BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Joint Petition of Seminole Electric Cooperative, Inc., and GE Energy Financial Services, Inc. for Determination of Need for Shady Hills Combined Cycle Facility.	DOCKET NO. 2017 0267 DATE: December 21, 2017

SEMINOLE ELECTRIC COOPERATIVE'S REQUEST FOR CONFIDENTIAL CLASSIFICATION

REDACTED

Seminole Electric Cooperative, Inc. ("Seminole") pursuant to Section 366.093, Florida Statutes (F.S.), and Rule 25-22.006, Florida Administrative Code (F.A.C.), submits this Request for Confidential Classification of certain information provided in Exhibit No. ___ (AST-2) to the direct testimony of Alan S. Taylor filed contemporaneously with the petition in this proceeding. In support of this Request, SHEC states:

1. Contemporaneously with this Request, Seminole is filing a petition for determination of need for a proposed power plant along with the supporting testimony of several witnesses, including Alan S. Taylor. As explained below, Exhibit No. ___ (AST-2) to Mr. Taylor's pre-filed testimony contains information that is "proprietary business information" under Section 366.093(3), F.S.

2. The following exhibits are included with this request:

(a) Exhibit A is a package containing two copies of a redacted version of the document for which Seminole requests confidential classification. The specific information for which confidential treatment is requested has been blocked out by opaque marker or other means.

COM ___
AFD ___
APA ___
ECO ___
ENG 1
GCL ___
IDM ___
CLK ___

(b) Exhibit B is a package containing an un-redacted copy of the document for which Seminole seeks confidential treatment. Exhibit B is being submitted separately in a sealed envelope labeled "CONFIDENTIAL." In the un-redacted version, the information asserted to be confidential is highlighted in yellow.

3. Exhibit No. ___ (AST-2) to Mr. Taylor's pre-filed testimony contains a detailed summary and analysis of numerous responses to a Request for Proposals ("RFP") for Firm Capacity issued by Seminole Electric Cooperative, Inc. ("Seminole") in March 2016. The RFP provided for confidential treatment of proprietary business information submitted in response to the RFP. Specially, Section 9.1 of RFP states that "Seminole recognizes that certain information contained in proposals submitted may be confidential and, as permitted by applicable law, will use reasonable efforts to maintain the information contained in the proposal as confidential."

4. Attachment A to this Request is a matrix identifying specific information within Mr. Taylor's Exhibit No. ___ (AST-2) which is considered confidential, along with the specific statutory justification for seeking confidential classification. All of the information identified in Attachment A relates to bids or other contractual data, the disclosure of which would impair the efforts of Seminole to contract for goods or services on favorable terms. *See* Section 366.093(3)(d), F.S. The purpose of Seminole's RFP was to obtain potentially favorable contract terms for alternatives required to meet the reliability needs of Seminole and its Members. Without assurances that the terms of the bids received will not be publicly disclosed, potential bidders might withhold sensitive engineering, construction, cost, or other information necessary for Seminole to

understand and assess the costs and benefits of their proposals. Further, without assurances of non-disclosure, potential bidders might choose not to respond to Seminole's RFPs. In either case, Seminole's efforts to contract for goods and services on favorable terms would be impaired by disclosure of the information deemed confidential by bidders. Accordingly, the information identified in Attachment A qualifies for confidential classification under Section 366.093(3)(d), Florida Statutes. Likewise, the information relates to competitive business interests, the disclosure of which would impair the competitive business of the bidders who provided the information to Seminole. As such, the information also qualifies for confidential classification under Section 366.093(3)(e), Florida Statutes.

5. The information for which Seminole seeks confidential treatment is intended to be and is treated as confidential by Seminole. The information has not been disclosed to the public.

6. Seminole requests that the information identified above be classified as "proprietary confidential business information" within the meaning of section 366.093(3), F.S., that the information remain confidential for a period of at least 18 months as provided in section 366.093(4), F.S., and that the information be returned as soon as it is no longer necessary for the Commission to conduct its business.

WHEREFORE, for the foregoing reasons, Seminole Electric Cooperative, Inc. respectfully requests that this Request for Confidential Classification be granted.

RESPECTFULLY SUBMITTED this 21st day of December, 2017.

HOPPING GREEN & SAMS, P.A.

By: Malcolm Means

Gary V. Perko (FBN 855898)
gperko@hglsaw.com
Brooke E. Lewis (FBN 0710881)
blewis@hgslaw.com
Malcolm N. Means (FBN 0127586)
mmeans@hgslaw.com
Post Office Box 6526
Tallahassee, Florida 32314
(850) 222-7500
(850) 224-8551 (fax)

Attorneys for SEMINOLE ELECTRIC COOPERATIVE, INC.

CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing Request for Confidential Classification was served upon the following by hand delivery on this 21st day of December, 2017:

Lee Eng Tan, Esquire
Office of General Counsel
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, FL 32399-0850

Attorney

ATTACHMENT "A"

JUSTIFICATION FOR CONFIDENTIAL CLASSIFICATION

Document	Page No(s).	Column	Lines	Description	Statutory Justification
Exhibit No.__ (AST-1) to Testimony of Alan S. Taylor Document 1 Sedway Consulting's Independent Evaluation Report	Page 5, Table A-2	'Bidder"	1-6, 13-36	Identities of bidders who responded to Seminole RFP	§366.093(3)(d) and(e), F.S.
		"Project"	2-5, 7, 9-20, 22-24, 27, 30	Sites proposed in response to Seminole RFP	§366.093(3)(d) and (e), F.S.
		"Best Levelized Price ($/MWh)"	1-36	Sensitive pricing information proposed in response	§366.093(3)(d) and(e), F.S.
	Page 6, Table A-3	'Bidder"	1-4, 8-10, 13-18	Identities of bidders who responded to Seminole RFP	§366.093(3)(d) and (e), F.S.
		"Project"	1-4, 6, 8-10, 13, 14	Sites proposed in response to Seminole RFP	§366.093(3)(d) and (e), F.S.
	Page 6, Table A-4	"Bidder"	1-6	Identities of bidders who responded to Seminole RFP	§366.093(3)(d) and (e), F.S.
		"Project"	1-4	Sites proposed in response to Seminole RFP	§366.093(3)(d) and (e), F.S.
	Page 7, Table A-5	'Bidder"	1-4	Identities of bidders who responded to Seminole RFP	§366.093(3)(d) and (e), F.S.
		"Project"	1-4	Sites proposed in response to Seminole RFP	§366.093(3)(d) and (e), F.S.
	Page 7, Table A-6	"Bidder"	1-12	Identities of bidders who responded to Seminole RFP	§366.093(3)(d) and (e), F.S.
		"Project"	1-6, 8-9, 12	Sites proposed in response to Seminole RFP	§366.093(3)(d) and (e), F.S.
	Page 9, Table A-7	"Bidder"	1-4, 8-10	Identities of bidders who responded to Seminole RFP	§366.093(3)(d) and (e), F.S.
		<blank>	2-5, 7, 9-10	Sites proposed in response to Seminole RFP	§366.093(3)(d) and (e), F.S.
		"Best Levelized Price ($/MWh)"	1-10	Sensitive pricing information proposed in response	§366.093(3)(d) and (e), F.S.

	Page 9, Table A-8	"Bidder"	3-5	Identities of bidders who responded to Seminole RFP	§366.093(3)(d) and (e), F.S.
		<blank>	2-5	Sites proposed in response to Seminole RFP	§366.093(3)(d) and (e), F.S.
		"Best Levelized Price ($/MWh)"	1-5	Sensitive pricing information proposed in response	§366.093(3)(d) and (e), F.S.
	Page 13, Figure A-1			Contains annual pricing (capacity pricing and fixed O&M) for proposals in Seminole's 2021 RFP	§366.093(3)(d) and (e), F.S.
	Page 16, Table A-8	"Project"	1-2, 5, 8-17	Identities of bidders who responded to Seminole RFP	§366.093(3)(d) and (e), F.S.
		"Net Cost ($/kW-mo)"	1-17	Sensitive pricing information proposed in response	§366.093(3)(d) and (e), F.S.
	Page 16			Identities of bidders who responded to Seminole RFP	§366.093(3)(d) and (e), F.S.
	Page 17, Table A-9	"Project"	1-6	Identities of bidders who responded to Seminole RFP	§366.093(3)(d) and (e), F.S.
	Page 17, Table A-10	"Project"	2-3, 5-6	Identities of bidders who responded to Seminole RFP	§366.093(3)(d) and (e), F.S.
		"Net Cost ($/kW-mo)"	1-6	Sensitive pricing information proposed in response	§366.093(3)(d) and (e), F.S.
	Page 18, Table A-11	"Project"	1-5, 7-12	Identities of bidders who responded to Seminole RFP	§366.093(3)(d) and (e), F.S.
	Page 20, Table A-12	"Proposal/ Resource"	2,5,7,11-13	Identities of bidders who responded to Seminole RFP	§366.093(3)(d) and (e), F.S.
		"Levelized Net Cost ($/kw-month)"	1-13	Sensitive pricing information proposed in response	§366.093(3)(d) and (e), F.S.
	Page 22, Table A-13	"Bidder/ Project"	7	Identities of bidders who responded to Seminole RFP	§366.093(3)(d) and (e), F.S.
		"Net Cost ($M)"	1-11	Sensitive pricing information proposed in response	§366.093(3)(d) and (e), F.S.
	Page 22, Table A-14	"Bidder/ Project"	5	Identities of bidders who responded to Seminole RFP	§366.093(3)(d) and (e), F.S.
		"Net Cost ($M)"	1-8	Sensitive pricing information proposed in response	§366.093(3)(d) and (e), F.S.
	Page 23, Table A-15	"Bidder/ Project"	6	Identities of bidders who responded to Seminole RFP	§366.093(3)(d) and (e), F.S.
		"Net Cost ($M)"	1-9	Sensitive pricing information proposed in response	§366.093(3)(d) and (e), F.S.

REDACTED VERSION

Sedway Consulting, Inc.

INDEPENDENT EVALUATION REPORT FOR SEMINOLE ELECTRIC'S POWER SUPPLY SOLICITATIONS FOR 2021 CAPACITY NEEDS

Submitted by:

Alan S. Taylor
Sedway Consulting, Inc.
Boulder, Colorado

December 21, 2017

Introduction and Background

In early 2016, Seminole Electric Cooperative, Inc. (Seminole) launched three solicitations to seek resources or transactions that would help the cooperative meet its forecasted capacity needs in 2021 and beyond. Two of those solicitations were associated with Seminole's efforts to explore the development of a self-build resource at its Seminole Generating Station (SGS) site; they involved Requests for Proposals (RFP) for 1) power island equipment (PIE) and an associated long-term service agreement (LTSA), and 2) engineering, procurement and construction (EPC) services to install the selected power island equipment and construct the balance of the facility. The third solicitation was for market alternatives (i.e., new build facilities that would be owned and operated by others, sales of power from existing facilities, and system sales from a portfolio of resources). Sedway Consulting, Inc. (Sedway Consulting) was retained to provide independent monitoring and evaluation services over all of these RFPs and provide a parallel economic evaluation of responses that might address Seminole's capacity needs. The primary focus of this report is the market alternative RFP, with the results of the PIE/LTSA and EPC solicitations incorporated in the form of finalized self-build alternatives that competed with the market alternatives.

This independent evaluation report documents Sedway Consulting's evaluation process and presents the results of Sedway Consulting's economic analysis. It describes:

- the proposals that were received in response to Seminole's market alternatives 2021 RFP and the Seminole finalized self-build options,
- Sedway Consulting's proprietary Response Surface Model (RSM) and Revenue Requirements Model (RRM) which were used to conduct the parallel economic evaluation,
- fundamental assumptions that were applied,
- additional economic factors that affected the final cost of each resource, and
- the development and comparison of complete portfolios of resources that would meet Seminole's capacity needs.

Receipt of Market Alternative Proposals

In Seminole's market alternatives RFP, bidders were instructed to email their submission to Seminole (and cc Sedway Consulting) by May 9, 2016. On or before that date, Sedway Consulting received 265 proposals from 40 power suppliers. For organizational and ease of comparison purposes, Seminole segregated the submitted proposals into four categories (with offer count totals next to each label):

- solar photovoltaic (PV) – 127 offers,
- baseload – 16 offers,
- intermediate – 75 offers, and
- peaking – 47 offers.

These offer totals represent the overall numbers of proposals received, prior to any disqualification decisions or qualitative review that ultimately reduced the number of proposals that moved through the evaluation process. Sedway Consulting and Seminole reviewed their respective proposal counts and confirmed that any differences are due to some disqualifications and minor interpretation issues.

One rationale for segregating solar PV proposals into a separate category was the fact that Seminole is a winter-peaking entity, with its peak loads occurring during hours that solar resources provide little or no generation. Therefore, while these resources may provide some energy and fuel-diversity benefits throughout the year, they could not appreciably meet the need that Seminole was hoping to address with its RFPs.

Virtually all of the proposals in the last three categories could be modeled and evaluated on a side-by-side basis in Sedway Consulting's Response Surface Model (RSM). Therefore, the differentiation of proposals into baseload, intermediate, and peaking was less important from Sedway Consulting's perspective than another critical factor in the evaluation process – namely, the regional location of resources or power supplies. Essentially, Seminole's Member loads are electrically connected or located in either Duke Energy Florida's (DEF) balancing authority area (BAA) or Florida Power & Light's (FPL) BAA, with a third BAA as Seminole's north system (SSN). That third area has relatively little load; the majority of Seminole's load is in DEF's BAA. It was important to procure resources or transactions that would support Seminole's Members' needs in those areas and minimize the costs and reliance of inter-regional transfers. With its market alternatives RFP, Seminole provided historical load information for both of these load areas to provide bidders with important locational information. The FPL BAA has a long-term projected peak load of approximately 600 MW and an average load of approximately 400 MW. It was recognized that procuring more than those quantities in the FPL BAA would result in additional transmission wheeling/transfer costs to bring the power into the DEF BAA to serve Seminole's predominant needs there. Similarly, it was recognized that resources outside of Florida (e.g., in the Southeast Electric Reliability Council, SERC) would incur transmission-related costs – and potential reliability concerns, if Seminole relied too heavily on such resources. Thus, this report depicts and segregates much of the offer statistics into five different categories: solar PV, DEF BAA, FPL BAA, SSN BAA (which can reasonably provide capacity to either the FPL or DEF BAAs), and SERC.

Table A-1 depicts the number of non-solar offers by resource type and locations.

Table A-2 provides a summary of the solar PV proposals that Sedway Consulting received from each bidder. As has been Sedway Consulting's reporting approach in all solicitations, the identities of bidders and projects who were not selected for final contracts has been redacted as confidential. Thus, the actual bidder and project names in Tables A-2 through A-6 for these non-selected bidders and projects are redacted and the tables include a "Code" column that provides a counterparty letter and project number reference that is used throughout the remainder of the report.

Table A-1
Offer Count and Location of Summary of Non-Solar PV Proposals

	DEF BAA	FPL BAA	SSN BAA	SERC/Other	Total
Baseload	3	4	0	9	16
Intermediate	39	2	18	16	75
Peaking	21	7	12	7	47
Total	63	13	30	32	138

Note: One of the baseload offers in the DEF BAA column was actually a combination of small existing resources in both the DEF and FPL BAAs.

The tables include the number of proposals provided by each bidder. In many instances, bidders provided multiple mutually-exclusive proposals for the same resource (e.g., with flat or escalating pricing, different delivery period durations). Thus, the total number of offers was considerably more than the total number of projects.

The final column in Table A-2 provides the levelized solar PV energy price (in $/MWh) as calculated by Sedway Consulting for each project's best offer. Obviously, for offers with a flat, non-escalating price, the levelized price is that proposed price; but for offers with escalating prices, the levelized price is that flat, non-escalating price that would result in the same net present value over the term of the proposed agreement as the escalating price – and provides for a comparable metric for ranking the offers. In cases where there were multiple, mutually-exclusive offers for a project, the value in the final column represents the lowest levelized price among those offers. The ranking of the bidders in the table is based on each bidder's best project levelized price.

Table A-3 provides the number of proposals from each bidder for baseload, intermediate, and peaking resources that would provide power deliveries in the DEF BAA. Some of the proposals were for resources that would be connected to Tampa Electric Company's (TECO) system, where power could be transferred (with a wheeling cost) into the DEF system. Tables A-4 through A-6 provide similar summaries for the proposals offered in the FPL BAA, SSN BAA, and SERC regions, respectively. The tables include a "Type" column that identifies the proposed technology (CC=combined cycle, CT=combustion turbine, System=system sale, MSW=municipal solid waste). Similar to Table A-2, the identities of bidders and projects that were not selected for final contracts are confidential and hence redacted. The rankings of the bidders in the tables are roughly based on the economics of their best proposal in the initial evaluation phase.

Disqualification Decisions

Of the bidders/ proposals listed in Table A-2, bidders SolarU-1 and SolarV-1 were disqualified for lack of specificity (e.g., failure to provide specific prices).

Table A-2
Summary of Solar PV Proposals

	Bidder	Project	Code	Nameplate Capacity (MW)	Number of Proposals	Best Levelized Price ($/MWh)
1	[redacted]		SolarA-1	75	1	[redacted]
2	[redacted]	[redacted]	SolarB-1	75	6	[redacted]
3	[redacted]	[redacted]	SolarB-2	50	6	[redacted]
4	[redacted]	[redacted]	SolarB-3	50	6	[redacted]
5	[redacted]	[redacted]	SolarB-4	75	6	[redacted]
6	[redacted]	[redacted]	SolarC-1	375	3	[redacted]
7	Coronal	[redacted]	SolarD-1	25	1	[redacted]
8	Coronal	Tillman	SolarD-2	50	1	[redacted]
9	Coronal	[redacted]	SolarD-3	50	1	[redacted]
10	Coronal	[redacted]	SolarD-4	50	1	[redacted]
11	Coronal	[redacted]	SolarD-5	75	1	[redacted]
12	Coronal	[redacted]	SolarD-6	75	1	[redacted]
13	[redacted]	[redacted]	SolarE-1	75	2	[redacted]
14	[redacted]	[redacted]	SolarE-2	65	2	[redacted]
15	[redacted]	[redacted]	SolarF-1	75	2	[redacted]
16	[redacted]	[redacted]	SolarF-2	75	2	[redacted]
17	[redacted]	[redacted]	SolarF-3	53	2	[redacted]
18	[redacted]	[redacted]	SolarG-1	65	12	[redacted]
19	[redacted]	[redacted]	SolarH-1	75	12	[redacted]
20	[redacted]	[redacted]	SolarH-2	75	12	[redacted]
21	[redacted]	[redacted]	SolarI-1	75	12	[redacted]
22	[redacted]	[redacted]	SolarJ-1	465	2	[redacted]
23	[redacted]	[redacted]	SolarJ-2	75	2	[redacted]
24	[redacted]	[redacted]	SolarJ-3	125	2	[redacted]
25	[redacted]	[redacted]	SolarK-1	75	4	[redacted]
26	[redacted]	[redacted]	SolarL-1	50	1	[redacted]
27	[redacted]	[redacted]	SolarM-1	65	4	[redacted]
28	[redacted]	[redacted]	SolarN-1	125	6	[redacted]
29	[redacted]	[redacted]	SolarO-1	65	2	[redacted]
30	[redacted]	[redacted]	SolarP-1	225	4	[redacted]
31	[redacted]	[redacted]	SolarQ-1	50	1	[redacted]
32	[redacted]	[redacted]	SolarR-1	80	3	[redacted]
33	[redacted]	[redacted]	SolarS-1	75	1	[redacted]
34	[redacted]	[redacted]	SolarT-1	75	1	[redacted]
35	[redacted]	[redacted]	SolarU-1	75	1	[redacted]
36	[redacted]	[redacted]	SolarV-1	25	1	[redacted]

Table A-3
Summary of DEF BAA Proposals

	Bidder	Project	Type	Code	Winter Capacity (MW)	Number of Proposals
1	[redacted]	[redacted]	CC	A-1	1,064	6
2			CC	A-2	863	6
3			CC	A-3	599	6
4			CT	A-4	482	12
5	GE Shady Hills	Project 2	CC	B-1	573	4
6		[redacted]	CC	B-2	463	4
7			CT	B-3	519	2
8	[redacted]	[redacted]	CT	C-1	117	1
9	[redacted]		CT	D-1	484	2
10			CC	D-2	538	2
11	DEF	Peaking	System	E-3	50-300	1
12		Intermediate	System	E-4	50-300	1
13	[redacted]	[redacted]	CC	F-1	121	5
14	[redacted]		CC	G-1	557	4
15			Biomass	H-1	70	2
16			ES	I-1	75-225	3
17			Biogas	J-1	34	1
18			CC	K-1	N/A	1

Of the bidders/proposals in Table A-3, ten offers from Bidder A (two each associated with Projects A-1, A-2, and A-3 and four associated with A-4) were disqualified because they exceeded the maximum term length of 30 years that was specified in the market alternatives RFP. Also, Bidder K-1 was disqualified for lack of specificity.

Table A-4
Summary of FPL BAA Proposals

	Bidder	Project	Type	Code	Winter Capacity (MW)	Number of Proposals
1	[redacted]	[redacted]	CT	L-1	515	5
2			System	A-5	100-1000	2
3			System	A-6	100-1000	2
4			System	A-7	All	1
5	[redacted]		MSW	M-1	25	1
6			MSW	N-1	40	2

No proposals were disqualified from the set that is depicted in Table A-4.

Table A-5
Summary of SSN BAA Proposals

	Bidder	Project	Type	Code	Winter Capacity (MW)	Number of Proposals
1			CC	A-8	1,058	6
2			CC	A-9	859	6
3			CC	A-10	641	6
4			CT	A-11	480	12

Of the bidders/proposals in Table A-5, ten offers from Bidder A (two each associated with Projects A-8, A-9, and A-10 and four associated with A-11) were disqualified because they exceeded the maximum term length of 30 years that was specified in the market alternatives RFP.

Table A-6
Summary of SERC Proposals

	Bidder	Project	Type	Code	Winter Capacity (MW)	Number of Proposals
1			CC	L-2	500	4
2			CC	L-3	350	4
3			CC	L-4	200	4
4			System	L-5	138	4
5			CC	O-1	225	2
6			CC	P-1	350	1
7			System	Q-1	50-440	3
8			CT	R-1	280	4
9			CC	R-2	533	1
10			Call Option	S-1	200	3
11			System	T-1	50	1
12			Wind	C-2	200	1

No proposals were disqualified from the set that is depicted in Table A-6.

Evaluation and Selection Process

As noted earlier, Seminole is winter peaking cooperative and solar PV projects are not in a position to address this need. At the times that the winter peak might occur, there is little or no sunshine. Thus, the evaluation process was bifurcated into a review of the solar PV proposals for potential selection for environmental and diversification benefits and a full analysis of the non-solar PV proposals that offered firm capacity that could meet Seminole's capacity needs.

Solar PV Proposal Analysis

In the case of the solar PV analysis, Seminole and Sedway reviewed the proposals (especially pricing and qualifications) and decided to shortlist five of the top six bidders (i.e., SolarA, SolarB, SolarC, SolarD [Coronal, the firm that was ultimately awarded a final contract], and SolarF). The SolarE and SolarF bidders were very close in pricing and thus on the cusp of either being included or excluded from the short list. Seminole opted to shortlist SolarF because of slightly better qualitative considerations. Seminole held meetings and calls with the shortlisted bidders in which Sedway Consulting participated. After learning more about the qualifications of these bidders and the status of their projects, Seminole asked all shortlisted bidders to review their proposed pricing and provide "best-and-final-offers" (BAFO) by September 9, 2016; also, Seminole let each bidder know which of each bidder's projects were of greatest interest to Seminole. These were the following: SolarA-1, SolarB-1, SolarB-2, SolarB-3, SolarC-1 (with guidance that Seminole was not interested in procuring more than 75 MW), SolarD-1, SolarD-2 (the Coronal Tillman project that was ultimately selected), SolarD-4, SolarF-1 and SolarF-2. In several cases, bidders provided multiple options for each project (e.g., different terms, fixed or escalating prices). Table A-7 shows the lowest levelized BAFO price for each project. Seminole reviewed the BAFOs and decided to select bidders SolarB and SolarD with whom to commence negotiations and perform further due diligence. Although bidder SolarA had the lowest pricing, the bidder did not yet have a site or any interconnection information. The two final shortlisted bidders were much further along with the development of their projects. Sedway Consulting concurred with the selection of the two bidders for negotiations.

Solar PV Proposal Final Selection

Negotiations and due diligence discussions continued into 2017 with both bidders. In late May 2017, given the passage of time and the recognition that solar PV panel prices had continued to decline, Seminole encouraged both bidders to sharpen their pencils and provide final lower pricing, if they so chose. Both did, with a range of sizes and terms. Bidder SolarD (Coronal) came in with the lowest prices, as depicted in Table A-8 as levelized prices for those bids that were in the same size range and term.

Table A-7
September 2016 Revised Prices for Shortlisted Solar PV Proposals

	Bidder		Project	Nameplate Capacity (MW)	Term of Proposals (years)	Best Levelized Price ($/MWh)
1	[redacted]		SolarA-1	75	20	[redacted]
2	[redacted]	[redacted]	SolarB-2	50	30	
3			SolarB-1	75	30	
4			SolarB-3	75	30	
5			SolarD-1	75	20	
6	Coronal	Tillman	SolarD-2	75	20	
7		[redacted]	SolarD-4	75	20	
8	[redacted]		SolarC-1	75	25	
9	[redacted]	[redacted]	SolarF-1	75	28	
10			SolarF-2	75	28	

The Coronal Tillman project had the lowest price and was selected for final negotiations. On October 16, 2017, Seminole and Tillman Solar Center, LLC (a subsidiary of Coronal Energy) executed a 20-year PPA for solar PV generation from a new facility to be built in Alachua County, Florida with an expected commercial operation date of June 1, 2021.

Table A-8
June 2017 Revised Prices for Shortlisted Solar PV Proposals

	Bidder		Project	Nameplate Capacity (MW)	Term of Proposals (years)	Best Levelized Price ($/MWh)
1	Coronal	Tillman	SolarD-2	40	20	[redacted]
2		[redacted]	SolarD-4	40	20	
3	[redacted]	[redacted]	SolarB-2	50	20	
4			SolarB-3	50	20	
5			SolarB-1	50	20	

Non-Solar PV Proposal Analysis

As noted earlier, solar PV capacity provides little or no contribution to meeting Seminole's winter peak. Thus, the cooperative's 2021 RFP was essentially soliciting proposals for other types of generation. The analysis of proposals for this other generation was the primary focus for Sedway Consulting's independent evaluation

efforts. In this report, all references to proposals and proposal evaluation tasks from this point forward are entirely associated with Sedway Consulting's and Seminole's non-solar PV proposal analyses.

Through its review of the proposals that Sedway Consulting received during the bid submission process, Sedway Consulting extracted the following economic information for each proposal (including Seminole's self-build options):

- Capacity (winter and summer; base and duct-fired, where applicable)
- Commencement and expiration dates of contract
- Capacity pricing (or asset sales price, if applicable)
- Fixed O&M pricing or charges
- Firm fuel transportation assumptions
- Fuel pricing or indexing
- Heat rate (base and duct-fired, where applicable)
- Variable O&M pricing or charges
- Start-up costs and fuel requirements
- Expected forced outage and planned outage hours
- Third-party transmission costs.

The remainder of this report section addresses the following topics:

- a description of the RSM and its evaluation process,
- the use of a "back-fill" resource in evaluating proposed transactions that expire before the end of the study period,
- proposal/resource cost computation (and costs that were developed outside of the RSM),
- the use of surplus/deficit capacity assumptions to adjust for the slightly different annual or seasonal sizes of competing portfolios, and
- the process of developing final cost estimates for competing portfolios.

RSM Evaluation Process

The economic information for all outside proposals and Seminole's self-build option(s) was input into Sedway Consulting's RSM – a power supply evaluation tool that was calibrated to approximate the impact of each resource on Seminole's system production costs. The RSM calculated each proposal's annual fixed costs and variable dispatch costs, estimated the production cost impacts of each proposal, and accounted for capacity replacement costs for all proposed contracts that expired before the end of the study period.

A proposal's net cost was a combination of fixed and variable cost factors. On the fixed side, the RSM calculated annual fixed costs associated with capacity payments (or

generation-related revenue requirements), fixed O&M costs, firm gas transportation costs, third-party transmission wheeling charges (where applicable), and transmission revenue requirements. These annual total fixed costs were discounted to mid-2017 dollars.

On the variable cost side, the RSM first developed a variable dispatch charge (in $/MWh) for each proposal for each month. This charge was calculated by multiplying the proposal's heat rate by the specified monthly fuel index price and adding the variable O&M charge.

The RSM then estimated Seminole's system production costs for each month and each proposal by interpolating between production costs estimates that were extracted from a set of runs from EPM – Seminole's detailed production cost model. These runs were performed at the start of the project and were used to calibrate the RSM by varying the monthly variable dispatch charge for a proxy proposal and recording the resulting Seminole system production cost.

For the same capacity as the proposal under consideration, the RSM also estimated Seminole's system production costs for a natural-gas-fired reference unit that had a high variable dispatch charge based on a heat rate of 13,000 Btu/kWh. Thus, for each proposal, the RSM yielded estimates of the annual production cost savings that Seminole would be projected to experience if the utility selected the resource option, relative to acquiring the same sized transaction but at the high reference resource dispatch rate. The lower an proposal's variable dispatch charge, the greater the production cost savings.

Back-Fill Resource

As was mentioned earlier, the RSM accounted for the costs of replacing capacity for all proposed contracts that expired before the end of the study period (2051). This was done by "filling in" for the lost capacity at the end of each proposal's term of service. This allowed for a consistent and appropriate comparison of the value of proposals that had varying contract durations. In effect, by supplementing each short-term proposal with a back-fill resource for the later years, the RSM was simulating what Seminole would have to do when a proposed transaction expired – acquire or develop an amount of replacement capacity that was roughly equal to that expired resource.

As the basis for cost assumptions for the back-fill resource, Sedway Consulting use a blend of the cost and benefit streams associated with the three top-ranked individual proposals for long-term power supplies. By doing so, Sedway Consulting was using direct market information as guidance for what future capacity might cost. All capacity-related costs were escalated by a modest rate of 1.0%/year (which was assumed to be a reasonable assumption for the rate of inflation minus future potential for technology cost reductions). In addition, Sedway Consulting employed a methodological variation, whereby the RSM scaled the replacement capacity to exactly equal the size of the expiring proposal resource. Thus, all PPA proposals enjoyed the benefit of being replaced at the end of their terms with a resource that exhibited the operating efficiencies

and economy-of-scale benefits of these three top-ranked offers (which were fairly large in capacity). In other words, if a 200 MW proposal ended in 2031, the RSM assumed that a 200 MW CC facility replaced it in 2032; however, the construction costs for the replacement facility were not those that would typically be associated with a 200 MW plant, but rather, they were a prorated portion of the construction costs of a larger facilities.

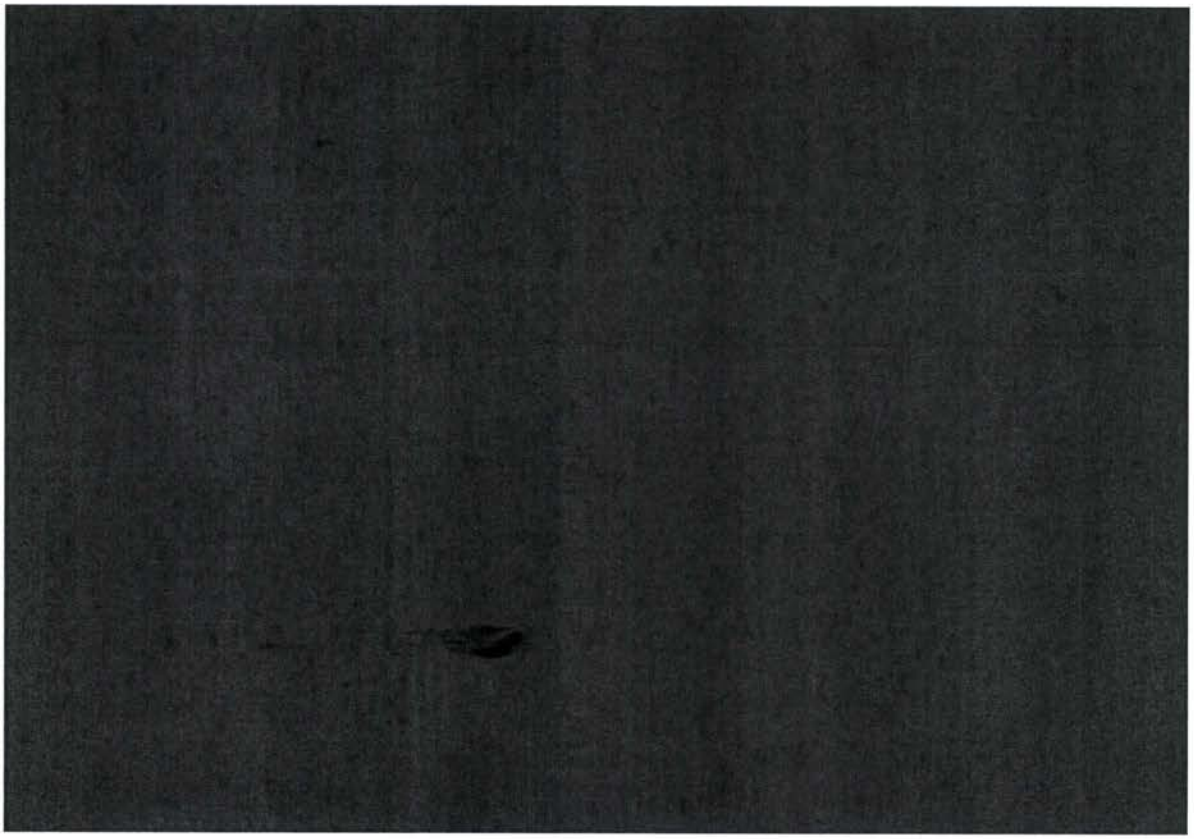
It is worth noting that this development of a smoothly escalating cost and benefit stream and the scaling process differed from the future generation expansion assumptions and methodologies employed by Seminole. In the end, however, the approaches probably did not significantly alter either evaluation team's results, as they accomplish the same general goal of continuing to meet Seminole's future capacity needs with generic replacement capacity. However, this is one of several reasons that Seminole's and Sedway Consulting's final portfolio cost differential are different. Sedway Consulting retains the right to evaluate utility solicitations with its own methodologies and believes that using two different approaches reinforces a solicitation's evaluation process when both approaches yield results that support the same conclusion(s).

As noted above, depending on the "in-service date" for the back-fill resource, the back-filler's capital costs were escalated from a 2021 base-year value by 1.0%/year. This escalation assumption represented Sedway Consulting's estimate of how construction costs were likely to increase for generation alternatives. Sedway Consulting decided to use this escalation value to trend the filler's annual capacity charges over time. Thus, instead of using Seminole's declining revenue requirements profile for the recovery of capacity costs of future generic resources, Sedway Consulting used an escalating pattern that yielded the same long-term present value of revenue requirements. A traditional revenue requirements profile results in the highest capital charges in a project's early years. Thereafter, the capital-related charges decline. This is the opposite from what is usually seen in most power purchase proposals in power supply solicitations. Most power purchase proposals tend to have flat or escalating capacity charges, presumably reflecting expectations that general inflation will increase the costs of constructing new facilities in the future. Sedway Consulting therefore restructured the filler's profile of capacity costs to match what is generally seen in the marketplace. This meant that the filler's first year's capacity costs were the lowest, with each year thereafter escalating at 1.0%. Figure A-1 displays the escalating capacity price profile used by Sedway Consulting as well as the component top-ranked project cost streams, which include the Seminole's 2x1H self-build resource and its traditional declining revenue requirements profile.

Over the full 30 years, the restructuring of the back-fill resource's capacity costs made no difference to the present value of the blended top-ranked proposals' cost streams. However, in the evaluation of outside proposals that did not extend through the end of the study period, it provided a more favorable basis for such proposals' evaluation. In effect, it assumed that, following the expiration of an outside proposal's term, Seminole would procure replacement power supplies at a trended price based on the best market resources. In reality, if a utility-build resource was determined to be most cost-effective

at this future decision point, the declining revenue requirements profile would represent the actual annual costs that Seminole's customers would likely pay.

Figure A-1



Proposal/Resource Cost Computation

Sedway Consulting used its own proprietary Revenue Requirements Model (RRM) to develop estimates of the annual revenue requirements for Seminole' self-build option(s) and cross-checked them with those provided by Seminole. Both sets of values compared quite closely, and Sedway Consulting relied on its RRM results for use in the RSM.

Most of the input assumptions for the proposals and other cost and operational parameters for Seminole's self-build option(s) were directly input into the RSM in a straightforward fashion from the proposal submissions. However, the following were some key additional external cost estimates that were developed outside of each proposal and input into the RSM:

- Firm gas transportation
- Third-party transmission costs
- Network upgrade-related transmission costs.

Firm gas transportation. Seminole's RFP required that bidders of gas-fired projects ensure that firm gas transportation would be available for their facilities. In the RFP bid forms/spreadsheets, bidders were asked to provide information that would allow Seminole to estimate the expected annual firm gas transportation (i.e., pipeline reservation) charges for each project. Sedway Consulting reviewed Seminole's calculations, compared Seminole's values to some of its own calculations and ultimately adopted the same or close approximations to Seminole's values for each applicable proposal.

In addition to the annual firm gas pipeline reservation charges, bidders provided and/or Seminole estimated fuel price adders for each project's natural gas supply, where applicable. These adders accounted for locational basis differentials and, in some cases, additional firm gas transportation variable charges.

Third-party transmission costs. As noted above, Seminole members have load in three balancing areas in Florida, and the cooperative sought to procure power supplies in locations that would minimize excessive transfers between those areas (or from out-of-state). That said, proposals that entailed such transfers were allowed; they simply needed to include the necessary third-party transmission wheeling costs associated with such transfers. In fact, bidders had to identify in their proposals any firm transmission wheeling charges (e.g., for point-to-point transmission service) that would be incurred and passed on to Seminole for such transfers or for wheeling across third-party transmission systems.

Network-update-related transmission costs. With the addition of new generation to a utility system (and sometimes even for redirected sales of power from existing resources), portions of the utility's transmission grid may need to be reinforced. This can entail the construction of new circuits or the reconductoring and upgrading of existing transmission lines. For proposals for new resources that would be located in the relevant balancing area authorities, bidders were responsible for recognizing that their resource might trigger the need for network upgrades on the DEF or FPL transmission systems. It was each bidder's responsibility to initiate, when appropriate, an interconnection request to study what those costs would be. Seminole, in turn, calculated what the effect would be on the DEF and FPL transmission rate tariffs and the costs that its members would need to pay on any on-going basis for its portion of such network upgrades. Where appropriate, estimates of such network upgrade investments were sought from bidders and/or calculated by Seminole's transmission subject matter experts for specific proposals. Sedway Consulting reviewed and adopted these annual cost estimates. However, Sedway Consulting employed a different methodology than Seminole for attributing these network-upgrade-related costs to projects. Sedway Consulting calculated Seminole's portion of the levelized annual transmission revenue requirements[1] for the applicable investment and applied those annual costs only during the term of the PPA (or economic life of the asset in the case of owned generation options). Seminole developed revenue requirements from the transmission investment estimates and applied them for all years of the study period for all bids. Neither approach was right or wrong;

[1] Assuming a 40-year transmission asset life.

each was based on slightly different but defensible end-effects assumptions. In any case, as noted earlier, Sedway Consulting was free to employ its own evaluation methodologies that may differ from Seminole's; and although that contributed to somewhat different final quantitative results, the fact that different approaches supported the same final conclusions reinforces provides greater assurance in the results of the solicitation.

Surplus/Deficit Capacity Benefit/Cost – Portfolio Cost Computation

In Sedway Consulting's analysis, projects were initially evaluated on a stand-alone basis rather than in the context of a long-term generation expansion plan, as was the case with Seminole's detailed model. In its final analysis, Sedway Consulting accounted for the different capacity of each resource by developing portfolios of resources that relatively closely met Seminole's project seasonal (i.e., summer and winter) capacity needs in 2021-2025. In instances where there was a small surplus or deficit of capacity in a season, Sedway Consulting used short-term capacity valuation assumptions that Seminole provided at the start of the RFP project and periodically updated with the latest market information for small short-term capacity transactions. For long-term portfolio capacity differences (i.e., past 2025), Sedway Consulting used its filler resource assumptions to determine the benefits of surplus capacity or the costs of being slightly short.

The inclusion of these costs or benefits of marginal capacity in the RSM results placed those results on a more comparable footing with the Seminole detailed production costing and generation expansion results.

RSM Evaluation Results

The evaluation process for the non-solar PV resources went through a series of "shortlistings" over the course of the RFP process, with uncompetitive projects being set aside and released from further consideration at various stages. For the first cut, Sedway Consulting and Seminole identified proposals that had high risks and/or high prices that made them outliers and undesirable candidates for selection. The following Tables A-8 through A-11 depict the RSM levelized $/kW-month net cost results for the initial review of the qualified offers, segmented into the same delivery zones as was depicted in Tables A-3 through A-6. The proposal ranking in each table is based on the levelized net cost, from lowest to highest.

In Table A-8 (for the DEF BAA proposals), it was decided that the bottom five proposals (H-1, G-1, D-2, I-1, and J-1) had net costs that were too high to warrant continued evaluation. Also, as far as competing peaking CT resources, the least cost-effective CT proposal (D-1) was seen as unnecessary for continued evaluation, given that there were better CT/peaking proposals in the BAA to consider.

Table A-8
Initial RSM Results – DEF BAA Proposals

	Project	Type	Code	Winter Capacity (MW)	Net Cost ($/kW-mo)
1	[redacted]	CT	C-1	117	[redacted]
2	[redacted]	CT	A-4	482	
3	GE Shady Hills CT	CT	B-3	519	
4	DEF Peaking	System	E-3	50-300	
5	[redacted]	CT	D-1	484	
6	DEF Intermediate	System	E-4	50-300	
7	GE Shady Hills CC2	CC	B-1	573	
8	[redacted]	CC	B-2	463	
9	[redacted]	CC	A-1	1,064	
10	[redacted]	CC	A-2	863	
11	[redacted]	CC	A-3	599	
12	[redacted]	CC	F-1	121	
13	[redacted]	Biomass	H-1	70	
14	[redacted]	CC	G-1	557	
15	[redacted]	CC	D-2	538	
16	[redacted]	ES	I-1	75-225	[redacted]
17	[redacted]	Biogas	J-1	34	

Later in the evaluation process, discussions with the bidder behind the Proposals A-1, A-2, A-3, and A-4 – all of which were associated with the same site – yielded the conclusion that the development efforts were in a rather early stage. Given that this translated into greater risks and uncertainty, these offers were removed from the later stages of the evaluation.

Proposal C-1 was for the purchase of an existing CT facility, with the proposed transfer to occur well before Seminole's 2021 need. More importantly, the CT's generation technology was an old non-standard, one-of-a-kind technology in the southeast U.S. that Seminole concluded would be hard to maintain and find spare parts. Sedway Consulting participated in several discussions with Seminole about the possible options if the cooperative were to buy this facility. However, both concluded that the technology risks were too high and the proposal was set aside.

Lastly, the Proposal B-2 was at the same site and mutually exclusive with a higher-ranked more attractive GE Shady Hills CC2 project, so that proposal was set aside. The remaining proposals continued to be included in the portfolio evaluation process, including Proposal F-1, which was sold by [redacted] to [redacted] during Seminole RFP process and is labeled as such in later tables.

For the Table A-9 proposals associated with resources in the FPL BAA, the last one in the table (Proposal A-7) was set aside because selecting it would cause Seminole to lose it ability to tap any other future power supply opportunities in the FPL BAA (e.g., short-term economic purchases). The bidder had two other proposals (A-5 and A-6) that did not have this drawback and included valuable optionality in the amount of capacity that Seminole could procure. That optionality value is not reflected in the RSM net cost metrics but was captured later in the portfolio development process. Thus, Seminole and Sedway Consulting agreed that those proposals should continue to be evaluated. The small Proposals M-1 and N-1 had net costs that were too high to warrant continued inclusion in the evaluation process and were set aside.

Table A-9
Initial RSM Results – FPL BAA Proposals

	Project	Type	Code	Winter Capacity (MW)	Net Cost ($/kW-mo)
1	[redacted]	CT	L-1	515	2.25
2	[redacted]	System	A-5	100-1000	3.76
3	[redacted]	MSW	M-1	25	4.38
4	[redacted]	System	A-6	100-1000	5.70
5	[redacted]	MSW	N-1	40	9.09
6	[redacted]	System	A-7	All	N/A

Table A-10 depicts the four SSN market alternative proposals as well as Seminole's two self-build options at the cooperative's SGS site in the SSN BAA – the 2x1H CC (SCF) and a smaller 1x1H CC. Seminole and Sedway Consulting had several calls/meetings with the bidder of the four market alternative proposals (which were all at the same proposed site) and concluded that gas supply constraints (and the associated costs of remedying those constraints) made the larger Proposals A-8 and A-9 too risky and expensive; thus, the self-build options and the smaller Proposals A-11 and A-10 continued to be evaluated.

Table A-10
Initial RSM Results – SSN BAA Proposals

	Project	Type	Code	Winter Capacity (MW)	Net Cost ($/kW-mo)
1	Seminole 2x1H (SCCF)	CC		1,122	[redacted]
2	[redacted]	CT	A-11	479	[redacted]
3	[redacted]	CC	A-8	1,058	[redacted]
4	Seminole Self-Build 1x1H	CC		595	[redacted]
5	[redacted]	CC	A-9	859	[redacted]
6	[redacted]	CC	A-10	641	[redacted]

Table A-11 depicts the proposals associated with resources in SERC. Because of transmission constraints and the potential for curtailments of power deliveries from SERC into peninsular Florida, Seminole recognized that it would be unwise to rely too heavily on resources in SERC to meet the cooperative's firm capacity needs. Thus, early in the evaluation process, it reviewed the supply portfolios of other peninsular Florida utilities to assess what percentage of their total capacity needs those utilities procured from SERC resources. Based on that review, Seminole concluded that it should set a maximum of 350 MW as the limit for SERC-based supplies.

Table A-11
Initial RSM Results – SERC Proposals

	Project	Type	Code	Winter Capacity (MW)	Net Cost ($/kW-mo)
1	[redacted]	CC	L-2	500	3.16
2	[redacted]	CC	L-3	350	3.16
3	[redacted]	CC	L-4	200	3.22
4	[redacted]	CC	O-1	225	3.48
5	[redacted]	CC	P-1	350	3.49
6	Southern Company	System	Q-1	50-440	3.55
7	[redacted]	Call Option	S-1	200	3.67
8	[redacted]	System	L-5	138	3.81
9	[redacted]	CT	R-1	280	3.98
10	[redacted]	System	T-1	50	7.22
11	[redacted]	CC	R-2	533	8.67
12	[redacted]	Wind	C-2	200	N/A

Given the 350 MW limit, two proposals were eliminated (L-2 and R-2) and one (Q-1), after discussions with Southern Company regarding its system sale proposal, was revised to have a maximum capacity of 350 MW.

One proposal (C-2) was for long-term energy deliveries from a wind facility in Kansas via point-to-point transmission service across a yet-to-be-developed transmission line to the Tennessee Valley Authority (TVA), then across the Southern Company system into Florida. The expected transmission costs resulted in a rather high $/MWh price for a non-firm, non-dispatchable product that would consume a majority of Seminole's 350 MW SERC limit. Thus, the proposal was set aside.

Low-ranked Proposals S-1, L-5, R-1, T-1, and R-2 were removed from further evaluation because of their poor quantitative metrics. The remaining proposals had net costs that were in a fairly tight range. Of the Projects L, O, and P, only Proposal O-1 was for deliveries from a full facility. The Proposals L-3, L-4, and P-1 were partial plant proposals and had the scheduling and settlement complications of dealing with other

offtakers. Proposals O-1 and Q-1 (the Southern Company system sale) were seen as the best SERC proposals. Ultimately, the optionality associated with the Southern Company transaction (which could be set as low as 50 MW in a delivery year) made it the best fitting SERC resource in the final portfolio.

Final Proposal and Portfolio Analysis

Table A-12 depicts the final set of all of the resources that were modeled for the final selection decision in mid-2017. These were the results that Sedway Consulting presented to Seminole's Board of Trustees on July 12, 2017. The ranking is based on each resource's levelized and normalized $/kW-month net cost.

There are several important things to note in reviewing the RSM ranking. First, the results are based on a stand-alone analysis, are normalized for the size of each resource, and therefore, on an individual basis, do not necessary meet the capacity need. Total portfolio considerations and cost comparisons are addressed later.

Second, all of the resources have positive net costs because all of them have fixed costs that exceed their benefits. Thus, absent a reliability need, it would not make economic sense for Seminole to select any of the resources.

Third, as noted earlier, Sedway Consulting calibrated the RSM with proxy run information from Seminole's detailed production cost model prior to the receipt of proposals. Because Seminole was procuring resources to replace a rather significant percentage of its overall supply portfolio and because it received so many qualified proposals, the evaluation process took longer than expected. By the spring of 2017, Seminole had developed new load, fuel price, and other planning-related forecasts and incorporated this new information into its modeling systems. Sedway Consulting reviewed the new forecasts and believed them to be better than the previous 2016 forecasts. Thus, Seminole and Sedway Consulting coordinated on a new set of proxy runs to recalibrate Sedway Consulting's RSM for the 2017 forecasts. Given that this occurred well after Seminole had received and reviewed the proposals in its RFP process, Sedway Consulting reviewed the final rankings under both RSM vintages. Thus, in Table A-12, levelized net costs are shown for each final proposal under "Old" and "New" forecast assumptions, and the table is ranked on the "Old" metric. The rankings were essentially unchanged, with some minor flipping of some proposals in the ranking as indicated with italicized values in the "New" column.

It is important to note that both of the DEF System Sales and the Southern Company Services (SCS) System had significant optionality (with annual delivered capacities as low as 50 MW); this optionality is not reflected in the net cost statistics and rankings.

Table A-12
Ranking of Final Proposals

	Proposal/Resource	Code	Type	Status	Start Date	Capacity (MW)	Term (years)	Levelized Net Cost (S/kW-month)	
								Old	New
1	Self-Build 2x1		CC	New	12/1/2022	1,122	30	[redacted]	[redacted]
2	[redacted]	L-1	CT	Existing	6/1/2021	172-515	5		
3	Shady Hills	B-3	CT	Existing	6/1/2024	173-519	23*		
4	DEF Peaking	E-3	System	Existing	6/1/2021	50-300	9		
5	[redacted]	O-1	CC	Existing	6/1/2021	235	10		
6	SCS System	Q-1	System	Existing	6/1/2021	50-350	3		
7	[redacted]	A-5	System	Existing	6/1/2021	100-1000	10		
8	DEF Intermediate	E-4	System	Existing	6/1/2021	50-300	5		
9	Self-Build 1x1		CC	New	6/1/2021	595	30		
10	Shady Hills 1x1	B-1	CC	New	12/1/2021	573	30		
11	[redacted]	A-10	CC	New	5/1/2021	641	20		
12	[redacted]	A-6	System	Existing	6/1/2021	100-1000	10		
13	[redacted]	F-1	CC	Existing	6/1/2021	121	20		

* This was the contemplated term of the Shady Hills CT contract at the time of the July 12, 2017 Board of Trustees meeting; during the subsequent negotiation process, the term was reduced to 15 years.

Portfolio Analysis

Seminole and Sedway Consulting reviewed their respective evaluation results and developed portfolios of proposals that would meet the cooperative's capacity needs. As this process was underway in early 2017, two important considerations came to light. First, Seminole began to explore potential savings that might be achieved by removing one of its SGS coal units from service and replacing that capacity with cost-effective resources and transactions that were available from its 2021 RFP. In the spring of 2017, Seminole retained an engineering firm to develop detailed estimates of the costs of the service removal process and the difference in the costs of continuing to operate one instead of two of its coal units. Second, it was recognized that each portfolio had certain expected portfolio transmission impacts that needed to be taken into consideration.

With these issues in mind, three specific optimal portfolios (i.e., optimal within the context of their purpose and constraints) rose to the top in terms of economic and strategic value and were labeled the following:

1. Clean Power Plan (CPP)
2. SGS 2x1
3. Limited Build

Tables A-13 through A-15 provide the component resources and additional economic factors of the three portfolios. Sedway Consulting found that the CPP portfolio was the least-cost option, yielding estimated total portfolio net costs that were $282 million less than the next best portfolio (which was the SGS 2x1 portfolio).

The first portfolio is depicted in Table A-13 and reflects the least-cost portfolio that entailed removing an SGS coal unit from service, achieving the cost savings associated with that removal, and replacing the coal unit's capacity with the most cost-effective resources that were available from Seminole's 2021 RFP.

Table A-13
Portfolio Net Cost - CPP

	Bidder/Project	Code	Winter Capacity (MW)	COD	Term (years)	Net Cost ($M)
1	Self-Build GE 2x1		1122	12/1/2022	30	[redacted]
2	GE Shady Hills CC2	B-1	573	12/1/2021	30	
3	GE Shady Hills 2CTs	B-3	346	6/1/2024	23	
4	Southern Company	Q-1	350	6/1/2021	5	
5	DEF-intermediate	E-4	300	6/1/2021	9.5	
6	DEF-peaking	E-3	300	6/1/2021	9.5	
7	[redacted]	L-1	172	6/1/2021	5	
8	DEF-Winter Extension					
9	Surplus Capacity Impacts					[redacted]
10	Remove SGS 1 from service					
11	Portfolio Transmission Impacts					
12	TOTAL					130

Table A-14 depicts the SGS 2x1 portfolio which was the least-cost portfolio that did not entail removing an SGS coal unit from service.

Table A-14
Portfolio Net Cost - SGS 2x1

	Bidder/Project	Code	Winter Capacity (MW)	COD	Term (years)	Net Cost ($M)
1	Self-Build GE 2x1		1122	12/1/2022	30	[redacted]
2	Southern Company-5yr	Q-1	350	6/1/2021	5	
3	DEF-intermediate 9.5yr	E-4	300	6/1/2021	9.5	
4	DEF-peaking	E-3	300	6/1/2021	9.5	
5	[redacted]	L-1	172	6/1/2021	5	
6	DEF-Winter Extension					
7	Surplus Capacity Impacts					[redacted]
8	Portfolio Transmission Impacts					
9	TOTAL					412

Table A-15 depicts the least-cost portfolio that does not entail Seminole's development of any new self-build resources (nor the removal from service of any coal unit). Only one new build resource would be constructed if Seminole pursued this Limited Build portfolio – Shady Hill's CC (SHCCF).

Table A-15
Portfolio Net Cost – Limited Build

	Bidder/Project	Code	Winter Capacity (MW)	COD	Term (years)	Net Cost ($M)
1	GE Shady Hills CC2	B-1	573	12/1/2021	30	[redacted]
2	GE Shady Hills 2CTs	B-3	346	6/1/2024	23	
3	Southern Company-5yr	Q-1	350	6/1/2021	5	
4	DEF-intermediate 9.5yr	E-4	300	6/1/2021	9.5	
5	DEF-peaking	E-3	300	6/1/2021	9.5	
6	[redacted]	L-1	172	6/1/2021	10	
7	DEF-Winter Extension					
8	Surplus Capacity Impacts					
9	Portfolio Transmission Impacts					
10	TOTAL					621

Thus, on a CPVRR basis, the CPP Portfolio that Seminole selected was found to be $282 million less expensive than the next lowest-cost portfolio of alternatives. Sedway Consulting believes that this is a conservative cost differential because it is likely that the RSM results did not fully capture the production cost benefits associated with replacing coal generation with gas-fired generation.

Conclusions

Sedway Consulting performed an independent evaluation of Seminole's self-build option(s) and the market alternatives that were submitted in response to Seminole's 2021 RFP and concluded that the CPP portfolio represented the lowest-cost portfolio for meeting Seminole's 2021 resource need. That portfolio was found to be $282 million less expensive on a CPVRR basis than the next cheapest portfolio of alternatives.