State of Florida

Public Service Commission

CAPITAL CIRCLE OFFICE CENTER • 2540 SHUMARD OAK BOULEVARD
TALLAHASSEE, FLORIDA 32399-0850

-M-E-M-O-R-A-N-D-U-M-

DATE: January 22, 2015

TO: Office of Commission Clerk (Stauffer)

FROM: Division of Economics (Garl)
Office of the General Counsel (Brownless)

RE: Docket No. 140232-EI – Petition for approval of revised lighting tariff by Tampa Electric Company.

AGENDA: 02/03/15 – Regular Agenda – Tariff Filing – Interested Persons May Participate

COMMISSIONERS ASSIGNED: All Commissioners

PREHEARING OFFICER: Administrative

CRITICAL DATES: 02/03/~~04~~ (60-Day Suspension Date)

SPECIAL INSTRUCTIONS: None

Case Background

On December 3, 2014, Tampa Electric Company (TECO or company) filed a petition requesting Commission approval to close to new customers all of the existing High Pressure Sodium (HPS) and Metal Halide (MH) outdoor lighting offerings. The proposed closing would result in TECO offering only light emitting diode (LED) technology to new outdoor lighting customers. In addition, TECO proposed adding nine new LED fixtures to the current LED tariff. The proposed tariff revisions are included as Attachment 1 to this recommendation.

The Commission first approved TECO's LED lighting tariff in Order No. PSC-13-0138-FOF-EI.[1] The Commission has jurisdiction over this matter pursuant to Section 366.06(1), Florida Statutes (F.S.).

[1] Order No. PSC-13-0138-FOF-EI, issued March 25, 2013, in Docket No. 130019-EI, In re: Petition for approval of revised lighting tariffs by Tampa Electric Company.

Discussion of Issues

Issue 1: Should the Commission approve TECO's revised lighting tariff?

Recommendation: Yes. The Commission should approve TECO's revised lighting tariff. (Garl)

Staff Analysis: TECO requested approval in its petition to close the existing HPS and MH fixtures tariff to new customers and to add nine new LED fixtures to its current tariff.

Closure of HPS and MH fixtures. TECO explained in its petition that in the few short years since the company began studying LED outdoor lighting, the technology and its pricing have evolved to the point that LED lighting is now the preferred solution for roadway and outdoor area applications. The company also stated that 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 and provides for more uniform illumination. In addition, unlike the bulbs used for HPS and MH lighting, LED fixtures and components are environmentally friendly involving no special disposal practices or costs.

TECO reported that 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 TECO's service area are currently subscribing to the company's LED tariff for street lighting. Those customers are also demanding additional LED street lighting options and are 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.

In addition to the efficiency benefits, TECO listed four additional reasons customers are requesting to change to LED lighting:

- Obtaining certifications relating to security, environment, or energy efficiency;
- Better reliability resulting in fewer business disruptions for lighting repairs or replacements;
- Favorable color rendition and aiming characteristics; and
- LED lighting is viewed as a "green" choice.

TECO also reported that lighting manufacturing industry representatives have informed the company 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. The proposed closure of the HPS and MH fixtures is shown on tariff sheets 6.805 and 6.806 (Attachment 1, pages 1 and 2).

New LED fixtures. While proposing to close the HPS and MH tariffs to new customers, TECO also proposed to add nine new LED fixtures: two floodlight, two decorative post-top, one area-lighter, two mongoose, and two roadway fixtures. The charges for the new LED lighting fixtures are comprised of three components: a fixture charge, a maintenance charge, and a non-fuel energy charge, consistent with TECO's current other lighting options. The new LED fixtures and associated charges are shown on tariff Sheet 6.808 (Attachment 1, page 3). In conjunction with its petition TECO submitted supporting cost information that included a presentation of the following: individual tariff calculations; installation, maintenance, labor and vehicle costs; overhead cost factors; and monthly energy consumption charges. Staff reviewed the cost information submitted with TECO's petition and believes the charges are reasonable and appropriate.

Conclusion. Staff confirmed TECO's observations about the desirability of LED lighting based on information provided by the U.S. Energy Information Agency (EIA). In a November 4, 2014 report, EIA stated,

> Improvements in lighting technology for light-emitting diode (LED) bulbs have increased lighting efficiency, or efficacy, as well as color quality. In September of this year, several manufacturers released ENERGY STAR®-qualified bulbs surpassing 100 lumens per watt. For comparison, traditional incandescent bulbs, which do not meet current light bulb efficiency standards and are no longer sold, provide 13 to 18 lumens per watt.
>
> When first introduced, LED bulbs were far more expensive than other bulbs, but their costs have since come down dramatically. Even now, however, they are often the most expensive bulbs on the shelf, but their much longer lifetimes and lower power draw can economically justify the higher initial cost.[2]

For the reasons discussed above, staff recommends approval of TECO's revised lighting tariff.

[2] U.S. Energy Information Administration website report, "LED light bulbs keep improving in efficiency and quality", November 4, 2014, http://www.eia.gov/todayinenergy/detail.cfm?id=18671&src=email.

Issue 2: Should this docket be closed?

Recommendation: Yes. If Issue 1 is approved, the tariffs should become effective on February 3, 2015. If a protest is filed within 21 days of the issuance of the order, the tariffs should remain in effect, with any revenues held subject to refund, pending resolution of the protest. If no timely protest is filed, this docket should be closed upon the issuance of a consummating order. (Brownless)

Staff Analysis: If Issue 1 is approved, the tariffs should become effective on February 3, 2015. If a protest is filed within 21 days of the issuance of the order, the tariffs should remain in effect, with any revenues held subject to refund, pending resolution of the protest. If no timely protest is filed, this docket should be closed upon the issuance of a consummating order.

TAMPA ELECTRIC

~~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:

Rate Code		Description	Lamp Size				Charges per Unit ($)			
					kWh				~~Non-Fuel~~ Base Energy	
Dusk to Dawn	Timed Svc.		Initial Lumens[42]	Lamp Wattage[43]	Dusk to Dawn	Timed Svc.	Fixture	Maint.	Dusk 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[~~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
~~(21) Nema fixture is closed to new business. 100 Watt Cobra fixture is still available.~~
(42) Lumen output may vary by lamp configuration and age.
(43) Wattage ratings do not include ballast losses.

Continued to Sheet No. 6.806

ISSUED BY: G. L. Gillette, President

DATE EFFECTIVE: ~~May 18, 2010~~

TAMPA ELECTRIC

~~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:

Rate Code			Lamp Size				Charges per Unit ($)			
					kWh				~~Non Fuel~~ Base 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.

Continued to Sheet No. 6.808

ISSUED BY: G. L. Gillette, President

DATE EFFECTIVE: ~~March 5, 2013~~

TAMPA ELECTRIC

~~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:

Rate Code			~~Lamp~~ Size				Charges per Unit ($)			
					kWh[1]				~~Non Fuel~~ Base Energy	
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] Average
[2] Average wattage. Actual wattage may vary by up to +/- 5 watts.

Continued to Sheet No. 6.810

ISSUED BY: G. L. Gillette, President

DATE EFFECTIVE: ~~November 1, 2013~~