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August 5, 2019

VIA: ELECTRONIC FILING

Mr. Adam J. Teitzman
Commission Clerk
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, FL 32399-0850

Re: Commission Review of Numeric Conservation Goals (Tampa Electric Company)
FPSC Docket No. 20190021-EG

Dear Mr. Teitzman:

On August 2, 2019 Tampa Electric was made aware of an edit to the Company's Winter Technical Potential involving Demand Response. In the Market Potential Study supplied by Nexant there was one segment of commercial customers (Large Commercial and Industrial greater than 500 kW) that was omitted from a formula that produced a summation of the Winter Demand MW.

This incorrect summation caused Tampa Electric's Winter Demand Response Technical Potential to be understated by 498 MW. Tampa Electric's original reported Demand Response Technical Potential was filed as 2,318 MW and needs to be corrected to 2,816 MW. The incorrect summation also caused Tampa Electric's Economic Potential, both for the Rate Impact Measure ("RIM") test and Total Resource Cost ("TRC") test, to be understated by the same 498 MW amount, given the fact that all of the associated Demand Response Measures for this segment of commercial customers passed both cost-effectiveness tests. The incorrect summation also caused Tampa Electric's Sensitivity analyses and post free-ridership consideration Economic Potential, both for the RIM and TRC tests, to be understated by the same 498 MW amount.

The incorrect summation has no effect on the company Achievable Potential or proposed goals, as the measures at the Achievable Potential are analyzed using their individual demand and energy contributions and not the Technical Potential assigned. Here is a summary of the changes:

Winter - Technical Potential for Demand Response	
<u>Original filed April 12, 2019</u>	<u>Modified due to Summation Error</u>
2,318 MW	2,816 MW

Winter – Economic Potential (RIM Portfolio)	
<u>Original filed April 12, 2019</u>	<u>Modified due to Summation Error</u>
3,256 MW	3,754 MW

Winter – Economic Potential (TRC Portfolio)	
<u>Original filed April 12, 2019</u>	<u>Modified due to Summation Error</u>
2,488 MW	2,986 MW

Winter – Post Free-ridership Economic Potential (RIM Portfolio)	
<u>Original filed April 12, 2019</u>	<u>Modified due to Summation Error</u>
2,409 MW	2,907 MW

Winter – Post Free-ridership Economic Potential (TRC Portfolio)	
<u>Original filed April 12, 2019</u>	<u>Modified due to Summation Error</u>
2,326 MW	2,824 MW

Again, the above corrections have no effect on the company’s Achievable Potential or proposed Demand Side Management goals.

Attached herewith for filing in this docket are revised Bates stamp (“Bates”) pages from Tampa Electric’s testimony and exhibits in this proceeding which reflect the changes indicated to correct the effects of the incorrect summation. We would appreciate your circulating the following revised Bates pages to the recipients of the April 12 filing so that they may be substituted in place of the originals:

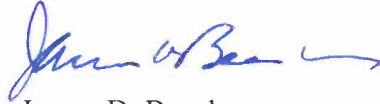
Bates		
Page#	Line #	Change
40	19	2,318 to 2,816
45	3	3,256 to 3,754
45	9	2,488 to 2,986
51	17	2,409 to 2,907
52	12	2,326 to 2,824
92	Table 1-2	673 to 1,171
92	Table 1-2	2,318 to 2,816
126	Table 5-2	673 to 1,171
126	Table 5-2	2,318 to 2,816

172	2019 Technical Potential Demand Response WkW	2,318 to 2,816
176	2019 Economic Potential RIM Based Demand Response WkW	2,318 to 2,816
176	2019 Economic Potential TRC Based Demand Response WkW	2,223 to 2,721
186	Technical Potential Demand Response WkW	2,318 to 2,816
187	Economic Potential RIM Based Demand Response WkW	2,318 to 2,816
187	Economic Potential TRC Based Demand Response WkW	2,223 to 2,721
187	Low Fuel Sensitivity RIM Based Demand Response WkW	2,318 to 2,816
188	Low Fuel Sensitivity TRC Based Demand Response WkW	2,223 to 2,721
188	High Fuel Sensitivity RIM Based Demand Response WkW	2,318 to 2,816
188	High Fuel Sensitivity TRC Based Demand Response WkW	2,176 to 2,674
189	One Year Free-Ridership RIM Based Demand Response WkW	2,318 to 2,816
189	One Year Free-Ridership TRC Based Demand Response WkW	2,223 to 2,721

189	Three Year Free-Ridership RIM Based Demand Response WkW	2,318 to 2,816
190	Three Year Free-Ridership TRC Based Demand Response WkW	2,223 to 2,721
190	Two Year Free-Ridership RIM Based Demand Response WkW	2,318 to 2,816
190	Two Year Free-Ridership TRC Based Demand Response WkW	2,223 to 2,721

Thank you for your assistance in connection with this matter.

Sincerely,



James D. Beasley

JDB/pp
Attachment

cc: All parties of record (w/attachment)

1 **TAMPA ELECTRIC'S TECHNICAL POTENTIAL:**

2
 3 **Q.** What is Tampa Electric's technical potential?

4
 5 **A.** The company's technical potential is made up of estimates
 6 for energy efficiency, demand response and distributed
 7 energy resources. The technical potential estimates from
 8 these categories are not additive due to the interactive
 9 effect of certain measures on end uses. With this
 10 backdrop, Tampa Electric's technical potential for energy
 11 efficiency is:

12 Summer Demand: 1,138 MW
 13 Winter Demand: 583 MW
 14 Annual Energy: 4,483 GWh

15
 16 Tampa Electric's technical potential for demand response
 17 is:

18 Summer Demand: 2,399 MW
 19 Winter Demand: 2,816 MW
 20 Annual Energy: 0 GWh

21
 22 Tampa Electric's technical potential for distributed
 23 energy resources is:

24 Summer Demand: 2,215 MW
 25 Winter Demand: 619 MW

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economic potential resulted in the following savings:

Summer Demand: 4,928 MW
 Winter Demand: 3,754 MW
 Annual Energy: 12,669 GWh

Under the TRC cost-effectiveness test evaluation, this economic potential resulted in the following savings:

Summer Demand: 2,656 MW
 Winter Demand: 2,986 MW
 Annual Energy: 1,785 GWh

The details of these values are included in my Exhibit MRR-1, Document No. 10.

TAMPA ELECTRIC'S ECONOMIC POTENTIAL SENSITIVITIES:

Q. Please describe what economic potential sensitivities Tampa Electric conducted to be compliant with the Commission's Order Establishing Procedures in this proceeding?

A. Tampa Electric's economic potential sensitivity analyses were conducted based upon the RIM and TRC economic potentials with regard to the following factors:

- 1) Lower fuel costs;

1 specific customers to do what they would do on their own
 2 without an incentive. Because of this and Rule 25-
 3 17.0021, F.A.C., which requires the minimization of free
 4 riders in the setting of DSM goals, the two-year simple
 5 payback criterion is the appropriate means to apply to
 6 minimize free ridership as required by Rule.

7

8 **Q.** How many measures remained qualified and the associated
 9 summer demand, winter demand and annual energy savings of
 10 these measures after consideration of free-ridership
 11 under the RIM and PCT evaluation?

12

13 **A.** After consideration of free-ridership, 1,100 individual
 14 measure permutations remained qualified under the RIM and
 15 PCT evaluation and resulted in the following savings:

16	Summer Demand:	2,557 MW
17	Winter Demand:	2,907 MW
18	Annual Energy:	747 GWh

19

20 **Q.** How many measures were removed due to having a simple
 21 payback of two-years or less after consideration of free-
 22 ridership under the RIM and PCT evaluation?

23

24 **A.** After consideration of free-ridership, the two-year
 25 payback removed 779 individual measure permutations under

1 the RIM and PCT evaluation.

2

3 **Q.** How many measures remained qualified and the associated
 4 summer demand, winter demand and annual energy savings of
 5 these measures after consideration of free-ridership
 6 under the TRC and PCT evaluation?

7

8 **A.** After consideration of free-ridership, 944 individual
 9 measure permutations remained qualified under the TRC and
 10 PCT evaluation and resulted in the following savings:

11	Summer Demand:	2,465 MW
12	Winter Demand:	2,824 MW
13	Annual Energy:	686 GWh

14

15 **Q.** How many measures were removed due to having a simple
 16 payback of two-years after consideration of free-
 17 ridership under the TRC and PCT evaluation?

18

19 **A.** After consideration of free-ridership, the two-year
 20 payback removed 1,005 individual measure permutations
 21 under the TRC and PCT evaluation.

22

23 **Q.** Did Tampa Electric comply with Staff's request and the
 24 Order Establishing Procedure by performing a sensitivity
 25 analyses utilizing the consideration of free-ridership?

Table 1-2: DR Technical Potential

	Savings Potential	
	Summer Peak Demand (MW)	Winter Peak Demand (MW)
Residential	1,208	1,645
Non-Residential	1,191	1,171
Total	2,398	2,816

1.2.3 DSRE Technical Potential

DSRE technical potential estimates quantify all technically feasible distributed generation opportunities from PV systems, battery storage systems charged from PV, and CHP technologies based on the customer characteristics of each FEECA utility’s customer base.

Table 1-3: DSRE Technical Potential²

	Savings Potential		
	Summer Peak Demand (MW)	Winter Peak Demand (MW)	Energy (GWh)
PV Systems			
Residential	509	19	3,461
Non-Residential	835	31	5,679
Total	1,344	50	9,140
Battery Storage charged from PV Systems			
Residential	214	211	-
Non-Residential	1	-	-
Total	216	211	-
CHP Systems			
Total	656	358	3,126

² PV systems and CHP systems were independently analyzed for technical potential without consideration of the competition between technologies or customer preference for DSRE system.

5.3 DR Technical Potential

Technical potential for DR is defined for each class of customers as follows:

- **Residential & Small C&I customers** – Technical potential is equal to the aggregate load for all end-uses that can participate in TECO’s current programs plus DR measures not currently offered in which the utility uses specialized devices to control loads (*i.e.* direct load control programs). This includes cooling and heating loads for residential and small C&I customers and water heater and pool pump loads for residential customers. Not all demand reductions are delivered via direct load control of end-uses. The magnitude of demand reductions from non-direct load control such as time varying pricing, peak time rebates and targeted notifications is linked to cooling and heating loads.
- **Large C&I customers** – Technical potential is equal to the total amount of load for each customer segment (*i.e.*, that customers reduce their total load to zero when called upon).

Table 5-2 summarizes the seasonal DR technical potential by sector:

Table 5-2: DR Technical Potential by Sector

	Savings Potential	
	Summer Peak Demand (MW)	Winter Peak Demand (MW)
Residential	1,208	1,645
Non-Residential	1,191	1,171
Total	2,398	2,816

5.3.1 Residential

Residential technical potential is summarized in Figure 5-11.

Tampa Electric's 2019 Technical Potential

1. Tampa Electric's 2019 Technical Potential

Energy Efficiency:	SkW	1,138 MW
	WkW	583 MW
	AE	4,483 GWh
Demand Response:	SkW	2,399 MW
	WkW	2,816 MW
	AE	0 GWh
Distributed Energy Resources:	SkW	2,215 MW
	WkW	619 MW
	AE	12,266 GWh

2. Tampa Electric's 2014 Technical Potential

Energy Efficiency:	SkW	1,306 MW
	WkW	823 MW
	AE	5,961 GWh
Demand Response:	SkW	2,929 MW
	WkW	430 MW
	AE	0 GWh
Distributed Energy Resources:	SkW	2,929 MW
	WkW	447 MW
	AE	7,892 GWh

Tampa Electric's 2019 Economic Potential

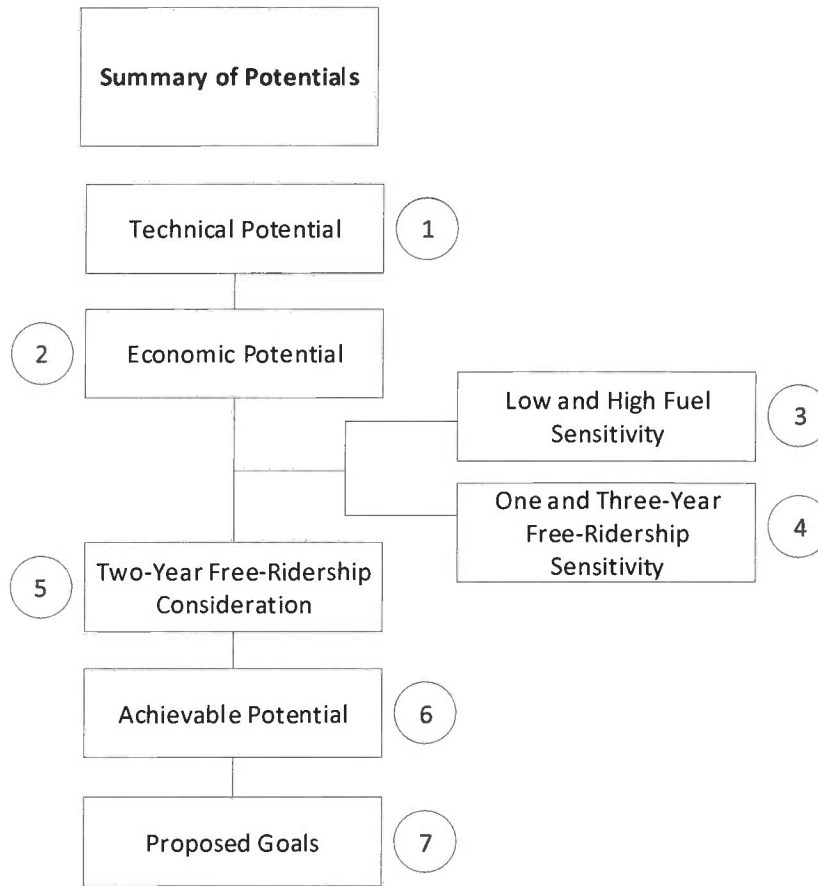
1. Tampa Electric's 2019 Economic Potential

RIM Based

Energy Efficiency:	SkW	824 MW
	WkW	338 MW
	AE	2,613 GWh
Demand Response:	SkW	2,399 MW
	WkW	2,816 MW
	AE	0 GWh
Distributed Energy Resources:	SkW	1,705 MW
	WkW	600 MW
	AE	10,056 GWh

TRC Based

Energy Efficiency:	SkW	326 MW
	WkW	265 MW
	AE	1,785 GWh
Demand Response:	SkW	2,330 MW
	WkW	2,721 MW
	AE	0 GWh
Distributed Energy Resources:	SkW	0 MW
	WkW	0 MW
	AE	0 GWh



1. Technical Potential

Energy Efficiency:	SkW	1,138 MW
	WkW	583 MW
	AE	4,483 GWh
Demand Response:	SkW	2,399 MW
	WkW	2,816 MW
	AE	0 GWh
Distributed Energy Resources:	SkW	2,215 MW
	WkW	619 MW
	AE	12,266 GWh

2. Economic Potential

RIM Based

Energy Efficiency:	SkW	824 MW
	WkW	338 MW
	AE	1,785 GWh
Demand Response:	SkW	2,399 MW
	WkW	2,816 MW
	AE	0 GWh
Distributed Energy Resources:	SkW	1,705 MW
	WkW	600 MW
	AE	10,056 GWh

TRC Based

Energy Efficiency:	SkW	326 MW
	WkW	265 MW
	AE	1,785 GWh
Demand Response:	SkW	2,330 MW
	WkW	2,721 MW
	AE	0 GWh
Distributed Energy Resources:	SkW	0 MW
	WkW	0 MW
	AE	0 GWh

3. Low and High Fuel Sensitivities

RIM Based Low Fuel Sensitivity

Energy Efficiency:	SkW	270 MW
	WkW	153 MW
	AE	1,196 GWh
Demand Response:	SkW	2,399 MW
	WkW	2,816 MW
	AE	0 GWh
Distributed Energy Resources:	SkW	0 MW
	WkW	0 MW
	AE	0 GWh

TRC Based Low Fuel Sensitivity

Energy Efficiency: SkW 321 MW
 WkW 263 MW
 AE 1,739 GWh

Demand Response: SkW 2,330 MW
 WkW 2,721 MW
 AE 0 GWh

Distributed Energy Resources: SkW 0 MW
 WkW 0 MW
 AE 0 GWh

RIM Based High Fuel Sensitivity

Energy Efficiency: SkW 333 MW
 WkW 191 MW
 AE 1,534 GWh

Demand Response: SkW 2,399 MW
 WkW 2,816 MW
 AE 0 GWh

Distributed Energy Resources: SkW 0 MW
 WkW 0 MW
 AE 0 GWh

TRC Based High Fuel Sensitivity

Energy Efficiency: SkW 384 MW
 WkW 283 MW
 AE 2,020 GWh

Demand Response: SkW 2,316 MW
 WkW 2,674 MW
 AE 0 GWh

Distributed Energy Resources: SkW 0 MW
 WkW 0 MW
 AE 0 GWh

4. One and Three-Year Free-Ridership Sensitivities

RIM Based One-Year Free-Ridership

Energy Efficiency:	SkW	204 MW
	WkW	107 MW
	AE	999 GWh
Demand Response:	SkW	2,399 MW
	WkW	2,816 MW
	AE	0 GWh
Distributed Energy Resources:	SkW	0 MW
	WkW	0 MW
	AE	0 GWh

TRC Based One-Year Free-Ridership

Energy Efficiency:	SkW	210 MW
	WkW	167 MW
	AE	1,275 GWh
Demand Response:	SkW	2,330 MW
	WkW	2,721 MW
	AE	0 GWh
Distributed Energy Resources:	SkW	0 MW
	WkW	0 MW
	AE	0 GWh

RIM Based Three-Year Free-Ridership

Energy Efficiency:	SkW	127 MW
	WkW	61 MW
	AE	570 GWh
Demand Response:	SkW	2,399 MW
	WkW	2,816 MW
	AE	0 GWh
Distributed Energy Resources:	SkW	0 MW
	WkW	0 MW
	AE	0 GWh

TRC Based RIM Based Three-Year Free-Ridership

Energy Efficiency:	SkW	102 MW
	WkW	64 MW
	AE	488 GWh
Demand Response:	SkW	2,330 MW
	WkW	2,721 MW
	AE	0 GWh
Distributed Energy Resources:	SkW	0 MW
	WkW	0 MW
	AE	0 GWh

5. Two-Year Free-Ridership Consideration

RIM Based

Energy Efficiency:	SkW	158 MW
	WkW	91 MW
	AE	747 GWh
Demand Response:	SkW	2,399 MW
	WkW	2,816 MW
	AE	0 GWh
Distributed Energy Resources:	SkW	0 MW
	WkW	0 MW
	AE	0 GWh

TRC Based

Energy Efficiency:	SkW	135 MW
	WkW	103 MW
	AE	686 GWh
Demand Response:	SkW	2,330 MW
	WkW	2,721 MW
	AE	0 GWh
Distributed Energy Resources:	SkW	0 MW
	WkW	0 MW
	AE	0 GWh