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FPSC - COMMISSION CLERK

May 2, 2022

Donald Phillips and Takira Thompson
Florida Public Service Commission
Office of Commission Clerk
2540 Shumard Oak Boulevard
Tallahassee, Florida 32399-0850

Re: 20220000-OT
GRU's Response to TYSP Data Request #2

Dear Mr. Phillips and Ms. Thompson,

Gainesville Regional Utilities hereby submits its electronic version of the Public Service Commission's Ten-Year Site Plan Data Request #2. This document will also be emailed to you.

Please let me know if you have any questions regarding this document.

Sincerely,

/s/ Eric Neihaus, P.E.
Power Planning Engineer
Gainesville Regional Utilities

1. Please refer to NERC's Level 2 Alert, issued August 18, 2021, titled Cold Weather Preparations for Extreme Weather Events. Please indicate what changes, if any, the Utility has implemented or intends to implement to address the recommendations contained within the alert.

   Although no specific changes have been identified, GRU has existing procedures with checklists to prepare plants for cold weather and to ensure GRU has winterized items that are subject to adverse performance in cold weather, such as heat lamps on instrumentation; blanketing around air compressed systems; and running water in stagnant pipes. GRU test runs peaking equipment to identify any issues for starting. GRU has several units with dual-fuel capability, so we ensure the backup fuel systems are fully operational. Any event that causes a loss of generation or derate is logged in an incident database, and those incidents are fully investigated, with root causes addressed which could include updating the checklist procedures.

2. Please refer to FERC Order Approving Cold Weather Reliability Standards, issued August 24, 2021. Please indicate what changes, if any, the Utility has implemented or intends to implement to address the revisions to the NERC Reliability Standards that become effective April 2023.

   Although no specific changes have been identified, GRU has existing procedures with checklists to prepare plants for cold weather and to ensure GRU has winterized items that are subject to adverse performance in cold weather, such as heat lamps on instrumentation; blanketing around air compressed systems; and running water in stagnant pipes. GRU test runs peaking equipment to identify any issues for starting. GRU has several units with dual-fuel capability, so we ensure the backup fuel systems are fully operational. Any event that causes a loss of generation or derate is logged in an incident database, and those incidents are fully investigated, with root causes addressed which could include updating the checklist procedures.

3. Please refer to NERC's Project 2021-07: Extreme Cold Weather Grid Operations, Preparedness, and Coordination. Is the Utility a participant in this project? If so, please explain what way.

   GRU is not participating in NERC's Project 2021-07

4. Please refer to the FERC, NERC, and Regional Entity Staff Report: The February 2021 Cold Weather Outages in Texas and the South-Central United States (2021 Cold Weather Report), issued November 2021. Please indicate what changes, if any, the Utility has implemented or intends to implement to address the recommended revisions listed below to the NERC Reliability Standards identified in the 2021 Cold Weather Report.

a. Identify and protect cold-weather critical components.

Current equipment lists of critical components are in place and inspections and PM's are implemented at the beginning of cold weather season. We plan to execute the plans that currently have been working for us.

b. Build all new and retrofit existing units to operate during extreme weather conditions, which include the impact of wind and precipitation.

No new units are planned. Any future units will review the latest cold weather recommendations for applicability to our equipment.

c. Perform annual training on winterization plans. If already incorporated, please provide the most recent winterization plan.

Freeze protection training is conducted at the Shift Supervisor level, and each plant has a Standard Operating Procedure (SOP) that is utilized by the Shift Supervisors to prepare for cold weather events.

d. Develop Corrective Action Plans for any affected generating units.

Preventive activities are implemented annually. Corrective measures are taken as deficiencies are identified.

e. Provide the balancing authority the percentage of generating capacity that can be relied upon during forecasted cold weather.

100%

f. Account for wind and precipitation when providing temperature data to the balancing authority.

GRU accounts for wind and precipitation when performing load forecasts.

5. Will the Utility's current capacity shortage plan require updating following the revisions to the NERC Reliability Standards that will go into effect April 2023 or the recommended revisions from the 2021 Cold Weather Report? If so, please identify the changes.

No, no updates will be required.

6. For your generating units, please and provide the following information:

   a. Identify any generating unit that has been winterized and describe the winterization activities that have been completed for each.

      Original plant designs were made for anticipated cold weather at the site location. Since construction, we have procedures in place that have checklists for preparation to ensure we have winterized items that are subject to adverse performance in cold weather. These include items such as heat lamps on instrumentation, blanketing around air compressed systems, running water in stagnant pipes. We test run peaking equipment to identify any issues for starting. We have several units with dual fuel capability, so we ensure the backup fuel systems are fully operational. Any events that cause a loss of generation or derate is considered an incident and those are fully investigated, and root causes addressed which could include updating the checklist procedures.

   b. Identify any generating unit that still requires winterization and describe the winterization activities to be completed for each.

      None identified

   c. Identify any generating units the Utility does not intend to winterize and explain why.

      None identified

7. Please list and describe all winterization activities the Utility has completed or intends to complete for its natural gas infrastructure. If none, please explain why.

   An operational procedure change was made. The pilots for the heaters at the city gate stations regulators were changed to continual use. Their operation before was weather dependent. In some cases, a pilot failure would occur rending the heater malfunctioning. With the large pressure drop across the regulators, the regulators would tend to have icing occur. A crew would be required to manually de-ice in that situation. The pilots are specifically inspected as part of the gate station normal inspections.

   No other winterization activities were made. As part of our typical system improvements, we assess areas where system looping of gas mains may provide pressure stabilization in case of low-pressure events caused by higher-than-normal volume consumption.

8. Please identify any generating units that have experienced forced outages or derates due to cold weather conditions within the last ten-year period.

UNIT	Date	Event	Reason
JRK CC1	January 7, 2014	Forced Outage	Low Gas Pressure

a. Please explain if these generating units have had corrective action plans developed for the identified equipment. If so, what has been done to evaluate whether the corrective action plan applies to similar equipment for other generating units in the Utility's generating fleet.

A plan was developed that proactively monitors the gas header PSI and shifts units to alternate fuels before gas header limits are reached.

9. Please identify each of the Utility's generating units that have dual fuel capabilities. As part of this response, please provide the following for each applicable generating unit.

a. Generating unit name and location.

Deerhaven Unit #1 (DH1)	10001 NW 13th St. Gainesville, FL 32653
Deerhaven Unit #2 (DH2)	10001 NW 13th St. Gainesville, FL 32653
Deerhaven Combustion Turbine #1 (CT1)	10001 NW 13th St. Gainesville, FL 32653
Deerhaven Combustion Turbine #2 (CT2)	10001 NW 13th St. Gainesville, FL 32653

b. Net capacity by seasonal peak (Summer/Winter).

	Summer	Winter
Deerhaven Unit #1 (DH1)	76	76
Deerhaven Unit #2 (DH2)	228	228
Deerhaven Combustion Turbine #1 (CT1)	17.5	22

Deerhaven Combustion Turbine #2 (CT2)	17.5	22

c. Whether fuel switching derates/uprates the unit (and if so, by what amount).

Deerhaven Unit #1 (DH1)	6 MW derate
Deerhaven Unit #2 (DH2)	N/A
Deerhaven Combustion Turbine #1 (CT1)	N/A
Deerhaven Combustion Turbine #2 (CT2)	N/A

d. Primary and secondary fuel type and sources.

	Primary Fuel / Secondary Fuel
Deerhaven Unit #1 (DH1)	natural gas / #6 fuel oil
Deerhaven Unit #2 (DH2)	natural gas / coal
Deerhaven Combustion Turbine #1 (CT1)	natural gas / diesel
Deerhaven Combustion Turbine #2 (CT2)	natural gas / diesel

e. Number of days the generating unit could operate at full load using the secondary fuel source.

Deerhaven Unit #1 (DH1)	3.9
Deerhaven Unit #2 (DH2)	20
Deerhaven Combustion Turbine #1 (CT1)	14.5 for CT1 or 7.25 for CT1 & CT2
Deerhaven Combustion Turbine #2 (CT2)	14.5 for CT1 or 7.25 for CT1 & CT2

f. Amount of time required to switch to secondary fuel.

Deerhaven Unit #1 (DH1)	~12 h
Deerhaven Unit #2 (DH2)	~2 h
Deerhaven Combustion Turbine #1 (CT1)	< 5 min
Deerhaven Combustion Turbine #2 (CT2)	< 5 min

10. Please identify how many alerts and advisories, due to cold weather, have been issued within the last ten-year period, and describe each event that led to the issuance of each alert/advisory.

Month	Number of Alert Days	
Jan-22	6	1/18, 1/23, 1/24, 1/28, 1/29 & 1/30 - forecasted freezing temps in northern FL.
Total	**6**	
Feb-21	6	2/2, 2/3, 2/15, 2/16, 2/17 & 2/18 - forecasted freezing temps in northern FL.
Total	**6**	
Dec-20	5	12/1, 12/7, 12/8, 12/17 & 12/26 - forecasted freezing temps in northern FL.
Total	**5**	
Jan-19	5	1/17 - FGT line-pack is below target levels; near freezing temps forecast; 1/20, 1/21, 1/28 & 1,29 - near freezing forecast in northern FL; 1/18, 1/19, 1/24,1/25, 1/26 & 1/27 Potential Overage Alert freezing temps forecasted in FL
Total	**5**	
Jan-18	11	1/1, 1/2, 1/3, 1/4, 1/5, 1/7, 1/13, 1/14, 1/16, 1/17, & 1/19 - near freezing forecast in northern FL; 1/11 & 1/12 & 1/15 Potential Overage Alert - below freezing temps
Dec-18		12/11 Potential Overage Alert - freezing temps forecasted in northern FL
Total	**11**	
Jan-17	1	1/8 freezing temps are forecasted in northern FL; 1/6 Potential Overage Alert - below freezing temps forecasted in northern FL
Dec-17	3	12/8, 12/11 & 12/31 - freezing temps are forecasted in northern FL; 12/9 & 12/31- Potential Overage Alert - freezing temps forecasted in FL
Total	**4**	

Jan-16	10	1/11, 1/12, 1/13, 1/18, 1/19, 1/20, 1/22, 1/23, 1/24 & 1/25 - near freezing forecast in northern FL
Feb-16	4	2/7, 2/8, 2/10 & 2/11 - near freezing forecast in northern FL
Total	**14**	

Jan-15	6	1/7, 1/8, 1/16, 1/27, 1/28, 1/29 - near freezing forecast in northern FL; 1/6 Potential Overage Alert - freezing temps forecasted in northern FL
Feb-15	5	2/2, 2/12, 2/18, 2/19, & 2/20 - near freezing forecast in northern FL
Total	**11**	

Jan-14	10	1/4 freezing temps and line pack is low; 1/5, 1/6, 1/7, 1/8, 1/14, 1/15, 1/22, 1/23 & 1/29 - near freezing forecasted in northern FL; 1/21 Potential Overage Alert - cold weather near freezing temps forecasted in FL
Feb-14	1	2/13 - cold weather forecasted near freezing temps in northern FL
Nov-14	2	11/18 & 11/19 - near freezing temps forecasted in northern FL
Dec-14		12/9 & 12/10 - Potential Overage Alert - near freezing temps forecasted in northern FL
Total	**13**	

Feb-13	2	2/16/ and 2/17 - low temps; daily lows at freezing or below
Total	**2**	

a. As part of this response, please indicate whether interruptible/curtailable customers were interrupted during each event, and if so, the duration of the interruption.

There were no interruptions to customers during this 10-year period.

11. Please identify the number of times the Utility has had to perform rolling blackouts within the last ten-year period. As part of this response, please provide the reason for each rolling blackout, how many megawatts were impacted, and the duration of each rolling blackout.

GRU has not had to perform rolling blackouts within the last ten-year period.

12. Please identify the total number of megawatts that can be controlled during rolling blackouts. As part of this response, please describe how this amount was determined, the priorities for interrupting firm load, and provide the anticipated duration between rolling blackouts.

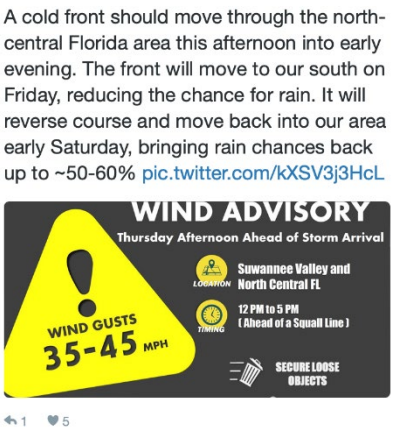
At GRU there are three priority load groups. Priority 1's are the most critical and Priority 3's are the least. Manual load shed circuits are not assigned to UFLS schemes, so that our UFLS protection remains available should frequency decline. There is approx. 121 MW of load in our UFLS process. All additional load can be shed manually. Our circuit outages are limited to no more than 60 – 90 minutes each circuit.

13. Please explain how the Utility coordinates with cogenerators, qualifying facilities, and other non-utility generators during cold weather events to maximize generating capacity. As part of this response, please explain how the Utility determines as-available energy prices if all available Utility assets are already dispatched.

GRU does not own any co-generators. GRU utilizes a 3rd party marketer to manage any market transactions. If all available generation assets are dispatched, our avoided price would be based on the average cost of the online generation with additional capacity available.

14. Please list each form of communication (such as phone calls, text, utility website, social media, etc.) the Utility uses to inform customers of anticipated cold weather events. As part of this response, please provide a sample of such communications.

- Facebook
- Twitter



15. Please refer to the Florida cold weather event from January 29-31, 2022 and provide the following for each day during the event.

a. Anticipated load forecast.
b. Anticipated operating reserve (with and without demand response).
c. Actual load, and if available, actual operating reserve.
d. Amount of customer outages due to cold weather that occurred, if any.
e. Amount of generating capacity derated or forced offline due to cold weather, if any. If forced outages occurred, identify each generating unit derated or forced offline, and the cause of the derating or forced outage, if known.
f. Whether demand response and/or interruptible/curtailable assets were activated. If so, please identify which programs, the number of customers interrupted, the amount of capacity interrupted, and the frequency of interruptions.

Date	Type	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1/29/2022	LOAD_FORECAST	205	206	215	225	245	280	330	350	358	348	330	310	293	280	265	260	270	295	330	345	360	358	350	340
1/29/2022	ANTICIPATED_OPERATING RESERVES*	239	239	239	232	212	177	127	107	99	109	127	147	164	177	192	197	187	162	127	112	97	99	107	117
1/29/2022	ACTUAL_LOAD	204	202	203	207	214	225	242	258	271	274	271	265	256	244	234	230	236	254	277	290	294	297	295	293
1/29/2022	CUSTOMER_OUTAGES	N/A - 0 Customer Outages																							
1/29/2022	GENERATING CAPACITY FORCED OFFLINE DUE TO COLD WEATHER	N/A - Nothing offline due to cold weather																							
1/29/2022	DEMAND RESPONSE ACTIVATED	N/A																							

Date	Type	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1/30/2022	LOAD_FORECAST	320	318	323	332	345	360	375	385	376	353	335	314	290	269	256	254	259	279	307	315	318	317	290	290
1/30/2022	ANTICIPATED_OPERATING RESERVES*	137	139	134	125	112	97	82	72	81	104	122	143	167	188	201	203	198	178	150	142	139	140	167	167
1/30/2022	ACTUAL LOAD	291	290	291	295	302	310	324	335	340	319	291	267	248	231	220	215	220	235	257	265	266	259	252	244
1/30/2022	CUSTOMER_OUTAGES	N/A - 0 Customer Outages																							
1/30/2022	GENERATING CAPACITY FORCED OFFLINE DUE TO COLD WEATHER	N/A - Nothing offline due to cold weather																							
1/30/2022	DEMAND RESPONSE ACTIVATED	N/A																							

Date	Type	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1/31/2022	LOAD_FORECAST	283	281	280	279	286	307	340	350	334	311	284	257	232	214	205	206	212	230	257	265	264	255	236	218
1/31/2022	ANTICIPATED_OPERATING RESERVES*	174	176	177	178	171	150	117	107	123	146	173	200	225	239	239	239	239	227	200	192	193	202	219	235
1/31/2022	ACTUAL_LOAD	236	229	228	231	239	256	284	300	292	263	235	215	203	194	188	188	193	204	222	227	223	215	205	194
1/31/2022	CUSTOMER_OUTAGES	N/A - 0 Customer Outages																							
1/31/2022	GENERATING CAPACITY FORCED OFFLINE DUE TO COLD WEATHER	N/A - Nothing offline due to cold weather																							
1/31/2022	DEMAND RESPONSE ACTIVATED	N/A																							

16. Please refer to the Florida cold weather event from January 29-31, 2022. Please explain if any winterization plans were enacted during this time. If so, please describe what activities were involved.

Our normal cold weather procedures and preventive measures were enacted.

17. Please refer to the NERC 2021-2022 Winter Reliability Assessment, issued November 2021, for the following questions. Please provide load forecast and generation availability data provided to your regional entity for use in NERC's winter reliability assessment. As part of your response, explain how the data was derived and what assumptions were used.

	Min (MW)	Peak (MW)	Energy (MWh)
Month/Year	GRU	GRU	GRU
1/1/2021	140	355	154,853
2/1/2021	141	317	134,198
3/1/2021	135	289	141,720

4/1/2021	136	322	145,667
5/1/2021	148	381	175,268
6/1/2021	167	416	189,689
7/1/2021	181	420	204,795
8/1/2021	184	425	208,184
9/1/2021	158	399	190,282
10/1/2021	143	351	164,029
11/1/2021	140	285	139,399
12/1/2021	143	308	149,270
1/1/2022	141	357	155,853
2/1/2022	142	319	135,065
3/1/2022	136	291	142,636
4/1/2022	128	302	136,412
5/1/2022	139	357	164,133
6/1/2022	157	390	177,637
7/1/2022	169	394	191,784

8/1/2022	173	398	194,958
9/1/2022	148	374	178,193
10/1/2022	134	328	153,608
11/1/2022	130	266	130,543
12/1/2022	132	284	139,787
1/1/2023	132	333	145,444
2/1/2023	132	298	126,044
3/1/2023	127	271	133,109
4/1/2023	128	302	136,816
5/1/2023	139	358	164,619
6/1/2023	157	390	178,163
7/1/2023	170	395	192,352
8/1/2023	173	399	195,535
9/1/2023	148	374	178,721
10/1/2023	134	330	154,062
11/1/2023	131	268	130,930

12/1/2023	134	289	140,201
1/1/2024	132	335	146,147
2/1/2024	128	289	126,653
3/1/2024	127	272	133,752
4/1/2024	128	304	137,477
5/1/2024	140	360	165,414
6/1/2024	158	392	179,024
7/1/2024	171	397	193,280
8/1/2024	174	401	196,479
9/1/2024	149	376	179,584
10/1/2024	135	331	154,806
11/1/2024	132	269	131,562
12/1/2024	135	290	140,878
1/1/2025	133	337	146,816
2/1/2025	134	300	127,234
3/1/2025	128	274	134,365

4/1/2025	129	305	138,107
5/1/2025	140	361	166,172
6/1/2025	159	394	179,844
7/1/2025	172	399	194,166
8/1/2025	175	403	197,380
9/1/2025	150	378	180,407
10/1/2025	136	333	155,516
11/1/2025	133	271	132,165
12/1/2025	135	292	141,524
1/1/2026	134	338	147,466
2/1/2026	134	302	127,797
3/1/2026	128	275	134,960
4/1/2026	130	306	138,718
5/1/2026	141	363	166,907
6/1/2026	159	396	180,640
7/1/2026	172	400	195,025

8/1/2026	176	405	198,253
9/1/2026	150	380	181,205
10/1/2026	136	334	156,204
11/1/2026	133	272	132,750
12/1/2026	136	293	142,150
1/1/2027	134	340	148,097
2/1/2027	135	303	128,344
3/1/2027	129	276	135,538
4/1/2027	130	308	139,312
5/1/2027	142	365	167,622
6/1/2027	160	398	181,413
7/1/2027	173	402	195,860
8/1/2027	176	406	199,102
9/1/2027	151	381	181,981
10/1/2027	137	336	156,873
11/1/2027	134	273	133,318

12/1/2027	136	294	142,758
1/1/2028	135	341	148,712
2/1/2028	131	294	128,877
3/1/2028	130	277	136,100
4/1/2028	131	309	139,891
5/1/2028	142	366	168,318
6/1/2028	161	399	182,167
7/1/2028	174	404	196,674
8/1/2028	177	408	199,929
9/1/2028	152	383	182,736
10/1/2028	137	337	157,524
11/1/2028	134	274	133,872
12/1/2028	137	295	143,351
1/1/2029	135	342	149,302
2/1/2029	136	305	129,388
3/1/2029	130	278	136,640

4/1/2029	131	310	140,445
5/1/2029	143	368	168,985
6/1/2029	161	401	182,889
7/1/2029	175	405	197,454
8/1/2029	178	410	200,722
9/1/2029	152	384	183,461
10/1/2029	138	338	158,149
11/1/2029	135	275	134,402
12/1/2029	138	297	143,919
1/1/2030	136	344	149,882
2/1/2030	136	307	129,890
3/1/2030	131	279	137,171
4/1/2030	132	311	140,991
5/1/2030	143	369	169,642
6/1/2030	162	402	183,600
7/1/2030	175	407	198,221

8/1/2030	178	411	201,501
9/1/2030	153	386	184,174
10/1/2030	139	340	158,763
11/1/2030	136	276	134,925
12/1/2030	138	298	144,479
1/1/2031	136	345	150,456
2/1/2031	137	308	130,388
3/1/2031	131	281	137,696
4/1/2031	132	313	141,531
5/1/2031	144	370	170,291
6/1/2031	163	404	184,302
7/1/2031	176	408	198,979
8/1/2031	179	413	202,273
9/1/2031	153	387	184,879
10/1/2031	139	341	159,371
11/1/2031	136	277	135,441

12/1/2031	139	299	145,032
1/1/2032	137	346	151,024
2/1/2032	133	298	130,880
3/1/2032	132	282	138,216
4/1/2032	133	314	142,065
5/1/2032	144	372	170,934
6/1/2032	163	405	184,999
7/1/2032	177	410	199,731
8/1/2032	180	414	203,037
9/1/2032	154	389	185,577
10/1/2032	140	342	159,973
11/1/2032	137	278	135,953
12/1/2032	139	300	145,580
1/1/2033	137	348	151,589
2/1/2033	138	310	131,370
3/1/2033	132	283	138,734

4/1/2033	133	315	142,597
5/1/2033	145	373	171,574
6/1/2033	164	407	185,691
7/1/2033	177	412	200,479
8/1/2033	180	416	203,797
9/1/2033	154	390	186,272
10/1/2033	140	343	160,572
11/1/2033	137	279	136,462
12/1/2033	140	301	146,125
1/1/2034	138	349	152,156
2/1/2034	139	311	131,861
3/1/2034	133	284	139,252
4/1/2034	134	316	143,130
5/1/2034	145	375	172,215
6/1/2034	165	409	186,385
7/1/2034	178	413	201,228

8/1/2034	181	418	204,558
9/1/2034	155	392	186,968
10/1/2034	141	345	161,172
11/1/2034	138	280	136,971
12/1/2034	140	302	146,670
1/1/2035	138	350	152,732
2/1/2035	139	312	132,361
3/1/2035	133	285	139,780
4/1/2035	134	317	143,672
5/1/2035	146	376	172,868
6/1/2035	165	410	187,091
7/1/2035	179	415	201,990
8/1/2035	182	419	205,333
9/1/2035	156	393	187,676
10/1/2035	141	346	161,783
11/1/2035	138	281	137,490

12/1/2035	141	303	147,226
1/1/2036	139	352	153,315
2/1/2036	135	303	132,865
3/1/2036	134	286	140,313
4/1/2036	135	318	144,220
5/1/2036	147	377	173,527
6/1/2036	166	412	187,805
7/1/2036	179	416	202,761
8/1/2036	182	421	206,117
9/1/2036	156	395	188,392
10/1/2036	142	347	162,400
11/1/2036	139	282	138,015
12/1/2036	141	305	147,788
1/1/2037	139	353	153,901
2/1/2037	140	315	133,374
3/1/2037	134	287	140,849

4/1/2037	135	320	144,772
5/1/2037	147	379	174,191
6/1/2037	166	413	188,523
7/1/2037	180	418	203,536
8/1/2037	183	422	206,905
9/1/2037	157	396	189,113
10/1/2037	142	349	163,021
11/1/2037	139	284	138,543
12/1/2037	142	306	148,353
1/1/2038	140	354	154,504
2/1/2038	141	316	133,896
3/1/2038	135	288	141,401
4/1/2038	136	321	145,339
5/1/2038	148	380	174,873
6/1/2038	167	415	189,262
7/1/2038	181	419	204,334

8/1/2038	184	424	207,716
9/1/2038	157	398	189,854
10/1/2038	143	350	163,659
11/1/2038	140	285	139,086
12/1/2038	142	307	148,934
1/1/2039	140	356	155,113
2/1/2039	141	317	134,423
3/1/2039	135	289	141,958
4/1/2039	136	322	145,911
5/1/2039	148	382	175,562
6/1/2039	168	416	190,007
7/1/2039	181	421	205,138
8/1/2039	185	426	208,534
9/1/2039	158	399	190,601
10/1/2039	143	351	164,304
11/1/2039	140	286	139,633

12/1/2039	143	308	149,521
1/1/2040	141	357	155,735
2/1/2040	137	308	134,963
3/1/2040	136	290	142,528
4/1/2040	137	324	146,497
5/1/2040	149	383	176,267
6/1/2040	168	418	190,770
7/1/2040	182	423	205,962
8/1/2040	185	427	209,370
9/1/2040	159	401	191,366
10/1/2040	144	353	164,963
11/1/2040	141	287	140,194
12/1/2040	144	309	150,121
1/1/2041	142	359	156,360
2/1/2041	142	320	135,505
3/1/2041	136	292	143,100

4/1/2041	137	325	147,085
5/1/2041	149	385	176,974
6/1/2041	169	420	191,535
7/1/2041	183	425	206,788
8/1/2041	186	429	210,211
9/1/2041	159	402	192,134
10/1/2041	145	354	165,625
11/1/2041	141	288	140,756
12/1/2041	144	311	150,723
1/1/2042	142	360	156,988
2/1/2042	143	321	136,048
3/1/2042	137	293	143,674
4/1/2042	138	326	147,675
5/1/2042	150	386	177,684
6/1/2042	170	421	192,304
7/1/2042	183	426	207,618

8/1/2042	187	431	211,054
9/1/2042	160	404	192,905
10/1/2042	145	356	166,290
11/1/2042	142	289	141,321
12/1/2042	145	312	151,328
1/1/2043	143	361	157,618
2/1/2043	144	322	136,594
3/1/2043	137	294	144,251
4/1/2043	139	327	148,268
5/1/2043	151	388	178,397
6/1/2043	170	423	193,076
7/1/2043	184	428	208,451
8/1/2043	188	433	211,901
9/1/2043	161	406	193,680
10/1/2043	146	357	166,958
11/1/2043	142	290	141,888

12/1/2043	145	313	151,936

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18. **[TECO & FPL Only]** Please identify and describe any actions undertaken to encourage adoption of natural gas heating over electric resistance (strip) heating. If no actions have been taken, please explain why.