

APPENDIX II – AGENCY REPORTS

APPENDIX II-1 – PUBLIC SERVICE COMMISSION

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Petition for determination of need for
Okeechobee Clean Energy Center Unit 1, by
Florida Power & Light Company.

DOCKET NO. 150196-EI
ORDER NO. PSC-16-0032-FOF-EI
ISSUED: January 19, 2016

The following Commissioners participated in the disposition of this matter:

JULIE I. BROWN, Chairman
LISA POLAK EDGAR
ART GRAHAM
RONALD A. BRISÉ
JIMMY PATRONIS

FINAL ORDER GRANTING FLORIDA POWER & LIGHT COMPANY'S
PETITION FOR DETERMINATION OF NEED FOR
ELECTRICAL POWER PLANT IN OKEECHOBEE COUNTY

APPEARANCES:

WILLIAM P. COX, ESQUIRE, Florida Power & Light Company,
700 Universe Blvd. Juno Beach, FL 33408; and
CHARLES A. GUYTON, ESQUIRE, Gunster Law Firm, 215 South Monroe Street, Suite
601, Tallahassee, Florida 32301
On behalf of Florida Power & Light Company (FPL)

BRADLEY MARSHALL, ALISA COE, DAVID GUEST, ESQUIRES, Earthjustice,
111 S. Martin Luther King Jr. Blvd., Tallahassee, Florida 32301
On behalf of Environmental Confederation of Southwest Florida (ECOSWF)

JAMES S. WHITLOCK and GARY A. DAVIS, ESQUIRES, Davis & Whitlock, PC,
21 Battery Park Avenue, Suite 206, Asheville, NC 28801; and
GEORGE CAVROS, ESQUIRE, Southern Alliance for Clean Energy, 120 E. Oakland
Park Blvd., Suite 105, Fort Lauderdale, FL 33334
On behalf of Southern Alliance For Clean Energy (SACE)

JON C. MOYLE, JR. and KAREN PUTNAL, ESQUIRES, The Moyle Law Firm, PA,
118 North Gadsden Street, Tallahassee, FL, 32312
On behalf of Florida Industrial Power Users Group (FIPUG)

PATRICIA A. CHRISTENSEN and J.R. KELLY, ESQUIRES, The Office of Public Counsel, 111 West Madison Street, Room 812, Tallahassee, FL, 32399
On behalf of the Citizens of the State of Florida (OPC)

KELLEY F. CORBARI and LESLIE A. AMES, ESQUIRES, Florida Public Service Commission, 2540 Shumard Oak Boulevard, Tallahassee, Florida 32399
On behalf of the Florida Public Service Commission (Staff)

MARY ANNE HELTON, ESQUIRE, Deputy General Counsel, Florida Public Service Commission, 2540 Shumard Oak Boulevard, Tallahassee, Florida 32399
Advisor to the Florida Public Service Commission

BY THE COMMISSION:

I. BACKGROUND

On September 3, 2015, Florida Power & Light (FPL or Company) filed a Petition and supporting testimony to determine need for the construction of a combined cycle generating unit in Okeechobee County. Construction would also include associated facilities, including transmission lines and substation facilities. The Petition was filed pursuant to Sections 366.04 and 403.519, Florida Statutes (F.S.), and Rules 25-22.080, 25-22.081, 25-22.082, and 28-106.201, Florida Administrative Code (F.A.C.). The proposed Okeechobee Clean Energy Unit 1 (OCEC Unit 1) will be a natural gas, combined cycle power plant, with an expected summer peak rating of about 1,622¹ megawatts (MW). OCEC Unit 1 will be built at a greenfield site in northeast Okeechobee County owned by FPL. FPL asserts the OCEC Unit 1 will enable the Company to meet a projected need for additional generation resources that begins in 2019, continues into 2020, and increases each year thereafter.

On September 11, 2015, we issued a Notice of Commencement of Proceedings pursuant to Rule 25-22.080(3), F.A.C. An Order Establishing Procedure, including a list of tentative issues, was issued on September 16, 2015.² FIPUG, OPC, SACE, and ECOSWF were granted intervention in this proceeding.³

¹ Filings subsequent to FPL's Petition indicate that the total capacity of the proposed OCEC Unit 1 has been increased to 1,633 MW.

² Order No. PSC-15-0394-PCO-EI, issued September 16, 2015.

³ Orders Granting Intervention: Order No. PSC-15-0408-PCO-EI, issued September 25, 2015, (OPC); Order No. PSC-15-0411-PCO-EI, issued September 28, 2015, (FIPUG); Order No. PSC-15-0424-PCO-EI, issued October 8, 2015, (SACE); Order No. PSC-15-0494-PSC0EI, issued October 22, 2015, (ECOSWF).

On November 17, 2015, a prehearing conference was held. At the prehearing conference, SACE, ECOSWF, and FPL proposed additional issues for inclusion in this proceeding, which were denied by the Prehearing Officer.⁴ On November 30, 2015, ECOSWF filed a Motion for Reconsideration and Clarification of Order No. PSC-15-0540-PCO-EI, which denied the additional issues proposed by SACE and FPL. On December 1, 2015, FPL filed a response in opposition to ECOSWF's Motion for Reconsideration and Clarification.

A formal hearing was held December 1-2, 2015. At the start of the hearing, ECOSWF and FPL were given an opportunity to present oral arguments on the Motion for Reconsideration and Clarification. After consideration of the arguments, we denied ECOSWF's Motion for Reconsideration and Clarification, finding no mistake of fact or law in Order No. PSC-15-0540-PCO-EI.

We have jurisdiction over the subject matter of this proceeding, pursuant to Sections 366.04 and 403.519, F.S. After consideration of the evidence and the arguments of the parties, we hereby grant FPL's Petition for Determination of Need for the OCEC Unit 1 for the reasons discussed in greater detail below. This Order constitutes our final agency action and report to the Florida Department of Environmental Protection (DEP), pursuant to Sections 403.507(4) and 403.519(3), F.S.

II. DETERMINATION OF NEED PURSUANT TO SECTION 403.519, F.S.

This Commission is the sole forum for the determination of need for major new power plants, pursuant to Section 403.519(3), F.S. In making a determination of need, we must consider several factors: (1) the need for electric system reliability and integrity; (2) whether renewable generation or conservation measures taken by, or reasonably available to, the utility might mitigate the need for the proposed plant; (3) the need for adequate electricity at a reasonable cost; (4) the need for fuel diversity and supply reliability; and (5) whether the proposed plant is the most cost-effective alternative available.

While we must take into account all of the criteria set out above, we may base our determination of need for an electrical power plant on a single criterion or any combination of the criteria. Our underlying policy in deciding need determination petitions is to ensure a safe, reliable grid, while protecting electric utility ratepayers from unnecessary expenditures. Upon review, we find that there is sufficient record evidence before us to determine that the OCEC Unit 1 project is the most cost-effective alternative available to meet FPL's need. Having determined that we have sufficient information to assess the need for the proposed power plant under the criteria set forth in Section 403.519, F.S., we shall address each of the statutory criteria below.

⁴ Order No. PSC-15-0540-PCO-EI, issued November 20, 2015 (Order denying additional issues proposed by SACE and FPL); and Order No. PSC-15-0547-PHO-E, issued November 24, 2015, (Prehearing Order denying issues proposed by ECOSWF).

A. Need for Electric System Reliability and Integrity

We find that FPL demonstrates a need for additional generation, beginning in 2019, in order to maintain electric system reliability and integrity based on a reasonable load forecast and a 20% reserve margin criterion as discussed below.

FPL

FPL argues a need for the OCEC Unit 1, taking into account the need for electric system reliability and integrity. FPL employs three reliability criteria to maintain its system reliability and integrity: (1) a 0.1 Loss of Load Probability (LOLP); (2) a 20% Reserve Margin; and (3) a 10% Generation-Only Reserve Margin. FPL asserts that the Company understands what is required to maintain reliable service based on its experience with significant weather and other unforeseen events over the years. FPL further asserts that its 10% generation-only reserve margin is designed to complement, not replace, FPL's other criteria and that it provides guidance regarding what mix of demand-side management (DSM) and generation resources should be added to maintain system reliability. The Company argues that in order to maintain adequate reliability to serve its customers through such events, it must maintain its three reliability criteria. After accounting for all reasonably achievable, cost-effective conservation and renewable resources available, FPL contends it has a need for generation capacity beginning in 2019 under two of its three reliability criteria (20% reserve margin and 10% generation-only reserve margin), and the OCEC Unit 1 is the most cost-effective option available to meet all of its reliability criteria.

Intervenors

OPC, SACE, ECOSWF, and FIPUG argue that there is no need for FPL's proposed OCEC Unit 1 based electric system reliability and integrity. All the intervenors assert the 20% reserve margin used by FPL is unnecessary, excessive, and will result in overbuilding of generation and increase rates.

OPC argues that, using the 15% minimum reserve margin outlined in Rule 25-6.035, F.A.C., the proposed OCEC Unit 1 is not needed for the proposed in-service date of June 1, 2019. In addition, OPC argues FPL's proposed 10% generation-only reserve margin criterion is unnecessary for our determination on reliability and integrity and should not be adopted or approved by us in this proceeding. Finally, OPC asserts that the 20% reserve margin used by FPL is excessively high, and should be re-visited by this Commission in a generic proceeding.

SACE argues that FPL relies on two unsubstantiated reliability criterion in order to create an appearance of need for the proposed OCEC Unit 1: (1) a 20% reserve margin criterion that is outdated, unsubstantiated, and inapplicable to this proceeding as a matter of law; and (2) a contrived 10% generation-only reserve margin criterion that is unnecessary, skewed towards generation, and not a generally accepted utility planning criterion. SACE contends that we

cannot properly rely on a 20% reserve margin because the stipulation⁵ that the 20% reserve margin was based on is inapplicable to need determinations. Further, SACE asserts that the 1999 stipulation's 20% reserve margin is significantly outdated and based on conditions that no longer reflect reality, including the improved reliability of FPL's power plants. As a result, SACE contends the proposed OCEC Unit 1 would result in a system with excess capacity that exceeds the need for electrical system reliability and integrity. Because FPL's 20% reserve margin and 10% generation-only reserve margin criteria are unsubstantiated, SACE argues they should be rejected.

ECOSWF argues FPL's system would meet appropriate reliability and integrity standards without the proposed OCEC Unit 1 because the LOLP criterion projections prove that the proposed unit is not needed to maintain system reliability. ECOSWF asserts FPL has a history of over-stating its load projections five years out and that, even if FPL's projections are true, FPL would maintain a more than 15% reserve margin in 2019, which would maintain sufficient reliability. ECOSWF contends that the electricity industry has made improvements in load management, load control, and demand response, along with improvements in distributed generation and storage since we last examined the 20% reserve margin. Because of the reliability FPL has achieved for its system, ECOSWF asserts there is no need for FPL to maintain a 20% total reserve margin. ECOSWF additionally argues that we should reject FPL's request to add the 10% generation-only reserve criterion, because it is unnecessary and does not assist in determining whether FPL has additional reliability needs.

Analysis

FPL provided testimony and exhibits concerning its projected reliability need, including its load forecast, for the proposed OCEC Unit 1. The record shows that FPL utilized three reliability criteria to project the timing and magnitude of its future resource needs: (1) a 20% reserve margin; (2) a 10% generation-only reserve margin; and (3) an LOLP criterion. FPL testified that if one or more of these criteria is projected to not be met in a given future year, then additional resources are needed in that year.

FPL's 10% generation-only reserve margin criterion and 20% reserve margin criterion provide an indication of the adequacy of capacity resources compared to load during peak periods. FPL's reserve margin criteria are discussed in greater detail below. The LOLP criterion looks at the daily peak demands while taking into consideration events such as the unavailability of individual resources due to maintenance or outages.

FPL testified that, after accounting for demand-side management (DSM), its projections show that neither the 20% reserve margin, nor the 10% generation-only reserve margin, would be met in 2019 based on total capacity and projected summer peak load. Consequently, FPL argues that it has a need for generation capacity in 2019 based on its reserve margin criteria. FPL's projected LOLP criterion shows that the Company does not have a need until 2022.

⁵ The Stipulation referred to by SACE is a Stipulation approved by the Commission by Order No. PSC-99-2507-S-EU, issued December 22, 1999, in Docket No. 981890-EU, In Re: Generic investigation into the aggregate electric utility reserve margins planned for Peninsular Florida.

Our analysis of FPL's projected reliability need is discussed as follows: (1) a review of FPL's load forecast; (2) a review of the 20% reserve margin; and (3) a review of the 10% generation-only reserve margin reliability criteria.

1. FPL's Load Forecast

FPL's load forecasts in this proceeding are the same forecasts FPL presented in its 2015 Ten-Year Site Plan (TYSP). These forecasts are generated using econometric models,⁶ including customer models, summer and winter peak demand per customer models, and a net energy for load (NEL) per customer model. FPL asserts that we have consistently relied on these models for various forecasting purposes, and the modeling results have been reviewed and accepted by us in past proceedings.⁷

Customer growth is a primary driver of the growth of peak demand and net energy for load. To forecast its customer base, FPL's customer model includes statewide population growth as the most influential variable. FPL used July 2014 population estimates and projections from the Bureau of Business and Economic Research of the University of Florida (BEBR) and the Office of Economic and Demographic Research (EDR). We inquired as to the rationale for FPL relying upon projections of statewide population growth, rather than projections of growth in the 35 counties in FPL's service area, which could more accurately reflect growth in FPL's customer base. The Company stated that it had not considered the use of historical county population data in favor of statewide population data, because: there is high historical customer forecast accuracy using statewide population data; statewide EDR population forecasts are more current than county forecasts; and, in some of the counties in its service territory, FPL serves only a small portion of the population. FPL further supported its use of statewide population forecasts based upon good statistical results in its customer model.

Concerning the accuracy of its customer model, the Company's one year out customer forecast error rates were generally within a couple of tenths of a percent. However, there was a large variance in its 2008 TYSP forecast of 2012 total customers of 6.65 percent due to the unusual set of conditions posed by the recession of 2007-2009. FPL's most recent customer forecast error rates were below the four-year error rate of its 2011 TYSP's forecast of 2014, which was 0.72 percent. FPL reported that, since the recession, modeling adjustments and improvements have led to smaller forecast errors.

⁶ An econometric model is a numerical representation, obtained through statistical estimation techniques, of the degree of relationship between a dependent variable (e.g. summer peak per customer) and the independent, or explanatory, variables (e.g. heating degree days and energy price). A change in any of the independent variables will result in a corresponding change in the dependent variable.

⁷ Docket No. 130198-EI, In Re: Petition for prudence determination regarding new pipeline system; and Docket No. 110309-EI, In Re: Petition to determine need for modernization of Port Everglades Plant.

In reviewing FPL's forecasts, we initially had reservations regarding FPL's customer-growth forecasts due to potential forecast errors attributable to disparities between statewide and service area population growth rates. If those two growth rates diverge, systematic forecast errors may result. However, the population growth rate at the county level is similar to the population growth rate at the state level over a ten year horizon, about 1.3 percent. FPL's customer forecasts indicate that the Company expects continued growth in its customer base with an annual average increase in total customers of 1.3 percent from 2014-2024. Upon review, we find FPL's customer forecast is reasonable for purposes of this proceeding.

FPL's long-term summer peak demand forecasts include a base case forecast and a risk-adjusted forecast. The base case forecast presents the most likely forecast in that there is an equal probability of over-forecasting as under-forecasting. The risk-adjusted forecast is designed to reflect the higher values of peak demand that could occur in the future given past differences between actual and forecasted values of demand. FPL's risk-adjusted forecast, thus, reflects a reduction in the risk of under-forecasting future load growth. The capacity need addressed in this proceeding is based on the base case forecasts and not on the risk-adjusted forecasts.

FPL presented both a summer peak demand base case forecast, which is 25,045 MW by 2019, and a winter peak demand forecast, which is 21,792 MW by 2019. Our analysis focused on FPL's summer peak demand forecast as it is the key driver for the need in this proceeding. The preliminary forecast of summer peak demand is derived by using the output from summer peak per customer model multiplied by the forecasted number of customers discussed above. We reviewed the model specification, inputs, assumptions, and statistical analysis and find the summer peak demand model is reasonable.

The output of the summer peak per customer model is multiplied by the number of customers to derive a preliminary estimate of the forecasted summer peak. FPL then made adjustments to the forecasted summer peak to reflect the impacts from various incremental and new loads resulting from wholesale contracts, plug-in vehicles, Economic Development and Existing Facility Economic Riders, and distributed solar generation. These adjustments, except the one related to distributed solar generation, have been incorporated into FPL's forecasts presented in prior petitions before this Commission. We reviewed the out-of-model adjustments and find the adjustments appropriate for use in this proceeding.

ECOSWF questioned FPL's summer peak demand, asserting that FPL has a history of over-projecting load five-years into the future (i.e. "five years out"). ECOSWF argued that FPL consistently over-forecasts its summer peak demand five years into the future, based upon FPL's over-forecast of summer peak demand for the years following the recession. ECOSWF's testimony, however, did not address this issue.

We reviewed FPL's historic forecasting accuracy of past summer peak demand forecasts. Our review methodology involved comparing actual summer peak for a given year to summer peak forecasts made one, two, three, four, and five years prior. We used this methodology to review the Florida utilities' historic forecasting accuracy of past retail energy sales forecasts presented in recent years' TYSPs. These differences, expressed as an average percentage error

rate, were used to determine FPL's historic forecast accuracy. An average (AVG) error with a negative value indicates an under-forecast, while a positive value represents an over-forecast. An absolute (ABS) average error provides an indication of the total magnitude of error, regardless of the tendency to under or over forecast. The results are presented in Table 1 below.

Table 1: Accuracy of FPL's Summer Peak Demand and Forecasts

	Forecast Error Rate (%)						Years 1-5	Years 1-5
Actuals Year	Years Prior to the Forecast Produced Year						AVG	ABS AVG
	Forecasts presented in:*	5	4	3	2	1	Error	Error
2005	2001-2005 TYSPs	-9.44%	-2.91%	-0.83%	-2.22%	-3.33%	-3.74%	3.74%
2006	2002-2006 TYSPs	-2.99%	-7.93%	-1.58%	0.49%	-0.46%	-2.49%	2.69%
2007	2003-2007 TYSPs	-0.51%	-2.29%	-7.51%	-1.22%	0.53%	-2.20%	2.41%
2008	2004-2008 TYSPs	5.51%	-0.51%	-2.29%	-7.51%	-1.22%	-1.20%	3.41%
2009	2005-2009 TYSPs	2.33%	5.59%	-0.89%	-3.03%	-8.47%	-0.89%	4.06%
2010	2006-2010 TYSPs	8.69%	6.02%	9.14%	2.58%	0.44%	5.37%	5.37%
2011	2007-2011 TYSPs	12.16%	7.28%	4.63%	7.51%	1.33%	6.58%	6.58%
2012	2008-2012 TYSPs	13.68%	10.63%	5.51%	1.93%	5.80%	7.51%	7.51%
2013	2009-2013 TYSPs	3.02%	2.25%	-1.17%	-5.24%	-5.81%	-1.39%	3.50%
2014**	2010-2014 TYSPs	2.71%	3.39%	3.16%	0.78%	-1.52%	1.70%	2.31%
2015***	2011-2015 TYSPs	-	-	-	-	-	-	-
2016	2012-2016 TYSPs	-	-	-	-	-	-	-
2017	2013-2017 TYSPs	-	-	-	-	-	-	-
2018	2014-2018 TYSPs	-	-	-	-	-	-	-
2019****	2015-2019 TYSPs	-	-	-	-	-	-	-
AVG Error		3.52%	2.15%	0.82%	-0.59%	-1.27%		
ABS AVG Error		6.10%	4.88%	3.67%	3.25%	2.89%		
Under-forecasting cases		3	4	6	5	6	6	
Over-forecasting cases		7	6	4	5	4	4	
Note:								
* Source data: EXH 36, page 201, EXH 37, page 45; EXH 38, page 45; EXH 39, page 44; EXH 40, page 45; EXH 41, page48; EXH 42, page 46, EXH 43, page 50; EXH 44, page 55; EXH 45, page 54; EXH 46, page 59; EXH 47, page 52; EXH 48, page 53; EXH 49, page 48 and EXH 50, page 48.								
** 2014 5-Year Prior Error Rate is based on 2010 TYSP Forecast of 2014 Summer Peak Demand.								
*** Actual data is not available starting from this year.								
**** 2019 5-Year Prior Error Rate will be based on 2015 TYSP Forecast of 2019 Summer Peak Demand.								

As shown in Table 1 above, beginning with planning year 2009, FPL's forecasting error was significantly reduced, and the variance between the projected and actual summer peak demand started to show both over- and under- forecasting. Three out of ten of the "five years out" forecasts, for the period of 2005 through 2014, were under-forecasts (shown at the bottom of Table 1), which demonstrate that FPL's "five years out" forecasts are not consistently over-forecasts, as ECOSWF asserted. The cumulative number of over- and under- forecasts for one to five years out (shown at the bottom of Table 1) also indicate that FPL's overall summer peak demand forecasts show almost an equal chance of an over-forecast or an under-forecast, which demonstrates that no systematic over-forecasting or under-forecasting is taking place. Therefore, we find that FPL's summer peak demand forecast is appropriate for use in the instant proceeding.

To develop the econometric model to forecast net energy for load, FPL considered the principal influencing factors including the customer base, weather, the economy, and codes and standards. Accordingly, FPL's net energy per customer model has been developed incorporating these variables. The output of the model is multiplied by the number of customers to derive a preliminary net energy for load forecast. FPL then made adjustments to the preliminary estimate

similar to those made to its summer peak demand model. The final forecast shows that FPL is projecting a 1.2 percent annual growth rate in net energy for load, resulting in a cumulative increase of 13,563 GWh by 2024. We find that the variables used by FPL in developing the model and the adjustments made to the forecast are appropriate.

In summary, we analyzed FPL's load forecasting models and found the models to be appropriate for forecasting purposes in the instant proceeding. We also reviewed the forecast assumptions of anticipated economic and demographic conditions, as well as the adjustments FPL made to its estimates produced by the forecasting models, and found the assumptions and adjustments used by FPL appropriate. Finally, we note that none of the intervenors in this proceeding proffered any forecasting model or forecasts of FPL's customers, summer peak demand, and net energy for load. No intervenor challenged FPL's methodology, input data, assumptions, or out-of-model adjustments used to project load. Therefore, based on the record, we find FPL's load forecasts appropriate for consideration in this proceeding.

2. Twenty Percent Reserve Margin

We find that, based on a 20% reserve margin and FPL's load forecast, FPL demonstrates a need for new generation in order to maintain electric system reliability and integrity. Table 2 below summarizes FPL's projected need, assuming no new capacity additions through 2020.

Table 2: Summer Reserve Margin Calculations⁸

	Reserve Margin	MW Shortage
2016	21.2%	(259)
2017	20.4%	(91)
2018	20.0%	(1)
2019	16.4%	826
2020	15.0%	1,144

FPL's 20% reserve margin criterion is based on the relationship between firm peak load and total capacity available to serve that load. FPL's reserve margin criterion accounts for projected DSM capability (energy efficiency and load management), which reduces the Company's projected peak load. As discussed below in Section II, C, we find FPL has accounted for all reasonably available DSM measures in its projection of resource needs.

Both SACE and ECOSWF expressed trepidation regarding the cost associated with adhering to a 20% reserve margin. SACE testified that, if FPL's 20% reserve margin is excessive, then FPL's proposed OCEC Unit 1 does not come at a reasonable cost. Similarly, ECOSWF testified that adherence to the 20% reserve margin has resulted in costly overbuilding.

⁸ Hearing Exhibit No. 3 (as updated on 11/18/2015).

FPL provided an economic evaluation assuming the in-service date of OCEC Unit 1, and all subsequent capacity additions were delayed by one-year. The scenario demonstrated that, while FPL's projected reserve margin fell below 20% a number of years, there may be a potential savings of approximately \$235 million in delaying capacity additions by one-year. The Company noted, however, that it did not account for short-term capacity purchases in the scenario, thus, the projected decrease in the cumulative present value revenue requirement (CPVRR) is likely overstated. While we recognize the potential savings associated with reducing FPL's 20% reserve margin criterion as discussed in detail below, we are concerned that a reduced reserve margin would impact system reliability.

FPL testified that the starting point for its use of a 20% reserve margin, as approved by this Commission in 1999,⁹ has been employed by FPL in numerous proceedings. In addition, FPL testified that it has reviewed its use of the 20% reserve margin and continues to believe it should be applied in its reliability analyses to ensure system reliability. The intervenors disagree with FPL's reliance on a 20% reserve margin and argue that FPL's Petition should be evaluated using a 15% reserve margin criterion. The intervenors assert that circumstances, such as generation outage rates, have changed since 1999 and continued reliance upon a 20% reserve margin will lead to overbuilding. In addition, the intervenors asserted that low LOLP assessments suggest a need for this Commission to reexamine the 20% reserve margin.

OPC argued that FPL should adhere to a 15% reserve margin criterion, as outlined in Rule 25-6.035, F.A.C., which requires peninsular Florida utilities to maintain a minimum 15% planned reserve margin in order to maintain an equitable sharing of energy reserves. The language of Rule 25-6.035(1), F.A.C., however, clearly provides that it is not intended to set a prudent level of reserves for long-term planning or reliability purposes. Rule 25-6.035(1), F.A.C., states in part:

The planned and operating reserve margin standards established herein are intended to maintain an equitable sharing of energy reserves, not to set a prudent level of reserves for long-term planning or reliability purposes.

(emphasis added).

FPL testified that it did not include justification for its continued use of a 20% reserve margin in its initial filing because the Company did not believe such a justification was required in a need determination filing. Citing Order No., PSC-03-0175-FOF-EI,¹⁰ FPL stated that this Commission has previously held that it will not revisit the 20% reserve margin criterion in an individual utility's determination of need proceeding. In that Order, we stated that "[t]he proper

⁹ Stipulation approved by this Commission by Order No. PSC-99-2507-S-EU, issued December 22, 1999, in Docket No. 981890-EU, In Re: Generic investigation into the aggregate electric utility reserve margins planned for Peninsular Florida.

¹⁰ Order No. PSC-03-0175-FOF-EI, p. 4, issued February 4, 2003, In re: Petition to determine need for Hines Unit 3 in Polk County by Florida Power Corporation; and Order No. PSC-01-0029-FOF-EI issued January 5, 2001, in Docket No. 001064-EI, In re: Petition for determination of need for Hines Unit 2 Power Plant by Florida Power Corporation.

forum to address what minimum reserves are necessary should be in a generic docket, as was previously done, and not in a particular utility's power plant need determination docket." Since the 1999 Stipulation, 13 need determination proceedings have been evaluated by this Commission based on a 20% reserve margin.¹¹

We agree that a need determination proceeding is not the appropriate forum to address what a utility's minimum reserves should be. The 20% reserve margin was established in a docket that involved multiple utilities as well as the Florida Reliability Coordinating Council, in which the planned reserve margins of peninsular Florida were considered. Furthermore, we have concerns that reducing the reserve margin for a single utility may have unintended adverse consequences not only on the reliability of the individual utility, but on peninsular Florida as well. The high load event experienced by FPL and other peninsular utilities that occurred on January 11, 2010, highlights this concern. During that event, FPL sold more than 500 MW of emergency power to Duke Energy Florida, LLC, another peninsular investor-owned electric utility that also utilizes a 20% reserve margin.

FPL testified that, on January 11, 2010, load was higher than expected, and a higher-than-normal amount of FPL generation was either out-of-service or operating at less than full capacity. FPL testified that, on that day, other utility systems in Florida were also experiencing difficulties, and FPL provided support by implementing a significant portion of its load management capability to assist at least one other utility. SACE, however, argued that FPL would have had sufficient resources under a 15% reserve margin to meet its load during the high load event.

FPL provided an analysis evaluating the potential impacts a 15% reserve margin planning criterion would have had on system reliability during the January 11, 2010, high load event. In order to reflect a 15% reserve margin planning criterion, FPL reduced its total capacity by approximately 1,200 MW.¹² Based on FPL's analysis and assumptions, which considered more than 1,700 MW of load management that was available during the event, FPL would have been 68 MW short of meeting firm load while providing assistance to another utility. Our review of the January 11, 2010 high load event demonstrates that, if FPL had been planning to a 15% reserve margin criterion, FPL would have had sufficient capacity to serve its customers during the high load event, provided it did not sell emergency power to Duke Energy Florida, LLC. FPL testified, however, that if it had recalled its emergency power, Duke Energy Florida, LLC, customers would have faced blackouts.

As previously discussed, we are concerned that reducing the reserve margin for a single utility may have unintended adverse consequences not only on the reliability of the individual utility, but on peninsular Florida as well. The high load event experienced by FPL and other peninsular utilities that occurred in January 2010, during which FPL sold more than 500 MW of emergency power to Duke Energy Florida, LLC, another peninsular investor-owned electric utility utilizing a 20% reserve margin criterion, highlights this concern. A utility's minimum

¹¹ Hearing Exhibit No. 66, pgs. 1-14.

¹² We find FPL's reduction reasonably reflects a resource plan based on 15% reserve margin criterion.

planning reserves should not be addressed in the vacuum of an individual utility's need determination proceeding, but rather, in a generic proceeding that allows input from other peninsular Florida utilities and the FRCC. To clarify, we are not suggesting that FPL should ensure the reliability of other utilities. Rather, we find that the 20% reserve margin criterion utilized by FPL was established giving consideration to peninsular Florida and, thus, should not be changed absent similar consideration. Therefore, we find the 20% reserve margin remains appropriate for identifying the timing of resource needs, which is consistent with our prior decisions.

3. Ten Percent Generation-Only Reserve Margin

Similar to its 20% reserve margin, FPL's 10% generation-only reserve margin is based on the relationship between peak load and total capacity available to serve that load. Unlike its 20% reserve margin, FPL's 10% generation-only reserve margin does not account for projected DSM capability. FPL first incorporated the 10% generation-only reserve margin in its resource planning in 2014. FPL testified that two occurrences caused FPL to take another look at its reliability planning criteria. One of those occurrences was our 2009 DSM goals order and the other occurrence was the January 11, 2010, high load event discussed above.

With respect to our 2009 DSM goals order, FPL testified that the order indicated a potential for FPL to be more heavily dependent upon DSM. The Company acknowledged that the 2009 goals were never implemented and that goals set by this Commission in 2014 were quite a bit lower than those in 2009, which has reduced the impact of the generation-only reserve margin in this case.

FPL evaluated the January 11, 2010, high load event assuming a 10% generation-only reserve margin and a 5% generation-only reserve margin. For this analysis, FPL contemplated scenarios with and without Turkey Point Unit 4, which tripped hours after the high load event. Assuming a 5% generation-only reserve margin without Turkey Point Unit 4, FPL would have had to shed firm load after implementing available load management. However, assuming FPL's actual generation-only reserve margin on that day (8.4 percent), FPL would not have had to shed firm load even without Turkey Point Unit 4. Therefore, a 10% generation-only reserve margin would not have been necessary in order to allow FPL to reliably serve its customers during that event.

While SACE and ECOSWF provided testimony to dispute FPL's need for a 10% generation-only reserve margin criterion, FPL's analyses reflect that a generation-only reserve margin is not the primary driver for its projected need in 2019. FPL acknowledged that the 10% generation-only reserve margin is not a significant factor in this case. We find that there is value in evaluating reliability from different perspectives. For example, a 10% generation-only reserve margin can provide useful information for planning and analysis with regard to assuring that FPL's 20% reserve margin will be achieved.

Conclusion

Based on a reasonable load forecast and a 20% reserve margin criterion, FPL demonstrates a need for additional generation beginning in 2019.

B. Renewable Energy Sources or Conservation Measures Reasonably Available Which Might Mitigate Need for the Proposed Unit

We find that FPL's forecast of resource needs takes into account all projected DSM from cost-effective programs approved by this Commission and that no additional cost-effective DSM has been identified that could mitigate the need for the proposed unit.

FPL

FPL argues that, in making its decisions, it has relied upon our determination in the Company's 2014 DSM Goals proceeding. In determining its customers' resource needs, the Company accounted for all FPL and Commission-identified cost-effective and reasonably achievable renewable energy and conservation measures reasonably available that might mitigate the need for the OCEC Unit 1. After accounting for over 200 MW of additional solar photovoltaic (PV) scheduled to be on FPL's system by 2016 and the level of FPL DSM we previously determined is reasonably achievable and cost-effective, FPL asserts it still has a resource need of over 900 MW in 2019 that grows in subsequent years, and the OCEC Unit 1 is the best alternative available to meet that need. FPL contends that none of the intervenors have shown additional cost-effective DSM reasonably available to FPL and that lowering FPL's reserve margin as advocated by the intervenors would make the approved 2014 DSM amounts less cost-effective. As a result, FPL argues that there are no additional cost-effective renewable generation resources available that would mitigate the need for the OCEC Unit 1 in 2019.

Intervenors

OPC, SACE, ECOSWF, and FIPUG argue there is no need for FPL's proposed OCEC Unit 1 because there are renewable energy sources or conservation measures reasonably available to FPL that might mitigate the need for the proposed OCEC Unit 1. The intervenors contend that FPL did not conduct significant analysis to evaluate if renewable energy sources were reasonably available to FPL to meet the need. FIPUG asserts FPL did not meet its burden of proof to show that the proposed OCEC Unit 1 is needed and, thus, its petition should be denied or deferred.

OPC argues that: (1) there may be renewable energy sources and technologies or conservation measures that could have been taken by or reasonably available to FPL, which might mitigate the need for the proposed OCEC Unit 1; (2) FPL's DSM and PV solar evaluations were insufficient to determine whether there were ways to increase DSM and PV solar to meet a portion of any need; and (3) the introduction of a 10% generation-only reserve margin criterion creates an unlawful bias against finding ways to increase DSM and PV solar to meet a portion of any need.

SACE argues that FPL failed to utilize renewable energy sources and technologies (in particular solar PV resources) and conservation measures (namely energy efficiency) reasonably available to it, which might mitigate the need for the proposed OCEC Unit 1. SACE asserts that FPL did nothing more than pay lip service to solar PV as an alternative to the proposed OCEC Unit 1, and failed to capitalize on countless opportunities to pursue much higher levels of energy efficiency. SACE contends that, since FPL had pre-filed testimony citing gas fired units as “most likely” candidates to meet the 2019 need and eliminated solar PV in the first stage of the need analysis, renewable energy sources never received real consideration. Finally, SACE contends that FPL did not complete the analysis in a way that satisfactorily met the required burden of proof.

ECOSWF argues FPL should be expanding its demand response program in order to maintain reliability during freak weather events. ECOSWF contends that FPL has not incentivized its customers with cost-effective load management programs that would eliminate the need for the OCEC Unit 1. By reducing payments, ECOSWF asserts that FPL artificially reduced the number of customers who volunteer to participate in demand response programs. Rather than investing well over a billion dollars of ratepayer money in a new power plant, ECOSWF argues FPL should be increasing payments to participants in its demand response programs, and that such participation would obviate any capacity need in FPL’s system for the foreseeable future. Finally, ECOSWF argues that FPL provides incomplete information relating to additional analyses that could be performed for PV that would meet need.

Analysis

FPL considered multiple options when considering what types of generating facilities and technologies would be viable for 2019 self-build options. With regard to renewable energy sources, FPL considered and evaluated solar energy as a potential source for meeting all or a portion of its 2019 resource need. FPL testified that the evaluation of its forecast of resource needs takes into account all projected DSM from cost-effective programs approved by this Commission.

ECOSWF argued that FPL did not properly incentivize cost-effective load management programs that would eliminate the need for the new OCEC Unit 1; however, ECOSWF did not provide an analysis to support its claim. FPL asserted that, by solely following the 20% total reserve margin criterion, an additional 823 MW of cost-effective DSM would be needed in less than four years, which would equate to 206 MW per year of additional cost-effective DSM. FPL testified that it would have to enroll more than 70 percent of its total residential customers in its load management program in order to obtain this level of savings.

We note that raising incentives for DSM lowers cost-effectiveness for non participants. By Order No. PSC-14-0696-FOF-EU, we found that the total amount of achievable, cost-effective DSM for FPL over a 10-year period was about 53 MW per year on average.¹³ By Order No. PSC-15-0331-PAA-EG, we approved FPL's most recent DSM plan, which included cost-effective load management.¹⁴ Neither Order was appealed by any party to the proceedings, which included SACE, FIPUG and OPC. Furthermore, no evidence was presented in this proceeding to suggest that FPL is not meeting the DSM goals we set. Upon review, we find no additional cost-effective DSM that could mitigate FPL's need for new generation in this proceeding.

In addition, all existing firm generating capacity from renewable resources and qualifying facilities through 2024 is already reflected in FPL's 2015 TYSP. In evaluating its future need, FPL focused on several concerns PV presented for the amount of capacity needed in 2019, namely timely and reasonably affordable acquisition of land, PV costs, and the ability to deliver firm capacity. Specifically, FPL would need to acquire approximately 21,000 acres of land, with only a relatively small percentage of that land being currently owned by FPL, to accommodate a solar PV generating solution. We note that this is the first time FPL included existing and planned solar as a firm resource in a need determination filing despite its aforementioned concerns.

Conclusion

We find that no additional cost-effective DSM has been identified in this proceeding that could mitigate the need for new generation. FPL's forecast of resource needs takes into account all projected DSM from cost-effective programs approved by this Commission. Similarly, all existing firm generating capacity from renewable resources and qualifying facilities through 2024 is already reflected in FPL's forecast of resource needs.

C. Need for Adequate Electricity at a Reasonable Cost

We find that the assumptions and forecasts used by FPL in its analysis of the proposed OCEC Unit 1 are reasonable and that FPL demonstrated that the proposed OCEC Unit 1 would provide adequate electricity at a reasonable cost.

FPL

FPL projects that the total cost of the proposed 1,633 MW OCEC Unit 1, including funds used during construction and transmission costs is \$1,231,700,000 or \$754/kW. FPL contends that the OCEC Unit 1 has outstanding projected operational parameters, including an Equivalent Availability Factor of 95.5 percent, a Planned Outage Factor 3.5 percent, and a Forced Outage Factor of 1.0 percent. In addition, FPL asserts the proposed unit is projected to have an

¹³ Order No. PSC-14-0696-FOF-EU, issued December 16, 2014, in Docket No. 130199-EI, In re: Commission review of numeric conservation goals (Florida Power & Light Company).

¹⁴ Order No. PSC-15-0331-PAA-EG, issued August 19, 2015, in Docket No. 150085-EG, In re: Petition for approval of Florida Power & Light Company's demand-side management plan and request to cancel closed on call tariff sheets.

exceptionally low heat rate of 6,249 BTU/kWh at 75°F, which will make OCEC Unit 1 the most fuel-efficient combined-cycle unit on FPL's already highly efficient system. FPL asserts that having this highly efficient generating unit available to serve customers over 95% of the time will yield significant fuel savings for FPL's customers. Finally, FPL asserts that the proposed OCEC Unit 1 is projected to save FPL's customers between \$72 million to \$153 million CPVRR.

Intervenors

OPC, SACE, ECOSWF, and FIPUG argue FPL's proposed OCEC Unit 1 is not needed and is an unreasonable cost. All of the intervenors argue that a 20% margin reserve is excessive and a 10% generation-only reserve margin is unnecessary. The intervenors contend that reliance on either reserve margin criteria will lead to uneconomic and unnecessary overbuilding of generation and result in unreasonable rate increases for FPL's ratepayers. In addition, OPC asserts that FPL did not consider the risks and impact of overbuilding and that FPL's proposal fails to properly address the requirement for adequate and affordable service.

ECOSWF argues that FPL already provides a more than adequate amount of electricity and adding this unit will simply make the cost of providing electricity less reasonable. ECOSWF contends FPL's own calculations show that, under current conditions, only one rolling blackout would be expected to occur from lack of generating resources in the next 3,000 years. In addition, ECOSWF contends that adding this unit will simply add an unnecessary cost to FPL customers, adding over \$17 to each residential customer's bills each year. ECOSWF asks that we closely examine FPL's reliability on natural gas, asserting FPL has moved to vertically integrate its entire natural gas structure and should be viewed with skepticism.

Analysis

FPL's OCEC Unit 1 is a proposed 1,633 MW power plant located on 2,842 acres of land that FPL acquired in 2011 in northeast Okeechobee County. As proposed, the OCEC Unit 1 will include three combustion turbines, three heat recovery steam generators, and one single-reheat steam turbine. Once operational, OCEC Unit 1 will comprise approximately 250 acres of the 2,842 acres site and will be interconnected to the FPL transmission grid through an existing transmission line. FPL attests that the transmission lines will not adversely impact the reliability of the FRCC transmission system.

FPL testified on its experience with building combined-cycle units on time and under budget. Cost estimates of the proposed OCEC Unit 1 are based off of previous project experience with adjustments for project scheduling, specific site conditions and anticipated market conditions during period of project execution. FPL's projects that the proposed OCEC Unit 1 will save customers between \$72 million and \$153 million CPVRR compared to other available self-build alternatives.

Our analysis of the assumptions used by FPL to evaluate the proposed OCEC Unit 1 is discussed as follows: (1) a review of FPL's financial assumptions; (2) a review of FPL's generation cost estimates and projected performance assumptions; (3) a review of FPL's fuel cost assumptions; and (4) a review of FPL's environmental cost assumptions.

1. Financial Assumptions

FPL used a capital structure consisting of 59.62 percent equity at a cost rate of 10.50 percent and 40.38 percent debt at a cost rate of 5.14 percent. FPL applied an after-tax discount rate of 7.54 percent based on the effective income tax rate of 38.58 percent. Upon review, we find that the financial assumptions used by FPL for its evaluation are reasonable.

2. Generation Cost Estimates and Projected Performance

The installed cost of the proposed OCEC Unit 1 is projected to be approximately \$1.232 billion. FPL presented testimony and exhibits regarding cost estimates and performance projections of the proposed plant. OCEC Unit 1 is projected to have a heat rate of 6,249 Btu/kWh at full capacity and is expected to have an availability factor of 95.5 percent. The cost estimates, heat rate, and equivalent availability parameters for OCEC Unit 1 are comparable with similar projects we have approved. Upon review, we find that the generation cost estimates and projected performance assumptions used by FPL for its evaluation are reasonable.

3. Fuel Costs

FPL relies upon leading industry fuel forecasting experts for its fuel price forecasts used in its evaluation of OCEC Unit 1. FPL used its November 3, 2014, and October 7, 2013, long-term fuel price forecasts in its evaluation. FPL testified that its fuel price forecasts reflect the projected commodity and transportation costs for fuel oil, natural gas, and coal.

FPL's methodology for developing its natural gas and fuel oil forecasts is structured according to the time period of the forecast. For years 1 and 2, the methodology is based on the Henry Hub forward curve. Years 3 and 4 are based on a 50/50 blend of the forward curve and the most current projections from the PIRA Energy Group. Years 5 through 20 are based on the annual projections of the PIRA Energy Group. Years 21 through 35 are based on the real rate of escalation from the U.S. Energy Information Administration (EIA). FPL's fuel oil forecast is based on the same methodology, except years 1 and 2 are based on the New York Harbor 0.7 percent sulfur heavy oil and ultra low diesel fuel oil. Natural gas and fuel oil transportation forecasts are added to these commodity forecasts to arrive at delivered fuel forecasts. Coal prices are based on cost information provided by JD Energy, Inc., for both commodity and transportation. FPL testified that this basic fuel forecasting methodology has not changed since at least 2008.

We compared FPL's natural gas price forecast (commodity only) to the EIA's 2015 Reference Case obtained from the EIA's Annual Energy Outlook 2015 for the period 2015 through 2024. Each natural gas forecast (i.e. FPL's, EIA's) was developed independently. Upon review, we find that the forecasts are reasonably comparable for all years based on both unit and percent differences for the years 2015 through 2024.

FPL testified that Sabal Trail, Florida Southeastern Connection (FSC) and the OCEC Unit 1 gas lateral pipeline transportation costs have been included in the evaluation of the OCEC Unit 1 project. The Company explained that the pipelines' capacity costs are included in the gas transportation demand charge collected via the fuel clause.

FPL provided its July 27, 2015, update to its natural gas fuel price forecast for the years of the planned in-service period of OCEC Unit 1. A comparison of the current FPL natural gas price forecast to FPL's November 3, 2014, natural gas price forecast reveals that FPL's more current forecast is relatively lower in 2019; nearly the same from 2020 to 2035, then trends higher at a constant rate from 2036 to 2049. The timing of these comparative changes in the forecast can be understood by considering the methodology FPL uses to construct its natural gas price forecasts, including the impact of the EIA escalation factor for years 21-35, or 2036 to 2049.

We reviewed FPL's fuel price forecasts and the methodologies FPL used to prepare the forecasts and find them price forecasts are reasonable for purposes of evaluating OCEC Unit 1.

4. Environmental Costs

FPL relied on ICF's International National Emission Price forecasts for the projected environmental compliance cost for SO₂, NO_x, and CO₂ in its analyses of its self-build options. In FPL's first stage of analyses, CO₂ costs were projected to start in 2023, for the second stage costs started in 2020. The change in start dates reflect the projected start year in the draft rules for the EPA's Clean Power Plan. Changes in SO₂ and NO_x values from the first to second stage were due to the United States Supreme Court's 2014 ruling to stay the EPA's Cross-State Air Pollution Rule which resulted in changes for compliance costs projections for both SO₂ and NO_x.

FPL's use of ICF's international National Emission Price forecasts is consistent with past analyses performed by the Company and reviewed by this Commission. We find that the changes made by FPL, from its first stage of analyses to its second stage of analyses, are reasonable based on current events. Upon review, we find that FPL's emission price forecast is reasonable for evaluating OCEC Unit 1. No party challenged FPL's environmental cost assumptions in this proceeding.

Conclusion

Upon review, we find that the assumptions and forecasts used by FPL in its analysis of the proposed OCEC Unit 1 are reasonable for evaluation purposes in this proceeding and that FPL demonstrated that the proposed OCEC Unit 1 would provide adequate electricity at a reasonable cost.

D. Need for Fuel Diversity

We find that FPL's addition of the proposed OCEC Unit 1 will increase the Company's dependence on natural gas and will not improve its overall fuel diversity. Although OCEC Unit 1 will not improve FPL's overall fuel diversity, the fuel-efficiency of the proposed OCEC Unit 1 will increase the overall fuel-efficiency of the Company's system. We also find that the FPL's overall fuel supply reliability will be enhanced because the proposed OCEC Unit 1 will use light oil as a back-up fuel.

FPL

FPL asserts that, while the OCEC Unit 1 will not improve its fuel diversity, the proposed unit it will not significantly increase FPL's reliance on natural gas, given other capacity additions and retirements, and the high level of fuel efficiency of this new unit. FPL contends that: (1) a large part of its fuel diversity efforts consist of improving system efficiency; (2) the OCEC Unit 1 will be one of the most fuel-efficient combined-cycle units built; and (3) the OCEC Unit 1 will improve FPL's overall system fuel efficiency. FPL asserts that OCEC Unit 1's ability to burn light oil as a back-up fuel further enhances the Company's reliability in the event of disruption in the supply or delivery of natural gas. FPL contends this project will improve fuel supply reliability with its use of the new Sabal Trail/Florida Southeast Connection natural gas pipeline. Finally, in terms of utilizing other energy sources for its generation portfolio, FPL asserts that it is actively pursuing additional solar and nuclear energy.

Intervenors

OPC, FIPUG, SACE and ECOSWF argue that FPL's proposed OCEC Unit 1 is a natural gas unit, which will needlessly increase FPL's reliance on natural gas. All of the intervenors assert that the OCEC Unit 1 will only exacerbate FPL's already precarious overreliance on natural gas and that such a dependence on natural gas will be at a significant risk for FPL's customers.

In addition, ECOSWF argues that FPL should be investing in clean energy to diversify its fuel portfolio, instead of proposing to continue its natural gas vertical integration. ECOSWF asserts that, while investing in the production of natural gas, FPL's parent company has also invested in pipelines to transport that gas. ECOSWF contends that, with natural gas prices inherently uncertain, by increasing its reliance on natural gas to nearly 70% of FPL's fuel-mix, the construction of OCEC Unit 1 leaves FPL's customers more vulnerable to future price-swings in natural gas prices.

Analysis

FPL's proposed OCEC Unit 1 will be fueled by natural gas, and will use light oil as a back-up fuel to enhance fuel supply reliability. FPL has contracted firm gas transportation on the Sabal Trail pipeline beginning by 2018. With the Sabal Trail pipeline in place, FPL will have sufficient natural gas transportation rights to meet the requirements of OCEC Unit 1. In addition, light fuel oil will be stored in sufficient quantities to allow OCEC Unit 1 to operate at full capacity for seventy-two (72) hours of continuous operation and can be resupplied with truck deliveries.

While it is true that the addition of the OCEC Unit 1 will increase FPL's dependence on natural gas, adding OCEC Unit 1 will improve FPL's overall heat rate. The efficiency of OCEC Unit 1 will allow FPL to reduce the total amount of natural gas needed to serve the needs of its customers. For example, when comparing actual gas usage and generation in 2014 to projected usage and generation in 2020 (the first full year of operation for the OCEC Unit 1), FPL projects that its gas usage, in millions of cubic feet will increase approximately 14.6 percent. However, generation from natural gas in gigawatt-hours is projected to increase 16.8 percent.

Conclusion

FPL's addition of the proposed OCEC Unit 1 will increase its dependence on natural gas and will not improve its overall fuel diversity. Although OCEC Unit 1 will not improve FPL's overall fuel diversity, we find the fuel-efficiency of the proposed OCEC Unit 1 will increase the overall fuel-efficiency of its system and that FPL's overall fuel supply reliability will be enhanced because the proposed OCEC Unit 1 will use light oil as a back-up fuel. We note that, while we must take into account all of the criteria listed in Section 403.519, F.S., in evaluating a utility's need determination petition, our determination may be based on a single criterion or any combination of the above statutory criteria. Fuel diversity is just one factor we must consider, and we find FPL has demonstrated a need based on the other criteria outlined in Section, 403.519, F.S.

E. Okeechobee Clean Energy Center Unit 1 Most Cost-Effective Alternative

We find that the OCEC Unit 1 is projected to save customers approximately \$72 million on a net present value basis when compared to the next best alternative. Therefore, we find that the OCEC Unit 1 is the most cost-effective option to meet FPL's projected needs starting in 2019.

FPL

FPL asserts the proposed OCEC Unit 1 is the most cost-effective alternative to meet FPL's customers' reliability needs. FPL's analyses accounted for all cost-effective, reasonably achievable DSM and renewable energy. FPL contends that it examined feasible self-build generation options, including combined-cycle units, combustion-turbine units, and solar PV facilities in order to meet its projected 2019 resource need. FPL removed coal-fired technologies

and new nuclear capacity from consideration due to environmental and timing concerns. FPL asserts the proposed OCEC Unit 1 is projected to save FPL's customers \$72 million CPVRR in electricity costs (current base case fuel forecast) over the next best self-build alternative analyzed. FPL contends the proposed unit is more cost-effective than any solar PV alternative analyzed. A market assessment was done under our Bid Rule, and no market alternatives were available to FPL. There is no option that is projected to result in lower electric rates for FPL's customers.

Intervenors

OPC, SACE, ECOSWF, and FIPUG argue that, because there is no need for FPL's proposed OCEC Unit 1 in 2019, the most cost-effective alternative is not to self-build any new generation. OPC asserts that a one year delay of the proposed OCEC Unit 1, as well as future capacity additions, would result in significant CPVRR savings of \$237 million. FIPUG argues that deferral of the proposed plant would be more advantageous to consumers and that the process for providing consumers with the most cost-effective option to meet FPL's needs was harmed by having only one party offer a competing bid to OCEC Unit 1.

SACE argues that FPL has had countless opportunities to pursue much higher levels of energy efficiency at a much lower cost than building new power plants but has failed to take advantage of these opportunities. SACE contends that, if FPL properly conducted its analyses, the results would have demonstrated that the utilization of solar PV and/or more energy efficiency, whether alone or in conjunction with a smaller version of the proposed OCEC Unit 1, would be a more cost-effective alternative. SACE asserts that FPL continues to underutilize renewable energy sources and technologies, in particular solar PV resources, which are more cost-effective than the proposed OCEC Unit 1.

ECOSWF argues that, to the extent there is any need, energy efficiency, clean energy, demand response and load management are more cost-effective alternatives. ECOSWF contends that FPL's proposed plant should be subject to the RIM test, which is the same cost-effectiveness tests we impose on energy efficiency measures and demand response programs. ECOSWF argues that, under the RIM test, the OCEC Unit 1 would be far from cost-effective.

Analysis

FPL's evaluation of self-build options to meet its projected need in 2019 was a multi-stage process, which resulted in the OCEC Unit 1, a 1,622 MW combined-cycle power plant located in Okeechobee County, being identified as the most economic self-build option to meet its future resource need. FPL testified that it initially considered gas-fired combined-cycles, simple cycle combustion-turbines, and PV facilities as generation options. As discussed in Section II, B above, FPL did not consider additional solar PV capacity as a replacement for the OCEC Unit 1 based on land requirements and cost constraints. As a result, FPL testified it continued its economic analyses, giving additional consideration to combined-cycle and combustion-turbine options.

FPL testified that its first stage analyses were performed during 2014, and used then current forecasts (such as load and fuel cost forecasts). The first stage of FPL's analyses identified the best site and generation type (combined-cycle or combustion-turbine). FPL evaluated sites located in Okeechobee, Putnam, and Hendry counties. The results of FPL's first stage of analyses identified the Okeechobee County site as the most economic site for new generation. The first stage of analyses additionally indicated that resource plans with combined-cycle units, placed in-service in 2019, were more cost-effective than resource plans with combustion-turbine units placed in-service that same year. FPL's original filing showed the OCEC Unit 1 as the most cost-effective option followed by six different combined-cycle combinations. The additional costs of the alternatives ranged from \$33 million to \$322 million net present value. At the hearing, the Company described how it evaluated other alternatives as follows:

Exhibit SRS-4 then presents the results of the first stage of FPL's analyses of these generating options. From these results, two conclusions were drawn. First, the best resource plan with a CC unit at the Okeechobee site was projected to be \$65 million CPVRR more economic than the best resource plan with a CC unit sited at Putnam. Therefore, the Putnam site was then removed from further consideration. Second, the best resource plan containing only simple cycle CT units was projected to be \$124 million CPVRR more expensive than the best CC resource plan. At that point, simple cycle CT-only generation options were removed from further consideration.¹⁵

Thereafter, FPL's on-going analyses focused on refining the specific characteristics of its combined-cycle options.

FPL's second stage analyses, performed in the second half of 2014 and in early 2015, incorporated updated assumptions and forecasts. FPL also received refreshed cost and performance values from the three vendors that were candidates to supply the combustion-turbine component of its combined-cycle power plant options. In its second stage analyses, FPL identified a combined-cycle based on GE technology as the most economic option. Additional refinements, including changes in the capacity and heat rate resulted in a 1,622 MW combined-cycle, with peak firing and wet compression, being identified as the most economic self-build option to meet FPL's future resource need.

On March, 16, 2015, FPL issued a Request for Proposals (RFP) to solicit non-FPL generation options that could be evaluated as an alternative to OCEC Unit 1. FPL testified that a total of 46 parties registered for the RFP. FPL testified that one registrant objected to aspects of the RFP in a filing to this Commission. By Order No. PSC-15-0171-PCO-EI,¹⁶ we determined that no changes to the RFP were needed.

¹⁵ Hearing Transcript, p. 42.

¹⁶ Order No. PSC-15-0171-PCO-EI, issued May 5, 2015, in Docket No. 150100-EI, In re: DeSoto County Generating Company, LLC's objections to Florida Power & Light Company's 2015 request for proposals.

Of the 46 bid registrants, FPL received one proposal in response to the RFP. The proposal was a power purchase agreement based on an existing combined-cycle unit located in Alabama. The Company also testified that the proposal failed to meet numerous minimum requirements, including that the proposal did not guarantee the availability and reliability values contained in the RFP. As such, FPL could not analyze purchased power options compared to the OCEC Unit 1 in this proceeding.

In response to a discovery request, provided on November 10, 2015, FPL provided updated analyses of OCEC Unit 1 and other self-build options. FPL's updated analyses incorporated updated load and fuel cost forecasts and its most current planning assumptions, such as a delayed in-service date for Turkey Point Units 6 and 7. The updated analyses reflect an enhanced version of OCEC Unit 1 (1,633 MW versus 1,622 MW) as well as enhanced combustion-turbine designs for combustion-turbine resource plans. Based on FPL's updated analyses, a resource plan that includes the OCEC Unit 1 in 2019 continues to remain the lowest cost option on a CPVRR basis. However, the addition of six combustion-turbine units are now the next best alternative, projected to cost an additional \$72 million CPVRR when compared to the proposed OCEC Unit 1 addition.

In FPL's original need filing, the option of six combustion-turbine units was projected to cost an additional \$259 million CPVRR when compared to the OCEC Unit 1 addition. The updated analyses project the overall customer savings of the proposed OCEC Unit 1 increasing from \$33 million to approximately \$72 million on a CPVRR basis. However, the updated analyses also has a different capital risk profile from a customer's perspective due to the lower capital costs associated with combustion-turbine units, \$672 million for the combustion-turbines versus \$1.2 billion for the OCEC Unit 1. In contrast with FPL's original filing, in which the next best alternative was another combined-cycle unit, the updated analyses suggest that the lower fuel costs associated with the OCEC Unit 1 may take several years to offset the initial capital cost difference when compared to combustion-turbine units. Such results are not surprising when comparing technologies with different capital to fuel cost ratios.

The intervenors argue that we should deny FPL's need determination based on changing FPL's planning reserve margin criterion from 20% to 15%. The intervenors allege that the reduced need for additional capacity will maintain reliability and improve the cost-effectiveness to customers. As previously discussed, the 20% reserve margin was established in a docket that involved multiple utilities as well as the FRCC and gave consideration to planned reserve margins in peninsular Florida. We have concerns that reducing the reserve margin for a single utility may have unintended adverse consequences on the reliability of the individual utility as well as peninsular Florida.

If we were to deny FPL's requested need, FPL testified that the Company would likely build combustion-turbine units. FPL acknowledged that both combustion-turbine models being considered are "capable of operating in simple cycle mode as a stand-alone combustion-turbine or as part of a combined cycle." Therefore, it appears FPL could first construct combustion-turbine units and later convert them to combined-cycle units to improve fuel efficiency. Such a phased-in approach would allow capacity to be added in smaller increments and preserve the

option of converting to a more fuel efficient generating unit at a later date. The reliability of the system would remain virtually identical and the initial capital cost to customers should be reduced compared to adding the proposed OCEC Unit 1 in 2019. However, this phased-in approach was not presented at the hearing.

We find that FPL's input assumptions are reasonable and that FPL performed the CPVRR analyses in a consistent manner.

Conclusion

The analyses in the record demonstrate that the OCEC Unit 1 is projected to save customers approximately \$72 million on a net present value basis when compared to the next best alternative. Therefore, we find the OCEC Unit 1 is the most cost-effective option to meet FPL's projected needs starting in 2019.

III. CONCLUSION

Pursuant to Section 403.519, F.S., this Commission is the sole forum for the determination of need for major new power plants. In making a determination of need, we must consider several factors: (1) the need for electric system reliability and integrity; (2) whether renewable generation or conservation measures taken by, or reasonably available to, the utility might mitigate the need for the proposed plant; (3) the need for adequate electricity at a reasonable cost; (4) the need for fuel diversity and supply reliability; and (5) whether the proposed plant is the most cost-effective alternative available. Our decision on a need determination petition must be based on the facts as they exist at the time of the filing with the underlying assumptions tested for reasonableness.

Our analyses and findings on the foregoing factors support the need for OCEC Unit 1 in 2019. The following summarizes our findings:

1. FPL's load forecast and use of a 20% reserve margin in this proceeding is reasonable.
2. No cost-effective DSM or renewable resources have been identified that could mitigate the need for OCEC Unit 1.
3. OCEC Unit 1 is expected to provide adequate electricity at a reasonable cost to FPL's customers.
4. Although OCEC Unit 1 will not enhance fuel diversity, FPL has taken steps to ensure supply reliability.
5. OCEC Unit 1 is the most cost-effective alternative compared to other self-build alternatives.

Based on the above findings, we grant FPL's requested determination of need. We add that it is prudent for a utility to continue to evaluate whether it is in the best interests of its ratepayers for a utility to participate in a proposed power plant before, during, and after construction of a generating unit. If conditions change from what was presented at the need determination proceeding, then a prudent utility would be expected to respond appropriately. In addition, we have an ongoing authority and obligation to ensure fair, just, and reasonable rates for Florida's utilities and ratepayers. Pursuant to Rule 25-22.082(15), F.A.C., if the public utility selects a self-build option, costs in addition to those identified in the need determination proceeding shall not be recoverable unless the utility can demonstrate that such costs were prudently incurred and due to extraordinary circumstances. FPL shall file an annual report regarding the status of the OCEC Unit 1, including any enhancements made to the unit, to this Commission's Director of the Division of Accounting and Finance.

Based on the foregoing, it is

ORDERED by the Florida Public Service Commission that the Environmental Confederation of Southwest Florida's Motion for Reconsideration and Clarification of Order No. PSC-15-0540-PCO-EI is denied. It is further

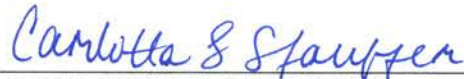
ORDERED that Florida Power & Light Company's Petition for Determination of Need for Okeechobee Clean Energy Center Unit 1, is hereby granted as set forth in the body of this Order. It is further

ORDERED that pursuant to Rule 25-22.082(15), F.A.C., if Florida Power & Light Company selects a self-build option, costs in addition to those identified in this need determination proceeding shall not be recoverable unless Florida Power & Light Company can demonstrate that such costs were prudently incurred and due to extraordinary circumstances. It is further

ORDERED that Florida Power & Light Company shall file an annual report regarding the status of the OCEC Unit 1, including any enhancements made to the unit, to this Commission's Director of the Division of Accounting and Finance. It is further

ORDERED that this docket shall be closed after the time for filing an appeal has run.

By ORDER of the Florida Public Service Commission this 19th day of January, 2016.



CARLOTTA S. STAUFFER

Commission Clerk
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, Florida 32399
(850) 413-6770
www.floridapsc.com

Copies furnished: A copy of this document is provided to the parties of record at the time of issuance and, if applicable, interested persons.

KFC-LAA

NOTICE OF FURTHER PROCEEDINGS OR JUDICIAL REVIEW

The Florida Public Service Commission is required by Section 120.569(1), Florida Statutes, to notify parties of any administrative hearing or judicial review of Commission orders that is available under Sections 120.57 or 120.68, Florida Statutes, as well as the procedures and time limits that apply. This notice should not be construed to mean all requests for an administrative hearing or judicial review will be granted or result in the relief sought.

Any party adversely affected by the Commission's final action in this matter may request:

- 1) reconsideration of the decision by filing a motion for reconsideration with the Office of Commission Clerk, 2540 Shumard Oak Boulevard, Tallahassee, Florida 32399-0850, within fifteen (15) days of the issuance of this order in the form prescribed by Rule 25-22.060, Florida Administrative Code; or
- 2) judicial review by the Florida Supreme Court in the case of an electric, gas or telephone utility or the First District Court of Appeal in the case of a water and/or wastewater utility by filing a notice of appeal with the Office of Commission Clerk, and filing a copy of the notice of appeal and the filing fee with the appropriate court. This filing must be completed within thirty (30) days after the issuance of this order, pursuant to Rule 9.110, Florida Rules of Appellate Procedure. The notice of appeal must be in the form specified in Rule 9.900(a), Florida Rules of Appellate Procedure.

APPENDIX II-2 – ST. JOHNS RIVER WATER MANAGEMENT DISTRICT

Received 3/9/16

**STATE OF FLORIDA
DIVISION OF ADMINISTRATIVE HEARINGS****Dept. of Environmental Protection
Siting Coordination Office****IN RE:****DOAH CASE No. 15-5540EPP
DEP OGC CASE No. 15-0607****FLORIDA POWER & LIGHT COMPANY;
OKEECHOBEE CLEAN ENERGY CENTER
POWER PLANT SITING APPLICATION
NO. PA15-58**

**ST. JOHNS RIVER WATER MANAGEMENT DISTRICT'S
NOTICE OF FILING AGENCY REPORT**

The St. Johns River Water Management District files this notice of Filing Agency Report and states that on March 8, 2016, the Governing Board of the St. Johns River Water Management District considered an Agency Report prepared by District staff that evaluated the request to use water at the proposed Florida Power and Light Company – Okeechobee Clean Energy Center. The report was approved. A copy is attached hereto.

Respectfully submitted,

/s/ Karen C. Ferguson

Karen C. Ferguson
Fla. Bar No. 0011799
Mary Ellen Winkler
Fla. Bar No. 0153303
Attorneys for St. Johns River
Water Management District
4049 Reid Street
Palatka, FL 32177
(386) 329-4288 (telephone)
(386) 329-4485 (facsimile)
Primary: kferguson@sjrwmd.com
Primary: mwinkler@sjrwmd.com
Secondary: mperschnick@sjrwmd.com

CERTIFICATE OF SERVICE

I certify that I have served a true and correct copy of the foregoing via electronic mail on this 18th day of March 2016, on the following:

Department of Environmental Protection

Benjamin M. Melnick, Esq.
Jeffrey Brown, Esq.
Office of General Counsel
3900 Commonwealth Blvd., MS 35
Tallahassee, FL 32399
Benjamin.Melnick@dep.state.fl.us
jeffrey.brown@dep.state.fl.us

Florida Power & Light Company

Michael S. Tammaro, Esq.
Florida Power & Light Company
700 Universe Boulevard
Juno Beach, FL 33408
michael.tammaro@fpl.com

Brooke E. Lewis, Esq.
Hopping Green & Sams, PA
119 South Monroe Street, Suite 300
Tallahassee, FL 32301
BrookeL@hgslaw.com

Florida Public Service Commission

Keino Young, Attorney Supervisor
2450 Shumard Oak Boulevard
Tallahassee, FL 32399-0850
kyoung@psc.state.fl.us

Florida Fish & Wildlife Conservation Commission

Anthony Pinzino, Esquire
Farris Bryant Building
620 South Meridian Street
Tallahassee, FL 32399-1600
anthony.pinzino@myfwc.com

Department of Economic Opportunity

Carly A. Hermanson, Esq.
107 East Madison Street
MSC 110
Tallahassee, FL 32399-4128
Carly.Hermanson@deo.myflorida.com

Division of Forestry

John Stys
Suite K, Room 214
3125 Connor Blvd.
Tallahassee, FL 32399
john.stys@freshfromflorida.com

Indian River County

Stan Boling
Community Development Director
1801 27th Street, Vero Beach, FL 32960
sboling@ircgov.com

Department of Transportation

Kimberly Clark Menchion, Esq.
605 Suwannee Street, MS 58
Tallahassee, FL 32399
Kimberly.menchion@dot.state.fl.us

Florida Department of Health

Amanda Bush, Esq.
Ed Barranco
4052 Bald Cypress Way, Bin #A08
Tallahassee, FL 32311
amanda.bush@flhealth.gov
ed.barranco@flhealth.gov

**Department of Agriculture &
Consumer Services**

John W. Costigan
Office of General Counsel
407 S. Calhoun Street, Ste. 520, MS 11
Tallahassee, FL 32399-0800
John.Costigan@freshfromflorida.com
Deborah.Brock@freshfromflorida.com

Department of State

Deena Woodward
Division of Historical Resources
RA Gray Building, 4th Floor
500 South Bronough Street
Tallahassee, FL 32399
Deena.woodward@dos.myflorida.com

Okeechobee County

William Royce, Director
Planning and Development
1700 N.W. 9th Avenue
Okeechobee, FL 34972
broyce@co.okeechobee.fl.us

John D. Cassels, Jr.
P. O. Box 968
Okeechobee, FL 34973-0968
jdc@legal-one.com
pleading@legal-one.com

**Central Florida Regional
Planning Council**

Patricia M. Steed
Executive Director
555 E. Church Street
Bartow, FL 33830
psteed@cfrpc.org

**Treasure Coast Regional
Planning Council**

Peter G. Merritt
Assistant Director
421 S.W. Camden Avenue
Stuart, FL 34994
pmerritt@tcrpc.org

/s/ Karen C. Ferguson

**ST. JOHNS RIVER WATER MANAGEMENT DISTRICT
AGENCY POWER PLANT SITING REPORT**

March 8, 2016

Applicant: Florida Power and Light (FPL) Company
700 Universe Boulevard
Juno Beach, Florida 33408

Project: Okeechobee Clean Energy Center

Subject: Site Certification Application for the Okeechobee Clean Energy Center
DOAH Case No. 15-5540
FDEP OGC Case No. 15-0607
PPSA No. PA15-58

Background

Florida Power and Light (FPL or Licensee) is seeking site certification for the Okeechobee Clean Energy Center (OCEC) pursuant to the Florida Electrical Power Plant Siting Act for construction and operation of a new combined cycle natural gas fired generating unit, providing approximately 1,600 megawatts (MW) of electric generation in 2019. The site is comprised of approximately 2,341 acres of FPL's 2,942 acre property in Okeechobee County located approximately 24 miles west of Vero Beach and 27 miles north-northeast of Okeechobee on the border with Indian River County. Within the site proposed for certification, approximately 1,629 acres are designated for potential 200 MW of future solar generation. A supplemental site certification application (SCA) describing the solar facility layout, engineering design, drainage system, and construction specifications will be submitted prior to development of the future solar generation area of the Site.

The proposed power facility's water use will consist of 9.0 million gallons per day (mgd) of groundwater from the Upper Floridan Aquifer (UFA) and 0.04 mgd of groundwater from the surficial aquifer. In addition, during construction of the existing plant and associated linear facilities, dewatering activities will occur for an approximate two-year period. The estimated average dewatering rate will be up to 1.33 mgd of groundwater from the surficial aquifer.

Pursuant to subparagraph 403.507(2)(a)2, Florida Statutes (F.S.), the St. Johns River Water Management District (SJRWMD or District) is required to prepare a report as to matters within its jurisdiction. The District regulations relevant to this proposed project include Chapter 40C-2 (Consumptive Uses of Water), Florida Administrative Code (F.A.C.).

REVIEW OF CONSUMPTIVE USES OF WATER

Statutory Requirements

The consumptive use of water for this application is regulated by Part II of Chapter 373, Florida Statutes (F.S.). Two of the key statutory requirements are set forth in sections 373.219 and 373.223, F.S. Subsection 373.219(1), F.S., provides:

The governing board or the department may require such permits for consumptive use of water and may impose such reasonable conditions as are necessary to assure that such use is consistent with the overall objectives of the District or department and is not harmful to the water resources of the area.

Subsection 373.223(1), F.S., and Section 40C-2.301, F.A.C. require an applicant to establish that the proposed use of water:

- (a) is a reasonable-beneficial use;
- (b) will not interfere with any presently existing legal use of water; and
- (c) is consistent with the public interest.

In addition, the above-requirements are detailed further in the District's Applicant's Handbook: Consumptive Uses of Water, November 3, 2015 (A.H.).

The District has reviewed the SCA for the OCEC pursuant to the above-described requirements for a new 1,600 MW natural gas power plant and is recommending approval of the SCA with a number of conditions. A summary of the District review is presented below.

Summary of Proposed Use

The OCEC combined cycle generating unit (Unit 1) will include three advanced combustion turbines (CT) and three heat recovery steam generators (HRSG) which will use the waste heat energy from the CTs to produce steam for the steam turbine generator. The exhaust heat from the CTs will be routed through the HRSG. Natural gas will be the primary fuel with ultra low-sulfur distillate (ULSD) as the backup fuel. Each CT will utilize inlet air cooling that will consist of evaporative cooling. Evaporative cooling systems achieve cooling using water evaporated from a treated media. The evaporated water extracts the latent heat of vaporization from the inlet air stream when the water droplet is converted to water vapor. Primary water uses for OCEC Unit 1 will be for cooling water and process water. Other minor uses will include service water, potable water for employee use and water for landscape irrigation. Groundwater from the UFA will be used for all process and cooling water needs. Groundwater from the surficial aquifer will be used for landscape irrigation and potable use at the site.

The primary water source will be the UFA, with potable water coming from the surficial aquifer depending upon water quality. The annual average withdrawal from the UFA will be 9 mgd (3,287 mgy) and the maximum daily withdrawal will be 11 mgd. The annual average withdrawal from the surficial aquifer will be 0.046 mgd (16.8 mgy) and the maximum daily withdrawal will be 0.0806 mgd. Condenser cooling for the steam cycle portion of OCEC Unit 1 and auxiliary cooling will be accomplished using a mechanical draft cooling tower. Water will be stored in a 2 million gallon (mg) raw water storage tank, a 4 mg service water/fire water storage tank, and a 6.6 mg demineralized water storage tank.

Water will be utilized in the following processes at the proposed facility:

- Cooling water is required for condenser cooling, auxiliary cooling, and cooling pump seal water.
- Process water is required for CT inlet air cooling, wet compression, NO_x injection water when firing ULSD, steam cycle makeup and fire protection.
- Other water uses will include service water for internal plant uses such as equipment washing and fire protection, landscape irrigation, potable and domestic water for employee use.
- Dewatering and construction water use.

Filtration or other necessary treatment and demineralizer systems for process water treatment using water from the UFA will be installed. The heat dissipation design is based on five cycles of concentration using UFA water with an expected average total dissolved solids (TDS) of 1,740 parts per million by weight (ppmw). The cycles of concentration is the number of times water is recycled through the system and is a key factor influencing required process water use. Poorer water quality may result in a decrease in cycling and, thus, an increase in required water use. Any reject water will be mixed with the cooling tower blowdown for disposal in the Florida Department of Environmental Protection (FDEP)-permitted Underground Injection Control (UIC) well system, while any required regeneration of ion exchanger systems will be performed offsite. The HRSG and evaporative cooler blowdown (average flow of approximately 65 gpm) will be reused to the greatest extent practicable as makeup water for the cooling tower.

Dewatering Activities and Construction Water Use

Dewatering will be necessary since the construction of the new plant requires excavation to depths below the water table. FPL must ensure that all dewatering activities will result in no anticipated offsite impacts and flood damage. The applicant provided mapped locations and a schedule for the dewatering activities. The dewatering activities include:

1. Storm ponds/ sedimentation basin construction

2. Power block dewatering
3. Oil water separator dewatering
4. Cooling tower sump/pump pit, and
5. Underground utility trenches.

Dewatering will be necessary over an approximate two-year period at a rate of up to approximately 1.33 mgd. Prior to commencement of construction of those portions of the project that involve dewatering activities, FPL's construction contractor will be required to submit a final dewatering plan to the District for review and approval. Appropriate measures will be required to ensure that onsite groundwater recharge is maximized and that all water discharged from the site meets appropriate water quality standards and does not contribute to off-site flooding.

In addition to dewatering activities, groundwater use will occur prior to operation of the plant during construction for activities, which may include:

1. Well testing
2. Equipment cleaning
3. Service water (cleaning and flushing and fire protection)
4. Potable water
5. Irrigation water.

Groundwater Resources

Groundwater resources at the site include the unconfined surficial aquifer system, the confined Floridan aquifer system (FAS), and the nearly impermeable sediments of the Hawthorn Group, which separate the two aquifer units. The surficial aquifer system is the uppermost water-bearing unit and groundwater occurs under unconfined conditions in pore spaces of sandy sediment. Groundwater from the surficial aquifer system is potable and considered a high quality water source in this area. The surficial aquifer system is recharged primarily from rainfall and the downward percolation of irrigation water. The base of the surficial aquifer system occurs at the contact with the intermediate confining layer, which is a lower permeability unit that restricts the vertical movement of groundwater between the surficial aquifer system and the UFA. The intermediate confining layer consists of clay-rich, fine grained deposits of the Hawthorn Group which provides good confinement for the underlying FAS and results in artesian flow from the UFA locally.

The FAS in the vicinity of the site consists of the UFA, the Avon Park Permeable Zone (APPZ), and the Lower Floridan Aquifer (LFA). In Okeechobee County, the FAS is generally between 2,700 and 3,000 ft thick (Bradner 1994). The Avon Park Formation, except for the APPZ, is generally less permeable than the UFA and LFA and is often referred to as the middle confining unit separating the UFA and LFA. Most wells installed in the Floridan Aquifer in Okeechobee County

range between depths of 750 ft to 1,200 ft below land surface (bls). In the northeastern portion of Okeechobee County, the wells are typically installed to more shallow depths between 600 and 700 ft bls to avoid brackish water (Bradner 1994).

The confined Floridan aquifer in this area includes the upper portion of the APPZ. The top of the UFA in most of the county is encountered at a depth of approximately 400 ft. The potentiometric surface in the vicinity of the site typically ranges from approximately 40 to 50 ft above mean sea level (msl) and slightly fluctuates between the dry and wet seasons (Bradner, 1994).

The Middle Confining Unit underlies the UFA at a depth of approximately 750 ft bls and overall thickness of approximately 800 ft at the site. The MCU separates the UFA and LFA and is divided into two parts by the APPZ. The APPZ is considered part of the lower portion of the UFA and is considered a lower quality source of water since chlorides are higher than in the shallower portion of the UFA.

In this report and the associated conditions of certification, UFA wells refer to those wells in the upper portion of the UFA, and APPZ wells refer to wells extending into the lower portion of the UFA (the APPZ). FPL will initially conduct an Aquifer Performance Test (APT) of the UFA and step-drawdown test of the APPZ. The goal of the APT and step-drawdown test is to determine local hydrogeologic conditions, and given those conditions, optimize use of the APPZ. The results of this testing will be used to either corroborate the regional data used or, if needed, to update the groundwater modeling and impacts assessment supporting this SCA review. During the first two years of operation, if demonstrated that sustained withdrawal from the APPZ over a long period has acceptable water quality for the proposed need, UFA wells will be converted to APPZ wells thereby ensuring the long-term sustainability of using the lower water quality source.

Surface Water Sources

There are two large surface water bodies in the vicinity of the OCEC site, Ft. Drum Marsh Conservation Area and Blue Cypress Lake. In addition, there is a proposed water storage and water resource development project to be located in northern Okeechobee and southern Indian River Counties, known as the Grove Land Reservoir and Stormwater Treatment Area (GLRSTA), located approximately 8.5 miles southeast of OCEC Unit 1 on land owned by Evans Properties.

Ft. Drum and Blue Cypress are regulated water bodies requiring operational flowrates and criterion to meet environmental needs. Neither source is capable of

providing a reliable or adequate quantity of water for the operations of the OCEC and are therefore considered not environmentally feasible for use.

The GLRSTA is currently in the conceptual evaluation phase and there are a number of environmental, financial, technical, and regulatory issues requiring resolution before the GLRSTA project would become available to potential users. FPL's investigation indicated that if all of the foregoing issues are resolved, the design and construction of the GLRSTA would occur in five to six years, after which water may be available for use at OCEC. As a condition of certification, and upon notification by the District of a potential alternative source, FPL will be required to evaluate and report to the District regarding the potential use of any identified source. If deemed feasible, the Licensee will be required to propose a plan to maximize use of these alternative source(s). It is anticipated that the District will request investigation of the use of GLRSTA within the first six years after licensing.

Reclaimed Water Source

The use of reclaimed water was investigated, but is not currently available or anticipated at the OCEC site in the future. The site location is approximately 20 miles from any significant population center capable of providing even a small amount of the required water. Based on the 2014 Reuse Inventory Report (FDEP 2014) and conversations with representatives from the City of Vero Beach and Indian River County Utilities, no single reuse facility or system within approximately 20 miles could supply more than a small amount of the process and cooling water required for OCEC Unit 1. As a condition of certification, the District may require FPL to investigate the feasibility of using reclaimed water should it become available in the future. If deemed feasible, the Licensee will be required to propose a plan to maximize use of this alternative source.

Lowest Quality Source

Based on an evaluation of all available water sources as described above, and considering SJRWMD rule criteria that the lowest quality source be utilized, if technically, economically, and environmentally feasible, FPL is proposing a phased optimization plan to maximize the lowest quality water source available at this time, the APPZ. Starting with one initial APPZ well and as additional APPZ wells are constructed, FPL shall use the greatest quantity of water from the APPZ that, when combined with water from the UFA, produces a water quality sufficient to allow operation at five cycles of concentration. If water quality of the APPZ or UFA is lower than anticipated, or degrades quickly, the number of cycles of concentration could decrease and the volume of water required for cooling would increase substantially. Thus, this operational criterion was selected in order to optimize both the use of lowest quality source and water use

efficiency. A phased, annual approach is appropriate since it will allow water quality in the APPZ and UFA to stabilize and trends to be recognized, as increasing amounts of lower quality water are utilized.

As discussed above, FPL will initially conduct an APT of the UFA and step-drawdown test of the APPZ. Based on the results of this testing, FPL shall: (a) determine the maximum extent to which they can use this APPZ well to supply water for cooling and other plant purposes; and (b) update the groundwater modeling if there is a significant difference between the APT results and the values used for leakance or transmissivity in FPL's modeling submitted with the SCA. If FPL is using the APPZ well for cooling water and other plant purposes, then not later than two years after initiating groundwater withdrawals for cooling and other plant purposes, and annually thereafter, FPL shall either modify one upper UFA well to extend it into the lower quality APPZ or construct and use one additional APPZ well to replace an UFA well. FPL may cease annual well modification or additional APPZ well construction and use when either APPZ water withdrawals reach 100% of total non-surficial aquifer withdrawals or the water quality produced from blending the UFA and APPZ well exceeds operating water quality constraints described above and in the conditions of certification. This multi-year, phased approach ensures the lowest quality source will ultimately be maximized while limiting the potential for harmful saline water intrusion.

Saline Water Intrusion

The potential for saline water intrusion was evaluated using the modeled water balance for the site and an analytical upconing model. The simulation assumed all withdrawals were from the UFA and evaluated water quality impacts resulting from the induced upward flow from the APPZ and LFA. The results indicate that FPL's withdrawals induce lateral flow within the UFA and an increase in upward flow from the APPZ. Due to the confinement between the APPZ and the LFA, only minimal upward flow from the LFA would be anticipated. The upconing model indicates the proposed 9 mgd will not exceed the steady-state critical pumping rate, or the pumping rate at which the saltwater / fresh water interface becomes unstable resulting in significant degradation of the well water quality.

As a condition of certification, FPL must propose an UFA Monitoring Plan to the District for review and approval post-certification. The purpose of this Plan would be to monitor for ongoing, long-term water quality impacts at the site to ensure detrimental saline water intrusion does not occur. As a condition of certification, the Plan shall include, at a minimum, one UFA monitoring well, quarterly major ion chemical analyses for all production and monitoring wells, and daily water level measurements of UFA monitoring well. In addition, FPL must conduct groundwater quality testing during the proposed APT and during all proposed well construction.

Potential Environmental Impacts

FPL demonstrated the permissibility of withdrawing the stated quantities of water without adversely impacting the water source, the use of groundwater by prior existing legal users, and existing off-site land uses such as lakes, streams, or wetlands. The East Central Florida Steady State (ECFS) model is an adaptation of the U.S. Geological Survey transient model ECFT, which was subsequently modified by the CFWI Hydrologic Analysis Team (2014). The SJRWMD adapted the CFWI model by, among other things, making it steady state, rather than transient. It was determined that the ECFS model was appropriate for impact assessment at the OCEC Site. FPL applied the model according to SJRWMD rule criteria, staff specifications, and prior SJRWMD consumptive use permitting practice, using an average 5-year May water level conditions (lowest) to provide a conservative estimate of impact.

FPL used the ECFS model to simulate surficial aquifer drawdowns due to withdrawals from the UFA (up to the maximum daily average 11 mgd). Due to the artesian conditions present in this area, significant drawdown effects in the surficial aquifer would not be anticipated. The modeled drawdown resulting from the six proposed UFA wells would not cause measurable change in any surface water feature or wetlands.

FPL also used the ECFS model to simulate surficial aquifer drawdowns due to withdrawals from the surficial aquifer (up to the maximum daily average of 0.08 mgd). The modeled surficial aquifer drawdown resulting from the three proposed surficial aquifer wells is less than 0.1 ft at the nearest wetland area and within the mitigated area on the FPL site. District staff conducted an inspection of on-site wetland areas on November 2, 2015. It is not anticipated that existing wetlands or other types of vegetation would be adversely impacted from these drawdowns.

FPL used the ECFS model to simulate drawdown as it relates to established minimum flows and levels (MFLs). Based on the results of the modeling, the proposed use is in accordance with adopted MFLs.

Existing Legal Uses

FPL must demonstrate that the proposed uses of groundwater will not interfere with prior existing legal users which existed at the time of certification application (September 25, 2015), or, if such interference does occur, that Licensee will mitigate for such interference. SJRWMD designates a threshold of 10% reduction in flow in artesian wells as an indicator of potential interference with prior existing legal users.

The groundwater modeling performed as part of the SCA demonstrated that water withdrawals will not interfere with any prior existing legal user of the surficial aquifer. The modeling, however, indicated that a potential exists for OCEC groundwater withdrawals from the UFA to interfere with a limited number of prior existing legal user wells that withdraw from the UFA. The “FPL OCEC Well Interference Monitoring, Avoidance and Mitigation Plan” (Appendix ??) outlines FPL’s plan for monitoring for interference, avoiding interference, and then mitigating such interference in the unlikely event it occurs. The Plan includes:

- Monitoring the water quality and water level effects of withdrawals on the UFA;
- Determination of a monitoring drawdown threshold triggering avoidance actions;
- Notification to potentially affected UFA well owners;
- Claim investigation; and
- Mitigation in the case where interference has been experienced. Mitigation shall cover well modifications, pump purchase, installation, maintenance, and fuel/electricity costs until the well use changes or the interference abates.

Water Conservation

FPL’s OCEC plant will use combined cycle technology. With this technology, steam electric generation is only about 35 to 40 percent of the total generating capacity. The remaining 60 to 65 percent is produced by combustion turbines, which do not use water for condenser cooling. Consequently, this technology significantly reduces the requirement for cooling water. Because the combined cycle technology reduces the steam electric portion of the generating facility, it also reduces the amount of water required to make steam.

In addition, FPL will implement the following water conservation measures:

1. The required makeup water to the HRSGs will be minimized by using good engineering design and best operating practices that reduce the required blowdown and by the recovery and reprocessing of water for reuse.
2. FPL is proposing water efficient five cycles of concentration in the cooling tower.
3. When feasible, and depending on the water quality from the UFA, wastewater from the water treatment system and other plant blowdown and plant drains will be recycled for use in the cooling towers.
4. When available, excess stormwater in the detention ponds may be used as makeup for the cooling towers.

5. All systems that involve the use of water will be designed and operated to minimize water loss. This will include an in-service leak test, inspection, or hydro-test to ensure the system is leak tight.
6. Other design features include: automatic shutoff valves, flow restrictors, low-volume sanitary facilities with an onsite sewage treatment and disposal system, and an awareness program for both construction and operational employees on water conservation for the project.
7. FPL will implement drought-resistant landscape design.

Water Use Information

The applicant is proposing use of water from three surficial aquifer wells, one existing UFA well, six proposed UFA wells, and six proposed replacement APPZ wells, as listed in the table below. The APPZ replacement wells are intended to replace the UFA wells, to the extent feasible within the water quality constraints described above and in the conditions of certification. All proposed and replacement wells below are industrial type use with additional minor potable, well testing, and landscape irrigation uses authorized.

Wells:

Well No.	SJRWMD ID	Casing Diameter (in.)	Casing Depth (ft.)	Total Depth (ft.)	Status	Source
1	455798	24	400	760	Proposed	UFA
2	455799	24	400	760	Proposed	UFA
3	455800	24	400	760	Proposed	UFA
4	455801	24	400	760	Proposed	UFA
5	455802	24	400	760	Proposed	UFA
6	455803	24	400	760	Proposed	UFA
7	455804	6	25 - 50	100	Proposed	Surficial aquifer
8	455805	6	25 - 50	100	Proposed	Surficial aquifer
9	457087	6	25 - 50	100	Proposed	Surficial aquifer
10	457111	24	900	1000	Proposed	APPZ
11	457112	24	900	1000	Replacement	APPZ
12	457113	24	900	1000	Replacement	APPZ
13	457114	24	900	1000	Replacement	APPZ
14	457115	24	900	1000	Replacement	APPZ

15	457116	24	900	1000	Replacement	APPZ
Main pump*	454668	10	400	800	Existing	UFA

*Temporary construction use only

RECOMMENDATION

The District has reviewed the SCA for the OCEC pursuant to the above-described requirements and is recommending approval of the SCA with the conditions listed below.

C. Register, P. Renish, N. Church

Bradner, L. (1994). *Ground-Water Resources of Okeechobee County, Florida U.S. geological Survey; Water-resources Investigations Report 92-4166*. U.S. Geological Survey.

CONDITIONS RECOMMENDED BY THE ST. JOHNS RIVER WATER MANAGEMENT DISTRICT (Chapters 40C-2 and 40C-3, Florida Administrative Code)

1. Nothing in this certification shall be construed to limit the authority of the SJRWMD 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 SJRWMD. [Paragraph 5.1(b), A.H., Nov 2015]
2. Leaking or inoperative well casings, valves, or controls must be repaired or replaced as required to eliminate the leak or make the system fully operational. [Paragraphs 2.3(a), 5.1(d), A.H., Nov 2015]
3. Licensee's consumptive use of water as authorized by this certification shall not interfere with legal uses of water existing at the time of certification application. If interference occurs, SJRWMD will request that FDEP revoke the certification, in whole or in part, to curtail or abate the interference, unless the interference associated with the Licensee's consumptive use of water is mitigated by Licensee pursuant to the Well Interference Monitoring, Avoidance and Mitigation Plan (included in Appendix ??). [Paragraphs 3.6, 5.1(e), A.H., Nov 2015]

4. Licensee shall implement the FPL OCEC Well Interference Monitoring, Avoidance and Mitigation Plan (Appendix ??) as described therein and as modified by Condition 27, if required. [Paragraphs 3.6, 5.1(e) A.H., Nov 2015]
5. Licensee's consumptive use of water as authorized by this certification shall not have significant adverse hydrologic impacts to off-site land uses existing at the time of the certification application. If significant adverse hydrologic impacts occur, the SJRWMD will request that FDEP revoke the certification, in whole or in part, to curtail or abate the adverse impacts, unless the impacts associated with Licensee's consumptive use of water are mitigated by Licensee pursuant to a SJRWMD-approved plan. [Paragraphs 2.3(f), 5.1(f), A.H., Nov 2015]
6. A SJRWMD-issued identification tag shall be prominently displayed at each withdrawal site by permanently affixing such tag to the pump, headgate, valve, or other withdrawal facility as provided by Section 40C-2.401, Florida Administrative Code. Licensee shall notify the SJRWMD in the event that a replacement tag is needed. [Paragraph 5.1(h) A.H., Nov 2015]
7. The Licensee's consumptive use of water as authorized by this license shall not significantly and adversely impact wetlands, lakes, rivers, or springs. If significant adverse impacts occur, the SJRWMD will request that FDEP revoke the license, in whole or in part, to curtail or abate the significant adverse impacts, unless the impacts associated with the Licensee's consumptive use of water are mitigated by the licensee pursuant to a SJRWMD-approved plan. [Paragraphs 2.3(f), 5.1(i) A.H., Nov 2015]
8. The Licensee's consumptive use of water as authorized by this license shall not reduce a flow or level below any minimum flow or level established by the SJRWMD or the FDEP pursuant to Section 373.042 and 373.0421, F.S. If the Licensee's use of water causes or contributes to such a reduction, then the SJRWMD will request that FDEP revoke the license, in whole or in part, unless the Licensee implements all provisions applicable to the Licensee's use in a SJRWMD-approved recovery or prevention strategy. [Paragraphs 2.3(i), 5.1(j) A.H., Nov 2015]
9. The Licensee's consumptive use of water as authorized by the license shall not cause or contribute to significant saline water intrusion. If significant saline water intrusion occurs, the SJRWMD will request that FDEP revoke the license, in whole or in part, to curtail or abate the saline water intrusion, unless the saline water intrusion associated with the Licensee's consumptive use of water is mitigated by the Licensee pursuant to a SJRWMD-approved plan. [Paragraphs 2.3(g), 5.1(k) A.H., Nov 2015]
10. The Licensee's consumptive use of water as authorized by the license shall not cause or contribute to flood damage. If the Licensee's consumptive use

causes or contributes to flood damage, the SJRWMD will request that FDEP revoke the license, in whole or in part, to curtail or abate the flood damage, unless the flood damage associated with the Licensee's consumptive use of water is mitigated by the licensee pursuant to a SJRWMD-approved plan. [Paragraphs 2.3(f), 5.1(l) A.H., Nov 2015]

11. The lowest quality water source, including reclaimed water, surface water and stormwater, must be used for each consumptive use authorized by these conditions of certification when available, except when Licensee demonstrates, as determined by SJRWMD, that the use of the lower quality water source is not economically, environmentally, or technologically feasible, in accordance with the SJRWMD's Consumptive Use Permit Applicant's Handbook, paragraph 2.3(e) A.H., Nov 2015. [Paragraph 2.3(e) A.H., Nov 2015]

12. Well modifications, construction and abandonments shall conform to SJRWMD non-procedural requirements in chapter 40C-3, F.A.C. [Paragraph 5.1(c) A.H., Nov 2015]

13. Prior to well construction, if the final well locations are greater than 200 feet from those originally proposed in the certification application, the Licensee shall submit to the FDEP SCO and SJRWMD for review and approval, in accordance with Condition XX, "Procedures for Post-Certification Submittals", an evaluation of the impacts of the proposed pumpage from the proposed well location(s) on adjacent existing legal users, environmental features, the saline water interface, wetlands, and other water bodies. [Section 373.223. F.S.; Paragraph 2.3(f,g) A.H., Nov 2015]

14. Within 90 days of completion of construction of any Upper Floridan Aquifer (UFA) or Avon Park Producing Zone (APPZ) production wells, Licensee shall submit to the FDEP SCO and SJRWMD:

- a. The specific locations of the wells on a map with a minimum scale of one inch equals 800 feet, or by latitude/longitude.
- b. Detailed well specifications and drawings.
- c. Geophysical logging program conducted during construction of the well(s). The program must include the following: Gamma, Caliper, Electric (sp and electrical resistivity), Fluid Resistivity, Temperature, Flow and Video.
- d. Downhole water quality testing program to include field-testing at 20-foot intervals upon penetration of the top of the upper portion of the UFA for specific conductivity, chlorides, temperature and pH.

[Chapter 40C-3, F.A.C.; Paragraph 2.3(c, d) A.H., Nov 2015]

15. All landscape irrigation shall be conducted in accordance with the times, days, and within the manner set forth in section 40C-2.042, F.A.C. [Rule 40C-2.042, F.A.C., Paragraph 5.2 A.H., Nov 2015]

16. Maximum annual use of water from the UFA for power plant process, cooling, potable, service, irrigation, and well testing water must not exceed 3,285 million gallons (9.0 mgd annual average). If required by Conditions 29 and 30, all or part of this allocation shall be obtained from the Avon Park Producing Zone (APPZ). [Paragraphs 2.3(a,b,c,d,e) 5.2(d) A.H., Nov 2015]

17. Licensee may use water from the existing UFA well (Main Pump Well, SJRWMD ID 454668) for construction of the power plant and associated facilities. Maximum annual water use from this well must not exceed 164.75 million gallons (0.45 mgd annual average) as provided for in SJRWMD Consumptive Use Permit 143225-1. [Paragraphs 2.3(a,b,c,d,e) 5.2(d) A.H., Nov 2015]

18. Maximum annual use of water from the surficial aquifer and/or UFA for landscape irrigation of the site must not exceed 0.744 million gallons (0.002 mgd) per acre, not to exceed a total quantity of 10.51 million gallons (0.029 mgd annual average). [Paragraphs 2.3(a,b,c,d,e), 5.2(d), A.H., Nov 2015]

19. Maximum annual use of water from the surficial aquifer and/or UFA for potable and service water uses at the facility must not exceed 16.82 million gallons (0.046 mgd annual average). [Paragraphs 2.3(a,b,c,d,e), 5.2(d), A.H., Nov 2015]

20. Total withdrawal of groundwater from the UFA wells 1-6 (SJRWMD IDs 455798-455803, respectively), UFA replacement wells 10-15 (SJRWMD IDs 457111-457116) and surficial aquifer wells 7-9 (SJRWMD IDs 455804, 455805, and 457087, respectively) must be recorded continuously, totaled monthly, and reported to the FDEP SCO and the SJRWMD at least every six months from the initiation of the monitoring using Form EN-50. The reporting dates each year will be as follows:

<u>Reporting Period</u>	<u>Report Due Date</u>
January - June	July 31
July - December	January 31

[Paragraph 2.3(a) A.H., Nov 2015]

21. Prior to use, all proposed wells must be equipped with totalizing flow meters. All flow meters must maintain +/- 5% accuracy, be verifiable and be installed according to the manufacturer's specifications. [Paragraphs 4.1, 4.2, A.H., Nov 2015]

22. The Licensee must maintain all flow meters. In case of failure or breakdown of any meter, the FDEP SCO and SJRWMD must be notified in writing within 5 days of its discovery. A defective meter must be repaired or replaced within 30 days of its discovery. [Paragraphs 4.1, 4.2, A.H., Nov 2015]

23. The Licensee must have the flow meters calibrated once every 10 years within 30 days of the anniversary date of certification issuance, and recalibrated if the difference between the actual flow and the meter reading is greater than 5%. SJRWMD Form No. EN-51 must be submitted to the FDEP SCO and SJRWMD within 10 days of the inspection / calibration. [Paragraph 4.1, 4.2.1, A.H., Nov 2015]

24. The Licensee has indicated that dewatering will be necessary to facilitate construction of the plant. The Licensee has estimated dewatering of the surficial aquifer will occur over an approximate 24-month period at a rate of 487.3 million gallons per year (annual average 1.33 mgd). Prior to commencement of construction of those portions of the project that involve dewatering activities, the Licensee's construction contractor will be required to submit a final dewatering plan to the FDEP SCO and the SJRWMD for review and approval in accordance with Condition XX, "Procedures for Post-Certification Submittals." This plan shall include at a minimum:

- a. a map showing the locations of dewatering activities with associated projected drawdowns. If projected drawdowns initially appear to cause adverse environmental impacts or interference to existing legal uses, mitigation measures must be proposed and included in the Dewatering Plan;
- b. a map delineating the portions of the property where dewatering activities will take place and the extent of the proposed excavations, both vertically and laterally. This map must include the locations and dimensions of any proposed ponds to receive dewatering discharges;
- c. procedures to ensure that dewatering will not cause or contribute to flood damage including the proposed rate and duration of water pumped for dewatering;
- d. a map providing the proposed locations and capacities (gpm) of proposed dewatering pump(s);
- e. detailed description of turbidity treatment and erosion control measures at the discharge point(s);
- f. indicating requested dewatering allocation and schedules;
- g. water quality monitoring plans; and
- h. if necessary, a water treatment system design.

[Paragraphs 2.3(a,b,f,g,h) A.H., Nov 2015]

25. Prior to commencing use of the UFA for cooling tower makeup water, Licensee shall construct one well into the APPZ and perform a step-drawdown test on that APPZ well. In addition, Licensee shall perform an aquifer performance test (APT) on the upper portion of the UFA with APPZ and UFA observation wells. No later than 90 days before conducting the APT, Licensee shall provide an APT Plan to the FDEP SCO and SJRWMD to be reviewed and approved in accordance with Condition XX, "Procedures for Post Certification Submittals" prior to Licensee commencing with the APT. The APT Plan must

follow SJRWMD guidelines, as appropriate, for conducting an APT as set forth in Appendix D of the SJRWMD's Applicant's Handbook: Consumptive Uses of Water incorporated by reference in rule 40C-2.101(1)(a), F.A.C. (effective November 3, 2015). [Paragraphs 2.3(c,d) A.H., Nov 2015]

26. No later than 90 days after the APT is complete, Licensee shall provide an APT final report ("APT Report") documenting well construction, APT procedures, data analysis, and APT results to the FDEP SCO and SJRWMD for review and approval in accordance with Condition XX, "Procedures for Post-Certification Submittals". The APT Report shall be signed and sealed by a Florida Registered Professional Geologist or Professional Engineer. [Paragraphs 2.3(c,d) A.H., Nov 2015]

27. If, after the approval of the APT Report, there is a significant difference between the APT results and the values used in Licensee's groundwater impact modeling evaluations, Licensee shall update its groundwater impact model, as well as the Okeechobee Clean Energy Center Well Interference Monitoring, Avoidance and Mitigation Plan, as necessary, to reflect the updated modeling results. A "significant difference" shall mean the leakance or transmissivity values are thirty (30) percent higher or lower than those included in the Licensee's groundwater flow model data submitted with the SCA. If updated modeling is required, no later than 30 days after approval of the APT report, the Licensee shall provide to the FDEP SCO and the SJRWMD, a proposed modeling plan to update its groundwater impact model ("Modeling Update Plan") for review and approval in accordance with Condition XX, "Procedures for Post-Certification Submittals". The Modeling Update Plan shall incorporate the Licensee's APT results to evaluate impacts of predicted drawdown and utilize all updates available for this region.

No later than 90 days after receiving the SJRWMD's written approval of the Modeling Update Plan, Licensee shall complete the modeling according to the plan, prepare a written report detailing the impacts indicated by the updated modeling, and submit the report to the FDEP SCO and SJRWMD for review and approval in accordance with Condition XX, "Procedures for Post-Certification Submittals".

Within 60 days of SJRWMD approval of the updated modeling report, Licensee shall submit a written evaluation of any needed changes to the Okeechobee Clean Energy Center Well Interference Monitoring, Avoidance and Mitigation Plan to the SCO and SJRWMD for review and approval in accordance with Condition XX, "Procedures for Post-Certification Submittals". Licensee may also include this written evaluation in the updated modeling report.

If the results of the SJRWMD approved, updated modeling indicate that the OCEC Unit 1 proposed groundwater use will result in an additional 10% or greater reduction in flow of any existing legal user's well caused entirely by the OCEC Unit 1 proposed use (determined using the non-drought baseline current

condition in the updated model), then Licensee shall mitigate those existing user's wells and facilities pursuant to the terms of the Okeechobee Clean Energy Center Well Interference Monitoring, Avoidance and Mitigation Plan (Appendix ??) in advance of commencing commercial operation of OCEC Unit 1. Such existing legal users need not submit an interference claim to Licensee. [Paragraphs 2.3(c,d,e,f,g), 3.6, A.H., Nov 2015]

28. No later than 60 days after the approval of the APT report, Licensee shall provide an Upper Floridan Aquifer Monitoring Plan to the FDEP SCO and the SJRWMD for review and approval in accordance with Condition XX, "Procedures for Post-Certification Submittals". This monitoring plan shall specify the location and construction specifics of the monitoring well(s) and should include, at a minimum:

- a. Monitoring of the UFA between the proposed production well sites and closest adjacent legal users. This monitoring well shall measure water levels and water quality of the same zone of use of the closest adjacent legal user(s). The best available well depth and casing information for the closest adjacent legal user(s) must be used to determine the monitoring zone.
- b. Determine an appropriate monitoring well drawdown threshold (i.e., number of feet of drawdown) that would trigger the actions described in "Avoiding Potential Interference" portion of the Well Interference Monitoring, Avoidance, and Mitigation Plan in Appendix ??.
- c. Quarterly major ion chemical analyses for all production and monitoring wells.
- d. Daily water level measurements of UFA monitoring wells.

[Paragraphs 2.3(c,d,e,f,g) A.H., Nov 2015]

29. Not later than 90 days after approval of the APT report, Licensee shall incorporate the results of the APT and step-drawdown tests into the groundwater model and evaluate APPZ performance and water quality to determine whether the APPZ well can be used to supply water for cooling and other plant purposes. If this APPZ modeling indicates background APPZ water quality, when blended with water produced from UFA wells, is sufficient to allow OCEC Unit 1 operation at 5 cycles of concentration, Licensee shall use the APPZ well to the maximum extent possible for cooling water and other plant purposes as specified below. If this APPZ modeling indicates background water quality, when blended with water produced from UFA wells, is insufficient to allow OCEC Unit 1 operation at 5 cycles of concentration, Licensee is not required to implement withdrawals from the APPZ well and is not required to construct additional APPZ wells as referenced below. [Paragraphs 2.3(c,d,e) A.H., Nov 2015]

30. If Licensee is using the APPZ well for cooling water and other plant purposes pursuant to the provision above, then not later than two years after initiating groundwater withdrawals for cooling and other plant purposes, and annually

thereafter, Licensee shall either modify one upper UFA well to the lower quality APPZ or construct and use one additional APPZ well to replace an UFA well. Starting with the initial APPZ well and as additional APPZ wells are constructed, Licensee shall use the greatest quantity of water from the APPZ that, when combined with water from the UFA, produces a water quality sufficient to allow operation at five cycles of concentration. Licensee may cease well modification or additional APPZ well construction and use upon the earlier of (a) the date when APPZ water withdrawals reach 100% of total non-surficial aquifer withdrawals; or (b) the water quality produced from blending the UFA and APPZ well exceeds the constraints identified in Condition 32. [Paragraphs 2.3(c,d,e) A.H., Nov 2015]

31. If Licensee is using APPZ well(s), Licensee shall submit a Lowest Quality Groundwater Source Report annually to the FDEP SCO and SJRWMD beginning no later than one year after initiation of groundwater withdrawals for cooling water and other plant operational purposes. This Lowest Quality Groundwater Source Report shall identify the quantities of water Licensee withdraws from the APPZ, the water quality of that APPZ water, and the water quality of that APPZ water blended with water withdrawn from the UFA. Licensee may cease lowest quality groundwater source reporting upon the earlier of (a) the date when APPZ water withdrawals reach 100% of total non-surficial aquifer withdrawals; or (b) the SCO in consultation with the SJRWMD approves the Licensee's request to do so based on monitored water quality data demonstrating that using APPZ wells is environmentally, technically, or economically infeasible. [Paragraphs 2.3(c,d,e) A.H., Nov 2015]

32. If at any time a trend of the blended water quality of the OCEC Unit 1 cooling water supply reasonably projects that five cycles of concentration cannot be maintained in the plant's circulating water system over the next year of operation using the plant design basis water treatment methodology, Licensee may reduce or discontinue withdrawals from the APPZ well(s) and correspondingly increase withdrawals from UFA wells as necessary to maintain the lowest water quality meeting the above referenced water quality limitation of 5 cycles of concentration. No post certification authorization is required to initiate this change. Within 90 days of such reduction, Licensee shall submit a written report for informational purposes to the FDEP SCO and SJRWMD describing the reduction or elimination of APPZ well withdrawals, including the identification of the well(s) reduced and information on the water quality of the OCEC water supply. [Paragraph 2.3(c,d,e,g) A.H., Nov 2015]

33. Licensee acknowledges that the water needs of Florida's citizens will require alternative water sources such as surface water projects in the future as determined by the water management districts pursuant to the water supply planning process of section 373.709, F.S., and other applicable provisions of

Chapter 373, F.S. Licensee will in good faith evaluate the technical, environmental, and economic feasibility of connection to and use of alternative water sources such as surface water supplies when such sources become available according to the terms of this condition.

Upon notification by the SJRWMD that an alternative water source has potentially become available in the vicinity of OCEC Unit 1, including sources that lie outside of the boundary of the SJRWMD, Licensee shall evaluate the feasibility of connection to and use of the alternative water source. As used herein, the term “alternative water source” means any source not identified as a traditional water supply source in the applicable water supply plan adopted by the SJRWMD pursuant to section 373.709, F.S., or successor provision, for the area encompassing the facility. Within 180 days of the notification from SJRWMD of the potential availability of an alternative water source, the Licensee shall submit a report to the FDEP SCO and the SJRWMD evaluating the technical, environmental, and economical feasibility of each alternative water source identified. The report shall contain an analysis of each alternative water source, including the quantity of water available, the projected date(s) of availability, and costs associated with obtaining and transporting the alternative water to the OCEC Unit 1 facility. If the SJRWMD determines that use of additional alternative water sources are environmentally, technically, and economically feasible, within 120 days of such determination, Licensee shall develop and provide an implementation schedule to reduce, by the amount of additional alternative water source, the quantity of ground water authorized for consumption by the site, to FDEP SCO and SJRWMD for review and approval in accordance with Condition XX “Procedures for Post-Certification Submittals”. Once approved, Licensee shall take the necessary steps to implement the schedule. Within 10 days of receiving notice from SJRWMD that an alternative water source has potentially become available in the vicinity of OCEC Unit 1, Licensee shall provide a copy of that notice to Indian River County. Licensee shall submit a copy of its alternative water source evaluation report to Indian River County at the time it submits that report to the SJRWMD.

If by December 31, 2021 there has been no notification provided by the SJRWMD that an alternative water source has potentially become available in the vicinity of OCEC Unit 1, Licensee shall, in coordination with the SJRWMD and Indian River County, conduct a study, as described above, to identify and evaluate the technical, environmental and economic feasibility of connecting to and using alternative water sources that have the potential to become available in the vicinity of OCEC Unit 1, including sources that lie outside the boundary of the SJRWMD. Licensee shall submit the study to the SJRWMD and Indian River County by June 30, 2022. Licensee’s submission of the study shall not relieve Licensee of any obligation to evaluate the feasibility of using an alternative water source upon future notification from the SJRWMD of an alternative water source that has potentially become available in the vicinity of OCEC Unit 1, including

sources that lie outside the boundary of the SJRWMD. [Paragraph 2.3(e) A.H., Nov 2015]

Appendix ??

FLORIDA POWER & LIGHT
OKEECHOBEE CLEAN ENERGY CENTER
WELL INTERFERENCE MONITORING, AVOIDANCE
AND MITIGATION PLAN

FLORIDA POWER & LIGHT
OKEECHOBEE CLEAN ENERGY CENTER
WELL INTERFERENCE MONITORING, AVOIDANCE
AND MITIGATION PLAN (February 2, 2016)

Background

Florida Power & Light's (FPL) Okeechobee Clean Energy Center (OCEC) will use groundwater from the Upper Floridan Aquifer (UFA) and the surficial aquifer for plant purposes. As part of the St. Johns River Water Management District's (SJRWMD) non-procedural review criteria, FPL (or "Licensee") must demonstrate that these proposed uses of groundwater will not interfere with prior existing legal users or, if such interference does occur, that Licensee will mitigate for such interference. The groundwater modeling performed as part of the OCEC Site Certification Application (SCA) demonstrated that water withdrawals will not interfere with any prior existing legal user of the surficial aquifer. The modeling, however, did indicate that, although unlikely, a potential exists for OCEC groundwater withdrawals from the UFA to interfere with a limited number of prior existing legal user wells that withdraw from the UFA. This document outlines Licensee's plan for monitoring for interference, avoiding interference, and then mitigating such interference in the unlikely event it occurs.

Scope of Applicability

The scope of this well interference monitoring, avoidance and mitigation plan is limited to adverse effects to prior existing legal users caused by OCEC UFA withdrawals. Based upon groundwater modeling accepted by the SJRWMD as part of the SJRWMD's review of the OCEC SCA, the geographic area in which prior existing legal users of the UFA may be potentially interfered with by OCEC UFA withdrawals is shown on Exhibit 1 to this plan.

Additionally, as further described in the OCEC SCA, a small quantity of the OCEC water needs will be withdrawn directly from the surficial aquifer through surficial aquifer wells. The extent of reduction in surficial aquifer potentiometric surface resulting from these withdrawals was modeled and determined not to interfere with any prior existing legal user. Furthermore, groundwater modeling demonstrated that OCEC UFA withdrawals would not cause a drawdown in the potentiometric surface of the surficial aquifer sufficient to interfere with any prior existing legal user of the surficial aquifer. Therefore, this plan does not apply to any prior existing legal user of the surficial aquifer or any prior existing legal user of surface water.

This well interference monitoring, avoidance and mitigation plan applies only to prior existing legal users of the UFA located within the area shown on Exhibit 1 to this plan. A prior existing legal user under this plan is an entity legally entitled to withdraw, and actually withdrawing, groundwater from the UFA as of September 25, 2015, the date of submission of the OCEC SCA.

Entities that first initiated their legal withdrawal of groundwater from the UFA after September 25, 2015, are not prior existing legal users and are not covered by this plan.

Monitoring for Potential Interference

Licensee will install a monitoring well(s) and monitor the potentiometric surface and water quality to determine the effects of OCEC pumping on the UFA. The specific location and nature of the monitoring well(s) and the means of monitoring will be set forth in a monitoring plan submitted post certification as required by the conditions of certification. This monitoring plan shall specify the location and construction specifics of the monitoring well(s) and should include, at a minimum:

1. Monitoring of the UFA between the proposed production well sites and the closest adjacent legal users. This monitoring well shall measure water levels and water quality of the same zone of use of the closest adjacent legal user(s). The best available well depth and casing information for closest adjacent legal users must be used to determine the monitoring zone.
2. Determine an appropriate monitoring well drawdown threshold (i.e., number of feet of drawdown) that would trigger the actions described in “Avoiding Potential Interference” below
3. Quarterly major ion chemical analyses for all production and monitoring wells.
4. Daily water level measurements of the UFA monitoring wells.

The monitoring plan shall be reviewed and approved by SCO and SJRWMD in accordance with Condition XX, “Procedures for Post Certification Submittal.” Licensee will use this monitoring information to assist in evaluating claims of interference as further described below.

Avoiding Potential Interference

If the potentiometric surface of the UFA in the monitoring well is below the monitoring well drawdown threshold established in the Monitoring Plan, Licensee will rotate pumping from its OCEC UFA wells to attempt to avoid potential interference so long as the pumping rotation does not impact plant operation or production from the wells.

Notification to Floridan Aquifer Well Owners within Area of Potential Interference

For those existing legal users entitled to interference mitigation prior to commencement of commercial operation of OCEC Unit 1 pursuant to the terms of OCEC Condition of Certification number 27, Licensee will notify in writing those existing legal users of Licensee’s offer of well mitigation payment, as specified in this Plan, no later than 90 days after the SJRWMD approves the

updated modeling report referenced in that condition. For all other existing legal users covered by this Plan, Licensee will utilize publicly available Okeechobee and Indian River County well databases, and the SJRWMD consumptive use permitting database and well completion search tool to obtain the mailing address for property owners located within the area depicted on Exhibit 1 that are known to have an UFA well. Licensee will then mail a letter to these property owners informing them that the OCEC's UFA use may have the potential to interfere with the operation of UFA wells, and describe Licensee's willingness to investigate and mitigate for wells that have suffered interference. The letter will give the well owner a Licensee (FPL) contact phone number to call if they experience difficulties with the operation of their well. This notice will be sent 90 days after final issuance of the OCEC Site Certification. The notification letter language is shown on Exhibit 2.

Claim Investigation and Mitigation,

If a well owner notifies Licensee of possible impacts to their well, Licensee will send one or more representatives, investigate the claim. The well owner must allow the Licensee representatives access to their property and well to investigate their well impact claim. If Licensee's analysis of monitoring data, measurement, or modeling determines that pumping of groundwater from the UFA for OCEC operations has resulted in a decline in the potentiometric surface of the Floridan Aquifer at the existing user's well location, and is sufficient to cause a reduction in flow resulting in interference to that well (as defined in Section 3.6 of the SJRWMD Applicant's Handbook; Consumptive Use of Water dated November 3, 2015), Licensee will pay the cost to modify that well to restore the capacity of that well to the condition existing immediately prior to Licensee's initiation of OCEC UFA withdrawals. The analysis of the monitoring data, measurement, or modeling will consider the potentiometric surface elevations of the UFA immediately prior to initiation of OCEC UFA withdrawals accounting for the effects of withdrawals from all other UFA users in the area. The analysis of the monitoring data, measurement or modeling will determine whether the additional reduction in the UFA potentiometric surface elevations resulting solely from OCEC UFA withdrawals has produced the reduction in flow referenced above. Licensee shall not be obligated to pay or otherwise mitigate for impacts to prior existing users of the UFA resulting from groundwater withdrawals other than from OCEC UFA withdrawals. Licensee will pay for one or more of the following to restore the capacity of a well suffering interference, as determined applicable by a licensed engineer or water well contractor retained by Licensee:

- Construction to deepen the well or to lower an existing pump.
- Installation of piping.
- Installation of well pumps powered by fuel (liquid or gas) or by electrical power and wiring and other necessary infrastructure needed to support such pumps.

- Installation of new well casing or screening.

If a legal user of water which existed at the time of application for the site certification experiences interference, and the well previously operated as a free flowing well solely under artesian pressure, and such well must be equipped with a pump to restore the capacity of the well, Licensee will make payment to the well owner to reimburse the well owner for the cost of fuel or electric power to operate the pump for an initial 20-year period of time beginning on the date the well owner notifies Licensee of the impact to their well and subsequent 10-year periods thereafter. After the initial 20-year period, reimbursement will continue in subsequent 10-year increments provided the well use type (e.g., agricultural type use) remains unchanged from the time of initial impact, and only for the amount of water use permitted or determined upon initial reimbursement period. Licensee shall cease the 10-year increments if either (a) the well changes use (e.g., from agricultural to landscape irrigation or other use), or (b) Licensee's withdrawals no longer impact the well (e.g. Licensee decreases or ceases withdrawals; Licensee modifies its wellfield or wells).

If the pump is powered by fuel (liquid or gas) or electric power, the initial 20-year payment and subsequent 10-year periods shall account for the incremental cost of fuel or electric power needed to restore the capacity of the well as described above as long as the well use type remains unchanged. The incremental cost of fuel or electric power will be based on the average unit cost of the fuel or electric power sold in the county for the preceding year times the projected units of fuel or electric power needed to produce the total remaining gallons of water to be pumped from that well over a period of time beginning on the date the well owner notifies Licensee of the impact to their well and ending on the date occurring 20 years after final issuance of the OCEC Site Certification. For the purpose of this payment calculation, the total gallons of water to be pumped from the well shall be the average annual gallons used per year based upon the water use reports for that well from the previous five years times the number of years occurring within a period of time beginning on the date the well owner notifies Licensee of the impact to their well and ending on the day occurring 20 years after final issuance of the OCEC Site Certification and subject to 10-year reimbursement periods thereafter if well use type remains unchanged.

For artesian or free flowing wells used for domestic purposes which did not require a consumptive use permit from the SJRWMD, the fuel or electrical payment shall be based upon the gallons of fuel or kilowatts of electric power needed to produce 280 gallons per day for 365 days given the fuel or electric power needs and production capability of the pump installed times an initial 20 year period and subsequent 10-year increment payment periods if the well use type remains unchanged. The cost of fuel or electric power used for the initial payment will be based on the average unit cost of the fuel or electric power sold in the county for the year preceding the well owner's notification to Licensee, and for subsequent 10-year period payments, the year preceding such subsequent

10-year period. Licensee will also make a payment to the well owner for incremental costs associated with maintaining pumps and power equipment that are required to restore the capacity of the well as described above for a period of time beginning on the date the well owner notifies Licensee of the impact to their well and ending on the date occurring 20 years after final issuance of the OCEC Site Certification and subsequent 10-year reimbursement intervals as described above.

Licensee's obligation to pay costs of fuel, costs of electric power, and the costs to maintain pumps and other well equipment to address interference shall cease upon change of use type or abandonment of the well. Licensee's obligation to pay for any well modification, fuel or electric, or maintenance costs shall also cease if the property and well are sold or transferred to a new owner.

Licensee shall not be responsible to pay for wells, pumps or piping equipment; or fuel, electric power or maintenance costs; in instances in which water flow through the well is reduced or ceases, or the well otherwise fails to adequately perform, due to damage caused by improper well operation or maintenance or due to damage to the well equipment caused by accidental or intentional actions unrelated to OCEC UFA withdrawals. Licensee shall also not be responsible for mitigating well interference or otherwise offsetting loss of well production capability caused by groundwater pumping from other entities in this area, but only for the contribution of impact caused by OCEC UFA withdrawals. Licensee shall also not be responsible to pay for interference to a user's increased allocation after September 25, 2015, but only for the amount of water use permitted as of September 25, 2015.

If Licensee's analysis of monitoring data, measurement, or modeling determines that pumping of groundwater from the UFA for OCEC operations did not result in a potentiometric surface decline sufficient to cause a reduction in flow resulting in interference to that well, Licensee shall provide written notice of the same to the FDEP SCO and the SJRWMD, within 90 days of the completion of the well site investigation, which notice shall briefly explain the basis for Licensee's conclusion and include copies of any information related to the conclusion. If after receiving this notice, SJRWMD disagrees with Licensee's conclusion, disputes shall be resolved in accordance with Condition XI ("Dispute Resolution").

Reporting

No later than 30 days after Licensee receives a claim from a well owner of potential impacts to their well, Licensee will notify the FDEP SCO of the same with a copy to the SJRWMD.

Additionally, on August 1 of each year, Licensee will prepare and submit to the FDEP SCO, with a copy to the SJRWMD, a summary report listing all well

owners who have contacted Licensee about possible well interference and the resolution of all well interference claims, including any mitigation performed by Licensee. This summary report will include the following:

- The name and address of the well owner
- The date and nature of the complaint
- The date the complaint was investigated.
- A summary of the investigation
- Details of any mitigation performed.
- Beginning 20 years after licensing, Licensee must provide written report of 10-year period reimbursement(s) to SJRWMD.

If no well owners have contacted Licensee, Licensee may satisfy this requirement by submitting a brief statement by electronic correspondence that no well interference claims were submitted for the reporting period. Licensee may discontinue this annual reporting beginning on the sixth (6th) year after OCEC initiates operation. Beginning with the sixth (6th) year after initiation of OCEC UFA withdrawals for cooling tower makeup, Licensee shall only submit a report if Licensee receives a notification from a well owner of potential impacts to their well.

EXHIBIT 1

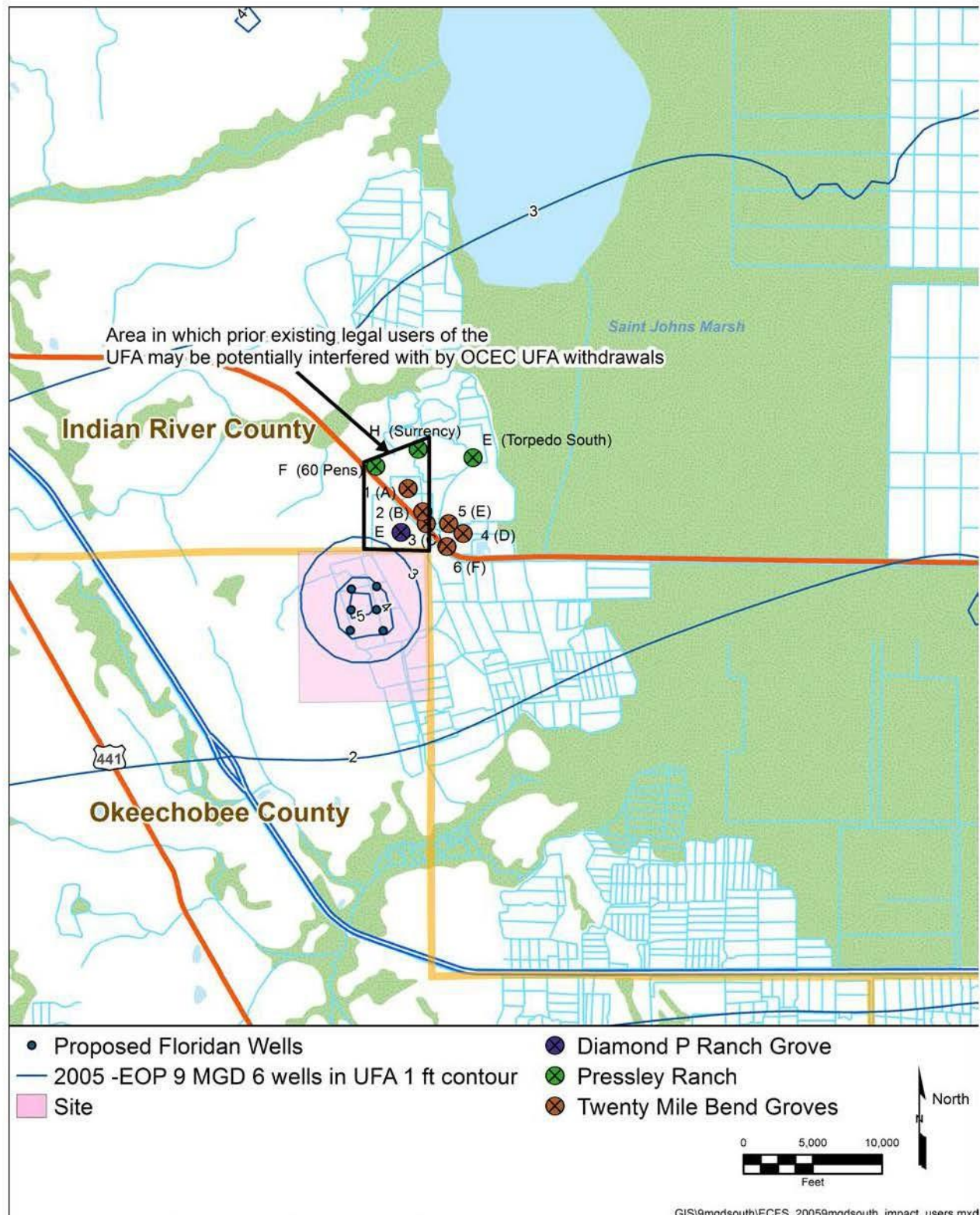


EXHIBIT 2

SAMPLE WELL OWNER NOTIFICATION LETTER

John Doe Well
Owner 123
Address
Okeechobee, FL

11111 Dear Mr.

Well Owner,

FPL currently expects to begin operation of its new Okeechobee Clean Energy Center on or about [DATE]. This Energy Center will use groundwater for plant purposes to provide needed electricity to FPL's customers. If you own a well that withdraws water from the Floridan Aquifer and begin to experience low water pressure or other difficulties operating your well, please contact an FPL representative at [telephone number]. FPL will investigate all claims of well impacts and mitigate interferences to Floridan aquifer wells pursuant to a well interference monitoring, avoidance, and mitigation plan approved as part of the Okeechobee Clean Energy Center Site Certification.

Sincerely,

FPL Representative

APPENDIX II-3 – FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION



Florida Fish
and Wildlife
Conservation
Commission

Commissioners

Brian Yablonski
Chairman
Tallahassee

Aliese P. "Liesa" Priddy
Vice Chairman
Immokalee

Ronald M. Bergeron
Fort Lauderdale

Richard Hanas
Oviedo

Bo Rivard
Panama City

Charles W. Roberts III
Tallahassee

Robert A. Spottswood
Key West

Executive Staff

Nick Wiley
Executive Director

Eric Sutton
Assistant Executive Director

Jennifer Fitzwater
Chief of Staff

Office of the
Executive Director

Nick Wiley
Executive Director

(850) 487-3796
(850) 921-5786 FAX

*Managing fish and wildlife
resources for their long-term
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of people.*

620 South Meridian Street
Tallahassee, Florida
32399-1600
Voice: (850) 488-4676

Hearing/speech-impaired:
(800) 955-8771 (T)
(800) 955-8770 (V)

MyFWC.com

April 5, 2016

Ann Seiler
Florida Department of Environmental Protection
Siting Coordination Office
2600 Blair Stone Road, MS 5500
Tallahassee, FL 32399-2400
ann.seiler@dep.state.fl.us

RECEIVED

Received 4/6/16

**Dept. of Environmental Protection
Siting Coordination Office**

Re: Site Certification Application PA15-57, Florida Power & Light (FPL) Okeechobee Clean Energy Center, Agency Report, Okeechobee County

Dear Ms. Seiler:

Florida Fish and Wildlife Conservation Commission (FWC) staff has coordinated our agency's review of the Site Certification Application for the Okeechobee Clean Energy Center and associated non-linear facilities, including off-site linear facilities. We provide the enclosed Agency Report and Recommendations for Conditions to be included in the Okeechobee Clean Energy Center Certification in accordance with 403.507(2)(a)4, Florida Statutes.

Florida Power and Light will need to comply with the State of Florida's listed species requirements found in Chapter 68-27A, Florida Administrative Code (F.A.C.), and Ch. 379, Florida Statutes, prior to construction of the Okeechobee Clean Energy Center, associated non-linear facilities, and off-site linear facilities.

We recommend approval of the Okeechobee Clean Energy Center Site, including associated non-linear facilities and associated off-site linear facilities with the inclusion of recommended conditions related to listed species and their habitat; biological survey and monitoring (pre- and post-construction); and mitigation for impacts.

We appreciated the opportunity to review this project. If you need any further assistance, please do not hesitate to contact Jane Chabre either by phone at (850) 410-5367 or by email at FWCConservationPlanningServices@MyFWC.com. If you have specific technical questions regarding the content of this letter, please contact Marissa Krueger by phone at (561) 882-5711 or by email at Marissa.Krueger@MyFWC.com.

Sincerely,

Jennifer D. Goff
Land Use Planning Program Administrator
Office of Conservation Planning Services

jdg/mk
ENV 2-11-2
FPL Okeechobee Clean Energy SCA Agency Reports_30611_040516
Enclosure

cc: Agnes Ramsey, FPL, Agnes.Ramsey@fpl.com
Karl Bullock, Golder Associates Inc., Karl_Bullock@golder.com
Brooke Lewis, Hopping, Green & Sams, P.A., BrookeL@hgsllaw.com

Agency Report and Proposed Conditions to be Included in the State Certification

Project Description

Florida Power and Light (FPL) proposes to construct and operate a new combined cycle natural gas fired generating unit (OCEC Unit 1) that would provide approximately 1,600 megawatts (MW) nominal of electric generation by 2019. The project includes the construction of OCEC Unit 1 and associated facilities, including off-site linear facilities. The OCEC Unit 1 will be a new 1600-MW nominal 3-on-1 combined cycle electrical generating unit that will consist of three new advanced-technology combustion turbine/electric generators, three new heat-recovery system generators, and one steam turbine/electric generator, along with on-site support facilities. The new unit and site will cover approximately 2,341 acres of FPL's 2,842-acre property located adjacent to the existing 500-kV transmission system in northeastern Okeechobee County. Specifically, the site is located approximately 24 miles west of Vero Beach and one mile south of the intersection of State Road 60 and 226th Court. The minimal off-site linear facilities will be located in Indian River County. The site includes the approximately 220-acre plant area where the new generating facilities will be located, along with construction laydown areas, parking, stormwater ponds and associated infrastructure, an approximately 376-acre mitigation area, approximately 1,629 acres for potential future solar generation, and approximately 104 acres identified as open space. The area designated for potential development of approximately 200 MW of photovoltaic (PV) solar generation will bring the net generating capacity to 1,800 MW nominal. The site also has groundwater available to support plant operations including process water, steam cycle makeup, cooling water makeup, and miscellaneous plant uses.

Potentially Affected Resources

Effects on State-Listed Species

The Okeechobee Clean Energy Center Project, including associated linear and non-linear facilities, do not contain significant areas of preferred habitat for nesting, roosting, or significant foraging areas within the site or linear facilities corridor, as described in the application. A listing of all the state- and federally listed species potentially impacted by the proposal and their listing status is included in the proposed conditions.

There are a number of listed species either observed within the Okeechobee Clean Energy Center Project Site, associated linear facilities or with a moderate to high likelihood probability of occurrence including the following species: limpkin, little blue heron, white ibis, tricolored heron, wood stork, Florida sandhill crane, American alligator, Southeastern American kestrel, Audubon's crested caracara, Sherman's fox squirrel, gopher frog, Eastern indigo snake, Florida grasshopper sparrow, Florida burrowing owl, snowy egret, Everglade snail kite, and gopher tortoise.

On a case-by-case basis, either a relocation or incidental take permit may be required for each impacted species. If there is evidence that any individuals of these species are present, then the applicant must report the findings to the Florida Fish and Wildlife Conservation Commission

(FWC). If impacts to these species cannot be avoided, then the applicant must contact the FWC before taking any action that might result in an impact to those species, as indicated in the recommended Conditions of Certification proposed below.

Proposed Conditions

We recommend approval of Florida Power and Light's Florida Okeechobee Clean Energy Center Project Site, associated non-linear facilities, and associated linear facilities with the following proposed conditions to be included in the special conditions as part of the certification process related to specific listed species and their habitat; biological survey and monitoring (pre- and post- construction); and mitigation for impacts.

OKEECHOBEE CLEAN ENERGY CENTER CONDITIONS OF CERTIFICATION

FLORIDA FISH AND WILDLIFE CONSERVATION COMMISSION

A. Listed Species Conditions

The following table contains state- and federally listed species that occur in the State of Florida and may occur within the Florida Power and Light's Okeechobee Clean Energy Center Project Site and associated linear facilities right-of-way. The table contains species that are potentially impacted by the activities proposed on the Florida Power and Light's Okeechobee Clean Energy Center Project Site and associated linear and non-linear facilities. Therefore, these recommended conditions of certification apply to the species listed in this table.

Table 1.

Common Name	Scientific Name	Status
American alligator	<i>Alligator mississippiensis</i>	FT(SA)*
Audubon's crested caracara	<i>Polyborus plancus audubonii</i>	FT
Eastern indigo snake	<i>Drymarchon corais couperi</i>	FT
Everglade snail kite	<i>Rostrahmus sociabilis plumbeus</i>	FE
Florida burrowing owl	<i>Athene cunicularia</i>	SSC
Florida grasshopper sparrow	<i>Ammodramus savannarum floridanus</i>	FE
Florida sandhill crane	<i>Grus canadensis pratensis</i>	ST
Gopher frog	<i>Lithobates capito</i>	SSC
Gopher tortoise	<i>Gopherus polyphemus</i>	ST
Limpkin	<i>Aramus guarauna</i>	SSC

Little blue heron	<i>Egretta caerulea</i>	SSC
Sherman's fox squirrel	<i>Sciurus niger shermani</i>	SSC
Snowy egret	<i>Egretta thula</i>	SSC
Southeastern American kestrel	<i>Falco sparverius paulus</i>	ST
Tricolored heron	<i>Egretta tricolor</i>	SSC
White ibis	<i>Eudocimus albus</i>	SSC
Wood stork	<i>Mycteria americana</i>	FT

FE = Federally designated Endangered; FT = Federally designated Threatened; ST = State-designated Threatened; SSC = State Species of Special Concern

* Due to similarity to another federally threatened species

Note: Florida's Endangered and Threatened species rule changed in November 2010. The list is now comprised of federally designated endangered and threatened species or state-designated threatened species. Additionally, the Species of Special Concern (SSC) designation has been retained in the rule until those species designated as SSC are evaluated for listing as state-designated threatened species.

[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 Florida Fish and Wildlife Conservation Commission (FWC) to obtain and follow the current survey protocols for all listed species that may occur within the Okeechobee Clean Energy Center Project Site and associated linear facilities' right-of-way, 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 Florida Wildlife Conservation Guide at <http://myfwc.com/conservation/value/fwcg/>.
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 with 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 FPL Okeechobee Clean Energy Project Site and associated linear facilities right-of-way, the Licensee shall conduct an assessment for 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 make the assumption that the species is present and plan appropriate avoidance/mitigation measures after consultation with the FWC. The Licensee will submit avoidance/mitigation measures 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 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 any wading bird colonies within the FPL Okeechobee Clean Energy Project Site and associated linear facilities that may be affected.
3. This survey shall identify locations of breeding sites, nests, and burrows for listed wildlife species. Nests 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.
4. 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) of each community that is contained within the FPL Okeechobee Clean Energy Project Site and associated linear facilities prior to land clearing and construction activities using a 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.]

*Florida Fish and Wildlife Conservation Commission. 2012. Florida's State Wildlife Legacy Initiative: Florida's State Wildlife Action Plan. Tallahassee, Florida.

Florida Natural Areas Inventory. 2010. Guide to the natural communities of Florida: 2010 edition. Florida Natural Areas Inventory, Tallahassee, Florida.

Stys, B., R. Kautz, D. Reed, M. Kertis, R. Kawula, C. Keller, and A. Davis. 2004. Florida vegetation and land cover data derived from 2003 Landsat ETM+ Imagery. Florida Fish and Wildlife Conservation Commission, Tallahassee, Florida.

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 E through I below, within the FPL Okeechobee Clean Energy Center Project Site and associated linear facilities, the Licensee shall report those locations 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 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 FPL Okeechobee Clean Energy Center Project Site and associated linear facilities' right of way. 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. *Gopher Tortoise*

1. The Licensee shall conduct surveys for gopher tortoises (*Gopherus polyphemus*), in accordance with the FWC-approved Gopher Tortoise Management Plan (as revised) and the FWC-approved Gopher Tortoise Permitting Guidelines, or subsequent FWC-approved versions of the Plan or Guidelines. A burrow survey covering a minimum of 15% of the potential gopher tortoise habitat to be impacted by development is required in order to apply for a relocation permit. Immediately prior to capturing tortoises for relocation, a 100% survey is required to effectively locate and mark all potentially occupied tortoise burrows and to subsequently remove the tortoises. Burrow survey methods are outlined in Appendix 4 of the Gopher Tortoise Permitting Guidelines, "Methods for Locating Gopher Tortoise Burrows on Sites Slated for Development." Surveys must be conducted as described in E.3 below. Surveys shall not be conducted within 30 days of any ground disturbance or clearing activities on the donor site. All surveys completed by authorized agents or other licensees are subject to field verification by the FWC.
2. The Licensee is not required to provide a monitoring compliance assessment for activities that occur more than 25 feet from a gopher tortoise burrow entrance, provided that such

activities do not harm gopher tortoises or violate rules protecting gopher tortoises. Examples of such violations noted in the past by the FWC include, but are not limited to, killing or injuring a tortoise more than 25 feet away from its burrow, harassing a tortoise by blocking access to its burrow, and altering gopher tortoise habitat to such an extent that resident tortoises are taken.

3. The Licensee shall coordinate with and provide the FWC detailed gopher tortoise relocation information in accordance with the FWC-approved Gopher Tortoise Management Plan and Gopher Tortoise Permitting Guidelines as a post-certification submittal. This information shall provide details on the location for on-site recipient areas and any off-site FWC-approved temporary contiguous habitat, as well as appropriate mitigation contributions per tortoise, as outlined in the Gopher Tortoise Permitting Guidelines.
4. Any commensal species observed during the burrow excavations that are listed by the FWC shall be relocated in accordance with the applicable guidelines for that species in accordance with Appendix 9 of the Gopher Tortoise Permitting Guidelines.
5. To the maximum extent practicable or feasible, all staging and storage areas shall be sited to avoid impacts to gopher tortoise burrows and habitat.

[Article IV, Sec. 9, Florida Constitution; Sections 403.507, 403.526, 403.5113 and 379.2291, F.S.; and Rules 62-17.660 and 68A-27, F.A.C.]

F. Sandhill Crane

1. The Licensee shall conduct surveys for nesting sandhill cranes immediately prior to any construction that occurs during the January through August breeding season. Basic guidance for conducting wildlife surveys may be found in the Florida Wildlife Conservation Guide and the FWC Nongame Technical Report No. 15 (http://f50006a.eos-intl.net/ELIBSQL12_F50006A_Documents/97stys.pdf) provides guidance on survey methods for sandhill cranes.
2. If there is evidence of nesting during this period, any active Florida sandhill crane nests shall be buffered by 400 feet to avoid disturbance by human activities. If nesting is discovered after construction has begun or if maintaining the recommended buffer is not possible, the Licensee shall consult with the FWC to determine the steps appropriate to minimize, mitigate, or otherwise appropriately address potential impacts.

[Article IV, Sec. 9, Florida Constitution; Sections 379.2291 F.S.; and Rule 68A-27, F.A.C.]

G. Wading Birds

1. The Licensee shall conduct surveys for nesting wading birds during their breeding season, which extends from March through August. Basic guidance for conducting wildlife surveys may be found in the Florida Wildlife Conservation Guide.
2. If there is evidence of nesting during this period, any wading bird nest sites shall be buffered by 100 meters (328 feet) to avoid disturbance by human activities. If nesting is discovered after construction has begun, or the removal or trimming of trees with active nests is unavoidable, or if maintaining the recommended buffer is not possible, the

Licensee shall consult with the FWC to determine the steps appropriate to minimize, mitigate, or otherwise appropriately address potential impacts.

[Article IV, Sec. 9, Florida Constitution; Sections 379.2291 F.S.; and Rule 68A-27, F.A.C.]

H. Eastern Indigo Snake

The Licensee shall consult with the USFWS and the FWC to ensure measures to avoid the “take” of Eastern indigo snakes on FPL Okeechobee Clean Energy Center Project Site and associated linear facilities right-of-way are implemented during construction and operation, in accordance with the *Standard Protection Measures for the Eastern Indigo Snake* (USFWS, 2013). The Eastern indigo snake protection/education plan (Plan) has been developed by the USFWS. At least 30 days prior to any clearing/land alteration activities, the applicant shall notify the USFWS South Florida Field Office at verobeach@fws.gov that the Plan will be implemented.

Pre-Construction Activities

1. The Licensee will post educational posters in the construction office and throughout the construction site, including any access roads. The posters must be clearly visible to all construction staff. Please see the following link for a sample poster:
http://www.fws.gov/northflorida/indigosnakes/20130812_EIS%20Standard%20Protection%20Measures_final.pdf
2. Prior to the onset of construction activities, the Licensee will conduct a meeting with all construction staff (annually for multi-year projects) to discuss identification of the snake, its protected status, what to do if a snake is observed within the project area, and applicable penalties that may be imposed if state and/or federal regulations are violated. An educational brochure including color photographs of the snake will be given to each staff member in attendance and additional copies will be provided to the construction superintendent to make available in the onsite construction office.
3. Construction staff will be informed that in the event that an Eastern indigo snake (live or dead) is observed on the project site during construction activities, all such activities are to cease until the established procedures are implemented according to the Plan, which includes notification to the USFWS South Florida Field Office.

During Construction Activities

1. During initial site clearing activities, an onsite observer may be utilized to determine whether habitat conditions suggest a reasonable probability of an Eastern indigo snake sighting (example: discovery of snake sheds, tracks, lots of refugia and cavities present in the area of clearing activities, and presence of gopher tortoises and burrows).
2. If an Eastern indigo snake is discovered during gopher tortoise relocation activities (i.e. burrow excavation), the USFWS shall be contacted within one business day to obtain further guidance which may result in further project consultation.
3. Periodically during construction activities, the applicant’s designated agent should visit the project area to observe the condition of the posters and Plan materials, and replace them as needed. Construction personnel should be reminded of the instructions (above) as to what is expected if any Eastern indigo snakes are seen.

Post Construction Activities

1. Whether or not Eastern indigo snakes are observed during construction activities, a monitoring report should be submitted to the USFWS South Florida Field Office within 60 days of project completion. The report can be sent electronically to verobeach@fws.gov

[Article IV, Sec. 9, Florida Constitution; Rule 68A-27, FA.C.]

I. Federally Listed Species

1. The Licensee shall consult with the USFWS as the site may contain suitable habitat for the federally listed species identified in Table 1 to avoid the “take” of federally listed species on the FPL Okeechobee Clean Energy Center Project Site and associated linear facilities right-of-way during construction and operation.

[Article IV, Sec. 9, Florida Constitution; Section 403.5113, F.S.; and Rules 62-17.660 and 68A-27, FA.C.]

APPENDIX II-4 – FLORIDA DEPARTMENT OF TRANSPORTATION



Florida Department of Transportation

RICK SCOTT
GOVERNOR

605 Suwannee Street
Tallahassee, FL 32399-0450

JIM BOXOLD
SECRETARY

April 6, 2016

RECEIVED

Received 4/6/16

Dept. of Environmental Protection
Siting Coordination Office

Cindy Mulkey, Program Administrator
Siting Coordination Office
Department of Environmental Protection
2600 Blair Stone Road, MS 5500
Tallahassee, Florida 32399-2400

RE: Florida Power & Light Company Okeechobee Clean Energy Center
Power Plant Siting Application No.: PA15-58
DOAH Case No.: 15-5540EPP
DEP OGC Case No.: 15-0607

Dear Ms. Mulkey:

Enclosed is the Florida Department of Transportation's Agency Report dated April 6, 2016, for the Florida Power & Light Company Okeechobee Clean Energy Center Application PA15-58.

If you have any questions, please call me at 414-5294 or Jasmin Raffington, Siting Coordinator, at 850-414-5266.

Sincerely,

Kimberly C. Menchion
Assistant General Counsel

KCM/kdc

Cc: All Parties of Record
Jasmin Raffington

FLORIDA DEPARTMENT OF TRANSPORTATION
Agency Report Submitted April 6, 2016

Florida Power & Light
Okeechobee Clean Energy Center
Site Certification Application (PA15-58)

SECTION I. CORRIDOR LOCATION ISSUES

No outstanding issues.

SECTION II. OUTSTANDING SUFFICIENCY ISSUES

No outstanding issues.

SECTION III. VARIANCES TO STANDARDS

No variances requested.

SECTION IV. SPECIAL USE PERMISSIONS

No special use permissions requested.

SECTION V. RECOMMENDATION FOR CERTIFICATION

The proposed Okeechobee Clean Energy Center will be located in Northeast Okeechobee County, immediately south and west of Okeechobee/Indian River County Line. US 441/SR 15 and SR 60 are within the vicinity of the proposed site.

The roadway segment of US 441/SR 15 from CR 68/224th Street to Osceola County Line currently operates under acceptable conditions during the existing conditions, and is anticipated to operate under acceptable conditions with the development of the proposed Okeechobee Clean Energy Center during short term conditions, Fiscal Year 2020; and long term conditions, Fiscal Year 2035. The roadway segment of US 441/SR 15 from CR 68/224th Street to Osceola County Line has sufficient capacity to accommodate the anticipated trips resulting from the proposed Okeechobee Clean Energy Center development.

The Florida Department of Transportation recommends the certification of the proposed power plant. This recommendation is made contingent upon the conditions of Section VI being addressed/met.

SECTION VI. PROPOSED CONDITIONS OF CERTIFICATION

6.1 REQUEST FOR RESTRICTED AREAS

No requests for restricted areas are necessary.

6.2 POST CERTIFICATION REVIEW ITEMS

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. Adverse impacts to existing operation of SR 60 are not anticipated. However, a separate right of way access permit from FDOT is required.

Authority: Chapters 14-96 and 14-97, F.A.C.; section 403.511(3), F.S.

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.

Authority: Chapter 316, F.S.; Chapter 14-26, F.A.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.

The placement of the transmission lines should take into consideration the planned widening of state transportation facilities. The cost of relocating or reconstructing the transmission line will be borne by the applicant to the extent required by Section 337.403, Florida Statutes, and Rule Chapter 14-46, Florida Administrative Code.

Authority: Sections 337.403 and 337.404, F.S.; Chapters 14-15 and 14-46, F.A.C.

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.

Authority: Chapter 14-15, F.A.C.

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.

Authority: Chapter 14-86, F.A.C.

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 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.

Authority: Chapter 333, F.S.; Rule 14-60.009, F.A.C.

SECTION VII. 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 applicant 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 activity for which the equipment is required 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.

Authority: Chapter 316, F.S.; Chapter 14-26, F.A.C.

APPENDIX II-5 – FLORIDA DEPARTMENT OF ECONOMIC OPPORTUNITY

Rick Scott
GOVERNOR



Cissy Proctor
EXECUTIVE DIRECTOR

April 4, 2016

RECEIVED

Received 4/5/16

Ms. Cindy Mulkey, Program Administrator
Siting Coordination Office
Florida Department of Environmental Protection
2600 Blainstone Road, MS 5500
Tallahassee, Florida 32399-2400

Dept. of Environmental Protection
Siting Coordination Office

RE: Florida Power & Light Company Okeechobee Clean Energy Center
Site Certification Application PA15-58

Dear Ms. Mulkey:

Please find enclosed the Department of Economic Opportunity's "Agency Report," prepared and submitted pursuant to Section 403.507, Florida Statutes, for the Florida Power & Light Company Okeechobee Clean Energy Center Site Certification Application PA15-58. On September 25, 2015, Florida Power & Light Company filed its site certification application for the Okeechobee Clean Energy Center under the Florida Electrical Power Plant Siting Act, Chapter 403, Part II, Florida Statutes. If you have any questions concerning this Agency Report, please contact Scott Rogers, Planning Analyst, at (850) 717-8510, or email at Scott.Rogers@deo.myflorida.com.

Sincerely,

Taylor Teepell, Director
Division of Community Development

TT/sr

Enclosure: Agency Report

cc: Matthew J. Raffenberg, Environmental Services Director, Florida Power & Light Company

Florida Department of Economic Opportunity | Caldwell Building | 107 E. Madison Street | Tallahassee, FL 32399
866.FLA.2345 | 850.245.7105 | 850.921.3223 Fax
www.floridajobs.org | [www.twitter.com/FLDEO](https://twitter.com/FLDEO) | www.facebook.com/FLDEO

FLORIDA DEPARTMENT OF ECONOMIC OPPORTUNITY

AGENCY REPORT

ON

FLORIDA POWER & LIGHT COMPANY

OKEECHOBEE CLEAN ENERGY CENTER

SITE CERTIFICATION APPLICATION NO. PA15-58

April 4, 2016

Agency Report pursuant to Section 403.507, F.S.

**AGENCY REPORT
ON
FLORIDA POWER & LIGHT COMPANY
OKEECHOBEE CLEAN ENERGY CENTER
SITE CERTIFICATION APPLICATION NO. PA15-58**

On September 25, 2015, Florida Power & Light Company (FPL) filed its Site Certification Application (Application No. PA15-58) for the Okeechobee Clean Energy Center (Project) under the Florida Electrical Power Plant Siting Act, Chapter 403, Part II, Florida Statutes (F.S.). Under the Act, the Florida Department of Environmental Protection (FDEP) coordinates the Site Certification Process with input from various state, regional, and local agencies, along with interested citizens. The Florida Department of Economic Opportunity "Agency Report" on the FPL Okeechobee Clean Energy Center (Site Certification Application PA15-58) is prepared and submitted pursuant to Section 403.507, F.S., of the Florida Electrical Power Plant Siting Act.

I. Project Summary

The proposed Okeechobee Clean Energy Center project site is approximately 2,341 acres located in the unincorporated area of northeastern Okeechobee County. The project includes construction and operation of a new combined cycle natural gas fired generating unit (OCEC Unit 1) providing approximately 1,600 megawatts (MW) of electric generation in year 2019, an area designated for potential future development of approximately 200 MW of photovoltaic solar generation, and associated linear facilities. The primary fuel for the plant is natural gas, and the gas will be provided through an associated off-site pipeline. Future solar generation on the site would be the subject of a supplemental application for certification under Section 403.517, F.S. The project site is located adjacent to an existing 500-kilovolts transmission system, and off-site associated facilities include a minimal transmission line interconnection to existing 500-Kilovolts transmission lines and improvements to an existing access roadway.

According to the Site Certification Application, by using natural gas as the primary fuel and technology that is recognized by FDEP as the Best Available Control Technology for minimizing air emissions, the power plant will be among the cleanest and most efficient fossil fuel electric-power generating units in Florida. FPL estimates that the power plant will generate enough power for approximately 300,000 homes.

According to the Site Certification Application, the Project is expected to provide economic benefits to Okeechobee County, Indian River County, and the State of Florida. Direct economic benefits from construction include construction workforce jobs and the purchase and rental of equipment and materials. Direct economic benefits from OCEC Unit 1 operation include capital expenditures, operation and maintenance expenditures, employment and property tax revenues.

FPL estimates that the total Project capital costs will be approximately \$1.196 billion. On-site construction activities are anticipated to begin in 2017 and conclude in the summer of 2019, and FPL estimates that OCEC Unit 1 construction activities are anticipated to have a regional economic benefit of more than \$500 million during the construction period, including direct, indirect, and induced benefits. FPL estimates the peak construction workforce to be approximately 650 people, with an average construction workforce estimated at 290 people. FPL estimates the construction payroll for the Project to be \$58 million during the peak year (2018), with an annual average of \$33 million for the period 2017 through 2019. It is anticipated that a majority of the Project's expenditures, including major equipment, will be made within Okeechobee County, Indian River County, and the surrounding region. These expenditures will create additional demands for goods and services, creating a multiplier effect in the area – generating additional jobs, earnings, and tax revenues. Other businesses would benefit from the increased economic activity generated by the Project.

According to the Site Certification Application, FPL estimates the total fixed and variable operation and maintenance costs of OCEC Unit 1, excluding fuel costs, to be approximately \$6.5 million starting in 2019 and approximately \$400 million for the period 2019-2049. The operation of the power plant will create employment opportunities and generate cumulative *ad valorem* tax revenue of \$238.8 million from 2019 to 2048.

II. Recommendations: State Comprehensive Plan and Other Matters (Section 403.507(2)(a), F.S.)

The proposed Okeechobee Clean Energy Center (OCEC) is located in Okeechobee County, and Okeechobee County is part of a "Rural Area of Opportunity" (County exhibits economically distressed conditions). The location of the OCEC has the potential to encourage economic development in this economically distressed area and provide local and regional economic benefits as described above in this Agency Report.

The proposed Okeechobee Clean Energy Center (OCEC) is consistent with the following goals and policies of the State Comprehensive Plan (SCP) (Section 187.201, F.S.):

1. SCP Policy 6 of Goal 10 Air Quality (Section 187.201(10), F.S.); and Policy 8 of Goal 15 Land Use (Section 187.201(15), F.S.):

The OCEC is a natural gas fueled power plant with the potential for additional photovoltaic solar energy power generation (both low-carbon-emitting), and this furthers Policy 6 of Goal 10 (Air Quality) and Policy 8 of Goal 15 (Land Use):

Policy 6: *"Encourage the development of low-carbon-emitting electric power plants."*

Policy 8: *"Provide for the siting of low-carbon-emitting electric power plants, including nuclear power plants, to meet the state's determined need for electric power generation."*

2. SCP Goal 11 Energy (Section 187.201(11), F.S.); and Policies 6 and 9 of Goal 11:

The OCEC is a natural gas fueled power plant with the potential for additional photovoltaic solar energy power generation (both low-carbon-emitting), and this furthers Goal 11 and Policy 9. The OCEC will utilize an energy efficient design for a public utility system and this furthers Policy 6:

Goal 11: "Florida shall reduce its energy requirements through enhanced conservation and efficiency measures in all end-use sectors and shall reduce atmospheric carbon dioxide by promoting an increased use of renewable energy resources and low-carbon-emitting electric power plants."

Policy 6: "Increase the efficient use of energy in design and operation of buildings, public utility systems, and other infrastructure and related equipment."

Policy 9: "Promote the use and development of renewable energy resources and low-carbon-emitting electric power plants."

3. SCP Goal 21 The Economy (Section 187.201(21), F.S.); and Policy 1 of Goal 21:

The OCEC will help provide Florida with a stable source of electric power and this enhances the economic stability of the state (furthers Goal 21), and the OCEC will provide jobs (furthers Policy 1):

Goal 21: "Florida shall promote an economic climate which provides economic stability, maximizes job opportunities, and increases per capita income for its residents."

Policy 1: "Attract new job-producing industries, corporate headquarters, distribution and service centers, regional offices, and research and development facilities to provide quality employment for the residents of Florida."

4. SCP Goal 24 Employment (Section 187.201(24), F.S.); and Policy 4 of Goal 24:

The OCEC will provide jobs and this promotes economic opportunities for the unemployed and economically disadvantaged (furthers Goal 24). The OCEC is located in Okeechobee County, which is part of a "Rural Area of Opportunity" (County exhibits economically distressed conditions), and the location of the OCEC has the potential to encourage economic development in this economically distressed area and provide local and regional economic benefits as described above in this Agency Report (furthers Policy 4):

Goal 24: "Florida shall promote economic opportunities for its unemployed and economically disadvantaged residents."

Policy 4: *"Encourage economic development in economically distressed areas."*

III. Local Government Comprehensive Plans and Land Development Regulations
Section 403.507(2)(a), F.S.

Pursuant to Section 403.50665(2), F.S., Okeechobee County issued its determination on November 5, 2015, that the site for FPL's Okeechobee Clean Energy Center is consistent with the land use plans and zoning ordinances of Okeechobee County. The County determined that the site is designated "Agriculture" on the Future Land Use Map of the adopted Okeechobee County Comprehensive Plan (Plan), and under Future Land Use Element Policy L9.5 of the Plan, electrical power plants are an allowed use in that land use category, subject to compliance with the Power Plant Siting Act, the County's Comprehensive Plan, and applicable land development regulations. Specifically, Future Land Use Element Policy L9.5 states that "Public utilities needed to service existing and future land uses shall be permitted in all future land use classifications, provided the performance standards in the Power Plant Siting Act, the Transmission Line Siting Act, the Okeechobee County Comprehensive Plan, Okeechobee County land development regulations, and any other applicable land development regulations are met." Thus, the site for the electrical power plant is consistent with the Okeechobee County Comprehensive Plan. The County determined that the project site is zoned "Agricultural" under the Okeechobee County zoning ordinances, and electrical power plants are allowed in this zoning district. Thus, the site is consistent with the zoning regulations of Okeechobee County.

The Project includes off-site associated facilities located in Indian River County, and these facilities include a short transmission line interconnection to FPL's existing 500-kV electrical transmission lines and improvements to an existing private roadway that will provide access to the Project facility from State Road 60. Pursuant to Section 403.50665(2), F.S., Indian River County issued its determination on November 6, 2015, that the associated facilities for the FPL Okeechobee Clean Energy Center that are to be located within Indian River County constitute a use that is consistent with the land use plan and zoning ordinance of Indian River County.

IV. Section 403.507(3)(a), F.S.

Pursuant to Section 403.507(3)(a), F.S., the Agency Report shall contain *"A notice of any nonprocedural requirements not specifically listed in the application from which a variance, exemption, exception, or other relief is necessary in order for the proposed electrical power plant to be certified."* The Department of Economic Opportunity has not identified any such nonprocedural requirements.

V. Recommendation for Approval or Denial of the Application (Section 403.507(3)(b), F.S.)

Pursuant to Section 403.507(3)(b), F.S., the Agency Report shall contain *"A recommendation for approval or denial of the site certification application."* The Department of Economic Opportunity recommends approval of the Site Certification Application (Application

No. PA15-58) for the FPL Okeechobee Clean Energy Center contingent on the Project meeting all applicable certification requirements.

VI. Proposed Conditions of Certification (Section 403.507(3)(c), F.S.)

Pursuant to Section 403.507(3)(c), F.S., the Agency Report shall contain *“Any proposed conditions of certification on matters within the jurisdiction of such agency. For each condition proposed by an agency in its report, the agency shall list the specific statute, rule, or ordinance which authorizes the proposed condition.”* The Department of Economic Opportunity has no proposed conditions of certification.

**APPENDIX II-6 – FLORIDA DEPARTMENT OF STATE DIVISION OF
HISTORICAL RESOURCES**

RECEIVED

Received 4/6/16

**Dept. of Environmental Protection
Siting Coordination Office**



FLORIDA DEPARTMENT of STATE

RICK SCOTT
Governor

KEN DETZNER
Secretary of State

Ms. Ann Seiler
Department of Environmental Protection
Siting Coordination Office
2600 Blainstone Road, MS5500
Tallahassee, FL 32399-2400

April 6, 2016

RE: DHR Project File No.: 2016-0794
Project: *FPL Okeechobee Clean Energy Site Certification Application (SCA) (PA15-57) – Agency Report*
County: Okeechobee

Dear Ms. Seiler:

This agency has no objection to the certification of the FPL Okeechobee Clean Energy Center. All current matters regarding historical resources have been addressed. We recommend the following conditions of certification:

A. Any alterations 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. 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 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 and 403.531, and Chapter 372, F.S.]

Ms. Seiler
April 6, 2016
Page 2

If you have any questions, please contact Deena Woodward, Community Assistance Consultant, by email at Deena.Woodward@dos.myflorida.com, or by telephone at 850.245.6333 or 800.847.7278.

Sincerely,

A handwritten signature in blue ink, appearing to read "Timothy A. Parsons". The signature is stylized with a large, looping "P" and a cursive "T".

Timothy A Parsons, Ph.D.,
Director, Division of Historical Resources
& State Historic Preservation Officer

APPENDIX II-7 – FLORIDA DEPARTMENT OF HEALTH

Mission:

To protect, promote & improve the health of all people in Florida through integrated state, county & community efforts.



Vision: To be the Healthiest State in the Nation

Rick Scott
Governor

Celeste Philip, MD, MPH
Interim State Surgeon General

RECEIVED

April 6, 2016

Received 4/6/16

Cindy Mulkey, Program Administrator
Siting Coordination Office
Department of Environmental Protection
2600 Blaire Stone Road, MS500
Tallahassee, Florida 32399-2400

Dept. of Environmental Protection
Siting Coordination Office

RE: Florida Department of Health Agency Report for
FPL Okeechobee Clean Energy Project Site Certification Application

Dear Ms. Mulkey:

Enclosed is the Florida Department of Health's Agency Report for dated April 6, 2016, for the Florida Power and Light Okeechobee Clean Energy Center Certification Application PA15-58.

If you have questions, please call me at 850-245-4092 or Dale Holcomb at 850-245-4093.

Sincerely,

Ed Barranco, M.P.H., C.E.H.P., C.P.M.
Environmental Administrator

EJB/dwh

Florida Department of Health

Division of Disease Control & Health Protection • Bureau of Environmental Health
4052 Bald Cypress Way, Bin A-08 • Tallahassee, FL 32399-1710
PHONE: 850/245-4250 • FAX: 850/487-0864

www.FloridaHealth.gov

TWITTER: HealthyFLA
FACEBOOK: FLDepartmentofHealth
YOUTUBE: fldoh
FLICKR: HealthyFla
PINTEREST: HealthyFla

**Florida Department of Health Agency Report for
FPL Okeechobee Clean Energy Project Site Certification Application PA15-58**

April 6, 2016

The Florida Department of Health has jurisdiction for the onsite sewage treatment and disposal system to serve the domestic wastewater needs for the proposed project based on Section 381.0065, Florida Statutes and Chapter 64E-6, Florida Administrative Code.

Based on review of the preliminary plan and discussions with FPL representatives, the Florida Department of Health, Division of Disease Control and Health Protection, Bureau of Environmental Health, Onsite Sewage Programs Section offers these conclusions and recommendations related to the onsite sewage treatment and disposal system proposed to serve the domestic wastewater needs of the FPL Okeechobee Clean Energy Project.

Nonprocedural requirements requiring variance, exception or other relief

There are no nonprocedural requirements requiring variance, exception or other relief in order for the proposed electrical power plant to be certified.

Recommendation of Approval or Denial of the project

The Onsite Sewage Programs Section has no objections to the project based on the conclusion that an onsite sewage treatment and disposal system can be designed and installed to meet the domestic sewage treatment needs of the facility and meet the nonprocedural requirements of Section 381.0065, Florida Statutes (F.S.), and Chapter 64E-6, Florida Administrative Code (F.A.C.).

Proposed conditions of certification

1. No later than 90 days prior to commencement of construction of the onsite sewage treatment and disposal system, Licensee shall submit all information for an onsite sewage treatment and disposal system identified in Form DH 4015 to DEP SCO and DOH for confirmation of consistency with applicable nonprocedural requirements of Chapter 64E-6, F.A.C. in accordance with Condition XX "Procedures for Post-Certification Submittals."
[Rule 64E-6.004(1), (2), (3), F.A.C.]
 - a. *Form 4015 Page 1 of 4 "Application for Construction Permit" collects specific information necessary to locate the system and to verify the design specifications for the onsite sewage treatment and disposal system.*
 - 1) Applicant, agent, contact information.
 - 2) Legal description for the property.
 - 3) Zoning for the property.
 - 4) Distance to the nearest available sewer.
 - 5) Address of the property.
 - 6) Directions to the property. Please include any protocols for seeking permission to conduct an inspection.

- 7) Regarding the water supply, (used for determining well setback) please specify whether the onsite well to be used for potable water production will be producing more or less than 2000 gallons per day total flow.
 - 8) A building description that describes the facility and activities in sufficient detail to estimate the domestic sewage flow based on Rule 64E-6.008, F.A.C.
 - 9) Please include a floor plan in sufficient detail to verify the domestic wastewater sizing criteria and a plumbing diagram sufficient to demonstrate that only domestic wastewater will be routed to the onsite sewage treatment and disposal system and that industrial wastewater and floor drains will be routed to an alternative DEP-regulated system. 64E-6.002(29) defines wastewater carried off by floor drains, utility sinks and equipment drains located in buildings in industrial or manufacturing areas as industrial, hazardous or toxic sewage waste.
- b. *Form 4015 Page 2 of 4 "Part II - Site Plan"* - Use of the form is not required however the site plan needs to include the information specified in Rule 64E-6.004(3)(a), F.A.C.
- c. *Form 4015 Page 3 of 4 "Site Evaluation and System Specifications"* collects site-specific information that is used to verify that the property is large enough to accommodate the nutrient loading from the anticipated sewage flow, there is sufficient area for the system and future repair, the system meets the minimum setback requirements and separation from the seasonal high water table and unsuitable soil horizons. The site evaluation may be performed by the system design engineer, a master septic tank contractor, a certified environmental health specialist, a soil scientist, or by Florida Department of Health personnel per 64E-6.004(3), F.A.C.
- 1) Applicant, Agent, Lot, Block, Property ID tie the site evaluation to the application information
 - 2) Estimated flow and authorized lot flow demonstrate that the authorized nutrient loading to the property are not exceeded.
 - 3) Unobstructed area is the area that includes the drainfield plus a reserve for future system repair.
 - 4) Benchmark location states the physical location where the elevation reference point or benchmark is located.
 - 5) The elevation of the proposed system site ties the grade elevation at the location of the soil profiles to the benchmark.
 - 6) The minimum setbacks should reflect the distance from the system, as shown on the site plan, to the listed protected features.
 - 7) If the site is frequently flooded, the site evaluation should indicate that fact. Ten-year flood elevations and the site elevation referenced to NGVD or MSL are not applicable for this site.
 - 8) Two soil profiles to 72 inches or refusal describing the soil using USDA Soil Classification methodology are required to determine soil texture for system sizing and seasonal high water table depth for system elevation and depth to unsuitable soil necessitating system elevation or soil replacement.
 - 9) Other site observations that contribute to the determination of seasonal high water table elevation.
 - 10) Soil texture and loading rate to be used for sizing the system drainfield based on application of the Rule 64E-6.008, Table III and Rule 64E-6.009, F.A.C.

- 11) Depth [below grade] of any excavation necessary to remove an unsuitable soil horizon.
 - 12) The drainfield configuration based on the site plan and detailed system design plans.
 - 13) The Florida Department of Health shall require an engineer to provide detailed system design plans, if applicable, under the provisions of Rule 64E-6.004(4), F.A.C.
2. The onsite sewage treatment and disposal system shall be installed by a state-registered septic tank contractor or state-licensed plumber.
[section 381.0065(4), F.S.]
 3. Following installation of the onsite sewage treatment and disposal system, but prior to covering the system with earth, the system will require inspection by the representatives of the Florida Department of Health in Okeechobee County. Additional inspections are required for incomplete or non-compliant items. As the high water table conditions require a mound installation, a second inspection is necessary after the system is covered with earth and stabilized with sod.
[Rules 64E-6.003(2) and 64E-6.009(3)(f), F.A.C.]
 - If the onsite sewage treatment and disposal system is designed by an engineer, the Florida Department of Health shall require the design engineer to certify that the installed system complies with the approved design and installation requirements per 64E-6.004(4), F.A.C..
 4. As the facility is an industrial-equivalent zoned activity, an annual inspection by a representative of the Florida Department of Health in Okeechobee County will be required to verify ongoing compliance with the requirements of section 381.0065(4)(i), F.S., along with payment of the associated annual operating fee under Rule 64E-6.030(1)(l), F.A.C. (currently \$150.00 per year as of April 5, 2016). Pursuant to section 403.511(1), F.S., this shall not be construed as requiring FPL to obtain separate permits for operation of the onsite sewage treatment and disposal system.
[section 381.0065(4)(i)3, F.S. and Rule 64E-6.030(1)(l), F.A.C.]
 5. Should the onsite sewage treatment and disposal system require repair, replacement, modification, or abandonment, such action shall be taken in accordance with the nonprocedural requirements of Chapter 64E-6, Florida Administrative Code, and Section 381.0065, Florida Statutes.
[section 381.0065(4), F.S., and Rules 64E-6.001(4), .003(1), and .0015(1), F.A.C.]

APPENDIX II-8 – OKEECHOBEE COUNTY

Okeechobee County Board of County Commissioners

Planning and Development Department

1700 NW 9th Avenue, Suite A • Okeechobee, Florida 34972

Telephone 863-763-5548 • Facsimile 863-763-5276



RECEIVED

April 4, 2016

Received 4/4/16

Ann Seiler
Siting Coordination Office
Florida Department of Environmental Protection
2600 Blair Stone Road, MS 5500
Tallahassee, FL 32399
Ann.Seiler@dep.state.fl.us

Dept. of Environmental Protection
Siting Coordination Office

Re: Site Certification Application
Florida Power & Light Company, Okeechobee Clean Energy Center
PA15-58; Okeechobee County, Florida Agency Report

Dear Ms. Seiler,

Okeechobee County has reviewed the Site Certification Application for the Okeechobee Clean Energy Center (OCEC or Project) filed by Florida Power & Light Company (FPL) on September 25, 2015, along with the additional information provided in the Completeness Responses filed December 3, 2015. The Project includes a 1,600 megawatt natural gas-fired electrical generating unit and associated facilities to be located on a 2,341-acre site in unincorporated northeastern Okeechobee County.

Pursuant to Section 403.507(2)(a)(3), Florida Statutes, Okeechobee County finds the proposed Project consistent with all applicable local ordinances, regulations, standards, or criteria, with the exception of the variances discussed below. In accordance with Section 403.507(3), Florida Statutes, Okeechobee County recommends approval of the Project subject to the following conditions of certification. As required by Section 403.507(3)(c), each condition is followed by citation to the applicable County standard authorizing the condition.

Proposed Conditions

Floodplain Management/Flood Resistant Development

All construction shall be in accordance with the applicable Floodplain Management and Flood Resistant Development nonprocedural requirements in Sections 6.05 and 6.06 of the Okeechobee County Land Development Regulations. This shall not be construed as requiring FPL to obtain separate permits or approvals from the County. [Sections 6.05 and 6.06, Okeechobee County Land Development Regulations]

Parking and Loading

All off-street parking and off-street loading facilities shall be designed and constructed in accordance with the applicable nonprocedural requirements of Section 7.04, Okeechobee County Land Development Regulations. The required number of off-street parking and off-street loading facilities will be as depicted on the Conceptual Site Plan included in the Site Certification Application. This shall not be construed as requiring FPL to obtain separate permits or approvals from the County. [Section 7.04.01(D), Okeechobee County Land Development Regulations]

Drainage and Stormwater

With the exception of the identified variances from Sections 7.06.05(A)(5) and 7.06.05(B)(9), the Project shall be designed and constructed in accordance with the applicable nonprocedural requirements of Sections 7.05 and 7.06 of the Okeechobee County Land Development Regulations. This shall not be construed as requiring FPL to obtain separate permits or approvals from the County. [Sections 7.05.05 and 7.06, Okeechobee County Land Development Regulations]

Landscaping and Tree Preservation

A. In accordance with Section 7.11.04(A)(11), Okeechobee County Land Development Regulations, preserved trees and shrubs within the proposed mitigation area shall be used to meet the requirements of Section 7.11.03(B)(1), Okeechobee County Land Development Regulations.

B. FPL shall maintain a minimum 5 foot buffer of natural/organic ground cover and at least one tree and three shrubs every 50 linear feet where the Site is adjacent to a lot or parcel in single-family use. Okeechobee County recognizes that the proposed mitigation area will serve as adequate perimeter buffer from adjacent parcels in accordance with Section 7.11.03(B)(3) and Section 7.11.05(F), Okeechobee County Land Development Regulations.

C. Okeechobee County recognizes that it is not practicable to incorporate the stormwater management system into the irrigation system. All landscaping shall conserve water through xeriscaping where practicable.

D. No oak tree with a circumference greater than 48 inches measured at a point four and one-half feet above the base of the tree shall be removed in accordance with Section 7.11.04(D), Okeechobee County Land Development Regulations.

E. Any proposed plantings and landscaping material shall be installed and maintained in accordance with Section 7.11.05(A)-(B), Okeechobee County Land Development Regulations.

[Sections 7.11.03, 7.11.04, 7.11.05(A)-(B), (F), Okeechobee County Land Development Regulations; Policy S4.2, Okeechobee County Comprehensive Plan]

Construction Design Standards

The applicable portions of the administration building shall be designed and constructed in accordance with applicable provisions of standard codes and maps incorporated in Sections 8.00.00 through 8.01.01, Okeechobee County Land Development Regulations, and Section 18-2, Okeechobee County Code. [Sections 8.00.00, 8.01.00, 8.01.01, Okeechobee County Land Development Regulations; Section 18-2, Okeechobee County Code]

Signs

Any signs associated with the Project located in Okeechobee County shall be designed, constructed, and maintained in accordance with the applicable nonprocedural requirements of Article IX, Okeechobee County Land Development Regulations. Signs that are not visible from a public street or adjoining property are exempt from these requirements in accordance with Section 9.01.00(a). This shall not be construed as requiring FPL to obtain separate permits or approvals from the County. [Article IX, Okeechobee County Land Development Regulations]

Open Burning

Open burning associated with land clearing operations shall be coordinated with the State of Florida, Division of Forestry. [Section 34-26, Okeechobee County Code; Policy C1.3, Okeechobee County Comprehensive Plan]

Waste

All solid waste, hazardous waste, and construction waste shall be collected and disposed of in accordance with the applicable nonprocedural requirements of Chapter 49, Okeechobee County Code. [Chapter 49, Okeechobee County Code]

User Fees

FPL shall be responsible for payment of fire rescue department user fees in accordance with Section 52-71, Okeechobee County Code. Pursuant to Okeechobee County Ordinance No. 2014-0002, no impact fees are associated with the Project. [Section 52-71, Okeechobee County Code; Okeechobee County Ordinance No. 2014-0002]

Variances

The proposed Project includes requested variances from stormwater management requirements, including a request for a variance from Article VII, Sections 7.06.05(A)(5) and 7.06.05(B)(9) of the Okeechobee County Land Development Regulations, to allow excavation of wet detention ponds deeper than 10 feet and to allow those ponds to have straight shorelines.

It is acknowledged that the requested variances are not obtained from Okeechobee County but through the Power Plant Siting Act process. Nonetheless, Okeechobee County has no objection to

the granting of the requested variances and related condition of certification as requested by FPL in its Completeness Responses.

If you have any questions concerning the above or wish to discuss further, please feel free to contact me at your convenience.

Sincerely,

A handwritten signature in blue ink, appearing to be 'W. Royce', with a long horizontal flourish extending to the right.

William D. Royce, Planning Director
Okeechobee County
Planning and Development Department
1700 NW 9th Avenue, Suite A
Okeechobee, FL 34972

STATE OF FLORIDA
DIVISION OF ADMINISTRATIVE HEARINGS

IN RE: FLORIDA POWER AND LIGHT COMPANY
OKEECHOBEE CLEAN ENERGY CENTER DOAH CASE No. 15-5540-EPP
POWER PLANT SITING APPLICATION OGC CASE No. 15-0607
NO. PA15-58

LAND USE AND ZONING DETERMINATION BY OKEECHOBEE COUNTY
FOR FLORIDA POWER & LIGHT'S
OKEECHOBEE CLEAN ENERGY CENTER

Pursuant to Section 403.50665, Florida Statutes (F.S.), Okeechobee County, by and through its undersigned counsel, files the County's determination that the site for the proposed Florida Power & Light Co. (FPL) Okeechobee Clean Energy Center (Project) is consistent with the existing land use plans and zoning ordinances of Okeechobee County, Florida.

1. On September 25, 2015, FPL filed its application for site certification for the Okeechobee Clean Energy Center (Project) under the Florida Power Plant Siting Act, Chapter 403, Part II, F.S. The Project Site is located in the unincorporated area of Okeechobee County. The Site is comprised of approximately 2,341 acres located in northeastern Okeechobee County.

2. Okeechobee County has received and reviewed that application as it relates to the County's land use plan and zoning ordinances, and is otherwise familiar with the Project and its Site within Okeechobee County.

3. Pursuant to Section 403.50665(2), F.S., Okeechobee County is required to issue its determination on the consistency of the Site with the existing land use plans and

zoning ordinances of Okeechobee County that were in effect on the date the application was filed. Okeechobee County hereby makes that determination.

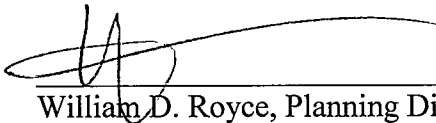
4. The Site is designated "Agriculture" on the future land use map of the adopted Okeechobee County Comprehensive Plan (Plan). Under Policy L9.5 of the Plan, electrical power plants are an allowed use in that land use category, subject to compliance with the Power Plant Siting Act, the County's Comprehensive Plan and applicable land development regulations. The Site for the electrical power plant is consistent with Okeechobee County's comprehensive plan.

5. The Project site is zoned "Agricultural" under the County's zoning ordinances. Electrical power plants are allowed in this zoning district. The Site is consistent with the zoning regulations of Okeechobee County.

Accordingly, Okeechobee County submits its determination that the site for FPL's Okeechobee Clean Energy Center is consistent with the land use plans and zoning ordinances of Okeechobee County, Florida.

Respectfully submitted this 5th day of November, 2015.

Okeechobee County



William D. Royce, Planning Director
Okeechobee County
Planning and Development Department
1700 NW 9th Avenue, Suite A
Okeechobee, FL 34972

CERTIFICATE OF SERVICE

I certify that I have served a true and correct copy of the foregoing via electronic mail this 5th day of November, 2015, to the following:

Department of Environmental Protection

Benjamin M. Melnick, Esquire
Jeff Brown, Esquire
Office of General Counsel
3900 Commonwealth Boulevard
Tallahassee, Florida 32399
Benjamin.Melnick@dep.state.fl.us
jeffrey.brown@dep.state.fl.us

Florida Power & Light Company

Michael S. Tammaro,
Senior Attorney
Florida Power & Light Company
700 Universe Boulevard
Juno Beach, FL 33408
michael.tammaro@fpl.com

Brooke E. Lewis, Esquire
Hopping Green & Sams, PA
119 South Monroe Street, Suite 300
Tallahassee, FL 32301
BrookeL@hgslaw.com

Florida Public Service Commission

Keino Young, Attorney Supervisor
2450 Shumard Oak Boulevard
Tallahassee, Florida 32399-0850
kyoung@psc.state.fl.us

Florida Fish & Wildlife Conservation Commission

Anthony Pinzino, Esquire
Farris Bryant Building
620 South Meridian Street
Tallahassee, Florida 32399-1600
anthony.pinzino@myfwc.com

Department of Transportation

Kimberly Clark Menchion, Esquire
605 Suwannee Street, MS 58
Tallahassee, Florida 32399
kimberly.menchion@dot.state.fl.us

Department of Economic Opportunity

Aaron Dunlap, Esquire
620 South Meridian Street, MS 5B5
107 East Madison Street
Tallahassee, Florida 32399
Aaron.Dunlap@deo.myflorida.com

St. Johns River Water Management District

Karen Ferguson, Esquire
Mary Ellen Winkler, Esquire
Office of General Counsel
P.O. Box 1429
Palatka, Florida 32178
kferguson@sjrwmd.com
mwinkler@sjrwmd.com
mperschnick@sjrwmd.com

Callie Register, P.E.
Regulatory, Engineering and
Environmental Services
Palm Bay Service Center
525 Community College Parkway, S.E.
Palm Bay, FL 32909
cregister@sjrwmd.com

Okeechobee County

William Royce, Planning Director
Planning and Development
1700 NW 9th Avenue, Suite A
Okeechobee, FL 34972
broyce@co.okeechobee.fl.us

Indian River County

Stan Boling
Community Development Director
1801 27th Street
Vero Beach, Florida 32960-3388
sboling@ircgov.com

Ed Barranco

Florida Department of Health

4052 Bald Cypress Way, Bin #A08
Tallahassee, Florida 32399
ed.barranco@flhealth.gov

**Department of Agriculture &
Consumer Services**

John Costigan, General Counsel
Florida Forest Service
407 S. Calhoun Suite 520 M-11
Tallahassee, FL 32399-0800
John.Costigan@FreshFromFlorida.com
Deborah.Brock@freshfromflorida.com

Department of State

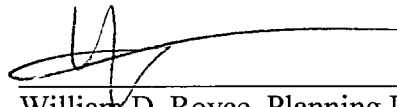
Deena Woodward
Division of Historical Resources
RA Gray Building, 4th Floor
500 South Bronough Street
Tallahassee, FL 32399
Deena.woodward@dos.myflorida.com

**Central Florida Regional Planning
Council**

Patricia M. Steed
Executive Director
555 E Church Street Bartow, FL 33830
psteed@cfrpc.org

**Treasure Coast Regional Planning
Council**

Peter G. Merritt
Assistant Director
421 SW Camden Avenue
Stuart, FL 34994
pmerritt@tcrpc.org



William D. Royce, Planning Director
Okeechobee County
Planning and Development Department

APPENDIX II-9 – INDIAN RIVER COUNTY



**INDIAN RIVER COUNTY
COMMUNITY DEVELOPMENT DEPARTMENT**
1801 27th Street, Vero Beach FL 32960
772-226-1237 / 772-978-1806 fax
www.ircgov.com

RECEIVED

Received 4/6/16

April 5, 2016

**Dept. of Environmental Protection
Siting Coordination Office**

VIA ELECTRONIC MAIL AND U.S. MAIL

Ms. Ann Seiler
Florida Department of Environmental Protection
Siting Coordination Office
2600 Blairstone Road, MS 5500
Tallahassee, FL 32399-2400

RE: Indian River County Agency Report for Certification Application – FPL Okeechobee Clean Energy Center (PA15-58)

Dear Ms. Seiler:

At its meeting of March 22, 2016 and again on April 5, 2016 the Board of County Commissioners considered its agency report for the subject certification application. At the April 5th meeting, the Board of County Commissioners authorized me, as Community Development Director, to send this letter which constitutes Indian River County's agency report in accordance with Florida Statutes 403.507.

Project Description

The FPL power plant project, known as OCEC Unit 1, consists of a new combined cycle natural gas fired generating unit currently estimated to be constructed January 2017 through June 2019. The generating plant is proposed to be located in northeastern Okeechobee County near the Okeechobee/Indian River County line. The project will be accessed solely through Indian River County to SR 60. In addition, the project proposes to withdraw an annual average of 9,000,000 gallons per day (maximum daily peak of 11,000,000 gallons) from the Upper Floridan Aquifer (UFA) which is the source of potable water for Indian River County's utility system –that currently serves 110,000 residents. The UFA is also a water source for other users within Indian River County including the City of Vero Beach potable water utility system and various agricultural operations.

Emergency Services

During its review of the project, County staff coordinated with FPL and Okeechobee County, raising questions regarding the emergency services needs of the project during construction and plant operation and Okeechobee County's ability to provide the necessary emergency services including consideration of the project's significant distance from fire stations. The project is located 18 miles by paved road from the nearest Indian River County fire station and 30 miles by paved road from the nearest Okeechobee County fire station. Indian River County currently has 13 fire stations with two more slated for operation in the next few years, while Okeechobee County has three existing fire stations. A comparison of Okeechobee County and Indian River County fire station distances to the project and data on current fire rescue apparatus and personnel of both counties is attached.

During the review process, Okeechobee County stated that it has the necessary emergency services capabilities to respond to the plant site within 30 minutes of a call, the response time that FPL has stated is needed for the project. FPL has stated that during plant construction, 6 calls for emergency services will be made per year while 3 calls for emergency services will be made per year during the life of the plant while in operation. In addition, Okeechobee County has documented that at this time it does not have a Hazardous Materials Team, that it has a Light Technical Rescue Team – Type II, and that it has the daily staffing requirements and response deployment policies to meet the “two in two out” rule. Indian River County recognizes Okeechobee County's obligation and commitment to provide necessary emergency services to the power plant during construction and plant operation, and is relying upon Okeechobee County's representations and commitments with respect to necessary emergency services for the project.

Indian River County also recognizes that it has mutual aid obligations to provide a limited level of emergency services resources if such resources are requested and are available. Given the number of annual emergency services calls anticipated by FPL for the project, and given the current and planned level and location of emergency services resources in Indian River County and current resources in Okeechobee County, Indian River County is concerned that its emergency services resources will be called upon on a recurring basis to serve the project and that Indian River County staff will require training and familiarity with the project facility. Such demand upon Indian River County's emergency services resources will affect the citizens of Indian River County. In order to mitigate those anticipated impacts, based on the Power Plant Siting Act's stated legislative intent to balance the need for the project with “...the broad interests of the public” (Ch 403.502) and in coordination with FPL, Indian River County is recommending 3 emergency services conditions that FPL has agreed to. These conditions provide for reimbursement to Indian River County for expenses incurred to obtain training deemed necessary by Indian River County and familiarization with the project facility, and to provide anticipated mutual aid emergency services, as specified in conditions 3a, 3b, and 3c at the end of this report.

Water Supply

FPL's modeling indicates that FPL withdrawals from the UFA will not cause immediate adverse impacts to existing potable water utility systems which are approximately 20 miles away from the site. Nonetheless, Indian River County has expressed concerns to representatives of FPL and the SJRWMD that long term use of the UFA for the project has the potential of competing with the

potable water needs of the county in the future. It is Indian River County's position with respect to quality water from the UFA that potable water needs should have priority over water-intensive industrial applications. Consequently, Indian River County strongly supports future conversion of the project's water supply from the UFA to an alternative water supply or future significant reduction of the project's use of the UFA as a water source. To that end, Indian River County coordinated with FPL and the SJRWMD and additional language was added to the SJRWMD's agency report proposed condition 33. The language of the condition is attached as a reference and is consistent with Indian River County's comprehensive plan Potable Water Sub-element Policy 3.1.

Indian River County recognizes that SJRWMD is charged with the statutory authority to regulate water consumption pursuant to FS 377.217. As such, Indian River County is relying upon inclusion of SJRWMD's proposed condition 33 in the final site certification order and good faith implementation of that condition.

In accordance with Florida Statutes 403.507, Indian River County finds the proposed power plant consistent with applicable local ordinances, regulations, standards, and criteria and recommends approval of the project subject to the following conditions and inclusion of the SJRWMD's proposed condition 33 in the final site certification order. Indian River County recommends that the following conditions of certification be incorporated into the final site certification order.

1. Traffic

In accordance with Indian River County (IRC) turn lane standards found in land development regulation Section 952.12 traffic standards, and based on the anticipated construction and operating conditions presented in the project traffic study, the applicant/licensee shall construct as part of the project an east bound right turn lane on SR60 at the project's entrance consistent with applicable FDOT and IRC design standards.

This condition has been agreed to by the applicant as reflected on page 10 of the December 2015 "Site Certification Application Completeness Responses".

2. Traffic Impact Fees

In accordance with land development regulation Chapter 910 concurrency, and associated impact fee payment standards of Title X Impact Fees, prior to project construction, the applicant/licensee shall pay Indian River County transportation (traffic) impact fees for the project administration building with the acknowledgement that in accordance with the FPL/Indian River County franchise agreement, the fees will be off-set from the franchise agreement revenue. The amount of the impact fee shall be based on the "Unincorporated Indian River County: Impact Fee Schedule (Effective Date 2/2/2015)", applying the "Manufacturing" land use category "Transportation" fee to the final under air square footage (housing administrative staff) of the project administration building.

This condition has been agreed to by the applicant.

3. Emergency Services

- a. The applicant/licensee shall reimburse Indian River County for extraordinary emergency services expenses or services including but not limited to expenses and services related to hazardous materials events, consistent with Indian River County Emergency Services District ordinance section 208.13.

This condition (condition 3a) is in accordance with Indian River County Code Section 208.13, and was agreed to by the applicant as reflected on page 11 of the December 2015 "Site Certification Application Completeness Responses".

- b. Prior to construction of the Project, FPL shall make a one-time payment to Indian River County in the amount of \$90,000 to be used by Indian River County to support ordinary emergency services support for construction and operation of the Project in the event that Okeechobee County requests Indian River County's emergency support under Indian River County's mutual aid agreement with Okeechobee County. Notwithstanding the terms of the FPL/Indian River County franchise agreement, FPL agrees not to off-set this one-time payment of \$90,000 against franchise agreement revenue, in recognition that Indian River County agrees to provide to FPL an annual accounting of use of this fund.

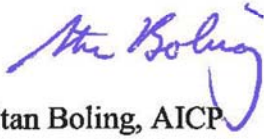
FPL has agreed to this condition (condition 3b).

- c. To facilitate familiarity with the Project and emergency services training deemed necessary by Indian River County, first, coinciding with commencement of major mechanical equipment construction and then, prior to operation, FPL shall provide onsite orientation of the facility to IRC emergency response personnel and familiarize them with known hazards, chemicals, and fire protection systems, and FPL shall fund emergency services training deemed necessary by Indian River County up to the \$200,000 limit set forth below. Notwithstanding the terms of the FPL/Indian River County franchise agreement, FPL agrees not to off-set any fees, charges, or other impositions assessed by Indian River County associated with these two orientation events and emergency services training deemed necessary by Indian River County, up to a total of \$200,000, against franchise agreement revenue.

FPL has agreed to this condition (condition 3c).

Indian River County appreciates the opportunity to file this agency report with recommended certification conditions. If you have any questions, please do not hesitate to contact me at (772) 226-1253.

Sincerely,

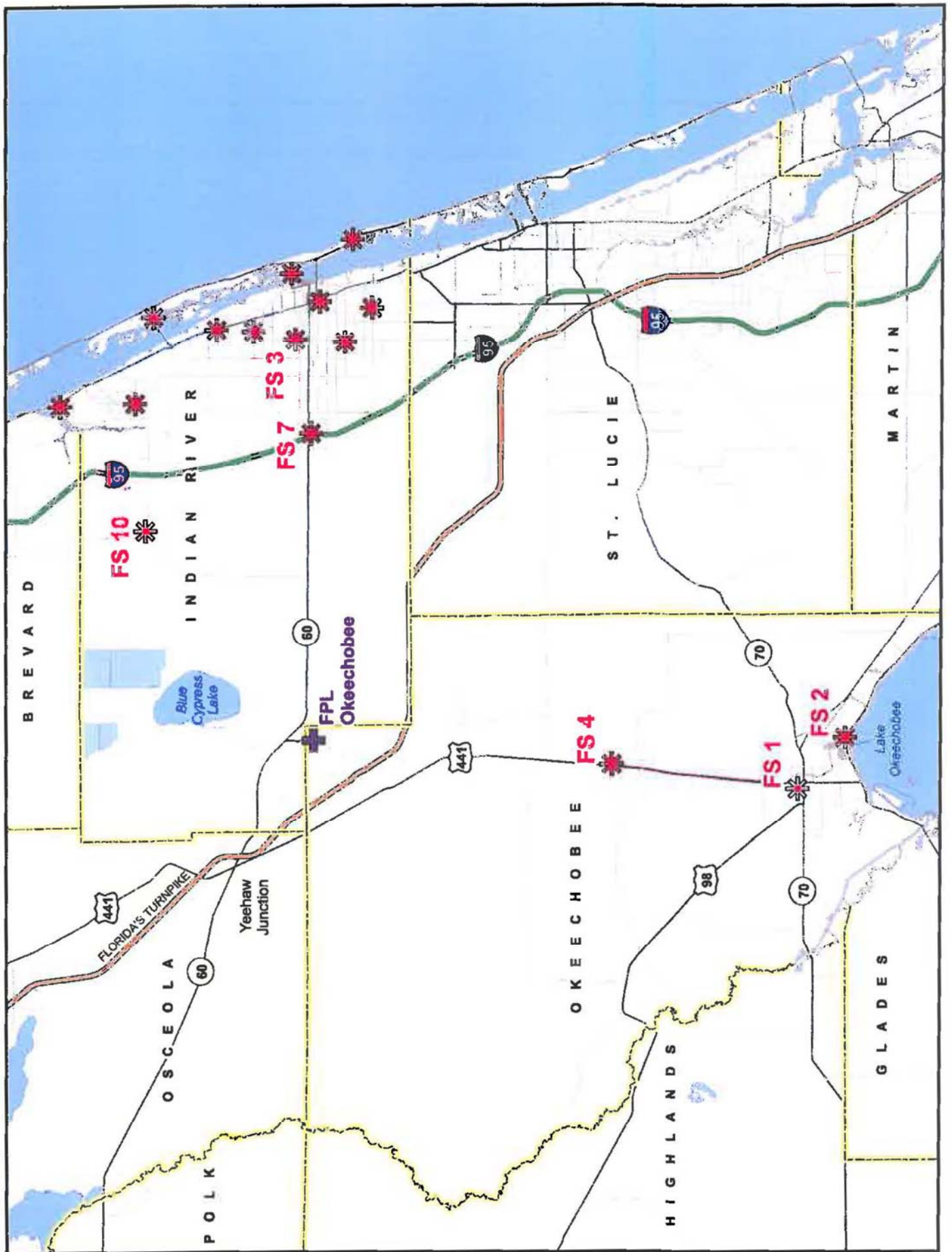


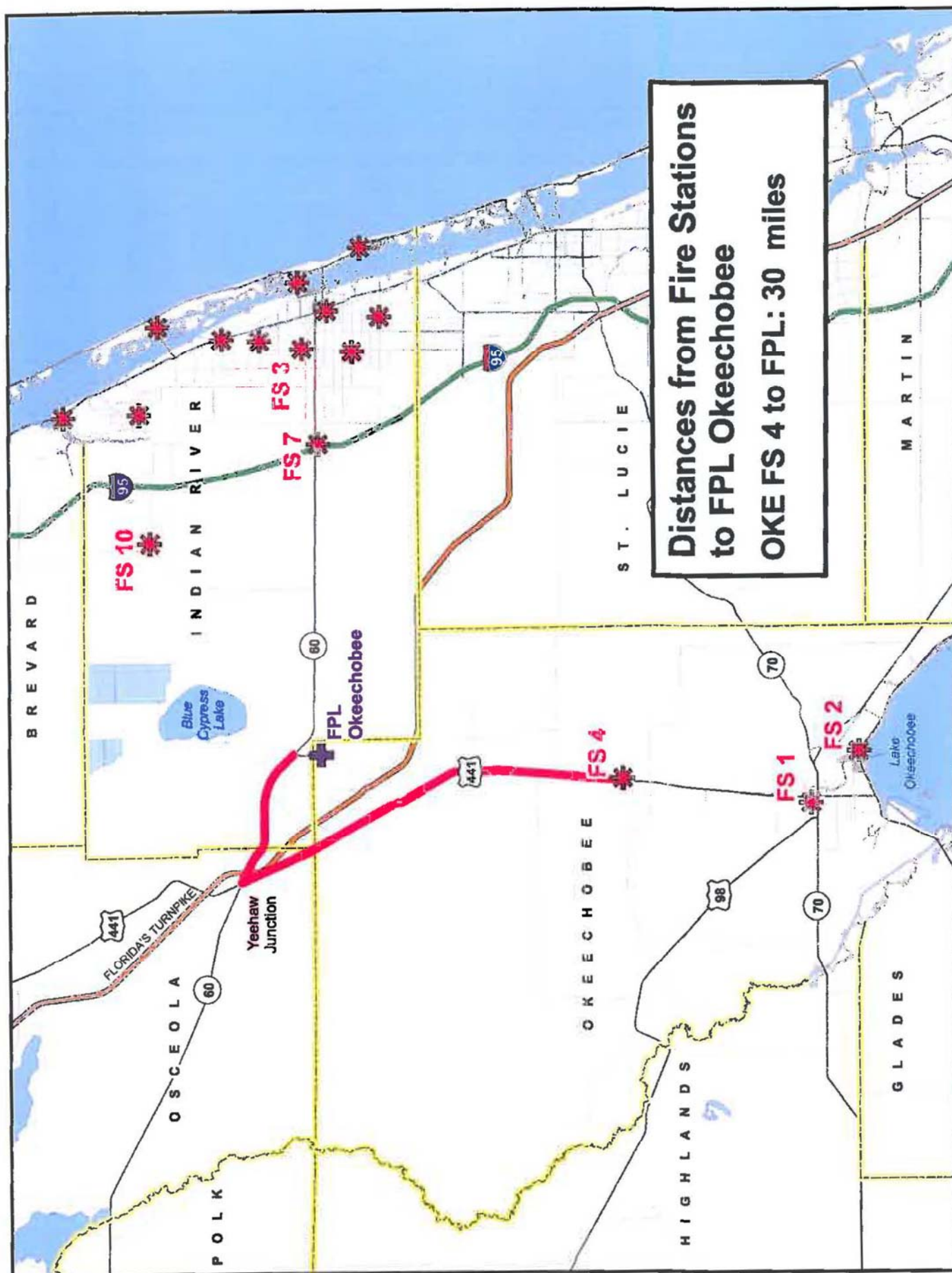
Stan Boling, AICP
Community Development Director, Indian River County

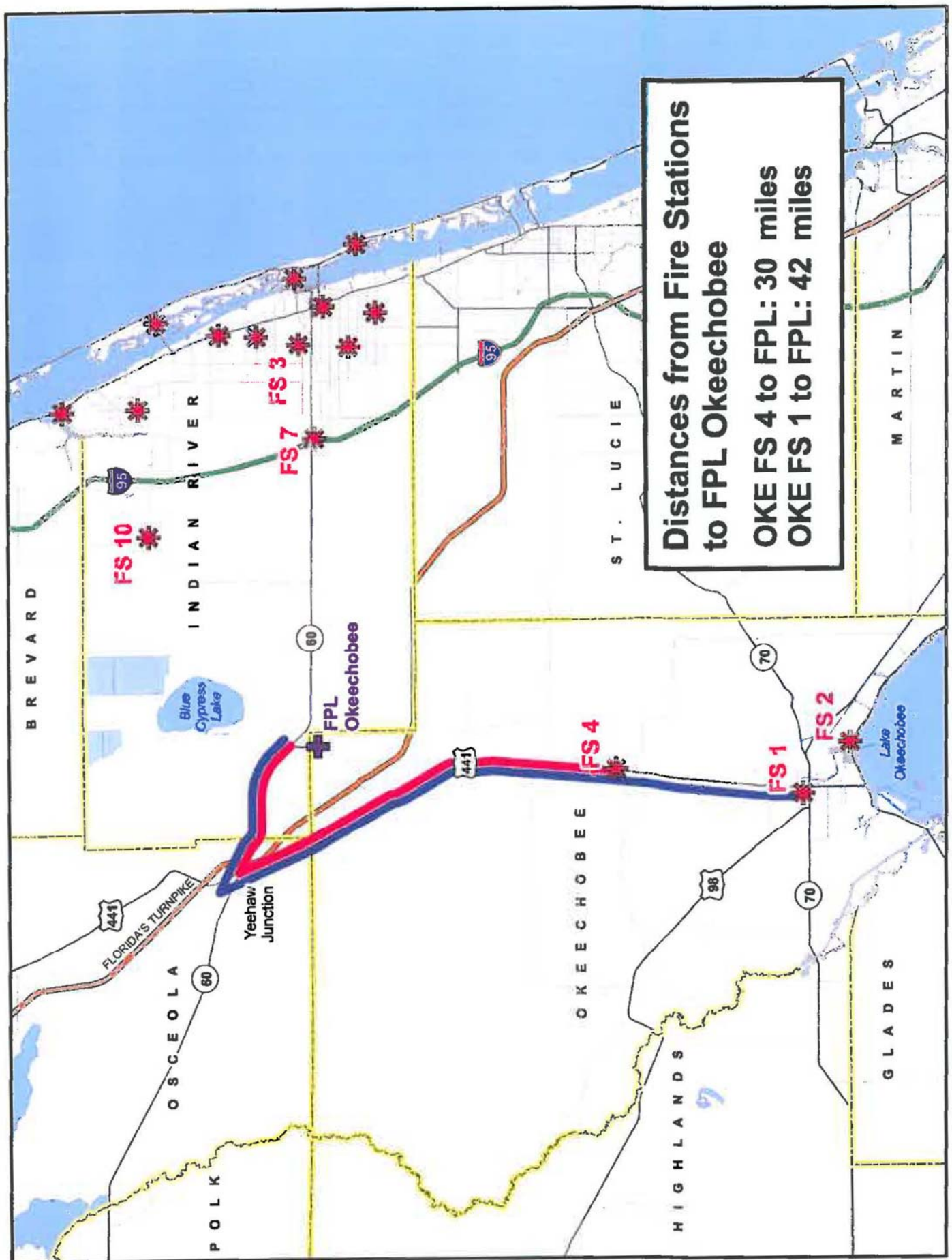
Attachments:

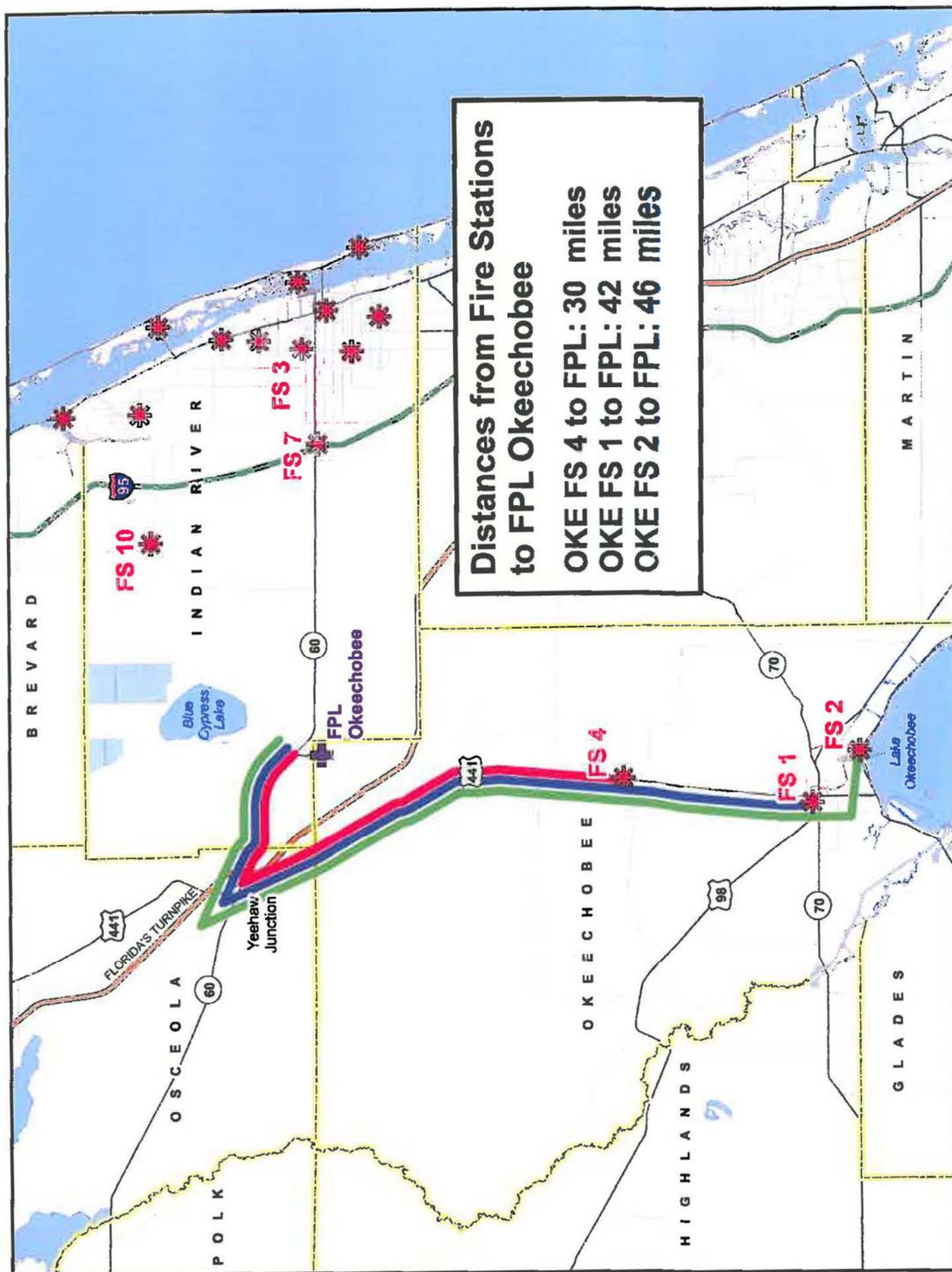
1. Comparison of Okeechobee County and Indian River County Fire Station Locations and Fire Rescue Apparatus/Personnel
2. Documentation from Okeechobee County Regarding Emergency Services Capabilities
3. Mutual Aid Agreement Between Indian River County and Okeechobee County
4. IRC Potable Water Sub-element Policy 3.1
5. Language of SJRWMD's Proposed Condition 33

cc: Board of County Commissioners (via e-mail)
Joe Baird, County Administrator (via e-mail)
Mike Zito, Assistant County Administrator (via e-mail)
Dylan Reingold, County Attorney (via e-mail)
Bill DeBraal, Deputy County Attorney (via e-mail)
Jason Brown (via e-mail)
Vincent Burke, P.E. (via e-mail)
Arjuna Weragoda, P.E. (via e-mail)
Eric Charest (via e-mail)
Chris Mora, P.E. (via e-mail)
Richard Szpyrka, P.E. (via e-mail)
Jeanne Bresett (via e-mail)
John King (via e-mail)
Brian Burkeen (via e-mail)
Roland M. DeBlois, AICP (via e-mail)
John W. McCoy, AICP (via e-mail)
Sasan Rohani, AICP (via e-mail)
Phil Matson, AICP (via e-mail)
Cheryl Dunn, Department of Health (via e-mail)
Bill Royce, Okeechobee County Planning (via e-mail)
John D. Cassels, Jr., Okeechobee County Attorney (via e-mail)
Mike Busha, Treasure Coast Regional Planning Council (via e-mail)
James R. O'Connor, City Manager, City of Vero Beach (via e-mail)
Saint John's River Water Management District (SJRWMD) (via e-mail)
Indian River County Soil & Water Conservation District (via e-mail)
Indian River County Agriculture Advisory Committee (via e-mail)







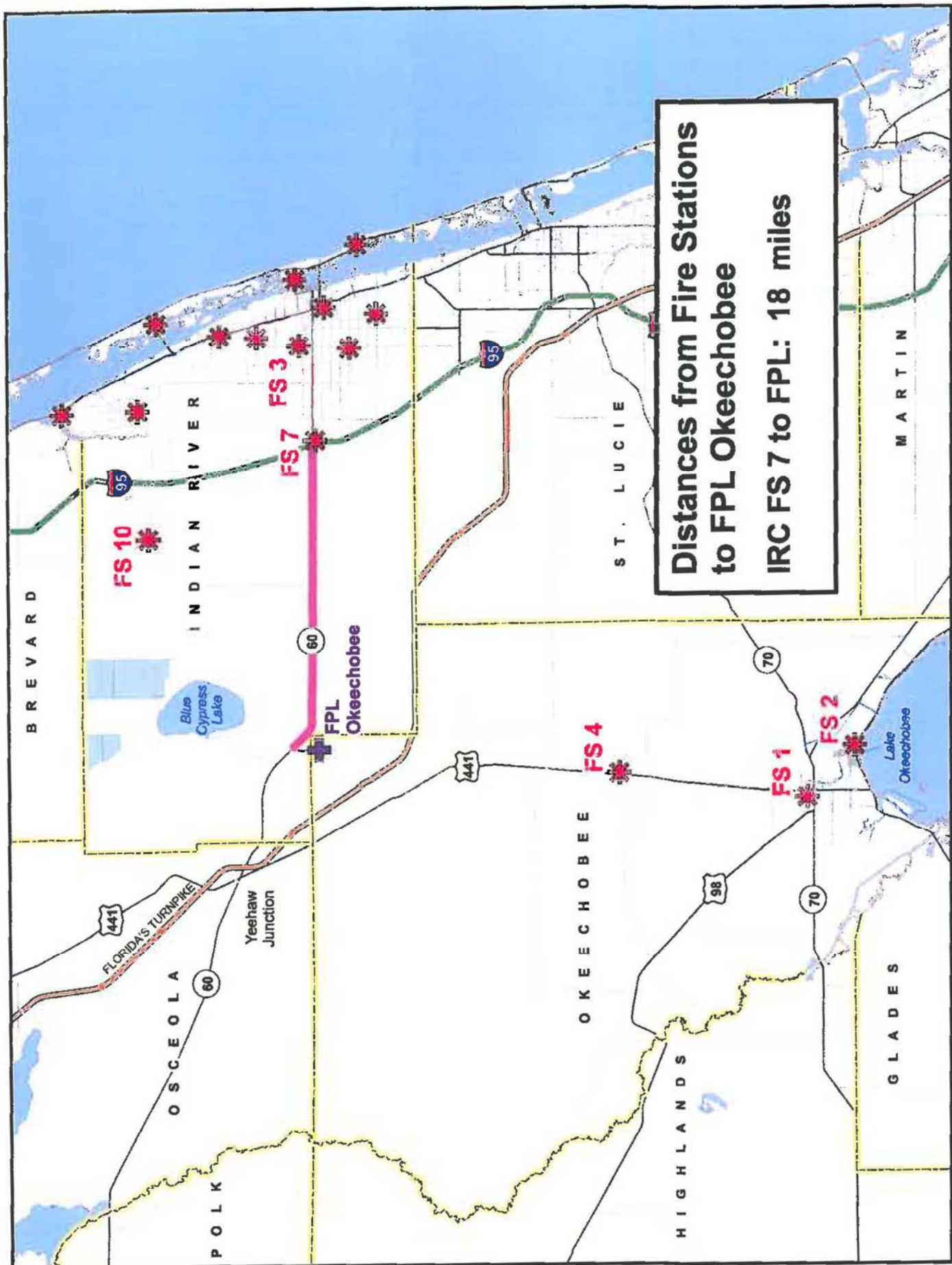


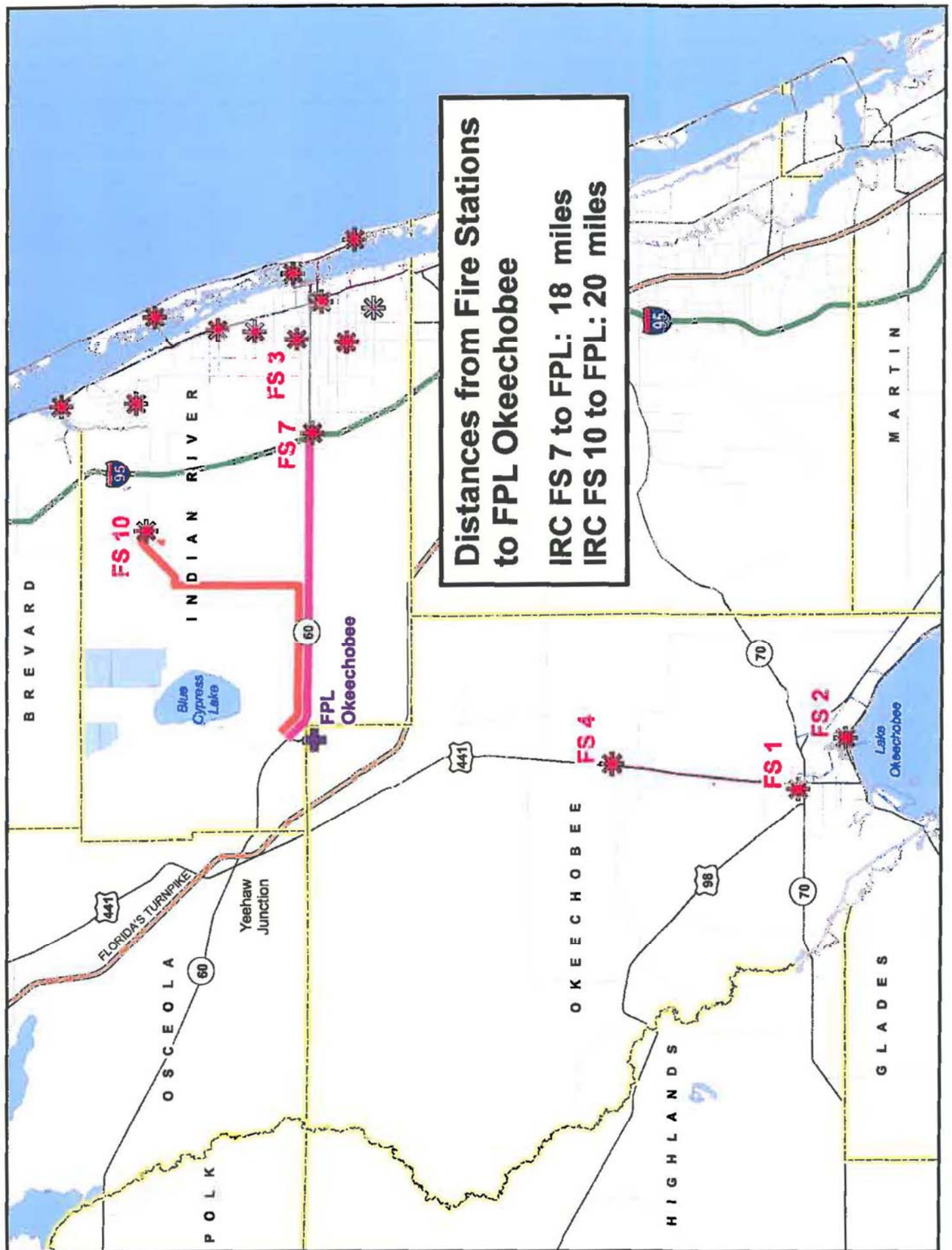
Okeechobee County Fire Rescue

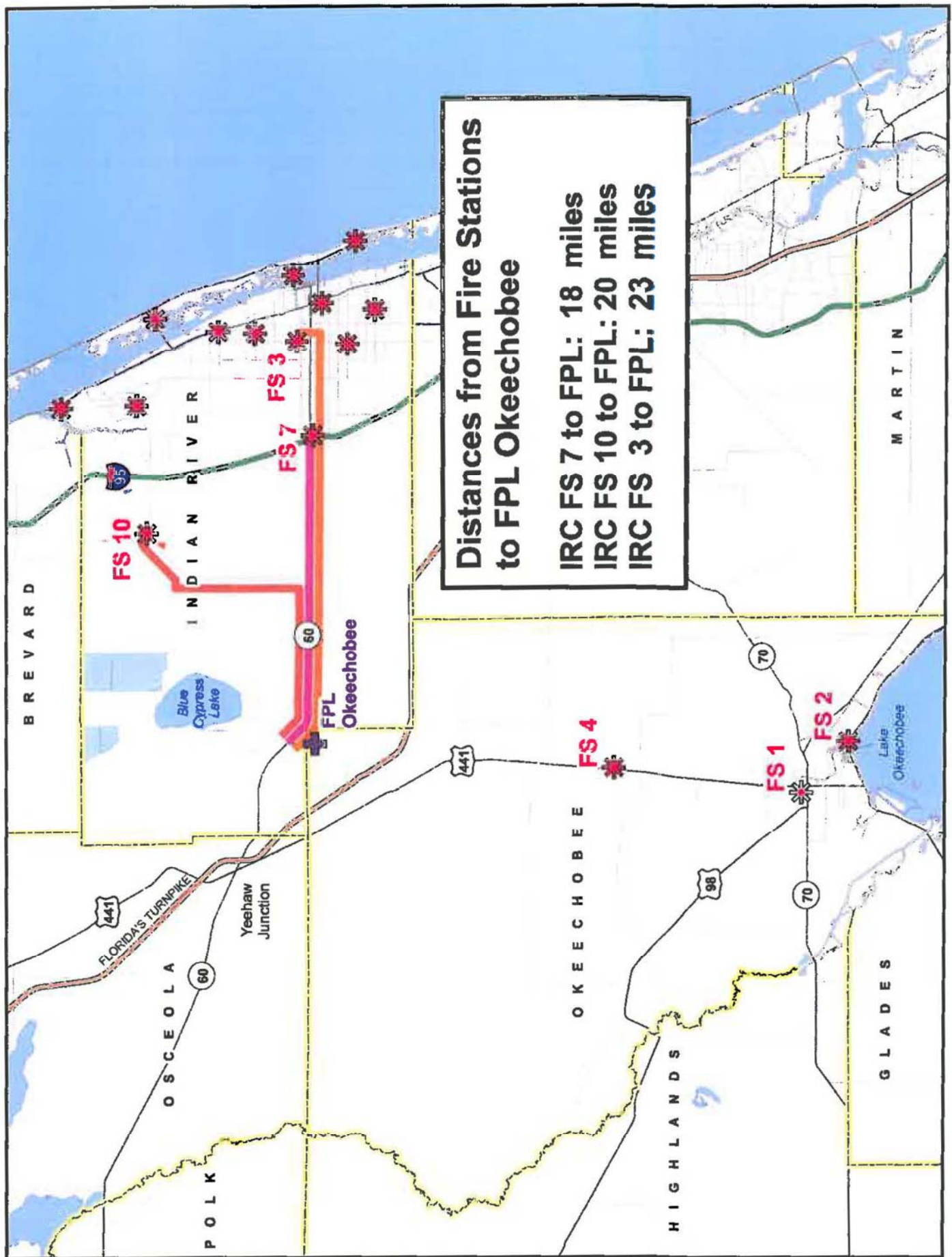
Apparatus and Personnel

Fire Station	Apparatus
Fire Station 1	1 Paramedic Engine
	2 Paramedic Ambulances
	4 personnel
Fire Station 2	1 Paramedic Engine
	1 Paramedic Rescue
	4 personnel
Fire Station 4	1 Paramedic Engine
	1 Paramedic Rescue
	2 personnel

Source: <http://ocfr.org/station-locations/>

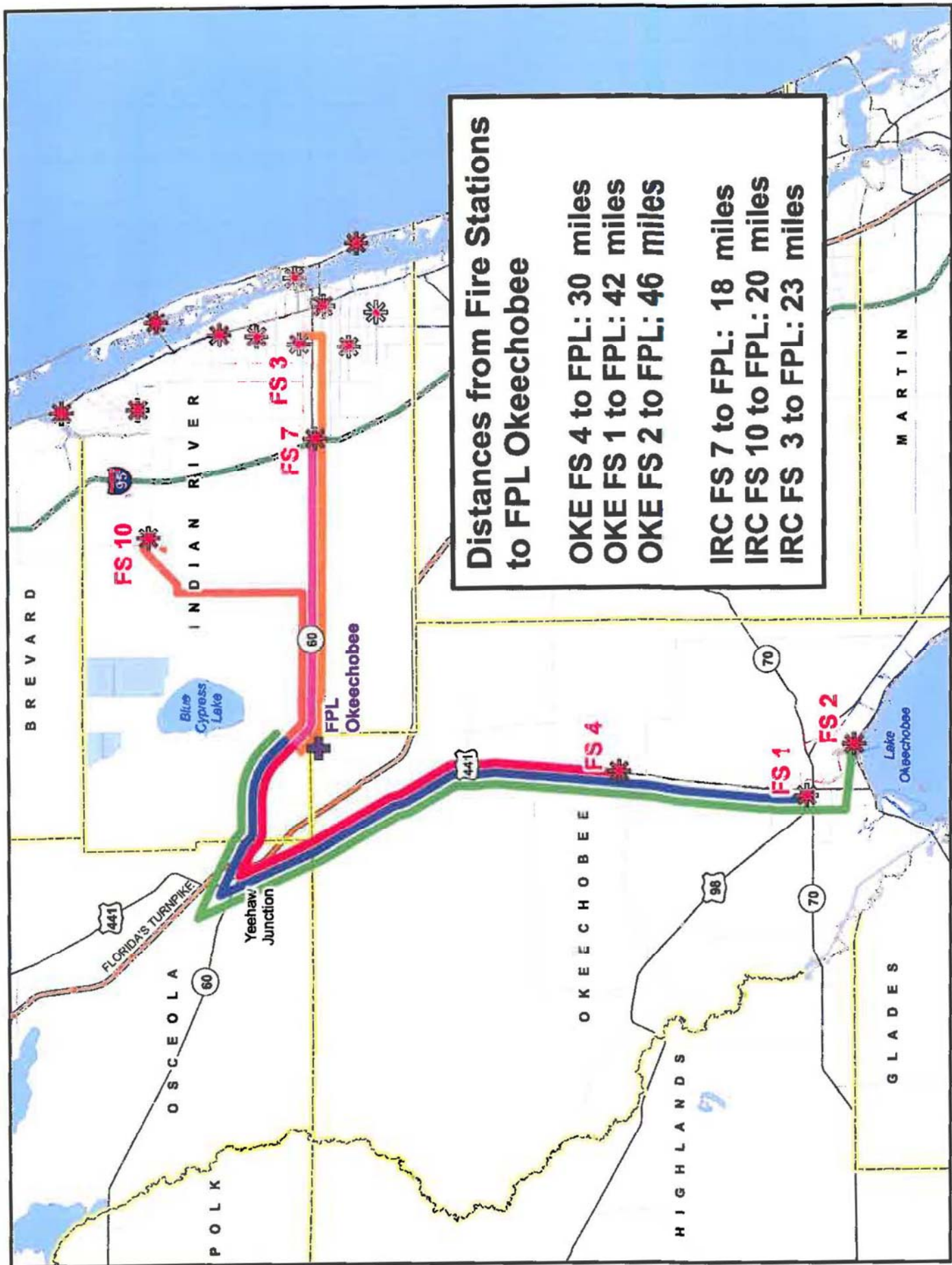






Indian River County Fire Rescue Apparatus and Personnel

Fire Station	Apparatus
Fire Station 7	1 Paramedic Engine
	1 Paramedic Ambulance
	5 personnel
Fire Station 10	1 Paramedic Engine
	1 Paramedic Ambulance
	5 personnel
Fire Station 3	1 Paramedic Engine
	1 Paramedic Ambulance
	5 personnel



OKEECHOBEE COUNTY FIRE RESCUE



707 NW 6th Street
Okeechobee, FL 34972
(863)763-5544
FAX (863)763-4565

Mr. William K DeBraul
Deputy County Attorney
1801 27th Street
Vero Beach, Florida 32960-3365

March 16, 2016

Re: Public Records Response

Dear Mr. DeBraul,

In response to your Public Records Request I offer you the following information:

#1. Okeechobee County does not have a Hazardous Materials team at this time. Therefore, we do not have any Level A Hazmat suits. We have eight members that have taken the 160-hour Hazardous Material Technician training course.

#2. Okeechobee County Fire Rescue is a Light Technical Rescue Team-Type II and is identified as team #643. Our team is a joint venture between the City of Okeechobee and the County and has 15 members. I have provided a copy of that recognition certificate.

#3. The daily staffing requirements and response deployment policies for Okeechobee County Fire Rescue meet the requirements of the "two in two out" rule as required by Florida Statute 633, Florida Administrative Code 69A62, and OSHA 29 CFR 1910.134. I have attached a copy of our Two in/Two out Standard Operating procedure.

I would also like to restate my commitment to you and Chief King for my staff to attend any meeting with your board to highlight the achievements and capabilities of Okeechobee County Fire Rescue.

Should you have any questions please let me know.

Sincerely,

A handwritten signature in blue ink, appearing to read "Ralph Franklin".

Ralph Franklin, CFO
Public Safety Director/Fire Chief

Vacant
District 1

Bryant Culpepper
District 2

Frank Irby
District 3

Terry Burroughs
District 4

Margaret Garrard Helton
District 5

Attachment 2



OKEECHOBEE COUNTY FIRE RESCUE & OKEECHOBEE CITY FIRE DEPARTMENT

TEAM #643

Is recognized as a

LIGHT TECHNICAL RESCUE TEAM-TYPE II

*By meeting state and national standards for Technical Rescue training and is part of the
Florida Urban Search and Rescue System in the State Emergency Response Plan*

R. W. Napoli

Randall W. Napoli, Director
Division of State Fire Marshal

David A. Casey

David A. Casey, Bureau Chief
Division of State Fire Marshal

Training and Equipment Funded through the United States Department of Homeland Security's

State Homeland Security Grant Program and administered by the Florida Division of State Fire Marshal

OKEECHOBEE COUNTY FIRE RESCUE DIRECTIVES		
DATE 1/01/2009	VOLUME # 3	NUMBER # 3.004
CATEGORY STANDARD OPERATING GUIDELINE		
SUBJECT Two In / Two Out		

I. Purpose:

To establish standard guidelines and procedures that will serve to provide a safe working environment for all employees and to reduce the risk of injury or death as a result of department operations at emergency incidents. This policy will serve to comply with the 2-In, 2-Out provisions in the OSHA Respiratory Protection Final Rule (29 CFR Part 1910).

II. Policy:

To operate as safely and effectively on emergency scenes as possible, Okeechobee County Fire Rescue has established the following procedures that shall be adhered to by all personnel.

III. Procedure:

III.1. Definitions:

III.1.1. IDLH Atmosphere: An atmospheric concentration of any toxic, corrosive or asphyxiate substance that poses an immediate threat to life or would cause irreversible or delayed adverse health effects or would interfere with an individual's ability to escape from a dangerous atmosphere.

III.1.2. Rapid Intervention Crew (RIC): A specifically designated team (minimum two members) designed to provide personnel for the rescue of emergency service members operating at emergency incidents if the need arises.

III.1.3. Incipient Fire: A fire in the initial or beginning stage, which can be controlled or extinguished by portable fire extinguishers. However, it is the policy of Okeechobee County Fire Rescue to deploy a 1 3/4" hand line any time there is a fire inside a structure. Though the incipient fire may actually be controlled by a smaller line or portable extinguisher, an 1 3/4" inch hand line shall be used in most cases.

III.1.4. PAR: Personnel Accountability Report as defined in Okeechobee County Fire Rescue SOG.

III.2. General

III.2.1. The first arriving company shall determine if the incident involves an "IDLH atmosphere". At no time shall individuals enter an IDLH atmosphere independently. Teams of at least two

(2) SCBA equipped personnel shall be required for entry into such an atmosphere at all times.

- III.2.2. In fire situations, it will be necessary for the Incident Commander to determine if the fire is in the incipient stage. A team of two qualified firefighters may take action according to SOG Command Procedures to extinguish an incipient fire without the establishment of an initial Rapid Intervention Crew (RIC).
- III.2.3. If the presence of an "IDLH atmosphere" has been determined, and there are less than 4 qualified firefighters on the scene, the companies shall wait until at least 4 qualified firefighters are assembled on the scene before initiating operations within the IDLH atmosphere. Two qualified firefighters may begin operating within the IDLH atmosphere as long as two additional qualified firefighters are outside the IDLH atmosphere to serve as the initial rapid intervention crew (RIC). One of the two initial RIC members must be responsible for establishing the on-scene accountability system. The second RIC member may be assigned other tasks and/or functions (such as IC) so long as these tasks and/or functions can be abandoned, without placing any personnel at additional risk, if rescue or assistance is needed.
- III.2.4. Members operating in IDLH atmospheres must use SCBAs and PASS devices and must work in teams of two or more. They must also maintain voice or visual contact with each other at all times. Portable radios and/or safety rope tethering are not acceptable as replacements for voice or visual contact. Radios can (and should) be used for fire ground communications, including communications between interior and exterior teams. They cannot, however, be the sole tools for accounting for one's partner during interior operations. Team members must be in close proximity to each other to provide assistance in case of an emergency.
- III.2.5. Until four firefighters are assembled, operations outside of the IDLH atmosphere shall commence immediately in accordance with standard operating procedures. Such operations include, but are not limited to: establishment of water supply; exterior fire attack; establishment of a hot zone; utility control; ventilation; placement of ladders; forcible entry; exposure protection; and any other exterior operations deemed appropriate by the incident commander.
- III.2.6. As the incident progresses to the point of more than one interior team, an identified and dedicated Rapid Intervention Crew (RIC) shall be established and positioned immediately outside the IDLH atmosphere as per Okeechobee County Fire Rescue RIC Policy.
- III.2.7. If the incident is in a high or mid-rise structure, large area facility, or other areas with multiple IDLH atmospheres, the Incident commander shall establish the necessary number of rapid intervention teams so that rescue can be accomplished without a deployment delay. A team should be considered for each remote access point on any large facility. The incident commander will be responsible for determining the number of teams needed based on the specifics of the incident.
- III.2.8. If a firefighter(s) becomes trapped, disabled, or otherwise in need of assistance by the Rapid Intervention Crew, the incident commander shall announce this action to OCFR Dispatch via radio. In turn, OCFR Dispatch shall simulcast the emergency message signal and announce that a rescue is in progress. All on scene personnel not directly related to the rescue shall follow the communications procedure as set forth in the Firefighter in Distress SOG. An immediate personnel accountability report (PAR) shall be conducted. The Incident Commander shall then assign personnel to assist in the rescue and to assist the rapid intervention crew as deemed appropriate. The RIC shall continue to inform the Incident Commander of their progress and actions taken during the rescue.

3/17/97

97-071

AGREEMENT
between
INDIAN RIVER COUNTY, FLORIDA
OKEECHOBEE COUNTY, FLORIDA
and the
INDIAN RIVER COUNTY EMERGENCY SERVICES DISTRICT

THIS AGREEMENT, made this 18 day of March, 1997, by and among,

INDIAN RIVER COUNTY, a political subdivision of the State of Florida, the address of which is 1840 25th Street, Vero Beach, Florida, 32960 (hereafter **INDIAN RIVER**),

OKEECHOBEE COUNTY, a political subdivision of the State of Florida, the address of which is 304 N.W. 2nd Street, Okeechobee, Florida, 34972 (hereafter **OKEECHOBEE**),

INDIAN RIVER COUNTY EMERGENCY SERVICES DISTRICT, a special district of Indian River County, Florida, the address of which is 1840 25th Street, Vero Beach, Florida, 32960 (hereafter **DISTRICT**),

WITNESSETH:

WHEREAS, the Florida Interlocal Cooperation Act of 1969, Section 163.01, Florida Statutes, permits local government units (hereafter LGUs) to cooperate with other LGUs on a basis of mutual advantage; and,

WHEREAS, the parties of this agreement provide fire and rescue services, emergency medical treatment, and emergency management services for the health, safety, and welfare of their respective citizens; and,

WHEREAS, any LGU of this state may exercise jointly with any other LGU of this state any power, privilege, or authority which they share in common and which each might exercise separately; and,

WHEREAS, the parties of this agreement have determined that it is in the public interest of the citizens of Indian River County and Okeechobee County to engage in a cooperative effort in the form of an Interlocal Agreement for the purpose of providing mutual aid in time of a fire, rescue, medical, or emergency management emergency;

NOW THEREFORE, it is agreed by and among the parties hereto that each of the parties agrees to assist the other under the following stipulations, provisions, and conditions:

1. Definitions

- A. **Local Government Unit or LGU** - any county, municipality, town, government supported medical foundation, fire district, or volunteer fire department which provides fire, rescue and/or emergency medical services.
- B. **Emergency** - that event which occasions the need for fire, rescue, emergency management, or medical services on an emergency basis.
- C. **Stricken Party** - a local government unit in the jurisdiction of which the emergency occurs and which requests assistance from another local government unit.
- D. **Aiding Party** - a local government unit requested to respond to an emergency in the stricken party's jurisdiction.

2. Intent

The intent of this Interlocal Agreement is to provide mutual assistance in case of an emergency in Indian River or Okeechobee Counties.

3. Request

Assistance may be rendered by either party to this agreement upon the request of a designated representative of the other party. Such request shall be initiated through the emergency management communications facilities of the parties, or through a 9-1-1 call, a direct call, a radio call, or dispatch call, which identifies the need for assistance.

4. Number of Units Responding

The number of units dispatched, if any, and the number of personnel to man such units, if any, shall be at the discretion of the aiding party. The aiding party shall not be committed to respond in any case in which, in the judgment of the officer in charge of the aiding party, it is determined that a response would seriously jeopardize the aiding party's own local response capability. Availability shall be at the sole option of the aiding party.

5. Liability

All liability for injury to personnel or loss or damage of equipment shall be borne by the LGU to which such personnel and/or equipment belongs. All rights, privileges, and immunities from liability which apply to the activity of officers, agents, or employees of any LGU when performing their respective functions within the jurisdiction of its LGU

shall apply to the same degree and extent to the performance of such functions and duties of such officers, agents, or employees extraterritorially under the provisions of this Interlocal Agreement. This paragraph shall not be construed to prohibit either party from bringing an action against any third party (not a party to this agreement) for any cause of action recognized under the law of the State of Florida.

6. Costs

It is mutually agreed and understood by the parties that no reimbursement from a party to this agreement for any costs incurred in the performance of this agreement shall be required of any other party.

7. Coordination

On scene coordination of the emergency shall be the responsibility of the LGU in the jurisdiction of which the emergency occurs.

8. Back-up Plans

Each party shall develop such plans as necessary to ensure adequate coverage of the party's own jurisdictional areas of operation during the period of the emergency. If an emergency occurs in the aiding party's territory while the aiding party is responding under this agreement, the aiding party may recall such response or initiate additional aid of the stricken party.

9. Protocol

The EMS provider of the aiding party shall function in accordance with the EMS protocols of the aiding party.

10. Term

The term of this Agreement is from May 1, 1997 through April 30, 1998, and shall be renewed automatically from year to year unless either party gives sixty (60) days notice to the other party prior to the end of any annual term, of intent not to renew. In addition the parties reserve the right to terminate this agreement at any time by providing the other parties written notice sixty (60) days prior to termination.

11. Modification

That the provisions of this Agreement shall not be modified or changed other than by further agreement between the parties in writing.

IN WITNESS WHEREOF, INDIAN RIVER, OKEECHOBEE, AND DISTRICT
have entered into this agreement on the date first above written.

INDIAN RIVER COUNTY, FLORIDA
BOARD OF COUNTY COMMISSIONERS

BY: Carolyn K. Eggert
Carolyn Eggert, Chairman

ATTEST:
[Signature]
Henry A. Barton, Clerk
INDIAN RIVER COUNTY, FLORIDA

OKEECHOBEE COUNTY, FLORIDA
BOARD OF COUNTY COMMISSIONERS

BY: Cliff Betts
Cliff Betts, Chairman

ATTEST:
[Signature]
Sharon Robertson, Clerk

Legal
Sufficiency
APR 18 97
OKEECHOBEE COUNTY ATTORNEY

EMERGENCY SERVICES DISTRICT
INDIAN RIVER COUNTY, FLORIDA

BY: Carolyn K. Eggert
Carolyn Eggert, Chairman

ATTEST:
[Signature]
Henry A. Barton, Clerk
INDIAN RIVER COUNTY, FLORIDA

Indian River Co.	Approved	Date
Admin.	<u>[Signature]</u>	3/19/97
Legal	<u>[Signature]</u>	3-10-97
Budget	<u>[Signature]</u>	3-11-97
Oppl	<u>[Signature]</u>	3-10-97
Risk Mgr.		

Through the time horizon of the plan, the county potable water system will continue to meet the standards of the Federal Safe Drinking Water Act, Public Law 93-523; the Florida Safe Drinking Water Act, Section 403.850 - 403.864, FS; Chapter 381, FS; and Rules 62-550, 40C-2, 40C-3, 17-22, and 64E-8, FAC.

POLICY 3.1: The County shall continue to use the Upper Floridan aquifer as the primary source of potable water and use reverse osmosis as the principal raw water treatment method for its regional potable water system. With that water source and treatment method, the county will provide its customers with good quality water that meets the requirements of the Federal Safe Drinking Water Act, Public Law 93-523; the Florida Safe Drinking Water Act, Section 403.850 - 403.864, FS; Chapter 381, FS; and Rules 62-550, 40C-2, 40C-3, 17-22, and 64E-8, FAC.

POLICY 3.2: The county, through the Environmental Health Department, shall monitor and evaluate all private water treatment plants. The results of this evaluation shall be considered during the prioritization of potable water service expansion.

OBJECTIVE 4 Water Conservation

By 2020, the county's per capita water use will be less than the 2006 level of 104 gallons/day.

POLICY 4.1: The county shall require the use of irrigation quality (I.Q.) effluent meeting FDEP standards for irrigation in parks and facilities having significant open space areas (golf courses, medians, etc.) when those areas are located within the County Utilities Department service area and are within 1 mile of the nearest effluent reuse line. Reuse must be authorized by the appropriate regulatory agencies. When a project meets the above criteria, the developer shall be required to construct an effluent reuse line for treated wastewater to be used for spray irrigation.

POLICY 4.2: The county shall continue to apply the requirements of Chapter 926 of its land development regulations, which require the use of drought tolerant vegetation, the use of efficient irrigation systems, and the preservation of existing native vegetation.

POLICY 4.3: In order to eliminate irrigating during rain or when ground is saturated, irrigation systems at county facilities shall be either manually operated or utilize automatic systems with sensors.

POLICY 4.4: The county shall renew its annual contract with the SJRWMD to identify and require property owners to plug or valve free flowing artesian wells.

Wording of SJRWMD Agency Report Recommended Condition 33

Note: The first and third paragraphs were added in response to a request by County staff based upon Board member comments provided at the March 1, 2016 BCC Meeting.

Licensee acknowledges that the water needs of Florida's citizens will require alternative water sources such as surface water projects in the future as determined by the water management districts pursuant to the water supply planning process of section 373.217, F.S., and other applicable provisions of Chapter 373, F.S. Licensee will in good faith evaluate the technical, environmental, and economic feasibility of connection to and use of alternative water sources such as surface water supplies when such sources become available according to the terms of this condition.

Upon notification by the SJRWMD that an alternative water source has potentially become available in the vicinity of OCEC Unit 1, including sources that lie outside of the boundary of the SJRWMD, Licensee shall evaluate the feasibility of connection to and use of the alternative water source. As used herein, the term "alternative water source" means any source not identified as a traditional water supply source in the applicable water supply plan adopted by the SJRWMD pursuant to section 373.709, F.S., or successor provision, for the area encompassing the facility. Within 180 days of the notification from SJRWMD of the potential availability of an alternative water source, the Licensee shall submit a report to the FDEP SCO and the SJRWMD evaluating the technical, environmental, and economical feasibility of each alternative water source identified. The report shall contain an analysis of each alternative water source, including the quantity of water available, the projected date(s) of availability, and costs associated with obtaining and transporting the alternative water to the OCEC Unit 1 facility. If the SJRWMD determines that use of additional alternative water sources are environmentally, technically, and economically feasible, within 120 days of such determination, Licensee shall develop and provide an implementation schedule to reduce, by the amount of additional alternative water source, the quantity of ground water authorized for consumption by the site, to FDEP SCO and SJRWMD for review and approval in accordance with Condition XX "Procedures for Post-Certification Submittals". Once approved, Licensee shall take the necessary steps to implement the schedule. Within 10 days of receiving notice from SJRWMD that an alternative water source has potentially become available in the vicinity of OCEC Unit 1, Licensee shall provide a copy of that notice to Indian River County. Licensee shall submit a copy of its alternative water source evaluation report to Indian River County at the time it submits that report to the SJRWMD.

If by December 31, 2021 there has been no notification provided by the SJRWMD that an alternative water source has potentially become available in the vicinity of OCEC Unit 1, Licensee shall, in coordination with the SJRWMD and Indian River County, conduct a study, as described above, to identify and evaluate the technical, environmental and economic feasibility of connecting to and using alternative water sources that have the potential to become available in the vicinity of OCEC Unit 1, including sources that lie outside the boundary of the SJRWMD. Licensee shall submit the study to the SJRWMD and Indian River County by June 30, 2022. Licensee's submission of the study shall not relieve Licensee of any obligation to evaluate the feasibility of using an alternative water source upon future notification from the SJRWMD of an alternative water source that has potentially become available in the vicinity of OCEC Unit 1, including sources that lie outside the boundary of the SJRWMD.

STATE OF FLORIDA
DIVISION OF ADMINISTRATIVE HEARINGS

IN RE: FLORIDA POWER AND LIGHT COMPANY
OKEECHOBEE CLEAN ENERGY CENTER DOAH CASE No. 15-5540-EPP
POWER PLANT SITING APPLICATION OGC CASE No. 15-0607
NO. PA15-58

**INDIAN RIVER COUNTY'S LAND USE AND ZONING DETERMINATION
FOR FPL'S OKEECHOBEE CLEAN ENERGY CENTER**

In accordance with section 403.50665, Florida Statutes (F.S.), Indian River County hereby submits its determination that the portions of the proposed Florida Power & Light Co. (FPL) Okeechobee Clean Energy Center to be located within Indian River County are consistent with Indian River County's existing future land use plan and zoning ordinance.

1. On September 25, 2015, FPL filed its application for site certification for the Okeechobee Clean Energy Center (Project) under the Florida Power Plant Siting Act, Chapter 403, Part II, F.S. The only Project facilities to be located in Indian River County are off-site associated facilities that include a short transmission line interconnection to FPL's existing 500-kV electrical transmission lines and improvements to an existing private roadway that will provide access to the Project facility from State Road 60.

2. Indian River County has received and reviewed FPL's application as it relates to the County's land use plan and zoning ordinance. The County is otherwise familiar with the Project facilities proposed to be located within Indian River County.

3. Pursuant to Section 403.50665(2), F.S., Indian River County is required to issue a determination on the consistency of the Project's associated facilities that are not exempt from the requirements of land use plan and zoning ordinance under chapter 163

and s. 380.04(3), with the existing land use plan and zoning ordinance of Indian River County. Indian River County therefore makes its determination that the associated facilities to be located in Indian River County are consistent with the County's land use plan and zoning ordinance, as discussed herein.

4. It is Indian River County's understanding that the proposed transmission line improvements to connect the proposed electrical power plant to adjacent, existing transmission line facilities are exempt from the requirements of land use plans and zoning ordinances under Chapter 163 and Section 380.04, F.S., and are therefore not subject to this land use consistency determination.

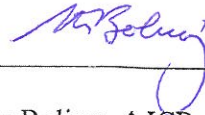
5. Improvements to an existing private road located on land designated AG-3 (Agricultural 3, up to one unit per 20 acres) on the County's future land use map in the County's Comprehensive Plan (Plan) is considered an allowed use in the AG-3 future land use designation and is therefore consistent with Indian River County's comprehensive plan.

6. The existing private access road within Indian River County is within the A-3 (Agricultural 3, up to one unit per 20 acres) zoning district under the County's zoning map and zoning regulations. General infrastructure improvements to an existing access road do not require additional land use or zoning approval. Further, in consideration of the provisions in section 911.04(2)(b) of the County's zoning ordinance, improvements to the private access road are considered a permitted use under the County's zoning regulations. Improvements to the existing private access road within Indian River County constitutes a use that is consistent with Indian River County's zoning ordinance.

Based upon the foregoing, Indian River County makes its determination that the associated facilities for the FPL Okeechobee Clean Energy Center that are to be located

within Indian River County constitute a use that is consistent with the land use plan and zoning ordinance of Indian River County, Florida.

Respectfully submitted this 6th day of November, 2015.



Stan Boling, AICP
Indian River County
Community Development Director

CERTIFICATE OF SERVICE

I certify that I have served a true and correct copy of the foregoing via electronic mail, this 6 day of November, 2015 to the following:

Department of Environmental Protection

Benjamin M. Melnick, Esquire
Jeff Brown, Esquire
Office of General Counsel
3900 Commonwealth Boulevard
Tallahassee, Florida 32399
Benjamin.Melnick@dep.state.fl.us
jeffrey.brown@dep.state.fl.us

Florida Power & Light Company

Michael S. Tammaro,
Senior Attorney
Florida Power & Light Company
700 Universe Boulevard
Juno Beach, FL 33408
michael.tammaro@fpl.com

Brooke E. Lewis, Esquire
Hopping Green & Sams, PA
119 South Monroe Street, Suite 300
Tallahassee, FL 32301
BrookeL@hgslaw.com

Florida Public Service Commission

Keino Young, Attorney Supervisor
2450 Shumard Oak Boulevard
Tallahassee, Florida 32399-0850
kyoung@psc.state.fl.us

Florida Fish & Wildlife Conservation Commission

Anthony Pinzino, Esquire
Farris Bryant Building
620 South Meridian Street
Tallahassee, Florida 32399-1600
anthony.pinzino@myfwc.com

Department of Transportation

Kimberly Clark Menchion, Esquire
605 Suwannee Street, MS 58
Tallahassee, Florida 32399
kimberly.menchion@dot.state.fl.us

Department of Economic Opportunity

Aaron Dunlap, Esquire
620 South Meridian Street, MS 5B5
107 East Madison Street
Tallahassee, Florida 32399
Aaron.Dunlap@deo.myflorida.com

St. Johns River Water Management District

Karen Ferguson, Esquire
Mary Ellen Winkler, Esquire
Office of General Counsel
P.O. Box 1429
Palatka, Florida 32178
kferguson@sjrwmd.com
mwinkler@sjrwmd.com
mperschnick@sjrwmd.com

Callie Register, P.E.
Regulatory, Engineering and Environmental Services
Palm Bay Service Center
525 Community College Parkway, S.E.
Palm Bay, FL 32909
cregister@sjrwmd.com

Okeechobee County

William Royce, Director
Planning and Development
1700 NW 9th Ave.
Okeechobee, FL 34972
broyce @co.okeechobee.fl.us

Indian River County

Stan Boling
Community Development Director
1801 27th Street
Vero Beach, Florida 32960-3388
sboling@ircgov.com

Florida Department of Health

Ed Barranco

4052 Bald Cypress Way, Bin #A08

ed.barranco@flhealth.gov

Department of Agriculture & Consumer Services

John Costigan, General Counsel

Florida Forest Service

3125 Connor Boulevard, Suite K, Room 214

Tallahassee, FL 32399

John.Costigan@FreshFromFlorida.com

Department of State

Deena Woodward

Division of Historical Resources

RA Gray Building, 4th Floor

500 South Bronough Street

Tallahassee, FL 32399

Deena.woodward@dos.myflorida.com

Central Florida Regional Planning Council

Patricia M. Steed

Executive Director

555 E Church Street Bartow, Florida 33830

psteed@cfrpc.org

Treasure Coast Regional Planning Council

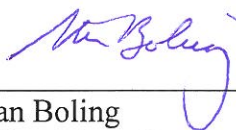
Peter G. Merritt

Assistant Director

421 SW Camden Avenue

Stuart, FL 34994

pmerritt@tcrpc.org



Stan Boling

Indian River County

Community Development Director