on the foregoing reasons, DEP's Exception No. 2 is granted.

DEP Exception No. 3 to Endnote 34

DEP takes exception to Endnote 34 of the RO, which cites to "USLRP, at p. 4" as the source of the quoted statement set forth in paragraph 119 of the RO. DEP notes that the quotation cited in the RO is found on page 12, not page 4, of the Uniform Sea Level Rise Projection for Southeast Florida (USLRP), which was entered into evidence as FPL Exhibit No. 41.

After reviewing the RO and the USLRP, the Siting Board concludes that DEP is merely requesting a correction to a scrivener's error in a page citation.

Based on the foregoing reasons, DEP's Exception No. 3 is granted.

CONCLUSION

The ALJ concluded that FPL met its burden of proving that the Project should be certified, subject to the Conditions of Certification contained in the PAR. (RO ¶ 334 and Recommendation). Thus, the ALJ recommended that the Siting Board enter a Final Order approving the Project subject to the Conditions of Certification.

Having reviewed the matters of record and being otherwise duly advised, the Siting Board adopts the ALJ's recommendation.

It is therefore ORDERED that:

- A. The Recommended Order (Exhibit A) is adopted in its entirety, except as modified by the rulings in this Final Order, and is incorporated by reference herein.
- B. FPL's Application for Certification to build, operate, and maintain a new electrical power generation facility, known as the Dania Beach Energy Center, at FPL's existing Lauderdale Site in Broward County, Florida, is APPROVED, subject to the Conditions of Certification, attached as Exhibit B and incorporated by reference herein.
- C. The variance to the City of Dania Beach Code of Ordinances, Chapter 17, Article IV, Noise, Section 17-86, as set forth in the Conditions of Certification (p. 27), attached as Exhibit B and incorporated by reference herein, is APPROVED.
- D. Authority to assure and enforce compliance by Florida Power & Light and its agents with all the Conditions of Certification imposed by this Final Order is hereby delegated to DEP.

JUDICIAL REVIEW

Any party to this proceeding has the right to seek judicial review of this Final Order pursuant to section 120.68, Florida Statutes, by filing a Notice of Appeal pursuant to Rules 9.110 and 9.190, Florida Rules of Appellate Procedure, with the clerk of the Department in the Office of General Counsel, 3900 Commonwealth Boulevard, M.S. 35, Tallahassee, Florida 32399-3000; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the

appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 days from the date this Final Order is filed with the clerk of the Department.

DONE AND ORDERED this 13th day of ~~November~~ December, 2018, in Tallahassee, Florida, pursuant to a vote of the Governor and Cabinet, sitting as the Siting Board, at a duly noticed and constituted Cabinet meeting held on November 30, 2018.

THE GOVERNOR AND CABINET
SITTING AS THE SITING BOARD



THE HONORABLE RICK SCOTT
GOVERNOR

FILING IS ACKNOWLEDGED ON THIS DATE,
PURSUANT TO § 120.52, FLORIDA STATUTES,
WITH THE DESIGNATED DEPARTMENT CLERK,
RECEIPT OF WHICH IS HEREBY ACKNOWLEDGED.



CLERK

12-13-18

DATE

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a copy of the foregoing Final Order on Certification has been sent by electronic mail to:

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this 13th day of December, 2018.

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STATE OF FLORIDA
DIVISION OF ADMINISTRATIVE HEARINGS

IN RE: FLORIDA POWER AND LIGHT
COMPANY; DANIA BEACH ENERGY Case No. 17-4388EPP
CENTER PROJECT POWER PLANT
SITING APPLICATION NO. PA89-26A2

RECOMMENDED ORDER ON CERTIFICATION

The certification hearing in this matter was held pursuant to sections 403.501 through 403.518 and 120.569 and 120.57(1), Florida Statutes,^{1/} on May 15 through 18, 2018, in Dania Beach, Florida, before Cathy M. Sellers, an Administrative Law Judge ("ALJ") of the State of Florida, Division of Administrative Hearings ("DOAH").

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EXHIBIT A

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STATEMENT OF THE ISSUES

The issue to be determined is whether the Governor and Cabinet, sitting as the Siting Board, should approve the Site Certification Application ("Application") submitted by Florida Power & Light Company ("FPL"), pursuant to the Florida Power Plant Siting Act ("PPSA"), sections 403.501 through 403.518, for the construction and operation of a new electrical power generation facility, Dania Beach Energy Center ("DBEC") at FPL's existing Lauderdale Site in Broward County, Florida; and, if so, the Conditions of Certification that should be imposed.

PRELIMINARY STATEMENT

On July 27, 2017, FPL filed the Application for site certification to construct and operate DBEC with the Florida Department of Environmental Protection ("DEP"). As required by section 403.507, the Application was distributed to the affected agencies.^{2/} FPL responded to one round of complete questions and

comments from the affected agencies. DEP determined the Application complete on October 27, 2017.

On October 27, 2017, FPL filed a Petition for Determination of Need for Dania Beach Clean Energy Center Unit 7^{3/} with the Florida Public Service Commission ("PSC"), requesting the PSC to determine the need for construction of DBEC Unit 7 at FPL's Lauderdale Site. On March 19, 2018, the PSC issued the Order Granting Florida Power & Light Company's Petition for a Determination of Need for the Dania Beach Clean Energy Center ("Need Determination"), finding need for DBEC.

Pursuant to section 403.507, the affected agencies submitted their reports and proposed certification to DEP. On April 2, 2018, DEP issued a Project Analysis Report ("PAR"), recommending approval of DBEC subject to the proposed Conditions of Certification, which are attached to, and are part of, the PAR.

Pursuant to section 403.508(3)(e), Sierra Club ("Sierra") filed a Motion to Intervene on April 16, 2018. On May 4, 2018, Sierra was granted party status as an intervenor in this proceeding, subject to limitations on the issues for which evidence and argument could be presented at the final hearing, and subject to demonstrating its standing as a party whose substantial interests are affected by this site certification proceeding.^{4/}

The certification hearing was held on May 15 through 18, 2018, in Davie, Florida. FPL, DEP, and Sierra appeared and presented evidence and argument at the hearing. Other than DEP, no other agencies filed a notice of intent to be a party to the certification hearing, and none appeared at the hearing. Additionally, no other agency or domestic nonprofit corporation or association described in section 403.508 filed a notice of intent to be a party to the certification hearing, and none appeared at the hearing.

At the final hearing, FPL called the following witnesses: Jacqueline Kingston, senior project manager for FPL; Dr. Steven R. Sim, director of Integrated Resource Planning for FPL; Kennard Kosky, P.E., of Golder Associates, consulting project director for DBEC; John Barranco, P.E., of Black and Veatch, an engineering consultant who was responsible for design of management systems for DBEC; and Dr. George Maul, professor of oceanography, Florida Institute of Technology. FPL Exhibit Nos. 1, 4, 7 through 9, 22, 24, 27, 28, 31 through 34, 40, 41, 46, 48, 49, and 51 were admitted into evidence without objection, and FPL Exhibit Nos. 5, 21, 26, 30, 37 through 39, 45, 47, and 50 were admitted into evidence over objection.

DEP called Cynthia Mulkey, program administrator for DEP's Siting Coordination Office ("SCO"). Pursuant to the parties' stipulation, the deposition transcript of Syed Arif, program

administrator for DEP's Division of Air Resource Management, Office of Permitting and Compliance, was admitted in lieu of in-person testimony at the hearing. DEP Exhibit Nos. 1, 3, 4, 6, 7, 9, and 10 were admitted into evidence without objection. Sierra-DEP Joint Exhibit A also was admitted into evidence without objection.

Sierra presented the testimony of Christy Ann Costello; Mayor Phillip Stoddard; Robert Mahoney; Winston Mark Walters; Dr. Harold Wanless, professor and chair of the Department of Geological Sciences at the University of Miami; Dr. Frank Ackerman, principal economist at Synapse Energy Economics, Inc.; and Susannah Randolph, Sierra's representative for the Beyond Coal Campaign in Florida. Sierra Exhibit Nos. 3, 7, 12, 15, 46 through 51, 53 through 61, 64, 65, 69, 74 (resume only), 75, 76, 78 through 81, 85, 87, and 90 through 92 were admitted into evidence without objection. Sierra Exhibit Nos. 21, 35 through 38, 77, 84, 88, and 89 were admitted over objection. Sierra Exhibits 4, 68, and 82, and the deposition of Ann Seiler (unmarked) were tendered for admission but were excluded from evidence; Sierra preserved its proffer of Exhibit 82 for the record.

A public hearing at which unsworn comments were provided by members of the public was held from 6:30 p.m. to 8:30 p.m., on May 15, 2018. Thirty-one members of the public offered comments,

which, along with the sworn testimony presented during the evidentiary hearing, were preserved and transcribed as part of the record. Additionally, some participants signed a sign-in sheet that was provided at the public hearing; that sign-in sheet also is part of the record.

The last volume of the seven-volume Transcript was filed at DOAH on June 15, 2018, and, pursuant to Florida Administrative Code Rule 28-106.216, the parties were given ten days to file proposed recommended orders ("PROs"). Pursuant to motion, the page limit for the PROs was extended to 100 pages.

The parties timely filed their PROs on June 25, 2018. On June 26, 2018, DEP filed an Amended Proposed Recommended Order, which was accepted by the undersigned as DEP's PRO in this proceeding. On July 2, Sierra filed an Amended Proposed Recommended Order, which was accepted by the undersigned as Sierra's PRO in this proceeding. The undersigned has duly considered the parties' PROs in preparing this Recommended Order.

FINDINGS OF FACT

I. The Parties

1. FPL is the applicant for site certification for the DBEC electrical power plant^{5/} at issue in this proceeding. FPL is the largest electric utility in Florida, serving approximately 4.9 million customer accounts. Its service territory covers approximately 28,000 square miles, in all or part of 35 counties

in Florida, and in Georgia. Its 53 existing electrical power generating units are located at power plants throughout its service territory, and consist of diverse generation technologies, including nuclear units, coal-burning units, combined cycle units, oil/gas steam units, combustion turbines, gas turbines, and solar facilities. As of December 2016, FPL had a total system electrical power generation capacity of 26,267 megawatts ("MW").

2. DEP is the state agency charged with administering the PPSA, which is codified at chapter 403, part II. Specifically, the SCO administers the PPSA and coordinates the site certification process, including receiving comments from the affected agencies and preparing the PAR, which contains the proposed Conditions of Certification.^{6/}

3. Sierra is a national non-profit environmental advocacy organization. A key component of Sierra's mission is to advocate for the use of clean energy sources. As discussed below, Sierra was granted intervenor status pursuant to section 403.508(3)(e), subject to proving that its substantial interests are affected in this proceeding.

II. The DBEC Electrical Power Plant

FPL's Lauderdale Site

4. FPL owns and operates the Lauderdale Site, an existing electrical power generating facility site located on

approximately 392 acres in the City of Dania Beach and the City of Hollywood, in Broward County, Florida. The Site is approximately one mile west of Interstate 95 and approximately 1/4 mile south of Interstate 595. It has served as an operating power plant site for more than 90 years, and has existing infrastructure consisting of a transmission switch yard, a gas yard, an existing gas transmission pipeline, an existing electrical transmission system, water lines, fuel storage tanks, and a sewer line.

5. Currently, the Lauderdale Site features five electrical power generation units: Units 4 and 5, which consist of four combined cycle units comprised of four 1990s-vintage combustion turbines ("CTs"), four heat recovery steam generators ("HRSGs"), and two 1950s-vintage steam turbines; Unit 6, which consists of five 200-MW single cycle CTs used as "peakers" to generate additional electrical power during periods of peak demand; and two 35 MW units.

Location of DBEC

6. DBEC is proposed to be constructed on the portion of the Lauderdale Site that is located within the City of Dania Beach. The City of Dania Beach recently amended its Comprehensive Plan to add the Electrical Generation Facilities use category to the Future Land Use Element and to so designate, on its Future Land

Use Map, the portion of the Lauderdale Site on which DBEC will be constructed.

7. DBEC is proposed to be constructed and operated on the portion of the Lauderdale Site on which Units 4 and 5 currently are located. These units will be completely dismantled and removed before construction of DBEC commences.^{7/}

8. DBEC will use much of the existing infrastructure that currently serves Units 4 and 5. This infrastructure includes existing fuel and storage tanks, an existing gas transmission pipeline, existing electrical transmission lines, existing cooling water intake at the Dania Cutoff Canal, and existing cooling water discharge structures.

9. The major new components of DBEC will be constructed at an elevation of 11.5 feet above mean sea level. The existing infrastructure that will be used by DBEC will not be raised above its current elevation above mean sea level.

Unit 7 Technology

10. Unit 7, as proposed, will consist of a new two-on-one combined cycle electrical power generation unit with a nominal rating of 1,200 MW.

11. A combined cycle electrical generation system generates electrical power in two cycles. In the first cycle, ambient air is drawn into the multistage compressor, where it is compressed, then directed to the combustor section, where fuel—in this case,

natural gas—is introduced, ignited, and burned. The hot combustion gases are diluted with additional cool air and directed to the turbine section, where they expand, causing the CT, which is connected to a generator, to rotate, producing electricity. The captured gases are then routed to a HRSG, which begins the second cycle. In this cycle, the heat from the captured gases is used to convert water to steam, which drives a steam turbine generator ("STG"), producing additional electricity.

12. Each CT/HRSG combination is termed a "train." Unit 7 will have two CT/HRSG trains, each having a gross generation capacity of 400 MW at an inlet air temperature of 75 degrees Fahrenheit. These two CT/HRSG trains will be connected to one STG having a generation capacity of 400 MW. The combination of the two CT/HRSG trains with one STG gives rise to the "two-on-one combined cycle" label for this type of power generation unit.

13. Combined cycle systems, such as the one that will constitute Unit 7, are significantly more efficient than single cycle units that involve only combustion turbines. This increased efficiency is due to the addition of the second cycle, which uses captured exhaust heat from the first cycle to create steam, which is then used to turn a steam turbine, thereby generating an additional 400 MW of electricity per total amount of fuel burned.

14. Operating efficiency for combined cycle units is measured in terms of "heat rate," which is an expression of how efficiently the fuel is converted to electrical energy. The lower the heat rate, the more efficient the electrical power generation unit. Unit 7 is a modern combined cycle plant and is expected to achieve a heat rate of approximately 6,119 British Thermal Units ("BTUs") per kilowatt hour. By contrast, Units 4 and 5—which are also combined cycle units but use older, less efficient equipment—have an average heat rate of approximately 7,800 BTUs per kilowatt hour.

15. As noted above, Unit 7 will use natural gas as its primary fuel. The natural gas will be delivered to the DBEC site through an existing natural gas pipeline, which originates offsite and is not part of this site certification proceeding.^{8/} Ultra-low sulfur distillate ("ULSD") oil will be used as the back-up fuel.

Unit 7 Effect on FPL System-wide Natural Gas Consumption

16. As noted above, Unit 7 will use the most modern combined cycle technology.

17. Dr. Steven Sim, FPL's director of Integrated Resource Planning, prepared a projection of the effect Unit 7 will have on natural gas consumption by FPL's electrical power generation units on a system-wide basis.

18. Using a model that simulates the operation of all electrical generating units on FPL's system, FPL compared, for natural gas fuel consumption on a system-wide basis, two scenarios: one in which Units 4 and 5 continue to operate indefinitely and Unit 7 is not constructed and operated; and one in which Units 4 and 5 are retired in the fourth quarter of 2018, and Unit 7 is constructed and commences operation in mid-2022.

19. The inputs to the model included a range of information, including the electrical load that FPL will serve in the future, on an hourly, monthly, and yearly basis, for a period of 30 years; information, for each of FPL's 53 electrical power generation units regarding individual generating capacity, fuel use efficiency, scheduled maintenance outages, and forced outages; fuel costs; environmental compliance costs; and the addition of other power-generation resources to meet future forecasted demand.

20. The model was used to determine which of FPL's generating units operate during each hour, in order to determine how to most economically generate electrical power.

21. The model projected a significant reduction in natural gas consumption by FPL on a system-wide basis over a 30-year horizon if Units 4 and 5 are retired in late 2018 and Unit 7 commences operation in 2022. Conversely, if Units 4 and 5 are not retired and continue to operate^{9/}—which will be the case if

Unit 7 is not certified—the model showed that FPL will consume substantially more natural gas on a system-wide basis over a 30-year horizon, from 2018 through 2047, than if Unit 7 is certified, constructed, and begins operating in 2022.

22. Assuming Units 4 and 5 are retired in 2018 and Unit 7 commences operation in 2022, the model-generated comparative natural gas consumption amounts shows a consistent system-wide decrease in natural gas consumption in amounts ranging from slightly over two million cubic feet per year to slightly over six million cubic feet per year, for a projected total decrease in system-wide natural gas consumption of nearly 134 million cubic feet over the 30-year horizon. This is because the operation of Unit 7 will displace less-efficient gas burning units that otherwise would be used if Unit 7 does not operate.

23. Further, because the model-generated projected natural gas consumption amounts simply compared the "with Units 4 and 5 and without Unit 7" scenario to the "without Units 4 and 5 and with Unit 7" scenario, with all other variables being held constant, the projected natural gas consumption differential between the two scenarios would not change, regardless of whether, and which, additional types of energy-generation resources were added to FPL's system.

24. Dr. Sim acknowledged that the social costs of carbon were not considered as part of the modeling of FPL's system-wide

projected natural gas consumption. However, he noted that as a practical matter, because Unit 7 will operate more efficiently, FPL will demand less natural gas on a system-wide basis to fuel its electrical power generating units. As a result of reduced demand, less natural gas will need to be produced and transported by pipeline to fuel FPL's electrical power plant generating system.

III. Public Service Commission Need Determination

25. Pursuant to section 403.519, FPL filed a petition for determination of need for DBEC with the PSC in October 2017. Sierra intervened into the need determination proceeding. The final hearing was held on January 17, 2018.

26. The PSC issued the Need Determination for DBEC Unit 7 on March 19, 2018. This Order, which constitutes final agency action, was not appealed.

27. During the need determination proceeding, Sierra contended, and presented evidence in an effort to show, that renewal energy sources and technologies, such as solar facilities, could be deployed incrementally to delay or potentially entirely forestall the need for Unit 7. Thus, as part of the need analysis, the PSC specifically considered the feasibility of using renewable generation options and sources, including solar facilities.

28. The PSC specifically determined that the use of such generation options and sources, including solar facilities, was less cost-effective than DBEC. The PSC found that: "[n]o additional cost-effective renewable resource has been identified in this proceeding that can mitigate the need for new generation. Similarly, no additional cost-effective [Demand Side Management] has been identified in this proceeding that can mitigate the need for new generation."

29. Based on the evidence and argument presented in the need determination proceeding, the PSC granted the Need Determination for DBEC Unit 7, specifically finding and concluding that "the Dania Beach Clean Energy Center Unit 7 is the most cost-effective alternative that maintains Florida Power & Light Company's system and Southeastern Florida area reliability compared to other alternatives[.]"

30. Section 403.519(3) states:

The commission shall be the sole forum for the determination of [need], which accordingly shall not be raised in any other forum or in the review of proceedings in such other forum. In making its determination, the commission shall take into account the need for electric system reliability and integrity, the need for adequate electricity at a reasonable cost, the need for fuel diversity and supply reliability, whether the proposed plant is the most cost-effective alternative available, and whether renewable energy sources and technologies, as well as conservation measures, are utilized to the extent reasonably available. The commission

shall also expressly consider the conservation measures taken by or reasonably available to the applicant or its members which might mitigate the need for the proposed plant and other matters within its jurisdiction which it deems relevant. The commission's determination of need for an electrical power plant shall create a presumption of public need and necessity and shall serve as the commission's report required by s. 403.507(4). An order entered pursuant to this section constitutes final agency action.

§ 403.519, Fla. Stat. (emphasis added).

31. Pursuant to this statute, the PSC is the only entity authorized to determine whether an electrical power plant is needed, and whether, given the need for the power plant, the applicant should be required to implement renewable energy sources and technologies, including the use of solar generation facilities.

32. Here, the PSC determined that DBEC is needed, and further determined that the use of renewable energy sources and technologies, such as solar technology, was not cost-effective, and, therefore, was not reasonably available.

33. Pursuant to the plain language of section 403.519(3), it is beyond the scope of this proceeding for the undersigned or the Siting Board to require, as a condition of site certification for DBEC, the use of alternative energy sources or technologies, such as solar or other forms of renewable energy, or to deny

DBEC's site certification on the basis that such technologies are not proposed as part of the project.

IV. DBEC Emissions and Air Construction/Prevention of Significant Deterioration Permit

Florida's Air Quality Regulatory Program

34. In Florida, DEP implements the federal air regulatory programs under the Clean Air Act, subject to approval and oversight by the United States Environmental Protection Agency ("EPA"). Under this system, DEP is the permitting authority, while EPA retains commenting authority.

35. DEP rules implementing the Clean Air Act consist of several air quality regulatory programs. Pertinent to this proceeding are the National Ambient Air Quality Standards ("NAAQS") and Prevention of Significant Deterioration ("PSD") programs.

36. Under the Clean Air Act, EPA is required to promulgate NAAQS for certain air pollutants called "criteria" pollutants. The primary NAAQS establish levels of air quality that are necessary to protect the public health, with an adequate margin of safety to protect sensitive populations. Secondary NAAQS also may be established to protect the public welfare, which can include environmental impacts. 40 C.F.R. § 50.2(b). NAAQS have been developed for six air pollutants: sulfur dioxide, nitrogen

dioxide, carbon monoxide, ozone, certain sizes of particulate matter, and lead.

37. NAAQS have not been established for greenhouse gases ("GHGs").

38. For each of the six criteria air pollutants for which NAAQS have been developed, EPA has designated areas within each state that either meet or do not meet the NAAQS for that specific pollutant. Areas in which the NAAQS for a specific criteria air pollutant is met are termed "attainment" areas for that pollutant, while areas in which the NAAQS is not met for a specific criteria pollutant are termed "nonattainment" areas for that pollutant. Attainment areas are classified as Class I, which need special air quality protection; or Class II, which do not need special air quality protection.

39. Everglades National Park and designated national wilderness areas are the only Class I attainment areas in Florida. All other attainment areas in Florida are designated as Class II.

40. Broward County, including the DBEC site, is in a Class II attainment area for all NAAQS.

41. The PSD program applies in attainment areas to limit the air quality impacts that may result from new or modified major sources of air pollution. Its purpose is to assure that

the air quality in areas meeting the NAAQS does not significantly deteriorate below an established baseline.

42. Under the PSD program, all major new sources of air pollution are subject to preconstruction review to determine whether significant air quality deterioration will result from the facility.

43. As part of the PSD review, the new source is required to demonstrate compliance with PSD increments, which effectively constitute small amounts of air quality impacts that new or modified major sources of air pollution cannot exceed. PSD increments are more stringent than NAAQS, and, as such, they protect against air quality degradation in attainment areas. If an area meets the NAAQS for a specific criteria pollutant, PSD increments prevent the addition of that pollutant in greater than that incremental amount over an established baseline concentration for that pollutant.

44. No PSD increments have been established for GHGs.

45. The PSD program also requires demonstration that the air pollution source will use the Best Available Control Technology ("BACT"). BACT is defined, in pertinent part, as:

an emission limitation based on the maximum degree of reduction of each pollutant subject to regulation under this chapter emitted from or which results from any major emitting facility, which the permitting authority, on a case-by-case basis, taking into account energy, environmental, and economic impacts

and other costs, determines is achievable for such facility through application of production processes and available methods, systems, and techniques, including fuel cleaning, clean fuels, or treatment or innovative fuel combustion techniques for control of each such pollutant.

40 U.S.C. § 7479(3).

46. More simply stated, BACT is the maximum degree of emission reduction that is available and feasible for the source, taking into account environmental, energy, economic impacts, and other costs.

47. BACT requires a "top-down" analysis, which starts with the most stringent emission limits demonstrated feasible for a specific air pollution source category, as applied throughout the country. EPA has created a software tool accessible on its website, that enables a review of different source categories to determine the most stringent applicable control technology that meets the definition of BACT for that particular source type.

48. BACT also must be at least as stringent as new source performance standards ("NSPS"), which are EPA-developed emissions limits for specific pollutants emitted by new or modified air pollution sources within a particular source category. The NSPS applicable to combined cycle combustion turbines, such as those that will comprise Unit 7, are nitrogen oxides, sulfur dioxide, and GHGs.

DBEC Emissions

49. DBEC will have several sources of air emissions. These consist of the two CTs that are part of the CT/HRSG trains discussed above; an auxiliary boiler; two emergency diesel generators, two natural gas heaters; a fire water pump diesel engine; a 14-cell auxiliary cooling system; and circuit breakers containing sulfur hexafluoride located in the Unit 7 power block. Of these, the CTs constitute the most significant air emissions source.

50. DBEC's air emissions sources will emit nitrogen oxides, carbon monoxide, volatile organic compounds, sulfur dioxide, sulfuric acid, particulate matter ("PM") 10 and PM2.5, and GHGs.

51. The GHGs emitted by DBEC will consist primarily^{10/} of carbon dioxide, with small amounts of methane.^{11/}

DBEC's Air Construction/PSD Permit

52. FPL applied to DEP for an air construction/PSD permit for DBEC in July 2017. DEP issued the air construction/PSD permit for DBEC ("Air Permit") in December 2017. The Air Permit was not challenged and became final agency action on December 24, 2017. It is valid through December 31, 2027.

53. Pursuant to section 403.509(5), the Air Permit is not subject to revision or modification in this proceeding.^{12/}

54. Because DBEC will emit 100 tons per year or more of regulated pollutants and is included in a source category to

which the 100-tons-per-year threshold applies, it constitutes a major stationary source of air pollution. See Fla. Admin. Code R. 62-210.200(154)(a)1. Therefore, under Florida and federal law, FPL was required to obtain an air construction/PSD permit for DBEC.

55. As part of the PSD review, FPL was required to perform a control technology review; to demonstrate that all applicable state and federal emission limiting standards would be met; and to determine and implement BACT to control the emissions.

56. Projected emissions of carbon monoxide, volatile organic compounds, sulfur dioxide, sulfuric acid, PM10 and PM2.5, and GHGs underwent PSD review.

57. Initial PSD modeling for projected carbon monoxide and sulfur dioxide emissions showed that these emissions would not exceed "significant impact levels," so no further review beyond the modeling was required.

58. Initial modeling showed that PM10 and PM2.5 emissions would exceed the "significant impact level," so the modeling results were compared to the Class I and Class II PSD increments. This comparison showed that neither PM10 emissions nor PM2.5 emissions would exceed the increments for these pollutants. Accordingly, FPL demonstrated that DBEC would comply with the incremental standards for these pollutants.

59. DBEC also meets BACT for volatile organic compounds emissions.

60. The primary BACT for GHG emissions for Unit 7, as a combined cycle unit, is the efficiency of the unit itself in producing electrical power using low-GHG emitting fuels, such as natural gas. As previously discussed, Unit 7 will be an extremely efficient combined cycle unit that will use natural gas as its primary fuel.

61. The Air Permit limits the emissions rates for, and amounts of, GHG emissions. These are consistent with BACT, as determined comparing DBEC's control technology to all other types of GHG control technology for CTs throughout the country. The Air Permit also imposes an extremely stringent methane monitoring requirement. Pursuant to these measures, DBEC was determined to meet the BACT requirement applicable to GHGs.^{13/}

62. Additionally, DBEC will meet the NSPS applicable to CTs.^{14/}

63. Specifically, DBEC emissions of nitrogen oxides will be 7.5 times lower than the NSPS limit for that pollutant, and DBEC emissions of sulfur dioxide will be ten times lower than the NSPS standard for that pollutant. Accordingly, DBEC will meet the NSPS for these pollutants.

64. DBEC also will meet the applicable NSPS for GHGs.^{15/} The NSPS for GHG emissions applicable to combined cycle CTs is

1,000 pounds per MW hour ("lbs/MWh"). DBEC is projected to produce 727 lbs/MWh of GHGs when burning natural gas—well below the 1,000 lbs/MWh NSPS limit.

65. The Air Permit also imposes emissions standards for carbon monoxide, PM10 and PM2.5, sulfur dioxide, sulfuric acid mist, volatile organic compounds, and GHGs.

66. The competent, credible evidence established that replacing Units 4 and 5 with Unit 7 will reduce the emissions of nitrogen oxides, PM10 and PM2.5, volatile organic compounds, sulfur dioxide, and carbon monoxide by approximately 6.6 million pounds for the period from 2018 to 2047.

67. The evidence also established that replacing Units 4 and 5 with Unit 7 is projected to result in an approximately 22-percent reduction in GHGs generated, measured in lbs/MWh, assuming Unit 7 is operated at the same frequency as Units 4 and 5. This comparative reduction in GHG emissions on a lbs/MWh basis underscores the efficiency of Unit 7 compared to Units 4 and 5.

68. Additionally, the credible evidence established that the operation Unit 7 will result in a system-wide reduction of GHG emissions for the period from 2018 to 2047.^{16/}

69. The retirement of Units 4 and 5 in 2018 and commencement of operation of Unit 7 in 2022 may not result in reduced total amounts of GHG emissions generated at the

Lauderdale Site. This is because even though Unit 7 is substantially more efficient than Units 4 and 5—so will burn substantially less natural gas—it may operate more often because it will be the most efficient electrical power generating unit in FPL's electrical power generation system.

70. However, the competent, credible evidence showed that the operation of Unit 7 will reduce GHG emissions across FPL's electrical power generating system because it will be operated more often than other, less efficient units, thereby displacing the use of those units across FPL's electrical power generation system. Stated another way, because Unit 7 will be a significantly more efficient electrical power generating unit—meaning that it will produce more electricity per cubic foot of natural gas than FPL's less efficient units—it will be operated more frequently than FPL's less efficient units, resulting in reduced consumption of natural gas on a system-wide basis.

71. Reduced natural gas consumption on a system-wide basis will result in a reduced total amount of GHGs generated on a system-wide basis from FPL's electrical power generating plants.

72. The competent, credible evidence establishes that the retirement of Units 4 and 5 in 2018 and the addition of Unit 7 in 2022 will result in a total reduction of approximately

8.1 million tons^{17/} of GHG emissions in the form of carbon dioxide^{18/} across FPL's electrical power generation system for the period from 2018 to 2047.^{19/}

73. Sierra contends that DBEC will "[e]mit millions of tons more [GHGs] every year than the units it replaces."

74. As discussed above, the evidence shows that the operation of Unit 7 in conjunction with the retirement of Units 4 and 5 in 2018 may not result in reduced GHG emissions at the Lauderdale Site because, due to its efficiency, Unit 7 may be operated more frequently and at higher capacity. However, the competent, credible, and persuasive evidence establishes that the total GHG emissions from FPL's electrical power plant generating units will be reduced on a system-wide basis by approximately 8,123,624 tons over the period between 2018 and 2047.

75. Further, Sierra's position that retiring Units 4 and 5 in 2018 and operating Unit 7 beginning in 2022 will result in a greater total amount of GHGs being emitted appears grounded in the assumption that if Unit 7 does not go into operation, FPL will retire Units 4 and 5 by 2033. However, this assumption is not supported by any competent substantial evidence in the record,^{20/} and was directly contradicted by Dr. Sim, who testified that Units 4 and 5 realistically could operate indefinitely.

76. In sum, the competent, credible, and persuasive evidence shows that if DBEC does not commence operation in 2022, and Units 4 and 5 continue to operate indefinitely, FPL's GHG emissions on a system-wide basis will be approximately 8,123,624 tons more for the period between 2018 and 2047 than if Units 4 and 5 are retired in 2018 and Unit 7 commences operation in 2022.

77. In sum, FPL demonstrated that DBEC meets all applicable state and federal air regulatory and permitting requirements for DBEC and, specifically, for Unit 7.

78. As discussed above, FPL demonstrated that DBEC will meet the applicable BACT requirement—which literally means the best available control technology—for GHG emissions, as well as other emissions from Unit 7 and other emissions sources. Additionally, the air construction/PSD permit establishes emissions limits for DBEC, and, specifically, for Unit 7, and FPL demonstrated, to DEP's satisfaction, that its emissions control technology will meet the applicable standards, which are more stringent than applicable NSPS limits. Thus, FPL demonstrated that DBEC will meet state and federal law regarding emissions limitations for GHGs and other pollutants emitted by DBEC.

Sierra's Contentions Regarding GHG Emissions from DBEC

79. Notwithstanding that FPL demonstrated that DBEC meet all applicable air rules and regulations, Sierra contends that the Siting Board should either deny the site certification for

DBEC or approve it with conditions (addressed below) because, it alleges, FPL and/or DEP failed to consider or address numerous environmental issues regarding projected GHG emissions for DBEC. These alleged deficiencies are: failure of FPL and/or DEP to perform modeling of the "the environmental impact" of DBEC's GHG emissions; failure of FPL and/or DEP to analyze the "social costs of carbon" emitted by DBEC; failure of FPL and/or DEP to perform a "life-cycle analysis" to analyze DBEC's GHG emissions "from start to finish, . . . from gas generation to gas burn"; failure of FPL and/or DEP to consider the cumulative impacts of DBEC's emissions combined with GHG emissions "from other existing and foreseeable permitted sources in Florida and elsewhere"; and failure of FPL and/or DEP to consider the use of solar electrical power generation.^{21/} Each of these challenges is addressed below.

A. Failure to Model Endpoint Environmental Impact

80. With respect to FPL's and/or DEP's alleged failure to perform modeling of "the environmental impact" of DBEC's GHG emissions, the evidence establishes that FPL and DEP complied with the applicable state rules and federal regulatory requirements in addressing GHG emissions from DBEC. To that point, Syed Arif, who performed the air construction/PSD permit application review, testified that modeling of the environmental impacts of DBEC's projected GHG emissions offsite was not performed because it is not required by the applicable state

rules and federal regulations. Indeed, EPA's PSD Guidance document^{22/} specifically states that "[w]hen conducting a BACT analysis for GHG's, the environmental impact analysis should continue to concentrate on impacts other than direct impacts due to emissions of the regulated pollutant in question." This document further states, in pertinent part:

When weighing any trade-offs between emissions of GHGs and emissions of other regulated NSR pollutants, EPA recommends that permitting authorities focus on the relative levels of GHG emissions rather than the endpoint impacts of GHGs. As a general matter, GHG emissions contribute to global warming and other climate changes that result in impacts on the environment and society. However, due to the global scope of the problem, climate change modeling and evaluations of risks and impacts of GHG emissions currently is typically conducted for changes in emissions orders of magnitude larger than the emissions from individual projects that might be analyzed in PSD permit reviews. Quantifying these exact impacts attributable to the specific GHG source obtaining a permit in specific places is not currently possible with climate change modeling. Given these considerations, an assessment of the potential increase or decrease in the overall level of GHG emissions from a source would serve as the more appropriate and credible metric for assessing the relative environmental impact of a given control strategy.

EPA PSD Guidance, at pp. 41-42 (emphasis added).

81. In sum, state and federal PSD permitting law does not require an analysis of endpoint impacts of GHGs, and, further, expressly recognizes that due to the global scope of GHG

emissions' contribution to climate change, climate change modeling and risk/impact evaluation of GHG emissions is conducted on a scale orders of magnitude larger than the emissions from individual projects. Additionally, the guidance expressly recognizes that determining the exact climate change impacts due to GHGs emitted on a source-specific basis is not currently possible with climate change modeling.

82. Sierra's contention that the site certification for DBEC should be denied or additional GHG-related conditions imposed due to project-specific environmental endpoint impacts is not persuasive, because it is not grounded in applicable law and, as discussed above, is not possible using current climate change modeling.

B. Failure to Consider and Address Social Costs of Carbon

83. Sierra also contends that the site certification for DBEC should be denied or additional GHG-related conditions imposed because FPL and/or DEP failed to analyze the social costs of carbon emitted by DBEC, particularly by Unit 7, and failed to mitigate or minimize those costs.

84. The social cost of carbon is defined as the present monetary value of the additional damages caused by emitting one more ton of carbon dioxide. In general terms, the social cost of carbon is the economic cost per ton of emissions. For each

incremental ton of carbon emissions, there is an incremental amount of harm.

85. There are different methods, or models, for determining the social cost of carbon. They vary depending on the types of data used in the model, as well as how the models address issues such as the rate of climate change; whether the models adequately and accurately address catastrophic risk; and whether the models address "tipping points" at which climate change becomes abruptly and irreversibly worse.

86. Sierra's expert on the social cost of carbon, Dr. Frank Ackerman,^{23/} presented the results of integrated assessment models used to estimate the social cost of carbon.^{24/} These types of models have been applied in various studies to estimate, in 2017 dollars, the cost per metric ton of carbon dioxide. These studies generated estimates of the social cost of carbon ranging from as low as \$39 per metric ton in 2020 to as high as \$1,821 in 2050, with each study generating a range of projected values for the first year modeled—either 2020 or 2025—through the last year modeled—either 2050 or 2055. These widely-ranging values for the modeled years over these 30-year periods are due to the substantial uncertainty and disagreement regarding the rate and extent of climate change, and whether there are tipping points that must be taken into consideration.

87. Ackerman estimated the social cost of carbon, as of 2012, as ranging from \$33 to \$1,048 per metric ton of carbon dioxide in 2020, to \$75 to \$1,821 per metric ton of carbon dioxide in 2050.

88. Ackerman prepared a report analyzing the social cost of carbon from DBEC's projected GHG emissions. He attempted to compare the costs of DBEC's emissions with the benefits of DBEC's operation.

89. In assessing the social cost of carbon emitted by DBEC, Ackerman considered the damage to tourism; human health; unique wildlife and ecosystems, including the Everglades; and property loss due to sea level rise and exacerbated king tides.

90. He acknowledged that while it can be very difficult to estimate the true monetary value of the social cost of carbon for a project due to the aforementioned uncertainties, it is possible to arrive at estimates that represent a "floor," or minimum value, of damage due to GHG emissions from a specific project.

91. Ackerman used the federal government's estimated social cost of carbon of \$70 per ton of carbon dioxide^{25/}—which, in Ackerman's view, underestimates the value of damages due to carbon dioxide emissions—and multiplied it by the GHG emissions, in tons, for each year of the DBEC project's projected life. Using two different annual GHGs emissions projections for DBEC—4.13 million metric tons or 3.04 million metric tons—he

determined that the value of damages due to carbon dioxide emitted by DBEC would range from \$213 million to \$289 million on an annual basis.^{26/}

92. Ackerman testified that, according to a research project conducted by Columbia University and the Rhodium Group, out of the 48 contiguous states, Florida will experience the greatest damage from climate change—which is projected to negatively impact the state's gross domestic product ("GDP") by between 10 and 24 percent by 2100. Using this study's projected GDP impacts and assuming that Florida experiences, to the year 2100, the same growth rate it has experienced over the past 20 years, Ackerman estimated that the monetary impact to Florida's economy from climate change may be between \$500 million to \$1.1 trillion annually by 2100.

93. Ackerman also attempted to quantify DBEC's proportion of that impact on Florida. Using the two values of projected carbon dioxide emissions from DBEC and comparing them to global carbon dioxide emissions projections, Ackerman estimated that DBEC accounts for approximately 1/115,000th to 1/120,000th of total global carbon dioxide emissions on an annual basis. Using those proportions and the valued damage of global climate change to Florida, he estimated that the present value of the damages resulting from DBEC's annual carbon dioxide emissions would range from \$8.4 million and \$27 million per year.

94. Ackerman also compared these annual projected social costs of carbon dioxide to the assumed \$8.29 million annual benefits of the DBEC project to FPL's ratepayers. Based on this comparison, he concluded that the damages from DBEC's carbon emissions greatly outweigh DBEC's benefits to FPL ratepayers.

95. Ackerman did not perform any analysis of DBEC's economic effects on the local community.

96. He also did not take in account the effect that the increased efficiency of Unit 7 would have on FPL's system-wide emissions of GHGs through 2040.

97. He acknowledged that if greenhouse gas emissions are reduced as a result of Unit 7, then the overall harm and damage from the social costs of carbon would also be reduced. As he put it: "[t]he social cost is a per ton harm, so if fewer tons, smaller harm. . . . A reduction in emissions is a reduction in harm."

98. Ackerman testified that emitting any amount of GHGs has a social cost, but that "[a] smaller amount of emission is better. A smaller amount of emissions represents a smaller harm."

99. While the evidence shows that GHG emissions from DBEC will result in increased social costs of carbon on a per-ton basis compared to a zero emissions baseline, the competent, substantial, and persuasive evidence establishes that the

operation of Unit 7 will reduce FPL's GHG emissions on a system-wide basis by approximately 8.1 million tons by 2047, due to the retirement of older, less-efficient Units 4 and 5 and the reduced use of older, less-efficient generating units that produce greater quantities of GHG emissions.^{27/}

100. Based on the foregoing, it is determined that retiring Units 4 and 5 in 2018 and operating Unit 7 commencing in 2022 will result in a net total reduction in the amount of GHG emissions from FPL's electrical power generating units on a system-wide basis—which, in turn, will result in lower social costs of carbon than if Unit 7 is not operated and Units 4 and 5 continue to operate indefinitely into the future.^{28/}

C. Failure to Perform Life-Cycle Analysis

101. Additionally, Sierra contends that the site certification for DBEC should be denied or additional conditional GHG-related conditions imposed because FPL and/or DEP failed to perform a "life-cycle analysis" to analyze DBEC's GHG emissions "from start to finish, . . . from gas generation to gas burn," which would include GHGs emitted by natural gas production and transport by pipeline to the DBEC site. This contention disregards that such an analysis is beyond the scope of this proceeding.

102. This proceeding specifically applies only to "electrical power plants" as that term is defined in section

403.503(14). Pursuant to that definition, the scope of this proceeding is limited only to considering the impacts of, and imposing conditions on, facilities that fall within that definition. By this statute's plain terms, associated facilities that are directly or indirectly connected to the electrical power plant are to be considered only if they are owned by the applicant. As discussed above, the evidence establishes that Florida Gas Transmission Company owns the pipeline that transports natural gas to the DBEC site. No evidence was presented showing that FPL has any ownership interest in this pipeline, or that FPL has any ownership in sources which may produce gas that is ultimately transported to DBEC for use as fuel for Unit 7.

103. Therefore, any GHG impacts associated with the operation of the pipeline to transport natural gas to DBEC are beyond the scope of this proceeding.^{29/}

D. Failure to Consider Cumulative Impact of GHG Emissions

104. Sierra also contends that the site certification for DBEC should be denied or additional GHG-related conditions imposed because FPL and/or DEP did not consider the cumulative impacts of DBEC's GHG emissions combined with those from "other existing and foreseeable permitted sources in Florida and elsewhere."

105. As previously discussed, Florida and federal air statutes and rules do not impose cumulative impacts assessment in the PSD permitting process. Further, EPA's PSD Guidance expressly recognizes that climate change modeling and impacts evaluation of GHG emissions is conducted for changes in GHG emissions that are orders of magnitude larger than those from individual projects, and that determining the exact impacts attributable to a specific GHG source is not possible under current climate change modeling.

E. Failure to Consider Using Solar Power Generation Technology

106. Sierra also contends that the site certification for DBEC should be denied or additional conditions imposed because FPL and/or DEP "did not consider using solar generation." As discussed above, the PSC's Need Determination for Unit 7 considered and specifically rejected the use of photovoltaic (solar) facilities as a cost-effective alternative to Unit 7 as proposed.

107. As discussed above, the PSC is the sole forum for determining need for electrical power plants subject to the PPSA. § 403.519, Fla. Stat. The PSC's need determination considers, among other things, the need for electric system reliability, the need for fuel diversity, whether the proposed plant is the most cost-effective alternative, and whether renewable energy

resources may mitigate the need for the proposed electrical power plant.

108. Thus, section 403.519 vests sole jurisdiction in the PSC to determine, as part of the need determination process, whether solar facilities should be required to be implemented as part of an electrical power plant's need determination. Therefore, the decision whether to impose a requirement for DBEC to implement solar facilities is beyond the scope of this proceeding.

V. DBEC Stormwater Management System and Flooding Issues

109. The stormwater management system for DBEC was designed to ensure that stormwater received onsite does not flood onsite facilities and to ensure that stormwater leaving the site does not cause offsite flooding or pollution.

110. The stormwater management system for DBEC consists of a system of culverts, catch basins, ditches, storm sewer inlets, an underground storm sewer system, and ponds. The collection and conveyance structures collect the stormwater onsite and convey it to the ponds, which collect and store the water, then release it offsite at a controlled rate.

Compliance with Applicable Stormwater Management Requirements

111. The DBEC stormwater management system is designed in accordance with, and meets, all applicable stormwater management requirements of the City of Dania Beach, the City of Hollywood,

Broward County, and the South Florida Water Management District ("SFWMD"), including regulations specifically directed toward protecting land uses against flooding.

112. Broward County's land development code regulations require the floor elevation of the power plant facilities to be elevated to at least 5.5 feet North American Vertical Datum of 1988 ("NAVD88"), or approximately 6.5 feet above mean sea level, to withstand flooding from a 100-year, 72-hour storm event.

113. The City of Dania Beach requires new or substantially improved power generation structures to be elevated three feet above the Federal Emergency Management Agency's ("FEMA") 100-year Base Flood Elevation established on the FEMA Flood Insurance Rate Map ("FEMA Map"). FEMA's 100-year Base Flood Elevation is three feet NAVD88; thus, the City of Dania Beach requires DBEC's power generation structures to be elevated to six feet NAVD88, which is approximately seven feet above mean sea level.

114. To be conservative, FPL proposes to elevate the minimum floor elevation of DBEC's power generation structures to 10.5 feet NAVD88, or 11.5 feet above mean sea level—an additional five feet above Broward County's flood elevation requirement. This far exceeds both Broward County's and the City of Dania Beach's minimum flood elevation requirements.

115. Broward County also required FPL to compare the base elevation of the stormwater management ponds to future groundwater elevation established on the Broward County Future Conditions Average Wet Season Groundwater Map ("Groundwater Map"), to ensure that the ponds would be sufficiently elevated to hold enough water to prevent flooding during storm events. The Groundwater Map depicts a projected future average wet season groundwater elevation of 2.5 feet above mean sea level—i.e., 1.5 feet NAVD88—in the year 2060. The base of the onsite stormwater storage ponds will be constructed one to two feet above this elevation. Additionally, the stormwater management system ponds have been designed to provide adequate storage to accommodate a 100-year, 72-hour storm event, so that the project does not have stormwater offsite impacts.

Projected Sea Level Rise and DBEC Design

116. The design elevation of DBEC's power block and stormwater management ponds adequately accounts for sea level rise.

117. At Broward County's request, FPL compared the base flood elevation of the DBEC power block to the 2015 Unified Sea Level Rise Projection for Southeast Florida ("USLRP") document. This document, which was prepared by a technical working group on behalf of Palm Beach, Broward, Miami-Dade and Monroe counties,

projects future sea level rise in South Florida, including Broward County.

118. The USLRP contains a graph^{30/} consisting of four curves^{31/} depicting projected sea level rise from 1992 (the baseline year) to 2100 for the southeast Florida region.^{32/} The table below summarizes the projected sea level rise corresponding to each curve on the USLRP graph for the year 2060^{33/}.

Name of Sea Level Rise Projection	Predicted Sea Level Rise by 2060 (inches)
NOAA High Curve	34
USACE High Curve	26
IPCC AR5 Curve	14
NOAA Intermediate/Low Curve	10.5

119. The area between the IPCC AR5 Curve and the USACE High Curve is recommended in planning design elevation for most projects that fall within a short-term planning horizon, and applies to "most infrastructure projects, especially those with a design life expectancy of less than 50 years."^{34/}

120. Additionally, the USLRP states that "[p]rojects in need of a greater factor of safety related to potential inundation should consider designing for the [USACE High Curve]. Examples of such projects may include evacuation routes planned for reconstruction, communications and energy infrastructure, and critical government and financial facilities."^{35/}

121. DBEC has a design life of 40 years and constitutes energy infrastructure. Therefore, the USACE High Curve is

appropriate to use in designing the DBEC project to account for projected sea level rise by 2060.

122. By contrast, the NOAA High Curve is used to plan high-risk projects that will be constructed after 2060; projects that are not easily replaceable or removable, have a long design life--i.e., more than 50 years; or are critically interdependent with other infrastructure or services. Examples of infrastructure expressly identified in the USLRP document to which the NOAA High Curve is appropriately applied include nuclear power plants,^{36/} wastewater treatment facilities, levees or impoundments, bridges along major evacuation routes, airports, seaports, railroads, and major highways. DBEC does not fall within any of these categories; accordingly, the NOAA High Curve is not recommended for use in designing the DBEC project to account for projected sea level rise by 2060.

123. Nonetheless, FPL took a conservative approach in determining the appropriate design elevation for the project over its projected design-life. Specifically, FPL added one inch to the USACE High Curve projection to account for two additional years of sea level rise beyond the end of DBEC's design-life in 2060. This resulted in a projected 27 inches of sea level rise by 2062. FPL then added this projection to the Broward County existing flood level requirement of 6.5 feet above mean sea level to determine potential flood levels in 2062. This

calculation showed that an elevation of 8.75 feet above mean sea level is necessary to protect against sea level rise by 2062, using the USACE High Curve as the design benchmark. Because the minimum concrete base on which the power block will be elevated to 11.5 feet above mean sea level, it will be sufficiently elevated to protect against projected sea level rise by 2062.

124. To further ensure that the design elevation of 11.5 feet above mean sea level is adequate to protect against a realistic, reasonably-projected "worst case" scenario, FPL compared the design elevation of 11.5 feet above mean sea level to the 34-inch sea level rise projected by the NOAA High Curve by 2060. Adding the 34 inches to Broward County's existing flood level requirement of 6.5 feet above mean sea level results in a design elevation of approximately 9.5 feet above mean sea level needed to address the NOAA High Curve projection by 2062. Thus, DBEC's minimum floor elevation of 11.5 feet above mean sea level exceeds the recommended design elevation, even when compared to sea level rise projected by the NOAA High Curve in 2062.

125. FPL also used the NOAA Sea, Lake, and Overland Surges from Hurricanes ("SLOSH") model to address potential storm surge in determining the design elevation for DBEC's power block. This model projects storm surges for different categories of hurricanes and tidal events. FPL applied the SLOSH model to sea level rise projected by the USACE High Curve to predict storm

surge height at the DBEC site by 2060, and then compared those results to the FEMA Map. The SLOSH model indicated lower elevations than the FEMA Map, which takes storm surge into account in determining the 100-year flood elevation. Accordingly, the 11.5 foot above mean sea level design elevation on which the DBEC power block will be constructed is more conservative than, and, thus, more protective than, a design based on the SLOSH model.

126. As discussed above, FPL used the Groundwater Map to establish the bottom elevation of DBEC's stormwater ponds. The Groundwater Map, which relies on the USACE High Curve, projects groundwater levels at the DBEC site will be at approximately 1.5 feet NAVD88 by 2060. Because the bottom elevation of the stormwater ponds will be one to two feet above this projected level, they will adequately account for projected sea level rise by 2060.

127. As noted above, certain existing infrastructure is not being replaced, so will not be elevated. These structures, which were constructed in compliance with the regulatory requirements in effect at the time they were approved, are constructed at six to seven feet NAVD88 above mean sea level. The highest flood elevation on the FEMA Map is at elevation 5.5 feet NAVD88 in 2060. Thus, it is unlikely that these structures will be subject to flooding by 2060.

128. In designing DBEC, FPL reasonably relied on the sea level rise projections in the USLRP. That document, which was developed specifically for use in structural design and land use planning to address projected sea level rise, was created by the local governments in south Florida and provides the best scientific consensus view of future sea level rise.^{37/}

129. FPL's expert, Dr. George Maul,^{38/} concurred that FPL reasonably relied on the USACE High Curve in designing the floor of DBEC's power block at 11.5 feet above mean sea level. In Maul's opinion, the USACE High Curve's projection for sea level rise is reasonable and appropriate for use in southeast Florida over the next 60 years.^{39/}

130. Maul questioned the reliability of the NOAA High Curve, which predicts a rate of sea level rise twice as high as that experienced exiting the last Ice Age. He further noted that, in any event, the USACE High Curve and the NOAA High Curve differ by only a few inches in projected sea level rise by 2060.

131. Dr. Harold Wanless^{40/} testified on behalf of Sierra regarding the relationship between climate change and sea level rise, hurricanes, and their effects on coastal marine environments.

132. Specifically, Wanless testified regarding a range of factors that may cause the rate of sea level rise to accelerate. According to Wanless, research shows that sea level rise began to

accelerate in approximately 1993 due to melting of the Greenland and Antarctic ice sheets.^{41/} Based on this research, Wanless disputes the accuracy of government predictions that do not take this phenomenon into account.

133. In his testimony regarding the projected rate and extent of sea level rise over time, Wanless presented a graphic adapted from a January 2017 NOAA publication showing three global sea level curves—the "intermediate/high," "high," and "extreme" curves—projecting sea level rise through the year 2100. All of these curves on Wanless' adapted graphic assume Greenland and Antarctic ice sheet loss.

134. Based on the extreme curve, Wanless projected that global sea level rise "could be" three feet by 2059. Notably, no evidence was presented regarding the probability of this projected sea level rise scenario.

135. To depict local sea level rise in southeast Florida through 2100, Wanless added "local influences" to the 2017 NOAA curves, which consisted of higher water levels on the western side of the Gulf Stream due to its deceleration, and the gravitational redistribution of water due to decreasing ice sheet mass in Antarctica and Greenland. Specifically, Wanless added to the 2017 NOAA extreme curve sea level rise projection of three feet by 2062, 15 percent additional sea level rise to account for deceleration of the Gulf Stream, and 52 percent additional sea

level rise to account for redistribution of water due to decreased gravitational pull by Greenland and Antarctica. Applying these local influences, Wanless projected that there "could be" an approximate 5.2 feet of local sea level rise by 2062. Again, no evidence was presented regarding the probability with which this projected local sea level rise scenario may occur.

136. Upon full consideration of the testimony by Maul and Wanless, the undersigned concludes, based on the competent, substantial, and persuasive evidence, that the USACE High Curve, rather than Wanless's local influence sea level projection curve, is the more reasonable benchmark to apply in determining the appropriate design elevation for the DBEC power block.

137. Wanless's local sea level rise projection is substantially based on the assumption that redistribution of the Earth's mass will significantly contribute to local sea level rise; however, Wanless himself noted that this phenomenon only recently has become the focus of research, and that "we're still learning."^{42/}

138. Maul counseled against attempting to project long-term sea level rise using short periods of record data. To that point, he testified that trends derived from short records are less reliable as projections because they are affected by inter-

annual and decadal climate and oceanographic patterns that are superimposed on the long-term rise of global sea level.

139. Maul's research of historical 19-year periods^{43/} over which sea level rise rates have been observed by use of tidal gauges shows significant variability between 19-year periods. He testified, credibly, that in his recent review of tidal and sea level records for Key West, "I found we can pick a 19-year period where that particular 19 years is twice the long-term [sea level] range and other times where it's half the long-term range." He also testified that in looking at 19-year records a year at a time, "I find times when that short time scale is much, much higher than a long-term average and other times when it's much less than the long-term average. So you can either overestimate or underestimate what's happening when choosing short records." On that basis, Maul disputes that "since the year 2000, there has been a rapid acceleration in sea level rise." He testified, credibly, that he has not observed any statistically significant increase in sea level at Key West since 2000.

140. Maul also opined, based on his own research, that there is no statistically significant slowing of the Gulf Stream. Sierra did not present persuasive evidence specifically refuting Maul's conclusion regarding slowing of the Gulf Stream.^{44/}

141. In any event, the DBEC power block minimum floor elevation has been set at 11.5 feet above minimum sea level—

well above the 34- to 37-inch global sea level rise projected by the 2015 NOAA High Curve and the 2017 NOAA Extreme Curve, and also well above Wanless' projected local 5.2-foot local sea level rise by 2060.

142. Sierra also contends that the minimum design elevation for the DBEC power block does not adequately consider storm surges associated with hurricanes. In support, Wanless presented graphics generated using LiDar, a light-detection and ranging technology, showing the elevation above mean sea level of Broward County, including the DBEC site. One graphic shows the current elevation of the DBEC site as approximately two feet above mean sea level. Other graphics assume a two-foot global mean sea level rise by 2060; a four-foot rise by 2089; a six-foot rise by 2110; an 8-foot rise by 2127; and a ten-foot rise in 2142. Each of these graphics shows the DBEC site as being inundated by sea level rise by 2060.

143. Wanless also presented graphics for the period from 2018 to 2060, depicting the effect of adding storm surges of four feet and nine feet to regional sea level influences, king tides, and global mean sea level. According to these graphics, adding a four-foot storm surge may result in water heights of as much as 11 feet above present global mean sea level on the DBEC site by 2060, and adding a storm surge of nine feet may result in water

heights of as much as 15 feet above present global mean sea level on the DBEC site by 2060.

144. Wanless's storm surge scenarios entail layering contingencies on top of contingencies—each contingency fraught with uncertainty. Stated another way, each assumed condition on which Wanless relies to project storm surge heights of 11 and 15 feet has its own inherent uncertainty. To that point, the evidence showed that while it is well-accepted that climate change is occurring and that, as a result, global sea levels are rising, there is substantial lack of consensus in the scientific community and regulatory agencies regarding the extent and rate of global sea level rise in the future. Further, as discussed above, currently there is not a consensus that the Gulf Stream is slowing or that water mass is being redistributed due to the melting of the Greenland and Antarctic ice sheets—two contingencies that substantially contributed to Wanless' projection of a 5.2-foot local sea level rise by 2060. Additionally, as with Wanless's other projections, no evidence was presented regarding the probability that his projected water height scenarios on the DBEC site, assuming four- and nine-foot storm surges, would occur.

145. Based on the foregoing, it is determined that the 11.5 foot above mean sea level design elevation for DBEC adequately addresses future storm surges.

146. As previously discussed, certain existing infrastructure will be used for DBEC. These components were built years ago, complied with code requirements for elevation at the time they were constructed, and currently comply with those code requirements.^{45/}

147. In sum, the competent substantial evidence establishes that the DBEC site design, as currently proposed, complies with all applicable state and local regulatory requirements. The competent, substantial, and persuasive evidence further establishes that DBEC site design elevation, which exceeds all applicable regulatory requirements, will adequately protect against flooding and inundation due to global and local sea level rise and storm surges.

VI. Other Impacts

Water Resource Impacts

148. The construction and operation of DBEC will not adversely impact water resources.

149. The primary water uses for DBEC consist of cooling water, process water, service water, irrigation, and potable water.

150. The cooling system for DBEC will use cooling water withdrawn from the Dania Cutoff Canal, which currently serves, and since 1927 has served, as the cooling water source for the electrical power generating facilities on the Lauderdale Site.

DBEC will not require an increase in the rate or amount of cooling water withdrawn from the canal. Because the withdrawal rate will not increase, the through-screen velocity through the cooling water intake structure will not increase. This helps ensure that the project will not adversely impact fish or shellfish by impingement or entrainment.

151. Additionally, no increase in the authorized quantity of industrial wastewater discharge will be required. The cooling system has been designed to ensure that DBEC will meet existing permitted National Pollutant Discharge Elimination System ("NPDES") thermal discharge limits.

152. The average amount of process water used is anticipated to decrease.

153. DBEC will continue to receive potable water from the City of Hollywood, and potable water use is not anticipated to increase.

Sanitary Waste Disposal and Solid and Hazardous Waste

154. The City of Hollywood will provide sanitary waste disposal services to DBEC.

155. The operation of DBEC will generate small amounts of solid waste, which will be recycled, reused, disposed onsite, disposed in licensed offsite landfills, or otherwise appropriately disposed via approved disposal methods.

156. The Lauderdale Site is a conditionally-exempt small quantity generator of hazardous waste and is anticipated to remain so during the construction and operation of DBEC. Hazardous waste generation by DBEC is anticipated to be less than 100 kilograms per month. FPL will contract with an approved and licensed hazardous waste disposal entity to handle and dispose of any hazardous waste generated by DBEC in a manner that complies with all federal, state, and local environmental regulations.

Terrestrial Impacts

157. The DBEC project will affect approximately 134 acres of the 392-acre Lauderdale site, which has continuously been used for industrial activities for the past 90 years. As such, the Lauderdale site is disturbed and does not constitute prime wildlife habitat for unique wildlife species. The upland and wetland habitat onsite is low-quality, and consists of a mixture of nuisance exotic and native species.

158. Due to the disturbed nature of the site and the lack of significant wildlife habitat, no change in floral or faunal populations, including commercially- or recreationally-important species, is anticipated due to DBEC. Additionally, the site does not contain significant areas of preferred habitat for nesting, roosting, or foraging by state and/or federal endangered, threatened, or candidate species.

159. Approximately 18.67 acres of low-quality wetlands, 0.12 acres of disturbed exotic and native hardwood systems, and a small area of low-quality isolated freshwater marsh will be impacted by dredging and filling. These wetland impacts will be mitigated through purchase of mitigation credits from the Everglades Mitigation Bank.

Impacts on Aquatic Species

160. DBEC project will continue to withdraw water from the existing Dania Cutoff Canal and to discharge cooling water into ponds and, ultimately, offsite. Proximate aquatic systems are subject to tidal influences and fresh water discharges through SFWMD canals. The waters in the vicinity of the DBEC site are designated Class III marine waters. Existing stresses on aquatic systems in the vicinity of DBEC include altered hydrology, altered salinity, elevated nutrient and organic loads, power plant intake/discharge, physical alterations, and pressures from fishing and boating.

161. DBEC will address impacts to these aquatic systems, as appropriate, through obtaining an NPDES permit for the cooling water discharge.

162. Additionally, FPL will use best management practices during construction to control erosion, sedimentation, and runoff to prevent water quality degradation. Significant impacts to aquatic resources and biological communities are not anticipated.

163. During DBEC construction, FPL will continue to discharge warm water consistent with the Manatee Protection Plan established under the NPDES permit for the existing electrical power plant facility. The Lauderdale Site will continue to provide a warm water refuge for manatees during and after DBEC is constructed.

Transportation Impacts

164. A traffic analysis for construction and operation of DBEC was performed and provided in the site certification application. During peak construction, approximately 500 vehicles per day are anticipated to enter and exit the DBEC site. A traffic impact analysis showed that additional construction-related traffic will not degrade roadway system operating conditions.

165. FPL will develop a traffic management plan to minimize level of service deficiencies due to construction traffic. FPL has agreed, pursuant to the Conditions of Certification, to work with the City of Hollywood to improve roadway operations at site access locations.

166. No adverse impacts to traffic flow are anticipated from DBEC operation.

Archaeological and Historical Site Impacts

167. A cultural resource assessment of the DBEC site determined that no archaeological or historical structures that

are listed, eligible, or potentially eligible for listing in the National Register of Historic Places, are present.

Noise

168. A computer program predicted environmental noise impacts from DBEC. Most of the noise sources, which consist of the steam turbine, the gas turbines, the electric generators, and the compressors, are located in enclosed structures, which helps mitigate impacts.

169. The DBEC sound profile will not be significantly different than that for Units 4 and 5. The Lauderdale Site is in a highly-developed area having other proximate industrial and urban uses, including a waste-to-energy center, a shipping center, a recycling center, the Fort Lauderdale-Hollywood International Airport, and several major highways.

170. DBEC is projected to comply with the Broward County and City of Hollywood noise ordinances.

171. DBEC's normal operation is not anticipated to exceed the City of Dania Beach's maximum permissible noise levels. However, as part of the site certification application, FPL has requested a variance from the City of Dania Beach noise ordinance, chapter 17, article IV, sections 17-79 through 17-90, for noise levels that may occur on an infrequent and short-term basis during startup, shutdown, and upset conditions. The City of Dania Beach does not object to FPL's request for the variance.

172. The undersigned recommends approval of FPL's request for a variance from the City of Dania Beach noise ordinance, chapter 17, article IV, sections 17-79 through 17-90.

VII. Climate Change

173. "Climate change" is a term used to describe changes in global temperature, global sea level rise, and other conditions associated with those effects, including changes in precipitation, winds, waves, and climates.

174. Climate change is occurring globally and locally, including in southeast Florida.

175. Climate change is caused, in substantial part, by the emission of GHGs. Water vapor, carbon dioxide, and methane are the most significant GHG contributors to climate change.

176. Atmospheric concentrations of gaseous carbon dioxide and methane are increasing. Since the Industrial Revolution, the global atmospheric concentration of carbon dioxide has dramatically increased, from 280 parts per million ("ppm") to 410 ppm at present—almost 100 times faster than historical increases in atmospheric carbon dioxide concentration during previous interglacial periods.

177. Most of the increase in atmospheric carbon dioxide concentration has occurred since World War II and is primarily due to human population increase, global industrialization, and increased burning of fossil fuels on a global basis.

178. GHGs cause climate change by trapping solar radiation in the Earth's atmosphere, thereby warming the atmosphere. Once carbon dioxide is emitted, it persists in the atmosphere for approximately 4,000 years.

179. Climate change is responsible for causing sea level to rise on a global and local basis.

180. The main drivers of sea level rise are atmospheric and ocean warming, which increase the ocean's mass through melting land and sea ice and increase the ocean's volume through thermal expansion.

181. Increasing the concentration of carbon dioxide in the atmosphere increases the rate of climate change, which, in turn, accelerates sea level rise.

182. The last time atmospheric concentrations of carbon dioxide were at or above 400 ppm, sea level was approximately 20 meters, or 70 feet, higher than current level. At that level, a substantial portion of the land mass that constitutes the state of Florida was inundated.

183. The evidence shows that global sea level does not rise in a gradual linear manner, but instead rises in rapid pulses followed by pauses.

184. Although it is well-established that sea level is rising on a global and local basis, there currently is little consensus regarding the rate of sea level rise.

185. Due to its low elevation, southeast Florida is particularly vulnerable to sea level rise.

186. Many urban areas in southeast Florida experience substantial flooding during rainfall events. The evidence shows that sea level rise is likely a contributing cause.

187. Sea level rise causes substantial coastal hazards, including inundation of land, higher storm surges, higher king tides, increased flood height and frequency, coastal erosion and destruction of coastal mangroves and other ecosystems, erosion and destruction of coastal barrier islands, and saltwater intrusion into freshwater aquifers and ecosystems. These impacts will worsen or accelerate with sea level rise.

188. The cumulative addition of carbon dioxide to the atmosphere is warming the atmosphere, which, in turn, is causing ocean temperatures to rise on a global basis. In particular, the upper ocean has warmed substantially on a global basis since 1997, due to increasing human population and the corresponding increased burning of fossil fuels.

189. Increased carbon dioxide in the atmosphere is being transferred to the oceans, causing them to acidify.

190. Some scientific studies indicate that climate change will cause more severe storm and weather events.

191. Some scientific studies indicate that climate change will result in threats to human health, native wildlife and ecosystems, agriculture, and the tourism industry.

192. In sum, the competent, persuasive evidence establishes that climate change is occurring, that it is primarily caused by GHGs emissions, and that every ton of GHGs emitted into the atmosphere contributes to climate change.

193. The competent, persuasive evidence also establishes that as a result of climate change, sea level is rising globally, and, to a certain extent, locally,^{46/} and that sea level rise already is causing environmental adverse impacts.^{47/}

VIII. SCO and Affected Agencies' Review of Application

194. The PPSA establishes a centralized, coordinated process for licensing electrical power plants that generate 75 MW or more of electrical power. §§ 403.502, 403.503(14), Fla. Stat. Site certification for an electrical power plant constitutes a license that addresses and encompasses the regulatory requirements of the agencies that are involved in the site certification application review process.

195. The SCO is an office within DEP's Division of Air Resource Management. It is responsible for coordinating and overseeing the electrical power plant site certification application review process. The SCO also serves as administrative staff for the Siting Board.

196. The SCO's responsibilities include receiving site certification applications, preparing a schedule of deadlines and milestones applicable to the site certification application review process, determining completeness^{48/} of the application based on the recommendations of affected agencies,^{49/} receiving each affected agency's preliminary statement of issues, receiving each affected agency's report, and preparing the PAR.^{50/} §§ 403.5064, 403.5066, and 403.507, Fla. Stat.

197. The PAR addresses the proposed electrical power plant's compliance with all applicable non-procedural requirements of the affected agencies^{51/} and contains copies of the affected agencies' reports; comments from other agencies or persons; any variances and waivers from applicable regulatory requirements that have been requested and the SCO's recommendation regarding the request; the SCO's recommendation regarding whether site certification should be approved, denied, or approved with conditions; and proposed conditions of certification. § 403.507(5)(a), Fla. Stat.

198. The affected agencies' reports provide the agencies' specialized knowledge on matters within their jurisdiction and expertise, so are a crucial component of the PAR. Each affected agency conducts a substantive review of the site certification application to determine whether the electrical power plant complies with that particular agency's applicable substantive

rules, regulations, ordinances, standards, and criteria. The affected agency's report must specifically address these topics and must state whether, based on its substantive review, the agency recommends that the electrical power plant be approved, denied, or approved with conditions. The report also must include any conditions of certification that the agency recommends be imposed regarding matters within that agency's jurisdiction. § 403.507(3), Fla. Stat.

199. Conditions of certification are regulatory requirements imposed to minimize and mitigate the potential adverse effects of the construction and operation of the electrical power plant with respect to the environment and public health. Because the conditions of certification are regulatory requirements, each affected agency that recommends a specific condition of certification must possess the legal authority to impose that condition. § 403.507(3)(c), Fla. Stat. To that end, the affected agency is required to cite the specific statute, rule, or ordinance that authorizes the imposition of that specific condition.

200. Because each affected agency possesses legislatively or constitutionally delegated regulatory authority over specific matters, the SCO does not conduct an independent review as to whether the proposed electrical power plant meets those affected agencies' nonprocedural requirements, and instead relies on each

affected agency's specific regulatory knowledge and expertise regarding matters that are within its substantive regulatory jurisdiction.

201. FPL submitted the Application for DBEC to the SCO on July 27, 2017. The Application was referred to DOAH and was distributed to the affected agencies for review and comment regarding completeness of the Application. The affected agencies needed additional information, so the Application was determined incomplete. After FPL provided the requested information, the Application was deemed complete on October 27, 2017.

202. Pursuant to section 403.507(3), the SFWMD; Florida Fish and Wildlife Conservation Commission ("FFWC"); Florida Department of Transportation ("DOT"); Florida Department of Economic Opportunity ("DEO"); Florida Department of State, Division of Historical Resources ("DHR"); DEP; Broward County; the City of Dania Beach; and the City of Hollywood reviewed the Application and submitted agency reports to the SCO.

203. Each of these affected agencies submitted recommended conditions of certification to be included in the site certification as conditions specifically designed to address matters within that particular agency's regulatory jurisdiction.

204. Each agency concluded that if DBEC complies with the conditions of certification recommended by that agency, it will meet all applicable non-procedural requirements, rules, and

ordinances within that agency's jurisdiction. Each affected agency recommended that DBEC be approved, subject to the conditions of certification recommended by that agency. Each agency report is briefly discussed below.

PSC Need Determination

205. As previously noted, the PSC issued the Need Determination for DBEC on March 19, 2018. Pursuant to section 403.507(4)(a), the Need Determination constitutes the PSC's agency report for DBEC.

206. In determining the need for DBEC, the PSC considered critical components of need, including forecasted load, necessary reserve margin, projected load generation and imbalance, and area reliability margin.

207. The PSC determined that FPL demonstrated the need for DBEC Unit 7 in the 2024-to-2026 timeframe, in order to maintain its electrical system reliability and integrity. The PSC found that:

No cost-effective [Demand Side Management] or renewable resources have been identified that could mitigate the need for DBEC Unit 7. DBEC Unit 7 is expected to provide adequate electricity at a reasonable cost to FPL's customers. DBEC Unit 7 is projected to reduce overall natural gas consumption and reduce emissions compared to maintaining the existing Lauderdale units. DBEC Unit 7 is the most cost-effective alternative that maintains FPL's system and Southeastern Florida area reliability compared to other alternatives.

South Florida Water Management District

208. SFWMD determined that there will be no increase in water use for DBEC, and that the cooling water, potable water, and process water sources will remain the same as for the units currently existing at the Lauderdale Site.

209. SFWMD determined that if DBEC complies with SFWMD's recommended conditions of certification, it can be constructed and operated in compliance with the applicable statutes and rules within SFWMD's jurisdiction.

Florida Fish and Wildlife Conservation Commission

210. FFWCC's report noted that several listed wildlife species were observed onsite or have a moderate to high likelihood of occurrence onsite. Additionally, the West Indian Manatee will be affected by ceasing operation of Units 4 and 5 before the construction of DBEC.

211. FFWCC recommended conditions of certification requiring biological surveys, monitoring for impacts to listed species, and also recommended a condition of certification to require temporary heaters to be used during DBEC construction to maintain a warm water refuge for manatees.

Department of Transportation

212. DOT determined that, with the exception of construction-related traffic, DBEC is not anticipated to

adversely affect the State Highway System in the vicinity of the plant.

213. DOT recommended certification of DBEC, contingent on DBEC's compliance with its recommended conditions of certification.

Department of Economic Opportunity

214. DEO anticipates that DBEC will provide economic and fiscal benefits to the City of Dania Beach, Broward County, and the surrounding area. DEO recommended approval without any recommended conditions of certification.

Division of Historical Resources

215. DHR did not object to DBEC, noting that all current matters pertaining to historical resources were addressed.

Department of Environmental Protection

216. DEP reviewed solid waste and hazardous waste, environmental resource permitting, industrial wastewater, and stormwater management issues within its jurisdiction and determined that DBEC will meet all applicable regulatory requirements, provided it complies with the proposed conditions of certification.

217. DEP recommended conditions of certification to address solid waste and hazardous waste, environmental resource permitting, industrial wastewater, and stormwater management issues within its jurisdiction.

Local Governments

218. Broward County, the City of Dania Beach, and the City of Hollywood each recommended approval of DBEC, subject to recommended conditions of certification regarding matters within its regulatory jurisdiction.

219. The City of Dania Beach did not object to the variance sought by FPL related to noise limits in the City of Dania Beach's Code of Ordinances for transient and infrequent noises associated with unit startup, shutdown, and upset conditions.

Preliminary Analysis Report and Recommended Approval with Conditions of Certification

220. On April 2, 2018, the SCO issued the PAR for DBEC. The PAR describes the project and summarizes the affected agencies' substantive review of DBEC. Based on the agencies' reports, recommended conditions of certification, and unanimous approval recommendation, the SCO determined that FPL has provided reasonable assurance that, considering and balancing the factors in section 403.509(3)(a) through (g), DBEC can be certified.

221. The PAR recommends approval of the site certification for DBEC, subject to the proposed Conditions of Certification ("COC") attached thereto, which were compiled from the affected agencies' recommended conditions of certification submitted as part of their agency reports.

222. Sierra contends that because the SCO did not conduct an independent review of whether DBEC meets the nonprocedural requirements of the affected agencies, it was not able to determine whether FPL provided reasonable assurance that the site certification complies with the agencies' applicable statutes, rules, regulations, and other requirements.

223. This contention is rejected. The purpose of the affected agency's review and report submittal requirement in section 403.507 is to ensure that the agency legally and factually vested with the substantive jurisdiction and expertise over a specific regulated area is an integral part of the site application review process. To that end, each agency is charged with submitting recommended conditions of certification that are specifically keyed to addressing issues within that agency's substantive jurisdiction and expertise. The purpose of affected agency involvement in the site certification process would be defeated if the SCO—which is not an expert over the matters within the various affected agencies' substantive jurisdiction—was authorized to second-guess these agencies' determinations and to modify or reject their recommended conditions of certification.

224. Further, and fundamentally, the SCO is not statutorily authorized to conduct such an independent review. Notably,

Sierra has not cited any statutory, rule, or case law authority to support its position.^{52/}

Notice, Public Outreach, and Public Hearing

225. All public notices required by the PPSA were provided.

226. FPL timely published the notice of filing of the Application, as required by section 430.5115(1)(a), and notice of the certification hearing, as required by section 403.5115(1)(e).

227. DEP published notice of the filing of the Application and the certification hearing in the Florida Administrative Register, as required by section 403.5115(4).

228. Additionally, FPL provided direct written notice that the Application had been filed to property owners and residents within three miles of the project area, as required by section 403.5115(6)(a).

229. FPL also engaged in public outreach for the project, including providing a toll-free phone number at which information regarding the project could be obtained, a website containing information about the project, and electronic mail contact information. Additionally, FPL sent 310 letters to residents of the neighborhood closest to the project and sent 1,600 mailers to residents and property owners in the vicinity of the site, inviting them to an open house that was held on May 24, 2017. FPL hosted another open house in June 2017 for residents of the neighborhood immediately south of the project site.

230. A public hearing was held on May 15, 2018, from 6:00 p.m. until 8:03 p.m. Many members of the public provided comments on the DBEC project,^{53/} and were able to ask questions of representatives from FPL and DEP. The public hearing comments were recorded and transcribed as part of the Transcript of the certification hearing.^{54/}

Federal Permits

231. As discussed above, an air construction/PSD permit has been issued for DBEC.

232. FPL has applied for an NPDES permit and a permit from the United States Army Corps of Engineers under section 404 of the Clean Water Act.

233. These permits and approvals are not part of, or subject to revision, modification, or revocation in, this proceeding.

Variance

234. As discussed above, FPL has requested a variance from the City of Dania Beach noise ordinance in Chapter 17-86 of the City's Code of Ordinances, which establishes the permissible sound levels for receiving land use categories. Specifically, FPL requested a variance from the City's maximum permissible sound levels for:

Noise due to emergency or upset conditions
for all time periods and all receiving land
use categories;

Noise due to transient conditions associated with unit startup and shutdown shall be limited to 70 dB(A) for all time periods and all receiving land use categories, except for Industrial land use which shall retain a limit of 75 dB(A).

235. Currently, the area in which the Lauderdale Site is located experiences significant noise from the combined effect of a range of industrial and urban activities, including the operation of Units 4 and 5 at the Lauderdale Site.

236. DBEC's projected noise profile is not materially different than that of the existing power plant operation at the Lauderdale Site.

237. Transient and infrequent conditions at the Lauderdale Site, including unit startup, shutdown, and upset conditions occasionally occur for short periods of time. These conditions also are expected to occasionally occur at DBEC.

238. The variance is limited in nature, and the noise levels necessitating a variance are expected to be infrequent and short-lived during unit startup, shutdown, or upset conditions.

239. The City of Dania Beach does not oppose the variance.

240. Given the limited nature of the variance, lack of opposition, and that similar noise levels currently occur at the Lauderdale Site, it is determined that the requested variance is reasonable, and, therefore, should be granted.

IX. The Siting Board's Role and Authority

241. Section 403.509(3) sets forth the Siting Board's authority and duty under the PPSA.

242. In considering whether to approve, approve with conditions, or deny a power plant site certification license, the Siting Board must consider all factors in section 403.509(3)(a) through (g).

243. The Siting Board possesses broad authority under the PPSA in considering whether to certify an electrical power plant. With the exception of the need determination and federal permits, the Siting Board is not bound by the conditions of certification proposed by the SCO or the affected agencies, and may modify, remove, or add conditions of certification, as authorized, to protect the broad interests of the public and minimize adverse impacts of the electrical power plant on the environment and human health. See § 403.502(2), Fla. Stat.

X. Comparative Impacts and Benefits of DBEC

244. As discussed above, DBEC will emit GHGs into the atmosphere. Therefore, DBEC's emissions will increase the amount of carbon dioxide in the atmosphere when compared to a zero emissions scenario—i.e., no GHG emissions at all. However, the alternatives in this proceeding do not entail a zero GHG emissions alternative to DBEC.

245. As discussed above, the PSC found and concluded, in the Need Determination, that with the retirement of Units 4 and 5, DBEC is needed to meet a projected future electrical power demand. As part of the Need Determination, the PSC concluded that no additional cost-effective renewal resource—such as solar or wind generation technology—could mitigate the need for DBEC. The PSC also concluded that no new demand side management—i.e., conservation—could mitigate the need for DBEC. In so determining, the PSC established, as a baseline condition to this proceeding, that DBEC, a natural gas-fueled facility, is the most cost-effective means of meeting projected future electrical power demands if Units 4 and 5 are retired.

246. Thus, given the Need Determination, the only alternative available to constructing DBEC is to continue operating Units 4 and 5 indefinitely.^{55/}

247. As previously discussed, Units 4 and 5 are less efficient units that burn substantially more natural gas than will Unit 7. Therefore, if Units 4 and 5 continue to operate indefinitely—as will be the case if DBEC is not certified—they will burn more natural gas, resulting in the emission of greater amounts of GHGs over their operation life than would the construction and operation of Unit 7, combined with FPL's reduction of the use of less-efficient units in its system.

248. The competent, substantial, and persuasive evidence establishes that the retirement of Units 4 and 5 in 2018, along with the construction and operation of DBEC in 2022 and FPL's concomitant reduction in the use of other less-efficient, more-polluting units in its system, will result in the emission of approximately 8.1 million tons less GHGs into the atmosphere over a 30-year period than if DBEC is not approved and Units 4 and 5 continue to operate indefinitely.

249. Because DBEC will, through system-wide reduced GHG emissions, result in a net environmental benefit as compared to the alternative of continuing to operate Units 4 and 5 indefinitely into the future, DBEC should be weighed as a net positive in considering and balancing the site certification criteria in section 403.509(3).

250. Other measures, discussed above, that DBEC will include and implement to minimize offsite impacts include using the existing transmission line system, existing natural gas pipeline, existing site access, and using a previously-developed power generation site. DBEC will not require new water sources, will not result in a new or expanded surface water discharge, and will reduce the use of processed water by approximately 22 percent. Additionally, upon its operation, DBEC will provide a warm water refuge for manatees.^{56/}

251. In sum, the undersigned finds that DBEC's benefits, discussed at length above, outweigh its adverse impacts. This determination is more fully addressed in the Conclusions of Law, below.

XI. Sierra's Standing

252. Sierra has intervened in this proceeding pursuant to section 403.508(3)(e), which confers party status on persons or entities who demonstrate that their substantial interests will be affected by this proceeding.

253. Sierra is a national non-profit organization. Sierra and its members are committed to protecting the environment. Sierra focuses extensive effort and resources toward combating climate change through advocating the displacement of fossil-fuel energy sources, which emit GHGs, in favor of renewable energy sources and energy sources, such as solar power, wind power, and energy storage and batteries.

254. Consistent with that mission, Sierra's members are concerned about climate change resulting from GHG emissions and the adverse impacts of climate change on human health, property, wildlife, and sensitive ecological systems, and many are actively involved in efforts aimed at reducing GHG emissions on a global and local basis.

255. Several Sierra members testified at the certification hearing regarding the environmental and personal harms they

allege they will suffer due to climate change—to which, Sierra alleges, DBEC will contribute. These alleged harms include rising sea level, saltwater intrusion, contamination of drinking water aquifers, property damage due to flooding and increased storm intensity, adverse impacts on recreational activities due to degradation of coral reef and mangrove ecosystems, algal blooms, and human health impacts.

256. Sierra has nearly 38,000 members who live in Florida. Approximately 18,000 Sierra members live in FPL's service territory.^{57/}

257. The relief Sierra requests in this proceeding is set forth below. Generally, Sierra requests either that the site certification for DBEC be approved, subject to additional conditions that Sierra proposes, or be denied.

XII. Relief Requested by Sierra

258. On May 2, 2018, Sierra filed Sierra's Statement on Relief ("Statement on Relief"), identifying the relief it seeks in this proceeding. That relief was set forth in nine sequentially-numbered paragraphs. On May 8, 2018, FPL filed Florida Power & Light Company's Motion to Strike paragraphs 1 through 7 of the Statement on Relief. On May 11, 2018, Sierra filed Sierra Club's Opposition to Florida Power & Light Company's Motion to Strike.

259. At the commencement of the certification hearing, the undersigned struck paragraphs 6 and 7 of the Statement on Relief and reserved ruling on the other forms of relief requested in paragraphs 1 through 5, 8 and 9, pending development of the evidentiary record in this proceeding. The undersigned has ruled on these paragraphs in the Conclusions of Law, below.

260. Sierra requests the following relief in paragraphs 1 through 5, 8, and 9 of its Statement on Relief, which remain at issue in this proceeding:

A. Paragraph 1 of Sierra's Statement of Relief requests the Siting Board to require FPL to limit the annual emission of GHGs from DBEC to the existing annual GHG emission levels from Units 4 and 5, and require FPL to terminate GHG emissions from DBEC at the same date that FPL planned to retire Units 4 and 5, in 2033, subject to any required operation to meet electric reliability needs.

B. Paragraph 2 of Sierra's Statement of Relief requests the Siting Board to require FPL to comply with FPL's stated system-wide GHG commitment to DEP and the PSC, and upon which FPL relies in seeking approval for DBEC—specifically, that DBEC's operation reduces FPL's system-wide annual emissions of GHGs from its current baseline by at least the amount committed to by FPL. As part of this requirement, approval of DBEC should be conditioned on FPL's system-wide annual emissions of GHGs being lower than

its current baseline by at least the amount committed to by FPL, and never exceeding that reduced level of GHGs during each year of the lifespan of DBEC.

C. Paragraph 3 of Sierra's Statement of Relief requests the Siting Board to require FPL to develop a locally-sited public stakeholder process that provides municipalities and other governmental entities that have adopted, or that in the future adopt, carbon reduction or clean energy commitments, a means to work with FPL to develop a binding plan to meet the commitments of the municipalities and other governmental entities, subject to any governmental approvals required by law, and that such processes allow interested persons, including non-governmental organizations, a meaningful opportunity to participate.

D. Paragraph 4 of Sierra's Statement of Relief requests the Siting Board to require FPL to evaluate, every five years, in a detailed, transparent process with opportunity for meaningful public participation, the Climate Change Damages resulting from 40 years of GHG pollution from building and operating DBEC as proposed, and approve DBEC subject to the opportunity for the Siting Board to reevaluate the approval of DBEC, including whether there are additional reasonable and available methods that should be adopted to minimize the Climate Change Damages caused by DBEC, and to impose further conditions, including future emissions reductions of DBEC. The impacts of DBEC must be

evaluated individually, as well as in the context of cumulative impacts from other GHG emissions. In this evaluation, FPL must examine reasonable and alternative methods to minimize the adverse effects of DBEC's emissions, including sequestration of GHGs and the ability to avoid the emissions.

E. Paragraph 5 of Sierra's Statement of Relief requests the Siting Board to require FPL and DEP to reevaluate, on a five-year basis, and in a detailed, transparent process with opportunity for meaningful public participation, the Climate Change Damages which pose a risk to the DBEC facility specifically, and approve DBEC subject to the opportunity for the Siting Board to reevaluate the approval of DBEC, including whether there are additional reasonable and available methods that should be adopted to minimize the Climate Change Damages to the DBEC facility, and to impose further conditions, including future emissions reductions of DBEC.

F. Paragraph 8 of Sierra's Statement of Relief requests the Siting Board to deny DBEC's site certification.

G. Paragraph 9 of Sierra's Statement of Relief requests that the ALJ and the Siting Board provide such relief as is just and reasonable.

CONCLUSIONS OF LAW

261. DOAH has jurisdiction over the parties to and subject matter of this proceeding, pursuant to sections 403.501 through 403.518 and sections 120.569 and 120.57(1), Florida Statutes.

I. Sierra's Standing

262. As an entity seeking to intervene and participate as a party to this proceeding, Sierra has the burden to demonstrate, by a preponderance of the evidence, that it has standing to initiate and maintain this proceeding challenging the proposed agency action to approve DBEC subject to conditions. Palm Beach Cnty. Env'tl. Coal. v. Dep't of Env'tl. Prot., 14 So. 3d 1076, 1078 (Fla. 4th DCA 2009); Agrico Chem. Co. v. Dep't of Env'tl. Reg., 406 So. 2d 478, 482 (Fla. 1st DCA 1981).

263. Sierra asserts associational standing to represent the substantial interests of its members in this proceeding. Therefore, it must meet the "three-prong" associational standing test established in Florida Home Builders Association v. Department of Labor and Employment Security, 412 So. 2d 351 (Fla. 1982).^{58/} That is, Sierra must establish that a substantial number of its members' substantial interests are affected in this proceeding; that the interests Sierra seeks to protect in this proceeding are within the general scope of its organizational interest and activity; and that the relief Sierra requests is

appropriate for it to receive in this proceeding on behalf of its members.

264. To satisfy the first prong of the associational standing test, Sierra must show that its members' substantial interests will be affected. In Agrico, the court established a two-prong test for establishing "substantial interests" in administrative proceedings. The court stated:

We believe that before one can be considered to have a substantial interest in the outcome of the proceeding he must show 1) that he will suffer injury in fact which is of sufficient immediacy to entitle him to a section 120.57 hearing, and 2) that his substantial injury is of a type or nature which the proceeding is designed to protect. The first aspect of the test deals with the degree of injury. The second deals with the nature of the injury.

Id. at 482.

265. Agrico was not intended as a barrier to participation in proceedings under chapter 120 by persons who are affected by the potential and foreseeable results of agency action. Rather, "[t]he intent of Agrico was to preclude parties from intervening in a proceeding where those parties' substantial interests are totally unrelated to the issues that are to be resolved in the administrative proceeding." Mid-Chattahoochee River Users v. Dep't of Env'tl. Prot., 948 So. 2d 794, 797 (Fla. 1st DCA 2006), (citing Gregory v. Indian River Cnty., 610 So. 2d 547, 554 (Fla. 1st DCA 1992)).

266. Recently, courts have refined the standard established in Agrico to clarify that standing to initiate an administrative proceeding is not dependent on proving that the proposed agency action would violate the law applicable to the proceeding. In other words, it is not necessary that the person prevail on the merits in an administrative proceeding under section 120.57(1) to have standing as a party to initiate and maintain that proceeding. As one court explained:

Standing is a "forward-looking concept" and "cannot disappear" based on the ultimate outcome of the proceeding When standing is challenged during an administrative hearing, the petitioner must offer proof of the elements of standing, and it is sufficient that the petitioner demonstrate by such proof that his substantial interests "could reasonably be affected by . . . [the] proposed activities."

Palm Beach Cnty. Env'tl. Coal., 14 So. 3d at 1078 (citing Peace River/Manasota Reg'l Water Supply Auth. v. IMC Phosphates Co., 18 So. 3d 1079, 1084 (Fla. 2d DCA 2009)). See St. Johns Riverkeeper, Inc. v. St. Johns River Water Mgmt. Dist., 54 So. 3d 1051 (Fla. 5th DCA 2011); see also Reily Enters., LLC v. Dep't of Env'tl. Prot., 990 So. 2d 1248 (Fla. 4th DCA 2008). Thus, it is sufficient for a party challenging proposed agency action to present evidence to show that, if its allegations were correct, that it reasonably could be injured by the proposed activity. Peace River/Manasota Reg'l Water Supply Auth., 18 So. 3d at 1084;

see Angelo's Aggregate Materials, Ltd. v. Dep't of Env'tl. Prot., Case Nos. 09-1543, 09-1544, 09-1545, 09-1546 (Fla. DOAH June 28, 2013; Fla. DEP Sept. 16, 2013).

267. Here, Sierra has presented evidence sufficient to establish that, if it were correct in its allegations regarding the effects of DBEC on climate change, its members reasonably could be injured.

268. Sierra also alleges injuries that fall within the zone of interest of this proceeding, which is designed to balance the need for the electric power plant, as determined by the PSC, with a range of considerations concerning the effect of the power plant on impacts to air and water quality, fish and wildlife, water resources, human health, the ecology of the land and its wildlife, and the ecology of state waters and their aquatic life. Some of the interests Sierra asserts on behalf of its members regarding the alleged impacts of DBEC fall squarely within the factors the Siting Board considers and balances in determining whether to certify a power plant and the conditions to be imposed on that certification.

269. Pursuant to the foregoing case law authority, it is concluded that Sierra presented evidence sufficient to meet the "substantial interests affected" requirement for standing.

270. Sierra also has demonstrated that a substantial number of its members' substantial interests could reasonably be

affected by this proceeding. "Substantial number" does not necessarily mean a majority. Fla. Home Builders, 412 So. 2d at 353. Rather, it has been described as "a relatively sizeable percentage of the membership[,]. . . . enough injured members to have a good reason to prosecute their collective claim properly and fully." Fla. Ass'n of Med. Equip. Servs. v. Ag. for Health Care Admin., Case No. 02-1400 (Fla. DOAH Oct. 18, 2002), at ¶¶ 44, 46, Case No. AHCA-02 (Fla. AHCA Dec. 30, 2002) (rejected in part on other grounds). Here, Sierra presented evidence that approximately 38,000 of its members reside in Florida, and approximately 18,000 of its members reside in FPL's service territory. Given that the evidence shows that climate change is occurring both globally and locally, it is reasonable to infer that to the extent the DBEC operation could result in injury, it presumably could affect the Sierra members who reside in Florida, including those who live in FPL's service territory. This constitutes enough members who allegedly may be injured for Sierra to "have good reason to prosecute their collective claim properly and fully," and, thus, constitutes a "substantial number" for associational standing purposes.^{59/} See id.

271. This proceeding also is within Sierra's general scope of interest and activity. As found above, Sierra is an environmental protection organization that is actively engaged in efforts directed at combating climate change through advocating

the displacement of fossil-fuel energy sources. That purpose is directly implicated in this proceeding, which addresses whether a fossil-fuel burning electrical power plant should be certified, and the conditions to be imposed on certification. Thus, this proceeding is within Sierra's scope of interest and activity.

272. The relief Sierra seeks in this proceeding is of the nature or type appropriate for it to receive on behalf of its members. Here, Sierra seeks either for the site certification for DBEC to be denied, or to be granted with additional proposed conditions. This relief is appropriate for Sierra to request and receive on behalf of its members in this proceeding.

273. Therefore, it is concluded that Sierra has established its associational standing to represent the interests of its members in this proceeding.

II. Burden and Standard of Proof and Reasonable Assurance

Burden and Standard of Proof

274. Section 120.569(2)(p) states, in pertinent part:

For any proceeding arising under chapter 373, chapter 378, or chapter 403, if a nonapplicant petitions as a third party to challenge an agency's issuance of a license, permit, or conceptual approval, the order of presentation in the proceeding is for the permit applicant to present a prima facie case demonstrating entitlement to the license, permit, or conceptual approval, followed by the agency. This demonstration may be made by entering into evidence the application and relevant material submitted to the agency in support of the application,

and the agency's staff report or notice of intent to approve the permit, license, or conceptual approval. Subsequent to the presentation of the applicant's prima facie case and any direct evidence submitted by the agency, the petitioner initiating the action challenging the issuance of the license, permit, or conceptual approval has the burden of ultimate persuasion and has the burden of going forward to prove the case in opposition to the license, permit, or conceptual approval through the presentation of competent and substantial evidence. The permit applicant and agency may on rebuttal present any evidence relevant to demonstrating that the application meets the conditions for issuance.

275. This site certification proceeding arises under chapter 403. The site certification at issue constitutes a "license," as defined in section 403.503(17).

276. Therefore, pursuant to section 120.569(2)(p), Sierra bears the ultimate burden of persuasion in this proceeding to prove its case in opposition to the proposed issuance of the site certification, with proposed conditions of certification. See In re: Florida Power & Light Co. Turkey Point Power Plant Units 3 through 5 Modification to Conditions of Certification, Case No. 15-1559 (Fla. DOAH Jan. 25, 2016), modified in part, Case No. 14-0510 (Fla. Siting Bd. Apr. 1, 2016), at ¶ 65.

277. The preponderance of the evidence is the applicable standard of proof. § 120.57(1)(j), Fla. Stat.

278. The SCO determined that the Application and supporting materials established reasonable assurance that DBEC can be

certified, subject to the proposed Conditions of Certification, considering the factors set forth in section 403.509(3).

279. FPL established its prima facie case of entitlement to the site certification for DBEC in this proceeding by entering into evidence the Application, the PAR, and supporting information. Additionally, FPL presented testimony and other evidence at the certification hearing that exceeded the prima facie standard in section 120.569(2)(p).

280. Once FPL established prima facie entitlement to site certification with the proposed Conditions of Certification, the burden shifted to Sierra to present competent substantial evidence to prove its case in opposition to the site certification for DBEC, as proposed. Pursuant to 120.569(2)(p), the ultimate burden of persuasion rests with Sierra to prove its case in opposition by a preponderance of the competent substantial evidence. Speculation by Sierra about what "might" occur is not sufficient to carry its burden to show that FPL has not provided reasonable assurance that the site certification for DBEC should be approved. See Jacobs v. Far Niete II, LLC, Case No. 12-1056 (Fla. DOAH Apr. 26, 2013; SFWMD May 22, 2013); FINR II, Inc. v. CF Indus., Inc., Case No. 11-6495 (Fla. DOAH Apr. 30, 2012; DEP June 8, 2012); see also Menorah Manor, Inc. v. Ag. for Health Care Admin., 908 So. 2d 1100, 1104 (Fla. 1st DCA 2005). If Sierra fails to meet this burden, FPL prevails by

virtue of having established its prima facie case. See Last Stand, Inc. v. Fury Mgmt., Case No. 12-2574 (Fla. DOAH Dec. 21, 2012; Fla. DEP Feb. 7, 2013); Washington Cnty. v. Bay Cnty., Case Nos. 10-2983, 10-1984, 10-10100 (Fla. DOAH July 26, 2012; NWFWM D Sept. 27, 2012).

Reasonable Assurance

281. The "reasonable assurance" standard means that the applicant has demonstrated a substantial likelihood that the project, as proposed, will be successfully implemented.

Metropolitan Dade Cnty. v. Coscan Fla., Inc., 609 So. 2d 644, 648 (Fla. 3d DCA 1992); In re: Gainesville Renewable Energy Ctr., LLC, Case No. 09-6641 (Fla. DOAH Nov. 1, 2010; Fla. Siting Bd. Dec. 15, 2010).

282. An applicant's burden is one of reasonable assurance, not absolute guarantees, that the applicable requirements for issuance of the permit have been satisfied. Coscan Fla., 609 So. 2d at 648; Hamilton Cnty. Bd. of Cty. Comm'r v. State Dep't of Env'tl. Reg., 587 So. 2d 1378, 1388 (Fla. 1st DCA 1991); Save Anna Maria, Inc. v. Dep't of Transp., 700 So. 2d 113, 117 (Fla. 2d DCA 1997); McCormick v. City of Jacksonville, Case No. 88-2283 (Fla. DOAH Oct. 16, 1989; Fla. DER Jan. 22, 1990).

283. An applicant is not required to eliminate all contrary possibilities, however remote, or to address impacts that are theoretical, negligible, imperceptible, or cannot be measured in

real life. See Crystal Springs Recreational Pres., Inc. v. Southwest Fla. Water Mgmt. Dist., Case No. 99-1415 (Fla. DOAH Jan. 27, 2000; SWFWMD Feb. 29, 2000); Alafia River Basins Stewardship Council, Inc. v. Southwest Fla. Water Mgmt. Dist., Case Nos. 98-4925, 98-4926, 98-4930, 98-4931 (Fla. DOAH July 2, 1999; SWFWMD Aug. 2, 1999); Caloosa Prop. Owners' Assoc., Inc. v. Dep't of Env'tl. Reg., 462 So. 2d 523, 526 (Fla. 1st DCA 1985); Putnam Cnty Env'tl. Council, Inc. v. Dep't of Env'tl. Prot., Case No. 01-2442 (Fla. DOAH July 3, 2002; Fla. DEP. Aug. 6, 2002). An applicant also is not required to "disprove all 'worst case scenarios' . . . raised by objectors." Ginnie Springs, Inc. v. Craig Watson, Case Nos. 98-0945, 98-1070, 98-1071 (Fla DOAH Feb. 23, 1999), Case Nos. 98-0258, 98-0265, 98-0266 (Fla. DEP April 8, 1999) (modified on other grounds).

284. Reasonable assurance can be demonstrated by presenting competent substantial evidence consisting of detailed site plans and engineering studies, coupled with credible expert engineering testimony. In re: Gainesville Renewable Energy Ctr., LLC, Case No. 09-6641 (Fla. DOAH Nov. 1, 2010), modified in part, Case No. 09-4002 (Fla. Siting Bd. Dec. 15, 2010) at 15 (citing Hamilton Cnty. Bd. of Cnty. Comm'r., 587 So. 2d at 1388-89 (Fla. 1st DCA 1991)).

285. Pursuant to section 120.569(2)(p), the Application and supporting materials for DBEC retained their status as sufficient

to show reasonable assurance when they were admitted into evidence at the final hearing, and do not lose that status absent Sierra proving, by a preponderance of the competent substantial evidence presented at the final hearing, that specific aspects of DBEC, as specifically challenged by Sierra in this proceeding, do not provide reasonable assurance that DBEC should be certified subject to the proposed Conditions of Certification. See Last Stand, Inc. v. Fury Mgmt., Case No. 12-2574 (Fla. DOAH Dec. 21, 2012; Fla. DEP Feb. 7, 2013).

III. Intent and Effect of Site Certification

286. Recognizing that the location, construction, and operation of an electrical power plant "will have a signification impact upon the welfare of the population, the location and growth of industry, and the use of natural resources of the state," the Florida Legislature enacted the PPSA, which establishes a process through which a permit application for an electrical power plant is centrally coordinated and all permit decisions can be reviewed on the basis of standards and recommendations of the deciding agencies. In establishing this process, the Legislature articulated the policy that

while recognizing the need for increased power generation facilities, the state shall ensure[,] through available and reasonable methods[,] that the location and operation of electrical power plants will produce minimal adverse effects of human health, the environment, the ecology of the land and its

wildlife, and the ecology of state waters and their aquatic life and will not unduly conflict with the goals established by the applicable local comprehensive plans.

§ 403.502, Fla. Stat.

287. Pursuant to section 403.511(1), PPSA certification constitutes the sole license of the state and any agency regarding the approval of the location of the site and associated facilities, the construction, and the operation of the electrical power plant,^{60/} other than licenses required under any federally delegated or approved permit program, such as air construction and operation permits, and NPDES permits. Therefore, the PPSA preempts the regulation and certification of electrical power plant sites and electrical power plants in Florida, and supersedes other laws, rules, regulations, and ordinances of other governing bodies in the state so as "to give effect to the legislative intent that this act is to provide an efficient, simplified, centrally coordinated, one-stop licensing process."

§ 403.510, Fla. Stat.

288. The issuance of a certification license for a power plant must be based on compliance with the applicable statutes and rules in effect at the time of issuance. See § 403.5185, Fla. Stat.

289. Under the PPSA, an electrical power plant receives one license that remains valid and in effect for the life of the

facility unless modified, revoked, or cancelled. § 403.504(11), Fla. Stat. The license includes conditions of certification, which establish the terms, conditions, and requirements that would otherwise be included in individual permits issued by the affected state and local agencies.

IV. Notice and Procedural Requirements

290. Based on foregoing Findings of fact, it is concluded that FPL has met all pertinent procedural requirements imposed under the PPSA and Florida Administrative Code chapter 62-17.

291. Based on foregoing Findings of Fact, it is concluded that FPL has met all applicable notice requirements imposed by the PPSA, chapter 62-17, and chapter 120.

292. Based on foregoing Findings of Fact, it is concluded that DEP has met all pertinent notice and procedural requirements under the PPSA, chapter 62-17, and chapter 120.

V. Need Determination

293. Section 403.507(4)(b) requires issuance of a need determination by the PSC before the PAR is prepared and a certification hearing is held.

294. As previously discussed, in March 2018, the PSC issued a Need Determination for DBEC, finding and concluding that there is a need for DBEC.

295. Pursuant to section 403.519(1), the PSC is the sole forum for determining the need for an electrical power plant

subject to the PPSA. As discussed above, in making its need determination, the PSC considers and makes findings and conclusions regarding the need for electric system reliability and integrity; the need for adequate electricity at a reasonable cost; the need for fuel diversity and supply reliability; whether the proposed plant is the most cost-effective alternative available; and whether renewable energy sources and technologies, as well as conservation measures, are utilized to the extent reasonably available. Upon considering these matters, the PSC issued an affirmative determination of need, pursuant to section 403.519, for DBEC. Reconsideration of the Need Determination and any aspect thereof in this proceeding is not authorized under the PPSA. Fla. Chapter of Sierra Club v. Orlando Util. Comm'n, 436 So. 2d 383, 388 (Fla. 5th DCA 1983) (determination of need is solely within the jurisdiction of the PSC and any reevaluation thereof at the certification hearing is both wasteful and unauthorized).

VI. Site Certification Criteria

296. Section 403.509(3) codifies the site certification standard applicable to this proceeding. This statute states:

(3) In determining whether an application should be approved in whole, approved with modifications or conditions, or denied, the board, or secretary when applicable, shall consider whether, and the extent to which, the location, construction, and operation of the electrical power plant will:

- (a) Provide reasonable assurance that operational safeguards are technically sufficient for the public welfare and protection.
- (b) Comply with applicable nonprocedural requirements of agencies.
- (c) Be consistent with applicable local government comprehensive plans and land development regulations.
- (d) Meet the electrical energy needs of the state in an orderly, reliable, and timely fashion.
- (e) Effect a reasonable balance between the need for the facility as established pursuant to s. 403.519 and the impacts upon air and water quality, fish and wildlife, water resources, and other natural resources of the state resulting from the construction and operation of the facility.
- (f) Minimize, through the use of reasonable and available methods, the adverse effects on human health, the environment, and the ecology of the land and its wildlife and the ecology of state waters and their aquatic life.
- (g) Serve and protect the broad interests of the public.

297. This statutory scheme is one of balancing and reasonableness. Gainesville Renewable Energy Ctr., at ¶ 167. In considering the siting factors in section 403.509(3), the Siting Board is charged with effecting a reasonable balance between the need for the facility and environmental and other impacts resulting from the construction and operation of the facility.

§ 403.502(2), Fla. Stat.; Gainesville Renewable Energy Ctr.,
at ¶ 141.

298. As discussed above, because DBEC will, through system-wide reduced GHG emissions, result in a net environmental benefit as compared to the alternative of continuing to operate Units 4 and 5 indefinitely into the future, DBEC should be weighed as a net positive in considering and balancing the certification factors in section 403.509(3). These factors are addressed below.

Section 403.509(3)(a) - Operational Safeguards

299. Section 403.509(3)(a) requires the Siting Board to consider whether, and the extent to which the location, construction, and operation of the electrical power plant will "[p]rovide reasonable assurance that operational safeguards are technically sufficient for the public welfare and protection."

300. Based on the competent, substantial, and persuasive evidence in the record, it is concluded that DBEC has provided reasonable assurance that its operational safeguards are technically sufficient for the public welfare and protection.

301. Specifically, as discussed above, Unit 7 will be an efficient new natural gas burning unit that, in conjunction with reduced emissions from FPL's older, less-efficient, and more-polluting sources, will result in a net reduction of GHG emissions over a projected 30-year horizon. Additionally, Unit 7

will comply with BACT and all other applicable air emissions requirements. Also discussed above, DBEC has been designed at a sufficient elevation to adequately protect the facility against reasonably-projected sea level rise and storm surges.

302. Additionally, as discussed above, DBEC will comply with all applicable rules and requirements of the affected agencies if constructed and operated accordance with the proposed Conditions of Certification, which are imposed to protect the public health, safety, and welfare.

Section 403.509(3)(b) - Nonprocedural Requirements

303. Section 403.509(3)(b) requires the Siting Board to consider whether, and the extent to which the location, construction, and operation of the electrical power plant "will . . . [c]omply with applicable nonprocedural requirements of agencies."

304. The PPSA specifically provides that all permit decisions by the affected state agencies and local governments are to be reviewed on the basis of standards and recommendations of those affected agencies. As discussed above, each affected agency reviewed the Application within the scope of its own regulatory authority and submitted an agency report to the SCO. Each agency report addressed the impacts of the proposed plant on matters within that particular agency's jurisdiction and

recommended conditions of certification to ensure that DBEC would comply with that agency's applicable regulatory requirements.

305. The competent, substantial, and persuasive evidence, discussed in detail above, establishes that, with the exception of a variance from a City of Dania Beach noise ordinance, DBEC will comply with all applicable non-procedural requirements of the affected agencies when constructed and operated in accordance with the proposed Conditions of Certification.

306. DBEC has requested a variance from a noise ordinance codified in section 17-86 of the Dania Beach Code of Ordinances. Except for certain variances not at issue here, a site certification may include variances from non-procedural requirements. § 403.511(1)(b)1., Fla. Stat. As discussed above, the requested variance is limited in nature, the noise requiring the variance is expected to be transient and infrequent, is associated only with unit startup, shutdown, or upset conditions, and is expected to have a noise profile that is not materially different than the current plant operating at the site. There was no opposition to the variance, and it is recommended for approval.

Section 403.509(3)(c) – Consistency with Local Comprehensive Plans and Land Development Regulations

307. Section 403.509(3)(c) requires the Siting Board to consider whether, and the extent to which the location, construction, and operation of the electrical power plant "will . . . [b]e consistent with applicable local comprehensive plans and land development regulations."

308. Because DBEC will be constructed and operated within the boundaries of the existing site, it is not subject to a PPSA consistency review for local land use plans and zoning ordinances. § 403.50665, Fla. Stat.

309. Competent substantial evidence consisting of the Application establishes that the project will be consistent with the applicable local government comprehensive plans and land development regulations.

Section 403.509(3)(d) – Meet Electrical Energy Needs

310. Section 403.509(3)(d) requires the Siting Board to consider whether, and the extent to which the location, construction, and operation of the electrical power plant "will . . . [m]eet the electrical energy needs of the state in an orderly, reliable, and timely fashion,"

311. The PSC, in its Need Determination, found and concluded that FPL demonstrated the need for DBEC to maintain FPL's system reliability and integrity in the 2024-to-2026

timeframe. The Need Determination specifically finds and concludes that DBEC will meet the electrical energy needs of the state in an orderly, reliable, and timely fashion. As previously noted, the Need Determination constitutes the PSC's agency report pursuant to section 403.507(4)(a).

312. Thus, the competent substantial evidence establishes that DBEC will meet the electrical energy needs of the state in an orderly, reliable, and timely fashion.

Section 403.509(3)(e) - Reasonable Balance Between Need and Environmental Impacts

313. Section 403.509(3)(e) requires the Siting Board to consider whether, and the extent to which the location, construction, and operation of the electrical power plant "will . . . [e]ffect a reasonable balance between the need for the facility as established pursuant to [section] 403.519 and the impacts upon air and water quality, fish and wildlife, water resources, and other natural resources of the state resulting from the construction and operation of the facility."

A. Need

314. As previously discussed, the PSC determined that there is a need for DBEC in the 2024-to-2026 timeframe to maintain FPL's electric system reliability and integrity. In making the need determination, PSC considers several factors, enumerated above.

315. While it is necessary for the Siting Board to consider a need determination for purposes of considering whether, and the extent to which, the construction and operation will effect a reasonable balance between the need for the facility, as determined by the PSC, and the plant's impacts on air and water quality, fish and wildlife, water resources, and other natural resources of the state, the Siting Board cannot reevaluate the need for the plant. Reconsidering the need for the plant would intrude on the PSC's exclusive authority, established in section 403.519, to determine need, and is not within the scope of a site certification proceeding. Fla. Sierra Club, 436 So. 2d at 388; Gainesville Renewable Energy Ctr., at ¶ 141 (characterizing the PSC's need determination as an "irrebuttable fact" in a site certification proceeding).

B. Environmental Impacts

316. Sierra Club contends that DBEC's GHG emissions will contribute to global and local sea level rise and other environmental damages, and that these impacts override the need for the power plant.

317. FPL presented credible, persuasive evidence that DBEC will comply with all applicable environmental regulatory requirements, which are specifically designed to prevent and minimize adverse impacts to public health, welfare, and the environment. Sierra did not present any evidence showing that

FPL will not comply with the applicable environmental regulatory requirements.

318. The competent substantial evidence further shows that DBEC, in conjunction with reduced emissions from less efficient, more-polluting units in FPL's system, will result in an overall reduction, on a system-wide basis, in GHG emissions per MWh compared to Units 4 and 5. This means that DBEC will result in a net reduction in GHG emissions on a system-wide basis over a 30-year horizon.

319. Further, evaluating the impact of sea level rise on the power plant facility itself is not part of the analysis under section 403.509(3)(e), which analyzes the "air and water quality, fish and wildlife, water resources, and other natural resources of the state resulting from the construction and operation of the facility."^{61/} However, even if such impacts were germane to the analysis under section 403.509(3)(e), the competent substantial evidence establishes that DBEC's power block will be sufficiently elevated to protect against reasonably-projected local sea level and storm surges.

320. Sierra contends that, notwithstanding the Need Determination, the Siting Board can balance need and environmental considerations under section 403.509(3)(g) to determine that DBEC must include solar or other renewable energy or energy storage components, and that FPL should be required to

further reduce DBEC GHG emissions through carbon capture and sequestration technology. These contentions amount to efforts to circumvent the Air Permit through imposing, in the site certification proceeding, conditions that are inconsistent with the DEP's BACT determinations regarding the feasibility and cost-effectiveness of such technologies.^{62/}

321. As discussed above, it is well-settled under Florida law that the PSC, not the Siting Board, is authorized to determine the feasibility and cost-effectiveness of alternative energy technologies and conservation measures as part of the need determination process. Fla. Chapter of the Sierra Club, 436 So. 2d at 388 (Fla. 5th DCA 1983) (affirming certification order finding that evidence regarding use of conservation measures was not germane to site certification process because conservation issues are part of PSC's need determination); Gainesville Renewable Energy Ctr., (adopting recommended order approving renewable energy center and finding that ALJ properly excluded evidence on matters within the PSC's exclusive jurisdiction). See also Fla. Power Corp. v. State, Siting Bd., 513 So. 2d 1341, 1344 (Fla. 1st DCA 1987).

322. Sierra cites In re: Florida Power & Light Company West County Energy Center Unit 3, Case No. 07-2198 (Fla. DEP Nov. 15, 2008), to support its position that the Siting Board is authorized to require FPL to implement a renewable energy

component as a condition of certification. West Energy Center does not support Sierra's position because in that case, FPL voluntarily agreed to implement a renewable energy component as a condition of settling the challenge to site certification, and DEP—not the Siting Board—entered the final order. See Joint Stipulation and Motion of the Parties to Cancel Certification Hearing and to Relinquish Jurisdiction to the Department of Environmental Protection for Entry of Final Certification Order, Oct. 8, 2008, DOAH Case No. 07-5574EPP. FPL's voluntary agreement to include a renewable energy component as a condition of settlement does not confer jurisdiction on the Siting Board to require such a component—particularly given that the PSC already has determined that a renewable energy component is neither feasible nor cost-effective.

323. In sum, the competent substantial evidence establishes that DBEC, as proposed and subject to the proposed Conditions of Certification, effects a reasonable balance between the need for the facility and the environmental impacts considered under section 403.509(3)(e).

Section 403.509(3)(f) – Minimize Adverse Effects

324. Section 403.509(3)(f) requires the Siting Board to consider whether, and the extent to which the location, construction, and operation of the electrical power plant will "minimize, through reasonable and available methods, the adverse

effects to human health, the environment, and the ecology of the land and its wildlife and the ecology of state waters and their aquatic life."

325. As discussed above, DBEC's air emissions will be controlled by technology that constitutes BACT for natural gas-fired electrical power plants. BACT is determined based on the maximum degree of reduction of each air pollutant which, considering energy, environmental, and economic impacts, and other costs, is achievable through available methods, systems, and technologies. The use of natural gas as the primary fuel, ultra-light sulfur distillate as a backup fuel, an efficient design using the most efficient combined cycle technology, and post-combustion emission control technology will help minimize the adverse effects associated with DBEC's air emissions.

326. The competent substantial evidence establishes that DBEC will emit less GHGs per MWh than Units 4 and 5. Nitrogen oxide and sulfur dioxide emissions from DBEC will, respectively, be 7.5 and ten times lower than the required NSPS, and total emissions of all specific criteria pollutants will be reduced by 6.6 million pounds. Additionally, DBEC will result in reduced air pollution, including GHG emissions, across FPL's electrical generating system. Thus, DBEC constitutes a net environmental benefit, compared to the continued operation of Units 4 and 5 on an indefinite basis.

327. DBEC will not withdraw more water for use as cooling water than did Units 4 and 5, and it will implement technology to avoid impingement and entrainment of aquatic life at the cooling water intake structures.

328. Additionally, by occupying the same footprint and using much of the existing infrastructure that currently is used by Units 4 and 5, DBEC will minimize new impacts to the environment.

329. As previously noted, the environmental regulatory requirements applicable to DBEC are designed to prevent and minimize harmful impacts to public health, welfare, and the environment. DBEC's compliance with these requirements will minimize its effects on human health, the environment, and the ecology of the land and its wildlife and the ecology of state waters and their aquatic life.

330. In sum, the competent substantial evidence demonstrates that DBEC will minimize, through the use of reasonable and available methods, adverse effects on human health, the environment, and the ecology of the land and its wildlife and the ecology of state waters and their aquatic life.

Section 403.509(3)(g) – Broad Interests of the Public

331. Section 403.509(3)(g) requires the Siting Board to consider whether, and the extent to which the location,

construction, and operation of the electrical power plant will "serve and protect the broad interests of the public."

332. As discussed above, the competent substantial evidence establishes that DBEC will satisfy the site certification factors in sections 403.509(3)(a) through (f).

333. Accordingly, the competent substantial evidence establishes that DBEC will serve and protect the broad interests of the public. In Re: Florida Power and Light Company Okeechobee Clean Energy Center Power Plant Siting Application No. PA15-58, Case No. 15-0607 (Fla. DEP Final Order June 29, 2016) (concluding that because power plant meets all other factors in section 403.509(3), it will serve and protect broad interests of the public).

334. Based on the foregoing, it is concluded that DBEC effects a reasonable balance between the need for the power plant and the environmental and other impacts, as required under section 403.509(3)(a) through (g), for site certification.

VII. Rulings on Sierra's Requested Relief

335. As discussed in paragraph 258, above, Sierra filed a Statement on Relief, requesting various forms of relief in this proceeding. Each of these is addressed below.

A. Paragraph 1 of Sierra's Statement on Relief

336. This paragraph requests that the Siting Board impose two additional conditions: first, require FPL to limit the

annual emission of GHGs from DBEC to the existing annual GHG emission levels of Units 4 and 5; and second, require FPL to terminate greenhouse gas emissions from DBEC at the same date that Sierra contends FPL would retire Units 4 and 5—i.e., 2033—subject to any required operation to meet electric reliability needs.

337. This relief is denied. As previously discussed, DBEC will displace other electrical generating units in FPL's system that are less efficient, use more fuel, and emit more GHGs. Although DBEC will result in a reduction of GHG emissions across FPL's system and will emit less GHG on a per MWh basis than Units 4 and 5, DBEC may emit more total GHGs than Units 4 and 5 in isolation, because it will be operated more frequently and at a higher capacity. Limiting DBEC's GHG emissions to an amount no greater than current GHG emissions from Units 4 and 5 would require DBEC to be operated less often and at lower capacity, resulting in older, less efficient units continuing to be operated to meet electrical power demand. This would result in increased GHG emissions, and, thus, would have greater adverse impact on the environment than operating DBEC for its projected life to 2062.

338. The second part of Sierra's requested relief would require "FPL to terminate greenhouse gas emissions from DBEC at the same date that FPL planned to retire Lauderdale 4 and 5,

in 2033, subject to any required operation to meet electric reliability needs." This condition would have the effect of requiring DBEC to cease operation in 2033.^{63/} However, the PSC affirmatively determined that there is a need for DBEC in the 2024-to-2026 timeframe to meet FPL's system-wide 20 percent reserve margin requirement. Thus, this condition would encroach on the PSC's exclusive jurisdiction to determine need. Additionally, there is no competent substantial evidence in the record to support DBEC shutdown in 2033.^{64/}

339. Accordingly, this relief is denied.

B. Paragraph 2 of Sierra's Statement on Relief

340. Paragraph 2 of Sierra's Statement on Relief would condition DBEC approval on "requir[ing] FPL to comply with FPL's stated system-wide greenhouse gas reduction commitment to DEP and to the Florida Public Service Commission, and upon which FPL relies in seeking approval for DBEC: specifically[,] that DBEC's operation reduces FPL's system-wide annual emissions of greenhouse gases from its current baseline by at least the amount committed to by FPL." This relief would further require FPL's system-wide annual emissions of greenhouse gases to be reduced below "its current baseline by at least the amount committed to by FPL, and never exceeding that reduced level of greenhouse gas emissions during each year of the lifespan of DBEC."

341. This relief also is denied. This condition would effectively reopen the site certification licenses of every electrical power plant in FPL's system, contrary to section 403.511(2), which makes certified power plants subject only to the conditions of certification for that specific power plant. Further to that point, section 403.509(7) states that "the issuance or denial of the certification by the board or secretary of the department shall be the final administrative action required as to that application." (emphasis added). Thus, the site certification for one electrical power plant cannot impose new conditions on previously certified electrical power plants. Additionally, this condition may limit or impede FPL's and the PSC's ability to address increased demand for electrical energy beyond that currently forecasted—again encroaching on the PSC's exclusive jurisdiction to determine and manage the energy needs of the state pursuant to section 403.519 and chapter 366, Florida Statutes.

342. Accordingly, this relief is denied.

C. Paragraph 3 of Sierra's Statement on Relief

343. This requested relief would condition DBEC on requiring FPL to develop a public stakeholder process, described in paragraph 258, above. This relief also is denied.

344. Sierra presented no evidence at the certification hearing regarding key components of this proposed condition—

specifically, what a "locally-sited public stakeholder process" would require; which stakeholders would be included in such a process; why the process—if it involves GHG emissions—would and should be limited to local stakeholders; how such a process would result in "binding" commitments and what those "binding" commitments would entail; what constitutes a "meaningful" opportunity to participate; and whether and the extent to which such commitments would be consistent with state and local government rules and requirements applicable to site certification. Effectively, this condition would have the Siting Board fashion relief that is wholly unsupported by competent substantial evidence in the record.

345. Further, requiring such a process is inconsistent with the PPSA, which establishes a centrally coordinated process designed to ensure that the electrical power plant is subject to consistent, legally authorized conditions.

346. Third, there is no statutory, rule, or case law authority to support imposing this condition. As discussed above, the PPSA establishes the process and substantive requirements and limits for imposing conditions of certification. Imposing an additional or collateral process on DBEC certification that may result in "binding" commitments that could affect matters governed by the PPSA or encroach on the PSC's Need Determination jurisdiction is not legally authorized, and,

notably, Sierra did not cite any legal authority to support the imposition of this condition.

D. Paragraph 4 of Sierra's Statement on Relief

347. Sierra also requests that DBEC be conditioned on:

Requir[ing] FPL to evaluate, every five years in a detailed, transparent process with opportunity for meaningful public participation, the Climate Change Damages resulting from forty years of greenhouse gas pollution from building and operating DBEC as proposed, and approve DBEC subject to the opportunity for the Siting Board to reevaluate the approval of DBEC, including whether there are additional reasonable and available methods that should be adopted to minimize the Climate Change Damages caused by DBEC, and to impose further conditions, including future emissions reductions of DBEC.

348. There is no statutory authority to impose a condition that contemplates a reevaluation process for an approved site certification. To that point, section 403.509(7) states: "[t]he issuance or denial of the certification by the board or secretary of the department shall be the final administrative action required as to that application." (emphasis added).

349. Moreover, even if such authority existed, "any damages resulting from greenhouse gas emissions" is vague. As discussed above, current climate change modeling does not support the identification of endpoint environmental impacts of GHGs on a project-specific basis.

350. Accordingly, this relief is denied.

E. Paragraph 5 of Sierra's Statement on Relief

351. Paragraph 5 of Sierra's Statement of Relief would condition approval of DBEC on:

requir[ing], in light of the expected 40-year operational life of DBEC, that at least every five years, FPL and FDEP reevaluate in a detailed, transparent process with opportunity for meaningful public participation, the Climate Change Damages which pose a risk to the DBEC facility specifically, and approve DBEC subject to the opportunity for the Siting Board to reevaluate the approval of DBEC, including whether there are additional reasonable and available methods that should be adopted to minimize the Climate Change Damages to the DBEC facility, and to impose further conditions, including future emissions reductions of DBEC.

352. This condition would require that climate change impacts on DBEC be evaluated every five years.

353. The relief requested in paragraph 5 is denied on the same basis as paragraph 4.^{65/}

F. Paragraph 8 of Sierra's Statement on Relief

354. Sierra requests that if none of its proposed conditions are imposed on DBEC, that DBEC's site certification be denied.

355. As discussed below, the undersigned recommends approval of the site certification for DBEC, subject only to the Conditions of Certification that were included in the PAR.

356. Accordingly, this relief is denied.

G. Paragraph 9 of Sierra's Statement on Relief

357. Paragraph 9 of Sierra's Statement on Relief requests that the ALJ and the Siting Board provide "such relief as is just and reasonable."

358. With rare exception, administrative agencies in Florida may only take action that is specifically authorized by statute, and do not have broad authority to fashion equitable relief. See City of Cape Coral v. G.A.C. Util., Inc., 281 So. 2d. 493, 496 (Fla. 1973) (because agencies are creatures of statute, their powers, duties, and authority are those and only those that are conferred expressly or impliedly by statute).

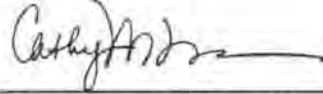
359. Sierra does not specifically identify the "just and reasonable relief" it requests, so it is impossible to determine whether such relief is supported by the competent substantial evidence in the record. Sierra also fails to cite any legal authority to support such relief.

360. Accordingly, this requested relief is denied.

RECOMMENDATION

Based on the foregoing Findings of Fact and Conclusions of Law it is RECOMMENDED that the State of Florida Siting Board enter a final order approving DBEC, subject to the Conditions of Certification contained in the PAR, and approving the variance to the City of Dania Beach Code of Ordinances, Chapter 17, Article IV, Noise, Section 17-86, as set forth in the PAR.

DONE AND ENTERED this 30th day of July, 2018, in
Tallahassee, Leon County, Florida.



CATHY M. SELLERS
Administrative Law Judge
Division of Administrative Hearings
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Filed with the Clerk of the
Division of Administrative Hearings
this 30th day of July, 2018.

ENDNOTES

^{1/} All references to Florida Statutes are to the 2018 version, which was in effect at the time this Recommended Order was prepared. See Lavernia v. Dep't of Prof'l Reg., Bd. of Med., 616 So. 2d 53, 54 (Fla. 1st DCA 1993) (law in effect at the time of final agency action on licensure applies).

^{2/} The affected agencies are the Department of Economic Opportunity; the South Florida Water Management District; the Florida Fish and Wildlife Conservation Commission; the Department of Transportation; Broward County, Florida; the City of Dania Beach, Florida; and the City of Hollywood, Florida.

^{3/} The evidence, including the testimony, in this proceeding refer both to "DBEC" and "Unit 7." This Recommended Order uses the term "Unit 7" to specifically refer to the combined cycle electrical power generation unit.

^{4/} Order Granting Petition to Intervene and Limiting Issues to be Addressed in the Certification Hearing (Fla. DOAH May 4, 2018).

^{5/} For purposes of certification, section 403.503(14) defines "electrical power plant" in pertinent part as:

any steam or solar electrical generating facility using any process or fuel, including nuclear materials, except that this term does not include any steam or solar electrical generating facility of less than 75 megawatts in capacity unless the applicant for such a facility elects to apply for certification under this act. This term also includes the site; all associated facilities that will be owned by the applicant that are physically connected to the site; all associated facilities that are indirectly connected to the site by other proposed associated facilities that will be owned by the applicant; and associated transmission lines that will be owned by the applicant which connect the electrical power plant to an existing transmission network or rights-of-way to which the applicant intends to connect.

^{6/} DEP also issued the air construction/PSD permit for the DBEC air emissions units.

^{7/} Units 4 and 5 are subject to a separate site certification. The dismantlement of those units is not part of this site certification proceeding.

^{8/} As discussed above, the term "electrical power plant" is defined to include

all associated facilities that will be owned by the applicant that are physically connected to the site; all associated facilities that are indirectly connected to the site by other proposed associated facilities that will be owned by the applicant; and associated transmission lines that will be owned by the applicant which connect the electrical power plant to an existing transmission network or rights-of-way to which the applicant intends to connect.

§ 403.503(14), Fla. Stat.(emphasis added).

Here, the evidence showed that the natural gas pipeline that will transport the natural gas to DBEC for use as fuel for Unit 7 is owned by Florida Gas Transmission Company. No evidence whatsoever was presented showing that FPL has any ownership interest in the pipeline. Accordingly, any environmental impacts associated with the operation of the pipeline to transport natural gas to DBEC, or with the production of natural gas—such as through fracking—that may be piped to DBEC are beyond the scope of this proceeding.

^{9/} As further discussed below, Sierra takes the position that even though Unit 7 is more efficient in terms of natural gas consumption, because it is projected to operate until approximately 2062, it ultimately will emit a greater total amount of GHGs than not operating it and continuing to operate Units 4 and 5 through their projected retirement date of 2033. However, as extensively discussed below, if Unit 7 is constructed and operated, it will not only replace Units 4 and 5—which otherwise would be operated indefinitely—but also will substantially displace FPL's use of other less-efficient units that emit significantly greater amounts of GHGs than Unit 7 will emit over its projected life, thus resulting in a net system-wide reduction in GHG emissions.

^{10/} DBEC will emit small amounts of nitrogen oxide and sulfur hexafluoride.

^{11/} Methane is the primary component of natural gas. Although it comprises a relatively minor component of the GHGs emitted from natural gas-fired electrical power plants, it has a higher global warming potential than carbon dioxide. Approximately 99 percent of DBEC's GHG emissions will be comprised of carbon dioxide.

^{12/} Section 403.509(5), which addresses air permitting authority under the PPSA, states, in pertinent part: "[n]othing in this part shall be construed to displace the department's [(DEP's)] authority as the final permitting entity under the federally approved permit program."

^{13/} Although the Air Permit is not subject in this proceeding to being revised or modified to impose new, additional, or different conditions, it is important to note that use of carbon capture and sequestration technology was specifically considered as part of the BACT evaluation for DBEC, and was rejected because it was determined neither technically nor economically feasible.

^{14/} The air construction/PSD permit establishes specific emissions standards for Unit 7 for nitrogen oxides, carbon monoxides, PM/PM10/PM2.5, sulfur dioxide and sulfuric acid mist, volatile organic compounds, and GHGs.

^{15/} The GHG emissions rates for Unit 7 set forth in the Air Permit reflect the "worst case" scenario, which assumes that Unit 7 will operate at 100 percent capacity every hour of the year and will, during that period, burn 2,000 hours of ULSD oil (1,000 hours for each CT). The credible evidence established that this scenario is unlikely because electrical generating units typically do not run 100 percent of the time, and because backup fuel sources typically are used far less often and in smaller quantities than the amount permitted.

^{16/} This projection was based on the previously-discussed projected system-wide reduction of 133,966,983 million cubic feet of natural gas consumption between 2018 and 2047 if Units 4 and 5 are retired in 2018 and Unit 7 commences operation in 2022.

^{17/} In the Application, FPL also projected a reduction of GHG emissions by approximately 22 million tons over the period from 2022 to 2063 due to operation of DBEC. This projected reduction is a comparison between Unit 7 and Units 4 and 5, assuming that Units 4 and 5 continue to operate in the period from 2022 to 2063 at the same level at which they operated in the period from 2012 and 2016. The key differences between the scenario in which Unit 7 is projected to reduce GHG emissions by 8.1 million tons and in which it is projected to reduce GHG emissions by 22 million tons are the comparative timeframes—30 years versus 41 years—and the different projected levels of operation of Units 4 and 5 over those timeframes. Importantly, under either scenario, DBEC provides a substantial reduction in GHG emissions.

^{18/} The evidence established that over 99 percent of the GHG emissions from DBEC consist of carbon dioxide.

^{19/} This estimated reduction in system-wide generation of GHG is conservative because it is based only on the projected reduction of natural gas consumption. In reality, some of FPL's older, less efficient electrical power generating units burn coal and oil, and these units may be displaced by the operation of Unit 7. In that scenario, GHGs would be reduced in amounts even greater than the 8.1 million tons projected as a result of the displacement by Unit 7 of less efficient natural gas-burning units.

^{20/} In its Proposed Recommended Order, Sierra cites PSC-16-0560, page 241, as support for the statement that "FPL admitted that it would probably retire the Lauderdale units by 2033." However, the order and the information on page 241 of the order were expressly excluded from admission into evidence in the certification hearing. Tr. Vol. II, p. 108, lines 13-17.

^{21/} See Sierra's Proposed Recommended Order, ¶¶ 204 - 224, 238, pp. 44-49, 52.

^{22/} PSD and Title V Permitting Guidance for Greenhouse Gases, United States Environmental Protection Agency, Office of Air and Radiation, March 2011, ("EPA PSD Guidance") at p. 41. This document is Exhibit 7 to Arif's deposition, which was admitted into evidence as Sierra Exhibit 85.

^{23/} Ackerman is an environmental economist employed by Synapse Energy Economics, Inc. He was accepted as expert in determining the social cost of carbon, the costs of reducing climate change impacts, and the use of cost/benefit analyses in these areas.

^{24/} Integrated assessment models attempt to assess, in compressed form, the effect of the growth of the world economy and resulting increased GHG emissions on the climate, and the effect of damage resulting from climate change on the world economy.

^{25/} This is the federal government's estimate of the social cost of carbon at the year 2040, which approximates the midpoint of DBEC's projected lifetime.

^{26/} There is a direct proportional relationship between amount of GHG emissions from DBEC and the monetized amount of damages resulting from such emissions. To that point, Ackerman testified that if DBEC actually emitted 60 percent of those annual emissions projections, then the monetized damages would be 60 percent of those annual emissions projections.

^{27/} It must be noted here that Sierra's contention that operating Unit 7 will result in a greater total amount of carbon emissions than continuing to operate Units 4 and 5 appears based on the assumption that Units 4 and 5 will be retired in 2033 and, presumably, will not be replaced at all or else will be replaced with generating technology that has lower or no carbon emissions. As discussed in note 20, above, there is no competent substantial evidence in the record to support the assumption that Units 4 and 5 will be retired in 2033 if Unit 7 is not constructed, nor is there is any competent evidence in the record to support any

assumption regarding any specific type of power generating technology or type that may or may not be used by FPL in the future.

^{28/} While section 403.509(3) confers broad authority to the Siting Board to consider, and deny or impose conditions on site certification in order to protect air and water quality, fish and wildlife, water resources, other natural resources of the state, human health, and the broad interests of the public, this statute has not previously been interpreted to impose the requirement that the social costs of carbon be considered or addressed, and no state or federal rules or regulations applicable to permitting electrical power plants impose such a requirement. Although the evidence presented in this proceeding regarding climate change and the need to exigently address it is compelling, the evidence shows that it is extremely difficult, at this juncture, to accurately perform cost/benefit analyses regarding climate change because there is substantial uncertainty and lack of consensus regarding the extent, rate, and effects of climate change.

^{29/} In support of its position that a life-cycle analysis that included the emissions generated by natural gas production and transport to DBEC should have been performed, Sierra cites section 377.601(2)(j), Florida Statutes, which states: "[i]t is the policy of the State of Florida to: . . . (j) [c]onsider, in its decision-making, the social, economic, and environmental impacts of energy-related activities, including the whole-life-cycle impacts of any potential energy use choices, so that detrimental effects of these activities are understood and minimized." Neither DEP nor the Siting Board are statutorily authorized to implement this provision through the air construction permitting program or the PPSA. See Schiffman v. Dep't of Prof'l. Reg., 581 So. 2d 1375, 1379 (Fla. 1st DCA 1991) (under Florida law, administrative agencies only have the authority conferred by statute). In fact, section 377.601(2)(j) is administered by the Florida Department of Agriculture and Consumer Services Office of Energy, which has not adopted any rules to implement this specific provision. Further, as a specific statute covering a particular subject matter, the provision in section 403.503(14) that expressly limits PPSA applicability to associated facilities that are or will be owned by the applicant controls the scope of this proceeding. Read v. MFP, Inc., 85 So. 3d 1151, 1154 (Fla. 2d DCA 2012) ("[i]t is a well settled rule of statutory construction . . . that a special statute covering a particular subject matter is controlling over a general statutory provision covering the same . . . subject[] in general terms.").

30/ USLRP, Figure 1, p. 5.

31/ Each curve is named for the government entity that created the projected sea level rise curve and states whether the curve represents be low, high, median or extreme projected sea level rise. "NOAA" is the National Oceanic and Atmospheric Administration; "IPCC AR5" is the United Nations Intergovernmental Panel on Climate Change, Fifth Assessment Report; and "USACE" is the United States Army Corps of Engineers.

32/ The sea level rise projection curves in the USLRP document reflect global sea level rise projection methods that have been adjusted to account for conditions in southeast Florida, which is particularly vulnerable to sea level rise.

33/ The year 2060 was used as the reference point because DBEC's end of design-life is 2062.

34/ USLRP, at p. 4.

35/ Id.

36/ Id. at p. 12. To that point, the USLRP document's inclusion of only nuclear power plants as among the facilities to which the NOAA High Curve should be applied—along with the express inclusion of "energy infrastructure"—which is fairly read to mean non-nuclear electric power generation facilities and transmission infrastructure—among facilities to the USACE High Curve is appropriately applied, means that it is neither necessary nor appropriate to use the NOAA High Curve in planning the design elevation of the DBEC power generating facility.

37/ Id. at p. 1. Sierra's expert, Wanless, was a member of the Working Group that prepared the USLRP document. He testified that the sea level rise projections in that document represented the ones that the entire group could agree on.

38/ Maul has over 50 years of experience and his research specifically focuses on tides, currents, and sea level, including sea level rise. He was accepted as an expert in physical oceanography.

39/ Based on his research, Maul opined that the USACE High Curve may overestimate sea level rise through 2100. Therefore, FPL's use of that curve to determine the minimum elevation of the DBEC power block is conservative—i.e., more protective.

^{40/} Wanless's research focuses on the effects of hurricanes and sea level rise on tropical shallow marine and coastal environments, including coral reefs and mangrove ecosystems. He was accepted as an expert in climate change as related to sea level rise, hurricanes, and their effects on coastal marine environments.

^{41/} Wanless did not conduct this research himself, and relied on research by others in formulating his opinion for his certification hearing testimony.

^{42/} Wanless testified that before 2010, "we didn't talk about something called redistribution of the Earth's mass."

^{43/} Mean sea level datums are determined based on a 19-year period of observations at a given tide station. The 19-year mean is based on an 18.6 year astronomical cycle that accounts for all significant variations in the distances to the moon and sun that cause slowly varying changes in the range of tides.
68 Fed. Reg. 31689 (May 28, 2003); § 90.202(11), Fla. Stat.

^{44/} Maul is a physical oceanographer whose expertise includes researching ocean currents. He has specifically studied the Gulf Stream, and he concluded that, at least by 2015, there had been no statistically significant slowing of that current. Wanless's research, on the other hand, has been more specifically focused on climate change as determinable through the examination of sediments and terrestrial and marine geological features. There was no evidence presented showing that Wanless has performed scientific research on the Gulf Stream, nor was there any evidence presented regarding Wanless's own research that directly and persuasively refuted Maul's conclusion regarding the Gulf Stream. Accordingly, the undersigned assigns greater weight to Maul's testimony on this point.

^{45/} DBEC's use of existing infrastructure results in significant savings in financial expenditures, resource expenditure, and environmental impacts, that otherwise would be incurred if FPL constructed new infrastructure.

^{46/} There is conflicting evidence regarding the rate of, and extent which, sea level has risen, and will continue to rise, on a local level in southeast Florida. Maul, who has researched sea level in southeast Florida for decades, did not observe any significant rise in sea level between 2000 and 2015 in the southeast Florida region, as determined from tide gauge data from Key West.

^{47/} Some testimony presented by Sierra's expert witnesses addressed topics on which they were not qualified as experts. For example, Wanless testified that rising ocean temperatures already have caused substantial damage to coral reefs and other marine ecosystems, and that ocean acidification is anticipated to have devastating impacts on marine phytoplankton and other marine organisms and sensitive ecosystems, including coral reefs. However, Wanless was not qualified as a marine biology expert in this proceeding, so his testimony on these topics has not been assigned weight by the undersigned. Similarly, Ackerman testified that in determining the social cost of carbon, impacts to agricultural crops are among the factors considered. However, he was qualified as an environmental economist, rather than an expert in agriculture. Accordingly, his testimony is not considered evidence that such agricultural impacts are occurring due to climate change—only that those impacts are among the things he considers in determining the social cost of carbon. It is further noted here that several scientific publications tendered by Sierra were admitted into evidence. To the extent those publications were not the subject of testimony at the certification hearing, they are hearsay evidence to which no weight has been assigned. § 120.57(1)(c), Fla. Stat. (hearsay evidence is not sufficient in itself to support a finding of fact unless it falls within an exception to the hearsay rule).

^{48/} "Completeness" means that the site certification application has addressed all applicable sections of the prescribed application format, and that those sections are sufficient in comprehensiveness of data or in quality of information provided to allow the SCO to determine whether the application provides the reviewing agencies adequate information to prepare the agency reports. § 403.503(10), Fla. Stat.

^{49/} The "affected agencies" are DEP, DEO, the water management district in whose boundaries the electrical power plant is proposed to be located, each local government in whose jurisdiction the electrical power plant is proposed to be located, FFWCC, DOT, and any other agency requested by DEP to prepare studies or reports regarding matters within that agency's jurisdiction that may be affected by the electrical power plant. § 403.507(2), Fla. Stat.

^{50/} The SCO prepares a PAR only if the PSC first issues an affirmative determination, pursuant to section 403.519, that the electrical power plant is needed. § 403.507(4)(b), Fla. Stat.

51/ The term "nonprocedural requirements of agencies" means each agency's substantive regulatory requirements established by statute, rule, ordinance, zoning ordinance, land development code, or comprehensive plan. § 403.503(21), Fla. Stat.

52/ It is well-established in Florida law that administrative agencies only have the authority that the Legislature has conferred by statute. Schiffman at 1379; see City of Cape Coral v. G.A.C. Util., Inc., 281 So. 2d. 493, 496 (Fla. 1973) (because agencies are creatures of statute, their "powers, duties, and authority are those and only those that are conferred expressly or impliedly by statute").

53/ Several persons at the public hearing spoke in opposition to FPL engaging in fracking and using fracked gas derived from near the DBEC site. It must be noted that the DBEC project, as proposed does not entail a natural gas activity fracking component, and there was no competent substantial evidence to the contrary presented at the certification hearing. As discussed above, DBEC will use natural gas that is transported to the site by a pipeline owned by Florida Gas Transmission Company. The source of that natural gas, which will be produced by unknown third parties, is unknown at this juncture.

54/ The public comments are transcribed at pages 203 through 305 of the May 15, 2018, volume of the Transcript.

55/ As discussed above, there is no competent substantial evidence in the record to support Sierra's assumption that Units 4 and 5 must or will retire by 2033 if DBEC does not go into operation.

56/ During DBEC construction, FPL will continue to provide a warm water refuge for manatees.

57/ Sierra did not present evidence regarding its total number of members nationwide.

58/ In Farmworker Rights Organization, Inc. v. Department of Health and Rehabilitation, 417 So. 2d 753, 754-55 (Fla. 1st DCA 1982), the associational standing test was extended to apply to proceedings conducted pursuant to section 120.57.

59/ As the Florida Supreme Court noted in Florida Home Builders, "[e]xpansion of public access to the activities of governmental agencies was one of the major legislative purposes of the . . .

[Florida] Administrative Procedure Act." Fla. Home Builders, 412 So. 2d at 352-353.

^{60/} Section 403.511(3) states that the certification license issued under the PPSA "shall be in lieu of" any license, permit, certificate, or similar document required by any state, regional, or local agency pursuant to, but not limited to, chapter 125, chapter 161, chapter 163, chapter 166, chapter 186, chapter 253, chapter 298, chapter 373, chapter 376, chapter 379, chapter 380, chapter 381, chapter 403, Florida Statutes, except for permits issued pursuant to any federally delegated or approved permit program.

^{61/} To this point, Sierra contends that if DBEC is flooded by sea level rise and storm surge, FPL's ratepayers—many of whom are Sierra members—will be required to shoulder the financial burden of repairing the facility. Pursuant to section 403.511(4), ratemaking matters are not germane to this proceeding, and the undersigned specifically excluded such matters from consideration in this proceeding in the Order Granting Intervention and Limiting Matters to be Addressed in the Certification Hearing issued in this proceeding on May 4, 2018.

^{62/} Section 403.511(6) states: "[n]o term or condition of an electrical power plant certification shall be interpreted to supersede or control the provisions of a final operation permit for a major source of air pollution issued by the department pursuant to s. 403.0872 to a facility certified under this part."

^{63/} There is no technologically feasible way to terminate GHG emissions from DBEC other than ceasing its operation. As discussed above, carbon capture and sequestration was considered as BACT and specifically rejected because it is not technologically or economically feasible.

^{64/} As previously stated, there is no competent substantial evidence in the record supporting a 2033 retirement date for Units 4 and 5.

^{65/} See note 62, supra.

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NOTICE OF RIGHT TO SUBMIT EXCEPTIONS

All parties have the right to submit written exceptions within 15 days from the date of this Recommended Order. Any exceptions to this Recommended Order should be filed with the agency that will issue the Final Order in this case.

**STATE OF FLORIDA
DEPARTMENT
OF
ENVIRONMENTAL PROTECTION**



Conditions of Certification

**Florida Power & Light Company
Lauderdale Plant
Dania Beach Energy Center**

PA 89-26A2

EXHIBIT B

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ATTACHMENTS

Attachment A	Certified Site/Areas/Facilities Delineation Maps (Maps)
Attachment B	Surface Water Management System Operation and Maintenance Requirements
Attachment C	Mitigation Plan(s)
Attachment D	Broward County Memos

SECTION A: GENERAL CONDITIONS

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I. SCOPE

A. Pursuant to the Florida Electrical Power Plant Siting Act (PPSA), Sections 403.501-518, Florida Statutes (F.S.), and Chapter 62-17, Florida Administrative Code (F.A.C.), this certification is issued to Florida Power & Light Company (FPL) as owner/operator and Licensee of the Lauderdale Repowering Plant (LRP) and Unit 7 - Dania Beach Energy Center (DBEC). Subject to the requirements contained in these Conditions of Certification (Conditions), FPL will operate; Units 4 and 5 which are two nominal 430 megawatt (MW) oil/natural gas-fired combine cycle units ; Unit 6 consisting of five nominal 200 MW combustion turbines (peaking units); DBEC a 1,200 MW nominal 2 on 1 oil/natural gas-fired combined-cycle unit; and associated facilities as described in the site certification applications (SCAs. The electric generating units and associated facilities are located on a 392-acre site at 4300 SW 42nd Avenue in the City of Dania Beach and City of Hollywood, Broward County, Florida. The UTM coordinates are: Zone 17,580.2 km East, 2883.3 km North; and the latitude/longitude coordinates are: 26°04'05" North/80°11'54" West. The Department does not intend, solely by the incorporation of these General Conditions, to require the retrofitting of existing Certified Facilities.

B. The Certified Facility includes but is not limited to the following major associated facilities;

-
- Units 4 & 5 - each consisting of two combustion turbines and two heat recovery steam generators (HRSGs) and one single-reheat turbine generator (Combustion Turbines 4a, 4b, 5a, 5b and associated building
 - Water Treatment Plant, including Acid & Caustic Tanks, Reverse Osmosis equipment and Neutralization Tank, demineralized water tanks, and the condensate and service water tanks
 - Wastewater Treatment Plant including Equalization Basin, Oily Basin, Acid and Caustic Tanks and water treatment equipment including Oil-water Separator, Flocculation Tank, Monoscour Tanks
- Storm water runoff/retention pond on south side of the plant
- Unit 6 - 5 nominal 200 MW combustion turbines (peaking units)
- Unit 7 (DBEC) - including two nominal 400 MW combustion turbine generators, two HRSGs, and a single nominal 400 MW steam turbine generator

C. These Conditions, unless specifically amended or modified, are binding upon the Licensee and shall apply to the construction, operation and maintenance of the Certified Facility. If a conflict should occur between the design criteria of this Certified Facility and the Conditions, the Conditions shall prevail unless amended or modified. In any conflict between any of these Conditions, the more specific condition governs.

D. Within 60 days after completion of construction of the electrical power plant as defined by 403.503(14), F.S., but excluding off-site linear and non-linear associated facilities, the Licensee shall provide to the Department in pdf format: a survey map signed by a

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professional land surveyor, or acceptable equivalent documentation such as an official legal description, delineating the boundaries of the site as defined by Section 403.503(28), F.S., and an aerial photograph delineating the boundaries of the site. The survey map and aerial photograph shall be identified as the Site Delineation and attached hereto as part of Attachment A (Maps).

The Licensee shall notify the Department of any change to the site boundary depicted in the Site Delineation in Attachment A (Maps). The notification shall be accompanied by an updated land survey map (or legal description) and aerial photograph delineating the new boundaries of the site for review by the Department. Absent the above description/delineation of the site, the Department will consider the perimeter fence line of the property on which the electrical power plant's generating facility and on-site support facilities are located to be the boundaries of the site.

E. If both certified and un-certified Facilities lie within the boundaries of the site, the Licensee shall also comply with the requirements of this paragraph. Within 60 days after completion of construction of the plant and on-site associated facilities, but excluding off-site linear and non-linear associated facilities, the Licensee shall provide to the Department in pdf format: an acceptable documentation delineating the boundaries of the certified areas within the site such as an aerial photograph delineating these areas. The boundaries of the certified areas within the site shall include both the certified electrical power plant's generating facilities as defined in Section 403.503(28), F.S., and its on-site certified associated facilities (including on-site linear facilities) as defined by Section 403.503(7), F.S. The document shall be known as the Delineation of the Certified Area of the Site and attached hereto as part of Attachment A (Maps).

F. Within 120 days after completion of construction of any off-site associated non-linear facilities, the Licensee shall provide to the Department in .pdf format; a survey map signed by a professional land surveyor, or acceptable equivalent documentation such as an official legal description, delineating the boundaries of the certified areas for each off-site non-linear Certified Facility; and an aerial photograph delineating the boundaries of the certified area for each off-site non-linear certified Facility. The survey map(s) and aerial photograph(s) shall be known as Delineation of the Certified Areas of the Off-site Non-linear Facilities and attached hereto as part of Attachment A (Maps).

G. Within 180 days after completion of construction of any new off-site associated linear facilities, as defined by Section 403.503(7), F.S., the Licensee shall provide; an aerial photograph(s)/map(s) at a scale of at least 1:400, or acceptable equivalent documentation such as an official legal description or survey map(s) signed by a professional land surveyor, delineating the boundaries of the certified area for the linear facilities, following acquisition of all necessary property interests and the corridor narrowing as described in Section 403.503(11), F.S., which shall be known as the Delineation of Certified Off-Site Linear Facilities and attached as part of Attachment A (Maps).

Following any post-certification approvals that require a change to the boundaries of the certified area(s) depicted in the Delineation of Certified Off-Site Linear Facilities in Attachment A (Maps), the Licensee shall submit an updated aerial photograph/map, survey map or legal description.

[Sections 403.511, 403.5113, F.S.; subsections 62-4.160(1-2) and 62-17.205(2), F.A.C.]

SECTION A: GENERAL CONDITIONS

II. APPLICABLE DEPARTMENT RULES

The construction, operation, and maintenance of the Certified Facility shall be in accordance with all applicable non-procedural provisions of Florida Statutes and Florida Administrative Code, including, but not limited to, the applicable non-procedural portions of the following regulations, except to the extent a variance, exception, exemption or other relief is granted in the final order of certification or in a subsequent modification to the Conditions, under any federal permit, or as otherwise provided under Chapter 403:

Florida Administrative Code:

- 18-2 (Management of Uplands Vested in the Board of Trustees)
- 18-14 (Administrative Fines for Damaging State Lands)
- 18-20 (Aquatic Preserves)
- 18-21 (Sovereign Submerged Lands Management)
- 62-4 (Permits)
- 62-17 (Electrical Power Plant Siting)
- 62-25 (Regulation of Stormwater Discharge)
- 62-40 (Water Resource Implementation Rule)
- 62-150 (Hazardous Substance Release Notification)
- 62-160 (Quality Assurance)
- 62-204 (Air Pollution Control-General Provisions)
- 62-210 (Stationary Sources-General Requirements)
- 62-212 (Stationary Sources-Preconstruction Review)
- 62-213 (Operation Permits for Major Sources of Air Pollution)
- 62-214 (Requirements for Sources Subject to the Federal Acid Rain Program)
- 62-256 (Open Burning)
- 62-296 (Stationary Sources-Emission Standards)
- 62-297 (Stationary Sources-Emission Monitoring)

- 62-302 (Surface Water Quality Standards)
- 62-303 (Identification of Impaired Surface Waters)
- 62-304 (Total Maximum Daily Loads)
- 62-330 (Environmental Resource Permitting)
- 62-340 (Delineation of the Landward Extent of Wetlands and Surface Waters)
- 62-342 (Mitigation Banks)
- 62-345 (Uniform Mitigation Assessment Method)

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- 62-520 (Groundwater Classes, Standards and Exemptions)
- 62-531 (Water Well Contractor Licensing Requirements)
- 62-532 (Water Well Permitting and Construction Requirements)
- 62-550 (Drinking Water Standards, Monitoring and Reporting)
- 62-555 (Permitting, Construction, Operation, and Maintenance of Public Water Systems)
- 62-560 (Requirements for Public Water Systems That Are Out of Compliance)
- 62-600 (Domestic Wastewater Facilities)
- 62-601 (Domestic Wastewater Treatment Plant Monitoring)
- 62-604 (Collection Systems and Transmission Facilities)
- 62-610 (Reuse of Reclaimed Water and Land Application)
- 62-620 (Wastewater Facility and Activities Permitting)
- 62-621 (Generic Permits)
- 62-650 (Water Quality Based Effluent Limitations)
- 62-660 (Industrial Wastewater Facilities)
- 62-699 (Classification and Staffing of Water or Domestic Wastewater Treatment Plants and Water Distribution Systems)
- 62-701 (Solid Waste Management Facilities)
- 62-710 (Used Oil Management)
- 62-730 (Hazardous Waste)
- 62-737 (Management of Spent Mercury-Containing Lamps and Devices Destined For Recycling)
- 62-740 (Petroleum Contact Water)
- 62-761 (Underground Storage Tank Systems)
- 62-762 (Aboveground Storage Tank Systems)
- 62-769 (Florida Petroleum Liability and Restoration Insurance Program)
- 62-777 (Contaminant Cleanup Target Levels)
- 62-780 (Contaminated Site Clean-Up Criteria)
- 62-814 (Electric and Magnetic Fields)

III. REVISIONS TO DEPARTMENT STATUTES AND RULES

A. The Licensee shall comply with rules adopted by the Department subsequent to the issuance of the certification under the PPSA which prescribe new or stricter criteria, to the extent that the rules are applicable to electrical power plants. Except when express variances, exceptions, exemptions, or other relief have been granted, subsequently adopted Department

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rules which prescribe new or stricter criteria shall operate as automatic modifications to the certification.

B. Upon written notification to the Department, the Licensee may choose to operate the certified electrical power plant in compliance with any rule subsequently adopted by the Department which prescribes criteria more lenient than the criteria required by the terms and conditions in the certification which are not site-specific.

[Section 403.511(5)(a) and (b), F.S; subsection 62-4.160(10), F.A.C.]

IV. DEFINITIONS

The meaning of terms used herein shall be governed by the applicable definitions contained in Chapters 253, 373, 379 and 403, F.S., and any regulation adopted pursuant thereto. In the event of any dispute over the meaning of a term used in these Conditions which is not defined in such statutes or regulations, such dispute shall be resolved by reference to the most relevant definitions contained in any other state or federal statute or regulation or, in the alternative by the use of the commonly accepted meaning. As used herein, the following shall apply:

A. "Application" or "SCA" as defined in Section 403.503(6), F.S. For purposes of this license, "Application" shall also include materials submitted for post-certification amendments and petitions for modification to the Conditions of Certification, as well as supplemental applications.

B. "Associated Facilities" as defined by Section 403.503(7), F.S.

C. "Certified Area" means the area within the site in which the Certified Facilities are located. For off-site non-linear associated facilities this shall mean the area within which the certified off-site associated facility is located. For off-site linear facilities this term shall mean the area encompassed by the boundaries of the certified corridors, until such time as all property interests required for ROWs have been acquired, after which time the term will include only the area within the final ROWs in accordance with Section 403.503(11), F.S.

D. "Certified Facility" or "Certified Facilities" means the certified electrical power generation facilities and all on- or off-site associated structures and facilities identified/described in the Application, in the final order of certification, or in a post-certification amendment or modification.

E. "DEO" means the Florida Department of Economic Opportunity.

F. "DEM" shall mean the Florida Division of Emergency Management.

G. "DEP" or "Department" means the Florida Department of Environmental Protection.

H. "DHR" means the Florida Department of State, Division of Historical Resources.

I. "DOT" means the Florida Department of Transportation.

J. "Emergency conditions" or "Emergency reporting" means urgent circumstances involving potential adverse consequences to human life or property as a result of weather conditions or other calamity.

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K. “Feasible” or “practicable” means reasonably achievable considering a balance of land use impacts, environmental impacts, engineering constraints, and costs.

L. “FWC” means the Florida Fish and Wildlife Conservation Commission.

M. “Licensee” means an applicant that has obtained a certification order for the subject project.

N. “NPDES permit” means a federal National Pollutant Discharge Elimination System permit issued by DEP in accordance with the federal Clean Water Act.

O. “Post-certification submittal” shall mean a submittal made by the Licensee pursuant to a Condition of Certification.

P. “PSD permit” means a federal Prevention of Significant Deterioration air emissions permit issued by DEP in accordance with the federal Clean Air Act.

Q. “ROW” means the right-of-way to be selected by the Licensee within the certified corridor in accordance with the Conditions of Certification and as defined in Section 403.503(27), F.S.

S. “Site” as defined in Section 403.503(28).

T. “SFWMD” means the South Florida Water Management District.

U. “State Water Quality Standards” shall mean the numerical and narrative criteria applied to specific water uses or classifications set forth in Chapters 62-302, and 62-520, F.A.C.

V. “Surface Water Management System” or “System” means a stormwater management system, dam, impoundment, reservoir, appurtenant work, or works, or any combination thereof. The terms “surface water management system” or “system” include areas of dredging or filling, as those terms are defined in Sections 373.403(13) and (14), F.S.

W. “Title V permit” means a federal permit issued by DEP in accordance with Title V provisions of the federal Clean Air Act.

X. “Wetlands” shall mean those areas meeting the definition set forth in Section 373.019(27), F.S., as delineated pursuant to Chapter 62-340, F.A.C.

V. DEPARTMENT PERMITS UNDER FEDERAL PROGRAMS

This certification is not a waiver of any other Department approval that may be required under federally delegated or approved programs. The provisions of the following federal permits shall be conditions of this certification to the extent the provisions of those permits apply to the Certified Facility(ies). The Licensee shall comply with the applicable provisions and limitations set forth in the permits listed below, and as those provisions may be modified, amended, or renewed in the future by the Department. The Department may consider a violation of any of these permits as a violation of this license.

A. *Air*

All Air Construction Permits and Title V Air Operation Permits in force for the Certified Facilities are incorporated by reference herein as part of these Conditions. The [Air Construction Permits and Title V Air Operation Permits](#) can be found using the facility ID number 0110037.

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[Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-214, 62-296, and 62-297, F.A.C.]

B. Water

1. National Pollutant Discharge Elimination System (NPDES) Industrial Wastewater Discharge

All NPDES Permits in force for the Certified Facilities are incorporated by reference herein as part of these Conditions. The [NPDES Permit\(s\)](#) can be found using the facility ID number 0001503.

[Chapter 62-620, F.A.C.]

2. NPDES Generic Permit for Stormwater Discharge from Large and Small Construction Activities (CGP)

Any storm water discharges associated with construction activities in a certified area shall be in accordance with all applicable provisions of Chapter 62-621, F.A.C. Prior to commencing construction activities on the site that:

- contribute to stormwater discharges to surface waters of the State or into a municipal separate storm sewer system (MS4); and
- disturb one or more acres of land (less than one acre if the activity is part of a larger common plan of development);

a Generic Permit for Stormwater Discharge from Large and Small Construction Activities (CGP) must be obtained as applicable.

[Section 403.0885, F.S.; Rule 62-621.300, F.A.C.]

3. NPDES Multi-Sector Generic Permit for Stormwater Discharge Associated with Industrial Activity.

Any storm water discharges associated with industrial activity in a certified area shall be in accordance with all applicable provisions of Chapter 62-621, F.A.C. For industrial activities at the site that result in a discharge of stormwater to surface waters of the State or into a municipal separate storm sewer system, and fall under any one of the 11 categories of industrial activities identified in 40 CFR § 122.26(b)(14), a Multi-Sector Generic Permit for Stormwater Discharge Associated with Industrial Activity shall be obtained as applicable.

[Section 403.0885, F.S.; Rule 62-621.300, F.A.C.]

4. NPDES Generic Permits for Discharges from Petroleum Contaminated Sites.

Prior to discharge of produced ground water from any non-contaminated site activity which discharges by a point source to surface waters of the State, as defined in Chapter 62-620, F.A.C., the Licensee must first obtain coverage under the Generic Permit for Discharge of Produced Ground Water From any Non-Contaminated Site Activity. If an activity involves a point source discharge of ground water from a petroleum contaminated site, the Licensee must obtain coverage under the Generic Permit for discharge from petroleum contaminated sites. Before discharge of ground water can occur from such sites, analytical tests

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on samples of the proposed untreated discharge water shall be performed as required by Rule 62-621.300, F.A.C., to determine if the activity can be covered by this permit.

If the activity cannot be covered by this generic permit, the Licensee shall apply for an individual wastewater permit at least ninety (90) days prior to the date discharge to surface waters of the State is expected. No discharge to surface water is permissible without an effective permit.

[Section 403.0885, F.S.; Rule 62-621.300, F.A.C.]

5. NPDES Generic Permit for Discharge of Ground Water from Dewatering Operations.

Prior to discharge of ground water from dewatering operations to surface waters of the State, provided all applicable criteria specified in 62-621, F.A.C. are met, the Licensee must first obtain coverage under the Generic Permit for Discharges of Ground Water From Dewatering Activities. The Licensee shall meet the effluent limitations and requirements specified in the generic permit. Dewatering operations seeking coverage under the NPDES Generic Permit for Stormwater Discharges from Large and Small Construction Activities under 62-621.300(4), F.A.C., are not required to obtain separate coverage under this permit.

[Section 403.0885, F.S.; Rule 62-621.300, F.A.C.]

VI. DESIGN AND PERFORMANCE CRITERIA

Certification, including these Conditions, is predicated upon preliminary designs, concepts, and performance criteria described in the SCA or in testimony and exhibits in support of certification. Final engineering design will be consistent and in substantial compliance with the preliminary information described in the SCA or as explained at the certification hearing (if any). Conformance to those criteria, unless specifically modified in accordance with Sections 403.516, F.S., and Rule 62-17.211, F.A.C., is binding upon the Licensee in the design, construction, operation and maintenance of the Certified Facility.

[Sections 403.511 (2)(a), 403.516, F.S.; Rules 62-4.160(2), 62-17.211, F.A.C.]

VII. NOTIFICATION

A. If, for any reason, the Licensee does not comply with or will be unable to comply with any condition or limitation specified in this license, the Licensee shall immediately provide the DEP SED District with the following information:

1. A description of and cause of noncompliance; and
2. The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance. The Licensee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this certification.

All notifications which are made in writing shall additionally be immediately provided to the Siting Coordination Office (SCO) via email to SCO@dep.state.fl.us.

[subsection 62-4.160(8), F.A.C.]

SECTION A: GENERAL CONDITIONS

B. The Licensee shall promptly notify the SCO in writing (email acceptable) of any previously submitted information concerning the Certified Facility that is later discovered to be inaccurate.

[subsection 62-4.160(15), F.A.C.]

C. Within 60 days after certification of an associated linear facility the Licensee shall file a notice of the certified route with the Department's Office of General Counsel and the clerk of the circuit court for each county through which the corridor will pass.

The notice shall consist of maps or aerial photographs in the scale of 1:24,000 which clearly show the location of the certified route and shall state that the certification of the corridor will result in the acquisition of rights-of-way within the corridor. The Licensee shall certify to the Department and clerk that all lands required for the transmission line rights-of-way within the corridor have been acquired within such county.

[Section 403.5112, F.S.]

VIII. EMERGENCY CONDITION NOTIFICATION AND RESTORATION

If the Licensee is temporarily unable to comply with any of the conditions of the License due to breakdown of equipment or destruction by hazard of fire, wind or following an emergency as defined by Sections 252.34(3), (6), (7) or (9), F.S., the Licensee shall immediately notify the Department. Notification shall include pertinent information as to the cause of the problem, and what steps are being taken to correct the problem and to prevent its recurrence, and where applicable, the owner's intent toward reconstruction of destroyed facilities. Such notification does not release the Licensee from any liability for failure to comply with Department rules. Any exceedances and/or violations recorded during emergency conditions shall be reported as such, but the Department acknowledges that it intends to use its enforcement discretion during this timeframe. This acknowledgement by the Department does not constitute a waiver or variance from any requirements of any federal permit. Relief from any federal agency must be separately sought.

[Section 62-4.130, F.A.C.]

IX. CONSTRUCTION PRACTICES

A. Local Building Codes

Subject to the conditions set forth herein, this certification constitutes the sole license of the state and any agency as to the approval of the location of the site and any associated facility and the construction and operation of any Certified Facility. The Licensee is not required to obtain building permits for Certified Facilities. However, this certification shall not affect in any way the right of any local government to charge appropriate fees or require that construction of installations used by the electric utility that are not an integral part of a generating plant, substation, or control center (such as, office buildings, warehouses, garages, machine shops, and recreational buildings) be in compliance with applicable building construction codes.

[Section 403.511(4), F.S.]

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B. Open Burning

Prior to open burning in connection with land clearing, the Licensee shall seek authorization from the Florida Forest Service in accordance with the requirements of Chapters 62-256 and 51-2, F.A.C.

[Chapters 51-2 and 62-256, F.A.C.]

C. Vegetation

For areas located in any Florida Department of Transportation (DOT) ROW, Chapter 4.6 of the [Florida DOT Utility Accommodation Manual](#) shall serve as guidelines for best management practices.

D. Existing Underground Utilities

The Licensee must follow all applicable portions of the Underground Facility Damage Prevention and Safety Act, Chapter 556, F.S. The Licensee shall provide the affected local government and the SCO with copies of valid tickets obtained from Sunshine State One Call of Florida upon request. Tickets shall be available for request until the underground work is completed for the affected area.

[Chapter 556, F.S.]

E. Electric and Magnetic Fields (EMF)

Any associated transmission lines and electrical substations shall comply with the applicable requirements of Chapter 62-814, F.A.C.

[Chapter 62-814, F.A.C.]

F. Existing Wells

Any existing wells to be impacted in the path of construction of Certified Facilities that will no longer be used shall be abandoned by a licensed well contractor. All abandoned wells shall be filled and sealed in accordance with subsection 62-532.500(5), F.A.C., or with the rules of the authorizing agency, or consistent with these Conditions.

[subsections 62-532.400 and 62-532.500(5), F.A.C.]

G. Abandonment of Existing Septic Tanks

Any existing septic tanks to be impacted by construction and that will no longer be used shall be abandoned in accordance with Rule 64E-6.011, F.A.C., unless these Conditions provide otherwise.

[Chapter 64E-6, F.A.C.]

X. RIGHT OF ENTRY

A. Upon presentation of credentials or other documents as may be required by law, the Licensee shall allow authorized representatives of the Department or other agencies with jurisdiction over a portion of the Certified Facility and any authorized off-site mitigation/compensation or otherwise associated areas:

SECTION A: GENERAL CONDITIONS

1. At reasonable times, to enter upon the Certified Facility in order to monitor activities within their respective jurisdictions for purposes of assessing compliance with this certification; or

2. During business hours, to enter the Licensee's premises in which records are required to be kept under this certification; and to have access to and copy any records required to be kept under this certification.

B. When requested by the Department, on its own behalf or on behalf of another agency with regulatory jurisdiction, the Licensee shall within 10 working days, or such longer period as may be mutually agreed upon by the Department and the Licensee, furnish any information required by law, which is needed to determine compliance with the certification.

[paragraph 62-4.160(7)(a) and subsection 62-4.160(15), F.A.C.]

XI. DISPUTE RESOLUTION

A. General

If a situation arises in which mutual agreement between either the Department and the Licensee, or, the Department and an agency with substantive regulatory jurisdiction over a matter cannot be reached, the Department can act as a facilitator in an attempt to resolve the issue. If the dispute is not resolved in this initial informal meeting, Licensee may request a second informal meeting in which both Licensee and the agency with substantive regulatory jurisdiction over the matter at issue can participate in an attempt to resolve the issue. If, after such meetings, a mutual agreement cannot be reached between the parties, then the matter shall be referred to the Division of Administrative Hearings (DOAH) for disposition in accordance with the provisions of Chapter 120, F.S. The Licensee or the Department may request DOAH to establish an expedited schedule for the processing of such a dispute. Any filing with DOAH shall state with particularity the specific project and geographic location to which the dispute relates. Work unrelated to the specific project and in areas other than the location to which the dispute relates will not be affected by the dispute.

B. Modifications

If written objections are filed regarding a modification, and the objections address only a portion of a requested modification, then the Department shall issue a Final Order approving the portion of the modification to which no objections were filed, unless that portion of the requested modification is substantially related to or necessary to implement the portion to which written objections are filed.

C. Post-Certification Submittals

If it is determined, after assessment of a post-certification submittal, that compliance with the Conditions will not be achieved for a particular portion of a submittal, the Department may make a separate assessment of other portions of the submittal, unless those portions of the submittal are substantially related to or necessary to implement that portion for which it has been determined that compliance with the Conditions will not be achieved.

[Sections 120.57, F.S. and Rule 62-17.211, F.A.C.]

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XII. SEVERABILITY

The provisions of this certification are severable, and if any provision of this certification or the application of any provision of this certification to any circumstance is held invalid, the remainder of the certification or the application of such provision to other circumstances shall not be affected thereby.

XIII. ENFORCEMENT

A. The terms, conditions, requirements, limitations, and restrictions set forth in these Conditions are binding and enforceable pursuant to Sections 403.141, 403.161, 403.514, 403.727, and 403.859 through 403.861, F.S., as applicable. Any noncompliance by the Licensee with these Conditions constitutes a violation of Chapter 403, F.S., and is grounds for enforcement action, license termination, license revocation, or license revision. The Licensee is placed on notice that the Department may review this certification periodically and may initiate enforcement action for any violation of these Conditions.

B. All records, notes, monitoring data, and other information relating to the construction or operation of the Certified Facility which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the Certified Facility and arising under the Florida Statutes or Department rules, subject to the restrictions in Sections 403.111 and 403.73, F.S. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

[Sections 403.121, 403.131, 403.141, 403.151, 403.161, 403.514, F.S.; subsections 62-4.160(1) and 62-4.160(9), F.A.C.]

XIV. REVOCATION OR SUSPENSION

The certification shall be final unless revised, revoked or suspended pursuant to law. This certification may be suspended or revoked pursuant to Sections 403.512, F.S. This certification is valid only for the specific processes and operations identified in the SCA and approved in the final order of certification and indicated in the testimony and exhibits in support of certification, or approved in a subsequent amendment or modification of the certification. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this approval may constitute grounds for revocation and enforcement action by the Department. Any enforcement action, including suspension and revocation, shall only affect the portion(s) of the Certified Facility that are the cause of such action, and other portions of the Certified Facility shall remain unaffected by such action.

[Sections 403.512, F.S.; subsection 62-4.160(2), F.A.C.]

XV. REGULATORY COMPLIANCE

As provided in Sections 403.087(7) and 403.722(5), F.S., except as specifically provided in the final order of certification, a subsequent modification or amendment, or these conditions, the issuance of this license does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations. This license is not a waiver of or approval of any other Department license/permit that may be required for other aspects of the

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Certified Facility which are not addressed in this license. This license does not relieve the Licensee from liability for harm or injury to human health or welfare, animal, or plant life, or public or private property caused by the construction or operation of the Certified Facility, or from penalties therefore.

[subsections 62-4.160(3) and 62-4.160(5), F.A.C.]

XVI. CIVIL AND CRIMINAL LIABILITY

Except to the extent a variance, exception, exemption or other relief is granted in the final order of certification, in a subsequent modification to these Conditions, or as otherwise provided under Chapter 403, F.S, this certification does not relieve the Licensee from civil or criminal penalties for noncompliance with any condition of certification, applicable rules or regulations of the Department, or any other state statutes or regulations which may apply.

[Sections 403.141, 403.161, and 403.511, F.S.]

XVII. USE OF STATE LANDS

A. Except as specifically provided in the final order of certification or these conditions, the issuance of this license conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.

B. If any portion of the Certified Facility is located on sovereign submerged lands, state-owned uplands, or within an aquatic preserve, then the Licensee must comply with the applicable portions of Chapters 18-2, 18-20, and 18-21, F.A.C., and Chapters 253 and 258, F.S., except as specifically provided in the final order of certification or these conditions. If any portion of the Certified Facility is located on sovereign submerged lands, the Licensee must submit section F of the Joint Application for Environmental Resource Permits to the Department prior to construction. If any portion of the Certified Facility is located on state-owned uplands, the Licensee must submit an Upland Easement Application to the Department prior to construction.

C. If a portion of the Certified Facility is located on sovereign submerged lands or state-owned uplands owned by the Board of Trustees of the Internal Improvement Trust Fund, pursuant to Article X, Section 11 of the Florida Constitution, then the proposed activity on such lands requires a proprietary authorization. Under such circumstances, the proposed activity is not exempt from the need to obtain a proprietary authorization. Unless otherwise provided in the final order of certification or these conditions, the Department has the responsibility to review and take action on requests for proprietary authorization in accordance with Rules 18-2.018 or 18-21.0051, F.A.C.

D. The Licensee is hereby advised that Florida law states: "A person may not commence any excavation, construction, or other activity involving the use of sovereign or other lands of the state, the title to which is vested in the board of trustees of the Internal Improvement Trust Fund under this chapter, until the person has received the required lease, license, easement, or other form of consent authorizing the proposed use." Pursuant to Chapter 18-14, F.A.C., if such work is done without consent, or if a person otherwise damages state land or products of state land, the Board of Trustees may levy administrative fines of up to \$10,000 per offense.

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E. The terms, conditions, and provisions of any required lease or easement issued by the State shall be met. Any construction activity associated with the Certified Facility shall not commence on sovereign submerged lands or state-owned uplands, title to which is held by the Board of Trustees of the Internal Improvement Trust Fund, until all required lease or easement documents have been executed.

[Chapters 253 and 258, F.S.; Chapters 18-2, 18-14, 18-21, 62-340, and subsections 62-330.060(1) and 62-4.160(4), F.A.C.]

XVIII. PROCEDURAL RIGHTS

Except as specified in Chapter 403, F.S., or Chapter 62-17, F.A.C., no term or condition of certification shall be interpreted to preclude the post-certification exercise by any party of whatever procedural rights it may have under Chapter 120, F.S., including those related to rule-making proceedings.

[Sections 403.511(5)(c), F.S.]

XIX. AGENCY ADDRESSES FOR POST-CERTIFICATION SUBMITTALS AND NOTICES

Where a condition requires post-certification submittals and/or notices to be sent to a specific agency, the following agency addresses shall be used unless the Conditions specify otherwise or unless the Licensee and the Department are notified in writing of an agency's change in address for such submittals and notices:

Florida Department of Environmental Protection
Siting Coordination Office, MS 5500
2600 Blair Stone Rd.
Tallahassee, FL 32399-3000
SCO@dep.state.fl.us

Florida Department of Environmental Protection
Southeast District Office
3301 Gun Club Road, MSC 7210-1
West Palm Beach, Florida 33406-3007

Florida Department of Economic Development
Bureau of Community Planning and Growth
107 East Madison St.
Tallahassee, FL 32399-2100

Florida Fish & Wildlife Conservation Commission
Conservation Planning Services
620 South Meridian Street, MS 5B5
Tallahassee, FL 32399-1600
FWCConservationPlanningServices@myfwc.com

Florida Department of Transportation
Senior Policy Advisor

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605 Suwannee Street
Tallahassee, FL 32399-0450

Florida Department of Agriculture and Consumer Services
Office of General Counsel
407 S. Calhoun St.
Tallahassee, FL 32399-1650

South Florida Water Management District
Office of General Counsel
3301 Gun Club Road
West Palm Beach, Florida 33406

Florida Department of State
R.A. Gray Building, 4th Floor
Division of Historical Resources
500 S. Bronough Street
Tallahassee, FL 32399-0250

Broward County
Office of the County Attorney
115 S. Andrews Ave., Room 423
Ft. Lauderdale, Florida 33301

City of Dania Beach
Community Development Director
100 W Dania Beach Boulevard
Dania Beach, FL 33004

City of Hollywood
City Attorney
2600 Hollywood Boulevard
Suite 407
Hollywood, Florida 33020

[Section 403.511, F.S.]

XX. PROCEDURES FOR POST-CERTIFICATION SUBMITTALS

A. Purpose of Submittals

Conditions which provide for the post-certification submittal of information to DEP or other agencies by the Licensee are for the purpose of facilitating the agencies' monitoring of the effects arising from the location of the Certified Facility and the construction and maintenance of the Certified Facility. This monitoring is for DEP to assure, in consultation with other agencies with applicable regulatory jurisdiction, continued compliance with these Conditions, without further agency action. A submittal of information or determination of compliance pursuant to a post-certification submittal under this Condition does not provide a point of entry for a third party.

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B. Filings

All post-certification submittals of information by Licensee are to be filed with the SED Office and any other agency that is entitled to receive a submittal pursuant to these Conditions. The SCO shall be copied on all post-certification submittals in electronic .pdf format only, unless otherwise requested, via email to SCO@dep.state.fl.us. Each submittal shall clearly identify the Certified Facility name, PA#, and the condition number/s (i.e. Section X, Condition XX.y.(z)) requiring the submittal. As required by Section 403.5113(2), F.S., each post-certification submittal will be reviewed by each agency with regulatory authority over the matters addressed in the submittal on an expedited and priority basis.

[Section 403.5113, F.S., subsection 62-17.191(3), F.A.C.]

C. Completeness

DEP shall review each post-certification submittal for completeness. This review may include consultation with the other agency/ies receiving the post-certification submittal with regulatory jurisdiction over the matter addressed in the submittal. DEP's finding of completeness shall specify the area of the Certified Facility affected, and shall not delay further processing of the post-certification submittal for non-affected areas.

If any portion of a post-certification submittal is found to be incomplete, the Licensee shall be so notified. Failure to issue such a notice within 30 days after filing of the submittal shall constitute a finding of completeness. Subsequent findings of incompleteness, if any, shall address only the newly filed information.

[subparagraph 62-17.191(1)(c) 2, F.A.C.]

D. Interagency Meetings

DEP may conduct an interagency meeting with other agencies that received a post-certification submittal. The purpose of such an interagency meeting shall be for the agencies with regulatory jurisdiction over the matters addressed in the post-certification submittal to discuss whether compliance with these Conditions has been provided. Failure of DEP to conduct an interagency meeting or failure of any agency to attend an interagency meeting shall not be grounds for DEP to withhold a determination of compliance with these Conditions nor to delay the timeframes for review established by these Conditions. At DEP's request, a field inspection shall be conducted with the Licensee and the agency representative in conjunction with the interagency meeting.

E. Determination of Compliance

DEP shall give written notification within 90 days, to the Licensee and the other agency(ies) to which the post-certification information was submitted of DEP's determination of whether there is demonstration of compliance with these Conditions. If it is determined that compliance with the Conditions has not been provided, the Licensee shall be notified with particularity of the deficiencies and possible corrective measures suggested. Failure to notify Licensee in writing within 90 days of receipt of a complete post-certification submittal shall constitute a determination of compliance. A post-certification compliance review may be the basis for initiating modifications to the relevant Condition or to other related Conditions.

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F. Commencement of Construction

If DEP does not object within the time period specified in paragraph E. above, Licensee may begin construction pursuant to the terms of these Conditions and the subsequently submitted construction details.

G. Revisions to Design Previously Reviewed for Compliance

If revisions to site-specific designs occur after submittal, the Licensee shall submit revised plans prior to construction for review in accordance with the post-certification process specified in this Condition.

[Sections 120.569, 373.413, 373.416, 403.511, F.S.; Rules 62-17.191 and 62-17.205, F.A.C.]

XXI. POST-CERTIFICATION SUBMITTAL REQUIREMENTS SUMMARY

Within 90 days after certification, and within 90 days after any subsequent modification or certification, the Licensee shall provide the SCO a complete summary of those post-certification submittals that are identified in these Conditions when due-dates for the information required of the Licensee have been identified. A summary shall be provided as a separate document for each transmission line, if any. Such submittals shall include, but are not limited to, monitoring reports, management plans, wildlife surveys, etc. The summary shall be provided to the SCO, in a sortable spreadsheet, electronically, in the format shown below or equivalent. For subsequent modifications and certifications, a Post-Certification Submittal Requirements Summary shall be required for only those resulting in new or altered post-certification requirements.

Condition Number	Requirement and Timeframe	Due Date	Name of Agency or Agency Subunit to whom the submittal is required to be provided

[Section 403.5113, F.S.; Subsection 62-17.191(3), F.A.C.]

XXII. POST CERTIFICATION AMENDMENTS

If, subsequent to certification, the Licensee proposes any material change to the SCA and revisions or amendments thereto, as certified, the Licensee shall submit a written request for amendment and a description of the proposed change to the SCA to the Department. Within 30 days after the receipt of a complete request for an amendment, the Department shall determine whether the proposed change to the SCA requires a modification to the Conditions.

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A. If the Department concludes that the change would not require a modification to the Conditions, the Department shall provide written notification of the approval of the proposed amendment to the Licensee, all agencies, and all other parties to the certification.

B. If the Department concludes that the change would require a modification to the Conditions, the Department shall provide written notification to the Licensee that the proposed change to the SCA requires a request for modification pursuant to Sections 403.516, F.S.

[Section 403.5113, F.S.]

XXIII. MODIFICATION OF CERTIFICATION

A. Pursuant to Sections 403.516(1)(a), F.S., and Rule 62-17.211, F.A.C., the Siting Board hereby delegates the authority to the Department to modify any Condition which would not otherwise require approval by the Siting Board, after notice and receipt of no objection by a party to the certification within 45 days after notice by mail to the party's last address of record, and if no other person whose substantial interests will be affected by the modification objects in writing within 30 days of public notice.

B. The Department may modify Conditions, in accordance with Section 403.516(1)(b), F.S., which are inconsistent with the terms of any subsequent and separately DEP-issued permits, permit amendments, permit modifications, or permit renewals under a federally delegated or federally approved permit program. Such modification may be made without further notice if the matter has been previously noticed under the requirements for any federally delegated or approved permit program.

C. In accordance with Section 403.516(1)(c), F.S., the Licensee may file a petition for modification with the Department, or the Department may initiate the modification upon its own initiative.

D. Any anticipated facility expansions, production increases, or process modifications which may result in new, different, or increased discharge or emission of pollutants, change in fuel, or expansion in generating capacity must be reported by submission of an appropriate request for an amendment, modification, or certification.

E. Any anticipated facility change that results in a change to the Site Delineation or the Delineation of the Certified Area, attached hereto as part of Attachment A (Maps), must be accompanied by a map or aerial photo showing the proposed new boundaries of the site and/or certified area. Within 120 days after completion of construction of the approved facility change, the Licensee shall provide the information required by Section A. General Conditions, Condition I. Scope, paragraphs D, E, F, or G, as appropriate.

[Section 403.516, F.S.; Rule 62-17.211, F.A.C.]

XXIV. COASTAL ZONE CONSISTENCY

Pursuant to Sections 373.428 and 403.511, F.S., certification of the facility constitutes the State's concurrence that the licensed activity or use is consistent with the federally approved program under the Florida Coastal Management Act.

[Sections 373.428, 380.23 and 403.511(7), F.S.]

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XXV. WATER QUALITY CERTIFICATION

Pursuant to the Operating Agreement between the Department, Water Management Districts and U.S. Army Corps of Engineers, a written final order granting 'certification' constitutes certification by the Department that the project activities comply with applicable state water quality standards.

[2012 Operating Agreement, Jacksonville District USACOE, DEP and Water Management Districts, Section II.A.1.(f)]

XXVI. TRANSFER OF CERTIFICATION

A. This certification is transferable in whole or in part, upon Department approval, to an entity determined to be able to comply with these Conditions. A transfer of certification of all or part of the Certified Facility may be initiated by the Licensee's filing of a Notice of Intent to Transfer Certification with the Department's Siting Coordination Office. The notice of intent shall: identify the intended new certification holder or Licensee; identify current, and new entity responsible for compliance with the certification; and include a written agreement from the intended Licensee/Transferee to abide by all Conditions of Certification, as well as, applicable laws and regulations. Upon receiving a complete notice of intent, the transfer shall be approved by the Department unless the Department objects to the transfer on the grounds that the new Licensee will be unable to comply with the Conditions of Certification, specifies in writing its reasons for its objections, and gives notice and an opportunity to petition and administrative hearing pursuant to Section 120.57, F.S. Upon approval, the Department will initiate a modification to the Conditions to reflect the change in ownership in accordance with Rule 62-17.211, F.A.C.

B. In the event of the dissolution of the Licensee, the Department may transfer certification to successor entities which are determined to be competent to construct, operate and maintain the Certified Facility in accordance with the conditions of certification and which are proper applicants as defined by the PPSA. Upon determination that such a successor entity complies with the requirements for transfer of certification, the Department will initiate a modification to the Conditions to reflect the change in ownership in accordance with Rule 62-17.211, F.A.C.

[Chapter 120, F.S.; Rule 62-17.211, F.A.C.]

XXVII. LABORATORIES AND QUALITY ASSURANCE

Chemical, physical, biological, microbiological and toxicological data collected as a requirement of these Conditions must be reliable and collected and analyzed by scientifically sound procedures. Unless otherwise specified in these Conditions, the Licensee shall adhere to the minimum field and laboratory quality assurance, methodological and reporting requirements of the Department as set forth in Chapter 62-160, F.A.C.

[Chapter 62-160, F.A.C.]

XXVIII. ENVIRONMENTAL RESOURCES

A. General

1. Submittals for Construction Activities

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a. Prior to the commencement of construction of new facilities and/or associated facilities the Licensee shall provide to the SED for review, all information necessary for a complete *Joint Application for Environmental Resource Permit* (ERP), DEP Forms 62-330.060, F.A.C. A copy of the submittal shall also be provided to the SCO.

This form may: a) be submitted concurrently with a SCA; b) be submitted as part of an amendment request or a petition for modification; or c) be submitted as a post-certification submittal following approval of a project through certification, modification, or amendment. Information submitted for a post-certification review may be submitted for discrete portions of the Certified Facilities for a determination of compliance with these COC. Such ERP submittals, once received, shall be reviewed in accordance with the non-procedural standards and criteria for issuance of an ERP, including all the provisions related to reduction and elimination of impacts, conditions for issuance, additional conditions for issuance, and mitigation contained in Chapters 62-330, F.A.C., as applicable unless otherwise stated in these Conditions. While the information is provided for review via submittal of the Environmental Resources Permit form, pursuant to section 403.511, Florida Statutes, issuance of a separate Environmental Resources Permit is not required for certified facilities.

Those forms submitted as part of a SCA, an amendment, or modification, shall be processed concurrently with, and under the respective certification, amendment, or modification procedures. Those forms submitted as a post-certification submittal (after certification, modification, or amendment and prior to construction) shall be processed in accordance with Section A, General Conditions, Condition XX, Procedures for Post-Certification Submittals.

No construction shall commence on a Project feature, or in a particular segment for a linear facility, until the Department has determined that there is a demonstration of compliance with these Conditions. For post-certification submittal reviews, the Department's determination is governed by Section A, General Conditions, Condition XX, Procedures for Post-Certification Submittals.

b. Concurrent with submittal of the DEP form required in Subparagraph A.1.a. above, the Licensee shall submit, as applicable, a survey of wetland and surface water areas as delineated in accordance with Chapter 62-340, F.A.C., and verified by appropriate agency staff for Department compliance review. Available DEP-approved wetland and surface water delineations within the boundaries of a certified site or a portion thereof may be used and reproduced for this delineation submittal and verification.

[Section 373.416, F.S.; Chapters 62-330 and 62-340, F.A.C.]

2. Construction, operation, and maintenance of the proposed project (including any access roads and structures constructed within wetlands and other surface waters, and/or associated facilities) shall satisfy any applicable non-procedural requirements in the Department rules.

[Section 373.414(1)(a), F.S.]

3. Any delineation of the extent of a wetland or other surface water submitted as part of the DEP ERP Application Form required by Subparagraph A.1.a. above, including plans or other supporting documentation, shall not be considered binding on the

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Department unless a specific condition of this Certification or a formal wetlands jurisdictional determination under Section 373.421(2), F.S., provides otherwise.

[Sections 373.421, 403.504, F.S.]

B. Surface Water Management Systems

1. Information regarding surface water management systems (SWMS) will be reviewed for consistency with the applicable non-procedural requirements of Part IV of Chapter 373, F.S., following submittal of Form 62-330.060(1), F.A.C., to the SED.

2. All construction, operation, and maintenance of the SWMS(s) for the Certified Facilities shall be as set forth in the plans, specifications and performance criteria contained in the SCA and other materials presented during the certification proceeding, post-certification submittals, and as otherwise approved. If specific requirements are necessary for construction, operation, and/or maintenance of an approved SWMS, those requirements shall be incorporated into a SWMS Plan for that system and included in Attachment B (Surface Water Management System Plans). Any alteration or modification to the SWMS Plan or the SWMS as certified requires prior approval from the Department.

3. To allow for stabilization of all disturbed areas, immediately prior to construction, during construction of the SWMS, and for the period of time after construction of the SWMS, the Licensee shall implement and maintain erosion and sediment control best management practices, such as silt fences, erosion control blankets, mulch, sediment traps, polyacrylamide (PAM), temporary grass seed, permanent sod, and floating turbidity screens to retain sediment on-site and to prevent violations of state water quality standards. These devices shall be installed, used, and maintained at all locations where the possibility exists of transferring suspended solids into the receiving waterbody due to the licensed work, and shall remain in place at all locations until construction in that location is completed and soils are permanently stabilized. All best management practices shall be in accordance with the guidelines and specifications described in the State of Florida Erosion and Sediment Control Designer and Reviewer Manual (Florida Department of Transportation and Florida Department of Environmental Protection, by HydroDynamics Incorporated in cooperation with Stormwater Management Academy, June 2007) unless a project-specific erosion and sediment control plan is approved as part of this License. If project-specific Conditions require additional measures during any phase of construction or operation to prevent erosion or control sediments beyond those specified in the approved erosion and sediment control plan, the Licensee shall implement additional best management practices as necessary, in accordance with the guidelines and specifications in the State of Florida Erosion and Sediment Control Designer and Reviewer Manual. The Licensee shall correct any erosion or shoaling that causes adverse impacts to the water resources as soon as feasible. Once project construction is complete in an area, including the re-stabilization of all side slopes, embankments and other disturbed areas, and before conversion to the operation and maintenance phase, all silt screens and fences, temporary baffles, and other materials that are no longer required for erosion and sediment control shall be removed.

4. The Licensee shall complete construction of all aspects of the SWMS described in the ERP Application Form, submitted as part of a post-certification submittal, amendment, modification, or certification application including water quality treatment features,

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and discharge control facilities prior to use of the portion of the Certified Facility being served by the SWMS.

5. At least 48 hours prior to the commencement of construction of any new SWMS for any part of a Certified Facility authorized by this certification, the Licensee shall submit to the Department a written notification of commencement using an "Environmental Resource Permit Construction Commencement Notice" (DEP Form 62-330.350(1), F.A.C.), indicating the actual start date and the expected completion date.

6 Each phase or independent portion of the approved system must be completed in accordance with the submitted DEP Form prior to the operation of the portion of the Certified Facility being served by that portion or phase of the system.

7. Within 30 days, or such other date as agreed to by DEP and the Licensee, after completion of construction of any new portions of the SWMS, the Licensee shall submit to the SED, and copy the SCO, a written statement of completion and certification by a registered professional engineer (P.E.), or other appropriate registered professional, as authorized by law, utilizing the required "As-Built Certification and Request for Conversion to Operation Phase" (DEP Form 62-330.310(1), F.A.C.). Additionally, if deviations from the approved drawings are discovered, the As-Built Certification must be accompanied by a copy of the approved drawings with deviations noted.

8. Any substantial deviation from the approved drawings, exhibits, specifications or Conditions, may constitute grounds for revocation or enforcement action by the Department.

9. The operation phase of any new SWMS approved by the Department shall not become effective until the Licensee has complied with the requirements of the conditions herein, the Department determines the system to be in compliance with the approved plans, and the entity approved by the Department accepts responsibility for operation and maintenance of the system.

10. The SED must be notified in advance of any proposed construction dewatering. If the dewatering activity is likely to result in off-site discharge or sediment transport into wetlands or surface waters, a written dewatering plan must be submitted to and approved by the Department prior to the dewatering event.

[Section 373.414, F.S.; Chapters 62-25, 62-302, 62-330, F.S. and Rule 62-4.242, F.A.C.]

C. Wetland and Other Surface Water Impacts

1. All Certified Facilities shall be constructed in a manner which will eliminate or reduce adverse impacts to on-site and/or adjacent wetlands or other surface waters to the extent practicable or otherwise comply with substantive criteria for elimination or reduction. When impacts to wetlands will occur as a result of a future amendment, modification, or certification, and cannot be practicably eliminated or reduced, the Licensee may propose, and the Department or Board shall consider mitigation to offset otherwise unpermissible activities under the Environmental Resource Permit review process pursuant to Condition XXVIII. A.1. above.

2. Proposed mitigation plans submitted with the DEP ERP Application forms required in Condition XXVIII. A.1.a. above, or submitted and approved as part of an

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amendment, modification, or certification, and that are deemed acceptable by DEP, shall include applicable construction conditions, success criteria and monitoring plans, and shall be incorporated into these Conditions as Attachment C (Wetland Mitigation Plans).

3. Works within any conservation easement, including but not limited to staging or storage of construction equipment or materials, and/or dredge and fill activities shall require prior written authorization from the Department.

4. For projects where wetland impacts are offset with the purchase of mitigation bank credits, the Licensee shall provide DEP with documentation that the required mitigation bank credits have been deducted from the credit ledger of the respective mitigation bank. The required documentation shall be submitted to DEP prior to impacting wetlands authorized by this certification.

[Sections 373.413, 373.414, 373.4145, 403.511, and 403.814(6), F.S.; Chapters 62-312, 62-330, 62-340, 62-342, and 62-345, F.A.C.]

XXIX. THIRD PARTY IMPACTS

The Licensee is responsible for maintaining compliance with these Conditions even when third party activities authorized by the Licensee occur in or on the certified site/area.

[Sections 403.506(1), F.S.]

XXX. FACILITY OPERATION

The Licensee shall properly operate and maintain the certified facility and systems of treatment and control (and related appurtenances) that are installed and used by the Licensee to achieve compliance with these Conditions, as required by the final order of certification, these Conditions, or a post-certification amendment or modification. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the final order of certification, these Conditions, or a post-certification amendment or modification. Further, the Licensee shall take all reasonable steps to minimize any adverse impact resulting from noncompliance with any limitation specified in this certification, including such accelerated or additional monitoring as necessary to determine the nature and impact of the noncomplying event.

[subsection 62-4.160(6), F.A.C.]

XXXI. RECORDS MAINTAINED AT THE FACILITY

A. These Conditions or a copy thereof shall be kept at the site.

B. The Licensee shall hold at the site, or other location designated by these Conditions, records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation required by these Conditions, copies of all reports required by these Conditions, and records of all data used to complete the SCA for this approval. These materials shall be retained at least three (3) years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.

C. Records of monitoring information shall include:

1. the date, exact place, and time of sampling or measurements;

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2. the person responsible for performing the sampling or measurements;
3. the dates analyses were performed;
4. the person responsible for performing the analyses;
5. the analytical techniques or methods used; and,
6. the results of such analyses.

[subsection 62-4.160(12) and paragraph 62-4.160(14)(b), F.A.C.]

XXXII. WATER DISCHARGES

A. Except as otherwise authorized by a permit issued by the Department under a federally approved or delegated program or to the extent a variance, exception, exemption or other relief is granted or authorized by these Conditions, the Licensee shall not discharge to surface or ground waters of the State wastes in concentrations, which, alone or in combinations with other substances or components of discharges (whether thermal or non-thermal), are carcinogenic, mutagenic, or teratogenic to human beings (unless specific criteria are established for such components in Rule 62-520.400, F.A.C.) or are acutely toxic to indigenous species of significance to the aquatic community within surface waters affected by the ground water at the point of contact with surface waters.

B. Except as otherwise authorized by a permit issued by the Department under a federally approved or delegated program or to the extent a variance, exception, exemption or other relief is granted or authorized by these Conditions, all discharges and activities must be conducted so as to not cause a violation of the water quality standards set forth in Chapters 62-4, 62-302, 62-520, 62-550, and 62-620, F.A.C., including the provisions of Rules 62-4.243, 62-4.244, and 62-4.246, F.A.C., the antidegradation provisions of paragraphs 62-4.242(1)(a) and (b), F.A.C., and Rule 62-302.300, F.A.C., and any special standards for Outstanding Florida Waters and Outstanding National Resource Waters set forth in subsections 62-4.242(2) and (3), F.A.C.

C. Except as otherwise authorized by a permit issued by the Department under a federally approved or delegated program or to the extent a variance, exception, exemption or other relief is granted or authorized by these Conditions, all dewatering discharges must be in compliance with Rule 62-621.300, F.A.C.

[Chapters 62-4, 62-302, 62-520, 62-550, 62-620, and 62-621.300, F.A.C.]

XXXIII. SOLID AND HAZARDOUS WASTE

A. Solid Waste

The Licensee shall comply with all applicable non-procedural provisions of Chapter 62-701, F.A.C., for any solid waste generated within the Certified Facility during construction, operation, maintenance, and closure.

[Chapters 62-701, F.A.C.]

B. Hazardous Waste, Used Oil, Petroleum Contact Water and Spent Mercury

The Licensee shall comply with all applicable non-procedural provisions of DEP Chapter 62-730, F.A.C., for any hazardous waste generated within the Certified Facility. An EPA identification number must be obtained before beginning hazardous waste activities unless

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the facility is a Conditionally Exempt Small Quantity Generators (CESQGs). CESQGs generate no more than 100 kg (220 lbs) of hazardous waste in any month.

The Licensee shall comply with all applicable non-procedural provisions of DEP Chapter 62-710, F.A.C., for any used oil and used oil filters generated within the Certified Facility.

The Licensee shall comply with all applicable non-procedural provisions of DEP Chapter 62-737, F.A.C., for any spent mercury-containing lamps and devices generated within the Certified Facility.

The Licensee shall comply with all applicable provisions of DEP Chapter 62-740, F.A.C. for any petroleum contact water located within the Certified Facility.

[Chapters 62-710, 62-730, 62-737, and 62-740, F.A.C.]

C. Hazardous Substance Release Notification

1. Any owner or operator of a facility who has knowledge of any release of a hazardous substance from a Certified Facility in a quantity equal to or exceeding the reportable quantity in any 24-hour period shall notify the Department by calling the STATE WATCH OFFICE, (800) 320-0519, as soon as possible, but not later than one working day of discovery of the release.

2. Releases of mixtures and solutions are subject to these notification requirements only where a component hazardous substance of the mixture or solution is released in a quantity equal to or greater than its reportable quantity.

3. Notification of the release of a reportable quantity of solid particles of antimony, arsenic, beryllium, cadmium, chromium, copper, lead, nickel, selenium, silver, thallium, or zinc is not required if the mean diameter of the particles released is larger than 100 micrometers (0.004 inches).

[Chapter 62-150, F.A.C.]

D. Contaminated Site Cleanup

The Licensee shall comply with all applicable non-procedural provisions of Chapter 62-780, F.A.C., for any violations of relevant provisions of Chapter 376 or 403, F.S., that result in legal responsibility for site rehabilitation pursuant to those chapters. This responsibility for site rehabilitation does not affect any activity or discharge permitted or exempted pursuant to Chapter 376 or 403, F.S., or rules promulgated pursuant to Chapter 376 or 403, F.S.

[Chapter 62-780, F.A.C.]

XXXIV. STORAGE TANK SYSTEMS

Registration, construction, installation, operation, maintenance, repair, closure, and disposal of storage tank systems within a Certified Area that store regulated substances shall be in accordance with Chapters 62-761 and 62-762, F.A.C., in order to minimize the occurrence and environmental risks of releases and discharges. Mineral acid storage tank systems are subject only to Rule 62-762.891, F.A.C.

SECTION A: GENERAL CONDITIONS

A. Incident Notification Requirements.

Notification of the discovery of the loss from a storage tank system of a regulated substance exceeding 100 gallons on impervious surfaces, other than secondary containment, such as driveways, airport runways, or other similar asphalt or concrete surfaces, provided that the loss does not come in contact with pervious surfaces or of the discovery of any other incident listed in subsections 62-761.450(2) or 62-762.450(2), F.A.C., shall be made to the County on Incident Notification Form 62-761.900(6) within 24 hours or before the close of the County's next business day.

B. Discharge Reporting Requirements

Upon discovery of an unreported discharge of a regulated substance, the Licensee shall report to the County on Discharge Report Form 62-761.900(1) within 24 hours or before the close of the County's next business day those items listed in paragraph 62-761.450(3)(a), F.A.C., including a spill or overfill event of a regulated substance to soil or another pervious surface, equal to or exceeding 25 gallons, unless the regulated substance has a more stringent reporting requirement specified in C.F.R. Title 40, Part 302.

C. Discharge Cleanup

If a discharge of a regulated substance occurs at a certified facility, actions shall be taken immediately to contain, remove, and abate the discharge under all applicable Department rules. The Licensee is advised that other federal, state, or local requirements may apply to these activities. If the contamination present is subject to the provisions of Chapter 62-780, F.A.C., corrective action, including free product recovery, shall be performed in accordance with that Chapter.

D. Out of Service and Closure Requirements

Storage tank systems shall be taken out-of-service and/or closed as necessary in accordance with Rules 62-761.800 and 62-762.801, F.A.C., as applicable.

[Chapters 62-761, 62-762, and 62-780, F.A.C.]

SECTION B: SPECIFIC CONDITIONS

SECTION B. SPECIFIC CONDITIONS

The following conditions, unless otherwise specified, apply to all certified facilities.

I. VARIANCES

A. FPL is granted a variance from the maximum permissible sound levels from the specified Sound Level limits in Table 1 of the City of Dania Beach Code of Ordinances, Chapter 17, Article IV Noise, Section 17-86 for:

1. Noise due to emergency or upset conditions for all time periods and all receiving land use categories; and,
2. Noise due to transient conditions associated with unit startup and shutdown shall be limited to 70 dB(A) for all time periods and all receiving land use categories, except for Industrial land uses which shall retain the limit of 75 dB(A).

[403.507(5)(d), F.S. and Chapter 17, Article IV Noise, Section 17-86, City of Dania Beach Code]

II. DEPARTMENT OF ENVIRONMENTAL PROTECTION

A. *Lauderdale Plant – Units 4 and 5*

Units 4 and 5 may be operated at up to 115% of the maximum electrical output at ISO conditions projected from design information without the need for modifying these Conditions. Treatment or control facilities or systems installed or used to achieve compliance with the terms and conditions of this certification are not to be bypassed without prior DEP approval.

III. SOUTH FLORIDA WATER MANAGEMENT DISTRICT

A. *Applicable General Agency Standards*

1. Minimum Standards

This certification is based on the Licensee's submitted information to SFWMD which reasonably demonstrates that harm to the water resources will not be caused by the authorized activities. The plans, drawings, and design specifications submitted shall be considered minimum standards for compliance.

[373.219, 373.223, 373.229, 373.308, and 373.316, F.S.; 40E-2.091, 40E-2.301, 40E-2.381, and 40E-3.500-531, F.A.C.]

2. Compliance Requirements.

Information submitted to SFWMD subsequent to certification, in compliance with the conditions of this certification, shall be for the purpose of SFWMD determining the Licensee's compliance with the conditions of certification and the non-procedural, criteria contained in Chapters 40E-2 (Consumptive Use), 40E-3 (Water Wells), and 40E-6 (Utilization of District Works), F.A.C., as applicable, prior to the commencement of the subject construction, operation and/or maintenance activity, covered thereunder.

[373.219, 373.223, 373.229, 373.308, and F.S.: 40E-2.041, 40E-2.301, 40E-2.381, 40E-3.051, 40E-3.301, and 40E-3.411, F.A.C.]

SECTION B: SPECIFIC CONDITIONS

3. Liability

The Licensee shall hold and save SFWMD harmless from any and all damages, claims, or liabilities which may arise by reason of the construction, operation, maintenance, removal, abandonment, and/or use of any system authorized by this certification, to the extent allowed under Florida law.

[373.223, F.S.; Rules 40E-2.091, and 40E-2.381, F.A.C.]

4. Access

With advance notice to the Licensee, SFWMD staff with proper identification shall have permission to enter, inspect, observe, collect samples, and take measurements of licensed facilities to determine compliance with the conditions of certification and approved plans and specifications. The Licensee shall either accompany SFWMD staff onto the property or make provision for access onto the property.

[373.223, F.S.; Rules 40E-2.301 and 40E-2.381, F.A.C.]

5. Construction, Operation, and Maintenance Responsibilities

The Licensee shall be responsible for the construction, operation, and maintenance of all facilities installed for the project. All structures on SFWMD works or lands constructed by the Licensee shall remain the property of the Licensee, who shall be solely responsible for ensuring that such structures and other uses remain in good and safe condition and comply with all applicable federal, state and local safety standards. The SFWMD assumes no duty with regard to ensuring that such uses are so maintained and assumes no liability with regard to injuries caused others by any such failure. The SFWMD further assumes no duty to ensure that the permitted use complies with the safety standards of other governmental entities. The SFWMD is not responsible for any damages to installations located within its rights-of-way. The Licensee shall be responsible for the repair and/or replacement of existing facilities located within the SFWMD's rights-of-way. Canal right-of-way disturbed during construction, installation or maintenance of the authorized facility shall be restored to original or better condition.

[373.309, F.S.; Rule 40E-3.301, F.A.C., Chapter 40E-6, F.A.C.]

6. Non-interference with SFWMD Operations

Except as may be authorized by this certification, the Licensee shall not engage in any activity regarding the authorized use which interferes with the construction, alteration, maintenance or operation of the works of the SFWMD, including, but not limited to:

- (1) discharging pollutants, debris or aquatic weeds into SFWMD works;
- (2) causing erosion or shoaling within SFWMD works;
- (3) planting trees or shrubs or erecting structures which limit or prohibit access by SFWMD equipment and vehicles.

The Licensee shall be responsible for any costs incurred by the SFWMD resulting from any such interference.

[373.016, 373.085, 373.086, 373.117, 471.003 FS., 40E-6.221 F.A.C.]

SECTION B: SPECIFIC CONDITIONS

7. Enforcement

The SFWMD may take any and all lawful actions to enforce any condition of this certification that is based on the rules of that agency. Prior to initiating such action, SFWMD may confer with DEP. SFWMD shall seek modification of this certification for any change in any activity resulting from the SFWMD's enforcement of this certification which change will have a duration longer than 60 days.

[373.223, 373.319, 373.603, and 403.514, F.S.; Rules 40E-2.091, 40E-2.301, 40E-2.381, and 40E-3.461, F.A.C.]

8. Revisions to Site Specific Design Authorizations

The Licensee shall submit any proposed revisions to the site-specific design authorizations specified in this Certification to the SFWMD for review and approval prior to implementation. The submittal shall include all the information necessary to support the proposed request, including detailed drawings, calculations and/or any other applicable data. Such requests may be included as part of the appropriate additional information submittals required by this Certification provided they are clearly identified as a requested amendment or modification to the previously authorized design.

[373.085, 373.219, 373.223, 373.313, and 373.342, F.S.; 40E-2.091, 40E-2.301, and 40E-3.461, F.A.C.]

9. Changes to Information Requirements

The SFWMD and the Licensee may jointly agree to vary the informational requirements. [373.085 and 373.229, F.S.; Rules 40E-2.101(1) and 40E-3.101(2), F.A.C.]

B. Water Use

1. General

a. **Water Shortage Compliance.** Nothing in this license should be construed to limit the authority of the SFWMD to declare a water shortage and issue orders pursuant to Chapter 373, F.S. In the event of a declared water shortage, the Licensee must adhere to the water shortage restrictions, as specified by the SFWMD. The Licensee is advised that during a water shortage, reports shall be submitted as required by SFWMD rule or order. The Licensee is advised that during a water shortage, pumpage, water levels, and water quality data shall be collected and submitted as required by SFWMD orders issued pursuant to Chapter 40E-21, F.A.C.

[373.223 and 373.246, F.S.; Rules 40E-2.301, 40E-21.231, 40E-21.251, and 40E-21.271, F.A.C.]

b. **Interference with Existing Legal Uses.** The Licensee shall mitigate interference with existing legal uses that was caused in whole or in part by the Licensee's withdrawals, consistent with the approved mitigation plan. As necessary to offset the interference, mitigation may include pumpage reduction, replacement of the impacted individual's equipment, relocation of wells, change in withdrawal source, or other means. Interference to an existing legal use is defined as an impact that occurs under hydrologic conditions equal to or less severe than a 1 in 10-year drought event that results in the:

SECTION B: SPECIFIC CONDITIONS

(1) Inability to draw water consistent with the provisions of the permit, such as when remedial structural or operational actions not materially authorized by existing permits must be taken to address the interference; or

(2) Change in the quality of water pursuant to primary State Drinking Water Standards to the extent that the water can no longer be used for its authorized purpose, or such change is imminent.

[373.223, F.S.; Rules 40E-2.091, 40E-2.301, and 40E-2.381, F.A.C.]

c. Harm to Existing Off-Site Land Uses. The Licensee shall mitigate harm to existing off-site land uses caused by the Licensee's withdrawals, as determined through reference to the conditions for issuance. When harm occurs, or is imminent, the SFWMD will require the Licensee to modify withdrawal rates or mitigate the harm. Harm, as determined through reference to these Conditions of Certification includes:

(1) Significant reduction in water levels on the property to the extent that the designed function of the water body and related surface water management improvements are damaged, not including aesthetic values. The designed function of a water body is identified in the original permit or other government authorization issued for the construction of the water body. In cases where a permit was not required, the designed function shall be determined based on the purpose for the original construction of the water body (e.g., fill for construction, mining, drainage canal, etc.);

(2) Damage to agriculture, including damage resulting from reduction in soil moisture resulting from consumptive use; or,

(3) Land collapse or subsidence caused by reduction in water levels associated with consumptive use.

[373.223, F.S.; Rules 40E-2.091, 40E-2.301, and 40E-2.381, F.A.C.]

d. Harm to Natural Resources. The Licensee shall mitigate harm to natural resources caused by the Licensee's withdrawals, as determined through reference to the conditions for permit issuance. When harm occurs, or is imminent, the SFWMD will require the Licensee to modify withdrawal rates or mitigate the harm. Harm, as determined through reference to these Conditions of Certification includes:

(1) Reduction in ground or surface water levels that results in harmful lateral movement of the fresh water/salt water interface;

(2) Reduction in water levels that harm the hydroperiod of wetlands;

(3) Significant reduction in water levels or hydroperiod in a naturally occurring water body such as a lake or pond;

(4) Harmful movement of contaminants in violation of state water quality standards; or

(5) Harm to the natural system including damage to habitat for rare or endangered species.

[373.223, F.S.; Rules 40E-2.091, 40E-2.301, and 40E-2.381, F.A.C.]

SECTION B: SPECIFIC CONDITIONS

2. Site Specific Design Authorizations/Requirements

a. Water Use

(1) This certification authorizes a maximum monthly withdrawal of 11,427.84 MG from the Dania Cut-off Canal for an industrial use.

(2) This Certification authorizes a maximum annual withdrawal of 134,922.2 MG from the Dania Cut-off Canal for an industrial use.

(3) Authorized withdrawal facilities for the existing Lauderdale Plant are:

i. 4 - 300 HP X 12,000 GPM surface water pumps
with an intake elevation of -5.0' NGVD

ii. 4 - 450 HP X 58,000 GPM surface water pumps
with an intake elevation of -14.0' NGVD

iii. 2 - 60 HP X 600 GPM surface water pumps with an
intake elevation of -10.5 ft. NGVD

iv. 2 - 100 HP X 3,000 GPM surface water pumps with
an intake elevation of -10.5 ft. NGVD.

(4) For Unit 7, the Licensee may remove and replace the existing authorized surface water pumps. The Licensee shall submit to SFWMD an updated "Summary of Surface Water (Pump) Facilities" ("Section IV – Sources of Water", Water Use Permit Application Form 1379), within 90 days of installation of the proposed pumps, identifying: the surface water source, local drainage district (if applicable), pump diameter, capacity and horsepower, referenced intake elevation, and water use accounting method.

[373.223, F.S., Rules 40E-2.091, 40E-2.301, and 40E-2.381, F.A.C.]

(5) Pursuant to Section 373.236(4), F.S., every ten years from the date of this license, the Licensee shall submit a water use compliance report for review to SFWMD at www.sfwmd.gov/ePermitting, or Regulatory Support, 3301 Gun Club Road, West Palm Beach, FL 33406.

[373.236(4), F.S.; Rules 40E-2.091, 40E-2.301, and 40E-2.381, F.A.C.]

(6) Monthly withdrawals for each withdrawal facility shall be reported to the SFWMD semi-annually. The water accounting method and means of calibration shall be stated on each report.

[373.223, F.S.; Rules 40E-2.091, 40E-2.301, and 40E-2.381, F.A.C.]

(7) Every five years from the date of last calibration, the Licensee shall submit recalibration data for each withdrawal facility.

[373.223, F.S.; Rules 40E-2.091, 40E-2.301 and 40E-2.381, F.A.C.]

(8) The Licensee shall submit all data as required by the implementation schedule for each of the above conditions to: SFWMD at www.sfwmd.gov/ePermitting, or Regulatory Support, 3301 Gun Club Road, West Palm Beach, FL 33406.

SECTION B: SPECIFIC CONDITIONS

[373.223, F.S.; Rules 40E-2.091, 40E-2.301 and 40E-2.381, F.A.C.]

(9) SFWMD may request that the Department modify the maximum annual withdrawal of surface water for consumptive use authorized by this certification, in accordance with the provisions of Section 403.516, F.S. Any request for an increase in water withdrawals by the licensee shall be made pursuant to the provisions of Section 403.516, F.S.

[373.223, and 403.516, F.S.; Rules 40E-2.091, 40E-2.301 and 40E-2.381, F.A.C.]

b. Dewatering Activities. Prior to commencement of construction of those portions of the project that involve dewatering activities, the Licensee shall submit a detailed plan for any such activities to the SFWMD for a determination of compliance with the applicable non-procedural requirements of Chapters 40E-2, F.A.C., in effect at the time of certification. The following information, referenced to NGVD or NAVD where appropriate, shall be submitted:

- (1) A detailed site plan which shows the location(s) for each proposed dewatering area;
- (2) The method(s) used for each dewatering operation;
- (3) The maximum depth for each dewatering operation;
- (4) The location and specifications for all proposed wells and/or pumps associated with each dewatering operation;
- (5) The duration of each dewatering operation;
- (6) The discharge method, route, and location of receiving waters generated by each dewatering operation, including the measures (Best Management Practices) that will be taken to prevent water quality problems in the receiving water(s);
- (7) An analysis of the impacts of the proposed dewatering operations on any existing on and/or off-site legal users, wetlands, or existing groundwater contamination plumes;
- (8) The location of any infiltration trench(es) and/or recharge barriers; and
- (9) All plans must be signed and sealed by a Professional Engineer or a Professional Geologist registered in the State of Florida.

[373.229 and 373.308, F.S.; Rules 40E-2.091, 40E-2.301, and 40E-3.500-531, F.A.C.]

c. Alternative Water Supplies

(1) Upon notification of the availability of reclaimed water pursuant to Section 373.250, F.S., the Licensee shall investigate the feasibility of obtaining reclaimed water and actively participate in discussions and negotiations with potential suppliers of reclaimed water when the supplies become available.

(2) If reclaimed water becomes available and is deemed to be feasible, the Licensee shall apply for a modification to reflect that portion of the allocation which

SECTION B: SPECIFIC CONDITIONS

is to be provided for by reclaimed water. The Licensee is required to request a modification when an agreement has been executed between both parties.

[373.250, F.S.]

d. Water Conservation Plan. Within six months of commercial operation for Unit 7 (DBEC), the Licensee shall:

(1) Conduct an audit of the amount of water needed in the Licensee's operational processes. The following measures shall be implemented within one year of audit completion if found to be cost effective in the audit:

i. Implementation of a leak detection and repair program;

ii. Implementation of a recovery/recycling or other program providing for technological, procedural or programmatic improvements to the Licensee's facilities; and

iii. Use of processes to decrease water consumption.

(2) Develop and implement an employee awareness program concerning water conservation.

(3) Provide to SFWMD the procedures, time-frames for implementation, and results of (1) and (2) above.

[373.223, F.S.; Rules 40E-2.091, 40E-2.301, and 40E-2.381, F.A.C.]

e. SFWMD Lands

(1) The Licensee shall undertake any activities associated with the Lauderdale Plant, which use, connect to or cross the properties or works of SFWMD in accordance with SFWMD Right-of-Way Permit No. 9234, issued September 13, 1990

(2) This certification does not affect the Licensee's obligation to obtain, modify or otherwise receive approvals from SFWMD for activities which are not associated with the Lauderdale Plant or Dania Beach Energy Center, which use, connect to or cross properties and works of the SFWMD.

[373.085, 373.086, 380.06(9)(b), 373.118 FS., 40E-6.041, F.A.C.]

(3) If, in the future, the Licensee proposes modifications and/or additions to any existing facilities that are located within the SFWMD's rights-of-way that were not anticipated in the Site Certification Application, complete drawings showing the proposed and/or modified facility(ies) shall be submitted for review by the SFWMD for a determination of compliance with Chapter 40E-6, Florida Administrative Code, prior to the commencement of construction of any facilities which will cross over, on, under, or otherwise use the SFWMD's right-of-way. These drawings shall depict the proposed use in both plan and profile views and shall show, as a minimum:

i. For aerial electrical transmission/distribution crossings:

1. The canal right-of-way lines;
2. The top of the canal bank and its elevation;

SECTION B: SPECIFIC CONDITIONS

3. The centerline of the levee and its elevation;
 4. The canal maintenance berm and its elevation at its highest point;
 5. The location at of any poles towers, access roads, pipelines, etc., located with the SFWMD's right-of-way;
 6. The location of any anchor downguys or spanguys within the SFWMD's right-of-way;
 7. The elevation of the lowest line, wire, or cable crossing over the SFWMD's right-of-way, given at the lowest point of sag in the span within the SFWMD's right-of-way;
 8. The location and elevation of any buried facilities;
 9. The location of the facilities in relation to a section line, major road, or other prominent well-known landmark by which the facilities have been located in the field.
- ii. For bridges and other pile supported crossings and arch, free span and subaqueous crossings (such as gas, fuel oil, water, sewage, communications lines, etc.)
1. The canal right-of-way lines;
 2. The top of the canal bank and its elevation;
 3. The width and elevation of any berms or levees;
 4. The existing cross section of the canal taken at the centerline of the point of crossing plus one cross section each taken 50' upstream and 50' downstream of the faces of the proposed crossing. The cross sections will be taken at 10' intervals from top of bank to top of bank and shall be plotted on standard cross section paper to the same horizontal and vertical scale using NGVD datum, if applicable, the ultimate design section for the canal shall also be plotted on the cross sections submitted;
 5. If applicable, the locations at which the crossing shall enter and emerge from the banks or berms.
 6. If applicable, the pile spacings measured center to center for any and all approach spans and measured face to face for the pile bents of the center span.
 7. If applicable, the burial depth below the bank, berm and bottom elevation;
 8. If applicable, the elevation of the bottom and top of any pipe, conduit or casing;
 9. If applicable, the wall thickness or "schedule" of the pipe;
 10. If applicable, any appurtenances such as fences, guardrails, security enclosures, paving, meters, valves, blow-off line, cathodic protection systems (whether buried or exposed), etc.;
 11. The location of the proposed facilities in relation to a section line, major road or other prominent well-known landmark by which the facilities have been located in the field;

SECTION B: SPECIFIC CONDITIONS

12. If applicable, the locations of any existing facilities located within the SFWMD's right-of-way at proposed project site;

13. If applicable, the manner in which the SFWMD will be provided access to bridge approaches, including drop curbing, reinforced sidewalk section, guardrail openings, stabilized berm ramps having minimum top width of 15 feet with a maximum slope of 1 vertical to 10 horizontal.

iii. For general short-term construction activities on SFWMD right-of-way or where the use of the right-of-way is proposed for short or long-term access to the site including the use of barges in the Dania Cut-Off Canal:

1. If applicable, any work areas, spoil disposal or drying areas, materials storage areas, temporary construction or office trailer sites;

2. If applicable, any temporary or permanent ingress/egress routes to the work site;

3. The location of the proposed facilities in relation to a section line, major road or other prominent well-known landmark by which the facilities have been located in the field.

[373.085, 373.086, 403.0877 FS., 40E-6.091, F.A.C.]

IV. FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION

A. Listed Species

The following table contains state and federally listed species that occur in the State of Florida and may be located, and be potentially impacted, at the Lauderdale and/or the Dania Beach Energy Center site (DBEC).

Table 1

Common Name	Scientific Name	Status
Little blue heron	<i>Egretta caerulea</i>	State Threatened
Tricolored heron	<i>Egretta tricolor</i>	State Threatened
Least tern	<i>Sternula antillarum</i>	State Threatened
Wood stork	<i>Mycteria americana</i>	Federally Threatened
Florida burrowing owl	<i>Athene cunicularia floridana</i>	State Threatened
West Indian manatee	<i>Trichechus manatus</i>	Federally Threatened

[Article IV, Sec. 9, Florida Constitution; Chapters 68A-27 and 68A-16, Florida Administrative Code (F.A.C.)]

B. General Listed Species Survey

1. The Licensee shall coordinate with the FWC to obtain and follow the current survey protocols for all listed species that may occur within the DBEC site and associated supporting facilities, as well as accessible appropriate buffers within the FPL property or rights-of-way as defined by the listed species' survey protocols, prior to conducting detailed surveys. Guidance related to species-specific survey protocols can be found in the FWC's Imperiled Species Management Plan at <http://myfwc.com/wildlifehabitats/imperiled/plan/> or the Florida Wildlife Conservation Guide at <http://myfwc.com/conservation/value/fwcg/>.

SECTION B: SPECIFIC CONDITIONS

2. Surveys shall be conducted for the species listed in Table 1 above prior to clearing and construction in accordance with the survey protocols. The results of those detailed surveys shall be provided to the FWC in a report, and coordination shall occur within the FWC on appropriate impact avoidance, minimization, or mitigation methodologies.

[Article IV, Sec. 9, Florida Constitution; Sections 379.2291, 403.507, 403.526, and 403.5113(2), Florida Statutes (F.S.); and Rule 68A-27, F.A.C.]

C. Specific Listed Species Surveys

Before land clearing and construction activities within the Lauderdale and/or DBEC site and associated supporting facilities, the Licensee shall conduct an assessment for all terrestrial listed species and shall note all habitat, occurrence or evidence of listed species. Wildlife surveys shall be conducted during the reproductive or "active" season for each species that falls before the projected clearing activity schedule unless otherwise approved by the FWC. For species that are difficult to detect, the Licensee may assume that the species is present and plan appropriate avoidance/mitigation measure for FWC post-certification review and approval at least 60 days prior to commencing clearing or construction activities within the surveyed area. The surveys required by these conditions of certification may be conducted prior to issuance of the final order of certification, in which case this condition would be considered satisfied.

1. This survey shall be conducted in accordance with the U.S. Fish and Wildlife Service (USFWS) or FWC guidelines and methodologies by a person or firm that is knowledgeable and experienced in conducting flora and fauna surveys for each potentially occurring listed species.

2. This survey shall identify locations of breeding sites, nest, and burrows for listed wildlife species. Nest and burrows shall be recorded with global positioning system (GPS) coordinates, identified on an aerial photograph, and submitted with the final listed species report. Although nests and burrows may be recorded individually with GPS, the FWC prefers that any applicable protection radii surrounding groups of nest sites and burrows be included on a site-specific basis, rather than around individual nests and burrows, and be physically marked so that clearing and construction shall avoid impacting them.

3. This survey shall include an estimate of the acreage and percent cover of each existing vegetation community (Florida Land Use, Cover and Forms Classification System, or FLUCFCS, at the third degree of detail) that is contained within the DBEC Project prior to land clearing and construction activities using geographic information system (GIS). Examples of such wildlife-based habitat classification schemes include Florida's State Wildlife Action Plan (FWC 2012), Descriptions of Vegetation and Land Cover Types (FWC 2004), or Natural Communities Guide (Florida Natural Areas Inventory 2010)

[Article IV, Sec. 9, Florida Constitution; Sections 379.2291 F.S.; and Rules 68A-27, 68A-4, and 68A-16, F.A.C.]

D. Listed Species Locations

Where any suitable habitat or evidence is found of the presence of listed species, including but not limited to those specified in A above, within the Lauderdale and DBEC site, the Licensee shall report those location to, and confer with, the FWC to determine whether additional pre-clearing surveys are warranted, and to identify potential mitigation or avoidance recommendations. If additional pre-clearing surveys are required by the FWC as appropriate and

SECTION B: SPECIFIC CONDITIONS

as specified in these conditions of certification, they shall occur in the reproductive season prior to the anticipated date for the start of construction within the DBEC Project. The Licensee shall not construct in areas where evidence of listed species was identified during the initial survey until the particular listed species issues have been resolved as follows:

1. **Listed Wildlife Species:** If listed wildlife species are found, their presence shall be reported to the DEP Siting Coordination Office, the FWC, and the USFWS.

2. **Species Management Plan:** If total avoidance of state-listed wildlife species is not feasible, the Licensee shall consult with the FWC to determine the steps appropriate for the species potentially impacted to avoid, minimize, mitigate, or otherwise appropriately address potential impacts. For wildlife species, these steps shall be memorialized in a Species Management Plan and submitted to the FWC for review and approval.

[Article IV, Sec. 9, Florida Constitution; Sections 379.2291 F.S.; and Rule 68A-27, F.A.C.]

E. Florida Manatee

1. Interim Warm-Water Refuge Heating System

In order to prevent an increased risk of manatee cold stress death during the DBEC construction period, a warm-water refuge will be created by an interim heating system. Adaptive management protocols for the interim warm-water refuge heating system shall be included in the Environmental and Biological Monitoring Plans. If existing Environmental and Biological Monitoring Plans are already in place, and have been previously reviewed and approved by FWC, FPL shall continue to adhere to those plans and will not need to resubmit new plans. The Environmental and Biological Plans shall include the following provisions:

a. Monitoring and evaluation of the interim heating system shall take place pursuant to the conditions found in Sections 2 Environmental Monitoring and Section 3 Biological Monitoring.

b. The Environmental Monitoring Plan shall include the trigger temperature and operational details agreed upon by the FWC in consultation with the USFWS and FPL. The interim heating system shall be maintained and operated to achieve the results specified in the Environmental Monitoring Plan in accordance with best management practices (BMP) established by Licensee, unless otherwise authorized by FWC and USFWS, or unless the safety of employees or reliability of the electric power system would be compromised. The Licensee's BMP manual for the interim heating system shall include details related to maintenance, operations, agency notifications, logbooks requirements and troubleshooting plans.

c. A copy of the Licensee's BMP manual for the interim heating system shall be maintained at all times while the heaters are present at the DBEC site and shall be made available upon request to authorized representatives of FWC and DEP.

d. If through the biological monitoring or daily visual assessments of manatee health, or scientific data, it is indicated that the interim heating system's operational trigger protocol should be modified to maintain a sufficient warm-water refuge, then FWC will consult with DEP, USFWS, and FPL to assess the information and develop a new strategy that can be agreed upon by the Licensee, FWC, DEP and USFWS and amended in the Environmental Monitoring Plan.

SECTION B: SPECIFIC CONDITIONS

e. The location, configuration and dimensions of the interim warm-water refuge will be illustrated in the Environmental Monitoring Plan.

f. The Licensee may request modification of applicable FWC conditions upon issuance by the DEP, in consultation with the FWC, of final NPDES permit modification No. FL0001503 if such requested modifications to the conditions herein have been adopted into the final NPDES permit.

[Section 403.507, F.S.; Section 379.1025, F.S.; Section 379.2291, F.S.; Section 379.2431 (2), F.S.; Section 20.331, F.S.]

2. Environmental Monitoring

The following monitoring requirements are applicable to the operation of the interim heating system during the DBEC construction phase.

a. The final Environmental Monitoring Plan developed for the period beginning with the start of construction of the new DBEC unit 7, shall be reviewed and approved by FWC and the Licensee shall submit the final Environmental Monitoring Plan to FWC and the DEP Siting Office. The Environmental Monitoring Plan shall include, at a minimum, the following components:

(1) Monitoring of the interim heating system and warm-water refuge during the modernization process (as described in Interim Heating System and Environmental Monitoring conditions and the Licensee's Thermal Modeling Study) shall take place during the winter months of 1 December through 31 March.

(2) Monitoring of the DBEC's interim warm-water refuge during construction shall consist of ambient air and water temperatures measured at multiple locations within the interim warm-water refuge. The number and configuration of temperature monitoring stations must be sufficient to provide a three-dimensional view, over time, of the thermal refuge.

(3) As part of this Environmental Monitoring Plan the Licensee shall include a plan to convey the data from the temperature monitoring stations to the appropriate agencies on a daily basis when the trigger is on and the heaters are running, and on a weekly basis when the trigger protocols have not been met.

(4) Specific locations for the temperature monitoring station(s), sampling frequencies, station depths, data collection methods, and reporting frequencies must be identified and may be subject to further revision depending on receipt of any required permits, licenses and approvals.

b. The Licensee will prepare an Environmental Monitoring Report that includes all data (made available in electronic form) and statistical analyses completed as a result of the requirements set forth in the Environmental Monitoring Plan. This report will be submitted yearly by the date designated in the Environmental Monitoring Plan, while the interim warm-water system is in operation during the construction period of the DBEC. A summary report including information collected throughout the modernization process shall be completed and submitted to the FWC and DEP Siting Office for review. All annual reports shall be submitted as directed in the Environmental Monitoring Plan.

[Section 403.507, F.S.; Section 379.1025, F.S.; Section 379.2291, F.S.; Section 379.2431 (2), F.S.; Section 20.331, F.S.]

SECTION B: SPECIFIC CONDITIONS

3. Biological Monitoring

The following monitoring requirements for manatee distribution and abundance are applicable to the operation of the interim heating system during the DBEC construction:

a. The Biological Monitoring Plan, developed for the period beginning with the start of construction of the new DBEC unit 7, shall be reviewed and approved by FWC and the Licensee shall submit the final Biological Monitoring Plan to FWC and the DEP Siting Office. The Biological Monitoring Plan shall include at a minimum the following components:

(1) Monitor the winter months of 1 December through 31 March distribution and abundance of manatees during the time frame that includes the operation of the interim warm-water heating system.

(2) Biological monitoring shall be conducted through aerial surveys during the winter months of 1 December through 31 March beginning the first winter of the plant's modernization and continuing through the completion of the DBEC construction and 2 years post-commercial operation of DBEC. After the first year of post modernization aerial survey monitoring, FWC will discuss the results with the Licensee and the parties will determine if the second year's monitoring can be eliminated. FPL will consult with FWC to determine the status of other aerial survey data collection efforts to determine if FPL will need to conduct any of the surveys (i.e., either during or post-modernization).

(3) Specific aerial survey paths, sampling frequencies, and methodologies for aerial surveys must be identified and described in the Biological Monitoring Plan. Aerial survey flight paths will be consistent with those established by the Broward County Environmental Resource Management Office and shall encompass the winter months as established in the Biological Monitoring Plan.

(4) Aerial survey data shall be analyzed and summarized after each winter season to provide an evaluation of manatee abundance and distributional changes within the survey area.

(5) The Licensee shall provide one or more manatee observers who have been trained by an approved FWC trainer so they can detect indications of cold stress in manatees. The monitoring protocols and information requirements will be described in the Biological Monitoring Plan.

(6) The manatee observer will be required to conduct a daily visual assessment of the condition and general distribution of manatees using the interim warm water refuge during the winter months of 1 December through 31 March. The visual assessments shall be conducted for a sufficient length of time to assess most of the manatees present at the plant and accessible to the observer on that day.

(7) Additional manatee behavior or habitat monitoring that will be determined by FWC, USFWS, and FPL is required and shall be accomplished by the Licensee through the use of an entity with experience in manatee ecology and data analysis in Florida. This condition will coincide with the use of the interim heating system and 2 years post-commercial operation of DBEC. After the first year of post modernization behavior or habitat monitoring, FWC will discuss the results with the Licensee and the parties will determine if the second year's monitoring can be eliminated. The details of the additional manatee behavior or habitat monitoring effort and required reports will be provided in the Biological Monitoring Plan.

(8) The Licensee will prepare a Biological Monitoring Report that includes all data (made available in electronic form) and statistical analyses completed as a

SECTION B: SPECIFIC CONDITIONS

result of the requirements set forth in the Biological Monitoring Plan. This report will be submitted yearly by the date designated in the Biological Monitoring Plan. A summary report including information collected throughout the modernization process shall be completed and submitted to the FWC and DEP Siting Office for review. All annual reports shall be submitted as directed in the Biological Monitoring Plan.

[Section 403.507, F.S.; Section 379.1025, F.S.; Section 379.2291, F.S.; Section 379.2431 (2), F.S.; Section 20.331, F.S.]

4. Standard Environmental and Biological Monitoring Plan Conditions

a. The Biological and Environmental Monitoring Plans, including the proposed monitoring techniques and monitoring locations that will be used to assess manatee health, distribution and habitat during the modernization process, shall be approved by FWC.

b. If, in the review of the annual biological or environmental monitoring reports, FWC, in consultation with the DEP and USFWS, determines the need to modify the Biological or Environmental Monitoring Plans, FWC will notify the Licensee to discuss the findings. At that time, FWC, in consultation with the DEP, USFWS and the Licensee, will determine what, if any, modifications need to be made to the Biological or Environmental Monitoring Plans.

c. If the Licensee determines the Biological or Environmental Monitoring Plans are in need of modifications during the operation of the interim heating system, the Licensee will contact the agencies to discuss the proposed modifications. At that time, FWC, in consultation with the DEP, USFWS and the Licensee, will determine what if any modifications need to be made.

d. The Licensee will provide personnel from the FWC, USFWS, USGS Sirenia Project, or a designee of these agencies, access to the DBEC property to conduct manatee monitoring activities. Reasonable notice shall be given to the Licensee by the agencies. Access would be limited to normal weekday business hours (8:00 a.m. - 5:00 p.m.) unless arrangements are made in advance with the Licensee.

e. All visitors to DBEC will be required to comply with FPL's safety and security requirements. Personnel will receive an orientation from FPL or its contractor prior to commencing observations or other activities.

[Section 403.507, F.S.; Section 379.1025, F.S.; Section 379.2291, F.S.; Section 379.2431 (2), F.S.; Section 20.331, F.S.]

5. Contingency Plan

FWC and USFWS' Letter of Authorization (LOA) network responders will be responsible for all efforts related to manatee rescues, rehabilitation activities, and carcass recovery during the DBEC modernization. In order to effectively implement contingency plans during the plant modernization and to address manatee health-related issues, the following conditions are required:

a. If the observer (pursuant to Biological Monitoring Plan) identifies manatees with apparent signs of cold stress disease, digital photographs should be taken of the animal(s) and the FWC shall be called as soon as possible on the day of the observations through the protocols described in the Biological Monitoring Plan

b. The Licensee will notify FWC and USFWS immediately if there is a mechanical failure of the interim heating system, or if, for any other reason the interim heating

SECTION B: SPECIFIC CONDITIONS

system is not operating in a manner that will provide warm-water sufficient to keep the warm-water refuge at a temperature of 68° F or greater.

c. The Licensee shall provide in-kind services and financial assistance, not to exceed \$100,000 in total value, to FWC for manatee rescue or recovery in the event that there is a failure of the interim heating system resulting from Licensee's failure to comply with these requirements that causes death or identifiable cold stress to manatees in Broward County. This condition would apply during the winter months of 1 December through 31 March. The in-kind assistance and funds would only be used to address manatee-related cold stress issues in the area that the interim system affects.

[Sections 403.507 F.S., Section 379.1025 F.S., Section 379.2291, F.S., Section 379.2431 (2) F.S., Section 20.331 F.S.]

6. Development of a Long-Term Manatee Strategy

In the future, the warm-water habitat created by the DBEC will diminish or be terminated; in that event the FWC and USFWS believes it is in the best interest of the Licensee, FWC, USFWS, DEP, and the Florida manatee population to begin strategic long-term planning to reduce the adverse effects to the Florida manatee population before this occurs.

a. Within two years of the FWC and USFWS developing a Warm-Water Action Plan (Plan) that has been endorsed by both agencies and that is inclusive of a future-oriented Management Policy for Warm-Water Manatee Habitat, the Licensee shall host and chair a workshop that is designed to: (a) articulate a strategy for achieving the goals of that Plan, (b) develop a timetable for implementing the strategy, (c) review progress to date in achieving the strategy, and (d) identify impediments and solutions.

b. Within one year of the workshop held pursuant to Final Order # PA 89-26A2, the Licensee shall provide the FWC with a formal report of the workshop, including findings, conclusions, and recommendations.

c. Over the course of the operating life span of the DBEC, the Licensee shall develop an exit strategy for the DBEC that prevents significant losses to the manatee population when the Licensee determines to reduce or eliminate the DBEC's thermal discharge to the extent that a dependable warm-water refuge is no longer present. The Licensee's strategy shall consider FWC and USFWS's statewide Warm-Water Action Plan approved by FWC and USFWS.

d. The Licensee shall work closely with the FWC and USFWS to evaluate progress toward achieving the vision and goals of the Warm-Water Action Plan and to develop adaptive changes to the Plan as needed to promote manatee recovery through participation in periodic workshops and/or conferences designed to accomplish such evaluation and adaptive changes.

e. The FWC must be notified, in writing, within 30 days of any sale, conveyance, or other transfer of the facility.

[Section 403.507, F.S.; Section 379.1025, F.S.; Section 379.2291, F.S.; Section 379.2431 (2), F.S.; Section 20.331, F.S.]

7. Manatee Construction Conditions for In-Water Work

a. The current Standard Manatee Conditions for In-Water Work are required for all in-water work in or adjacent to waters accessible to manatees. If the licensee is unsure if a certain activity qualifies as in-water work, it will contact the FWC to discuss and

SECTION B: SPECIFIC CONDITIONS

determine applicability of these conditions for the proposed activity. Blasting or pile hammering activities to break rock shall be prohibited in waters accessible to manatees. If no other alternative exists, a modification of these conservation measures can be requested. An adequate Blast and Protected Species Watch Plan must be submitted to and approved by the Imperiled Species Management Section of the FWC prior to these methodologies being used.

b. To reduce the possibility of injuring or killing a manatee during construction, in-water work shall not be performed between November 15 and March 31 unless essential to support the DBEC project's schedule or the safety of employees or reliability of the electric power system would be compromised. If in-water work during the winter cannot be avoided, the Licensee will contact the agencies to determine alternative conditions that will be implemented to address the proposed activity.

c. At least one person shall be designated as a manatee observer when in-water work is being performed. That person shall have experience in manatee observation and be equipped with polarized sunglasses to aid in observation. The manatee observer must be on site during all in-water construction activities and will advise personnel to cease operation upon sighting a manatee within 50 feet of any in-water construction activity. Movement of a work barge, other associated vessels, or any in-water work shall not be performed after sunset, when the possibility of spotting manatees is negligible.

d. The Licensee will include as part of its safety orientation manatee awareness training for full-time permanent construction personnel at the DBEC site. This training will be designed to educate the construction work force about the legal requirements to avoid manatees and to provide them with contact information if they should spot an injured manatee.

e. To reduce the risk of entrapment and drowning of manatees, grating shall be installed over any proposed pipes or culverts greater than 8 inches, but smaller than 8 feet in diameter that are submerged or partially submerged and reasonably accessible to manatees. Bars or grates no more than 8 inches apart shall be placed on the accessible end(s) during all phases of the construction process and as a final design element to restrict manatee access.

[Section 403.507, F.S.; Section 379.1025, F.S.; Section 379.2291, F.S.; Section 379.2431 (2), F.S.; Section 20.331, F.S.]

8. Force Majeure

If there is an act of God, terrorism, or war that prevents Licensee from providing the requisite warm water conditions, Licensee will notify FWC expeditiously and coordinate efforts to resume compliance with the certification conditions.

[Sections 403.507, F.S.; Article IV, Sec. 9, Fla. Const.; Section 20.331, F.S.]

V. DEPARTMENT OF TRANSPORTATION

A. Access Management to the State Highway System

Any access to the State Highway System will be subject to the requirements of Rule Chapters 14-96, State Highway System Connection Permits, and 14-97, Access Management Classification System and Standards, Florida Administrative Code, which may require a right of way access permit from FDOT.

[Chapters 14-96 and 14-97, F.A.C.]

SECTION B: SPECIFIC CONDITIONS

B. Overweight or Overdimensional Loads

Operation of overweight or overdimensional loads by the applicant on State transportation facilities during construction and operation of the utility facility will be subject to safety and permitting requirements of Chapter 316, Florida Statutes, and Rule Chapter 14-26, Safety Regulations and Permit Fees for Overweight and Overdimensional Vehicles, Florida Administrative Code.

[Chapter 316, F. S.; Chapter 14-26, F.A.C.]

C. Use of State of Florida Right of Way or Transportation Facilities

All usage and crossing of State of Florida right of way or transportation facilities will be subject to Rule Chapter 14-46, Utilities Installation or Adjustment, Florida Administrative Code; Florida Department of Transportation's Utility Accommodation Manual (Document 710-020-001); Design Standards for Design, Construction, Maintenance and Utility Operation on the State Highway System; Standard Specifications for Road and Bridge Construction; and pertinent sections of the Florida Department of Transportation's Project Development and Environmental Manual.

[Sections 337.403 and 337.404, F.S.; Chapters 14-15 and 14-46, F.A.C.]

D. Standards

The Manual on Uniform Traffic Control Devices; Florida Department of Transportation's Design Standards for Design, Construction, Maintenance and Utility Operation on the State Highway System; Florida Department of Transportation's Standard Specifications for Road and Bridge Construction; Florida Department of Transportation's Utility Accommodation Manual; and pertinent sections of the Department of Transportation's Project Development and Environmental Manual will be adhered to in all circumstances involving the State Highway System and other transportation facilities.

[Chapter 14-15, F.A.C.]

E. Drainage

Any drainage onto State of Florida right of way and transportation facilities will be subject to the requirements of Rule Chapter 14-86, Drainage Connections, Florida Administrative Code, including the attainment of any permit required thereby.

[Chapter 14-86, F.A.C.]

F. Use of Air Space

Any newly proposed structure or alteration of an existing structure will be subject to the requirements of Chapter 333, Florida Statutes, and Rule 14-60.009, Florida Administrative Code. Additionally, notification to the Federal Aviation Administration (FAA) is required prior to beginning construction, if the structure exceeds notification requirements of 14 CFR Part 77, Objects Affecting Navigable Airspace, Subpart B, Notice of Construction or Alteration. Notification will be provided to FAA Southern Region Headquarters using FAA Form 7460-1, Notice of Proposed Construction or Alteration in accordance with instructions therein. A subsequent determination by the FAA stating that the structure exceeds any federal obstruction standard of 14 CFR Part 77, Subpart C, for any structure that is located within a 10-nautical-mile radius of the geographical center of a public-use airport or military airfield in Florida will be

SECTION B: SPECIFIC CONDITIONS

required to submit information for an Airspace Obstruction Permit from the Florida Department of Transportation or variance from local government depending on the entity with jurisdictional authority over the site of the proposed structure. The FAA Determination regarding the structure serves only as a review of its impact on federal airspace and is not an authorization to proceed with any construction. However, FAA recommendations for marking and/or lighting of the proposed structure are made mandatory by Florida law. For a site under Florida Department of Transportation jurisdiction, application will be made by submitting Florida Department Transportation Form 725-040-11, Airspace Obstruction Permit Application, in accordance with the instructions therein.

[Chapter 333, F.S.; Rule 14-60.009, F.A.C.]

G. Best Management Practices

Traffic control during facility construction and maintenance will be subject to the standards contained in the Manual on Uniform Traffic Control Devices; Rule Chapter 14-94, Statewide Minimum Level of Service Standards, Florida Administrative Code; Florida Department of Transportation's Design Standards for Design, Construction, Maintenance and Utility Operation on the State Highway; Florida Department of Transportation's Standard Specifications for Road and Bridge Construction; and Florida Department of Transportation's Utility Accommodation Manual, whichever is more stringent.

It is recommended that the Licensee encourage transportation demand management techniques by doing the following:

- Placing a bulletin board on site for carpooling advertisements.
- Requiring that heavy construction vehicles remain onsite for the duration of construction to the extent practicable.

If the applicant uses contractors for the delivery of any overweight or overdimensional loads to the site during construction, the applicant should ensure that its contractors adhere to the necessary standards and receive the necessary permits required under Chapter 316, Florida Statutes, and Rule Chapter 14-26, Safety Regulations and Permit Fees for Overweight and Overdimensional Vehicles, Florida Administrative Code.

[Chapter 316, F.S.; Chapter 14-26, F.A.C.]

VI. DEPARTMENT OF STATE – DIVISION OF HISTORICAL RESOURCES

A. Any alterations, in areas not previously surveyed, associated with the reconfiguration of this plant may need to have a survey as determined in consultation with the Department of State, Division of Historical Resources (DHR). A qualified cultural resources consultant will identify an appropriate work plan for this project based on a thorough review of the certified facility. Prior to beginning any field work, the work plan will be reviewed in consultation with DHR. Upon completion of the survey, the results will be compiled into a report which shall be submitted to DHR. If feasible, sites considered to be eligible for the National Register shall be avoided during construction of the project and access roads, and subsequently during maintenance. If avoidance of any discovered sites is not feasible, impact shall be mitigated through archaeological salvage operations or other methods acceptable to DHR, as appropriate.

B. Any proposed projects occurring within the bounds of site 8BD4153 will need to be reviewed in consultation with DHR.

SECTION B: SPECIFIC CONDITIONS

C. If historical or archaeological artifacts or features are discovered at any time within the Certified Facility, the Licensee shall notify the appropriate DEP District office (s) and the DHR, R.A. Gray Building, 500 S. Bronough Street, Rm 423, Tallahassee, Florida 32399-0250, telephone number (850) 245-6333, and the Licensee shall consult with DHR to determine appropriate action.

[Sections 267.061, 403.531, and Chapter 872, F.S.]

VII. DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES

Only herbicides registered by the U.S. Environmental Protection Agency and the Florida Department of Agriculture and Consumer Services shall be used at Certified Facilities. Herbicide applications will be in accordance with label directions and will be carried out by a licensed applicator, in compliance with all federal, state and local regulations. Herbicide applications shall be selectively applied to targeted vegetation. Broadcast application of herbicide shall not be used unless effects on non-targeted vegetation are minimized.

[Chapter 487, F.S.]

VIII. BROWARD COUNTY

A. *Lauderdale Plant (Units 4, 5 and 6)*

1. FPL shall comply with the nonprocedural provisions of Chapter 27, Article XIV of the Broward County Code of Ordinances (BCC or Code), as may be amended, regarding removal and protection of trees on the Repowering Project site.

2. The Licensee shall undertake the Lauderdale Repowering Project in accordance with the Final Site Plan as submitted to Broward County by the Licensee on August 30, 1990, (and as that plan may be lawfully amended in the future) and determined by Broward County to be in compliance with the Broward County Land Development and the nonprocedural requirements therein.

3. FPL shall provide to Broward County copies of the regularly scheduled annual compliance tests as submitted to DEP.

4. If in the opinion of Broward County, Broward County believes that the Conditions of Certification regarding NOx emissions are not being complied with as set forth in these Conditions, Broward County shall have the right to seek a modification of the certification pursuant to Section 403.516, Florida Statutes.

5. FPL shall comply with the following conditions to implement the site alterations contained in the August 18, 1992 modification request and shall comply with the provisions of the Broward County staff memos incorporated herein as Attachment D:

The proposed alteration of the Administration Building shall not substantially increase the number of employees from the current level. However, if the future use of the Administration Building is changed in such a manner so as to substantially increase the number of permanent employees, FPL and County agree to meet in order to determine whether the change of use has created a material negative impact on S.W. 42nd Avenue. If FPL and the County cannot agree on whether S.W. 42nd Avenue has suffered such a negative impact, FPL shall conduct a traffic count in accordance with Broward County standard procedures. The traffic count shall be conducted at a location acceptable to FPL and the County and shall be

SECTION B: SPECIFIC CONDITIONS

conducted for a continuous seven-day period. If the traffic count demonstrates that the FPL related traffic on S.W. 42nd Avenue is more than 10% in excess of 400 vehicles per day, based on the average of the seven-day period, the County administration and FPL shall meet to determine appropriate and reasonable remedial measures to mitigate the negative impact. If the County administration and FPL are unable to agree as to the mitigation measures, FPL shall have the right to an administrative appeal to the County Commission. The County Commission may then require such mitigation measures which are appropriate and reasonable based upon the impacts on the road caused by FPL's increased usage and the Broward County Land Development Code.

6. In the event congestion becomes a problem, FPL should cooperate with local traffic control personnel to keep traffic flowing.

7. The Licensee shall provide screening of the site to the extent feasible through the use of aesthetically acceptable structures, vegetated earthen walls and/or existing or planted vegetation.

8. To mitigate the effects of noise produced by the steam blowout of steam boiler tubes, the Licensee shall conduct public awareness campaigns prior to such activities to forewarn the public of the estimated time and duration of the noise. Steam blowout shall be limited to the hours of 7:00 a.m. to 7:00 p.m. unless any steam blows conducted after 7:00 p.m. otherwise comply with these conditions of certification and the applicable Broward County noise regulations.

9. The plant and associated facilities shall be constructed in such a manner as to comply with the Broward County flood protection requirements, either by floodproofing or by raising the elevation of the facilities above the 100-year flood level.

B. Dania Beach Energy Center (Unit 7)

1. General

a. Compliance Requirements

The DBEC Project must be constructed, operated and maintained in compliance with and meet all applicable non-procedural requirements set forth in the Broward County Code.

b. Off-site Impacts

It is the responsibility of FPL to ensure that off-site impacts including pollution or harm to natural resources do not occur as a result of construction or operation of the DBEC project, other than as authorized herein.

[Sections 27-53, 27-54, and 27-55, BCC]

c. Notifications

FPL shall provide Broward County notice contemporaneously with notices provided to the Department under Sections A. VII, NOTIFICATION, and VIII. EMERGENCY CONDITION NOTIFICATION AND RESTORATION.

d. FPL shall provide to Broward County copies of the regularly scheduled annual compliance tests as submitted to DEP.

[Section 27-58(b)(3), BCC]

SECTION B: SPECIFIC CONDITIONS

2. Surface Water Management

FPL shall comply with the applicable non-procedural requirements of Section 27-199(c), BCC and in accordance with the SCA. FPL must provide final stormwater management system design and drawings as a post-certification submittal to Broward County, in accordance with Section A. XX. PROCEDURES FOR POST-CERTIFICATION SUBMITTALS.

[Section 27-199(c), BCC]

3. Non-Domestic Wastewater

The non-domestic wastewater discharge at "Outfall D001" shall not be increased in quantity or decreased in quality, unless approved through a Modification of the Conditions of Certification as provided for in Section A. XXIII. MODIFICATION.

[Applicant Agreement]

4. Aquatic and Wetland Resource Protection

a. Except as authorized by the appropriate regulatory authority, project-generated spoil material shall be disposed of in a suitable manner at an upland location.

[Section 27-339(2)c., Section 27-215, and Section 27-353, BCC]

b. Turbidity screens or equivalent shall be properly employed and maintained as necessary during construction activities so that turbidity levels do not exceed twenty-nine (29) NTU's above natural background fifty (50) feet downstream of project.

[Section 27-339(2)d., BCC]

c. There shall be no impacts to existing wetland mitigation areas with the FPL property from this project.

[Section 27-339(1)(l), BCC and DBEC PPSA No. PA89-26A2, Response to Completeness Questions and comments, October 5, 2017, Page 2]

d. Unavoidable permanent and temporary impacts to wetlands as described in the SCA shall be offset through the purchase of freshwater herbaceous mitigation credits from the FPL/Everglades Mitigation Bank (EMB) and restoration in-situ of temporary secondary impacts as described in Section A. Condition XXVIII and Attachment C.

[Section 27-337(d)(l), BCC and DBEC PPSA No. PA89-26A2, Response to Completeness Questions and comments, October 5, 2017, Page 2]

e. Off-site mitigation for the authorized wetland impacts shall be documented via a post-certification submittal to FDEP and the County.

[Section 27-337(d)(l), BCC]

f. Broward County and FPL do not waive the rights and responsibilities of each party in the "Agreement between (Florida Power & Light Company) and Broward County concerning the "South Dade (Everglades) Mitigation Bank", dated August 6, 1996 and any amendments thereto.

[Section 27-337(d)(l), BCC]

g. Prior to impacting wetlands, FPL shall submit verification from EMB that the appropriate credits have been debited from the bank's credit ledger as mitigation for impacts associated with this project.

[Section 27-337(d)(l), BCC]

SECTION B: SPECIFIC CONDITIONS

5. Solid Wastes

FPL shall comply with all applicable nonprocedural provisions of Chapter 27, Article VI, BCC, for any solid waste generated within the Certified Facility during construction, operation, and maintenance.

[Section 27 Article VI, BCC]

6. Environmental Assessment and Remediation

a. If any previously undocumented contamination is identified, it must be reported to Broward County in accordance with the applicable non-procedural requirements of Section 27-355 and 27-356, BCC, and FPL shall comply with the March 8, 2018 Lauderdale Power Plant Site Assessment and Remediation Plan as may be amended.

[Applicant Agreement, Sections 27-355 and 27-356, BCC]

b. Because the facility is currently a known contaminated site, prior to any dewatering or the pumping of groundwater as a remedial action, FPL must provide a plan as a post-certification submittal to Broward County in accordance with Section A. XX.

PROCEDURES FOR POST-CERTIFICATION SUBMITTALS.

[Applicant Agreement, Sections 27-353 and 27-355, BCC]

c. Continued access to contaminated areas must be ensured so that assessment and remediation can continue during and after construction. The construction also cannot enhance or spread the contamination.

[Applicant Agreement, Section 27-353(b), BCC]

d. If contaminated soil is encountered during construction activities, such soil must be properly handled and disposed of in accordance with Chapter 27 of the Broward County Code. Stockpiled impacted soil must be covered and secured so that contamination is not spread to previously uncontaminated or less contaminated areas or off-site.

[Applicant Agreement, Section 27-353(b), BCC]

e. All groundwater monitoring wells should be protected from damage during demolition and construction. Any groundwater wells that are damaged or otherwise not useable must be properly abandoned in accordance with Chapter 62-532, FAC, and replaced at FPL's expense.

[Applicant Agreement, Section 27-353(b), BCC]

7. Storage Tanks Requirements – Pre-construction

A facility that is intended to store hazardous material, unless otherwise exempted in Chapter 27, BCC, or when routine maintenance is being done, shall be built, erected, operated, modified, maintain in out-of-service status, closed, or replaced in accordance with all applicable nonprocedural requirements of Article X of Chapter 27, BCC, Storage Tanks. Certified contractors are required to perform certain construction activities in accordance with section 27-302(a)(11), BCC.

[Applicant Agreement, Article X, Chapter 27 BCC]

8. Hazardous Material Facility Requirements

a. If (a) Any extremely hazardous substance in excess of the threshold planning quantity as defined by the most current version of the Emergency Planning

SECTION B: SPECIFIC CONDITIONS

and Community Right-to-Know Act, (42 U.S.C. Section 11001, et seq., is present, or (b) Within a one (1) month period of time, an aggregate amount of twenty-five (25) gallons or more or an equivalent dry volume of hazardous material are stored, handled, generated, used, processed, manufactured, disposed of, or are otherwise present, the DBEC is a hazardous material facility and the nonprocedural requirements of Chapter 27, Article XII, BCC, shall be complied with at all times.

b. Advanced notification shall be provided as requested before the installation or closure of a storage tank system or system component storing regulated substances. Hazardous materials will be stored within secondary containment, and any discarded hazardous material or hazardous waste shall be properly stored, managed and disposed of by a licensed waste hauler.

[Applicant Agreement, Section 27-356. BCC and FPL Completeness Response p. 30.]

9. Manatee Protection Plan

FPL must coordinate with Broward County regarding manatee surveys.

10. Planning and Development Management

a. FPL shall comply with all applicable nonprocedural requirements of Chapter 5, BCC, and the Broward County Land Use Plan necessary to obtain plat review approval for the FPL Unit 7 Plat, record the approved plat, and make all such post-certification submittals required to obtain such approval.

[Applicant Agreement, Chapter 5, BCC]

b. FPL shall obtain the approval of the Broward County Board of County Commissioners prior to recordation of the Florida Power & Light Unit 7 Plat.

[Applicant Agreement, Article IX, Division 3, Broward County Charter]

IX. CITY OF DANIA BEACH

FPL shall comply with the applicable requirements contained within Development Orders (Site Plan, Variance, and Special Exception) issued by the City of Dania Beach for the Project.

[Ch. 28, Part 6, Article 680, Code of Ordinances, City of Dania Beach]

X. CITY OF HOLLYWOOD

FPL shall work with the City of Hollywood to station a police officer at the intersection of SW 42nd Street and 30th Avenue to minimize traffic during peak AM and PM hours throughout DBEC construction if a traffic signal cannot be installed by the City of Hollywood prior to construction. If the City of Hollywood is able to install a traffic signal at the intersection of Southwest 42nd Street and 30th Avenue prior to construction of DBEC, then FPL shall contribute the equivalent cost of providing a police officer for the peak AM and PM hours at the intersection for two years of construction towards the installation of the traffic signal.

[FPL Agreement]

HISTORY

Certification Issued 01/10/91; signed by Governor Chiles
Modification (A) 11/25/92; signed by Secretary Browner

SECTION B: SPECIFIC CONDITIONS

Modification (B) 08/02/93; signed by Secretary Wetherell
Modification (C) 09/14/94; signed by Secretary Wetherell
Modification (D) 04/24/96; signed by Secretary Wetherell
Modification (E) 03/18/05; signed by Program Administrator Oven
Modification (F) 07/24/06; signed by Program Administrator Oven
Modification (G) 01/18/13; signed by Program Administrator Mulkey
Modification (H) 08/25/15; signed by Program Administrator Mulkey

ATTACHMENTS

ATTACHMENT A: Certified Site/Areas/Facilities Delineation Map(s)

ATTACHMENTS

ATTACHMENT B: Surface Water Management System Operation and Maintenance Requirements

1. In accordance with Section 373.416(2), F.S., unless revoked or abandoned, all stormwater management systems, dams, impoundments, reservoirs, appurtenant works, or works permitted under Part IV of Chapter 373, F.S., must be operated and maintained in perpetuity. The operation and maintenance shall be in accordance with the designs, plans, calculations, and other specifications that are submitted with any amendment or modification and approved by the Department.
2. A registered professional must perform inspections annually after conversion of the project to the operation and maintenance phase to identify if there are any deficiencies in structural integrity, degradation due to insufficient maintenance, or improper operation of the stormwater management system or other surface water management systems that may endanger public health, safety, or welfare, or the water resources, and to insure that systems are functioning as designed and approved. Within 30 days of the inspection, a report shall be submitted electronically or in writing to the Department using Form 62-330.311(1), "Operation and Maintenance Inspection Certification".
3. If deficiencies are found, the Lauderdale plant and Dania Beach Energy Center (DBEC) will be responsible for correcting the deficiencies so that the project is returned to the operational functions as designed and approved. The corrections must be done a timely manner to prevent compromises to flood protection and water quality.
4. If the operational maintenance and corrective measures are insufficient to enable the systems to meet the performance standards of this chapter, the Lauderdale plant and DBEC must either replace the systems or construct an alternative design.
5. The Lauderdale plant and DBEC shall provide for periodic inspections in addition to the annual inspections, especially after heavy rain. It must maintain a record of each inspection, including the date of inspection, the name and contact information of the inspector, whether the system was functioning as designed and approved, and make such record available upon request of the Department. Within 30 days of any failure of any system or deviation from the permit, a report shall be submitted electronically or in writing to the Department using Form 62-330.311(1), "Operation and Maintenance Inspection Certification," describing the remedial actions taken to resolve the failure or deviation.
6. The Lauderdale plant and DBEC shall immediately notify the Department by telephone whenever a serious problem occurs at this facility. Notification shall be made to the Northeast District Office at (904) 256-1700. Within 7 days of telephone notification, a report shall be submitted electronically or in writing to the Department using Form 62-330.311(1), "Operation and Maintenance Inspection Certification," describing the extent of the problem, its cause, the remedial actions taken to resolve the problem.
7. The following operational maintenance activities shall be performed on approved systems on a regular basis or as needed:
 - (1) Removal of trash and debris from the surface water management systems,
 - (2) Inspection of culverts, culvert risers, pipes and screwgates for damage, blockage, excessive leakage or deterioration, if applicable,

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- (3) Inspection of stormwater berms, if applicable,
 - (4) Inspection of pipes for evidence of lateral seepage,
 - (5) Inspection of flapgates for excessive backflow or deterioration, if applicable,
 - (6) Removal of sediments when the storage volume or conveyance capacity of the surface water management system is below design levels,
 - (7) Stabilization and restoration of eroded areas,
 - (8) Inspection of pump stations for structural integrity and leakage of fuel or oil to the ground or surface water, if applicable, and
 - (9) Inspection of monitoring equipment, including pump hour meters and staff gauges, for damage and operational status, if applicable.
8. In addition to the practices listed above, specific operational maintenance activities are required, if applicable, depending on the type of approved system, as follows:
- (1) Overland flow systems shall include provisions for:
 - a. Mowing and removal of clippings, and
 - b. Maintenance of spreader swales and overland flow areas to prevent channelization.
 - (2) Spray irrigation systems for reuse/disposal shall include provisions for:
 - a. Inspection of the dispersal system, including the sprayheads or perforated pipe for damage or clogging, and
 - b. Maintenance of the sprayfield to prevent channelization.
 - (3) Treatment systems which incorporate isolated wetlands shall include provisions for:
 - a. Stabilization and restoration of channelized areas, and
 - b. Removal of sediments which interfere with the function of the wetland or treatment system.

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ATTACHMENT C: Mitigation Plans

1. Submittals required herein shall include the Licensee's name and Siting Certification Tracking Number PA89-26 and SED tracking number, and shall be directed by e-mail to the FDEP Siting Office at: sco@dep.state.fl.us with a subject line of permitting/compliance PA No. 89-26/132637449/13262249, or by mail to:

Department of Environmental Protection Southeast District
Southeast District (WB)
3301 Gun Club Road, MSC7210-1
West Palm Beach, FL 33406

2. Wetland Impacts and Mitigation

Project Phase	Date	SED Tracking #	Wetland Impacts	Mitigation	Completed
Mod H	08/2015	132637449/ 13262249	12.5 freshwater forested impacts	Purchase 12.5 freshwater forested credits from the Everglades Mitigation Bank. Prior to any construction or impacts authorized by the certification, FPL shall provide the Department with documentation that the credits have been deducted from the credit ledgers of the Everglades Wetland Mitigation Bank, USCOE Permit Number SAJ-1990-04805 (SP-LCK)	
DBEC SCA	07/2017	132637449.	18.67 acres direct impact and .12 acres of secondary impact to low-quality wetlands	Purchase 11.82 credits from the Everglades Mitigation Bank	

FPL shall comply with the following prior to construction of the associated with the peaker and DBEC project:

3. No later than 180 days prior to construction of associated linear facilities within the linear facilities corridor, FPL shall provide to FDEP SCO and the SED:

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a. Detailed construction drawings depicting the location of each typical pipeline trench cross-section, pipe elevations, and existing grade elevations; and

b. Detailed construction drawings depicting the location and impact footprint of any new transmission line support structures that were not provided in the site certification application or during the site certification hearing. If these drawings include fill or substantial structure impacts, FPL shall provide updated wetland impact drawing and UMAM tables and score sheets prior to beginning construction of the new transmission line support structures.

FPL shall comply with conditions 4 and 5 prior to commercial operation of the Peaker and DBEC Project:

4. All areas identified by the Applicant in the SCA as "temporary" wetland impact areas shall be restored to pre-construction site conditions, including contours and elevations, within 15 days of completion of construction. For trench construction in wetland areas, FPL shall segregate and return the upper 12-inches of wetland topsoil to the top of the trench during backfilling.

5. A "Time Zero" Wetland Monitoring Report shall be submitted within 45 days of completion of the re-grading activities within the temporary wetland impact areas and shall include the following:

a. Date the re-grading was completed;

b. Color photographs to provide an accurate representation of each re-graded area. The photographs shall be taken from fixed reference points and directions which are shown on a scaled plan-view.

Time Zero Wetland Monitoring Reports may be submitted separately for individual facilities or segments of linear facilities.

FPL shall comply with the following conditions post-construction:

6. Subsequent Wetland Monitoring Reports shall be submitted to the District office semiannually for the first year and annually thereafter until the success criteria outlined in Condition No. 7 are achieved. If separate Time Zero Monitoring Reports are submitted for individual facilities or segments of linear facilities, the subsequent semiannual Restoration Reports shall consolidate those facilities into one semiannual Restoration Report.

The Restoration Monitoring Reports shall include the following for each restoration area:

a. Color photographs taken from the reference points established in the Time Zero Monitoring Report.

b. Plant species composition with estimates of the contribution of each species to percent cover.

c. Total contribution to percent cover by non-native wetland species and species not listed in 62-340, F.A.C.

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7. The restoration of temporarily impacted areas shall be deemed successful when the following criterion has been continuously met for a period of six months, without intervention in the form of irrigation, removal of undesirable vegetation, or replanting of desirable vegetation:

- a. Native wetland species have achieved a minimum of 80% coverage.

8. FPL shall meet the restoration success criteria as defined in Condition No. 7. The responsibility to assess if the restoration areas are meeting the success criteria shall not fall solely on the Department. In the event FPL becomes aware the restoration areas are not meeting the success criteria (based on either site observations or review of monitoring reports) after two years of monitoring, FPL shall be responsible to submit an alternative restoration plan to the Department for review and approval.

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ATTACHMENT D: Broward County Memos

ATTACHMENTS



Office of Planning
115 S. Andrews Avenue, Room 329
Fort Lauderdale, FL 33301
(305) 357-6666 • FAX (305) 357-6694

MEMORANDUM

TO: David Danovitz, Senior Planner
Office of Planning

FROM: Donald Stone, Senior Environmental Planner
Donald Burgess, Special Projects Coordinator III
Office of Planning

DATE: September 1, 1992

SUBJECT: FPL Lauderdale Site Refurbishing Project

DS
DB

We have reviewed the documents for the above-mentioned project and have the following comments:

- o manatees do utilize the Dania Cut-off Canal and the South Fork New River as travel corridors from the Intracoastal Waterway to the salinity control structures west of the FPL plant. Bridge removal and construction activities should therefore be subject to the full complement of manatee protection measures (see attached).
- o there is a concern for runoff from the reconstruction of SW 42 Avenue discharging sediment into the FDOT mitigation area to the east of this roadway. The text indicates that a berm will be established between the roadway and the mitigation area to prevent this from happening. Additionally, a dry retention area will be developed to contain this runoff. Proper monitoring of these activities is necessary to prevent breaching of the berm and allowing the subsequent sedimentation of the mitigation area.
- o all palm trees that are present within the proposed construction areas should be relocated within the new landscape areas of the project.
- o it was stated that deeper wells may be necessary to supply the water for cooling of the power units. The water within the lakes and canals is presently brackish. The pumping of water from deeper wells, tapping into the intruding saltwater, will increase the salinity within this area and may cause further damage to the remnant freshwater vegetative communities areas of the Pond Apple Slough and the South Fork New River Urban Wilderness Area to the north of the plant. The county is presently devising a plan to improve the conditions within the Pond Apple Slough, and increased salinity may counter these efforts.
- o if an archaeological site is uncovered during the construction period, FPL should also contact the Broward County Office of Planning (357-6644) and the Broward County Historical Commission (765-4670).

Thank you for the opportunity to review and comment on this project.

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Office of Natural Resources Protection
Laboratory/Licensing/Enforcement
800 S.W. 14th Court
Fort Lauderdale, FL 33316
(305) 765-4900

MEMORANDUM

DATE: September 14, 1992
TO: Dave Danovitz, Office of Planning
FROM: Joanne MacGregor-Haniffa, Associate Planner
SUBJECT: FPL Site Refurbishing Project at the Lauderdale
Recovering Site (025-SP-9)

ONRP has reviewed the submitted document and has the following comments and/or concerns:

1. ONRP is concerned about new or additional consumptive use of water that may effect nearby Pond Apple Slough and the efforts of the interagency Pond Apple Slough Work Group. Any potential for impact on Pond Apple Slough due to increased or new water use should be addressed prior to issuance of new or modified permits.
2. ONRP is concerned that FPL comply with the requirements of Chapter 27 in the construction of the site access bridge over the Dania Cutoff Canal. We are concerned about construction and dewatering activities that may increase water turbidity and the potential impacts to the West Indian manatee during construction activities. Precautions need to be taken by FPL to prevent any increase in water turbidity and to inform construction personnel of the requirements for protecting the manatee.
3. ONRP's surface water management concerns would be met by FPL compliance with South Florida Water Management District requirements. The site is not in a well field.
4. ONRP's concerns regarding surface water management sub-basin 7 along the access road have been met via additional information provided by FPL and FDOT personnel. We have been assured that the wetland mitigation area and the surface water management area will be separated by a berm and that runoff water from the roadway will not be directed into the wetland mitigation area.

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STANDARD MANATEE CONDITIONS

The permittee shall ensure that:

1. The contractor instructs all personnel associated with the project of the potential presence of manatees and the need to avoid collisions with manatees.
2. All construction personnel will be advised that there are civil and criminal penalties for harming, harassing, or killing manatees which are protected under the Marine Mammal Protection Act of 1972, the Endangered Species Act of 1973, and the Florida Manatee Sanctuary Act of 1978. The permittee and/or contractor may be held responsible for any manatee harmed, harassed, or killed as a result of construction activities.
3. Siltation barriers will be made of material in which manatees cannot become entangled, are properly secured, and are regularly monitored to avoid manatee entrapment. Barriers must not block manatee entry to or exit from essential habitat.
4. All vessels associated with the project will operate at "no wake/idle" speeds at all times while in water where the draft of the vessel provides less than four feet clearance from the bottom and that vessels will follow routes of deep water whenever possible.
5. If a manatee is sighted within 100 yards of the project area, all appropriate precautions shall be implemented by the permittee/contractor to ensure protection of the manatee. These precautions shall include ceasing construction activities if appropriate.
6. Any collision with and/or injury to a manatee will be reported immediately to the "Manatee Hotline" (1-800-DIAL FMP) and to the U.S. Fish and Wildlife Service, Jacksonville Field Office (904-791-2580) for north Florida and to the Vero Beach Field Office (407-562-3909) for south Florida.
7. A minimum of 3-foot by 4-foot temporary manatee awareness construction signs labeled "Manatee Habitat - Idle Speed In Construction Area" shall be installed and maintained at prominent locations within the construction area/docking facility prior to initiation of construction. One temporary sign will be located prominently adjacent to the construction permit and, if required, a second temporary construction sign will be installed in a location prominently visible to water related construction crews. A temporary construction sign criteria sheet is enclosed. Temporary signs will be removed by the permittee upon completion of construction.
8. The contractor will maintain a log detailing sightings,

FPL Lauderdale and Dania Beach Energy Center
PA89-26A2

LAUDERDALE PLANT - ENTRANCE ROAD
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