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December 3, 2014

VIA: ELECTRONIC FILING

Ms. Carlotta S. Stauffer **Commission Clerk** Florida Public Service Commission 2540 Shumard Oak Boulevard Tallahassee, Florida 32399-0850

> Petition of Tampa Electric Company Re: for Approval of Revised Lighting Tariff

Dear Ms. Stauffer:

Attached for filing in the above-styled matter is Tampa Electric Company's Petition for Approval of Revised Lighting Tariff.

Thank you for your assistance in connection with this matter.

Sincerely,

Jun Ober (James D. Beasley

JDB/pp Attachment FILED DEC 03, 2014 **DOCUMENT NO. 06569-14 FPSC - COMMISSION CLERK**

DOCKET NO. 140232-EI

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Petition of Tampa Electric Company) for Approval of Revised Lighting Tariff)

DOCKET NO. ______ FILED: December 3, 2014

TAMPA ELECTRIC COMPANY'S PETITION FOR APPROVAL OF <u>REVISED LIGHTING TARIFF</u>

Tampa Electric Company ("Tampa Electric" or "the company"), pursuant to Sections 366.06, Florida Statutes, and Rules 28-106.301 and 25-9.031, Florida Administrative Code, petitions the Florida Public Service Commission ("the Commission") to approve revisions to its Lighting Tariff. As grounds therefor, the company says:

1. The name, address, telephone number and facsimile number of the petitioner are:

Tampa Electric Company Post Office Box 111 Tampa, FL 33601 (813) 228-4111 (813) 228-1770 (fax)

2. Tampa Electric is an investor-owned public utility subject to the jurisdiction of

the Commission under Chapter 366, Florida Statutes.

3. All notices, pleadings and correspondence required to be served on the Petitioner

should be directed to:

James D. Beasley J. Jeffry Wahlen Ashley M. Daniels Ausley & McMullen Post Office Box 391 Tallahassee, FL 32302 (850) 224-9115 (850) 222-7960 (fax) jbeasley@ausley.com (email) Paula Brown, Manager Regulatory Coordination Tampa Electric Company Post Office Box 111 Tampa, FL 33602 (813) 228-1444 (813) 228-1770 (fax) regdept@tecoenergy.com (email) 4. In this petition, Tampa Electric seeks approval to close to new business all of the existing High Pressure Sodium (HPS) and Metal Halide (MH) outdoor lighting offerings as indicated with footnotes on Fourth Revised Tariff Sheet No. 6.805 and Second Revised Tariff Sheet No. 6.806 and add nine new light-emitting diode (LED) outdoor lighting offerings to the tariff as set forth on Second Revised Tariff Sheet No. 6.808. The aforementioned Revised Tariff Sheets are attached hereto in standard and legislative format as Exhibit "A" and Exhibit "B", respectively.

Background

5. Tampa Electric's Lighting Tariff currently includes lighting options for both roadway and outdoor area applications from three different lighting technologies, HPS, MH, and LED. The majority of fixtures currently installed on the company's lighting system are HPS. HPS technology is currently an economical lighting option for customers and was at one time the company's most energy-efficient lighting option. MH lighting options have the highest overall cost, the lowest efficiency, and lowest reliability of the company's current outdoor lighting options; however MH fixtures are often used in lighting applications for security and aesthetic reasons because of their desirable color-rendering characteristic. The relatively new LED fixture options were included in the tariff less than two years ago when the cost of LED fixtures began to become more competitive with certain MH options (LED also has a desirable color rendering characteristic) and in response to market desire that Tampa Electric provide this highly efficient technology as a lighting option.

6. LED technology is superior to the HPS and MH technologies in several ways. LED lighting is significantly more energy-efficient and more reliable than HPS and MH technology. Much like the MH lighting mentioned above, the white LED lighting renders truer color; however equally important the LED lighting provides more uniformity of foot-candles throughout the area of illumination than does MH lighting. MH lighting is very bright directly under the fixture, but that brightness quickly diminishes beyond that centering point producing bright and dimmer areas of illumination. In contrast, each individual light emitting diode within an LED fixture is positioned to direct its light towards a specific point within the area of illumination which results not only in a more uniform illumination, but also in less "stray" light which is the cause of lighting trespass issues common with HPS and MH lighting installations. Finally, unlike the bulbs used for HPS and MH lighting, LED fixtures and components are environmentally friendly involving no special disposal practices or costs. Based in part on these advantages and a drop in manufacturing costs as the LED technology has matured, it's not surprising that the outdoor lighting industry is retooling, moving away from manufacturing HPS and MH lighting fixtures and moving forward manufacturing LED lighting fixtures.

7. Market demand for LED outdoor lighting has seen a rapid rise in recent years, even with the higher cost of the early generation products. Several municipal customers within Tampa Electric's service area are currently subscribing to the company's existing LED options for street lighting, demanding additional LED street lighting options; and beginning to request conversion to LED fixtures of some of their existing HPS fixtures that are in service but have reached the end of their contract commitment. Some customers are requesting LED lighting in order to obtain certifications related to security, environment, or energy efficiency for their facilities. Other customers want LED lighting because it is more reliable resulting in fewer business disruptions for lighting repairs or replacements. Still others are drawn to the favorable color rendition and aiming characteristics of LED. And finally there are those who want LED lighting solely because it is viewed as a "green" choice. LED outdoor lighting is quickly becoming mainstream and the technology of choice for the market. 8. Lighting manufacturing industry representatives have informed Tampa Electric that over the next few years, many plants currently manufacturing HPS and MH lighting fixtures for utility use will close or be retooled to produce comparable LED products. As the HPS and MH products are phased-out, the costs of such fixtures and components are expected to increase substantially and future availability is uncertain due to this reduction in production capacity.

Requested Revisions

9. Tampa Electric requests approval in this petition to close all its existing HPS and MH fixtures to new business. The company will continue to maintain the currently installed fleet of HPS and MH fixtures providing lighting service to customers as long as the products are readily available from manufacturers for such purposes and will install new HPS or MH fixtures for customers who have signed a Bright Choices Outdoor Lighting Agreement prior to the closure date approved by the Commission with respect to this tariff request.

10. The company also seeks approval for nine new LED options: two floodlight, two decorative post-top, one area-lighter; two mongoose, and two roadway fixtures. The proposed fixtures include sizes and styles for street lighting application that are being requested by the company's municipal customers. Tampa Electric will be able to design lighting systems for the majority of the street and area lighting applications with these proposed LED fixtures and the eight LED fixtures currently offered in the tariff. As new LED products are developed in future years that the company believes are appropriate to offer and that meet market demand, Tampa Electric will request new LED tariff product offerings and associated pricing through petition to the Commission for inclusion in the tariff.

11. The rapidly growing but relatively new LED industry has yet to standardize the wattages of the manufactured products and this lack of standardization becomes an obstacle when calculating the energy consumption of interchangeable lights. Tampa Electric attempts to

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secure at least two manufacturers for each option offered in the tariff to ensure reliable service for customers subscribing to the service; however the wattage of two similar-sized LED fixtures with similar lighting patterns can vary from five to ten watts. The company is proposing to use the mid-point of the interchangeable fixtures' wattage ranges in calculating the monthly energy consumption of each fixture for billing purposes.

12. The proposed fixture and maintenance rates for the new LED offerings are designed to take into account cost of service and other recognized ratemaking criteria.

13. This is a transformational moment in the outdoor lighting portion of Tampa Electric's business. The company does not make this proposed change without a great deal of thought and review of the entire outdoor lighting business, a business that arguably was the first business it entered into 115 years ago. Tampa Electric is reflecting both market demand, business dynamics and public policy change in this request and looks forward to a brighter future in providing the outdoor lighting products and services that our customers expect and demand.

14. Tampa Electric knows of no disputed issues of material fact relative to the lighting tariff revisions proposed herein.

WHEREFORE, Tampa Electric requests that this Commission approve the closing to new business of the HPS and MH lighting fixtures on Tariff Sheet Nos. 6.805 and 6.806 and the addition of the new LED lighting fixtures on Tariff Sheet No. 6.808 as set forth in Exhibit "A". The company requests that such approval be made effective at the expiration of the appropriate notice period pertaining to tariff modifications.

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DATED this 3rd day of December 2014.

Respectfully submitted,

Juncober by

JAMES D. BEASLEY J. JEFFRY WAHLEN ASHLEY M. DANIELS Ausley & McMullen Post Office Box 391 Tallahassee, FL 32302 (850) 224-9115

ATTORNEYS FOR TAMPA ELECTRIC COMPANY

EXHIBIT "A"



FOURTH REVISED SHEET NO. 6.805 **CANCELS THIRD REVISED SHEET NO. 6.805**

Continued from Sheet No. 6.800

MONTHLY RATE:

High Pressure Sodium Fixture, Maintenance, and Base Energy Charges:

				Cł	narges per Unit (\$)					
Rate	Code				kWh				Base B	Energy
Dusk					Dusk				Dusk	
to Dawn	Timed Svc.	Description	Initial Lumens ⁽²⁾	Lamp Wattage ⁽³⁾	to Dawn	Timed Svc.	Fixture	Maint.	to Dawn	Timed Svc.
800	860	Cobra ⁽¹⁾	4,000	50	20	10	2.85	2.24	0.49	0.25
802	862	Cobra/Nema ⁽¹⁾	6,300	70	29	14	2.89	1.90	0.71	0.34
803	863	Cobra/Nema ⁽¹⁾	9,500	100	44	22	3.28	2.10	1.08	0.54
804	864	Cobra ⁽¹⁾	16,000	150	66	33	3.77	1.82	1.62	0.81
805	865	Cobra ⁽¹⁾	28,500	250	105	52	4.40	2.35	2.59	1.28
806	866	Cobra ⁽¹⁾	50,000	400	163	81	4.59	2.70	4.01	1.99
468	454	Flood ⁽¹⁾	28,500	250	105	52	4.85	2.35	2.59	1.28
478	484	Flood ⁽¹⁾	50,000	400	163	81	5.15	2.71	4.01	1.99
809	869	Mongoose ⁽¹⁾	50,000	400	163	81	5.87	2.73	4.01	1.99
509	508	Post Top (PT) ⁽¹⁾	4,000	50	20	10	3.59	2.24	0.49	0.25
570	530	Classic PT ⁽¹⁾	9,500	100	44	22	10.70	1.71	1.08	0.54
810	870	Coach PT ⁽¹⁾	6,300	70	29	14	4.25	1.90	0.71	0.34
572	532	Colonial PT ⁽¹⁾	9,500	100	44	22	10.61	1.71	1.08	0.54
571	531	Contemporary PT ⁽¹⁾	9,500	100	44	22	7.48	1.93	1.08	0.54
573	533	Salem PT ⁽¹⁾	9,500	100	44	22	8.15	1.71	1.08	0.54
550	534	Shoebox ⁽¹⁾	9,500	100	44	22	7.23	1.71	1.08	0.54
566	536	Shoebox ⁽¹⁾	28,500	250	105	52	7.84	2.87	2.59	1.28
552	538	Shoebox ⁽¹⁾	50,000	400	163	81	8.59	2.20	4.01	1.99

⁽¹⁾ Closed to new business
⁽²⁾ Lumen output may vary by lamp configuration and age.
⁽³⁾ Wattage ratings do not include ballast losses.



SECOND REVISED SHEET NO. 6.806 CANCELS FIRST REVISED SHEET NO. 6.806

Continued from Sheet No. 6.805

MONTHLY RATE:

Metal Halide Fixture, Maintenance, and Base Energy Charges:

			Lamp Size				С	Charges per Unit (\$)			
Rate	Code				kWh				Base I	Energy	
Dusk to Dawn	Timed Svc.	Description	Initial Lumens ⁽²⁾	Lamp Wattage ⁽³⁾	Dusk to Dawn	Timed Svc.	Fixture	Maint.	Dusk to Dawn	Timed Svc.	
704	724	Cobra ⁽¹⁾	29,700	350	138	69	6.80	4.50	3.40	1.70	
520	522	Cobra ⁽¹⁾	32,000	400	159	79	5.44	3.62	3.91	1.94	
705	725	Flood ⁽¹⁾	29,700	350	138	69	7.72	4.55	3.40	1.70	
556	541	Flood ⁽¹⁾	32,000	400	159	79	7.55	3.63	3.91	1.94	
558	578	Flood ⁽¹⁾	107,800	1,000	383	191	9.48	7.37	9.43	4.70	
701	721	General PT ⁽¹⁾	12,000	150	67	34	9.57	3.54	1.65	0.84	
574	548	General PT ⁽¹⁾	14,400	175	74	37	9.83	3.37	1.82	0.91	
700	720	Salem PT ⁽¹⁾	12,000	150	67	34	8.42	3.54	1.65	0.84	
575	568	Salem PT ⁽¹⁾	14,400	175	74	37	8.47	3.38	1.82	0.91	
702	722	Shoebox ⁽¹⁾	12,000	150	67	34	6.52	3.54	1.65	0.84	
564	549	Shoebox ⁽¹⁾	12,800	175	74	37	7.18	3.34	1.82	0.91	
703	723	Shoebox ⁽¹⁾	29,700	350	138	69	8.62	4.45	3.40	1.70	
554	540	Shoebox ⁽¹⁾	32,000	400	159	79	9.04	3.58	3.91	1.94	
576	577	Shoebox ⁽¹⁾	107,800	1,000	383	191	14.89	7.37	9.43	4.70	

⁽¹⁾ Closed to new business
⁽²⁾ Lumen output may vary by lamp configuration and age.
⁽³⁾ Wattage ratings do not include ballast losses.



SECOND REVISED SHEET NO. 6.808 CANCELS FIRST REVISED SHEET NO. 6.808

Continued from Sheet No. 6.806

MONTHLY RATE:

LED Fixture, Maintenance, and Base Energy Charges:

Size				Size			Charges per Unit (\$)			
Rate	Code				kW	h ⁽¹⁾			Base E	nergy
Dusk to Dawn	Timed Svc.	Description	Initial Lumens ⁽¹⁾	Lamp Wattage ⁽²⁾	Dusk to Dawn	Timed Svc.	Fixture	Maintenance	Dusk to Dawn	Timed Svc.
828	848	Roadway	5,155	56	20	10	6.56	1.57	0.49	0.25
820	840	Roadway	7,577	103	36	18	10.06	1.07	0.89	0.44
821	841	Roadway	8,300	106	37	19	10.06	1.08	0.91	0.47
829	849	Roadway	15,285	157	55	27	10.02	2.04	1.35	0.66
822	842	Roadway	15,300	196	69	34	13.16	1.14	1.70	0.84
823	843	Roadway	14,831	206	72	36	15.16	1.25	1.77	0.89
835	855	Post Top	5,176	60	21	11	14.92	2.06	0.52	0.27
824	844	Post Top	3,974	67	24	12	17.75	1.39	0.59	0.30
825	845	Post Top	6,030	99	35	17	18.51	1.41	0.86	0.42
836	856	Post Top	7,360	100	35	18	15.07	2.06	0.86	0.44
830	850	Area-Lighter	14,100	152	53	27	13.40	2.27	1.30	0.66
826	846	Area-Lighter	13,620	202	71	35	17.24	1.27	1.75	0.86
827	847	Area-Lighter	21,197	309	108	54	18.59	1.40	2.66	1.33
831	851	Flood	22,122	238	83	42	14.35	3.11	2.04	1.03
832	852	Flood	32,087	359	126	63	17.29	3.70	3.10	1.55
833	853	Mongoose	24,140	245	86	43	13.28	2.74	2.12	1.06
834	854	Mongoose	32,093	328	115	57	14.72	3.25	2.83	1.40

 $^{(1)}_{(2)}\,$ Average $^{(2)}\,$ Average wattage. Actual wattage may vary by up to +/- 5 watts.

EXHIBIT "B"



THIRD FOURTH REVISED SHEET NO. 6.805 CANCELS SECOND THIRD REVISED SHEET NO. 6.805

Continued from Sheet No. 6.800

MONTHLY RATE:

High Pressure Sodium Fixture, Maintenance, and Base Energy Charges:

				Cł	Charges per Unit (\$)					
									el -Base	
	Code					Vh				ergy
Dusk	T ion e el		1	Lamp Wattage ^{(4<u>3</u>}	Dusk	Time			Dusk	Time
to Dawn	Timed Svc.	Description	Initial Lumens ⁽³²⁾		to Dawn	Timed Svc.	Fixture	Maint.	to Dawn	Timed Svc.
	••••	2000			20111	••••			24	0.01
800	860	Cobra ⁽¹⁾	4,000	50	20	10	2.85	2.24	0.49	0.25
802	862	Cobra/Nema ⁽¹⁾	6,300	70	29	14	2.89	1.90	0.71	0.34
803	863	Cobra/Nema ⁽²¹⁾	9,500	100	44	22	3.28	2.10	1.08	0.54
804	864	Cobra ⁽¹⁾	16,000	150	66	33	3.77	1.82	1.62	0.81
805	865	Cobra ⁽¹⁾	28,500	250	105	52	4.40	2.35	2.59	1.28
806	866	Cobra ⁽¹⁾	50,000	400	163	81	4.59	2.70	4.01	1.99
468	454	Flood ⁽¹⁾	28,500	250	105	52	4.85	2.35	2.59	1.28
478	484	Flood ⁽¹⁾	50,000	400	163	81	5.15	2.71	4.01	1.99
809	869	Mongoose ⁽¹⁾	50,000	400	163	81	5.87	2.73	4.01	1.99
509	508	Post Top (PT) ⁽¹⁾	4,000	50	20	10	3.59	2.24	0.49	0.25
570	530	Classic PT ⁽¹⁾	9,500	100	44	22	10.70	1.71	1.08	0.54
810	870	Coach PT ⁽¹⁾	6,300	70	29	14	4.25	1.90	0.71	0.34
572	532	Colonial PT ⁽¹⁾	9,500	100	44	22	10.61	1.71	1.08	0.54
571	531	Contemporary PT ⁽¹⁾	9,500	100	44	22	7.48	1.93	1.08	0.54
573	533	Salem PT ⁽¹⁾	9,500	100	44	22	8.15	1.71	1.08	0.54
550	534	Shoebox ⁽¹⁾	9,500	100	44	22	7.23	1.71	1.08	0.54
566	536	Shoebox ⁽¹⁾	28,500	250	105	52	7.84	2.87	2.59	1.28
552	538	Shoebox ⁽¹⁾	50,000	400	163	81	8.59	2.20	4.01	1.99

⁽¹⁾ Closed to new business

⁽²⁾ Nema fixture is closed to new business. 100 Watt Cobra fixture is still available.

⁽³²⁾ Lumen output may vary by lamp configuration and age.
⁽⁴²⁾ Wattage ratings do not include ballast losses.



FIRST SECOND REVISED SHEET NO. 6.806 CANCELS ORIGINAL FIRST REVISED SHEET NO. 6.806

Continued from Sheet No. 6.805

MONTHLY RATE:

Metal Halide Fixture, Maintenance, and Base Energy Charges:

				С	Charges per Unit (\$)					
Rate	Code				kWh					el Base ergy
Dusk to Dawn	Timed Svc.	Description	Initial Lumens ⁽²⁾	Lamp Wattage ⁽³⁾	Dusk to Dawn	Timed Svc.	Fixture	Maint.	Dusk to Dawn	Timed Svc.
704	724	Cobra ⁽¹⁾	29,700	350	138	69	6.80	4.50	3.40	1.70
520	522	Cobra ⁽¹⁾	32,000	400	159	79	5.44	3.62	3.91	1.94
705	725	Flood ⁽¹⁾	29,700	350	138	69	7.72	4.55	3.40	1.70
556	541	Flood ⁽¹⁾	32,000	400	159	79	7.55	3.63	3.91	1.94
558	578	Flood ⁽¹⁾	107,800	1,000	383	191	9.48	7.37	9.43	4.70
701	721	General PT ⁽¹⁾	12,000	150	67	34	9.57	3.54	1.65	0.84
574	548	General PT ⁽¹⁾	14,400	175	74	37	9.83	3.37	1.82	0.91
700	720	Salem PT ⁽¹⁾	12,000	150	67	34	8.42	3.54	1.65	0.84
575	568	Salem PT ⁽¹⁾	14,400	175	74	37	8.47	3.38	1.82	0.91
702	722	Shoebox ⁽¹⁾	12,000	150	67	34	6.52	3.54	1.65	0.84
564	549	Shoebox ⁽¹⁾	12,800	175	74	37	7.18	3.34	1.82	0.91
703	723	Shoebox ⁽¹⁾	29,700	350	138	69	8.62	4.45	3.40	1.70
554	540	Shoebox ⁽¹⁾	32,000	400	159	79	9.04	3.58	3.91	1.94
576	577	Shoebox ⁽¹⁾	107,800	1,000	383	191	14.89	7.37	9.43	4.70

⁽¹⁾ Closed to new business
⁽²⁾ Lumen output may vary by lamp configuration and age.
⁽³⁾ Wattage ratings do not include ballast losses.



FIRST_SECOND REVISED SHEET NO. 6.808 CANCELS ORIGINAL_FIRST REVISED SHEET NO. 6.808

Continued from Sheet No. 6.806

MONTHLY RATE:

LED Fixture, Maintenance, and Base Energy Charges:

				Lamp Siz							
Rate	Code				kW	ь <u>(1)</u>			Non-Fu Ene		
Dusk	Coue				Dusk				Dusk	igy	
to	Timed		Initial	Lamp	to	Timed			to	Timed	
Dawn	Svc.	Description	Lumens ⁽¹⁾	Wattage ⁽²⁾	Dawn	Svc.	Fixture	Maintenance	Dawn	Svc.	
<u>828</u>	848	Roadway	5,155	_ <u>56</u>		10	<u>6.56</u>	1.57	0.49	<u>0.25</u>	
					<u>20</u>	<u>10</u>					
820	840	Roadway	7,577	103	_36	18	10.06	1.07	0.89	0.44	
821	841	Roadway	8,300	106	_37	19	10.06	1.08	0.91	0.47	
<u>829</u>	<u>849</u>	<u>Roadway</u>	<u>15,285</u>	<u>157</u>	<u>55</u>	<u>27</u>	<u>10.02</u>	<u>2.04</u>	<u>1.35</u>	<u>0.66</u>	
822	842	Roadway	15,300	196	_69	34	13.16	1.14	1.70	0.84	
823	843	Roadway	14,831	206	_72	36	15.16	1.25	1.77	0.89	
<u>835</u>	<u>855</u>	Post Top	<u>5,176</u>	<u> 60</u>	<u>21</u>	<u>11</u>	<u>14.92</u>	<u>2.06</u>	<u>0.52</u>	<u>0.27</u>	
824	844	Post Top	3,974	_67	_24	12	17.75	1.39	0.59	0.30	
825	845	Post Top	6,030	_99	_35	17	18.51	1.41	0.86	0.42	
<u>836</u>	<u>856</u>	Post Top	7,360	<u>100</u>	<u>35</u>	<u>18</u>	<u>15.07</u>	<u>2.06</u>	<u>0.86</u>	<u>0.44</u>	
<u>830</u>	<u>850</u>	Area-Lighter	<u>14,100</u>	<u>152</u>	<u>53</u>	<u>27</u>	<u>13.40</u>	<u>2.27</u>	<u>1.30</u>	<u>0.66</u>	
826	846	Area-Lighter	13,620	202	_71	35	17.24	1.27	1.75	0.86	
827	847	Area-Lighter	21,197	309	108	54	18.59	1.40	2.66	1.33	
<u>831</u>	<u>851</u>	<u>Flood</u>	<u>22,122</u>	<u>238</u>	<u>83</u>	<u>42</u>	<u>14.35</u>	<u>3.11</u>	<u>2.04</u>	<u>1.03</u>	
<u>832</u>	<u>852</u>	<u>Flood</u>	<u>32,087</u>	<u>359</u>	<u>126</u>	<u>63</u>	<u>17.29</u>	<u>3.70</u>	<u>3.10</u>	<u>1.55</u>	
<u>833</u>	<u>853</u>	Mongoose	<u>24,140</u>	<u>245</u>	86	<u>43</u>	<u>13.28</u>	<u>2.74</u>	<u>2.12</u>	<u>1.06</u>	
<u>834</u>	<u>854</u>	<u>Mongoose</u>	<u>32,093</u>	<u>328</u>	<u>115</u>	<u>57</u>	<u>14.72</u>	<u>3.25</u>	<u>2.83</u>	<u>1.40</u>	

(1) Average

⁽²⁾ Average wattage. Actual wattage may vary by up to +/- 5 watts.