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AUSLEY MCMULLEN

ATTORNEYS AND COUNSELORS AT LAW

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March 7, 2019

VIA: ELECTRONIC FILING

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

Re:

Petition for Approval of Shared Solar Tariff by Tampa Electric Company

FPSC Docket No. 20180204-EI

Dear Mr. Teitzman:

Attached for filing in the above docket are Tampa Electric Company's Responses to Staff's Fifth Data Request (Nos. 1-5) dated February 28, 2019.

Thank you for your assistance in connection with this matter.

Sincerely,

Jun Obas L Dames D. Beasley

JDB/pp Attachment

cc:

Charles Morgan II

TAMPA ELECTRIC COMPANY DOCKET NO. 20180204-EI STAFF'S FIFTH DATA REQUEST REQUEST NO. 1 BATES-STAMPED PAGE: 1

FILED: MARCH 7, 2019

Please refer to TECO's Petition in Docket No. 20180204-EI (the Petition), Staff's previous Data Requests and the Company's responses, and both informal meetings held between Staff and the Company.

1. Please provide a breakdown of the approximate percentage of fixed and variable costs within TECO's 2019 FCRC charges.

A. Variable 81% Fixed 19%

TAMPA ELECTRIC COMPANY DOCKET NO. 20180204-EI STAFF'S FIFTH DATA REQUEST REQUEST NO. 2 BATES-STAMPED PAGE: 2

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- 2. Please indicate whether or not TECO has received confirmation from all parties to the 2017 Revised and Restated Stipulation and Settlement Agreement that the provisions of its SSR-1 Tariff proposal are not in conflict with the settlement, particularly Paragraph 12 of the agreement, in regards to not allowing increases in any existing base rate component of a tariff or rate schedule, or any other charge imposed on customers during the term, unless the application of such new or revised tariff, rate schedule, or charge is optional to Tampa Electric's customers.
 - **A.** Tampa Electric has received such confirmation from:

Office of Public Counsel Retail Federation

The following three parties have been asked to confirm, but confirmation has not yet been received. As confirmation is received, Tampa Electric will inform Staff.

Florida Industrial Power User's Group
WCF Hospital Utility Alliance (Pending)
Federal Executive Agencies (Pending)

TAMPA ELECTRIC COMPANY DOCKET NO. 20180204-EI STAFF'S FIFTH DATA REQUEST REQUEST NO. 3 BATES-STAMPED PAGES: 3 - 5 FILED: MARCH 7, 2019

- **3.** On Sheet No. 3.300 of the SSR-1 tariff, under "Monthly Rate", please correct the spelling of "determinates" to "determinants".
- **A.** See attached.

FILED: MARCH 7, 2019
ORIGINAL SHEET NO. 3.300



SHARED SOLAR RIDER

SCHEDULE: SSR – 1

AVAILABLE: At the option of the customer, available to residential, commercial and industrial customers per device (non-totalized or totalized electric meter) on rate schedules RS, GS, GSD and IS on a first come, first served basis subject to subscription availability. Not available to customers who take service under NM-1, RSVP-1, any standby service or time of use rate schedule. Subscription availability will be dependent on availability of Shared Solar facilities. Customers who apply when availability is closed will be placed on a waiting list until Shared Solar capacity becomes available. The initial Shared Solar facility will be for 17.5 MWac* capacity and full subscription will be when 95% of expected annual energy output has been subscribed.

APPLICABLE: Applicable, upon request, to eligible customers in conjunction with their standard rates and availability of service subject to subscription availability.

CHARACTER OF SERVICE: Shared Solar - 1 (SSR-1) enables customers to purchase monthly energy produced from Company-owned solar facilities for a selected percentage of that month's billed kWh. For RS and GS, individual subscriptions will be measured as a percentage of the monthly energy consumption as selected by the customer: 25%, 50% or 100% rounded up to the next highest kWh. For GSD and IS, a fixed kWh subscription in 1,000 kWh blocks will be identified by the customer not to exceed their average monthly kWh consumption for the previous 12-months at the time of subscription.

MONTHLY RATE: \$0.063 per kWh for monthly energy consumption.

The monthly SSR-1 rate, multiplied by the monthly energy consumption selected by the customer, will be charged to the customer in addition to the customer's normal cost of electricity pursuant to their RS, GS, GSD or IS tariff charges applied to their entire monthly billing determinants, with the exception of the Fuel Charge, which is normally billed under the applicable tariff. Tampa Electric will seek to maintain the SSR-1 energy rate at \$0.063 per kWh or lower until January 1, 2048, however the SSR-1 energy rate will remain subject to change by order of the Florida Public Service Commission.

<u>Under SSR-1</u>, the Fuel Charge for the applicable RS, GS, GSD, or IS tariff, for the monthly energy percentage or blocks selected by the customer, will be billed at a rate of \$0.00 per kWh provided under this rider. The Fuel Charge applies to the remainder of the monthly billing determinants.

Continued to Sheet No. 3.305

ISSUED BY: N. G. Tower, President

DATE EFFECTIVE:

TAMPA ELECTRIC COMPANY DOCKET NO. 20180204-EI STAFF'S FIFTH DATA REQUEST

FILED: MARCH 7, 2019
ORIGINAL SHEET NO. 3.300



SHARED SOLAR RIDER

SCHEDULE: SSR – 1

AVAILABLE: At the option of the customer, available to residential, commercial and industrial customers per device (non-totalized or totalized electric meter) on rate schedules RS, GS, GSD and IS on a first come, first served basis subject to subscription availability. Not available to customers who take service under NM-1, RSVP-1, any standby service or time of use rate schedule. Subscription availability will be dependent on availability of Shared Solar facilities. Customers who apply when availability is closed will be placed on a waiting list until Shared Solar capacity becomes available. The initial Shared Solar facility will be for 17.5 MWac* capacity and full subscription will be when 95% of expected annual energy output has been subscribed.

<u>APPLICABLE:</u> Applicable, upon request, to eligible customers in conjunction with their standard rates and availability of service subject to subscription availability.

<u>CHARACTER OF SERVICE</u>: Shared Solar - 1 (SSR-1) enables customers to purchase monthly energy produced from Company-owned solar facilities for a selected percentage of that month's billed kWh. For RS and GS, individual subscriptions will be measured as a percentage of the monthly energy consumption as selected by the customer: 25%, 50% or 100% rounded up to the next highest kWh. For GSD and IS, a fixed kWh subscription in 1,000 kWh blocks will be identified by the customer not to exceed their average monthly kWh consumption for the previous 12-months at the time of subscription.

MONTHLY RATE: \$0.063 per kWh for monthly energy consumption.

The monthly SSR-1 rate, multiplied by the monthly energy consumption selected by the customer, will be charged to the customer in addition to the customer's normal cost of electricity pursuant to their RS, GS, GSD or IS tariff charges applied to their entire monthly billing determinants, with the exception of the Fuel Charge, which is normally billed under the applicable tariff. Tampa Electric will seek to maintain the SSR-1 energy rate at \$0.063 per kWh or lower until January 1, 2048, however the SSR-1 energy rate will remain subject to change by order of the Florida Public Service Commission.

Under SSR-1, the Fuel Charge for the applicable RS, GS, GSD, or IS tariff, for the monthly energy percentage or blocks selected by the customer, will be billed at a rate of \$0.00 per kWh provided under this rider. The Fuel Charge applies to the remainder of the monthly billing determinants.

Continued to Sheet No. 3.305

ISSUED BY: N. G. Tower, President DATE EFFECTIVE:

TAMPA ELECTRIC COMPANY DOCKET NO. 20180204-EI STAFF'S FIFTH DATA REQUEST REQUEST NO. 4 BATES-STAMPED PAGES: 6 - 12

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4. Please complete the following 3 tables in electronic Excel format with formulas intact:

	SSR-1 Pro	ogram Rev		Participants' Av 6 Subscription	roided System Fue	el Costs
A	В	С	D	Е	F	G
Year	SSR-1	SSR-1	SSR-1	System-	Avoided	SSR-1
	Program	Rate	Revenue	Wide	System Fuel	Revenue less
	KWHs		(\$ NPV)	Forecasted	Costs – 17.5	Avoided
			,	Delivered	MW Lake	System Fuel
				Fuel Rate	Hancock (\$	Costs 17.5
				(1)	NPV)	MW Lake
				(NPV)		Hancock (\$
						NPV)
			BxC		ВхЕ	D – F
2019						
2020						
2021						
2022						
2023						
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2042						
2043						

TAMPA ELECTRIC COMPANY DOCKET NO. 20180204-EI STAFF'S FIFTH DATA REQUEST REQUEST NO. 4

BATES-STAMPED PAGES: 7 - 12

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2044			
2045			
2046			
2047			
2048			
NPV 2019			
2019			
\$			

1. Weighted "All-in Delivered Cost" calculated from response to DR 28, BS Page 103 and 104, and other sources as may be appropriate, discounted in cell formula.

SSR-1 Program Revenue and Participants' Avoided System Fuel Costs 50% Subscription

A	В	C	D	E	F	G
Year	SSR-1	SSR-1	SSR-1	System-	Avoided	SSR-1
	Program	Rate	Revenue	Wide	System Fuel	Revenue less
	KWHs		(\$ NPV)	Forecasted	Costs - 17.5	Avoided
				Delivered	MW Lake	System Fuel
				Fuel Rate	Hancock (\$	Costs 17.5
				(1)	NPV)	MW Lake
				(NPV)		Hancock (\$
						NPV)
			B x C		ВхЕ	D – F
2019						
2020						
2021						
2022						
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2035		-				

TAMPA ELECTRIC COMPANY DOCKET NO. 20180204-EI STAFF'S FIFTH DATA REQUEST REQUEST NO. 4

BATES-STAMPED PAGES: 8 - 12

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2019					
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1 V	17 - : - 1-4 1 66 /	111 : D.1	:1 0	422 - 1 1 - 4 - 1 C	 D 20 DC D

^{1.} Weighted "All-in Delivered Cost" calculated from response to DR 28, BS Page 103 and 104, and other sources as may be appropriate, discounted in cell formula.

SSR-1 Program Revenue and Participants' Avoided System Fuel Costs 25% Subscription

A	В	С	D	Е	F	G
Year	SSR-1	SSR-1	SSR-1	System-	Avoided	SSR-1
	Program	Rate	Revenue	Wide	System Fuel	Revenue less
	KWHs		(\$ NPV)	Forecasted	Costs – 17.5	Avoided
				Delivered	MW Lake	System Fuel
				Fuel Rate	Hancock (\$	Costs 17.5
				(1)	NPV)	MW Lake
				(\$ NPV)		Hancock (\$
						NPV)
			BxC		ВхЕ	D – F
2019						
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2027	-	-				

TAMPA ELECTRIC COMPANY DOCKET NO. 20180204-EI STAFF'S FIFTH DATA REQUEST REQUEST NO. 4

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2028				
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2045 2046 2047 2048 NPV 2019 \$	2043			
2046				
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NPV 2019 \$				
2019	2048			
2019				
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	\$			

^{1.} Weighted "All-in Delivered Cost" calculated from response to DR 28, BS Page 103 and 104, and other sources as may be appropriate, discounted in cell formula.

A. Please see the attached pages for the requested information. These tables are also available in the accompanying Excel file titled: "Staff's 5th Data Request - Q4.xlsx."

7.01%	
WACC	

A B C D E F			SSR-1 Program Reven	SSR-1 Program Revenue and Participants' Avoided System Fuel Costs 100% Subscription	ded System Fuel Costs		
KWHS SSR-1 Rate SSR-1 Revenue System-Wide Avoided System Fue 573.830 0.0630 2.366,068 0.02403 1,470,761 273.832 0.0630 2.366,068 0.02183 1,470,761 273.841 0.0630 2.266,068 0.02183 1,470,761 273.441 0.0630 2.266,068 0.02183 1,470,761 273.441 0.0630 1,775,579 0.01987 784,389 273.442 0.0630 1,775,579 0.01987 714,388 288.2341 0.0630 1,332,455 0.01987 743,589 288.167 0.0630 1,431,609 0.01917 743,589 288.167 0.0630 1,332,455 0.01917 743,589 288.167 0.0630 1,431,609 0.01917 743,589 288.167 0.0630 1,544,160 743,589 288.168 0.0630 1,652,07 0.01917 743,589 288.167 0.0630 1,644,160 743,589 288.243	A	В	C	D	E	Ŧ	Ð
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573,830 0.0630 2,366,068 0.02405 1,435,83 423,535 0.0630 2,202,194 0.0265 1,247,45 273,535 0.0630 1,204,669 0.02189 1,127,579 273,434 0.0630 1,204,669 0.01956 1,126,142 881,028 0.0630 1,431,609 0.01956 1,138,142 0.01956 881,028 0.0630 1,431,609 0.01956 0.01956 1,133,445 0.01956 0.01976 242,614 0.0630 1,431,609 0.01941 0.01976 0.01976 0.01976 0.01976 0.01976 0.01976 0.01976 0.01977 0.01977 0.01977 0.01976 0.01977 0.01977 0.01977 0.01977 0.01977 0.01976 0.01976 0.01977 0.01873 0.01766 0.01766 0.01766 0.01766 0.01766 0.01766 0.01766 0.01766 0.01766 0.01766 0.01766 0.01766 0.01766 0.01766 0.01766 0.01766 0.01766 0.01766				BxC			D-F
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273,841 0.0630 2,049,669 0.02189 1,1475,579 0.02183 1,24748 0.0153 1,24748 0.02153 1,24748 0.0153 1,24748 0.01536 1,24748 0.01536 1,24748 0.01536 0.01536 0.01536 0.01536 0.01536 0.01536 0.01536 0.01536 0.01536 0.01536 0.01536 0.01537 0.01936 0.01936 0.01937 0.01936 0.01937 0.01936 0.01936 0.01937 0.01936 0.01936 0.01936 0.01936 0.01936 0.01936 0.01937 0.01937 0.01937 0.01937 0.01937 0.01937 0.01937 0.01937 0.01937 0.01937 0.01937 0.01937 0.01937 0.01937 0.01937 0.01144	2020	37	0.0630	2,202,194	0.02265	634,390	1,567,803
124,745 0.0630 1,907,708 0.02153 976,246 0.0630 1,775,579 0.01987 828,341 0.0630 1,775,579 0.01956 828,341 0.0630 1,538,142 0.01956 828,342 0.0630 1,431,609 0.01936 384,674 0.0630 1,324,455 0.01917 242,614 0.0630 1,154,274 0.01807 997,643 0.0630 1,154,274 0.01804 997,643 0.0630 1,154,274 0.01804 997,201 0.01804 0.01804 997,202 0.01804 0.01804 980,403 0.01804 0.01804 980,413 0.01626 0.01626 988,562 0.01630 866,207 0.01626 988,562 0.0630 866,207 0.01626 988,562 0.0630 563,107 0.01626 988,562 0.0630 563,107 0.01626 991,390 0.0630 563,107 0.01461 <td>2021</td> <td>37,273,841</td> <td>0.0630</td> <td>2,049,669</td> <td>0.02189</td> <td>1,021,630</td> <td>1,028,039</td>	2021	37,273,841	0.0630	2,049,669	0.02189	1,021,630	1,028,039
976,246 0.0630 1,775,579 0.01987 828,341 0.0630 1,538,142 0.01941 828,342 0.0630 1,538,142 0.01936 334,304 0.0630 1,538,142 0.01936 242,614 0.0630 1,240,169 0.01917 242,614 0.0630 1,134,274 0.01847 907,633 0.0630 1,144,274 0.01887 907,643 0.0630 1,174,329 0.01887 809,440 0.0630 999,920 0.01887 809,440 0.0630 999,920 0.01887 809,440 0.0630 866,207 0.01867 809,400 0.0630 866,207 0.01867 818,728 0.0630 650,337 0.01667 818,728 0.0630 487,806 0.01461 818,728 0.0630 422,010 0.01461 818,728 0.0630 422,573 0.01461 81,300 0.0630 422,573 0.01461 81	2022	37	0.0630	1,907,708	0.02153	725,847	1,181,861
828,341 0.0630 1,652,602 0.01956 681,028 0.0630 1,538,142 0.01941 534,304 0.0630 1,332,455 0.01917 534,304 0.0630 1,332,455 0.01917 242,614 0.0630 1,240,169 0.01847 97,643 0.0630 1,134,324 0.01884 995,253 0.0630 1,04,329 0.01887 809,440 0.0630 999,920 0.01887 809,440 0.0630 990,920 0.01884 809,440 0.0630 866,207 0.01867 818,43 0.0630 866,207 0.01667 818,728 0.0630 698,403 0.01667 988,562 0.0630 665,010 0.01667 818,728 0.0630 665,010 0.01461 402,573 0.0630 450,020 0.01461 402,573 0.0630 454,020 0.01373 81,304 0.0630 342,575 0.01105 855,123	2023	36,	0.0630	1,775,579	0.01987	911,438	864,141
681,028 0.0630 1,538,142 0.01941 354,304 0.0630 1,431,609 0.01936 388,167 0.0630 1,332,455 0.01917 242,614 0.0630 1,240,169 0.01897 293,253 0.0630 1,134,324 0.01884 983,4263 0.0630 1,174,329 0.01837 8805,440 0.0630 999,920 0.01837 8805,41 0.0630 866,207 0.01836 8805,21 0.0630 866,207 0.01667 381,443 0.0630 866,213 0.01667 381,443 0.0630 866,203 0.01667 988,562 0.0630 650,032 0.01676 988,562 0.0630 650,032 0.0164 988,562 0.0630 487,806 0.01497 540,733 0.0630 487,806 0.01497 540,732 0.0630 487,806 0.01105 901,390 0.0630 36,006 0.01105 585,4	2024		0.0630	1,652,602	0.01956	738,984	913,618
534,304 0.0630 1,431,609 0.01936 388,167 0.0630 1,332,455 0.01917 242,614 0.0630 1,240,169 0.01897 997,643 0.0630 1,134,274 0.01864 993,253 0.0630 1,174,329 0.01837 809,440 0.0630 999,920 0.01837 809,440 0.0630 866,207 0.01768 523,537 0.0630 866,207 0.01667 381,443 0.0630 806,213 0.01667 388,562 0.0630 806,213 0.01667 388,562 0.0630 806,213 0.01667 388,562 0.0630 650,010 0.01647 540,735 0.0630 563,007 0.01641 540,735 0.0630 454,020 0.01497 540,735 0.0630 454,020 0.01497 540,735 0.0630 454,020 0.01154 585,425 0.0630 393,307 0.01164 585,123	2025	38	0.0630	1,538,142	0.01941	834,565	703,577
388,167 0.0630 1,332,455 0.01917 242,614 0.0630 1,240,169 0.01864 997,432 0.01864 0.01864 953,253 0.0630 1,074,329 0.01864 809,440 0.0630 999,920 0.01806 866,202 0.0630 999,665 0.01768 823,537 0.0630 866,207 0.01667 381,443 0.0630 866,207 0.01667 381,443 0.0630 866,207 0.01667 381,443 0.0630 886,207 0.01667 381,443 0.0630 886,207 0.01667 381,723 0.0630 659,332 0.01667 388,562 0.0630 659,332 0.01641 402,572 0.0630 524,106 0.01497 540,735 0.0630 454,020 0.01497 564,962 0.0630 454,020 0.01373 564,962 0.0630 393,307 0.01054 585,425 0.0630 <td>2026</td> <td>38</td> <td>0.0630</td> <td>1,431,609</td> <td>0.01936</td> <td>743,589</td> <td>688,021</td>	2026	38	0.0630	1,431,609	0.01936	743,589	688,021
242,614 0.0630 1,240,169 0.01897 997,643 0.0630 1,154,274 0.01864 953,253 0.0630 1,154,274 0.01864 809,440 0.0630 0.0630 0.01806 666,202 0.0630 999,920 0.01768 523,537 0.0630 866,207 0.01766 2381,443 0.0630 866,207 0.0167 239,917 0.0630 866,207 0.0167 239,918 0.0630 866,207 0.0164 958,562 0.0630 668,403 0.0164 958,562 0.0630 665,010 0.0154 98,8,562 0.0630 665,010 0.0154 88,728 0.0630 665,010 0.0154 88,728 0.0630 487,806 0.01497 886,403 0.0630 487,806 0.01497 840,732 0.0630 487,806 0.01497 885,423 0.0630 346,712 0.01105 885,423	2027	38	0.0630	1,332,455	0.01917	750,854	581,602
997,643 0.0630 1,154,274 0.01864 953,253 0.0630 1,074,329 0.01837 809,440 0.0630 999,920 0.01806 666,202 0.0630 930,665 0.01768 523,537 0.0630 866,207 0.01716 1. 381,443 0.0630 866,213 0.01667 1. 239,917 0.0630 866,213 0.01667 1. 239,917 0.0630 750,375 0.01674 1. 958,562 0.0630 650,032 0.01647 1. 958,562 0.0630 650,032 0.01642 1. 818,728 0.0630 563,107 0.01497 1. 679,453 0.0630 487,806 0.01497 1. 240,735 0.0630 487,806 0.01154 1. 244,735 0.0630 454,020 0.01154 1. 250,130 0.0630 393,307 0.01164 1. 250,033 0.06	2028	38	0.0630	1,240,169	0.01897	619,262	620,907
953,253 0.0630 1,074,329 0.01806 809,440 0.0630 999,920 0.01768 666,202 0.0630 930,665 0.01716 1. 381,443 0.0630 866,207 0.01667 1. 239,917 0.0630 806,213 0.01656 1. 239,917 0.0630 750,375 0.01656 1. 958,562 0.0630 659,403 0.0164 1. 958,562 0.0630 650,032 0.01636 650,032 0.01641 818,728 0.0630 665,010 0.01497 0.01497 0.01461 402,572 0.0630 487,806 0.01461 0.01461 0.01461 402,572 0.0630 454,020 0.01373 0.01202 0.01202 855,425 0.0630 393,307 0.01105 0.01064 0.01064 855,425 0.0630 340,712 0.01064 0.01064 0.01064 0.01064 858,123 0.0630 340,712	2029	98	0.0630	1,154,274	0.01864	681,979	472,295
809,400 0.0630 999,920 0.01806 666,202 0.0630 930,665 0.01768 523,537 0.0630 866,207 0.01167 381,443 0.0630 806,213 0.01656 239,917 0.0630 750,375 0.01626 098,958 0.0630 698,403 0.01614 958,562 0.0630 650,032 0.01542 818,728 0.0630 665,010 0.01542 679,453 0.0630 524,106 0.01497 540,735 0.0630 487,806 0.01461 402,572 0.0630 454,020 0.01461 264,962 0.0630 454,020 0.01373 264,962 0.0630 422,575 0.01104 264,962 0.0630 393,307 0.01105 267,003 0.0630 360,066 0.01105 285,425 0.0630 340,712 0.01004 285,123 0.0630 317,115 0.01004 285,123	2030		0.0630	1,074,329	0.01837	776,307	298,022
666,202 0.0630 930,665 0.01768 523,537 0.0630 866,207 0.01716 1. 381,443 0.0630 806,213 0.01667 1. 239,917 0.0630 750,375 0.01626 1. 958,562 0.0630 698,403 0.01644 1. 958,562 0.0630 650,012 0.01542 1. 818,728 0.0630 650,010 0.01542 1. 818,728 0.0630 563,107 0.01497 1. 540,735 0.0630 487,806 0.01497 1. 540,735 0.0630 487,806 0.01413 1. 264,962 0.0630 454,020 0.01373 1. 264,962 0.0630 454,020 0.01373 1. 264,962 0.0630 393,307 0.010578 1. 855,425 0.0630 36,066 0.01105 1. 585,123 0.0630 393,307 0.01064 1.	2031	35	0.0630	999,920	0.01806	650,914	349,006
523,537 0.0630 866,207 0.01716 1. 381,443 0.0630 806,213 0.01667 239,917 0.0630 750,375 0.01626 958,562 0.0630 698,403 0.01644 958,562 0.0630 650,032 0.01542 818,728 0.0630 650,032 0.01542 818,728 0.0630 524,106 0.01542 679,453 0.0630 487,806 0.01497 540,735 0.0630 487,806 0.01461 264,962 0.0630 454,020 0.01413 264,962 0.0630 454,020 0.01373 127,902 0.0630 393,307 0.01373 991,390 0.0630 365,066 0.01154 720,003 0.0630 36,066 0.01105 585,123 0.0630 37,115 0.01064 450,782 0.0630 295,151 0.01019 - 30,195,588 - - -	2032	35	0.0630	930,665	0.01768	683,132	247,533
381,443 0.0630 806,213 0.01667 239,917 0.0630 750,375 0.01626 988,958 0.0630 698,403 0.01614 958,562 0.0630 650,032 0.01542 958,562 0.0630 650,032 0.01542 818,728 0.0630 563,107 0.01497 818,728 0.0630 524,106 0.01497 840,735 0.0630 487,806 0.01441 840,752 0.0630 454,020 0.01413 854,052 0.0630 454,020 0.01373 855,425 0.0630 393,307 0.01202 855,425 0.0630 340,712 0.01164 855,425 0.0630 340,712 0.01105 585,123 0.0630 340,712 0.01064 450,782 0.0630 295,151 0.01019 - 30,195,588 - - - 30,195,588 - -	2033	38	0.0630	866,207	0.01716	1,149,510	(283,303)
239,917 0.0630 750,375 0.01626 998,958 0.0630 698,403 0.01614 958,562 0.0630 650,032 0.01542 818,728 0.0630 665,010 0.01542 818,728 0.0630 563,107 0.01497 679,453 0.0630 524,106 0.01497 6402,572 0.0630 487,806 0.01441 264,962 0.0630 454,020 0.01413 264,962 0.0630 454,020 0.01413 264,962 0.0630 452,575 0.01202 991,390 0.0630 393,307 0.01202 855,425 0.0630 366,066 0.01154 585,123 0.0630 340,712 0.01064 450,782 0.0630 295,151 0.01004 66,065 0.0630 30,195,588 - 7 ost" in 2019s. - 30,195,588 -	2034	35	0.0630	806,213	0.01667	605,803	200,410
098,958 0.0630 698,403 0.01614 958,562 0.0630 650,032 0.01593 818,728 0.0630 605,010 0.01542 679,453 0.0630 563,107 0.01497 540,735 0.0630 524,106 0.01461 402,572 0.0630 487,806 0.01461 264,962 0.0630 454,020 0.01413 264,962 0.0630 422,575 0.01373 991,390 0.0630 393,307 0.01202 855,425 0.0630 340,712 0.01164 585,123 0.0630 340,712 0.01105 450,782 0.0630 295,151 0.01004 - 30,195,588 - 21. Second SoBRA cost-effectiveness docket. - 30,195,588 -	2035	38	0.0630	750,375	0.01626	680,130	70,245
958,562 0.0630 650,032 0.01593 818,728 0.0630 605,010 0.01542 679,453 0.0630 563,107 0.01497 540,735 0.0630 524,106 0.01461 402,572 0.0630 487,806 0.01413 264,962 0.0630 454,020 0.01373 127,902 0.0630 422,575 0.01278 991,390 0.0630 393,307 0.01202 855,425 0.0630 340,712 0.01164 720,003 340,712 0.01105 585,123 0.0630 340,712 0.01064 450,782 0.0630 295,151 0.01019 1 1 30,195,588 - 21. Second SoBRA cost-effectiveness docket. 30,195,588 - 21.	2036	SE	0.0630	698,403	0.01614	712,877	(14,473)
818,728 0.0630 605,010 0.01542 679,453 0.0630 563,107 0.01497 540,735 0.0630 524,106 0.01461 402,572 0.0630 487,806 0.01413 264,962 0.0630 454,020 0.01373 127,902 0.0630 422,575 0.01278 991,390 0.0630 393,307 0.01202 885,425 0.0630 340,712 0.01154 720,003 340,712 0.01105 585,123 0.0630 317,115 0.01064 450,782 0.0630 295,151 0.01019 1 - 30,195,588 - 21. Second SoBRA cost-effectiveness docket. - 30,195,588 - 21.	2037	34	0.0630	650,032	0.01593	888,637	(238,605)
679,453 0.0630 563,107 0.01497 540,735 0.0630 524,106 0.01461 402,572 0.0630 487,806 0.01413 264,962 0.0630 454,020 0.01373 127,902 0.0630 422,575 0.01278 991,390 0.0630 393,307 0.01202 855,425 0.0630 340,712 0.01164 720,003 0.0630 340,712 0.01064 585,123 0.0630 317,115 0.01064 450,782 0.0630 295,151 0.0109 - 30,195,588 - 21. Second SoBRA cost-effectiveness docket. - 20,195,588 -	2038	34	0.0630	605,010	0.01542	627,123	(22,113)
540,735 0.0630 524,106 0.01461 402,572 0.0630 487,806 0.01413 264,962 0.0630 454,020 0.01373 127,902 0.0630 422,575 0.01278 991,390 0.0630 393,307 0.01202 855,425 0.0630 366,066 0.01154 720,003 0.0630 340,712 0.01105 585,123 0.0630 317,115 0.01064 450,782 0.0630 295,151 0.01019 - 30,195,588 - 21 Second SoBRA cost-effectiveness docket. - 30,195,588 -	2039	34,	0.0630	563,107	0.01497	618,153	(55,046)
402,572 0.0630 487,806 0.01413 264,962 0.0630 454,020 0.01373 127,902 0.0630 422,575 0.01278 991,390 0.0630 393,307 0.01202 855,425 0.0630 340,712 0.01154 720,003 0.0630 340,712 0.01105 585,123 0.0630 317,115 0.01064 450,782 0.0630 295,151 0.01019 - 30,195,588 - 2 Second SoBRA cost-effectiveness docket. 2 30,195,588 -	2040	34	0.0630	524,106	0.01461	705,159	(181,054)
264,962 0.0630 454,020 0.01373 127,902 0.0630 422,575 0.01278 991,390 0.0630 393,307 0.01202 855,425 0.0630 366,066 0.01154 720,003 0.0630 340,712 0.01105 585,123 0.0630 317,115 0.01064 450,782 0.0630 295,151 0.01019 5vst" in 2019s. - 30,195,588 - 21, Second SoBRA cost-effectiveness docket. - 20,195,588 - 21,	2041	34	0.0630	487,806	0.01413	835,615	(347,809)
127,902 0.0630 422,575 0.01278 991,390 0.0630 393,307 0.01202 855,425 0.0630 366,066 0.01154 720,003 0.0630 340,712 0.01105 585,123 0.0630 317,115 0.01064 450,782 0.0630 295,151 0.01019 - 30,195,588 - 21, Second SoBRA cost-effectiveness docket. 20,195,588 - 21,	2042	34	0.0630	454,020	0.01373	805,265	(351,244)
991,390 0.0630 393,307 0.01202 855,425 0.0630 3.66,066 0.01154 0.01154 0.0630 3.40,712 0.01105 0.0630 3.17,115 0.01064 0.01063 0.0630 3.17,115 0.01064 0.01064 0.0630 0.0630 3.17,115 0.01064 0.01064 0.0630 0.0630 0.0630 0.0630 0.01064 0.01019 0.01019 0.01019 0.01019.	2043	34	0.0630	422,575	0.01278	597,250	(174,676)
8.55,425 0.0630 366,066 0.01154 720,003 0.0630 340,712 0.01105 585,123 0.0630 317,115 0.01064 450,782 0.0630 295,151 0.01019 - 30,195,588 - 21. Second SoBRA cost-effectiveness docket. 20,195,588 - 21.	2044	33	0.0630	393,307	0.01202	538,524	(145,217)
720,003 0.0630 340,712 0.01105 585,123 0.0630 317,115 0.01064 450,782 0.0630 295,151 0.01019 30,195,588 21,	2045	33	0.0630	366,066	0.01154	615,913	(249,847)
585,123 0.0630 317,115 0.01064 450,782 0.0630 295,151 0.01019 - 30,195,588 - Second SoBRA cost-effectiveness docket.	2046	33	0.0630	340,712	0.01105	513,470	(172,758)
450,782 0.0630 295,151 0.01019	2047	33	0.0630	317,115	0.01064	458,444	(141,330)
- 30,195,588 Second SoBRA cost-effectiveness docket.	2048	33	0.0630	295,151	0.01019	385,601	(90,450)
- 30,195,588 Second SoBRA cost-effectiveness docket.							
1. Factor based on Forecasted "All-in Delivered Cost" in 2019\$. 2. Fuel savings from the analysis prepared for the Second SoBRA cost-effectiveness docket.	NPV 2019 \$	-	-	30,195,588	•	21,981,124	8,214,464
	 Factor based on Forecaste Fuel savings from the anal 	d "All-in Delivered Cost" in 201 lysis prepared for the Second Sol	9\$. BRA cost-effectiveness docket				

A B C Year SSR-1 Program KWHs SSR-1 Rate 2019 18,786,915 0.0630 2021 18,786,915 0.0630 2022 18,636,920 0.0630 2023 18,488,123 0.0630 2024 18,448,171 0.0630 2025 18,448,171 0.0630 2026 18,267,152 0.0630 2027 18,194,083 0.0630 2028 18,121,307 0.0630 2030 17,946,526 0.0630 2031 17,904,720 0.0630 2032 17,833,101 0.0630 2033 17,760,730 0.0630	e (\$ NPV) SSR-1 Revenue (\$ NPV) 0.0630	E System-Wide Forecasted Delivered Fuel Rate (1) (NPV, 2019\$, \$/kWh) 0.02405 0.02189 0.01987 0.01987 0.01936 0.01936 0.01936 0.01936	F Avoided System Fuel Costs – 17.5 MW Lake Hancock (\$ NPV) 735,381 317,195 510,815 362,923 455,719 369,492 417,282	G SSR-1 Revenue less Avoided System Fuel Costs 17.5 MW Lake Hancock (\$ NPV) D-F 783,902 514,019 590,931 432,071 446,809
SSR-1 Program KWHs SSR-1 Rat 2019 18,786,915 2020 18,763,920 2021 18,636,920 2022 18,562,373 2024 18,414,171 2025 18,267,152 2026 18,267,152 2028 18,104,083 2029 18,048,822 2029 18,048,822 2030 17,976,626 2031 17,904,720 2033 17,600,723	SSR-1 Reve (\$ NPV]	System-Wide Forecasted Delivered Fuel Rate (1) (NPV, 2019\$, \$/kWh) 0.02405 0.02265 0.02189 0.01987 0.01987 0.01941 0.01936 0.01936 0.01936	Avoided Syste Costs – 17.5 M Hancock (\$ NPV)	SSR-1 Revenue less Avoided System Fuel Costs 17.5 MW Lake Hancock (\$ NPV) D-F 447,654 783,902 514,019 590,931 432,071 351,788
18,786,915 18,786,915 18,786,920 18,636,920 18,636,920 18,488,123 18,441,171 18,340,514 18,267,152 18,194,083 18,121,307 18,044,720 17,976,626 17,904,720 17,61,769	BxC 1	0.02405 0.02265 0.02189 0.01987 0.01956 0.01941 0.01936 0.01936		D-F 447,654 783,902 514,019 590,931 432,071 456,809 351,788
18,786,915 18,711,767 18,636,920 18,562,373 18,488,123 18,414,171 18,340,514 18,267,152 18,194,083 18,104,083 18,104,083 17,976,626 17,904,720 17,61,769		0.02405 0.02265 0.02189 0.02153 0.01987 0.01941 0.01936 0.01936 0.01897		447,654 783,902 514,019 590,931 432,071 456,809 351,788
18,711,767 18,636,920 18,562,373 18,414,171 18,340,514 18,267,152 18,121,307 18,104,083 18,104,083 17,976,626 17,976,626 17,976,626 17,976,626 17,963,101 17,61,769		0.02265 0.02189 0.02153 0.01987 0.01941 0.01936 0.01937 0.01897		783,902 514,019 590,931 432,071 456,809 351,788
18,636,920 18,562,373 18,488,123 18,414,171 18,340,514 18,267,152 18,194,083 18,121,307 18,048,822 17,976,626 17,904,720 17,561,769		0.02189 0.02153 0.01987 0.01956 0.01941 0.01936 0.01897 0.01864		514,019 590,931 432,071 456,809 351,788
18,562,373 18,488,123 18,414,171 18,340,514 18,267,152 18,194,083 18,121,307 18,048,822 17,976,626 17,904,720 17,904,720 17,61,769		0.02153 0.01987 0.01956 0.01941 0.01917 0.01897 0.01864		590,931 432,071 456,809 351,788
18,488,123 18,414,171 18,340,514 18,267,152 18,194,083 18,121,307 18,048,822 17,976,626 17,904,720 17,561,769		0.01987 0.01956 0.01941 0.01936 0.01897 0.01897		432,071 456,809 351,788 344,010
18,414,171 18,340,514 18,267,152 18,194,083 18,121,307 18,048,822 17,976,626 17,904,720 17,904,720 17,61,769		0.01956 0.01941 0.01936 0.01917 0.01897 0.01864		456,809 351,788 344,010
18,340,514 18,267,152 18,194,083 18,121,307 18,048,822 17,976,626 17,904,720 17,904,720 17,561,769		0.01941 0.01936 0.01917 0.01897 0.01864		351,788
18,267,152 18,194,083 18,121,307 18,048,822 17,976,626 17,904,720 17,833,101 17,61,769		0.01936 0.01917 0.01897 0.01864		344 010
18,194,083 18,121,307 18,048,822 17,976,626 17,904,720 17,833,101 17,761,769		0.01917 0.01897 0.01864	375,427	>+>6)
18,121,307 18,048,822 17,976,626 17,904,720 17,833,101 17,761,769		0.01897		290,801
18,048,822 17,976,626 17,904,720 17,833,101 17,761,769		0.01864	309,631	310,454
17,976,626 17,904,720 17,833,101 17,761,769			340,990	236,148
17,904,720 17,833,101 17,76,769		0.01837	388,153	149,011
17,833,101 17,761,769 777	0.0630 499,960	0.01806	325,457	174,503
17,761,769	0.0630 465,333	0.01768		123,767
17 690 777	0.0630 433,104	0.01716	574,755	(141,652)
17,020,122	0.0630 403,107	0.01667	302,901	100,205
2035 17,619,959	0.0630	0.01626	340,065	35,122
		0.01614	356,438	(7,237)
2037 17,479,281 0.00	0.0630 325,016	0.01593	444,318	(119,303)
17,409,364		0.01542		(11,057)
	0.0630 281,553	0.01497		(27,523)
2040 17,270,367 0.00	0.0630 262,053	0.01461	352,580	(90,527)
2041 17,201,286 0.00	0.0630 243,903	0.01413	417,808	(173,905)
2042 17,132,481 0.00	0.0630 227,010	0.01373	402,632	(175,622)
	0.0630 211,287	0.01278	298,625	(87,338)
2044 16,995,695 0.00	0.0630	0.01202	269,262	(72,608)
2045 16,927,712 0.00	0.0630 183,033	0.01154	307,956	(124,923)
2046 16,860,001 0.00	0.0630 170,356	0.01105	256,735	(86,379)
	0.0630	0.01064		(70,665)
2048 16,725,391 0.00	0.0630 147,576	0.01019	192,800	(45,225)
£ 0.00 7.82.4				4 40 20 20 4
NPV 2019 \$	- 15,097,794		10,990,562	4,107,232

		SSR-1 Program Reven	SSR-1 Program Revenue and Participants' Avoided System Fuel Costs 25% Subscription	ded System Fuel Costs		
A	В	C	D	E	F	Ð
Year	SSR-1 Program KWHs	SSR-1 Rate	SSR-1 Revenue (\$ NPV)	System-Wide Forecasted Delivered Fuel Rate (1) (NPV, 2019\$, \$/kWh)	Avoided System Fuel Costs – 17.5 MW Lake Hancock (\$ NPV)	SSR-1 Revenue less Avoided System Fuel Costs 17.5 MW Lake Hancock (\$ NPV)
			BxC			D-F
2019	9,393,458	0.0630	591,517	0.02405	367,690	223,827
2020	9,355,884	0.0630	550,548	0.02265	158,598	391,951
2021	9,318,460	0.0630	512,417	0.02189	255,408	257,010
2022	9,281,186	0.0630	476,927	0.02153	181,462	295,465
2023	9,244,062	0.0630	443,895	0.01987	227,859	216,035
2024	9,207,085	0.0630	413,150	0.01956	184,746	228,405
2025	9,170,257	0.0630	384,535	0.01941	208,641	175,894
2026	9,133,576	0.0630	357,902	0.01936	185,897	172,005
2027	9,097,042	0.0630	333,114	0.01917		145,400
2028	9,060,653	0.0630	310,042	0.01897	154,815	155,227
2029	9,024,411	0.0630	288,569	0.01864	170,495	118,074
2030	8,988,313	0.0630	268,582	0.01837	194,077	74,506
2031	8,952,360	0.0630	249,980	0.01806	162,729	87,252
2032	8,916,551	0.0630	232,666	0.01768	170,783	61,883
2033	8,880,884	0.0630	216,552	0.01716	287,378	(70,826)
2034	8,845,361	0.0630	201,553	0.01667	151,451	50,103
2035	8,809,979	0.0630	187,594	0.01626	170,032	17,561
2036	8,774,739	0.0630	174,601	0.01614	178,219	(3,618)
2037	8,739,640	0.0630	162,508	0.01593	222,159	(59,651)
2038	8,704,682	0.0630	151,253	0.01542	156,781	(5,528)
2039	8,669,863	0.0630	140,777	0.01497	154,538	(13,762)
2040	8,635,184	0.0630	131,026	0.01461	176,290	(45,263)
2041	8,600,643	0.0630	121,951	0.01413	208,904	(86,952)
2042	8,566,240	0.0630	113,505	0.01373	201,316	(87,811)
2043	8,531,975	0.0630	105,644	0.01278	149,313	(43,669)
2044	8,497,848	0.0630	98,327	0.01202	134,631	(36,304)
2045	8,463,856	0.0630	91,517	0.01154	153,978	(62,462)
2046	8,430,001	0.0630	85,178	0.01105	128,367	(43,189)
2047	8,396,281	0.0630	79,279	0.01064	114,611	(35,332)
2048	8,362,696	0.0630	73,788	0.01019	96,400	(22,612)
NPV 2019 \$	•	1	7,548,897	1	5,495,281	2,053,616
 Factor based on Forecasted "All-in Delivered C Fuel savings from the analysis prepared for the 		ost" in 2019\$. Second SoBRA cost-effectiveness docket.				

TAMPA ELECTRIC COMPANY
DOCKET NO. 20180204-EI
STAFF'S FIFTH DATA REQUEST
REQUEST NO. 5
BATES-STAMPED BAGES: 13 - 14

BATES-STAMPED PAGES: 13 - 14

FILED: MARCH 7, 2019

5. Explain how TECO determined weighted "All in Delivered Cost" annual data provided in response to No. 4.

A. Tampa Electric calculated the annual percentage change of the NPV system fuel costs from the 30-year cost analysis. The company applied the annual percentage change to the current fuel factor as a starting point, and then to the prior-year calculated fuel factor, to determine the projected fuel factor in each year. This information can be seen in the table on the following page.

	System Fuel NPV	Percent	Fuel Factor NPV
Year	(2019\$) (000)	Change	Calc
2019	618,846.67		0.02405
2020	582,814.57	-5.82%	0.02265
2021	563,169.50	-3.37%	0.02189
2022	554,067.87	-1.62%	0.02153
2023	511,290.49	-7.72%	0.01987
2024	503,199.46	-1.58%	0.01956
2025	499,556.92	-0.72%	0.01941
2026	498,131.27	-0.29%	0.01936
2027	493,338.48	-0.96%	0.01917
2028	488,188.66	-1.04%	0.01897
2029	479,751.49	-1.73%	0.01864
2030	472,684.98	-1.47%	0.01837
2031	464,644.59	-1.70%	0.01806
2032	454,888.25	-2.10%	0.01768
2033	441,581.98	-2.93%	0.01716
2034	429,004.05	-2.85%	0.01667
2035	418,330.44	-2.49%	0.01626
2036	415,390.34	-0.70%	0.01614
2037	409,973.38	-1.30%	0.01593
2038	396,663.37	-3.25%	0.01542
2039	385,237.17	-2.88%	0.01497
2040	375,872.16	-2.43%	0.01461
2041	363,694.02	-3.24%	0.01413
2042	353,184.78	-2.89%	0.01373
2043	328,889.95	-6.88%	0.01278
2044	309,285.06	-5.96%	0.01202
2045	296,994.03	-3.97%	0.01154
2046	284,445.35	-4.23%	0.01105
2047	273,685.81	-3.78%	0.01064
2048	262,230.58	-4.19%	0.01019