BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Petition to determine need for Seminole combined cycle facility, by Seminole Electric Cooperative, Inc.	)	DOCKET NO. 20170266-EC
In re: Joint petition for determination of need for Shady Hills combined cycle facility in Pasco County, by Seminole Electric Cooperative, Inc. and Shady Hills Energy Center, LLC	)	DOCKET No. 20170267-EC FILED: April 4, 2018

INTERVENORS' POSTHEARING STATEMENT AND BRIEF

Michael Tulk, Patrick Daly, and Quantum Pasco Power, L.P., hereinafter referred to as the "Intervenors" in these consolidated proceedings, pursuant to Order PSC-2018-0151-PCO-EC, issued March 19, 2018, hereby submit their Posthearing Statement and Brief.

In summary, in these proceedings, the Commission will determine the economic fate of the 1.6 million people and businesses who, as member-consumers of the Member Cooperatives who obtain their bulk power from Seminole Electric Cooperative, Inc. ("Seminole"), and who will thus be obligated to pay for Seminole's bulk power charges going forward. The need at issue in this case is the need of the "retail customers" who depend on Seminole. See Tampa Electric Co. v. Garcia, 767 So. 2d 428, 434 (Fla. 2000). The criteria for the Commission's decision are set forth in Section 403.519, Florida Statutes:[1] the Intervenors' Brief addresses all criteria, but it should be clear that the critical criteria are reliability need and cost-effectiveness. The reliability issue is whether Seminole actually needs either the Seminole Combined Cycle Facility ("SCCF") or the Shady Hills Combined Cycle Facility ("SHCCF"), which together total approximately 1,700 megawatts of additional capacity for which it seeks determinations of need. Seminole calls its plan the "Clean Power Plan: CC Portfolio;" however, because it involves massive financial and long-term fixed cost commitments, including the construction and debt financing of the SCCF

[1] All references herein to the Florida Statutes are to the 2017 edition.

and a 30-year commitment to pay escalating capacity charges for the SHCCF pursuant to the Tolling Agreement, and that such investments are irreversible, this portfolio is referred to herein as the "MAX RISK Portfolio." As stated in Section 403.519, Florida Statutes, the cost-effectiveness criterion is whether a more cost-effective alternative is available to meet the needs of the retail customers who depend on Seminole, and who are depending on the Commission to make decisions in their best interests in this case.

The evidence in this case shows that, at best, there is extreme doubt as to the accuracy of Seminole's load forecasts as little as 3 years into the future with a persistent bias toward over-forecasting load needs in the past decade, and thus extreme doubt as to its need for the SCCF and SHCCF for "system reliability and integrity." Even Seminole's "updated" forecasting methodology is unproven, and despite claims that it has tested well using "ex post" analyses, it is unproven in any comparison of forecast vs. actual values 3 to 5 years into future let alone over the 30 year planning horizon used by Seminole. See Wood, TR 632 (presenting estimates of "Mean Absolute Percentage Errors," not of forecast vs. actual values.) Even if Seminole's load forecasts were to turn out to be accurate, Seminole's own evidence shows that a more cost-effective alternative is available, namely the "No Build Risk: All-PPA-Portfolio" presented in Seminole's testimony and exhibits, Sotkiewicz, TR 603, Taylor, TR 709, EXH 49, combined with other PPAs or construction options after 2027. Sotkiewicz, TR 590-92. Because of the plethora of portfolios presented, and to emphasize the differences in customer risk burdens between this portfolio and Seminole's MAX RISK Portfolio, the "No Build Risk: All-PPA-Portfolio" is referred to hereinafter simply as the "NO BUILD RISK Portfolio."

Testimony of Seminole's own witnesses shows that the NO BUILD RISK Portfolio has lower revenue requirements in every year from 2018 through 2026 (Diazgranados, TR 468-69, EXH 116), and that the total Cumulative Present Value Revenue Requirements ("CPVRRs") of

the NO BUILD RISK Portfolio are approximately $69 Million less than the MAX RISK Portfolio through 2027. Diazgranados, TR 465-66, EXH 49. Significantly, the evidence also shows that Seminole did not even try to negotiate optionality, such as later in-service dates, for the SCCF than 2022, Ward, TR 123, or for the SHCCF, TR 85, in any effort to realize these available savings for customers associated with the NO BUILD RISK portfolio while minimizing risks associated with its load forecasts and minimizing CPVRRs. Considering only these critical criteria, the Commission should deny both petitions.

Beyond these criteria, the evidence shows that Seminole's MAX RISK Portfolio will reduce fuel diversity in Florida, TR 126-27; TR 233-35, TR 462, that hundreds of megawatts of solar capacity are available at relatively low prices to help meet customers' needs, and that Seminole and its Member Coops' conservation efforts are severely lacking, such that it is likely that additional conservation measures are also available to help avoid any additional capacity to serve the retail customers who depend on Seminole.

Accordingly, to protect the substantial interests of the retail customers who depend on Seminole for their power supply, and who depend on the Commission to protect them, the Commission should deny both the SCCF and SHCCF petitions.

PRELIMINARY STATEMENT

In the Intervenors' Brief, the following terms are used as indicated here.

"Seminole" or "SEC" refers to Seminole Electric Cooperative, Inc.

"Shady Hills" refers to Shady Hills Energy Center, LLC.

"SCCF" refers to the Seminole Combined Cycle Facility.

"SHCCF" refers to the Shady Hills Combined Cycle Facility.

"Tolling Agreement" refers to the Tolling Agreement between Seminole and Shady Hills.

"Member Coops" refers to Seminole's Member Cooperatives as identified by Seminole.

"Retail customers" refers to the member-consumers who receive retail electric service from Seminole's Member Coops. This language follows the terminology of the Florida Supreme Court in Tampa Electric Co., 767 So. 2d at 434.

"O&M costs" refers to operating and maintenance expenses or costs.

"MAX RISK Portfolio" refers to Seminole's proposed Clean Power Plan-Combined Cycle Portfolio, which includes both the SCCF and the SHCCF.

"NO BUILD RISK Portfolio" refers to the portfolio developed and identified by Seminole as the "No Build Risk: All-PPA Portfolio."

"MW" and "MWH" refer to megawatts and megawatt-hours, respectively.

"kW" and "kWh" refer to kilowatts and kilowatt-hours, respectively.

"FEECA" refers to the Florida Energy Efficiency and Conservation Act.

""PPA" means power purchase agreement.

"Quantum Pasco" refers to Quantum Pasco Power, L.P.

"TYSP" refers to Ten Year Site Plan, with the sponsoring utility identified at each reference.

This Post-Hearing Statement and Brief continues with a brief discussion of Background Facts and Legal Background, followed by the Intervenors' Summary of Argument, which is in turn followed by the Intervenors Argument and Discussion of Issues. An additional issue – Quantum Pasco's motivations in this case – while not raised as an issue in the Prehearing Order but voiced by Seminole in its opening statement, is addressed briefly in the Argument/Discussion section. The required Statement of Issues and Positions is provided at the end of the Brief.

Citations to the Hearing Transcript are in the form "TR ___" where TR signifies the transcript, followed by the page number. Citations to hearing exhibits are in the form "EXH ___ at ___," where the exhibit number follows EXH and the page number, if applicable, follows the exhibit number.

LEGAL BACKGROUND

From the Florida Supreme Court's opinions, as followed by this Commission, it is crystal clear that the need at issue in these dockets is the need of the ***retail customers*** who will be served by the proposed power plants. Quoting from the Court's ruling in Tampa Electric Co., 767 So. 2d 428 at 434, the Court stated directly and clearly that "A determination of need is presently available only to an applicant that has demonstrated that a utility or utilities serving ***retail customers*** has specific committed need for all of the electrical power to be generated at a proposed plant." (Emphasis supplied.) In the Commission's 2001 order approving the need determination for the Osprey Energy Center, which was built primarily to meet Seminole's need, the Commission stated the following: "In addition, we find the output of the proposed Osprey Energy Center to be fully committed for ***use by Florida retail electric customers*** in compliance with the Florida Supreme Court's decision in Tampa Electric Co. v. Garcia." (Emphasis supplied.) In re: Petition for Determination of Need for the Osprey Energy Center in Polk County by Seminole Electric Cooperative and Calpine Construction Finance Company, L.P., Docket No. 20001748-EC, Order No. PSC-2001-0421-FOF-EC at 4 (February 21, 2001).

The Commission has no continuing jurisdiction over Seminole's costs or management of its construction programs or power purchase agreements. See Lee County Electric Coop., Inc. v. Jacobs, 820 So. 2d 287, 300 (Fla. 2002).

The governing statute for these need determinations is Section 403.519, Florida Statutes ("Need Determination Statute"), which is part of the Florida Energy Efficiency and Conservation Act ("FEECA"). In addition to prescribing the criteria for determining need as part of the site certification process pursuant to the Florida Electrical Power Plant Siting Act, Sections 403.501-518, Florida Statutes, FEECA also declares the State's policies favoring renewable energy and energy conservation and requires certain utilities to implement energy conservation programs.

Fla. Stat. §§ 366.80-85. (Seminole is exempt from the mandates requiring conservation programs, but the mandatory jurisdiction of the Need Determination Statute applies to the power plants proposed in these proceedings.) Pursuant to the Need Determination Statute, the criteria upon which the Commission is to base its decisions regarding the SCCF and the SHCCF are: the need for system reliability and integrity; the need for adequate electricity at a reasonable cost; the need for fuel diversity and supply reliability; whether a proposed power plant is the most cost-effective alternative available for meeting the needs of the petitioning utility; the extent to which renewable resources and conservation measures that might mitigate the need for additional power plants are utilized to the extent reasonably available; and other relevant matters within the Commission's jurisdiction. It is critical for the Commission to note that only one of these criteria mentions a "reasonableness" standard, and that is with regard to the "reasonable" availability of renewable and conservation options to avoid the need for new power plants. Notably, the key cost-effectiveness criterion explicitly requires the Commission to consider whether a proposed power plant is the "most cost-effective alternative available;" this is not the more common "reasonableness" standard used elsewhere in Commission actions on rates or in evaluating Ten Year Site Plans to consider whether they are "suitable" for planning purposes. See Fla. Stat. § 186.801(2). Of course, where literally billions of dollars of customer money are at risk, this is exactly as it should be: there should be no "range of reasonableness" leeway given where, as here, $13 BILLION of customer money is at risk. The Commission is called upon, and relied upon by the retail customers whose interests will be determined in this case, to make the best decision to protect those customers' interests.

With respect to the Need Determination Statute's reference to "other matters within [the Commission's] jurisdiction," the Commission should consider whether the proposed SCCF and SHCCF would uneconomically duplicate generating facilities in Florida; such uneconomic

duplication is clearly disfavored by the Florida Legislature, as provided in Section 366.04(5), Florida Statutes.

BACKGROUND FACTS

Seminole provides virtually all of the bulk power supply to its nine Member Cooperatives: Clay Electric Coop, Withlacoochee River Electric Coop, SECO Energy, Central Florida Electric Coop, Glades Electric Coop, Peace River Electric Coop, Tri-County Electric Coop, Suwannee River Electric Coop, and Talquin Electric Coop. Ward, TR 53-54. In this capacity, Seminole is thus responsible for meeting the power supply needs of approximately 1.6 million people and businesses, Ward, TR 54. These end-use consumers – referred to herein as "retail customers" in keeping with the Florida Supreme Court's terminology and the Commission's decisions – receive service through approximately 780,000 retail accounts. Wood, TR 307. Seminole is a winter peaking utility. TR 71. Seminole's winter peaks have averaged roughly 3,300 MW over the past three years, TR 307, and are projected to range between 3,398 MW and 3,909 MW between 2018 and the winter of 2026-27. Wood, TR 308. Seminole experienced an unusually, and unexpectedly, high peak (3,932 MW) in January 2018. TR 354. According to its 2017 TYSP, Seminole has demand-side load reductions of approximately 204 MW from its winter peak demands as of 2017.

When included in Seminole's MAX RISK Portfolio, the projected revenue requirements (the amounts ultimately paid by customers) of the SCCF are approximately $8.229 BILLION over 30 years, TR 89, of which approximately $3.3 BILLION are fixed costs, TR 464, EXH 100. The fixed costs cannot be avoided. When included in the MAX RISK Portfolio, the SHCCF is projected to cost the retail customers who depend on Seminole approximately $4.773 BILLION over 30 years, TR 89-90 of which a substantial amount are fixed costs that cannot be avoided.

Seminole presently has outstanding debt and capital lease obligations of approximately $1.35 Billion. TR 93-94. The majority of the principal amount of this debt, see EXH 101, is associated with Seminole's two coal-fired generating units, known as SGS 1 and SGS 2. TR 95. Seminole intends to pay off this principal amount as scheduled, which will result in the retail customers depending on Seminole paying approximately additional millions of dollars in interest over the remaining life of the SGS debt. EXH 101; TR 95. Seminole proposes to close one of these units if its proposals are approved in this case. TR 444. In light of the fact that many coal-fired power plants are being closed, and in view of the fact that Seminole has no buyer for either unit, TR 96, it is fair to conclude that these long-lived assets are "under water" in the common financial sense, i.e., with debt that significantly exceeds their value.

Seminole would take on approximately $660 Million in additional debt for the SCCF. TR 463. The Tolling Agreement, with few exceptions, TR 82-83, is a 30-year commitment to purchase all the entire 573 MW of capacity of the SHCCF, plus whatever energy Seminole schedules, and to pay the fixed – and escalating – capacity charges under the Tolling Agreement. TR 82.

Shady Hills is a private sector entity ultimately owned by GE. Mathur, TR 20.

The Florida Reliability Coordinating Council ("FRCC") region is projected, by the FRCC, of which Seminole is a member (Wood, TR 318-19), to have winter peak reserve margins without either the SCCF or the SHCCF of approximately 32% to 34% through at least 2026. EXH 109, EX 111.

The Florida FEECA utilities have achieved winter peak demand reductions of approximately 7,224 MW since FEECA's inception. EXH 108 at 3. According to its 2017 Ten Year Site Plan (officially recognized for this proceeding), Seminole's comparable winter peak

demand reductions through demand-side type measures is estimated to be 204 MW in the winter of 2017-18.

Michael Tulk and Patrick Daly are retail customers (member-consumers) of Withlacoochee River Electric Cooperative ("WREC").

Quantum Pasco Power, L.P. is the owner of the Quantum Pasco Power Plant, a 121 MW dual-fueled (natural gas and No. 2 Fuel Oil) combined cycle power plant located in Dade City, Florida. Quantum Pasco submitted both PPA bids and asset sale proposals to Seminole to help meet the needs identified by Seminole, Peters, TR 418, EXH 115. Although Quantum Pasco was determined to be a viable project, its bids were not selected for economic reasons.

SUMMARY OF ARGUMENT

The evidence in this case compels denial of both the SCCF and SHCCF petitions in order to protect the interests of the retail customers who will be on the hook for Seminole's decisions if the Commission approves Seminole's MAX RISK Portfolio. The evidence shows that, at best, there is extreme doubt as to the accuracy of Seminole's load forecasts and a demonstrated bias toward over-forecasting load requirements 3 to 5 years into the future over the last decade, and thus extreme doubt as to its need for the SCCF and SHCCF for "system reliability and integrity." Even Seminole's "updated" forecasting methodology is unproven, and despite claims that it has tested well using "ex post" analyses, it is unproven in any comparison of forecast vs. actual values. Moreover, even Seminole's expert, Dr. Tao Hong, testified that Seminole's forecasting has "room for further improvement," TR 674, and that good "ex post" test results do not assure good ex ante results – i.e., good predictions of actual observed values. TR 688. This is simply not credible or sufficient evidence upon which the Commission should allow Seminole to impose approximately $13 BILLION of cost risk, much of it fixed and thus unavoidable, on the retail customers who depend on Seminole for their power supply.

Even if Seminole's load forecasts were to turn out to be accurate, Seminole's own evidence shows that a more cost-effective alternative is available, namely the NO BUILD RISK Portfolio presented in Seminole's testimony and exhibits. Sotkiewicz, TR 572-73; EXH 49. The evidence shows that the NO BUILD RISK Portfolio has lower revenue requirements in every year from 2018 through 2026, Diazgranados, TR 468-69, EXH 116, and that the total Cumulative Present Value Revenue Requirements ("CPVRRs") of the NO BUILD RISK Portfolio are approximately $69 Million less than the MAX RISK Portfolio through 2027. EXH 49.

Of equal or even greater significance in this instance, delaying any new major capital commitments can only improve – reduce – the CPVRR impacts on retail customers, because the escalation or inflation rates projected and assumed for generation capital costs are projected to be significantly less than Seminole's discount rate which is equal to the cost of debt Seminole would incur to pay for capital investments. Although this should have signaled Seminole, or any prudent utility provider, to seek other options to take advantage of the known available near-to-medium-term cost savings, with CPVRR improvements following, as well as to take advantage of potential cost decreases and efficiency gains in conventional gas-fired technologies and solar technologies, Sotkiewicz, TR595, Seminole didn't get the message. In fact, Seminole did not even attempt to negotiate later in-service dates for the SHCCF, Ward, TR 85, and did not consider any later in-service dates for the SCCF than 2022. TR 123. Seminole's excuse that it didn't analyze alternatives because it did not have any offers for such, TR 123, or did not have bids in hand, see Taylor at TR 718-19, is facial evidence of imprudence and a demonstrable failure to seek solutions in the customers' best interests: Seminole should have sought such bids.

The fact that Seminole has a more cost-effective alternative available – the NO BUILD RISK followed by lower-CPVRR options to be added later, when its load forecasting methodology has hopefully achieved some proven status based on real comparisons of forecasted

vs. actual values, when actual loads are known with more clarity, and when the costs of generation alternatives are also known with more certainty – should lead the Commission to deny both petitions directly. The fact that Seminole's MAX RISK Portfolio will impose $13 BILLION in cost risk, much of it unavoidable fixed costs, on the retail customers who depend on Seminole, and the fact that the risks are much less with the NO BUILD RISK portfolio – both because of the reduced fixed cost risk if loads do not materialize as claimed by Seminole and also because of the CPVRR improvements from delaying major commitments – should likewise lead the Commission to deny both petitions in order to protect the retail customers who are depending on the Commission in this case.

The evidence further shows that there is a huge amount of solar generating capacity available to meet Seminole's needs – more than 3,000 MW offered into Seminole's solicitation. EXH 51 at Table A-2. In fact, on the order of 650 MW of solar was offered at prices less than approximately $45 per MWH, TR 530, and close to 2,000 MW of solar was offered at prices less than $50 per MWH. TR 531, EXH 51, Table A-2. The evidence further shows that the costs of solar generation, and solar-with-storage projects, are continuing to decline. Taylor, TR 531-32; Peters, TR 415-16. This is further evidence that Seminole and the customers who rely on Seminole would likely benefit from deferring the major, 30-years-plus commitments to the SCCF and SHCCF, so that such renewable resources can provide more needed power in the medium to long term. In turn, Seminole's complete failure to even consider deferring the SCCF and SHCCF to take advantage of such opportunities is shown to be even more imprudent. The evidence further shows that, while the FEECA utilities in the FRCC region have achieved winter peak demand savings of 7,224 MW - approximately 14 percent – of the 2017-18 FRCC winter peak of 41,994 MW, EXH 109 at 31, Seminole has achieved only 204 MW through comparable measures

– 5 percent. Seminole's 2017 TYSP at 13. Thus, significant amounts of renewable resources and conservation measures are reasonably available to avoid the need for the SCCF and the SHCCF.

The FRCC region, in which Seminole operates and of which Seminole is a member, is projected to have at least 15 percent excess capacity (above both the FRCC reserve margin criterion of 15 percent) at winter peaks through 2026, EXH 111 at 22, EXH 109 at 31. This equates to roughly 6,000 MW of excess capacity over and above firm winter peak demand for the 2018-2026 period. (15 percent of the FRCC 2017-2018 firm winter peak of 41,994 MW = 6,299 MW.) The availability of excess capacity tends to result in better pricing for such capacity. Peters, TR 416. In light of this substantial amount of excess capacity, it is clear that Seminole's additional 1,700 MW is not needed and would uneconomically duplicate winter capacity in the FRCC region.

Finally, Seminole's MAX RISK Portfolio will reduce fuel diversity in Florida. TR 126-127; TR 233-235.

To protect the substantial interests of the retail customers who depend on Seminole, the Commission should deny both the SCCF and SHCCF petitions.

ARGUMENT & DISCUSSION OF ISSUES

The following discussion addresses the issues identified in the Prehearing Order, organized by subject matter rather than by number; the numbers of the issues addressed in each major section are shown in parentheses after the main statement. The Intervenors' issue-by-issue statement of issues and positions is provided in the standard format at the conclusion of this Argument & Discussion section.

I. Seminole Has Failed to Demonstrate by Credible Evidence That Either Seminole or the Retail Customers Who Rely on Seminole Have a Need for Either the SCCF or the SHCCF for System Reliability and Integrity. (Issues 1A & 1B)

Seminole bases its claims regarding reliability need on its load forecasts. Its forecasts have, for the past twelve years, been consistently and dramatically biased in overstating loads vs. the loads that were actually served. Seminole's criticisms of the testimony of Dr. Paul Sotkiewicz are flawed; Dr. Sotkiewicz relied on statements in Seminole's Ten Year Site Plans in preparing his analyses, and even if one looks at only the forecasts for 2014, 2015, and 2016, all of which were made when Seminole knew that it would not have to serve the loads of Lee County Electric Cooperative in those years, the data shows that Seminole's load forecasts were still substantially biased in overstating forecasted values vs. actuals. Seminole now claims to have updated its forecasting methodology, but at best, that forecasting methodology is unproven.

Moreover, Peninsular Florida reserve margins are projected to be entirely adequate to meet all reliability criteria through at least 2026 without either the SCCF or the SHCCF. The cost savings available from the NO BUILD RISK Portfolio are based on Seminole's probably-overstated forecasts, such that, to the extent that the forecasts are in fact overstated, even greater savings would accrue. These savings should lead the Commission, in protecting consumers' best interests, to deny Seminole's petitions so that customer savings can appropriately be realized while the risks of Seminole's questionable, historically biased, forecasting (and of its unproven new forecasting methodology) are minimized.

Analysis of Seminole's record of overstating projected peak demands and energy requirements shows the following.

a. Comparing forecast values shown in Seminole's TYSPs to actual values observed three, four, and five years following the TYSP publication year, Seminole has consistently and systematically over-forecast its winter peak demands, 5 years into the future, by an ***average*** of 1,381 MW, or 39%, and by an ***average*** of 1,079 MW, or more than 30%, 4 years into the future. TR 577-78, EXH 53.

b. On the same basis, Seminole has consistently and systematically over-forecast its summer peak demands 5 years into the future by an ***average*** of 681 MW, or 20%, and 4 years into the future by an ***average*** of 515 MW, or 15%. TR 578, EXH 54.

c. On the same basis, Seminole has also consistently and systematically over-forecast its energy requirements 5 years into the future by an ***average*** of 3,848 gigawatt-hours ("GWH"), or 25%, and 4 years into the future by an ***average*** of 2,954 GWH, or 19%. TR 578, EXH 55.

These consistent, systematic, and dramatic over-estimates demonstrate that Seminole's forecasting cannot be used a basis for supporting the need for the combined capacity of SCCF and SHCCF. TR 577-78, 599. It is particularly telling that Seminole is a winter peaking utility, but its winter peak forecasting errors have ***averaged*** 1,381 MW, which is more than Seminole's projected "Winter Need Gap" of 1,336 MW for 2024, as shown in Exhibit 56, which is a copy of Exhibit 21 presented by Seminole through the testimony of its witness Julia Diazgranados, who is the utility's Director of Treasury and Planning. TR 439.

Even more striking is the fact that there has been a downward trend in the actual winter and summer peak loads since 2009, corresponding to the end of the last recession, which is a trend that has widely been seen across the United States, yet Seminole's new forecast is for peak load to start growing again as it had prior to the last economic downturn. In other words, if Seminole's current forecast has the same average error in MW that its forecasts made from 2005 through 2012 (the 4-years-out projection for 2016 was made in 2012) exhibited, Seminole would not need any new capacity until 2025. In fact, this ***average*** forecast error of 1,381 MW is nearly the total amount of capacity proposed for the SCCF and the SHCCF combined.

Seminole's witness Kyle Wood criticized Dr. Sotkiewicz's analyses for allegedly including the effects of Lee County Electric Coop loads that were partially unserved in the years

beginning in 2010. Lee County Electric Coop was formerly served by Seminole, but is no longer. Moreover, this is not a fair or logical criticism because Dr. Sotkiewicz relied on Seminole's Ten Year Site Plans, which are supposed to be Seminole's representations of its forecasts to the Commission and to the world. As significantly, Mr. Wood also criticized Dr. Sotkiewicz's analyses for failing to recognize that the forecasts presented as Seminole's official forecasts in its Ten Year Site Plans were, in fact, based on data that is more than a year old, again without any way for Dr. Sotkiewicz or anyone else to know from the Ten Year Site Plans that Seminole's publicly presented forecasts were based on stale data.

More significantly from the perspective of accurately understanding the errors in Seminole's forecasting, Mr. Wood presented "corrected" analyses with adjustments for the Lee County loads and the data timing issue he asserted. EXH 66. Mr. Wood's analyses show errors of forecasted vs. actual values of 18-20 percent for winter peak projections on a five-years-out basis. EXH 66. These are dubious enough forecast errors for purposes of making decisions involving multi-billion-dollar long-term commitments, even if accurate. However, removing the earlier years in which the Lee County loads were, allegedly, incorrectly included actually shows that the errors between forecast vs. actual values are greater when the Lee County adjustments are made. TR 637.

Seminole has apparently updated its forecasting methodology. Mr. Wood attempted to support his claims that the new methodology is better by claiming that an "ex post" analysis of "Mean Absolute Percentage Errors" is a better analysis of forecast accuracy. See TR 632. However, this statistic simply does not measure the same thing, and the relevant factor in forecasts, especially where BILLIONS of dollars of retail customers' money are at stake, is whether a forecast produces accurate estimates of the actual loads – peak demands and energy requirements – that the utility must serve. In other words, Seminole's "updated" methodology is

unproven, and even Seminole's hired expert witness, Dr. Tao Hong, testified that Seminole's forecasting methodology has "room for further improvement," TR 674, and that good ex post test results are no guarantee of good forecasts of actual values. TR 688. Mr. Wood agrees with Dr. Hong on this critical point as well. TR 650.

In short, Seminole's forecasting methodology has been updated, and it may or may not be better at predicting the loads that Seminole will have to serve, but it is not proven and not a sound basis upon which to put $13 BILLION of customers' money at risk in long-term commitments (including substantial amounts of unavoidable fixed costs), especially where the known NO BUILD RISK Portfolio is available to meet the needs of the retail customers who rely on Seminole for the next 10 years at lower cost. It should be obvious to the Commission that the additional flexibility of shorter-term PPAs though the NO BUILD RISK Portfolio will allow Seminole to better match resources with needs: the risks, and rate impacts on customers, of long-term, fixed-cost commitments like the SCCF and the SHCCF Tolling Agreement can only be exacerbated if Seminole's loads do not match its forecasts.

Seminole has ample capacity to meet its needs without the SCCF or the SHCCF for at least the next several years. Seminole presently owns 2,178 MW of its own generation resources, the two coal units at Seminole's Palatka site (1,329 MW winter), and the 8 units at the Midulla Generating Station in Hardee County (849 MW winter). EXH 58; Seminole's 2017 TYSP at 3, 6. Additionally, Seminole has (or will have as of 1/1/2021) approximately 1,603 MW of winter capacity available through purchased power resources through at least 2024. Sotkiewicz, TR 580, EXH 58. Thus, Seminole has about 3,780 MW of capacity under control through at least 2024, with winter peaks that are currently in the range of 3,500 MW. Adding a 15 percent reserve margin to Seminole's estimated 2017 3,523 MW winter peak (as reported in its current TYSP) indicates total need of about 4,051 MW, which is about 270 MW above its resources under

control through 2024. This small amount of additional need could easily be met by PPAs (or tolling agreements). Sotkiewicz, TR 580.

II. Seminole's MAX RISK Portfolio Is Not the Most Cost-Effective Alternative Available to Meet Any Need that Seminole May Have. (Issues 3A, 3B, 5A, and 5B)

Seminole's MAX RISK Portfolio is not the most cost-effective alternative available. A more cost-effective alternative, the NO BUILD RISK Portfolio, followed by additions of either self-built capacity or additional PPAs in the mid-2020s, would be more cost-effective because the NO BUILD RISK Portfolio costs less in every year from 2018 through 2026, and because capital costs are projected to escalate at significantly less than Seminole's discount rate reflecting Seminole's cost of borrowing, which will necessarily result in lower CPVRRs for customers, even if Seminole's load forecasts turn out to be accurate. If the load forecasts turn out to be overstated, consistent with Seminole's history, the cost savings to customers will be correspondingly greater. Because the MAX RISK Portfolio is not the most cost-effective alternative, the SCCF and the SHCCF are therefore not needed for adequate electricity at a reasonable cost. Further, no hypothetically alleged "economic need" for the MAX RISK Portfolio, and the SCCF and SHCCF, has been demonstrated. Any such claim is likewise negated and refuted by the availability of the NO BUILD RISK Portfolio. Moreover, Seminole did not allow any of the alternative portfolios presented to realize the same savings that it assigned to the MAX RISK Portfolio.

Seminole's own analyses initially showed that the NO BUILD RISK Portfolio would be $136 Million more cost-effective than Seminole's proposed/preferred plan through 2027. (In February 2018, after Seminole's witness team spent approximately two months reviewing and vetting their testimony and exhibits from October to December 2017, TR 461, Seminole discovered an error in its analyses. See TR 465; EXH 83. (Seminole's late-discovered "corrections" to its filed analyses, which reduce the savings through 2027 to $69 Million in

CPVRRs, are discussed briefly at the end of this section.) Further, Seminole and its portfolio evaluator and witness, Alan Taylor, used escalation rates (Seminole 2.2% to 2.9%, TR 471, EXH 81; Taylor, 1.0%, EXH 51 at 11) that are significantly below Seminole's discount rate of 6 percent: this tells the Commission that delay will improve the Cumulative Present Value Revenue Requirements ("CPVRR") of delaying the need for the SCCF and the SHCCF, even if they were to be needed. Of course, delay also avoids the risks associated with these long-long-term, generational commitments.

Seminole did not properly evaluate the NO BUILD RISK Portfolio as compared to its chosen MAX RISK Portfolio. Of tremendous significance in this regard, of all the portfolios evaluated, Seminole only gave its chosen MAX RISK Portfolio cost savings benefits for closing one of the SGS coal units. See TR 479-80, EXH 49; EXH 51 at Table A-13; see also EXH 51, Tables A-14 and A-15. These savings are several hundred million dollars. Even knowing that significant savings were available from the NO BUILD RISK Portfolio over the first ten years of the analysis period, neither Seminole nor Mr. Taylor ever even analyzed any All-PPA Portfolio that would likewise have enabled Seminole to close one of its coal units. TR 546, 548. This is a shocking bias in Seminole's and Mr. Taylor's analyses, obviously in favor of the MAX RISK Portfolio, and evidence of imprudence by Seminole.

On February 28, 2018, notwithstanding that Seminole had a team of several professionals and experts working on, and presumably vetting thoroughly, its testimony and exhibits throughout the Fall of 2017, leading up to filing its case on December 21, 2017, apparently in answering a Staff interrogatory, Seminole discovered an error in the calculations for the NO BUILD RISK Portfolio. (According to Seminole, the error was in calculating startup fuel costs and in carrying those into Seminole's economic analyses. EXH 83 (Seminole's response to Staff's Int. No. 68). The error reportedly is in software developed by ABB, for which ABB apparently does not have a

fix. TR 602. Coincidentally, ABB is also the vendor or supplier of Seminole's production cost modeling software, System Optimizer. Diazgranados, TR 459.) Seminole changed its testimony and exhibits to show that the first-ten-years savings are $69 Million in CPVRRs as opposed to the $136 Million in CPVRRs in its case as filed. This change does not change the conclusion that the NO BUILD RISK Portfolio is still more cost-effective over the first ten years of the analysis period, not does it change the Intervenors' concerns and positions regarding load forecasting inadequacies discussed above, nor does it change the Intervenors' profound concerns regarding the risks that Seminole's decisions would impose on member-consumers, imprudently and unnecessarily in the Intervenors' view, as discussed below. TR 602-03. The fact that Seminole spent many person-months of effort preparing its testimony and exhibits and failed to discover this error also leaves room to question whether other errors may yet lie in Seminole's analyses. The Commission should not expose the customers who depend on Seminole for their power supply to the risks that Seminole's plan would impose upon them. The Commission should deny both petitions.

If Seminole were to proceed with an All-PPA Portfolio, it would preserve options for itself, and for the consumers who must pay for Seminole's decisions, to choose smaller resources rather than larger ones, with shorter or medium term financial commitments, as compared to the 30-year-plus commitment to the SCCF and the 30-year commitment to the SHCCF under the proposed Tolling Agreement. There are simply lower risks associated with a portfolio of smaller, shorter PPAs, than with long-term commitments like the SCCF and the SHCCF. Sotkiewicz, TR 595-96. Seminole's own analyses show that the fuel cost savings from the SCCF and the SHCCF, if they materialize at all, and even assuming that Seminole's load forecasts turn out to be accurate, would not outweigh the additional capital and operating costs associated with those

units until sometime after 2027. Sotkiewicz, TR 590. In short, Seminole would be better off to postpone construction of these expensive units.

Uneconomic Duplication of Facilities. The Need Determination Statute provides that the Commission shall also consider relevant matters within its jurisdiction that are beyond the specifically enumerated criteria in the statute. Here, the Commission should consider the fairly obvious fact that the proposed SCCF and SHCCF would represent uneconomic duplication of generating facilities. First, Seminole obviously had enough proposals based on PPAs to know that using PPAs for the first ten years would save approximately $136 Million, based on its original analyses done throughout its 2017 planning and decision-making processes. Even Seminole's changed testimony shows that the savings to customers are now $69 Million in CPVRRs through 2027. This is clear evidence that adding the SCCF and the SHCCF "in the approximate time sought" (see Rule 22.081(1)(f), F.A.C.) is uneconomic compared to the other, lower-cost options available to Seminole in the NO BUILD RISK Portfolio.

To the extent that Seminole would still, if it were given its way, add approximately 1,700 MW of additional capacity to its – and the State's – fleet, given the fact that a lower-cost option is available through 2027, is prima facie evidence of uneconomic duplication of facilities. Moreover, as discussed above, where Seminole's discount rate, which is interest rate at which it borrows money for capital projects, exceeds its projected inflation rates, i.e., the annual increase in the cost of building capital projects, – the very inflation rates upon which it based its analyses, delay in committing to these long-term obligations (ownership of the SCCF and the Tolling Agreement for the SHCCF) will only benefit retail customers by reducing CPVRRs.

Further, the availability of very large amounts of capacity during the winter seasons over the first ten years of Seminole's planning horizon also indicates that the addition of the 1,700 MW of capacity represented by the SCCF and the SHCCF would uneconomically duplicate capacity

that is, or is projected to be, available in the FRCC region. The FRCC projects that the FRCC region, in which Seminole operates and of which Seminole is a member, will have winter reserve margins of approximately 35 percent vs. firm winter peak demands through 2026. EXH 111 at 22. Removing the two Seminole units (SGS CC Unit 1 in 2021 and Unnamed Generating Station CC Unit 2 in 2022, from Seminole's 2017 TYSP at 31-32) that were included in this FRCC analysis indicates that the winter reserve margins are closer to 32-34 percent over the period. Even so, measured against the FRCC's 15 percent winter reserve margin criterion, this indicates approximately 6,000 MW of capacity, over and above firm winter peak demand, in every year throughout the period. (15 percent of the projected winter firm peak demand for 2017-2018, 41,994 MW, from EXH 109 at 31, equals 6,299 MW.)

Even though Seminole's witness Jason Peters agreed that excess capacity – reflecting greater supply – would indicate that softer capacity prices should be available, Seminole did not solicit winter capacity bids. Peters, TR 416.

In summary, Seminole most probably does not need anything like 1,700 MW of new capacity in 2021 and 2022. Seminole's analyses are deeply flawed and biased against the NO BUILD RISK Portfolio, which Seminole developed, and which would save customers at least $69 Million over the next ten years, even if Seminole's load forecasts are correct, even more to the extent that those forecasts are overstated. Delaying commitments to the SCCF and the SHCCF will save customers money – improving CPVRRs – through using PPAs over the next several years even if Seminole later determines that adding new owned capacity is the best option in the mid-2020s. It also greatly reduces the risks that Seminole would otherwise impose on the retail customers who depend on Seminole for power supply. Allowing Seminole to go forward with its proposed SCCF/SHCCF plan is contrary to consumers' best interests. These consumers are

depending on the Commission to make the right decision, and the Commission should accordingly protect consumers by denying both petitions.

III. Seminole Failed to Prudently and Appropriately Evaluate Reasonable Alternative Scenarios for Cost-effectively Meeting the Needs of Customers Over the Relevant Planning Horizon. (Issues 5C & 5D)

Seminole's initial analyses initially showed that the NO BUILD RISK Portfolio would be $136 Million more cost-effective than Seminole's proposed/preferred plan through 2027; even with its last-minute "corrections" to its original analyses, the CPVRR savings through 2027 are still $69 Million. EXH 49. Further, Seminole and its portfolio evaluator and witness, Alan Taylor, used inflation rates reflecting the annual increases in costs to build new facilities (Seminole, 2.2% to 2.9%, provided by Moody's Analytics, TR 471, EXH 81; Taylor, 1.0%, EXH 51 at 11) that are significantly below Seminole's cost of borrowing reflected in its discount rate of 6 percent: this tells the Commission that delay will improve the CPVRRs of delaying the need for the SCCF and the SHCCF, even if they were to be needed. Sotkiewicz, TR 592; Taylor, TR 720. Nationally, in fact, the costs of combustion turbines and combined cycle units have been flat to declining over recent years. Sotkiewicz, TR 592, EXH 62. Of course, delay also avoids the risks associated with these long-term resource commitments. Sotkiewicz, TR 595. Seminole's own analyses show that the fuel cost savings from the SCCF and the SHCCF, if they materialize at all, would not outweigh the additional capital and operating costs associated with those units until sometime after 2027. Sotkiewicz, TR 590.

The most compelling problem with Seminole's course of conduct is that it completely failed to try to obtain both the medium-term benefits available from the NO BUILD RISK Portfolio through at least 2026 and to similarly realize the CPVRR benefits that should be available through deferring additional capacity commitments. Specifically, Seminole did not:

- Attempt to negotiate alternate pricing or other terms and conditions that would enable it to defer the in-service dates of either the SCCF or the SHCCF while meeting near-term needs with PPAs (Ward, TR 85);

- Consider possible advances, over the next 5 to 10 years, in CT and CC technology;

- Consider possible reductions in CT and CC costs over the next 5 to 10 years;

- Consider potential improvements in solar technology and reductions in solar power costs over the next 5 to 10 years; or

- Consider potential improvements in, and reductions in costs of, solar-with-storage over the next 5 to 10 years.

Shady Hills' or GE's reluctance to negotiate for later in-service dates would have been understandable, but Seminole did not even try. This is imprudent. The Commission should deny both petitions.

IV. Seminole's MAX RISK Portfolio Will Unnecessarily Impose Staggering Additional Long-Term Risks on the Retail Customers Who Depend on Seminole. (Issues 3A, 3B, 5A, 5B)

Seminole's rates are already high. The proof of this pudding is demonstrated by the fact that Seminole's Member Coops have rates that cluster at the high end of all Florida electric utilities' rates. EXH 105 at page A-10. Seminole can try to explain this away by local differences, or coops being different than other utilities, but the fact is that the two Florida coops that have the lowest rates among coops, Florida Keys Electric Coop (with the second lowest bill for 1,000 kWh or residential service) and Lee County Electric Coop (eighth lowest), are not Seminole members. In fact, out of 56 utilities covered in the Commission's Comparative Rate Statistics report, Seminole's nine members rank (where a higher number indicates higher rates) 23rd (Clay), 28th (Sumter, now SECO), 39th (Withlacoochee), 41st (Suwannee Valley), 44th (Talquin), 45th (Central Florida), 49th (Peace River), 50th (Tri-County), and 51st (Glades). EXH 105 at A-10. This averages out to a rank of forty-first lowest rates, or sixteenth highest rates in Florida. Seminole's wholesale rates constitute significant percentages of these Member Coops' rates. EXH

99Taking Withlacoochee River Electric Coop as an example, Seminole's rates constitute approximately well over half of the total. EXH 99.

Worse, though, Seminole's rates threaten to go even higher. Pages from the Seminole Board of Trustees presentations of the MAX RISK Portfolio, EXH 103, show this graphically. In the Base Case scenario, the MAX RISK Plan rates are projected to be greater than in the other portfolios for most of the first ten years, then falling below. EXH 103 at 20. In the Pessimistic Case, which includes both lower than projected load growth and higher than base natural gas prices, the rate escalation is even worse. Seminole did not evaluate a separate case addressing only the low-load-growth scenario in which sales would be less than projected. TR 108. Given its load forecasting record, that evaluation would have been the most relevant and prudent.

Against this backdrop of high rates that are heading higher, Seminole now asks the Commission for authorization to impose an additional $13 BILLION of long-term cost risk, much of it unavoidable, pursuant to a life-of-the-asset obligation in the case of the SCCF, and a 30-year commitment to the SHCCF through the Tolling Agreement, with effectively no opportunity to escape that 30-year obligation other than to buy the asset. TR 82-83. Mr. Ward stated that all costs are at risk, TR 90, even though variable costs, such as fuel costs, can be avoided if energy is not purchased. TR 90.

Whether it is only the fixed costs, which represent a substantial amount of the $13 BILLION of the SCCF/SHCCF combined costs, see EXH 100, or the total costs that are at risk for the retail customers who depend on Seminole, Seminole has not acted prudently or reasonably to minimize customer risks. Perhaps worse, Seminole failed to learn from, or to implement, directly applicable lessons from its own experience with its coal units and with its flexible PPA with Calpine Construction Finance Company for the Osprey Energy Center's output.

A. Seminole Should Apply Lessons That It Should Have Learned from Long-Term Capital Commitments – its Coal Units – and from its Good Experience with the Optionality Provided by the Osprey Energy Center PPA.

In this context, one would think and hope that Seminole would be more vigilant in protecting the retail customers' interests by avoiding the risks of major, long-term capital commitments, and also more attentive to trying to maximize flexibility and optionality value with any PPA options considered, particularly the Tolling Agreement in this case. It is all well and good for Seminole to repeat its mantra that it chose the "best, risk-managed portfolio," but the fact is that Seminole's MAX RISK Portfolio will impose staggering risks on retail customers, and Seminole apparently failed to learn from either its mistakes with the adverse consequences of long-term fixed-cost commitments or from its successes with flexible PPAs.

Risks of Long-Term Capital Commitments. Seminole knows or reasonably should know the risks of long-term fixed-cost commitments. Seminole should be keenly attuned to those risks in light of its experience with its coal-fired units, SGS 1 and SGS 2. Those units presently account for a majority of Seminole's total debt plus long-term capital lease obligations of $1.35 Billion. TR 93-95, even when closing one of them is projected to save Seminole several hundred million dollars, as estimated by independent contractors, and even when many, many utilities are closing their coal plants, at least in Florida. Seminole's witness Michael Ward, TR 96-97, acknowledged that the jointly owned St. Johns River Power Park coal units, Gulf's Plant Smith, Cedar Bay, Indiantown, and Duke Energy Florida's Crystal River 1 & 2 coal units have either closed or are all closing in the near future. Unfortunately for customers, however, Seminole wants to forge ahead and take on another $660 Million in debt to pay for the SCCF, a life-of-the-project obligation, and to simultaneously take on the 30-year obligation to pay the capacity charges to Shady Hills under the Tolling Agreement. These actions are not in the best interests of customers.

Optionality Benefits: Lessons from the Osprey PPA. In 2001, the Commission issued its order granting the joint petition of Seminole and Calpine for determination of need for the Osprey Energy Center, a 529 MW net capacity gas-fired combined cycle capacity (in size and basic combined cycle technology, not unlike the SHCCF). The Osprey PPA, however, provided substantial optionality benefits in favor of Seminole: reopeners in favor of Seminole every five years and flexibility to take (and pay for) as little as 360 MW of the Osprey plant's capacity or as much as its full capacity (if not already sold to others). EXH 117 at 11-12 (Testimony of Seminole's former Vice President of Strategic Services, Timothy S. Woodbury).

Astonishingly, Seminole did not even attempt to negotiate for such benefits from Shady Hills. This failure was imprudent, and it threatens to impose some $4.8 BILLION of additional cost risk on retail customers, EXH 100, with no optionality benefits such as periodic reopeners or "out" options in favor of Seminole if the SHCCF and Tolling Agreement should become uneconomic and with no flexibility as to the amounts of capacity that Seminole must pay for. With the Tolling Agreement, Seminole and the retail customers who depend on Seminole are on the hook for the capacity charges for all 573 MW for the entire 30-year life of the Tolling Agreement.

Translating these lessons into the current proceedings, if Seminole were to proceed with the NO BUILD RISK Portfolio, it would preserve options for itself, and for the consumers who must pay for Seminole's decisions, to choose smaller resources rather than larger ones, with shorter or medium term financial commitments, as compared to the 30-year-plus commitment to the SCCF and the 30-year commitment to the SHCCF under the proposed Tolling Agreement.

B. The Risks of the MAX RISK Portfolio to Customers are Staggering and Unnecessary.

The risks to customers of approving Seminole's plan are staggering: $13 Billion of customers' money at risk over 30 years. Ward, TR 90 (all costs are at risk). There is no

meaningful reliability risk of denying the SCCF and the SHCCF: all portfolios will meet Seminole's reliability criteria, even with Seminole's forecasted need. Even assuming that need actually materializes, the NO BUILD RISK Portfolio has lower costs than Seminole's MAX RISK Portfolio in every year from 2018 through 2026. Diazgranados, TR 470; EXH 116 at Bates SECI002603 & SECI002627. The revenue requirements are nearly equal in 2017, with the NO BUILD RISK Portfolio being higher by approximately 0.1 percent in that year, and the NO BUILD RISK Portfolio becoming more expensive in 2027. Id.

The ONLY potential downside risk to customers of denying both the SCCF and the SHCCF is the speculative risk, unsupported by any objective evidence in the record of this case, that inflation MIGHT be greater than expected by Seminole, than used by Seminole in evaluating options and portfolios; by Seminole's economic data provider, Moody's Analytics, TR 471, EXH 81; by the Federal Reserve System of the United States, see TR 540, and by Seminole's witness Alan Taylor, EXH 51 at 11. Of course, risks cut both ways, so it is obviously possible that escalation could be even less than forecast by Moody's or the Federal Reserve System, resulting in even greater CPVRR benefits of delay to retail customers.

The Commission must consider the best interests of the retail customers who depend on Seminole for their power supply. This necessarily requires the Commission to consider the alternative risks imposed on those retail customers by Seminole's proposed MAX RISK Portfolio and the risks of pursuing the more cost-effective NO BUILD RISK Portfolio, with additional capacity additions in the late 2020s. In simple but meaningful terms, this risk evaluation can be boiled down to a comparison of the risks that TWO of Seminole's key assumptions are wrong: its load forecast and its escalation or inflation assumptions. Both of these risk factors militate toward denying both the SCCF and the SHCCF petitions.

First, Seminole's load forecasts have historically been significantly off – by more than 20 or 30 percent on a five-years-out basis. Sotkiewicz, TR 577-78 and EXH 53 (30 percent); Wood, EXH 66 (18-20 percent, even greater if the years that included LCEC load are removed, Wood, TR 637). That error, if it persists, is sufficient to virtually wipe out any claimed reliability need. The customer risk of Seminole's load forecasts being wrong again is the risk of spending much more than is necessary to meet customer needs. The risk of Seminole's updated load forecast actually being correct is directly mitigated by choosing the NO BUILD RISK Portfolio, which will produce lower revenue requirements in every year from 2018 through 2026, with a slight negative differential (approximately one-tenth of one percent) in 2017.

This then leads to the second risk factor, inflation or escalation of capacity costs over the next 5 to 10 years. This is critical because Seminole uses the standard CPVRR criterion to evaluate cost-effectiveness, and if inflation is less than the applicable discount rate (i.e., Seminole's cost of borrowing money), then delaying capital expenditures will reduce customer costs as measured by CPVRRs. Seminole uses – and assumed for its analyses in this case- the inflation factors projected by Moody's Analytics. Diazgranados, TR 471. Those rates over the next 20-30 years are projected to be between 2.2% and 2.9% per year. Diazgranados, TR 471, EXH 81. Seminole's witness Alan Taylor used for his evaluations an escalation rate of 1.0%. EXH 51 at 11. Mr. Taylor further agreed that the Federal Reserve Bank of the United States has a target inflation rate of 2.0%. TR 540. Mr. Taylor, for the first time in his rebuttal testimony, purported to raise concerns about possible higher escalation of the costs of CT and CC capacity. See TR 713.

Relative to customer risk, it is obvious that the consensus view of escalation and inflation – less than 3% by Seminole and its economic analysis company, Moody's Analytics, the Federal Reserve System of the U.S. (2.0%), and even Mr. Taylor's appropriately "conservative" 1.0% -

demonstrates that the risk of escalation being even close to Seminole's discount rate is much, much less than the risk of Seminole's load forecast being wrong. Even if escalation in capacity costs were exactly equal to Seminole's discount rate, at 6%, customers would still see $69 Million in savings over the 2018-2027 period with the NO BUILD RISK Portfolio.

In this light, then, the Commission must consider what would have to be true for customers to be worse off by denying the petitions by which Seminole proposes to impose the risks of the MAX RISK Portfolio on the retail customers who depend on it. Simply, Seminole's load forecast, demonstrably and significantly wrong historically and unproven as to its new incarnation, which even its expert, Dr. Hong, agrees cannot guarantee good predictive results on an ex ante basis despite short-term ex post test results, would have to be accurate, AND the inflation assumptions used by Seminole and Mr. Taylor – based on Moody's Analytics and consistent with the inflation targets and predictions of the Federal Reserve System – would have to be wrong. This is no basis for imposing $13 BILLION in costs, a substantial amount of which will be fixed costs (see, e.g., EXH 100, page 3) that are unavoidable if the load forecast assumptions turn out to be wrong, as the Intervenors expect, on retail customers. The Commission should deny both petitions.

V. Seminole's MAX RISK Portfolio Will Reduce and Impair Fuel Diversity in Florida. (Issues 4A & 4B)

The MAX RISK Portfolio will reduce fuel diversity for Seminole, for the retail customers who depend on Seminole, and for Florida as a whole. TR 126-27; TR 233-35; TR 462. Adding 1,700 MW of solely gas-fired capacity, i.e., capacity without alternate fuel capability, cannot help but do so. Closing one of Seminole's coal plants would shift Seminole's and the State's dependence even more heavily to natural gas. Of course, as long as gas prices remain low, this is not as significant a problem as it might become, but it enhances risk.

Closing one of Seminole's coal units is a separate decision that can and should be made on its own merits. That decision simply does not depend on adding either the SCCF or the SHCCF. Any actual needs resulting from closing a coal unit can be filled with PPAs, perhaps from dual-fueled generating facilities like the Pasco Power Plant. See Sotkiewicz, TR 580. In any event, if Seminole intends to close one of its coal plants, it should give all potential suppliers and all potential portfolios an equal opportunity to get credit for saving the hundreds of millions of dollars associated with closing a coal unit (EXH 51 at Table A-13). that Seminole estimates closing one coal unit will produce. The Commission should carefully compare the magnitude of those cost savings to the cost differentials between the MAX RISK Portfolio and the other portfolios in EXH 49. Again, Seminole's decision not to perform that analysis is egregious evidence of imprudent management: Seminole did not perform the analyses that it should have in order to ensure the customers who depend on it that they are getting the best deal. The Commission should deny both petitions.

VI. Significant Potential Renewable Energy Resources and Conservation Measures Are Reasonably Available to Mitigate Any Capacity Need That Seminole May Have. (Issues 2A & 2B)

There are significant amounts of renewable energy resources and conservation measures reasonably available to mitigate any capacity need that Seminole may have. Seminole received more than 3,000 MW of non-duplicative offers for solar generating resources that were evaluated by Mr. Taylor. TR 530, EXH 51 at 5 (Table A-1). The undisputed fact that solar resources are not generally available when winter peaks occur must be carefully considered, of course, but it is mitigated significantly by the corresponding fact that the FRCC region is projected to have substantial excess capacity at winter peaks over the next 10 years: 33 to 34 percent of firm winter peak demand. EXH 109. This excess capacity is likely to lead to lower capacity costs. Peters, TR 416-17. In other words, Seminole should have evaluated, and should still evaluate, obtaining

more low-cost solar power and filling in any actual winter capacity needs with winter capacity purchases from Peninsular Florida's existing and projected excess winter reserve capacity. That Seminole did not do so is further evidence of its failure to appropriately and prudently evaluate reasonably available supply scenarios for the benefit of retail customers. (See discussion of Issues 5C and 5D above.)

Further, deferring the SCCF and SHCCF would enable Seminole to take advantage of likely future cost decreases for both solar and solar-with-storage options. Sotkiewicz, TR 594-95.

It also appears likely that there is significant additional conservation potential to help mitigate the need for either the SCCF or SHCCF. Through 2016, Florida's FEECA utilities have achieved 7,224 MW of winter peak demand reductions. EXH 108 (the Commission's 2017 Annual Report on Activities Pursuant to FEECA) at page no. 3. This represents approximately 17 percent of the FRCC region's projected 2017 Firm Winter Peak Demand (41,994 MW) and approximately 16 percent of the projected 2017 Total Winter Peak Demand (44,836 MW), as shown on EXH 109 at page no. 1. Seminole, by comparison, shows in its 2017 TYSP that it has conservation savings of approximately 204 MW of its winter peak demand, which represents approximately 5.5 percent of total winter peak and approximately 5.8 percent of firm winter peak. Seminole's 2017 TYSP at 13. The point is simple and obvious: if such winter peak demand reductions have been achieved by the Florida utilities that are subject to FEECA, they are at least reasonably available to Seminole and its Member Coops. Only one coop even offers rebates to its retail member-consumers. Wood, TR 311. The substantial majority of Seminole's claimed conservation peak demand reductions, 61 MW of a total of 85 MW, according to Mr. Wood, is provided through voltage reduction. TR 311. Voltage reduction is, in fact, a measure that is applied by the supplying Member Coops, reducing the amount of electricity supplied to retail customers. TR 314. Thus, the Member Coops' real demand-side conservation achievements, are

even less than Seminole would have the Commission believe. A reduction, through conservation measures, of 11 or 12 percent of Seminole's winter peak would go most of the way to avoiding any need for the SHCCF, under the assumption that future Seminole load forecasts are reasonably accurate and unbiased, and such peak reductions could potentially avoid the need for SCCF if Seminole's load forecasts remain biased toward over-forecasting.

VII. Quantum Pasco Offers a Viable, Competitive Option to Meet the Needs of the Retail Customers Who Depend on Seminole.

Quantum Pasco could have been, and could still be, part of a cost-effective power supply portfolio to serve the retail customers who depend on Seminole. Quantum Pasco is viable, and made the cut as a viable project in Seminole's evaluation process. Peters, TR 418. Quantum Pasco was selected by Seminole's modeling software as an option of an alternate all-PPA portfolio. Diazgranados, TR 480. (Granted, that alternate portfolio was apparently less cost-effective than the NO BUILD RISK Portfolio; this fact is cited to demonstrate Quantum Pasco's viability and competitiveness.) Quantum offers dual fuel capability, TR 564, and a much smaller, and therefore more flexible and less risky, increment for Seminole to phase into meeting the needs of its Member Coops' retail consumers over the next 5 to 10 years. See Sotkiewicz, TR 594 It is facially obvious that a PPA with a 121 MW plant for no more than 20 years (the length of the PPA proposed by Quantum Pasco. EXH 115), where only 300 or 400 MW are needed, is a more cost-effective option than signing customers' up for the risks associated with 30-year commitments to 1,700 MW of capacity. And this does not even address the fact that the purchase/sale price for the Pasco Power Plant offered by Quantum Pasco is only a fraction of the capacity payments under the PPA option offered. EXH 115. Although Seminole had the opportunity to present evidence on this point in its rebuttal testimony, it presented no such

evidence, and Mr. Taylor's claim that he looked at the purchase option is unsupported by any analysis.

Whether Quantum Pasco will be part of a more cost-effective portfolio to meet the needs of the retail customers who depend on Seminole is another issue, and another business decision for Seminole, for another day: in a future procurement process after the Commission denies Seminole's MAX RISK Portfolio.

Seminole's efforts to cast aspersions on Quantum Pasco's motives are merely a misplaced red herring, utterly irrelevant to any issue in these proceedings. (This is facially obvious by a quick glance at the issues identified in the Prehearing Order.) Whether Quantum Pasco makes a higher or lower rate of return on its investment in the Pasco Power Plant is irrelevant to whether Seminole has selected the most cost-effective alternative available to meet the needs of the retail customers who depend on it. Similarly, no one questions the profit motive or profitability of Shady Hills Energy Center, LLC, or its upstream parent, GE: whether those entities make a normal profit of 8-10% or an above-normal profit of 20-25% is likewise completely irrelevant to whether Seminole has selected the most cost-effective alternative. Those transactions are unregulated, and the Commission's focus is, as it must be, on ensuring that Seminole is not allowed to impose uneconomic costs, and unacceptable risks, on the retail customers who depend on Seminole.

CONCLUSION AND RELIEF REQUESTED – ISSUES 6A & 6B

As demonstrated above, at best, Seminole's load forecasts are unproven and questionable – certainly an inadequate basis upon which to saddle 780,000 retail customers, representing 1.6 million people, with $13 BILLION of cost risk, especially where there is a known alternative – the NO BUILD RISK Portfolio – that provides lower costs for the next ten years, while providing time for Seminole to determine whether its newly updated forecasting methodology really works,

TR 594, and at the same time providing flexibility for Seminole to meet whatever loads actually materialize. It is the needs of the retail customers who depend on Seminole that are at issue in these proceedings, and the ***NO BUILD RISK Portfolio is a more cost-effective alternative*** for meeting those needs, with lower costs every year through 2026, and with improved CPVRRs if Seminole eventually decides to add self-owned capacity rather than more flexible PPAs. Moreover, given the vast excess capacity projected by the FRCC for the winter seasons through 2026, adding the 1,700 MW of capacity represented by the SCCF and the SHCCF will uneconomically duplicate capacity that either already exists or that will be added by other utilities through this period.

Seminole has tremendous amounts of solar offers available to meet its energy needs, and vast room for improvement in reducing winter peak demands through energy conservation and demand-side management, based on a straightforward comparison to the achievements of Florida's FEECA utilities as reported in the Commission's most recent FEECA Activities Report. Although Seminole tried to claim that its MAX RISK Portfolio would not have a significant impact on fuel diversity, TR 212, in fact, Seminole's MAX RISK Portfolio will increase Seminole's dependence on natural gas from 61 percent to 75 percent. TR 462.

For these reasons, in the best interests of the customers whose need is at issue in this case, including customers' interests both in minimizing the costs of their power supply and minimizing the risks they will have to bear as a result of the Commission's decisions herein, the Commission should deny the petitions for need determination for both the Seminole Combined Cycle Facility and the Shady Hills Combined Cycle Facility.

STATEMENT OF ISSUES AND POSITIONS

ISSUE 1A: **Is there a need for the proposed Seminole Combined Cycle Facility (SCCF), taking into account the need for electric system reliability and integrity, as this criterion is used in Section 403.519(3), Florida Statutes?**

Intervenors: *No. Seminole's need forecasts are not reliable because they have historically been biased toward significantly overstating forecast values as compared to actual values observed. Seminole's new load forecasting methodology is at best unproven. Even if Seminole's need forecasts were accurate, Seminole can more cost-effectively meet those (probably overstated) needs using PPAs through 2027, as shown by Seminole's NO BUILD RISK Portfolio, followed by lower-CPVRR additions properly evaluated in the mid-2020s.*

ISSUE 1B: **Is there a need for the proposed Shady Hills Combined Cycle Facility (SHCCF), taking into account the need for electric system reliability and integrity, as this criterion is used in Section 403.519(3), Florida Statutes?**

Intervenors: *No. Seminole's need forecasts are not reliable because they have historically been biased toward significantly overstating forecast values as compared to actual values observed. Seminole's new load forecasting methodology is at best unproven. Even if Seminole's need forecasts were accurate, Seminole can more cost-effectively meet those (probably overstated) needs using PPAs through 2027, as shown by Seminole's NO BUILD RISK Portfolio, followed by lower-CPVRR additions properly evaluated in the mid-2020s.*

ISSUE 2A: **Are there any renewable energy sources and technologies or conservation measures taken by or reasonably available to Seminole Electric Cooperative, Inc. (Seminole), which might mitigate the need for the proposed SCCF?**

Intervenors: *Yes. Seminole received numerous proposals totaling more than 3,000 MW of solar generating capacity; thus, there are renewable energy options that are at least "reasonably available" to Seminole to meet its needs. Further, solar costs and solar-with-storage costs are declining, but Seminole failed to adequately examine these important options. Seminole and its Member Coops should also be able to achieve substantial additional peak reductions, comparable to other FEECA utilities, through conservation.*

ISSUE 2B: **Are there any renewable energy sources and technologies or conservation measures taken by or reasonably available to Seminole and Shady Hills Energy Center, LLC (SHEC), which might mitigate the need for the proposed SHCCF?**

Intervenors: *Yes. Seminole received numerous proposals totaling more than 3,000 MW of solar generating capacity; thus, there are renewable energy options that are at least

"reasonably available" to Seminole to meet its needs. Further, solar costs and solar-with-storage costs are declining, but Seminole failed to adequately examine these important options. Seminole and its Member Coops should also be able to achieve substantial additional peak reductions, comparable to other FEECA utilities, through conservation.*

ISSUE 3A: Is there a need for the proposed SCCF, taking into account the need for adequate electricity at a reasonable cost, as this criterion is used in Section 403.519(3), Florida Statutes?

Intervenors: *No. The SCCF is not the most cost-effective alternative available to meet the needs of the ultimate retail customers who would be required to pay more than $8.2 BILLION for the SCCF's construction costs, fuel, and other costs, much of which are fixed. More cost-effective alternatives are available, and accordingly, the SCCF is not needed to meet the need for adequate electricity at a reasonable cost.*

ISSUE 3B: Is there a need for the proposed SHCCF, taking into account the need for adequate electricity at a reasonable cost, as this criterion is used in Section 403.519(3), Florida Statutes?

Intervenors: *No. The SHCCF is not the most cost-effective alternative available to Seminole to the needs of the ultimate retail customers who would be required to pay more nearly $4.8 BILLION for power from the SHCCF pursuant to the 30-year Tolling Agreement. More cost-effective alternatives are available, and accordingly, the SHCCF is not needed to meet the need for adequate electricity at a reasonable cost.*

ISSUE 4A: Is there a need for the proposed SCCF, taking into account the need for fuel diversity and supply reliability, as this criterion is used in Section 403.519(3), Florida Statutes?

Intervenors: *No. Seminole's proposed MAX RISK Portfolio – called the "Clean Power Plan-Combined Cycle" Portfolio – including the SCCF, will actually reduce fuel diversity by increasing the State's dependence on natural gas as a generating fuel. The SCCF lacks dual-fuel capability.*

ISSUE 4B: Is there a need for the proposed SHCCF, taking into account the need for fuel diversity and supply reliability, as this criterion is used in Section 403.519(3), Florida Statutes?

Intervenors: *No. Seminole's proposed MAX RISK Portfolio – called the "Clean Power Plan-Combined Cycle" Portfolio – including the SHCCF, will actually reduce fuel diversity by increasing the State's dependence on natural gas as a generating fuel. The SHCCF lacks dual-fuel capability.*

ISSUE 5A: **Will the proposed SCCF provide the most cost-effective alternative available, as this criterion is used in Section 403.519(3), Florida Statutes?**

Intervenors: *No. More cost-effective alternatives are available, including the Seminole-identified NO BUILD RISK Portfolio consisting of PPAs, followed by resource options that will almost certainly be more cost-effective when properly evaluated in light of actual load growth and then-current costs for gas-fired capacity, solar, and solar with storage. Because escalation rates are projected to be significantly less than Seminole's discount rate, delay will reduce CPVRRs for retail customers while minimizing customer risks.*

ISSUE 5B: **Will the proposed SHCCF provide the most cost-effective alternative available, as this criterion is used in Section 403.519(3), Florida Statutes?**

Intervenors: *No. More cost-effective alternatives are available, including the Seminole-identified NO BUILD RISK Portfolio consisting of PPAs, followed by resource options that will almost certainly be more cost-effective when properly evaluated in light of actual load growth and then-current costs for gas-fired capacity, solar, and solar with storage. Because escalation rates are projected to be significantly less than Seminole's discount rate, delay will reduce CPVRRs for retail customers while minimizing customer risks.*

ISSUE 5C: **Did Seminole Electric Cooperative, Inc. accurately and appropriately evaluate reasonable alternative scenarios for cost-effectively meeting the needs of its customers over the relevant planning horizon for the SCCF?**

Intervenors: *No. Seminole did not accurately or appropriately evaluate all reasonable alternative power supply options for meeting the needs of its Member Cooperatives and the retail customers who depend on Seminole. Even when Seminole's own analyses showed that the NO BUILD RISK Portfolio would save approximately $136 Million in CPVRR terms from 2018 through 2027, Seminole neither attempted to negotiate for later in-service dates for the SCCF or SHCCF, and did not consider other available alternatives.*

ISSUE 5D: **Did Seminole Electric Cooperative, Inc. accurately and appropriately evaluate reasonable alternative scenarios for cost-effectively meeting the needs of its customers over the relevant planning horizon for the SHCCF?**

Intervenors: *No. Seminole did not accurately or appropriately evaluate all reasonable alternative power supply options for meeting the needs of its Member Cooperatives and the retail customers who depend on Seminole. Even when Seminole's own analyses showed that the NO BUILD RISK Portfolio would save approximately $136 Million in CPVRR terms from 2018 through 2027, Seminole neither attempted to negotiate for later in-service dates for the SCCF or SHCCF, and did not consider other available alternatives.*

ISSUE 6A: **Based on the resolution of the foregoing issues and other matters within its jurisdiction which it deems relevant, should the Commission grant Seminole's petition to determine the need for the proposed SCCF?**

Intervenors: *No. Seminole has not credibly demonstrated that it has either a reliability need or an economic need for its proposed MAX RISK Portfolio, including the SCCF and SHCCF. Even assuming the accuracy of Seminole's dubious load forecasts, the MAX RISK Portfolio is not the most cost-effective alternative available and would reduce fuel diversity. Seminole's proposals would unnecessarily impose $13 BILLION in cost risk on customers. The Commission should deny both petitions.*

ISSUE 6B: **Based on the resolution of the foregoing issues and other matters within its jurisdiction which it deems relevant, should the Commission grant Seminole and SHEC's joint petition to determine the need for the proposed SHCCF?**

Intervenors: *No. Seminole has not credibly demonstrated that it has either a reliability need or an economic need for its proposed MAX RISK Portfolio, including the SCCF and SHCCF. Even assuming the accuracy of Seminole's dubious load forecasts, the MAX RISK Portfolio is not the most cost-effective alternative available and would reduce fuel diversity. Seminole's proposals would unnecessarily impose $13 BILLION in cost risk on customers. The Commission should deny both petitions.*

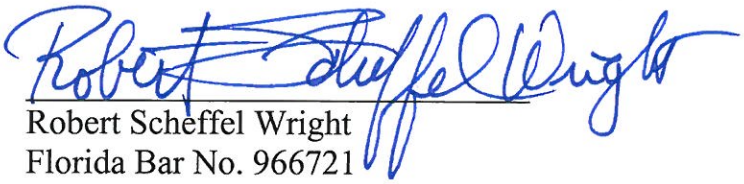
ISSUE 7A: **Should Docket No. 20170266-EC be closed?**

Intervenors: *Yes. Docket No. 20170266-EC should be closed when the Commission's order denying Seminole's petition for determination of need for the SCCF becomes final and no longer subject to appeal.*

ISSUE 7B: **Should Docket No. 20170267-EC be closed?**

Intervenors: *Yes. Docket No. 20170267-EC should be closed when the Commission's order denying Seminole's and Shady Hills' joint petition for determination of need for the SHCCF becomes final and no longer subject to appeal.*

Respectfully submitted this 4th day of April, 2018.



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CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a true and correct copy of the foregoing was furnished to the following by electronic mail on this 4th day of April 2018.

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