Seminole Electric
COOPERATIVE, INC.
IN PARTNERSHIP WITH THOSE WE SERVE

April 1, 2015

Phillip Ellis
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, Florida 32399-0850

Dear Mr. Ellis:

In accordance with Section 186.801, Florida Statutes, Seminole Electric Cooperative, Inc. hereby submits our 2015 Ten Year Site Plan.

Please do not hesitate to call me if you have any questions or comments.

Sincerely,

Julia C Dawson

Julia A. Dawson
Planning Manager

Enclosure

cc: M. Sherman
L. Johnson

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Seminole Electric
COOPERATIVE, INC.
IN PARTNERSHIP WITH THOSE WE SERVE

Ten Year Site Plan

2015 - 2024
(Detail as of December 31, 2014)
April 1, 2015

Submitted To:
State of Florida
Public Service Commission

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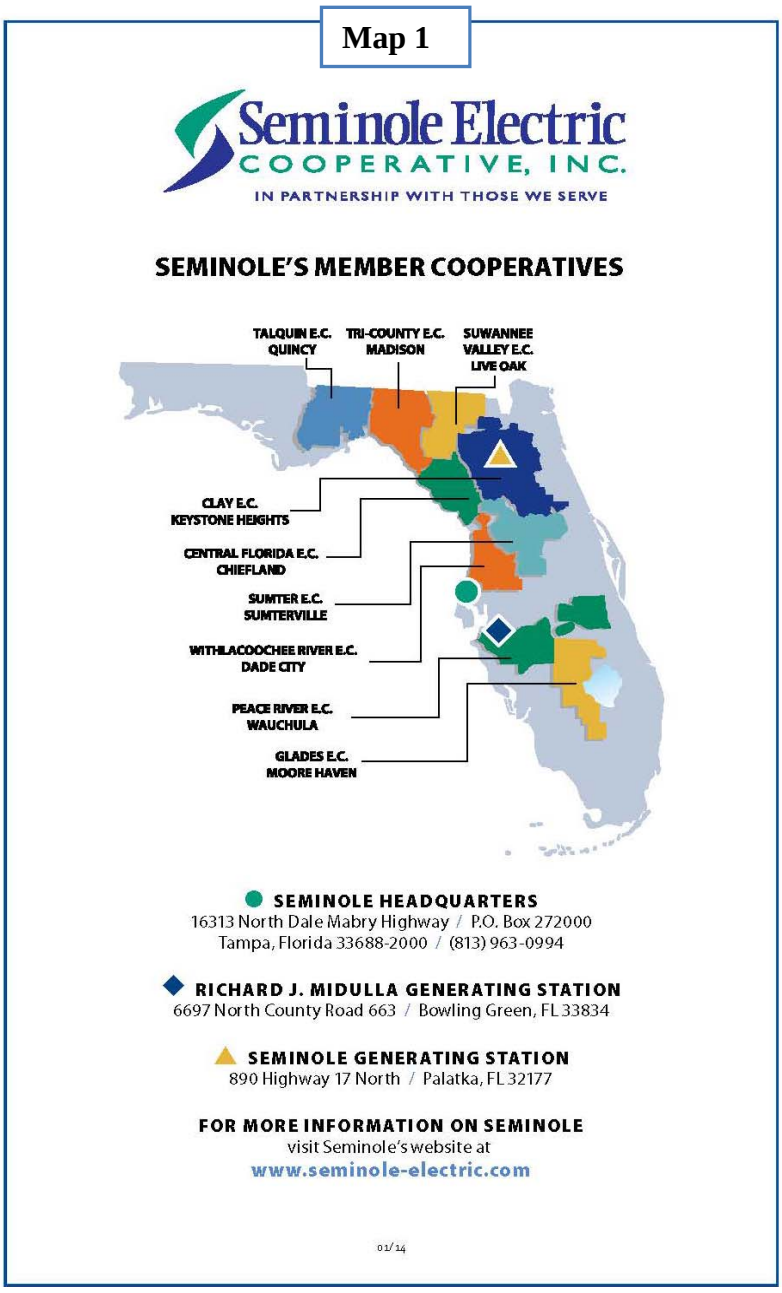
1. DESCRIPTION OF EXISTING FACILITIES

1.1 Overview

Seminole Electric Cooperative, Inc. (Seminole) is a generation and transmission cooperative responsible for meeting the electric power and energy needs of its nine distribution cooperative members (Members). Member service areas are indicated on Map 1 below:

Map 1



Seminole provides full requirements service to all of its Members with the only exception relating to contracts between four Members with the Southeastern Power Administration (SEPA), which provides 26 MW or 1% of the total energy required by all Members. Seminole serves the aggregate loads of its Members with a combination of owned and purchased power resources. As of December 31, 2014, Seminole had total summer capacity resources of approximately 4,000 MW consisting of owned, installed net capacity of 2,060 MW and the remaining capacity in firm purchased power. Additional information on Seminole's existing resources can be found in Schedule 1 and Table 1.2 below.

1.2 Existing Facilities

1.2.1 Owned Generation

Seminole's existing generating facilities include:

1) Seminole Generating Station (SGS) Units 1 & 2 comprise a 1472 MW nameplate coal-fired plant located in Putnam County;
2) Midulla Generating Station (MGS) Units 1–3 comprise a 587 MW nameplate gas-fired combined cycle plant located in Hardee County; and,
3) MGS Units 4–8 comprise a 312 MW nameplate peaking plant.

Schedule 1
Existing Generating Facilities as of December 31, 2014

Plant	Unit No.	Location	Unit Type	Fuel		Fuel Transportation		Alt Fuel Days Use	Com In-Svc Date (Mo/Yr)	Expected Retirement (Mo/Yr)	Gen. Max Nameplate (MW)	Net Capability (MW)	
				Pri	Alt	Pri	Alt					Summer	Winter
SGS	1	Putnam County	ST	BIT	N/A	RR	N/A	N/A	02/84	Unk	736	652	664
SGS	2	Putnam County	ST	BIT	N/A	RR	N/A	N/A	12/84	Unk	736	657	665
MGS	1-3	Hardee County	CC	NG	DFO	PL	TK	Unk	01/02	Unk	587	481	539
MGS	4-8	Hardee County	CT	NG	DFO	PL	TK	Unk	12/06	Unk	312	270	310

Schedule Abbreviations:	General		
		Unk – Unknown N/A – Not applicable	
	Unit Type	Fuel Type	Fuel Transportation
	ST - Steam Turbine CC - Combined Cycle CT – Combustion Turbine	BIT - Bituminous Coal NG - Natural Gas DFO – Ultra low sulfur diesel	PL – Pipeline RR – Railroad TK – Truck

1.2.2 Transmission

Seminole serves its Members' load primarily in three transmission areas: Seminole Direct Serve (SDS) system, Duke Energy Florida (DEF) system, and Florida Power & Light (FPL) system. Seminole's existing transmission facilities consist of 254 circuit miles of 230 kV and 141 circuit miles of 69 kV lines. Seminole's facilities are interconnected to the grid at twenty (20) 230 kV transmission interconnections with the utilities shown in Table 1.1.

Table 1.1

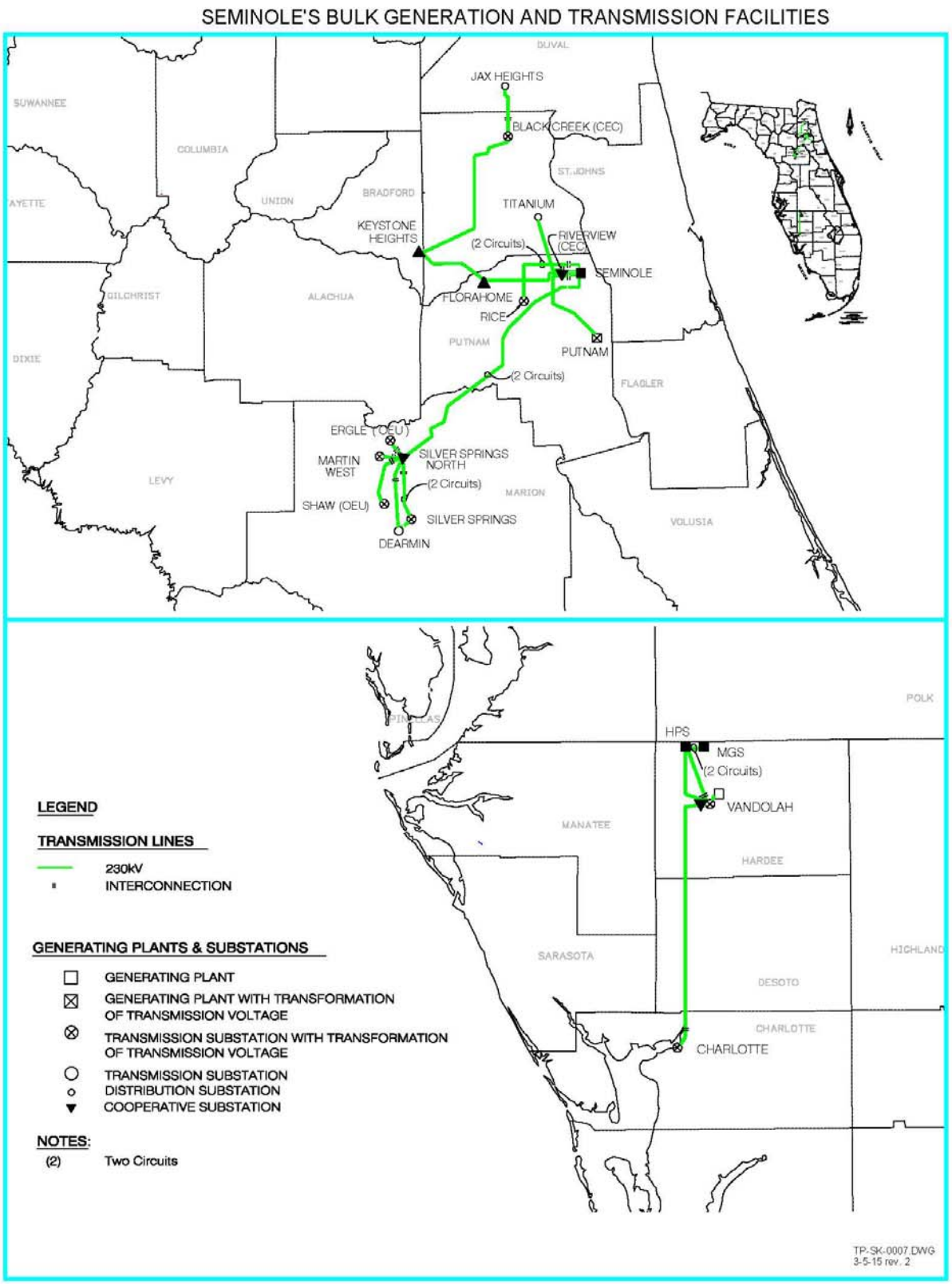
Transmission Grid Interconnections with Other Utilities

Utility	Voltage (kV)	Number of Interconnections
Florida Power & Light	230	6
Duke Energy Florida	230	7
JEA	230	1
City of Ocala	230	2
Tampa Electric Company	230	1
Hardee Power Partners	230	3

Note: This table describes physical facility interconnections, which do not necessarily constitute contractual interconnections for purposes of transmission service or interconnections between balancing areas.

Seminole contracts with other utilities for firm transmission service and interchange when required to serve loads. Map 2 below depicts Seminole's 230 kV transmission lines, including its interconnections with those entities identified in Table 1.1 above.

Map 2



Seminole Electric COOPERATIVE, INC.

1.3 Purchased Power Resources

Table 1.2 below sets forth Seminole's purchased power resources.

Table 1.2

2014				
SUPPLIER	**FUEL**	**MW (WINTER RATINGS)**	**IN SERVICE DATE**	**END DATE**
Hardee Power Partners	Gas/Oil	445	1/1/2013	12/31/2032
Oleander Power Project	Gas/Oil	546	1/1/2010	12/31/2021
FPL	System	200	6/1/2014	5/31/2021
DEF	System	<1	6/1/1987	-
DEF	System	600	1/1/2014	12/31/2020
DEF	System	150	1/1/2014	12/31/2020
DEF	System	250	1/1/2014	5/31/2016
DEF	System	50	6/1/2016	12/31/2018
DEF	System	150	1/1/2014	5/31/2016
DEF	System	250-500	6/1/2016	12/31/2024
Lee County Florida	Waste Landfill	55	1/1/2009	12/31/2016
Telogia Power	Biomass	13	7/1/2009	11/30/2023
Seminole Energy, LLC	Landfill Gas	6.2	10/1/2007	3/31/2018
Brevard Energy, LLC	Landfill Gas	9	4/1/2008	3/31/2018
Timberline Energy, LLC	Landfill Gas	1.6	2/1/2008	3/31/2020
Hillsborough County	Waste Landfill	38	3/1/2010	2/28/2025
City of Tampa	Waste Landfill	20	8/1/2011	7/31/2026

Note: Seminole Electric Cooperative may sell a portion of the renewable energy credits associated with its renewable generation to third parties. The third parties can use the credits to meet mandatory or voluntary renewable requirements.

2. FORECAST OF ELECTRIC DEMAND AND ENERGY CONSUMPTION

2.1 Energy Consumption and Number of Customers

Residential consumer growth is projected to increase at an average annual rate of 1.5 percent from 2015 through 2024. Similarly, commercial consumer growth is projected to rise at an average annual rate of 1.7 percent during the same period. Residential energy sales are projected to grow at an average annual rate of 1.3 percent, and commercial energy sales are projected to grow at an average annual rate of 1.5 percent from 2015 through 2024.

Schedules 2.1, 2.2, and 2.3 below show the aggregate number of customers and energy consumption by customer classification of Seminole's nine Members, including other sales and purchases.

Schedule 2.1 History and Forecast of Energy Consumption and Number of Customers by Customer Class					
Year	Estimated Population Served by Members	Residential			
		Customers Per Household	GWh	Average Number of Customers	Average Consumption Per Customer (kWh)
2005	1,599,910	2.15	10,807	744,617	14,514
2006	1,667,616	2.14	11,153	780,687	14,286
2007	1,716,841	2.14	11,444	803,957	14,235
2008	1,740,705	2.15	11,104	808,926	13,727
2009	1,748,408	2.15	11,293	811,767	13,912
2010	1,692,257	2.22	11,369	761,993	14,920
2011	1,716,516	2.24	10,412	765,279	13,605
2012	1,723,920	2.24	9,979	769,591	12,967
2013	1,749,359	2.25	10,018	777,493	12,885
2014	1,418,020	2.14	8,808	662,626	13,293
2015	1,437,468	2.14	8,785	671,714	13,078
2016	1,464,267	2.14	8,943	684,237	13,070
2017	1,490,745	2.14	9,095	696,610	13,056
2018	1,516,102	2.14	9,245	708,459	13,049
2019	1,542,835	2.14	9,401	720,951	13,040
2020	1,570,154	2.14	9,553	733,717	13,020
2021	1,595,828	2.14	9,697	745,714	13,004
2022	1,620,631	2.14	9,835	757,304	12,987
2023	1,644,714	2.14	9,967	768,558	12,968
2024	1,668,588	2.14	10,093	779,714	12,944
NOTE: Actual value for 2013 and prior includes Lee County Electric Cooperative.					

Schedule 2.2

History and Forecast of Energy Consumption and

Number of Customers by Customer Class

Year	Commercial[1]			Other Sales (GWh)[2]	Total Member Sales to Ultimate Consumers (GWh)[3]
	GWh	Average Number of Customers	Average Consumption Per Customer (kWh)		
2005	4,370	77,547	56,353	141	15,317
2006	4,634	84,345	54,941	158	15,945
2007	4,839	88,306	54,798	165	16,448
2008	4,894	86,121	56,827	163	16,161
2009	4,776	84,318	56,643	167	16,236
2010	4,525	78,788	57,433	158	16,052
2011	4,366	78,828	55,386	160	14,938
2012	4,456	80,598	55,287	164	14,599
2013	4,482	82,302	54,458	166	14,666
2014	4,001	72,632	55,086	151	12,960
2015	4,062	73,453	55,301	149	12,996
2016	4,143	74,629	55,515	147	13,233
2017	4,236	75,984	55,749	147	13,478
2018	4,341	77,412	56,077	147	13,733
2019	4,417	78,908	55,977	148	13,966
2020	4,495	80,414	55,898	149	14,197
2021	4,566	81,786	55,829	150	14,413
2022	4,634	83,106	55,760	151	14,620
2023	4,702	84,402	55,710	153	14,822
2024	4,769	85,705	55,644	154	15,016

NOTE: Actual value for 2013 and prior includes Lee County Electric Cooperative.

[1] Includes Industrial and Interruptible Customers.

[2] Includes Lighting Customers.

[3] Excludes Sales for Resale and includes SEPA.

Schedule 2.3 History and Forecast of Energy Consumption and Number of Customers by Customer Class					
Year	**Sales for Resale (GWh)**	**Utility Use, Losses, & SEPA (GWh)**	**Net Energy for Load (GWh)**	**Other Customers**	**Total Number of Customers**
2005	0	1,448	16,766	5,544	827,708
2006	0	1,288	17,233	5,101	870,133
2007	0	1,221	17,669	5,150	897,413
2008	0	1,171	17,332	5,075	900,122
2009	0	1,217	17,453	5,036	901,121
2010	0	1,294	17,346	4,956	845,737
2011	157	942	16,037	4,954	849,061
2012	134	1,036	15,769	4,818	855,007
2013	137	1,009	15,812	5,185	864,980
2014	170	724	13,854	5,308	740,566
2015	0	772	13,768	5,180	750,347
2016	0	816	14,050	5,158	764,024
2017	0	790	14,268	5,189	777,783
2018	0	799	14,532	5,227	791,098
2019	0	808	14,774	5,289	805,148
2020	0	854	15,051	5,352	819,483
2021	0	824	15,237	5,406	832,906
2022	0	833	15,453	5,456	845,866
2023	0	839	15,661	5,508	858,468
2024	0	887	15,903	5,562	870,981

NOTE: Actual value for 2013 and prior includes Lee County Electric Cooperative.

2.2 Annual Peak Demand and Net Energy for Load

Schedules 3.1, 3.2, and 3.3 provide Seminole's summer peak demand, winter peak demand and net energy for load, respectively. Net firm peak demand reflects the energy reduction due to controllable interruptible load used in the historical years or made available for use in the forecasted years. Since population is the primary driver for Seminole's load growth, Seminole does not create high and low forecasts based upon alternative economic conditions.

Schedule 3.1

History and Forecast of Summer Peak Demand (MW)

Year	Total	Wholesale	Retail	Interruptible Load[1]	Distributed Generation[2]	Residential		Commercial		Net Firm Demand[4]
						Load Mgmt.[3]	Cons.	Load Mgmt.[3]	Cons.	
2005	3,666	3,666	0	0	49	78	N/A	N/A	N/A	3,539
2006	3,813	3,813	0	0	51	130	N/A	N/A	N/A	3,632
2007	4,006	4,006	0	0	62	105	N/A	N/A	N/A	3,839
2008	3,778	3,778	0	0	48	100	N/A	N/A	N/A	3,630
2009	3,987	3,987	0	0	62	101	N/A	N/A	N/A	3,824
2010	3,714	3,714	0	0	67	99	N/A	N/A	N/A	3,548
2011	3,829	3,829	0	0	79	97	N/A	N/A	N/A	3,653
2012	3,525	3,525	0	0	0	97	N/A	N/A	N/A	3,428
2013	3,665	3,665	0	0	0	99	N/A	N/A	N/A	3,566
2014	3,135	3,135	0	0	0	47	N/A	N/A	N/A	3,088
2015	3,038	3,038	0	28	63	38	N/A	N/A	N/A	2,909
2016	3,092	3,092	0	28	63	38	N/A	N/A	N/A	2,963
2017	3,151	3,151	0	28	63	38	N/A	N/A	N/A	3,022
2018	3,211	3,211	0	28	63	38	N/A	N/A	N/A	3,082
2019	3,264	3,264	0	28	63	38	N/A	N/A	N/A	3,135
2020	3,316	3,316	0	28	63	38	N/A	N/A	N/A	3,187
2021	3,364	3,364	0	28	63	38	N/A	N/A	N/A	3,235
2022	3,410	3,410	0	28	63	38	N/A	N/A	N/A	3,281
2023	3,454	3,454	0	28	63	38	N/A	N/A	N/A	3,325
2024	3,496	3,496	0	28	63	38	N/A	N/A	N/A	3,367

NOTE: Actual value for 2013 and prior includes Lee County Electric Cooperative.

[1] Excludes Wholesale Interruptible Purchases

[2] Distributed Generation reflects customer-owned self-service generation.

[3] Historical load management data is actual amount exercised at the time of the seasonal peak demand.

[4] Excludes SEPA allocations.

Schedule 3.2

History and Forecast of Winter Peak Demand (MW)

Year	Total	Wholesale	Retail	Interruptible Load[1]	Distributed Generation[2]	Residential		Commercial		Net Firm Demand[4]
						Load Mgmt.[3]	Cons.	Load Mgmt.[3]	Cons.	
2004-05	4,056	4,056	0	0	40	91	N/A	N/A	N/A	3,925
2005-06	4,349	4,349	0	0	47	77	N/A	N/A	N/A	4,225
2006-07	4,178	4,178	0	0	43	109	N/A	N/A	N/A	4,026
2007-08	4,410	4,410	0	0	56	133	N/A	N/A	N/A	4,221
2008-09	4,946	4,946	0	0	58	150	N/A	N/A	N/A	4,738
2009-10	5,263	5,263	0	0	64	152	N/A	N/A	N/A	5,047
2010-11	4,476	4,476	0	0	55	106	N/A	N/A	N/A	4,315
2011-12	4,118	4,118	0	0	66	134	N/A	N/A	N/A	3,918
2012-13	3,860	3,860	0	0	0	132	N/A	N/A	N/A	3,707
2013-14	3,290	3,290	0	0	0	50	N/A	N/A	N/A	3,240
2014-15[5]	3,628	3,628	0	0	0	56	N/A	N/A	N/A	3,572
2015-16	3,589	3,589	0	21	63	59	N/A	N/A	N/A	3,446
2016-17	3,659	3,659	0	21	63	59	N/A	N/A	N/A	3,516
2017-18	3,731	3,731	0	21	63	59	N/A	N/A	N/A	3,588
2018-19	3,794	3,794	0	21	63	59	N/A	N/A	N/A	3,651
2019-20	3,857	3,857	0	21	63	59	N/A	N/A	N/A	3,714
2020-21	3,917	3,917	0	21	63	59	N/A	N/A	N/A	3,774
2021-22	3,974	3,974	0	21	63	59	N/A	N/A	N/A	3,831
2022-23	4,030	4,030	0	21	63	59	N/A	N/A	N/A	3,887
2023-24	4,083	4,083	0	21	63	59	N/A	N/A	N/A	3,940
2024-25	4,135	4,135	0	21	63	59	N/A	N/A	N/A	3,992

NOTE: Actual value for 2013-14 and prior includes Lee County Electric Cooperative.

[1] Excludes Wholesale Interruptible Purchases

[2] Distributed Generation reflects customer-owned self-service generation.

[3] Historical load management data is actual amount exercised at the time of the seasonal peak demand.

[4] Excludes SEPA allocations.

[5] Estimated actuals

Schedule 3.3

History and Forecast of Annual Net Energy for Load (GWh)

Year	Total	Conservation		Retail	Total Sales Including Sales for Resale	Utility Use, Losses, & SEPA	Net Energy for Load	Load Factor %
		Residential	Commercial					
2005	16,766	N/A	N/A	0	15,317	1,449	16,766	45.3
2006	17,233	N/A	N/A	0	15,945	1,288	17,233	48.9
2007	17,669	N/A	N/A	0	16,448	1,221	17,669	50.1
2008	17,332	N/A	N/A	0	16,161	1,171	17,332	46.7
2009	17,453	N/A	N/A	0	16,236	1,217	17,453	42.1
2010	17,346	N/A	N/A	0	16,052	1,294	17,346	39.2
2011	16,037	N/A	N/A	0	15,095	942	16,037	46.7
2012	15,769	N/A	N/A	0	14,733	1,036	15,769	45.8
2013	15,812	N/A	N/A	0	14,803	1,009	15,812	45.7
2014	13,854	N/A	N/A	0	13,130	724	13,854	44.3
2015	13,857	89	N/A	0	12,996	772	13,768	45.6
2016	14,177	127	N/A	0	13,233	817	14,050	45.6
2017	14,434	166	N/A	0	13,478	790	14,268	45.4
2018	14,739	207	N/A	0	13,733	799	14,532	45.4
2019	14,997	223	N/A	0	13,966	808	14,774	45.4
2020	15,291	240	N/A	0	14,197	854	15,051	45.5
2021	15,493	256	N/A	0	14,413	824	15,237	45.4
2022	15,726	273	N/A	0	14,620	833	15,453	45.4
2023	15,950	289	N/A	0	14,822	839	15,661	45.4
2024	16,208	305	N/A	0	15,016	887	15,903	45.5

NOTE: Actual value for 2013 and prior includes Lee County Electric Cooperative.

2.3 Monthly Peak Demand and Net Energy for Load

Schedule 4 shows peak demand and net energy for load by month for 2014 actuals and 2015 through 2016 forecasts.

Schedule 4

Previous Year and 2-Year Forecast of Peak Demand and Net Energy for Load by Month

Month	2014 Actual		2015 Forecast		2016 Forecast	
	Peak Demand (MW)[1]	NEL (GWh)	Peak Demand (MW)[2]	NEL (GWh)	Peak Demand (MW)	NEL (GWh)
January	3,240	1,291	2,819	1,159	3,446	1,180
February	2,860	931	3,572	961	2,929	1,014
March	2,198	958	2,425	1,021	2,482	1,041
April	2,607	984	2,260	1,005	2,312	1,027
May	2,810	1,188	2,599	1,184	2,652	1,203
June	2,948	1,307	2,803	1,285	2,857	1,305
July	2,963	1,402	2,796	1,369	2,852	1,396
August	3,088	1,446	2,909	1,434	2,963	1,458
September	2,963	1,223	2,713	1,269	2,766	1,292
October	2,555	1,055	2,280	1,058	2,330	1,079
November	2,903	1,007	2,322	953	2,369	969
December	2,716	1,062	2,611	1,070	2,660	1,086
ANNUAL		**13,854**		**13,768**		**14,050**

[1] Peak Demand includes interruptible load; Excludes Distributed Generation, Load Management and SEPA allocations

[2] Peak Demand Excludes Interruptible Load, Distributed Generation, Load Management and SEPA allocations.

Note: Peak Demand 2015 January and 2015 February is Estimated Actual.

2.4 Fuel Requirements

Seminole's coal, oil, and natural gas requirements for owned and future generating units are shown on Schedule 5 below.

Schedule 5
Fuel Requirements For Seminole Generating Resources

Fuel Requirements		Units	Actual 2013*	Actual 2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Nuclear		Trillion BTU	-	-	-	-	-	-	-	-	-	-	-	-
Coal		1000 Tons	3,190	3,231	3,404	3,424	3,594	3,640	3,349	3,491	3,257	3,072	3,093	3,110
Residual	Total	1000 BBL	-	-	-	-	-	-	-	-	-	-	-	-
	Steam	1000 BBL	-	-	-	-	-	-	-	-	-	-	-	-
	CC	1000 BBL	-	-	-	-	-	-	-	-	-	-	-	-
	CT	1000 BBL	-	-	-	-	-	-	-	-	-	-	-	-
Distillate	Total	1000 BBL	47	20	39	39	41	41	38	40	37	35	35	35
	Steam	1000 BBL	46	19	39	39	41	41	38	40	37	35	35	35
	CC	1000 BBL	1	1	-	-	-	-	-	-	-	-	-	-
	CT	1000 BBL	0	0	-	-	-	-	-	-	-	-	-	-
Natural Gas	Total	1000 MCF	22,467	19,250	20,164	21,320	19590	19,463	23,256	23,057	35,351	41,436	45,303	47,435
	Steam	1000 MCF	-	-	-	-	-	-	-	-	-	-	-	-
	CC	1000 MCF	19,821	18,346	18,809	19,888	18,302	17,853	22,374	22,255	35,079	40,974	44,355	44,961
	CT	1000 MCF	2,646	904	1,355	1,432	1,288	1,610	882	802	272	462	948	2,474

NOTE: Above fuel is for existing and future owned generating resources (excludes purchased power contracts).
Totals may not add due to rounding.
* Actual value for 2013 includes Lee County Electric Cooperative.

2.5 Energy Sources by Fuel Type

Seminole's total system energy sources in GWh and percent for each fuel type are shown on Schedules 6.1 and 6.2, respectively, on the following pages. Generation listed under renewable reflects the renewable units output but Seminole may sell a portion of the renewable energy credits associated with its renewable generation to third parties. The third parties can use the credits to meet mandatory or voluntary renewable requirements. Seminole's additional requirements for capacity beyond 2021 are assumed to be from gas/oil resources. Due to concerns over proposed environmental regulations that would impact coal units negatively, future coal generation was not currently considered as a viable resource option.

Schedule 6.1
Energy Sources (GWh)

Energy Sources		Units	Actual 2013*	Actual 2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Inter-Regional Interchange		GWh	-	-	-	-	-	-	-	-	-	-	-	-
Nuclear		GWh	-	-	-	-	-	-	-	-	-	-	-	-
Coal		GWh	7,725	8,159	8,497	8,509	8,928	9,071	8,285	8,625	7,982	7,501	7,514	7,571
Residual	Total	GWh	-	-	-	-	-	-	-	-	-	-	-	-
	Steam	GWh	-	-	-	-	-	-	-	-	-	-	-	-
	CC	GWh	-	-	-	-	-	-	-	-	-	-	-	-
	CT	GWh	-	-	-	-	-	-	-	-	-	-	-	-
Distillate	Total	GWh	54	35	53	55	52	57	58	56	41	39	41	48
	Steam	GWh	27	23	23	23	24	25	22	23	22	20	20	21
	CC	GWh	26	12	30	32	28	32	36	33	19	19	21	24
	CT	GWh	1	-	-	-	-	-	-	-	-	-	-	3
Natural Gas	Total	GWh	7,071	4,737	4,222	4,481	4,291	4,488	5,541	5,486	6,332	7,037	7,238	7,504
	Steam	GWh	-	-	148	52	24	33	-	-	-	-	-	-
	CC	GWh	6,630	4,570	3,934	4,261	4,117	4,260	5,434	5,402	6,289	6,990	7,137	7,254
	CT	GWh	441	167	140	168	150	195	107	84	43	47	101	250
NUG		GWh	-	-	-	-	-	-	-	-	-	-	-	-
Renewables **		GWh	962	923	996	1,005	997	916	890	884	882	876	868	780
Other		GWh	-	-	-	-	-	-	-	-	-	-	-	-
Net Energy for Load		GWh	15,812	13,854	13,768	14,050	14,268	14,532	14,774	15,051	15,237	15,453	15,661	15,903

NOTE: Net interchange, unit power purchases and DEF and FPL system purchases are included under source fuel categories.
Totals may not add due to rounding.
* Actual value for 2013 includes Lee County Electric Cooperative.
** Seminole Electric Cooperative may sell a portion of the renewable energy credits associated with its renewable generation to third parties. The third parties can use the credits to meet mandatory or voluntary renewable requirements.

Schedule 6.2
Energy Sources (Percent)

Energy Sources		Units	Actual											
			2013*	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Inter-Regional Interchange		%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Nuclear		%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Coal		%	48.86%	58.89%	61.71%	60.57%	62.57%	62.42%	56.08%	57.31%	52.39%	48.54%	47.98%	47.61%
Residual	Total	%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	Steam	%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	CC	%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	CT	%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Distillate	Total	%	0.34%	0.25%	0.38%	0.39%	0.36%	0.39%	0.39%	0.37%	0.27%	0.25%	0.26%	0.30%
	Steam	%	0.17%	0.17%	0.17%	0.16%	0.17%	0.17%	0.15%	0.15%	0.14%	0.13%	0.13%	0.13%
	CC	%	0.16%	0.09%	0.22%	0.23%	0.20%	0.22%	0.24%	0.22%	0.12%	0.12%	0.13%	0.15%
	CT	%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.02%
Natural Gas	Total	%	44.72%	34.19%	30.67%	31.89%	30.07%	30.88%	37.51%	36.45%	41.56%	45.54%	46.22%	47.19%
	Steam	%	0.00%	0.00%	1.07%	0.37%	0.17%	0.23%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	CC	%	41.93%	32.99%	28.57%	30.32%	28.85%	29.31%	36.78%	35.89%	41.27%	45.23%	45.57%	45.61%
	CT	%	2.79%	1.20%	1.02%	1.20%	1.05%	1.34%	0.72%	0.56%	0.28%	0.30%	0.64%	1.57%
NUG		%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Renewables		%	6.08%	6.66%	7.23%	7.15%	6.99%	6.30%	6.02%	5.87%	5.79%	5.67%	5.54%	4.90%
Other		%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Net Energy for Load		%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%

NOTE: Net interchange, unit power purchases and DEF and FPL system purchases are included under source fuel categories.
Totals may not add due to rounding.
* Actual value for 2013 includes Lee County Electric Cooperative.
** Seminole Electric Cooperative may sell a portion of the renewable energy credits associated with its renewable generation to third parties. The third parties can use the credits to meet mandatory or voluntary renewable requirements

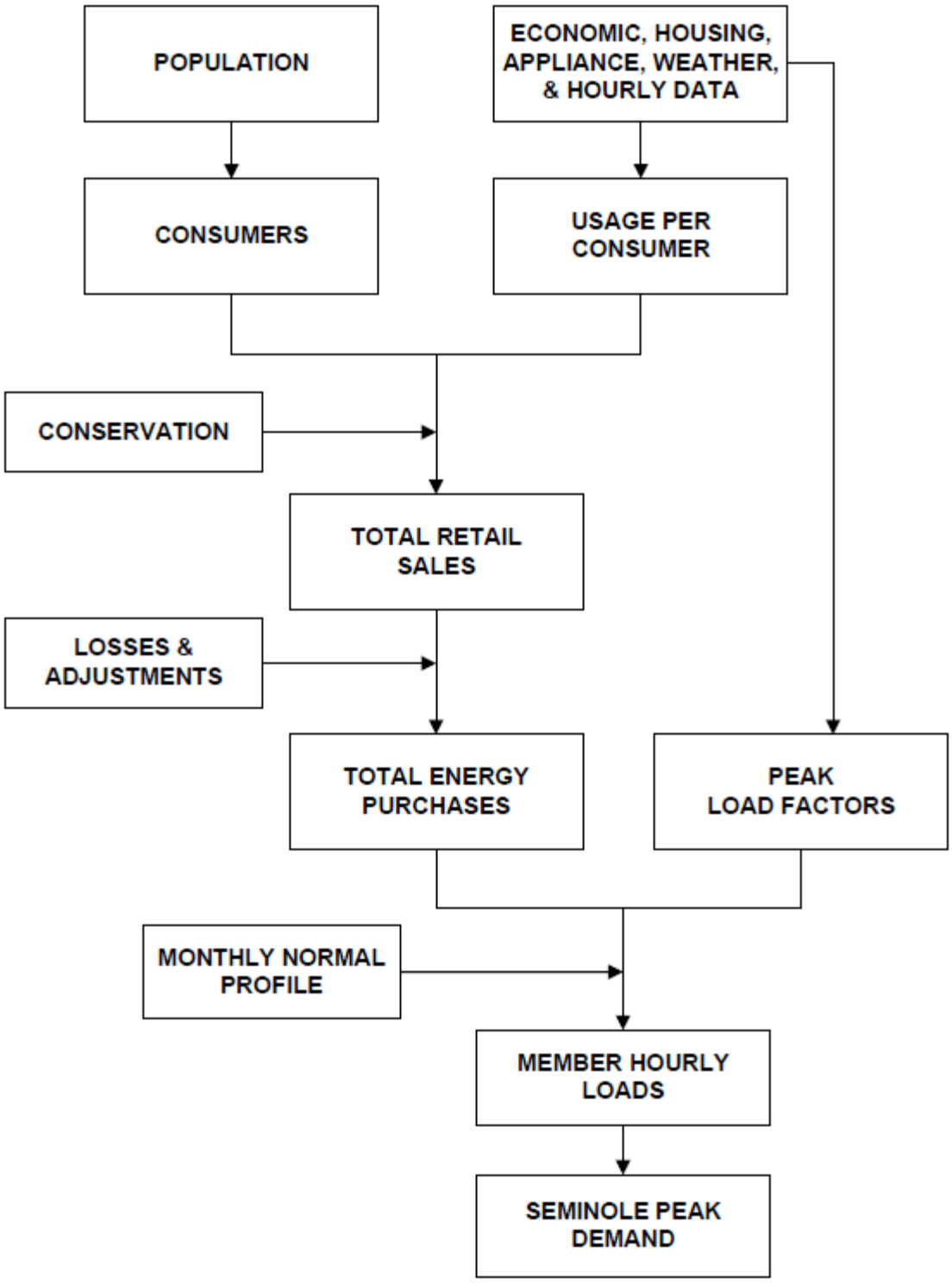
3. FORECASTING METHODS AND PROCEDURES

3.1 Forecasting Methodology

Seminole follows generally accepted methodologies to model number of consumers, energy and peak demand. Models are developed using regression and time series techniques to minimize predictive error of historical observations and to fit projections to both short-term conditions and long-term trends. Seminole-Members' growth characteristics are uniquely identified and analyzed by employing explanatory variable combinations and interactions. Seminole's Integrated Forecasting System is designed to produce forecasts for each Member system by month. Member forecasts are aggregated to produce Seminole's system forecast. A flowchart of Seminole's Integrated Forecasting System is below.

Figure 3.1

Integrated Forecasting System



3.1.1 Consumer Model

Number of consumers is modeled utilizing historical Rural Utilities Services (RUS), U.S. Department of Agriculture, Form-7 Financial and Statistical Report (Form-7) data from Seminole Members and historical population estimates produced by the U.S. Census Bureau. Future number of consumers are forecasted utilizing independent county population projections, including Moody's Economic and Consumer Credit Analytics, University of Florida's Bureau of Economic and Business Research (BEBR) and Woods and Poole Economics, Inc.. Territorial agreements and information provided directly from Member representatives regarding anticipated changes in service territories are incorporated in forecast projections. The "other" consumer class represents a small portion of Member energy sales, including irrigation, street and highway lighting, public buildings and sales for resale.

3.1.2 Energy Model

Components of the energy model include usage per consumer, retail energy sales and Member energy purchases from Seminole at the delivery point. Future energy usage per consumer is derived for each rate class by regressing historical retail usage data from Member Form-7 financial reports with explanatory variable forecasts, such as real price of electricity, gross county product, air-conditioning and space-heating saturations, normalized heating and cooling degree days, and binaries for seasons and/or months. Anticipated reductions to residential energy sales due to energy conservation efforts are also incorporated into retail sales projections. Large-commercial consumers with various sales trends and production constraints are modeled by Members separately and added to Seminole's forecast.

Member retail energy sales by rate class are derived by multiplying usage per consumer by number of consumers. Retail sales are then adjusted upward to reflect Member energy

purchases from Seminole using an adjustment factor. This adjustment accounts for losses associated with distributing energy from the delivery point to the end-use consumer and also the accounting difference between calendar-month purchases and retail billing cycle sales.

Real price of electricity information used in residential and commercial/industrial energy models is calculated by dividing kWh sales for each consumer class into the corresponding revenue, then deflating the result by the CPI-U. Future real price of electricity increases by system-wide Member rate projection growth.

3.1.3 Peak Demand Model

Future non-coincident peak demands by Member are estimated by applying load factor expectations to forecasts of energy purchases. Future load factors are derived by regressing this variable with exogenous variables including heating and cooling degree hours at the time of the peak, heating and cooling degree days, air-conditioning and space-heating saturations, price of electricity, and binaries by month and/or by non-weekday peak demand occurrences. Load factor models are developed separately for winter and summer seasons. Potential demand reductions due to load management are reported in the load forecast study, but reductions are not explicitly applied to demand forecast figures.

Non-coincident peak demand projections are disaggregated to hourly observations to identify Member coincident peaks and the Seminole-system peak demand by month. The formula for disaggregating monthly demand forecasts to hourly observations is calculated using load shape profiles, minimum and maximum demand statistics and energy inputs.

3.1.4 Alternative-Scenario Models

In addition to the base load forecast, Seminole produces high and low load forecasts based on population growth alternatives provided by BEBR. Seminole's system is primarily

residential load and population is the primary driver for growth. Therefore, high and low population scenarios, rather than alternative economic growth scenarios, are developed for each Member system. Seminole also forecasts load conditions given mild and severe weather conditions.

3.2 Load Forecast Data

The primary resources for load forecasting are weather data, economic data, Member retail data and peak demand data. Number of consumers and sales by consumer class are provided monthly by Members using the Form-7. Independent source data for macroeconomic and demographic information is provided by government and credit rating agencies, as well as local universities. A listing of load forecast data sources is provided below.

3.2.1 Materials Reviewed and/or Employed

Load Data by Delivery Point:

- Seminole Power Billing System, System Operations

Retail Number of Consumers, Energy Sales, Sales Price and Revenue by Rate Class:

- Member Form-7

Number of Consumers by County:

- Member provided

Individual Large Consumer Loads Over 1000 kVA:

- Member provided

Appliance Saturations and Demographics of Member Service Territory:

- Seminole Residential Consumer Survey

Residential Consumers and Population by City and Unincorporated Area:

- BEBR

Population and Demographics:

- U.S. Census Bureau, Department of Commerce

Economic Indicators:

- Bureau of Labor Statistics, U.S. Department of Labor; Bureau of Economic Analysis, U.S. Department of Commerce
- U.S. Census Bureau, Department of Commerce

Forecasted Economic Indicators, Population and Demographics:

- Moody's Corporation
- BEBR
- Woods and Poole Economics, Inc.

Weather Data:

- National Oceanic and Atmospheric Administration; Schneider Electric.

3.3 Significant Load Forecast Assumptions

3.3.1 Economic Assumptions

Seminole Members primarily serve electricity to rural areas within 42 counties in the north, central and south regions of Florida, which differ uniquely in geography, weather, and natural resources. These large, low-density land areas offer potential opportunity for development. Population growth in Seminole's territory is sensitive to national economic and demographic factors that influence population migration from other states and metropolitan areas within Florida. Residential consumer growth in Seminole's territory has matched the pace of Florida's statewide annual average growth over the last decade. Over the next few years, Member territories are likely to gain additional growth from "baby-boomer" retiree migration.

The load forecast reflects expectations that the national economy, and Florida's economy in particular, will improve past pre-Great Recession levels over the next several years and continue to grow steadily thereafter. Improving economic conditions and the resulting consumer growth is a leading indicator for overall load growth. Alternatively however, residential usage per consumer trends over the last decade for electric utilities in the state of Florida are flat to negative and Seminole projects this trend will continue into the future.

3.3.2 Weather Assumptions

Seminole's load forecast incorporates six weather stations located in and around Member service areas. To reflect weather conditions in each Member's service territory, a varying combination of weather stations are assigned to individual Member systems based on geographic proximity. Normalized temperature variables are calculated by averaging twenty-five (25) years of history for both calendar and billing months. Seminole uses different temperature cut-off points for air conditioning and space heating demand and cut-off values differ based on service region.

4. FORECAST OF FACILITIES REQUIREMENTS

Seminole's forecasts of capacity and demand for the projected summer and winter peaks are in the following Schedules 7.1 and 7.2, respectively. The forecasts include the addition of approximately 1,400 MW of capacity by 2024. Such capacity is needed to replace expiring purchased power contracts and to serve increased Member load requirements while maintaining Seminole's reliability criteria.

Seminole's capacity expansion plan includes the need for three 224 MW class combustion turbine units and one 741 MW combined cycle plant, none of which are currently sited. The three combustion turbine units are scheduled to enter service in December 2022, December 2023, and December 2024. In addition, by May 2021, Seminole also has a need for 741 MW of combined cycle capacity. A final decision as to whether Seminole will construct and own these additional facilities will be based upon future economic studies. The inclusion of these units in Seminole's capacity expansion plan does not represent at this time a commitment for construction by Seminole.

Schedule 7.1
Forecast of Capacity, Demand and Scheduled Maintenance at Time of Summer Peak

Year	Total Installed Capacity (MW)	Firm Capacity Import (MW)			Firm Capacity Export (MW)	QFs (MW)	Capacity Available (MW)		System Firm Summer Peak Demand (MW)		Reserve Margin Before Maintenance		Scheduled Maintenance (MW)	Reserve Margin After Maintenance	
		PR and FR	Other Purchases	Total			Total	Less PR and FR	Total	Obligation	MW	% of Pk		MW	% of Pk
2015	2,060	0	1,759	1,759	0	0	3,819	3,819	2,909	2,909	910	31%	0	910	31%
2016	2,060	0	1,609	1,609	0	0	3,669	3,669	2,963	2,963	706	24%	0	706	24%
2017	2,060	0	1,664	1,664	0	0	3,724	3,724	3,022	3,022	701	23%	0	701	23%
2018	2,060	0	1,648	1,648	0	0	3,708	3,708	3,082	3,082	627	20%	0	627	20%
2019	2,060	0	1,898	1,898	0	0	3,958	3,958	3,135	3,135	824	26%	0	824	26%
2020	2,060	0	1,897	1,897	0	0	3,957	3,957	3,187	3,187	770	24%	0	770	24%
2021	2,709	0	1,021	1,021	0	0	3,730	3,730	3,235	3,235	495	15%	0	495	15%
2022	2,709	0	1,074	1,074	0	0	3,783	3,783	3,281	3,281	502	15%	0	502	15%
2023	2,910	0	924	924	0	0	3,834	3,834	3,325	3,325	508	15%	0	508	15%
2024	3,111	0	772	772	0	0	3,883	3,883	3,367	3,367	516	15%	0	516	15%

NOTES: 1. Total installed capacity and the associated reserve margins are based on Seminole's current base case plan and are based on a 15% reserve margin criterion.

2. Total Installed Capacity does not include SEPA.

3. Percent reserves are calculated at 15% of Seminole's obligation and include any surplus capacity.

Schedule 7.2
Forecast of Capacity, Demand and Scheduled Maintenance at Time of Winter Peak

Year	Total Installed Capacity (MW)	Firm Capacity Import (MW)			Firm Capacity Export (MW)	QFs (MW)	Capacity Available (MW)		System Firm Winter Peak Demand (MW)		Reserve Margin Before Maintenance		Scheduled Maintenance (MW)	Reserve Margin After Maintenance	
		PR and FR	Other Purchases	Total			Total	Less PR and FR	Total	Obligation	MW	% of Pk		MW	% of Pk
2015/16	2,178	0	2,541	2,541	0	0	4,719	4,719	3,446	3,446	1,273	37%	0	1,273	37%
2016/17	2,178	0	2,336	2,336	0	0	4,514	4,514	3,516	3,516	997	28%	0	997	28%
2017/18	2,178	0	2,336	2,336	0	0	4,514	4,514	3,588	3,588	926	26%	0	926	26%
2018/19	2,178	0	2,320	2,320	0	0	4,498	4,498	3,651	3,651	847	23%	0	847	23%
2019/20	2,178	0	2,570	2,570	0	0	4,748	4,748	3,714	3,714	1,035	28%	0	1,035	28%
2020/21	2,178	0	2,171	2,171	0	0	4,349	4,349	3,774	3,774	576	15%	0	576	15%
2021/22	2,919	0	1,496	1,496	0	0	4,415	4,415	3,831	3,831	584	15%	0	584	15%
2022/23	3,143	0	1,336	1,336	0	0	4,479	4,479	3,887	3,887	592	15%	0	592	15%
2023/24	3,367	0	1,173	1,173	0	0	4,540	4,540	3,940	3,940	600	15%	0	600	15%
2024/25	3,592	0	1,008	1,008	0	0	4,600	4,600	3,992	3,992	608	15%	0	608	15%

NOTES:
1. Total installed capacity and the associated reserve margins are based on Seminole's current base case plan and are based on a 15% reserve margin criterion.
2. Total Installed Capacity does not include SEPA.
3. Percent reserves are calculated at 15% of Seminole's obligation and include any surplus capacity.

4.1 Planned and Prospective Generating Facility Additions and Changes

Schedule 8 below shows Seminole's planned and prospective generating facility additions and changes.

Schedule 8
Planned and Prospective Generating Facility Additions and Changes

Plant Name	Unit No	Location	Unit Type	Fuel		Transportation		Const. Start Date	Comm. In-Service Date	Expected Retirement Date	Max Nameplate	Summer MW	Winter MW	Status
				Pri	Alt	Pri	Alt							
Unnamed CC	1	TBA	CC	NG		PL	TK	(1)	5/2021	Unk	741	649	741	P
Unnamed CT	1	TBA	CT	NG		PL	TK	(1)	12/2022	Unk	224	201	224	P
Unnamed CT	2	TBA	CT	NG		PL	TK	(1)	12/2023	Unk	224	201	224	P
Unnamed CT	3	TBA	CT	NG		PL	TK	(1)	12/2024	Unk	224	201	224	P

NOTES:
(1) Future resource which may be existing or new as determined by future Request for Proposal results.
(2) Abbreviations – See Schedule 1.1

4.2 Proposed Generating Facilities

Schedule 9 below reports status and specifications of Seminole's proposed generating facilities.

Schedule 9 Status Report and Specifications of Proposed Generating Facilities		
1	Plant Name & Unit Number	Unnamed Generating Station CC Unit 1
2	Capacity a. Summer (MW): b. Winter (MW):	 649 741
3	Technology Type:	Combined Cycle
4	Anticipated Construction Timing a. Field construction start-date: b. Commercial in-service date:	 May 2018 May 2021
5	Fuel a. Primary fuel: b. Alternate fuel:	 Natural Gas
6	Air Pollution Control Strategy	SCR
7	Cooling Method:	Wet Cooling Tower with Forced Air Draft Fans
8	Total Site Area:	TBD
9	Construction Status:	Planned
10	Certification Status:	Planned
11	Status With Federal Agencies	N/A
12	Projected Unit Performance Data Planned Outage Factor (POF): Forced Outage Factor (FOF): Equivalent Availability Factor (EAF): Resulting Capacity Factor (%): Average Net Operating Heat Rate (ANOHR):	 4.50 2.50 93.00 50% 6684 Btu/kWh (HHV) - ISO Rating
13	Projected Unit Financial Data ($2021) Book Life (Years): Total Installed Cost (In-Service Year $/kW): Direct Construction Cost ($/kW): AFUDC Amount ($/kW): Escalation ($/kW): Fixed O&M ($/kW-Yr): Variable O&M ($/Run Hour): Variable O&M ($/MWH): K Factor:	 30 843 764 79 Included in values above 12.60 1,708 0.07 N/A

Schedule 9 Status Report and Specifications of Proposed Generating Facilities		
1	Plant Name & Unit Number	Unnamed Generating Station CT Unit 1
2	Capacity a. Summer (MW): b. Winter (MW):	 201 224
3	Technology Type:	Combustion Turbine
4	Anticipated Construction Timing a. Field construction start-date: b. Commercial in-service date:	 December 2020 December 2022
5	Fuel a. Primary fuel: b. Alternate fuel:	 Natural Gas
6	Air Pollution Control Strategy	Dry Low NOx Burner
7	Cooling Method:	Air
8	Total Site Area:	TBD
9	Construction Status:	Planned
10	Certification Status:	Planned
11	Status With Federal Agencies	N/A
12	Projected Unit Performance Data Planned Outage Factor (POF): Forced Outage Factor (FOF): Equivalent Availability Factor (EAF): Resulting Capacity Factor (%): Average Net Operating Heat Rate (ANOHR):	 1.4 3.5 95.1 5% 9915 Btu/kWh (HHV) - ISO Rating
13	Projected Unit Financial Data ($2022) Book Life (Years): Total Installed Cost (In-Service Year $/kW): Direct Construction Cost ($/kW): AFUDC Amount ($/kW): Escalation ($/kW): Fixed O&M ($/kW-Yr): Variable O&M ($/MWH): K Factor:	 30 644 613 31 Included in values above 8.28 1.00* N/A *Variable O&M does not include start up charge of $7,382 per start

Schedule 9 Status Report and Specifications of Proposed Generating Facilities		
1	Plant Name & Unit Number	Unnamed Generating Station CT Unit 2
2	Capacity a. Summer (MW): b. Winter (MW):	 201 224
3	Technology Type:	Combustion Turbine
4	Anticipated Construction Timing a. Field construction start-date: b. Commercial in-service date:	 December 2021 December 2023
5	Fuel a. Primary fuel: b. Alternate fuel:	 Natural Gas
6	Air Pollution Control Strategy	Dry Low NOx Burner
7	Cooling Method:	Air
8	Total Site Area:	TBD
9	Construction Status:	Planned
10	Certification Status:	Planned
11	Status With Federal Agencies	N/A
12	Projected Unit Performance Data Planned Outage Factor (POF): Forced Outage Factor (FOF): Equivalent Availability Factor (EAF): Resulting Capacity Factor (%): Average Net Operating Heat Rate (ANOHR):	 1.4 3.5 95.11 5% 9915 Btu/kWh (HHV) - ISO Rating
13	Projected Unit Financial Data ($2023) Book Life (Years): Total Installed Cost (In-Service Year $/kW): Direct Construction Cost ($/kW): AFUDC Amount ($/kW): Escalation ($/kW): Fixed O&M ($/kW-Yr): Variable O&M ($/MWH): K Factor:	 30 655 625 30 Included in values above 8.40 1.02* N/A *Variable O&M does not include start up charge of $7,524 per start

Schedule 9 Status Report and Specifications of Proposed Generating Facilities		
1	Plant Name & Unit Number	Unnamed Generating Station CT Unit 3
2	Capacity a. Summer (MW): b. Winter (MW):	 201 224
3	Technology Type:	Combustion Turbine
4	Anticipated Construction Timing a. Field construction start-date: b. Commercial in-service date:	 December 2022 December 2024
5	Fuel a. Primary fuel: b. Alternate fuel:	 Natural Gas
6	Air Pollution Control Strategy	Dry Low NOx Burner
7	Cooling Method:	Air
8	Total Site Area:	TBD
9	Construction Status:	Planned
10	Certification Status:	Planned
11	Status With Federal Agencies	N/A
12	Projected Unit Performance Data Planned Outage Factor (POF): Forced Outage Factor (FOF): Equivalent Availability Factor (EAF): Resulting Capacity Factor (%): Average Net Operating Heat Rate (ANOHR):	 1.4 3.5 95.11 5% 9915 Btu/kWh (HHV) - ISO Rating
13	Projected Unit Financial Data ($2024) Book Life (Years): Total Installed Cost (In-Service Year $/kW): Direct Construction Cost ($/kW): AFUDC Amount ($/kW): Escalation ($/kW): Fixed O&M ($/kW-Yr): Variable O&M ($/MWH): K Factor:	 30 667 637 30 Included in values above 8.64 1.04* N/A *Variable O&M does not include start up charge of $7,670 per start

4.3 Proposed Transmission Lines

Schedule 10 below reports status and specifications of Seminole's proposed directly associated transmission lines corresponding with proposed generating facilities.

Schedule 10 **Status Report and Specifications of Proposed Associated Transmission Lines**		
1	Point of Origin and Termination:	Unknown
2	Number of Lines:	To be determined
3	Right-of-Way	To be determined
4	Line Length:	To be determined
5	Voltage:	To be determined
6	Anticipated Construction Timing:	To be determined
7	Anticipated Capital Investment:	To be determined
8	Substation:	To be determined
9	Participation with Other Utilities:	N/A

5. OTHER PLANNING ASSUMPTIONS AND INFORMATION

5.1 Transmission Reliability

In general, Seminole models its transmission planning criteria after the Florida Reliability Coordinating Council's ("FRCC") planning guidelines. The FRCC has modeled its planning guidelines consistent with the North American Electric Reliability Corporation's ("NERC") Reliability Standards. In addition, Seminole uses the following voltage and thermal criteria as guidelines for all stations:

1. No station voltages above 1.05 per unit or below 0.90 per unit under normal or contingency conditions.
2. Transmission facilities shall not exceed their applicable facility rating under normal or contingency conditions.

Since sites for future generation have not been selected, Seminole has not yet modeled any associated transmission or evaluated constraints and/or plans for alleviating such constraints.

5.2 Plan Economics

Power supply alternatives are compared against a base case scenario which is developed using the most recent load forecast, fuel forecast, operational cost assumptions, and financial assumptions. Various power supply options are evaluated to determine the overall effect on the present worth of revenue requirements (PWRR). All other things being equal, the option with the lowest long-term PWRR is normally selected. Sensitivity analyses are done to test how robust the selected generation option is when various parameters change from the base study assumptions (e.g., load forecast, fuel price, and capital costs of new generation).

5.3 Fuel Price Forecast

5.3.1 Coal

Spot and long-term market commodity prices for coal (at the mine) and transportation rates have shown increased volatility in recent years. This condition is expected to continue into the future, as environmental rules/standards, generating station retirements, coal supply/demand imbalances, coal transportation availability/pricing and world energy markets all combine to affect U.S. coal prices. The underlying value of coal at the mine will continue to be driven by changing domestic demand, planned coal unit retirements, export opportunities for U.S. coal and federal/state mine safety rules/legislation affecting the direct mining costs. Additional coal delivered price increases and volatility will come from the cost of transportation equipment (railcars), handling service contracts and freight transportation impacts. Railroads are also affected by federal rules and legislative changes and fuel oil markets, which are impacting the volatility of the cost of rail service in the U.S. As long-term rail transportation contracts come up for renewals, the railroads have placed upward pressure on delivered coal costs to increase revenues to overcome operating cost increases. However, since 2012, lower natural gas prices have created an opportunity for electric utilities to swap natural gas for coal-fired generation and this price arbitrage may have reduced the railroads' near-term ability to apply upward pricing pressure during contract renewals. CSX Transportation, Inc. is Seminole's sole coal transport provider and the parties are operating under a confidential multi-year rail transportation contract. Seminole also has a confidential multi-year coal contract with Alliance Coal, LLC providing a majority of our coal requirements from the Illinois Basin. Both relationships reduce Seminole's coal price volatility risk for the near term.

5.3.2 Fuel Oil

The domestic price for fuel oils will continue to reflect the price volatility of the world energy market for crude oil and refined products. In late 2014, the price for fuel oil moved down significantly across the globe. Seminole is currently only purchasing ultra-low sulfur fuel oil for its generating stations.

5.3.3 Natural Gas

At year-end 2014, natural gas prices were near $3.00 per mmBtu and nominal Henry Hub prices are projected to increase slowly over the next ten years nearing $5.00 per mmBtu at the end of the ten-year study period.

5.3.4 Modeling of Fuel Sensitivity

Given the uncertainty of future fuel prices, the historical volatility of natural gas prices, and Seminole's reliance on gas as a significant component of its fuel portfolio, it is prudent to evaluate the impact of various gas prices on its alternative resources for meeting future needs. For this, Seminole incorporates both a high and low natural gas price forecast as a complement to its base case price forecast to support resource planning. Seminole uses the various price forecast scenarios provided by the Energy Information Administration in its Annual Energy Outlook to develop the high and low gas price forecasts. Seminole's base fuel price forecast for this Ten Year Site Plan does not take into account potential federal carbon emission initiatives, such as the proposed Clean Power Plan, that if approved, would impact the market prices for all fuels. If legislation that penalizes carbon emissions is enacted in future years, Seminole’s costs to use all fossil fuels will rise since all fossil fuels emit carbon dioxide when burned. Further, the price of natural gas and fuel oil relative to coal may rise because of the associated carbon emissions penalty imposed on coal, the competing fuel.

5.4 Coal/Gas Price Differential

The current natural gas and coal markets continue to reflect a significant narrowing of the price spread that existed between the two fuels over the prior ten years primarily due to soft gas prices. This spread is expected to remain compressed throughout the study period given the projected slow rise in gas prices.

5.5 Modeling of Generation Unit Performance

Existing units are modeled with forced outage rates and heat rates for the near term based on recent historical data. The long-term rates are based on a weighting of industry average data or manufacturers' design performance data.

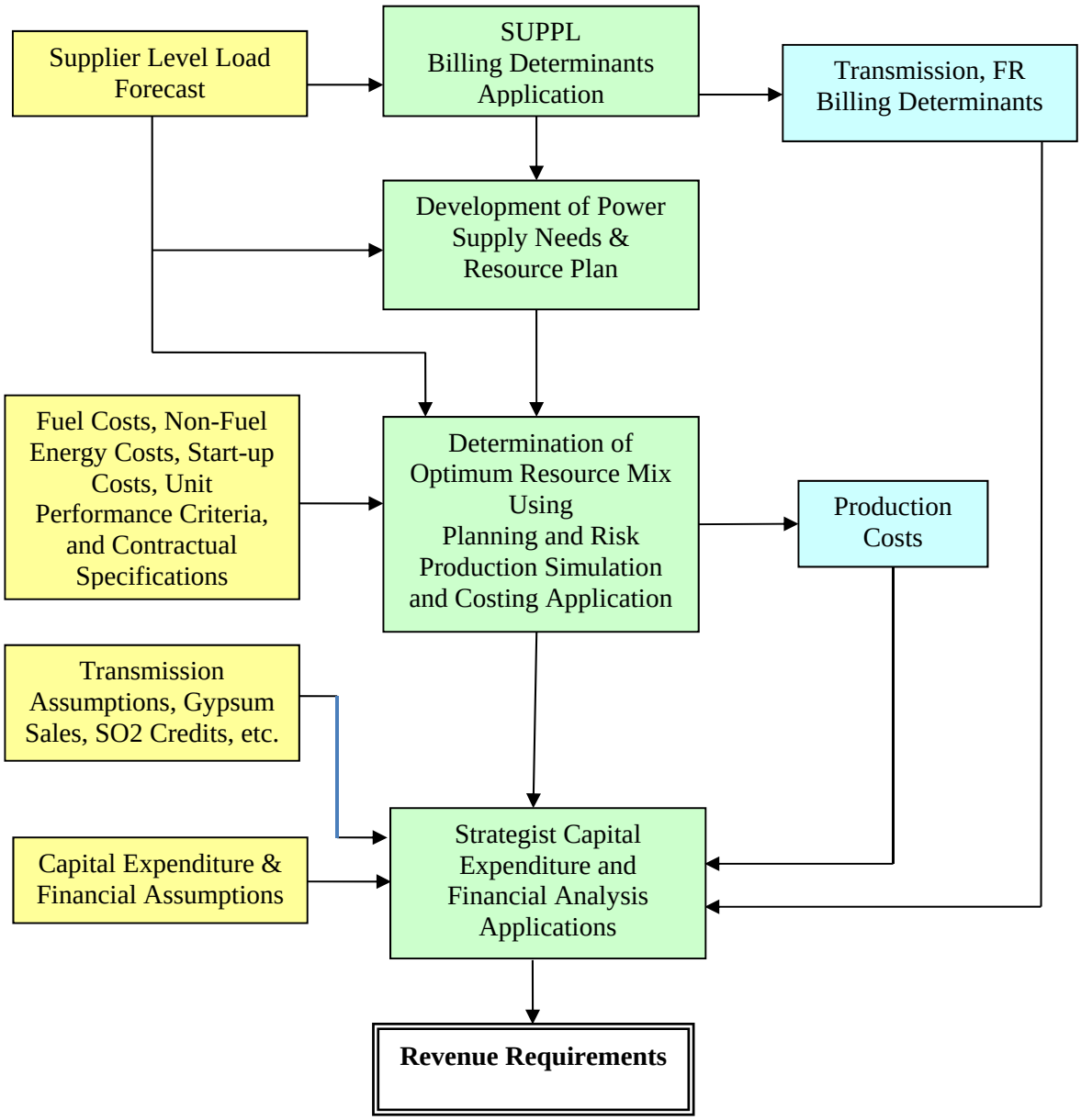
5.6 Financial Assumptions

Expansion plans are evaluated based on Seminole's forecast of market-based loan fund rates.

5.7 Resource Planning Process

Seminole's primary long-range planning goal is to develop the most cost-effective way to meet its Members' load requirements while maintaining high system reliability. Seminole's optimization process for resource selection is based primarily on total revenue requirements. As a not-for-profit cooperative, revenue requirements translate directly into rates to our Members. The plan with the lowest revenue requirements is generally selected, assuming that other factors such as reliability impact, initial rate impact, and strategic considerations are neutral. Seminole also recognizes that planning assumptions change over time, so planning decisions must be robust and are, therefore, tested over a variety of sensitivities. A flow chart of Seminole's planning process is shown below in Figure 5.1.

Figure 5.1
Resource Planning Process



5.8 Reliability Criteria

The total amount of generating capacity and reserves required by Seminole is affected by Seminole's load forecast and its reliability criteria. Reserves serve two primary purposes: to provide replacement power during generator outages; and to account for load forecast uncertainty. Seminole's primary reliability criteria is a minimum reserve margin of 15% during the peak season which ensures that Seminole has adequate generating capacity to provide reliable service to its Members and to limit Seminole's emergency purchases from interconnected, neighboring systems.

5.9 DSM Programs

Seminole does not offer demand-side management (DSM) programs directly to retail consumers. However, Seminole enables Member involvement in DSM through its coincident peak billing and time-of-use energy rates and through Seminole's coordinated load management program. Seminole's load forecast accounts for reductions in peak demands resulting from DSM programs. Seminole has not projected any further growth or change in these programs over the forecast period. Other energy efficiency and energy conservation programs implemented by Seminole Members have not been specifically quantified or estimated, but are both reflected in Seminole's load history and extrapolated into the future.

5.10 Strategic Concerns

In the rapidly changing utility industry, strategic and risk related issues are becoming increasingly important and will continue to play a companion role to economics in Seminole's power supply planning process. Seminole values resource diversity as a hedge against a variety of risks, as evidenced by our current generation portfolio. Long-term resources contribute stability while shorter term arrangements add flexibility. We consider both system and unit-specific capacity when determining Seminole's reserve requirements. Flexibility in fuel supply

is another significant strategic concern. A portfolio that relies on a diverse number of fuel types is better protected against extreme price fluctuations, supply interruptions, and transportation constraints/instability. Seminole believes that the existing and future diversity in its power supply plan has significant strategic value, leaving Seminole in a good position to respond to both market and industry changes while remaining competitive.

The ongoing debate over the further need to regulate carbon emissions, mercury emissions and/or whether to establish renewable resource mandates has introduced new risks for electric utilities – among them is the risk of the most cost-effective fuels and associated technologies under current environmental regulations could change via new federal or state emissions rules. Using the best available information, Seminole is addressing these risks through its evaluation of a range of scenarios to assess what constitutes the best generation plan to ensure adequate and competitively priced electric service to its Members. Given the current regulatory environment, Seminole has assumed that all future large generation additions will be primarily fueled with natural gas. Seminole is also reviewing the possibility of renewable generation additions, including solar.

5.11 Procurement of Supply-Side Resources

In making decisions on future procurement of power supply, Seminole compares self-build, acquisition and purchased power alternatives. Seminole solicits proposals from reliable counterparties. Seminole's evaluation of its options includes an assessment of economic life cycle cost, reliability, operational flexibility, strategic concerns and risk elements.

5.12 Transmission Construction and Upgrade Plans

Seminole is assessing future generation projects and needs for new, upgraded, or reconfigured transmission facilities over the ten-year planning horizon. At this time, Seminole

has no specific transmission plans for future generating unit additions.

6. ENVIRONMENTAL AND LAND USE INFORMATION

6.1 Potential Sites

6.1.1 Gilchrist Site – Gilchrist County, Florida

Seminole has purchased land in Gilchrist County as a potential site but has not made a final determination if or when the site will be used for any of Seminole's future resource requirements. The Gilchrist site is approximately five-hundred thirty (530) acres in size. The site is located in the central portion of Gilchrist County, approximately eight (8) miles north of the City of Trenton and may be suitable for installation of generation or transmission resources. Much of the site has been used for silviculture (pine plantation) and consists of large tracts of planted longleaf and slash pine communities. Few natural upland communities remain. Most of these large tracts have been harvested, leaving xeric oak and pine remnants. A few wetland communities remain on the east side of the site with relatively minor disturbances due to adjacent silvicultural activities.

The initial site evaluation in 2007 included wetland occurrence information documented on National Wetland Inventory (NWI) map(s) from the U.S. Fish and Wildlife Service (USFWS), soils maps and information from the National Resource Conservation Service (NRCS), records of any listed plants or animals known from Gilchrist County that are available from online data and records maintained by the Florida Natural Areas Inventory (FNAI) and the Atlas of Florida Vascular Plants maintained by the University of South Florida Herbarium, lists of federally listed plants and animals maintained by USFWS, and records of eagle nest locations and wading bird rookeries that might occur within the site available on the Florida Fish and

Wildlife Conservation Commission (FWC) website. At such time as Seminole has determined the Gilchrist site should be considered a preferred site for the construction of generation or transmission facilities, Seminole will update the site evaluation and will obtain approval of the site certification application.

6.1.2 Seminole Generating Station (SGS) - Putnam County, Florida

SGS is located in a rural unincorporated area of Putnam County approximately five (5) miles north of the City of Palatka. The site is one thousand nine-hundred seventy-eight (1,978) acres bordered by U.S. 17 on the west, and is primarily undeveloped land on the other sides. The site was certified in 1979 (PA78-10) for two 650 MW class coal-fired electric generating units, SGS Units 1 & 2.

The area around the SGS site includes mowed and maintained grass fields and upland pine flatwoods. Areas further away from the existing units include live oak hammocks, wetland conifer forest, wetland hardwood/conifer forest, and freshwater marsh. A small land parcel located on the St. Johns River is the site for the water intake structure, wastewater discharge structure, and pumping station to supply the facility with cooling and service water.

The primary water uses for SGS Units 1 and 2 are for cooling water, wet flue gas desulfurization makeup, steam cycle makeup, and process service water. Cooling and service water is pumped from the St. Johns River and groundwater supplied from on-site wells is for steam cycle makeup and potable use. The site is not located in an area designated as a Priority Water Resource Caution Area by the St. Johns River Water Management District.

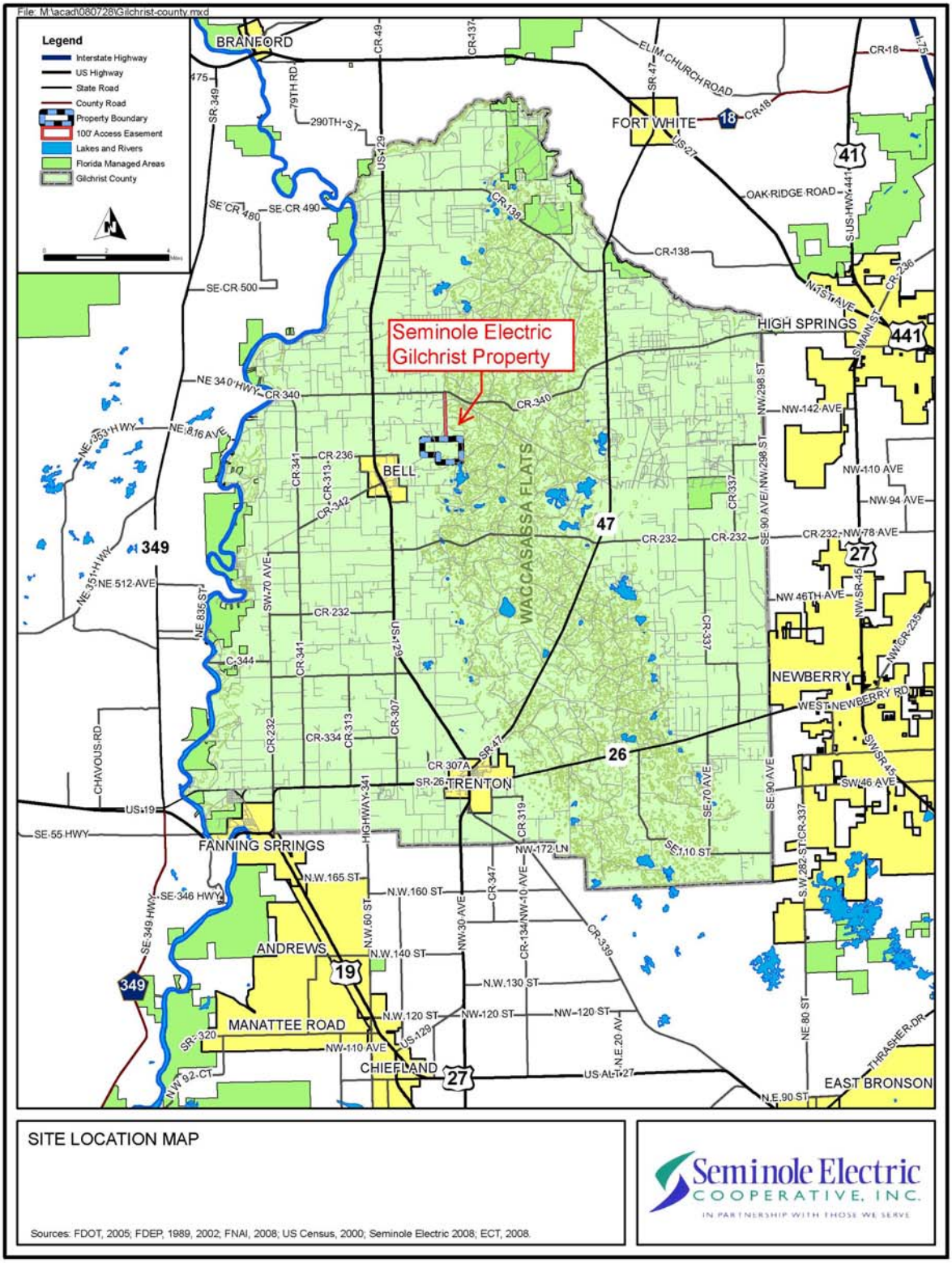
The local government future land use for the area where the existing units are located is designated as industrial use, and the site has not been listed as a natural resource of regional significance by the regional planning council.

Water conservation measures that are incorporated into the operation of SGS include the collection, treatment and recycling of plant process wastewater streams. This wastewater reuse minimizes groundwater and service water uses. A portion of recirculated condenser cooling water (cooling tower blowdown) is withdrawn from the closed cycle cooling tower and discharged to the St. Johns River. Site stormwater is reused to the maximum extent possible and any not reused is treated in wet detention ponds and released to onsite wetlands.

6.1.3 Midulla Generating Station (MGS) – Hardee County, Florida

MGS is located in Hardee and Polk Counties about nine (9) miles northwest of Wauchula. The site is bordered by County Road 663 on the east, CF Industries on the south, and Mosaic, Inc. on the north and west. Payne Creek flows along the site's south and southwestern borders. The site was originally strip-mined for phosphate and was reclaimed as pine flatwoods, improved pasture, and a cooling reservoir with a marsh littoral zone. A more detailed description of environmental, land use, and water use and supply is available in the site certification application PA-89-25SA.

Map 3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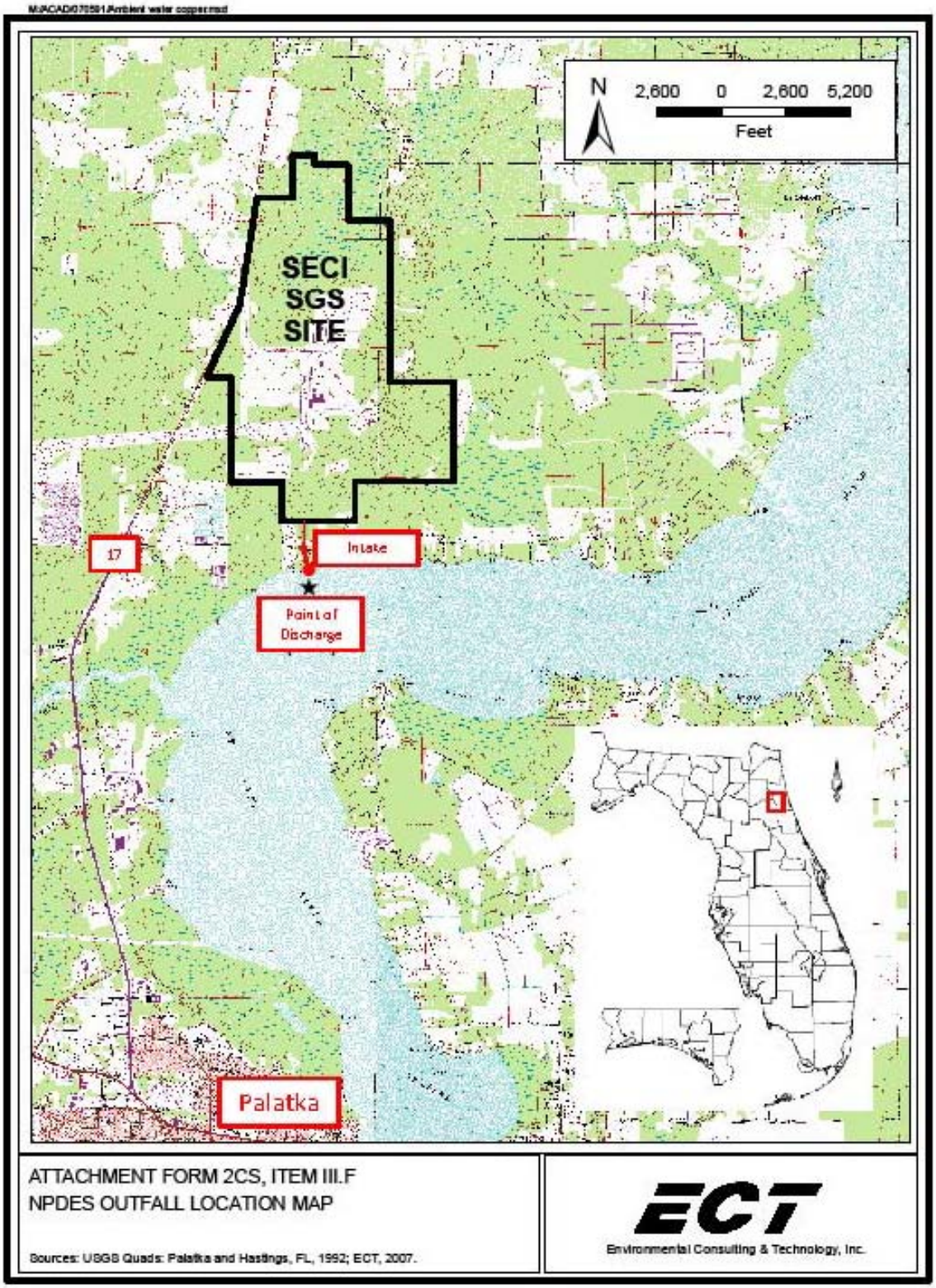
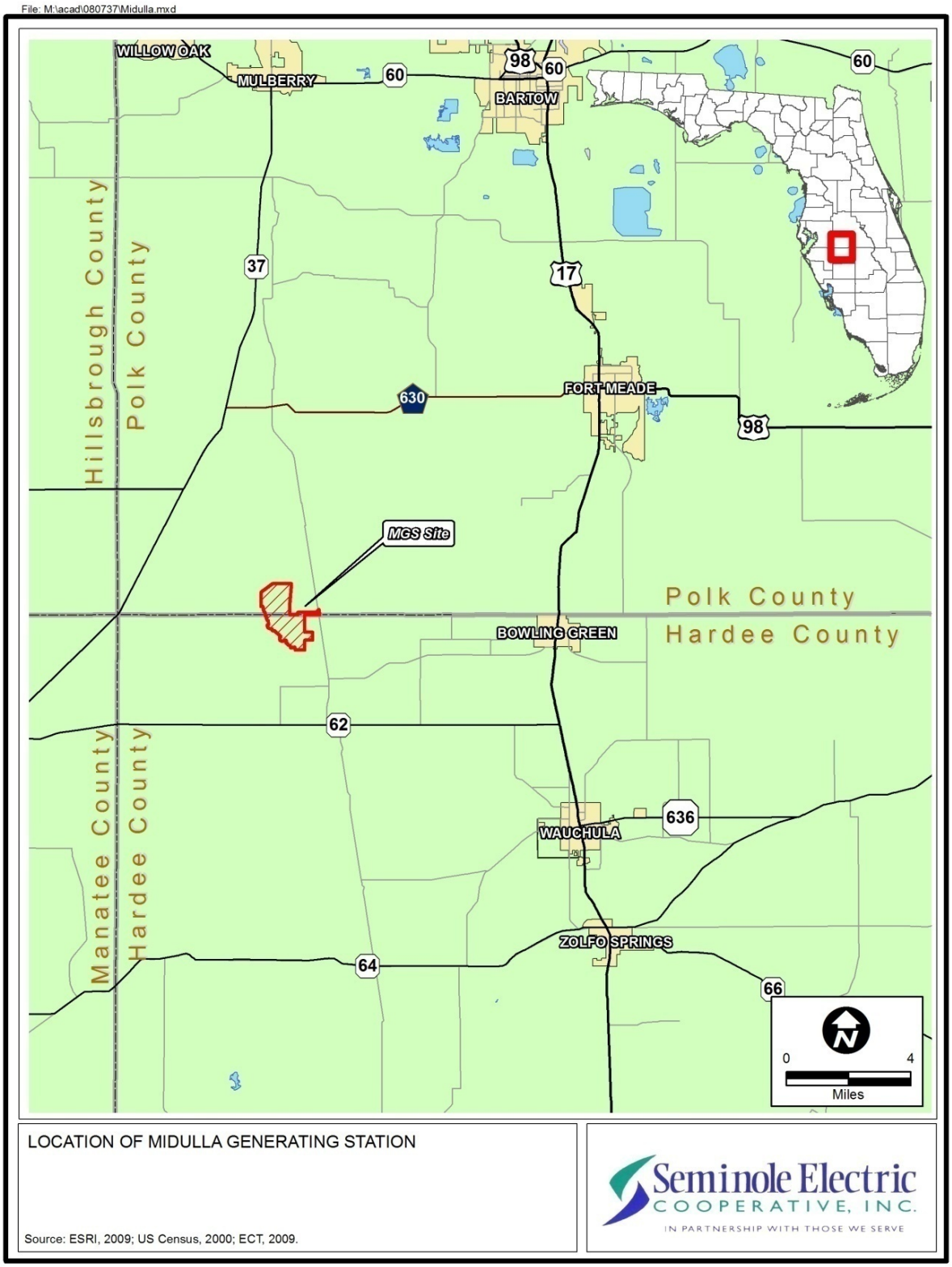
Legend
Interstate Highway
US Highway
State Road
County Road
Property Boundary
100' Access Easement
Lakes and Rivers
Florida Managed Areas
Gilchrist County
Seminole Electric
Gilchrist Property
BRANFORD
FORT WHITE
HIGH SPRINGS
BELL
TRENTON
NEWBERRY
FANNING SPRINGS
ANDREWS
MANATTEE ROAD
CHIEFLAND
EAST BRONSON
WACCASASSA FLATS
SITE LOCATION MAP
Sources: FDOT, 2005; FDEP, 1989, 2002; FNAI, 2008; US Census, 2000; Seminole Electric 2008; ECT, 2008.
Seminole Electric
COOPERATIVE, INC.
IN PARTNERSHIP WITH THOSE WE SERVE

Map 4


N
2,600 0 2,600 5,200
Feet
SECI
SGS
SITE
17
Intake
Point of
Discharge
Palatka
ATTACHMENT FORM 2CS, ITEM III.F
NPDES OUTFALL LOCATION MAP
Sources: USGS Quads: Palatka and Hastings, FL, 1992; ECT, 2007.
ECT
Environmental Consulting & Technology, Inc.

Map 5


File: M:\acad\080737\Midulla.mxd
WILLOW OAK
MULBERRY
BARTOW
FORT MEADE
BOWLING GREEN
WAUCHULA
ZOLFO SPRINGS
Hillsborough County
Polk County
Manatee County
Hardee County
MGS Site
Polk County
Hardee County
60
98
37
17
630
62
636
64
66
0
4
Miles
LOCATION OF MIDULLA GENERATING STATION
Source: ESRI, 2009; US Census, 2000; ECT, 2009.
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