DOCKET NO. 20170198-EI

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September 5, 2017

VIA: ELECTRONIC FILING

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

> Re: Petition of Tampa Electric Company to Close to New Business all Existing Lighting Rates and Approve new LED Lighting Rates and Tariffs for a Street and Outdoor Lighting Conversion Program

Dear Ms. Stauffer:

Attached for filing in the above-styled matter is the Petition of Tampa Electric Company for a Street and Outdoor Lighting Conversion Program.

Thank you for your assistance in connection with this matter.

Sincerely,

James D. Beasley

JDB/pp Attachment

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Petition of Tampa Electric Company) to Close to New Business all Existing Lighting) Rates and Approve New LED Lighting Rates) and Tariffs for a Street and Outdoor Lighting) <u>Conversion Program</u>) DOCKET NO. _____

FILED: September 5, 2017

PETITION OF TAMPA ELECTRIC COMPANY FOR A STREET AND OUTDOOR LIGHTING CONVERSION PROGRAM

Tampa Electric Company ("Tampa Electric" or "the company"), pursuant to Sections 366.04, 366.05 and 366.06, Florida Statutes, and Rule 25-6.033, Florida Administrative Code, petitions the Florida Public Service Commission ("Commission") for approval of rate and retail tariff changes associated with a Street and Outdoor Lighting Conversion Program") and, in support thereof, says:

1. Tampa Electric is an investor owned electric utility subject to the Commission's jurisdiction pursuant to Chapter 366, Florida Statutes. Tampa Electric serves retail customers in Hillsborough and portions of Polk, Pinellas and Pasco Counties in Florida. The company's principal offices are located at 702 N. Franklin Street, Tampa, FL 33602.

2. The persons to whom all notices and other documents should be sent in connection with this docket are:

James D. Beasley jbeasley@ausley.com J. Jeffry Wahlen jwahlen@ausley.com Ausley McMullen Post Office Box 391 Tallahassee, FL 32302 (850) 224-9115 (850) 222-7560 (fax) Paula K. Brown <u>regdept@tecoenergy.com</u> Manager, Regulatory Coordination Tampa Electric Company Post Office Box 111 Tampa, FL 33601 (813) 228-1444 (813) 228-1770 (fax)

Background

3. The general lighting market is comprised of both indoor and outdoor lighting products that cover a wide range of residential, commercial, industrial and outdoor applications. Residential lighting accounts for 71 percent of the overall units in use across all applications, however it accounts for only 25 percent of the lighting energy consumption. Commercial, industrial and outdoor lighting by contrast account for 75 percent of total lighting energy consumption while only accounting for 29 percent of the total lighting units in use. Light Emitting Diode ("LED") is a light delivery technology developed in the 1960s but only brought to market in the early 2000s. Commercial and industrial sectors that operate in competitive business environments have rapidly adopted LED technology as the reliability and the low energy requirement of the technology allows for a lower cost of ownership as compared to other lighting technologies. Over the last five years the cost of LED fixtures, which had been much higher than for High Pressure Sodium ("HPS") and Metal Halide ("MH") technologies, have decreased substantially. Increased manufacturing scale has provided manufacturers the ability to achieve competitive pricing for LED by reducing their respective cost of goods, and coupled with the energy efficiency of the product, has fueled a rapid adoption of this technology by the commercial and industrial sectors due to its overall competitive cost of ownership.

4. Tampa Electric currently provides tariffed outdoor lighting service to customers utilizing three lighting technologies: HPS, MH and LED. LED fixtures are currently the only lighting service Tampa Electric provides for new customers with both HPS and MH service closed to new business. Those two technologies and their associated Tampa Electric tariff offerings were closed in Docket No. 20140232-EI under Order No. PSC-2015-0094-TRF-EI. However, customers who were receiving service under HPS and MH were grandfathered in and continue to

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receive such service today. Tampa Electric currently owns and maintains approximately 242,000 leased lighting fixtures of which 223,000 are actively billing with approximately 6 percent delivered by LED. Approximately 35 percent of Tampa Electric's lighting services are delivered to government customers within the company's service territory, primarily for roadway lighting. Tampa Electric anticipates that the proposed Lighting Conversion Program will foster greater customer awareness of the LED product offering, thereby increasing demand and quantity of actively billed accounts.

5. As Tampa Electric outlined at the time its HPS and MH offerings were closed to new service, LED service is significantly more energy efficient and more reliable than HPS and In addition, LED provides more uniformity of foot-candles throughout the area of MH. illumination and results in less "stray" light, which is the cause of lighting trespass issues common with HPS and MH. As the LED technology has matured since that docket, manufacturing costs of LED (which initially were high compared to HPS and MH) have substantially declined. Additionally, the entire outdoor lighting manufacturing industry is retooling and moving away from manufacturing HPS and MH lighting fixtures. This affects Tampa Electric's ability to acquire from manufacturers and provide replacement parts and fixtures for the current grandfathered HPS and MH customers. Additionally, the costs for such parts are rising significantly because so few are being produced. LEDs have fewer failures across a defined period of time than other lighting technologies. Unlike HPS and MH products that require ballasts and starting aids, LEDs utilize fewer operational parts and therefore have fewer components that can fail and cause an outage. LEDs also have fewer heat failures since they generally operate closer to ambient temperatures.

Market demand for LED has now grown to the point where customers are not only demanding LED fixtures for new outdoor service, but are demanding it for replacement of existing HPS and MH fixtures – particularly in groups of fixtures and strings of street lighting. In addition, regulatory decisions at the federal level are resulting in HPS and MH product lines being phased out. For example, the Metal Halide Ballast ruling, under the Energy Independence & Securities Act, was made final on January 1, 2014. That rule required that all MH ballasts ranging from 50 W to 1,000 W achieve a greater level of energy efficiency by February 1, 2017. Additionally, previous loopholes exempting certain wattage types from compliance were eliminated. In response, manufacturers have chosen to cancel MH product lines rather than make investments into products with rapidly declining market demand.

Lighting Market Trends

6. LED lighting products have rapidly cannibalized the market share previously occupied by HPS and MH lighting products. This market trend is most apparent in the transition of product sales away from non-LED lighting products to LED products. Based upon manufacturer interviews in 2010, 15 percent of outdoor lighting revenues came from LED products. Manufacturers now expect that 80 percent of lighting revenues will come from LED products in 2017. Manufacturing capacities are following these sales trends and are migrating towards LED products. Outdoor lighting product manufacturers are heavily investing in LED assembly line tooling while at the same time retiring fully depreciated HPS and MH tooling equipment. This shift in manufacturing capacity causes HPS and MH parts to increase in price while LED product prices have decreased.

7. Over the past three years, to ensure lighting customers receive a reliable and maintainable service, Tampa Electric has navigated 131 product cancellations across both MH and HPS parts. Suppliers informed Tampa Electric that all MH products are cancelled as of January 1, 2017 and those suppliers estimate that HPS product could be unavailable by as early as 2022. Customers that desire an outdoor fixture for roadway or parking lot lighting in Tampa Electric's service area have a choice when it comes to lighting equipment providers. Because Tampa Electric's regulated lighting business operates within a competitive business environment, Tampa Electric must react and respond to the increasingly competitive and dynamic market environment.

Requested Program

8. In this docket, in conjunction with a Petition for Street and Outdoor Lighting Conservation Program, being filed concurrently, Tampa Electric is requesting Commission approval of a Street and Outdoor Lighting Conversion Program, which would convert of all its actively billing non-LED lighting facilities currently installed in the company's service territory to LED service over the next five years.

9. This Lighting Conversion Program has several elements. It includes closing the existing LED tariff rates to new business and approval of new LED tariff rates for new LEDs that, when implemented utilizing the reduced energy consumption associated with the LED fixtures, would produce comparable bills to the HPS and MH bills that grandfathered customers currently pay for lighting service. The proposed fixtures include wattages and styles that will offer aesthetic and application equivalency for current HPS and MH installations. The existing HPS and MH tariff rates would continue in effect for customers who have not yet been converted to LED, and when all such customers have been converted, Tampa Electric would seek tariff changes to remove

those closed to new business rates from its tariff. Existing LED fixtures would be replaced with new LED fixtures upon failure.

10. Additionally, these new LED fixtures will utilize a next generation photocell, called a Networked Lighting Controller ("NLC"), that not only contains a photocell to control the on-atdusk and off-at-dawn service of the LED fixtures (as the prior generation of photoelectric eyes utilized by the HPS and MH fixtures do) but also has embedded wireless communication technology that will enable Tampa Electric to remotely sense maintenance and outage events for those fixtures and can provide remote turn on, turn off, or dimming capabilities of the fixtures. The NLC can also measure real-time operational parameters such as input voltage, current, power factor, energy consumption, Global Positioning System ("GPS") location, and frequency and can report such measurements back to Tampa Electric through its communication network. Historically and by tariff, Tampa Electric has relied on its customer base to alert the company through phone or webform of outages by identifying the asset's pole tag number or address location. By sensing outage events, the installed and network connected NLCs will provide an immediate awareness of lighting service outages and greatly enhance associated restoration response.

11. As explained in greater detail in Tampa Electric's Petition for Approval of Conservation Street and Outdoor Lighting Conversion Program, filed on September 5, 2017, the conversion of the existing HPS and MH fixtures to LED technology provides conservation benefits to the Tampa Electric system such that recovery of the undepreciated remaining book value of the HPS and MH fixtures through the conservation clause is cost effective, in the same way the recovery of such undepreciated book value occurred when Tampa Electric converted its fleet of Mercury Vapor ("MV") outdoor lighting to HPS in the 1980s was cost effective. In addition, Tampa Electric is requesting that a capital recovery schedule be established to enable the timely accounting treatment of the fixtures that are being retired as a result of the cost recovery through the conservation program.

Lighting Conversion Program Proposal

12. The proposal to convert HPS and MH fixtures to LED fixtures is very similar to the Commission approved program from 1980 to convert MV fixtures to HPS fixtures. That program, approved in Docket No. 198000701-EG, included conservation cost recovery of removal costs and unamortized lighting plant. At that time, nearly 85,000 MV fixtures were converted to HPS fixtures over an eight-year period. Tampa Electric is proposing in this Lighting Conversion Program to convert 209,821 non-LED fixtures to LED fixtures over a five-year period. More detailed discussion regarding the costs and cost-benefit analysis of the conservation program can be found in the Tampa Electric's Petition for Conservation Street and Outdoor Lighting Conversion Program referenced in paragraph 11 of this Petition.

13. When approved, this Lighting Conversion Program will undertake to convert the existing HPS and MH fixtures in two general ways. First, any existing HPS and MH fixture that incurs an outage will be replaced with a new LED fixture rather than repaired. Second, in a planned and coordinated manner, non-LED fixtures in geographic areas and circuits will undergo a conversion utilizing dedicated crews until the entire service area outdoor lighting fleet has been converted to LED fixtures. A more detailed discussion of the process is included as Exhibit "C" to this Petition. Tampa Electric expects that 45 percent of the existing HPS and MH infrastructure will be converted to LED through outage restoration conversions and 55 percent converted using dedicated crews, during the five-year period.

14. As occurred with the 1980's MV conversion program, Tampa Electric expects to make these conversions with minimal, if any, impact to the customers currently receiving non-LED lighting service from the company. There is no plan to require any customer so converted to sign a new lighting agreement nor a requirement that they agree to any extension of service obligation under their existing agreement. The LED fixtures being installed are designed to provide similar or better illumination as the HPS and MH fixtures being removed and customers will benefit from less light trespass and glare. Only minimal, if any, billing impacts will occur as the proposed new LED rates are being designed to minimize such impacts.

15. Communications with customers will occur in several ways. To prepare the service territory's constituents, a general correspondence regarding the Lighting Conversion Program and associated deployment methods will be communicated to existing lighting customers along with the benefits of LED technology and directions as to where more information can be found. Customers that experience an outage to their existing HPS or MH fixtures will be returned to service with an LED fixture and will receive a door hanger to inform the customer that their unit was converted to LED. The customer will also be informed of the benefits that they will now enjoy because of the newly installed LED fixture. The door hanger will direct the customers to Tampa Electric's Lighting website, a phone number, and an email if more information or discussion is desired. Customers whose existing HPS and MH fixtures are being converted in planned geographical areas will receive targeted communication directly before the area's HPS and MH infrastructure is converted to LED. The correspondence will discuss the benefits of LED technology and alert the customer to be aware of crews working in the area in the coming weeks. The correspondence will also direct customers where to find additional information.

16. Tampa Electric's Lighting Conversion Program is in coordination with the company's planned buildout of a mesh network communication architecture to support the company's Advanced Metering Infrastructure ("AMI"). This mesh network will be utilized for communication from the NLCs, within the new LED fixtures. The mesh network and the AMI buildout will occur over the same general time period as this requested Lighting Conversion Program.

17. Since a large number of fixtures are being converted, an economy of scale was attained in the supply of the new LED equipment during the conversion period, allowing the new NLCs to be bundled into the standard new LED offer, enabling use of the mesh network while maintaining the LED bills near the current bills for HPS and MH. Keeping such proposed bill impacts close to or equal to the HPS and MH bills for existing customers in addition to not requiring them to sign new contracts during the conversion is designed to create a favorable customer conversion experience that is operationally easier and low impact. While the future costs of LED fixtures may be affected by a reduced supply volume once the conversion program is completed, the growth of manufacturing capacity, increasing fixture lumen output efficiency, and contractual material escalation limitations are expected to help to dampen cost growth.

18. The proposed new LED fixture and maintenance rates incorporate the economy of scale costs along with the NLC. While fixture revenues will increase under the rate proposal, base energy and maintenance revenue will decrease, reflecting the lower energy consumption of the new LED fixtures, as well as associated fuel and clause revenues. The net impact of the overall rate proposal is to recover the cost of the new LED fixtures plus an allocated portion of the cost of the new LED fixture use through the NLC of the new mesh network, while minimizing to the greatest extent possible the bill impact to the customer of the conversion from their existing HPS

and MH fixtures to LED. Exhibit "D" is provided to show how the new lighting rates were designed to accomplish this.

19. The existing LED offerings in the Tampa Electric tariffs are being closed to new business in this proposal, being supplanted by the new LED offerings, but are not being converted under the program. Instead, as these closed to new business LED fixtures fail over the coming years, they will be replaced with the new LED product equivalent that most closely matches their photometric output and thus they will obtain the benefits of the NLC.

20. As Tampa Electric explained in Docket No. 20140232-EI, LED technology is continuing to develop, and the manufactured products continue to become more efficient, reducing the wattage while increasing the lumen output. This rapid development coupled with lack of standardization becomes an obstacle when calculating the energy consumption of interchangeable fixtures. In that docket, Tampa Electric attempted to minimize the impact to customers by incorporating a \pm - 5Watt variance into the wattage used in calculating the monthly energy consumption of each fixture for billing purposes. This range has proven to be too narrow. This petition includes an average wattage variance of \pm - ten percent for use in calculating the monthly energy consumption of each fixture for billing purposes for the new LEDs.

21. With respect to the request for a new capital recovery schedule, the fixtures being converted to LED will no longer be offered for service by Tampa Electric after the last fixture is converted under the program. All these fixtures that are being converted will be retired prior to their current expected life, which would be at the end of the five-year conversion plan.

22. Rule 25-6.0436(10)(b), Florida Administrative Code, provides: the Commission shall approve a special capital recovery schedule when an installation is designated for a special purpose or for a limited duration. In this case, the early retirement of the non-LED fixtures

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associated with the Lighting Conversion Program represents such a case that calls for a special capital recovery schedule.

23. Approval of a capital recovery schedule will assure that all these fixtures are retired at the same time and that cost recovery has occurred for the undepreciated balance through the conservation program's cost recovery process.

24. In addition to the proposed tariff rate changes, which are shown on Exhibit "A" in redlined format and Exhibit "B" in clean format, Tampa Electric is proposing some changes to the form of agreement which would be utilized going forward for new customers desiring outdoor lighting service from Tampa Electric. The proposed agreement changes are likewise shown in Exhibits "A" and "B." The changes to the agreement include language to allow latitude for other services made available by the NLC, language to provide a greater level of flexibility to manage the pace of luminaire technology progression, and to remove some language duplicated within the tariff.

25. One of the advantages of the new LED fixtures as paired with the associated NLC communications architecture is the ability to provide attachment opportunities to local, state, federal and private entities desiring to locate sensing and other such equipment on the poles and receive secure communications from such equipment back to them over the network. For example, a video camera could be located on a light pole at an intersection or in a high crime area for local police. Likewise, a gunshot detector could be located. Technology is being developed to permit cameras on such poles to survey a parking lot and identify how many parking spaces are empty, permitting a potential parking customer to identify where to go and reserve a space before they get there. The opportunities for similar attachments are nearly limitless and will provide a revenue

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opportunity going forward that could reduce the cost of lighting service for customers of equipment to which such devices are attached.

Additional Items

26. Separate and apart from the conversion program, yet included in this petition, Tampa Electric is requesting two new pole rates be approved while closing two pole rates to new business. Both of the new poles are being proposed to provide reduced maintenance cost with one of the new pole offerings providing improved maintenance in areas prone to flooding. As existing closed to new business poles fail over the coming years, they will be replaced with the new pole products. In addition, Tampa Electric is requesting that four new LED lighting rates be approved for new business. While these lighting types are not replacing existing HPS or MH customer fixtures, the company believes they will be beneficial new offerings.

Summary of Request

27. The company seeks approval to add twenty-one new LED fixtures to the tariff, and to close to new business the existing seventeen LED options, as well as add two new poles and close two poles to new business. Attached hereto as Exhibits "A" and "B" are Tampa Electric's Retail Tariff Sheet Nos. 6.800, 6.808, 6.809, 6.810, 6.820, 6.821, and 7.200 through 7.208 in redlined and clean format with the proposed changes to that will allow the requested Lighting Conversion Program to be initiated. In addition, Tampa Electric is requesting that the Commission approve the implementation of the capital recovery schedule discussed in this petition above to address the accounting treatment of the existing fixtures being converted under the Lighting Conversion Program.

28. Tampa Electric is not aware of any disputed issues of material fact regarding the matters addressed herein or the relief requested.

WHEREFORE, Tampa Electric requests that the Commission approve the company's proposed tariff changes as described in this petition and as set forth in redlined and clean format proposed tariff sheets in Exhibits "A" and "B".

DATED this 5th day of September 2017

Respectfully submitted,

JAMPS D. BEASLEY

J. JEFFRY WAHLEN

Ausley McMullen Post Office Box 391 Tallahassee, FL 32302 (850) 224-9115

ATTORNEYS FOR TAMPA ELECTRIC COMPANY

EXHIBIT A

TAMPA ELECTRIC COMPANY EXHIBIT A PAGE 1 OF 24



ORIGINAL FIRST REVISED SHEET NO. 6.800 CANCELS ORIGINAL SHEET NO. 6.800

LIGHTING SERVICE

SCHEDULE: LS-1

AVAILABLE: Entire service area

APPLICABLE:

Lighting Service is applicable to any customer for the sole purpose of lighting roadways or other outdoor areas. Service hereunder is provided for the sole and exclusive benefit of the customer, and nothing herein or in the contract executed hereunder is intended to benefit any third party or to impose any obligation on the Company to any such third party. At the Company's option, a deposit amount of up to a two (2) month's average bill may be required at anytime.

CHARACTER OF SERVICE:

Service is provided during the hours of darkness normally on a dusk-to-dawn basis.

At the Company's option and at the customer's request, the company may permit a timer to control a lighting system provided under this rate schedule that is not used for dedicated street or highway lighting. The Company shall install and maintain the timer at the customer's expense. The Company shall program the timer to the customer's specifications as long as such service does not exceed 2,100 hours each year. Access to the timer is restricted to company personnel.

LIMITATION OF SERVICE:

Installation shall be made only when, in the judgment of the Company, location of the proposed lights are, and will continue to be, feasible and accessible to the company equipment and personnel for both construction and maintenance.

TERM OF SERVICE:

Service under this rate schedule shall be for an initial term of ten (10) years beginning on the date <u>one or more of the</u> lighting equipment is installed, energized, and ready for use and shall continue thereafter for successive one-year terms until terminated by either party upon providing ninety (90) days prior written notice.

Continued to Sheet No. 6.805

ISSUED BY: <u>C. R. BlackG. L. Gillette</u>, President DATE EFFECTIVE: May 7, 2009



FOURTH FIFTH REVISED SHEET NO. 6.808 CANCELS THIRD FOURTH REVISED SHEET NO. 6.808

Continued from Sheet No. 6.806

MONTHLY RATE:

LED Fixture, Maintenance, and Base Energy Charges:

	Size				Charges per l	Jnit (\$)				
Rate	Rate Code kWh ⁽¹⁾					Base Energy ^(3<u>4</u>)				
Dusk to Dawn	Timed Svc.	Description	Initial Lumens ^(4<u>2</u>)	Lamp Wattage ^(2<u>3</u>)	Dusk to Dawn	Timed Svc.	Fixture	Maintenance	Dusk to Dawn	Timed Svc.
828	848	Roadway <u>(1)</u>	5,155	56	20	10	7.27	1.74	0.55	0.27
820	840	Roadway (1)	7,577	103	36	18	11.15	1.19	0.98	0.49
821	841	Roadway ⁽¹⁾	8,300	106	37	19	11.15	1.20	1.01	0.52
829	849	Roadway <u>(1)</u>	15,285	157	55	27	11.10	2.26	1.50	0.74
822	842	Roadway <u>(1)</u>	15,300	196	69	34	14.58	1.26	1.88	0.93
823	843	Roadway ⁽¹⁾	14,831	206	72	36	16.80	1.38	1.96	0.98
835	855	Post Top ⁽¹⁾	5,176	60	21	11	16.53	2.28	0.57	0.30
824	844	Post Top ⁽¹⁾	3,974	67	24	12	19.67	1.54	0.65	0.33
825	845	Post Top <u>⁽¹⁾</u>	6,030	99	35	17	20.51	1.56	0.95	0.46
836	856	Post Top ⁽¹⁾	7,360	100	35	18	16.70	2.28	0.95	0.49
830	850	Area-Lighter ⁽¹⁾	14,100	152	53	27	14.85	2.51	1.45	0.74
826	846	Area-Lighter ⁽¹⁾	13,620	202	71	35	19.10	1.41	1.94	0.95
827	847	Area-Lighter ⁽¹⁾	21,197	309	108	54	20.60	1.55	2.95	1.47
831	851	Flood ⁽¹⁾	22,122	238	83	42	15.90	3.45	2.26	1.15
832	852	Flood ⁽¹⁾	32,087	359	126	63	19.16	4.10	3.44	1.72
833	853	Mongoose ⁽¹⁾	24,140	245	86	43	14.71	3.04	2.35	1.17
834	854	Mongoose ⁽¹⁾	32,093	328	115	57	16.31	3.60	3.14	1.55

(1) Closed to new business

 Average
 Average wattage. Actual wattage may vary by up to +/- 5 watts.
 Average wattage. Actual wattage may vary by up to +/- 5 watts. ⁽³⁴⁾ The Base Energy charges are calculated by multiplying the kWh times the lighting base energy rate of 2.727¢ per kWh for each fixture.

Continued to Sheet No. 6.810

ISSUED BY: G. L. Gillette, President

DATE EFFECTIVE: January 16, 2017

ORIGINAL SHEET NO. 6.809



Continued from Sheet No. 6.808

MONTHLY RATE:

LED Fixture, Maintenance, and Base Energy Charges:

				Size			<u>C</u>	harges p	er Unit (\$	<u>i)</u>
Rate Code					kW	h ⁽¹⁾⁾			Base E	nergy ⁽³⁾
<u>Dusk</u>					<u>Dusk</u>				<u>Dusk</u>	
<u>to</u> Dawn	Timed Svc.	Description	Initial Lumens ⁽¹⁾	Lamp Wattage ⁽²⁾	<u>to</u> Dawn	<u>Timed</u> Svc.	<u>Fixture</u>	Maint.	<u>to</u> Dawn	<u>Timed</u> Svc.
912	<u>981</u>	Roadway	2,600	<u>27</u>		<u>5vc.</u>	4.83	1.74	0.25	<u>0.14</u>
912 914	<u>901</u>	Roadway	<u>2,000</u> 5,392		<u>9</u>	<u>5</u>	<u>4.83</u> 5.97	<u>1.74</u> 1.74		<u>0.14</u>
<u>914</u> 921				<u>47</u>	<u>16</u> 21	-			<u>0.44</u>	
	092	Roadway/Area	<u>8,500</u>	<u>88</u>	<u>31</u>	-	<u>8.97</u>	<u>1.74</u>	<u>0.85</u>	0.40
<u>926</u>	<u>982</u>	<u>Roadway</u>	<u>12,414</u>	<u>105</u>	<u>37</u>	<u>18</u>	<u>6.83</u>	<u>1.19</u>	<u>1.01</u>	<u>0.49</u>
<u>932</u>		Roadway/Area	<u>15,742</u>	<u>133</u>	<u>47</u>	-	<u>14.15</u>	<u>1.38</u>	<u>1.28</u>	
<u>935</u>		Area-Lighter	<u>16,113</u>	<u>143</u>	<u>50</u>	-	<u>11.74</u>	<u>1.41</u>	<u>1.36</u>	
<u>937</u>		<u>Roadway</u>	<u>16,251</u>	<u>145</u>	<u>51</u>	-	<u>8.61</u>	<u>2.26</u>	<u>1.39</u>	
<u>941</u>	<u>983</u>	<u>Roadway</u>	<u>22,233</u>	<u>182</u>	<u>64</u>	<u>32</u>	<u>11.81</u>	<u>2.51</u>	<u>1.75</u>	<u>0.87</u>
<u>945</u>		Area-Lighter	<u>29,533</u>	<u>247</u>	<u>86</u>	-	<u>16.07</u>	<u>2.51</u>	<u>2.35</u>	
<u>947</u>	<u>984</u>	Area-Lighter	<u>33,600</u>	<u>330</u>	<u>116</u>	<u>58</u>	<u>20.13</u>	<u>1.55</u>	<u>3.16</u>	<u>1.58</u>
<u>951</u>	<u>985</u>	Flood	23,067	<u>199</u>	<u>70</u>	<u>35</u>	<u>11.12</u>	<u>3.45</u>	<u>1.91</u>	<u>0.95</u>
<u>953</u>	<u>986</u>	Flood	<u>33,113</u>	<u>255</u>	<u>89</u>	<u>45</u>	<u>21.48</u>	<u>4.10</u>	<u>2.43</u>	<u>1.23</u>
<u>956</u>	<u>987</u>	<u>Mongoose</u>	23,563	<u>225</u>	<u>79</u>	<u>39</u>	<u>11.78</u>	<u>3.04</u>	<u>2.15</u>	<u>1.06</u>
<u>958</u>		<u>Mongoose</u>	<u>34,937</u>	<u>333</u>	<u>117</u>	_	<u>17.84</u>	<u>3.60</u>	<u>3.19</u>	
<u>965</u>		Granville Post Top (PT)	<u>3,024</u>	<u>26</u>	<u>9</u>	_	<u>5.80</u>	<u>2.28</u>	<u>0.25</u>	
<u>967</u>	<u>988</u>	Granville PT	<u>4,990</u>	<u>39</u>	<u>14</u>	<u>7</u>	<u>13.35</u>	2.28	<u>0.38</u>	<u>0.19</u>
<u>968</u>	<u>989</u>	Granville PT Enh(4)	<u>4,476</u>	<u>39</u>	<u>14</u>	<u>7</u>	<u>15.35</u>	2.28	<u>0.38</u>	<u>0.19</u>
<u>971</u>		Salem PT	5,240	<u>55</u>	<u>19</u>		<u>10.95</u>	1.54	0.52	
<u>972</u>		Granville PT	7,076	<u>60</u>	21	_	14.62	2.28	0.57	
973		Granville PT Enh ⁽⁴⁾	6,347	<u>60</u>	21		16.62	2.28	0.57	
975	990	Salem PT	7,188	<u>76</u>	27	<u>13</u>	13.17	1.54	0.74	.35

(1) Average

(2) Average wattage. Actual wattage may vary by up to +/- 10 %.

⁽³⁾ The Base Energy charges are calculated by multiplying the kWh times the lighting base energy rate of 2.727¢ per kWh for each fixture. ⁽⁴⁾ Enhanced Post Top. Customizable decorative options

Continued to Sheet No. 6.810

ISSUED BY: G. L. Gillette, President

DATE EFFECTIVE:



THIRD FOURTH REVISED SHEET NO. 6.810 CANCELS SECOND THIRD REVISED SHEET NO. 6.810

AN EMERA COMPANY

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Continued from Sheet No. 6.808					
Pole/Wire and Pole/Wire Maintenance Charges:					
Charge Per Unit					Per Unit
Rate Code	Style	Description	Wire Feed	Pole/Wire	Maintenance
425	Wood (Inaccessible) ⁽¹⁾	30 ft	ОН	\$6.03	\$0.17
626	Wood	30 ft	ОН	\$2.61	\$0.17
627	Wood	35 ft	ОН	\$2.95	\$0.17
597	Wood	40/45 ft	ОН	\$6.64	\$0.31
637	Standard	35 ft, Concrete	ОН	\$5.34	\$0.17
594	Standard	40/45 ft, Concrete	ОН	\$10.00	\$0.31
599	Standard	16 ft, DB Concrete	UG	\$16.03	\$0.14
595	Standard	25/30 ft, DB Concrete	UG	\$21.54	\$0.14
588	Standard	35 ft, DB Concrete	UG	\$23.58	\$0.34
607	Standard (70 - 100 W or up to 100 ft span) ⁽¹⁾	35 ft, DB Concrete	UG	\$11.33	\$0.34
612	Standard (150 W or 100 -150 ft span) ⁽¹⁾	35 ft, DB Concrete	UG	\$15.38	\$0.34
614	Standard (250 -400W or above 150 ft span) ⁽¹⁾	35 ft, DB Concrete	UG	\$23.24	\$0.34
596	Standard	40/45 ft, DB Concrete	UG	\$27.71	\$0.14
523	Round (1)	23 ft, DB Concrete	UG	\$20.42	\$0.14
591	Tall Waterford	35 ft, DB Concrete	UG	\$28.82	\$0.14
592	Victorian	PT, DB Concrete	UG	\$24.58	\$0.14
<u>593</u>	Winston	PT, DB Aluminum	<u>UG</u>	<u>\$13.72</u>	<u>\$1.10</u>
583	Waterford	PT, DB Concrete	UG	\$21.16	\$0.14
422	Aluminum ⁽¹⁾	10 ft, DB Aluminum	UG	\$7.83	\$1.30
616	Aluminum	27 ft, DB Aluminum	UG	\$27.86	\$0.34
615	Aluminum	28 ft, DB Aluminum	UG	\$11.79	\$0.34
622	Aluminum	37 ft, DB Aluminum	UG	\$40.07	\$0.34
<u>623</u>	<u>Waterside</u>	38 ft, DB Aluminum	<u>UG</u>	\$37.44	\$3.85
584	Aluminum ⁽¹⁾	PT, DB Aluminum	UG	\$17.02	\$1.10
581	Capitol ⁽¹⁾	PT, DB Aluminum	UG	\$26.70	\$1.10
586	Charleston	PT, DB Aluminum	UG	\$20.43	\$1.10
585	Charleston Banner	PT, DB Aluminum	UG	\$26.51	\$1.10
590	Charleston HD	PT, DB Aluminum	UG	\$23.22	\$1.10
580	Heritage ⁽¹⁾	PT, DB Aluminum	UG	\$19.63	\$1.10
587	Riviera ⁽¹⁾	PT, DB Aluminum	UG	\$20.56	\$1.10
589	Steel ⁽¹⁾	30 ft, AB Steel	UG	\$39.21	\$1.68
624	Fiber ⁽¹⁾	PT, DB Fiber	UG	\$7.12	\$1.30
582	Winston (1)	PT, DB Fiber	UG	\$13.72	\$1.10
525	Franklin Composite	PT, DB Composite	UG	\$23.91	\$1.10
641	Existing Pole		UG	\$4.95	\$0.34
(1) Closed to new business Continued from Sheet No. 6.815					

ISSUED BY: G. L. Gillette, President

DATE EFFECTIVE: January 16, 2017

TAMPA ELECTRIC COMPANY EXHIBIT A PAGE 5 OF 24



ORIGINAL FIRST REVISED SHEET NO. 6.820 REPLACES ORIGINAL SHEET NO. 6/820

AN EMERA COMPANY

TAMPA ELECTRIC

Continued from Sheet No. 6.815

SPECIAL PROVISIONS:

- 1. All non-governmental customers shall execute the company's standard lighting agreement for service under this contract. <u>All non-governmental and non-residential customers shall provide documentation to support signatory authority for execution of the company's standard lighting agreement</u>.
- 2. The customer shall be responsible for the cost incurred to repair or replace any company facilities that have been damaged as a result of any cause other than normal wear and tear. The company shall not be required to make such repair or replacement prior to payment by the customer for such damage. At the customer's expense, and at the company's discretion, the company may install a Luminaire protective shield to protect any Equipment repaired or replaced as a result of vandalism.
- 3. The customer shall arrange for tree trimming by qualified personnel at the customer's sole expense when the installation of, illumination from or maintenance access to the Equipment is obstructed by trees and other vegetation. The company shall not be responsible for tree trimming for lighting installation or illumination obstruction.
- 4. The company will not be required to install or continue to operate equipment at any location where the service may be or has become objectionable to others. If it is found either during or after installation that the light is objectionable to others, the customer shall be responsible for the costs incurred to relocate, remove, or shield the equipment in addressing the objection unless the customer is otherwise able to fully address and satisfy the third-party objections in question.
- 5. In the event that the Customer fails to pay the Company for any of the services provided herein, or violates the terms of this agreement, the Company may, at its option and on five (5) days' written notice, terminate this agreement. If such termination occurs prior to the expiration of the current-primary term, the Customer agrees to pay the Company, as liquidated damages, an amount equal to the net present value of the monthly rate for each service taken, less all applicable fuel and other adjustment clause charges, and (where applicable) franchise fees and taxes, for each month of the unexpired current-primary term
- 6. In no event shall the Customer, or any other Grantor, place upon or attach to the Equipment, except with the Company's prior written consent and as set forth in Tampa Electric's "Guidelines for Attaching Banners to TEC Poles", any sign or device of any nature, or place, install or permit to exist, anything, including trees or shrubbery, which would interfere with the Equipment or tend to create a dangerous condition. The Company is hereby granted the right to remove, without liability, anything placed, installed, or existing in violation of this paragraph.
- 7. The Customer shall locate and advise the Company, through the provision of an accurate map and other necessary written descriptions, of the exact location of all underground facilities

ISSUED BY: <u>C. R. BlackG. L. Gillette</u>, President DATE EFFECTIVE: May 7, 2009

TAMPA ELECTRIC COMPANY **EXHIBIT A** PAGE 6 OF 24

6/820



AN EMERA COMPANY TAMPA ELECTRIC



Continued to Shee	t No. 6.821	

ISSUED BY: C. R. BlackG. L. Gillette, President

DATE EFFECTIVE: May 7, 2009

TAMPA ELECTRIC COMPANY EXHIBIT A PAGE 7 OF 24

ORIGINAL SHEET NO. 6.821



Continued from Sheet No. 6.820

SPECIAL PROVISIONS (continued):

6. In no event shall the Customer, or any other Grantor, place upon or attach to the Equipment, except with the Company's prior written consent and as set forth in applicable Tampa Electric attachment guidelines, any sign or device of any nature, or place, install or permit to exist, anything, including trees or shrubbery, which would interfere with the Equipment or tend to create a dangerous condition. The Company is hereby granted the right to remove, without liability, anything placed, installed, or existing in violation of this paragraph.

Should such a request to physically attach be made to the Company by written application, each request shall be individually reviewed for approval by the Company. Applicable terms and conditions of an attachment approved by the Company shall be memorialize by a separate agreement and shall not supersede the terms and conditions of the Agreement.

Should such application to attach be made by a party other than the Customer, the initiating party shall obtain additional written approval from the Customer to attach to the specific Equipment as identified by the pole tag number. Such approval of the Customer must be provided to the Company before final approval is granted for physical attachment.

7. The Customer shall locate and advise the Company, through the provision of an accurate map and other necessary written descriptions, of the exact location of all underground facilities including, but not limited to: sewage pipes, septic tanks, wells, swimming pools, sprinkler systems, conduits, cables, valves, lines, fuel storage tanks, and storm drainage systems ("Underground Facilities") at the Installation Site at least two (2) days prior to the commencement of any work by the Company at the Installation Site.

ISSUED BY: G. L. Gillette, President

DATE EFFECTIVE:

TAMPA ELECTRIC COMPANY EXHIBIT A PAGE 8 OF 24



TAMPA ELECTRIC

FOURTH-FIFTH REVISED SHEET NO. 7.200 CANCELS THIRD FOURTH REVISED SHEET NO. 7.200

TAMPA ELECTRIC COMPANY BRIGHT CHOICES Outdoor Lighting Agreement

Pursuant to the terms and conditions set forth in this outdoor lighting agreement (the "Agreement"), Tampa Electric Company (the "Company") agrees to provide and ______ (Customer Name, Billing Address and Physical Address) ______ (the "Customer") agrees to accept and pay for the outdoor lighting services specified below.

1. Scope of Work

The Company shall furnish, install, operate and maintain, for the term of this Agreement, the following lighting equipment (all of which, together with accessories, attachments, replacement parts, additions and repairs, shall be referred to herein as "Equipment"):

_____at the following location _____("Installation Site")<u>, subject to</u>

the availability of such Equipment, for the term of the Agreement.

2. System Design and Approval

If applicable, Bbased on written lighting system design specifications provided approved by the Customer and/or the lighting eEquipment selected by the Customer, the Company shall prepare and provide the Customer with a copy of the final design <u>and/or</u> sketch at least five (5) business days prior to the commencement of installation of the Equipment at the Installation Site. If the Company is unable to provide some or all of the Equipment selected by the Customer or the Company is unable to install the selected Equipment in reasonable proximity to the locations identified in the Customer's original approved design specifications for the initial installation of the Equipment, the Company shall note any material deviations from the Customer's original approved design specifications or eEquipment selections in the final design sketch and if applicable, written notification of any adjustments affecting monthly charges. If the final design sketch has been provided to the Customer, as required immediately above, and the Customer has not advised the Company of specific changes to be made to the final design sketch prior to the commencement of work at the Installation Site, then the Customer will be deemed to have consented to the configuration and installation of Equipment pursuant to the final design The final design sketch will conform, to the extent practicable, to the Customer's sketch. preferences or preferred design.

The Equipment shall be repaired or replaced with the closest available light and/or light pole and associated rate(s) should parts or Equipment become unavailable.

However, THE COMPANY MAKES NO WARRANTY, EITHER EXPRESSED OR IMPLIED, INCLUDING AN IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE of either the Equipment or the lighting design plan pursuant to which the Equipment is installed.

3. Change Orders

The Equipment shall be configured and installed pursuant to the final design sketch. Any change order requested by the Customer after consenting to the final design sketch shall be carried out at the Customer's expense.

ISSUED BY: C. R. Black<u>G. L. Gillette</u>, President DATE EFFECTIVE: January 26, 2006

TAMPA ELECTRIC COMPANY EXHIBIT A PAGE 9 OF 24



FOURTH FIFTH REVISED SHEET NO. 7.200 CANCELS THIRD FOURTH REVISED SHEET NO. 7.200

4. Damages During Construction

The Customer shall be responsible for all costs incurred to repair or replace any Equipment which is damaged by the Customer, its agents, employees, representatives or third parties other than the Company during construction of Customer's facilities including but not limited to costs incurred to repair or relocate Equipment to proper depths in response to a lowering of the grade of the soil above any conduit serving the Equipment.

Continued to Sheet No. 7.201

ISSUED BY: C. R. BlackG. L. Gillette, President DATE EFFECTIVE: January 26, 2006

TAMPA ELECTRIC COMPANY EXHIBIT A PAGE 10 OF 24



SIXTH <u>SEVENTH</u> REVISED SHEET NO. 7.201 CANCELS FIFTH <u>SIXTH</u> REVISED SHEET NO. 7.201

AN EMERA COMPANY TAMPA ELECTRIC

Continued from Sheet No. 7.200

4. Damages During Construction

The Customer shall be responsible for all costs incurred to repair or replace any Equipment which is damaged by the Customer, its agents, employees, representatives or third parties other than the Company during construction of Customer's facilities including but not limited to costs incurred to repair or relocate Equipment to proper depths in response to a lowering of the grade of the soil above any conduit serving the Equipment.

5. Customer Information and Preparation

The Customer shall locate and advise the Company, through the provision of an accurate map and other necessary written descriptions, of the exact location of all underground facilities including, but not limited to: sewage pipes, septic tanks, wells, swimming pools, sprinkler systems, conduits, cables, valves, lines, fuel storage tanks, and storm drainage systems ("Underground Facilities") at the Installation Site at least two (2) days prior to the commencement of any work by the Company at the Installation Site. Any and all cost or liability for damage to Underground Facilities by the Company that were not properly identified by the Customer, as described under this Paragraph, shall be paid by the Customer. Except for those claims, losses and damages arising out of Company's sole negligence, the Customer agrees to defend, at its own expense, and indemnify the Company for any and all claims, losses and damages, including attorney's fees and costs, which arise or are alleged to have arisen out of furnishing, design, installation, operation, maintenance or removal of the Equipment. The phrase "property damage" includes, but is not limited to, damage to the property of the Customer, the Company, or any third parties. For purposes of this indemnification, and the exculpation of liability provided in Paragraph 11 of this Agreement, the "Company" shall be defined as Tampa Electric Company, its parent, TECO EnergyEmera, Inc., and all subsidiaries and affiliates thereof, and each of their respective officers, directors, affiliates, insurers, representatives, agents, servants, employees, contractors, or parent, sister, of successor corporations.

6. Location of Equipment - Staking

<u>If applicable,</u> <u>T</u><u>i</u>he Customer shall stake the locations of Equipment on roadways and commercial property prior to the installation of the Equipment by the Company. To assist the Customer with the staking process, the Company shall provide the Customer with an <u>finalapproved</u> design <u>sketch</u> that reflects the Equipment locations approved by the Customer.

7. Non-Standard Service Charges

The Customer shall pay all costs associated with any additional Company facilities and services that are not considered standard for providing lighting service including, but not limited to: installation of distribution transformers, relays, protective shields, bird deterrent devices, light trespass shields, and any devices required by local regulations to control the level or duration of illumination including any associated planning and engineering costs, removal and replacement of pavement required to install underground lighting cable, and directional boring. Charges will also be assessed for light rotations and light pole relocations. The Company will bill the Customer the actual cost of such non-standard facilities and services as incurred.

8. Customer Contribution in Aid of Construction

ISSUED BY: G. L. Gillette, President

DATE EFFECTIVE: February 11, 2010

TAMPA ELECTRIC COMPANY EXHIBIT A PAGE 11 OF 24





SIXTH SEVENTH REVISED SHEET NO. 7.201 CANCELS FIFTH SIXTH REVISED SHEET NO. 7.201

Continued to Sheet No. 7.202

ISSUED BY: G. L. Gillette, President

DATE EFFECTIVE: February 11, 2010

TAMPA ELECTRIC COMPANY EXHIBIT A PAGE 12 OF 24



FIFTH <u>SIXTH</u> REVISED SHEET NO. 7.202 CANCELS FOURTH <u>FIFTH</u> REVISED SHEET NO. 7.202

AN EMERA COMPANY

TAMPA ELECTRIC

Continued from Sheet No. 7.201

8. Customer Contribution in Aid of Construction
The Company shall pay for all normal Equipment installation costs, with the exception of the
following: \$ for . If applicable, a final invoice or
partial refund shall be issued to the Customer based upon deviations of actual costs in
relation to the estimated customer contribution. CIAC payment to satisfy actual costs are
non-refundable.

9. Monthly Payment
During the term of this Agreement, the Customer shall pay the Company monthly for the lighting

During the term of this Agreement, the Customer shall pay the Company monthly for the lighting services provided pursuant to Rate Schedule LS-1 as the rate schedule, which is on file with the Florida Public Service Commission, may be amended from time to time. All bills shall be due when rendered.

The current monthly base charges for facilities installed under this agreement -are_____. Fuel and other adjustment clause charges and (where applicable) franchise fees and taxes per month under current tax rates pursuant to the Rate Schedule shall be _____. The total monthly charge of shall be ______ per month.

If Applicable, Customer agrees to deposit with the Company, the additional cash sum of ______, which is equivalent to approximately two (2) months service under this Agreement, or upon acceptance if the Company so agrees, provide a surety bond or an irrevocable letter of credit from a bank, in favor of the Company in the same amount. The Company will annually credit the Customer's bill with an interest amount, at the rate currently approved by the Florida Public Service Commission, for cash deposits received. The currently authorized interest rate is __%.

The monthly charges specified in this agreement are tied to the tariff charges currently on file with the Florida Public Service Commission and may change during the term of this Agreement in accordance with filed changes to the relevant tariffs.

10. Term

This Agreement shall be effective on the later of the dates indicated on the signature block ("Effective Date") and shall remain in force for a primary term of ten (10) year(s) (the "Primary Term") beginning on the date <u>one or more of</u> the Equipment is installed and, <u>if applicable</u>, <u>allat</u> <u>least one</u> lights are is energized and ready for use and shall continue thereafter for successive one year terms (each, a "Renewal Term") until terminated by either party upon providing the other party with ninety (90) days prior written notice of termination.

11. Limitation on Damages

The Company will furnish electricity to operate the Equipment approximately 4200 hours for dusk to dawn service or less, depending on the controlling device, each calendar year. The Company will use reasonable diligence at all times to provide continuous operation during the termservice and maintain the Equipment in operating order. But the Company shall not be liable to the Customer for any damages arising from causes beyond its control or from the negligence of the Company including, but not limited to, complete or partial failure or interruption of service, shut down for

ISSUED BY: C. R. Black<u>G. L. Gillette</u>, President DATE EFFECTIVE: May 7, 2009

TAMPA ELECTRIC COMPANY EXHIBIT A PAGE 13 OF 24



FIFTH <u>SIXTH</u> REVISED SHEET NO. 7.202 CANCELS FOURTH <u>FIFTH</u> REVISED SHEET NO. 7.202

repairs or adjustments, delay in providing or restoring service, or for failure to warn of any interruption of service or lighting.

12. Outage Notification

The Customer shall be responsible for monitoring the function of the Equipment and for notifying the Company of all Equipment outages.

Continued to Sheet No. 7.203

ISSUED BY: C. R. BlackG. L. Gillette, President

DATE EFFECTIVE: May 7, 2009

TAMPA ELECTRIC COMPANY **EXHIBIT A PAGE 14 OF 24**

SHEET NO. 7.203

7.203

FIFTH SIXTH REVISED SHEET NO.



CANCELS FOURTH FIFTH REVISED

AN EMERA COMPANY

TAMPA ELECTRIC

Continued from Sheet No. 7.202

12. Outage Notification

The Customer shall be responsible for monitoring the function of the Equipment and for notifying the Company of all Equipment outages.

13. Vandalism

The Customer shall be responsible for the cost incurred to repair or replace any Equipment that has been damaged as a result of any cause other than normal wear and tear. The Company shall not be required to make such repair or replacement prior to payment by the Customer for such damage. At the Customer's expense, and at the Company's discretion, the Company may install a luminaire protective shield to protect any Equipment repaired or replaced as a result of vandalism.

143. Tree Trimming

The Customer shall arrange for tree trimming by qualified personnel at Customer's sole expense when the installation of, illumination from or maintenance access to the Equipment is obstructed by trees and other vegetation. The Company will not be responsible for trimming trees for lighting installation or illumination obstruction. Failure of the Customer to maintain adequate clearance (e.g. trees and other vegetation) around the luminaire and pole Equipment may cause illumination obstruction and/or a delay in requested repairs or required maintenance.

154. Termination, Removal

The Customer shall have the right to terminate this Agreement without any liability or obligation to the Company during the three (3) business day period following the Effective Date ("Initial Termination Period"), provided that written notice of such termination is received by the Company no later than the close of business on the third business day following the Effective dDate. In addition, the Customer may terminate this Agreement during the period that commences at the close of the Initial Termination Period and ends at 5:00 p.m. on the business dayte immediately preceding the date on which installation of the Equipment at the Installation Site is scheduled to commence ("Final Termination Period"), provided that written notice of such termination is received by the Company no later than 5:00 p.m. on the business day immediately preceding the date on which installation of the Equipment commences and, provided further, that the Customer reimburses the Company for any costs incurred by the Company up to the time of the termination by the Customer. These costs include, but are not limited to, shipping and storeroom handling cost for items purchased pursuant to or in contemplation of the Agreement, restocking fees on returned purchases, the cost of purchased Equipment that cannot be returned, or in the Company's sole judgment, reasonably absorbed in current inventory, and engineering time. The Customer may not terminate this Agreement once installation of the Equipment has commenced.

The company may, at its option and on five (5) days written notice to Customer, terminate this agreement in the event that:

- the Customer fails to pay the Company for any of the services provided herein; (a)
- (b) the Customer violates the terms of this agreement;
- a petition for adjudication of bankruptcy or for reorganization or rearrangement is filed by (c) Customer pursuant to any federal or state bankruptcy law or similar federal or state law; or

ISSUED BY: G. L. Gillette, President

DATE EFFECTIVE: November 1, 2013

TAMPA ELECTRIC COMPANY EXHIBIT A PAGE 15 OF 24

FIFTH SIXTH REVISED SHEET NO.



(d)

	7.203 CANCELS FOURTH <u>FIFTH</u> REVISED SHEET NO. 7.203
is a tenant at	 ssession of the Installation Site (or if Customer nterest in the Installation Site) and possession ys.

Continued to Sheet No. 7.204

ISSUED BY: G. L. Gillette, President

DATE EFFECTIVE: November 1, 2013

TAMPA ELECTRIC COMPANY EXHIBIT A PAGE 16 OF 24

SIXTH SEVENTH REVISED SHEET NO. 7.204 CANCELS FIFTH SIXTH REVISED SHEET NO. 7.204



AN EMERA COMPANY

Continued from Sheet No. 7.203

If such termination occurs prior to the expiration of the <u>current-Primary t</u>erm, the Customer agrees to pay the Company, as liquidated damages, an amount equal to the net present value of the monthly rate for each service taken, less all applicable fuel and other adjustment clause charges, and (where applicable) franchise fees and taxes, for each month of the unexpired <u>current-Primary</u> trem.

165. Easements

The customer Property Owner covenants that it owns or controls the Installation Site or has binding arrangements with the owner to the extent necessaryand is authorized to grant the Company an easement to permit performance of the Agreement. The Customer and the Property eQwner or landlord of the Installation Site, if other than the Customer (individually, the "Grantor" collectively, the "Grantors"), hereby grant the Company a **Non-exclusive Easement** for ingress and egress over and under the Installation Site for installation, inspection, operation, maintenance, repair, replacement, and removal of the Equipment. The <u>Non-exclusive eE</u>asement shall terminate upon the Company's removal of the Equipment. The Equipment shall remain the Company's personal property, notwithstanding the manner or mode of its attachment to the Installation Site and shall not be deemed fixtures. Any claim(s) that the Company has or may hereafter have with respect to the Equipment shall be superior to any lien, right or claim of any nature that any Grantor or anyone claiming through Grantor now has or may hereafter have with respect to the Equipment by law, agreement or otherwise.

In the event that this agreement is terminated pursuant to Paragraph 145 or expires pursuant to Paragraph 10, each of the Grantors expressly grants the Company or its assigns or agents the continued right of entry at any reasonable time to remove the Equipment, or any part hereof, from the Installation Site. The Grantors, individually or collectively, shall make no claim whatsoever to the Equipment or any interest or right therein.

176. Physical Attachments

In no event shall the Customer, or any other Grantor, place upon or attach to the Equipment, except with the Company's prior written consent and as set forth in <u>applicable</u> Tampa Electric's <u>guidelines</u>, "Guidelines for Attaching Banners to TEC Poles," any sign or device of any nature, or place, install or permit to exist, anything, including trees or shrubbery, which would interfere with the Equipment or tend to create a dangerous condition. The Company is hereby granted the right to remove, without liability, anything placed, installed, or existing in violation of this paragraph.

Should such a request to physically attach be made to the Company by written application, each request shall be individually reviewed for approval by the Company. Applicable terms and conditions of an attachment approved by the Company shall be memorialize by a separate agreement and shall not supersede the terms and conditions of the Agreement.

Should such application to attach be made by a party other than the Customer, the initiating party shall obtain additional written approval from the Customer to attach to the specific Equipment as identified by the pole tag number. Such approval of the Customer must be provided to the Company before final approval is granted for physical attachment.

18. Insurance

ISSUED BY: G. L. Gillette, President

DATE EFFECTIVE: October 05, 2016

TAMPA ELECTRIC COMPANY EXHIBIT A PAGE 17 OF 24



SIXTH <u>SEVENTH</u> REVISED SHEET NO. 7.204 CANCELS FIFTH SIXTH REVISED SHEET NO. 7.204

AN EMERA COMPANY

Customer, at his sole cost and expense, shall maintain insurance, in amounts and under policy forms satisfactory to Company at all times during the life of this Agreement. Failure to provide insurance in accordance with this Section shall constitute a material breach of this Agreement.

19. Amendments

During the term of this Agreement, Company and Customer may amend or enter into additional addenda to the Agreement ("Addenda") upon the mutual written agreement of both parties in the form of Addendum "A" hereto.

Continued to Sheet No. 7.205



TAMPA ELECTRIC COMPANY EXHIBIT A PAGE 18 OF 24 EIGHTH <u>NINTH</u> REVISED SHEET NO. 7.205 CANCELS SEVENTH <u>EIGHTH</u> REVISED SHEET NO. 7.205

Continued from Sheet No. 7.204

17. Insurance

Customer, at his sole cost and expense, shall maintain insurance, in amounts and under policy forms satisfactory to Company at all times during the life of this Agreement. Failure to provide insurance in accordance with this Section shall constitute a material breach of this Agreement.

18. Amendments

During the term of this Agreement, Company and Customer may amend or enter into additional addenda to the Agreement ("Addenda") upon the mutual written agreement of both parties in the form of Addendum "A" hereto.

2019. Light Trespass

Customer acknowledges and agrees that the Customer is solely responsible for specifying the general location of the Equipment and the direction and orientation of the illumination provided thereby. The Company will not be required to install or continue to operate the Equipment at any location where the service may be or has become objectionable to others. If it is found either during or after installation that the illumination is objectionable to others, the Customer shall be responsible for the costs incurred to relocate, remove, or shield the Equipment in addressing the objection unless the Customer is otherwise able to fully address and satisfy the third-party objections in question. In the event <u>If</u> removal of any Equipment is the only practicable resolution of the objection, such removal will be deemed a termination prior to the expiration of the Primary Term as provided in Paragraph 15 and Customer promptly shall pay the Company the liquidated damages specified therein for the percentage or portion of the Equipment that must be removed.

210. Assignments

This Agreement shall inure to the benefit of, and be binding upon, the respective heirs, legal representatives, successors and assigns of the parties hereto. This Agreement may be assigned by the Customer only with the Company's prior written consent. In the event of an Assignment, the assignee may be substituted herein for the Customer and/or other Grantor with respect to all Customer rights and obligations, but the initial Customer shall not be released from the obligations of this Agreement except by a separate writing from the Company in the Company's sole discretion.

22. General

No delay or failure by the Customer or the Company to exercise any right under this Agreement shall constitute a waiver of that or any other right, unless otherwise expressly provided herein.

This Agreement shall be construed in accordance with and governed by the laws of the State of Florida.

IN WITNESS WHEREOF, the parties, each of whom represents and warrants that he or she is duly authorized to execute this Agreement, have caused this instrument to be executed in due form of law.

Customer:	
By/Title:	
Name (print):	
Signature:	
Date:	
Phone #:	
Email:	•

ISSUED BY: G. L. Gillette, President

DATE EFFECTIVE: November 1, 2013



TAMPA ELECTRIC COMPANY EXHIBIT A PAGE 19 OF 24 EIGHTH-<u>NINTH</u> REVISED SHEET NO. 7.205 CANCELS <u>SEVENTH-EIGHTH</u> REVISED SHEET NO. 7.205

Property Owner:
By/Title:
Name (print):
Signature:
Date:
Phone #:
Email:

Tampa Electric Company Mana	ger:
By/Title:	
Signature:	
Department:	
Date:	

Contract No. _____

Continued to Sheet No. 7.206



TAMPA ELECTRIC COMPANY EXHIBIT A PAGE 20 OF 24 <u>THIRD REVISED SHEET NO. 7.206</u> <u>CANCELS SECOND REVISED SHEET</u> <u>NO. 7.206</u>

AN EMERA COMPANY

TAMPA ELECTRIC

Continued from Sheet No. 7.205

21. General

No delay or failure by the Customer or the Company to exercise any right under this Agreement shall constitute a waiver of that or any other right, unless otherwise expressly provided herein.

This Agreement shall be construed in accordance with and governed by the laws of the State of Florida.

IN WITNESS WHEREOF, the parties, each of whom represents and warrants that he or she is duly authorized to execute this Agreement, have caused this instrument to be executed in due form of law.

Customer:	
By/Title:	
Name (print):	
Signature:	
Date:	
Phone #:	
Email:	

Property Owner:	
By/Title:	
Name (print):	
Signature:	
Date:	_
Phone #:	
Email:	

Tampa Electric Company Representative: By/Title: Signature: Department: Date:

Tampa Electric Company Manager:
By/Title:
Signature:
Department:
Date:

Contract No.

Customer Name, Billing Address and Physical Address) and is made in reference to the lighting services specified below. For purposes of this Agreement the Company shall be defined as Tampa Electric Company, its parent, TECO Energy, Inc., and all subsidiaries and affiliates thereof, and each of their respective officers, directors, affiliates, insures, representatives, agents, servants, employees, contractors, or parent, sister, or successor corporations.

WHEREAS, the Company and Customer are parties to the Agreement, which requires the Company to furnish, install, operate and maintain certain outdoor lighting equipment (the "Equipment") in exchange for payment of certain monthly charges paid by Customer for the term of the Agreement.

WHEREAS, Customer has requested Company to furnish, install, operate and maintain, for the term of the Agreement, the following additional lighting equipment, together with accessories, attachments, replacement parts, additions and repairs (the "Equipment").

In consideration of the mutual promises contained herein and other good and valuable consideration, the parties agree as follows:





AN	EMERA	COMPANY

TAMPA ELECTRIC

such additional Equip	or Company's installation, operation and maintenance or ment, Customer agrees to pay the following additional	f monthly	-fees-	for tł
rm of this Addendum:				
	Continued to Sheet No. 7.207			

35

TAMPA ELECTRIC COMPANY EXHIBIT A PAGE 22 OF 24



FOURTH FIFTH REVISED SHEET NO. 7.207 CANCELS THIRD FOURTH REVISED **SHEET NO. 7.207**

AN EMERA COMPANY TAMPA ELECTRIC

BRIGHT CHOICES ® Outdoor Lighting Agreement ADDENDUM A

THIS Addendum to the Tampa Electric Bright Choices Outdoor Lighting Agreement (the "Agreement") is made this day of by and between Tampa Electric Company (the "Company") and

(Customer Name,

Billing Address and Physical Address) and is made in reference to the lighting services specified below. For purposes of this Agreement the Company shall be defined as Tampa Electric Company, its parent, Emera, Inc., and all subsidiaries and affiliates thereof, and each of their respective officers, directors, affiliates, insures, representatives, agents, servants, employees, contractors, or parent, sister, or successor corporations.

WHEREAS, the Company and Customer are parties to the Agreement, which requires the Company to furnish, install, operate and maintain certain outdoor lighting equipment (the "Equipment") in exchange for payment of certain monthly charges paid by Customer for the term of the Agreement.

WHEREAS, Customer has requested Company to furnish, install, operate and maintain, for the term of the Agreement, the following additional lighting equipment, together with accessories, attachments, replacement parts, additions and repairs (the "Equipment").

In consideration of the mutual promises contained herein and other good and valuable consideration, the parties agree as follows:

The Company shall furnish, install, operate and maintain, for the term of 1 this Addendum, the following additional Equipment:

2. In exchange for Company's installation, operation and maintenance of such additional Equipment, Customer agrees to pay the following additional monthly fees for the term of this Addendum:

> Continued to Sheet No. 7.208 Continued to Sheet No. 7.206

ISSUED BY: G. L. Gillette, President

DATE EFFECTIVE: January 26, 2011

TAMPA ELECTRIC COMPANY EXHIBIT A PAGE 23 OF 24





TAMPA ELECTRIC

FOURTH FIFTH REVISED SHEET NO. 7.207 CANCELS THIRD FOURTH REVISED SHEET NO. 7.207

AN EMERA COMPANY

The current monthly base charges for facilities installed under this Addendum are ________. Fuel and other adjustment clause charges and (where applicable) franchise fees and taxes per month under current tax rates pursuant to the Rate Schedule are ______. The total monthly charge is ______ per month.

If applicable, Customer agrees to deposit with the Company, the additional cash sum of ______, which is equivalent to approximately two (2) months service for the facilities installed under this Addendum.

3. All terms and conditions set forth in the Agreement are hereby incorporated by this reference. To the extent, this Addendum conflicts with the Agreement, the terms and conditions of the Agreement shall be controlling.

In Witness Whereof, the parties, each of whom represents and warrants that he or she is duly authorized to execute this agreement, have caused this instrument to be executed in due form of law, this day and year first written above.

Customer:	Tampa Electric Company Representative: By/Title:
Property Owner:	Tampa Electric Company Manager: By/Title: Signature: Department: Date:
Original Contract No Addendum Contract No	

ISSUED BY: G. L. Gillette, President

DATE EFFECTIVE: January 26, 2011



Continued from Sheet No. 7.207

The current monthly base charges for Equipment installed under this Addendum are ______. Fuel and other adjustment clause charges and (where applicable) franchise fees and taxes per month under current tax rates pursuant to the Rate Schedule are ______. The total monthly charge is ______ per month.

If applicable, Customer agrees to deposit with the Company, the additional cash sum of ______, which is equivalent to approximately two (2) months service for the facilities installed under this Addendum.

3. All terms and conditions set forth in the Agreement are hereby incorporated by this reference. To the extent, this Addendum conflicts with the Agreement, the terms and conditions of the Agreement shall be controlling.

In Witness Whereof, the parties, each of whom represents and warrants that he or she is duly authorized to execute this agreement, have caused this instrument to be executed in due form of law, this day and year first written above.

Customer:	
By/Title:	
Name (print):	
Signature:	
Date:	
Phone #:	
Email:	
Property Owner:	
By/Title:	

Name (print): ______ Signature: ______ Date: ______ Phone #: Email: ______

 Tampa Electric Company Representative:

 By/Title:

 Signature:

 Department:

 Date:

Tampa Electric Company Manager:
By/Title:
Signature:
Department:
Date:

Original Contract No. Addendum Contract No.

ISSUED BY: G. L. Gillette, President

DATE EFFECTIVE:

EXHIBIT B

TAMPA ELECTRIC COMPANY EXHIBIT B PAGE 1 OF 15

FIRST REVISED SHEET NO. 6.800 CANCELS ORIGINAL SHEET NO. 6.800



LIGHTING SERVICE

SCHEDULE: LS-1

AVAILABLE: Entire service area

APPLICABLE:

Lighting Service is applicable to any customer for the sole purpose of lighting roadways or other outdoor areas. Service hereunder is provided for the sole and exclusive benefit of the customer, and nothing herein or in the contract executed hereunder is intended to benefit any third party or to impose any obligation on the Company to any such third party. At the Company's option, a deposit amount of up to a two (2) month's average bill may be required at anytime.

CHARACTER OF SERVICE:

Service is provided during the hours of darkness normally on a dusk-to-dawn basis.

At the Company's option and at the customer's request, the company may permit a timer to control a lighting system provided under this rate schedule that is not used for dedicated street or highway lighting. The Company shall install and maintain the timer at the customer's expense. The Company shall program the timer to the customer's specifications as long as such service does not exceed 2,100 hours each year. Access to the timer is restricted to company personnel.

LIMITATION OF SERVICE:

Installation shall be made only when, in the judgment of the Company, location of the proposed lights are, and will continue to be, feasible and accessible to the company equipment and personnel for both construction and maintenance.

TERM OF SERVICE:

Service under this rate schedule shall be for an initial term of ten (10) years beginning on the date one or more of the lighting equipment is installed, energized, and ready for use and shall continue thereafter for successive one-year terms until terminated by either party upon providing ninety (90) days prior written notice.

Continued to Sheet No. 6.805

FIFTH REVISED SHEET NO. 6.808 CANCELS FOURTH REVISED SHEET NO. 6.808



Continued from Sheet No. 6.806

MONTHLY RATE:

LED Fixture, Maintenance, and Base Energy Charges:

				Size			Charges per Unit (\$)						
Rate	Code				kWh ⁽¹⁾				Base Energy ⁽⁴⁾				
Dusk					Dusk				Dusk				
to Dawn	Timed Svc.	Description	Initial Lumens ⁽²⁾	Lamp Wattage ⁽³⁾	to Dawn	Timed Svc.	Fixture	Maintenance	to Dawn	Timed Svc.			
828	848	Roadway ⁽¹⁾	5,155	56	20	10	7.27	1.74	0.55	0.27			
820	840	Roadway (1)	7,577	103	36	18	11.15	1.19	0.98	0.49			
821	841	Roadway ⁽¹⁾	8,300	106	37	19	11.15	1.20	1.01	0.52			
829	849	Roadway ⁽¹⁾	15,285	157	55	27	11.10	2.26	1.50	0.74			
822	842	Roadway ⁽¹⁾	15,300	196	69	34	14.58	1.26	1.88	0.93			
823	843	Roadway ⁽¹⁾	14,831	206	72	36	16.80	1.38	1.96	0.98			
835	855	Post Top ⁽¹⁾	5,176	60	21	11	16.53	2.28	0.57	0.30			
824	844	Post Top ⁽¹⁾	3,974	67	24	12	19.67	1.54	0.65	0.33			
825	845	Post Top ⁽¹⁾	6,030	99	35	17	20.51	1.56	0.95	0.46			
836	856	Post Top ⁽¹⁾	7,360	100	35	18	16.70	2.28	0.95	0.49			
830	850	Area-Lighter ⁽¹⁾	14,100	152	53	27	14.85	2.51	1.45	0.74			
826	846	Area-Lighter ⁽¹⁾	13,620	202	71	35	19.10	1.41	1.94	0.95			
827	847	Area-Lighter ⁽¹⁾	21,197	309	108	54	20.60	1.55	2.95	1.47			
831	851	Flood ⁽¹⁾	22,122	238	83	42	15.90	3.45	2.26	1.15			
832	852	Flood ⁽¹⁾	32,087	359	126	63	19.16	4.10	3.44	1.72			
833	853	Mongoose ⁽¹⁾	24,140	245	86	43	14.71	3.04	2.35	1.17			
834	854	Mongoose ⁽¹⁾	32,093	328	115	57	16.31	3.60	3.14	1.55			

⁽¹⁾ Closed to new business

(2) Average

⁽³⁾ Average wattage. Actual wattage may vary by up to +/- 5 watts.

(4) The Base Energy charges are calculated by multiplying the kWh times the lighting base energy rate of 2.727¢ per kWh for each fixture.

Continued to Sheet No. 6.810

ISSUED BY: G. L. Gillette, President

DATE EFFECTIVE:

ORIGINAL SHEET NO. 6.809



Continued from Sheet No. 6.808

MONTHLY RATE:

LED Fixture, Maintenance, and Base Energy Charges:

				Size		Charges per Unit (\$)					
Rate	Code				kWh ⁽¹⁾⁾				Base E	nergy ⁽³⁾	
Dusk to Dawn	Timed Svc.	Description	Initial Lumens ⁽¹⁾	Lamp Wattage ⁽²⁾	Dusk to Dawn	Timed Svc.	Fixture	Maint.	Dusk to Dawn	Timed Svc.	
912	981	Roadway	2,600	27	9	5	4.83	1.74	0.25	0.14	
914		Roadway	5,392	47	16		5.97	1.74	0.44		
921		Roadway/Area	8,500	88	31		8.97	1.74	0.85		
926	982	Roadway	12,414	105	37	18	6.83	1.19	1.01	0.49	
932		Roadway/Area	15,742	133	47		14.15	1.38	1.28		
935		Area-Lighter	16,113	143	50		11.74	1.41	1.36		
937		Roadway	16,251	145	51		8.61	2.26	1.39		
941	983	Roadway	22,233	182	64	32	11.81	2.51	1.75	0.87	
945		Area-Lighter	29,533	247	86		16.07	2.51	2.35		
947	984	Area-Lighter	33,600	330	116	58	20.13	1.55	3.16	1.58	
951	985	Flood	23,067	199	70	35	11.12	3.45	1.91	0.95	
953	986	Flood	33,113	255	89	45	21.48	4.10	2.43	1.23	
956	987	Mongoose	23,563	225	79	39	11.78	3.04	2.15	1.06	
958		Mongoose	34,937	333	117		17.84	3.60	3.19		
965		Granville Post Top (PT)	3,024	26	9		5.80	2.28	0.25		
967	988	Granville PT	4,990	39	14	7	13.35	2.28	0.38	0.19	
968	989	Granville PT Enh ⁽⁴⁾	4,476	39	14	7	15.35	2.28	0.38	0.19	
971		Salem PT	5,240	55	19		10.95	1.54	0.52		
972		Granville PT	7,076	60	21		14.62	2.28	0.57		
973		Granville PT Enh ⁽⁴⁾	6,347	60	21		16.62	2.28	0.57		
975	990	Salem PT	7,188	76	27	13	13.17	1.54	0.74	.35	

⁽¹⁾ Average
 ⁽²⁾ Average wattage. Actual wattage may vary by up to +/- 10 %.

⁽³⁾ The Base Energy charges are calculated by multiplying the kWh times the lighting base energy rate of 2.727¢ per kWh for each fixture. ⁽⁴⁾ Enhanced Post Top. Customizable decorative options

Continued to Sheet No. 6.810

ISSUED BY: G. L. Gillette, President

DATE EFFECTIVE:

FOURTH REVISED SHEET NO. 6.810 CANCELS THIRD REVISED SHEET NO. 6.810



Continued from Sheet No. 6.808										
ole/Wii	e and Pole/Wire Maintenance Charges:									
	[Γ		Charge Per Unit						
Rate Code	Style	Description	Wire Feed	Pole/Wire	Maintenance					
425	Wood (Inaccessible) ⁽¹⁾	30 ft	ОН	\$6.03	\$0.17					
626	Wood	30 ft	ОН	\$2.61	\$0.17					
627	Wood	35 ft	ОН	\$2.95	\$0.17					
597	Wood	40/45 ft	ОН	\$6.64	\$0.31					
637	Standard	35 ft, Concrete	ОН	\$5.34	\$0.17					
594	Standard	40/45 ft, Concrete	ОН	\$10.00	\$0.31					
599	Standard	16 ft, DB Concrete	UG	\$16.03	\$0.14					
595	Standard	25/30 ft, DB Concrete	UG	\$21.54	\$0.14					
588	Standard	35 ft, DB Concrete	UG	\$23.58	\$0.34					
607	Standard (70 - 100 W or up to 100 ft span) ⁽¹⁾	35 ft, DB Concrete	UG	\$11.33	\$0.34					
612	Standard (150 W or 100 -150 ft span) ⁽¹⁾	35 ft, DB Concrete	UG	\$15.38	\$0.34					
614	Standard (250 -400W or above 150 ft span) ⁽¹⁾	35 ft, DB Concrete	UG	\$23.24	\$0.34					
596	Standard	40/45 ft, DB Concrete	UG	\$27.71	\$0.14					
523	Round ⁽¹⁾	23 ft, DB Concrete	UG	\$20.42	\$0.14					
591	Tall Waterford	35 ft, DB Concrete	UG	\$28.82	\$0.14					
592	Victorian	PT, DB Concrete	UG	\$24.58	\$0.14					
593	Winston	PT, DB Aluminum	UG	\$13.72	\$1.10					
583	Waterford	PT, DB Concrete	UG	\$21.16	\$0.14					
422	Aluminum ⁽¹⁾	10 ft, DB Aluminum	UG	\$7.83	\$1.30					
616	Aluminum	27 ft, DB Aluminum	UG	\$27.86	\$0.34					
615	Aluminum	28 ft, DB Aluminum	UG	\$11.79	\$0.34					
622	Aluminum	37 ft, DB Aluminum	UG	\$40.07	\$0.34					
623	Waterside	38 ft, DB Aluminum	UG	\$37.44	\$3.85					
584	Aluminum ⁽¹⁾	PT, DB Aluminum	UG	\$17.02	\$1.10					
581	Capitol ⁽¹⁾	PT, DB Aluminum	UG	\$26.70	\$1.10					
586	Charleston	PT, DB Aluminum	UG	\$20.43	\$1.10					
585	Charleston Banner	PT, DB Aluminum	UG	\$26.51	\$1.10					
590	Charleston HD	PT, DB Aluminum	UG	\$23.22	\$1.10					
580	Heritage ⁽¹⁾	PT, DB Aluminum	UG	\$19.63	\$1.10					
587	Riviera ⁽¹⁾	PT, DB Aluminum	UG	\$20.56	\$1.10					
589	Steel ⁽¹⁾	30 ft, AB Steel	UG	\$39.21	\$1.68					
624	Fiber ⁽¹⁾	PT, DB Fiber	UG	\$7.12	\$1.30					
582	Winston ⁽¹⁾	PT, DB Fiber	UG	\$13.72	\$1.10					
525	Franklin Composite	PT, DB Composite	UG	\$23.91	\$1.10					
641	Existing Pole		UG	\$4.95	\$0.34					
Closed	to new business	om Sheet No. 6.815								

ISSUED BY: G. L. Gillette, President

DATE EFFECTIVE:

FIRST REVISED SHEET NO. 6.820 CANCELS ORIGINAL SHEET NO. 6.820



Continued from Sheet No. 6.815

SPECIAL PROVISIONS:

- All non-governmental customers shall execute the company's standard lighting agreement for service under this contract. All non-governmental and non-residential customers shall provide documentation to support signatory authority for execution of the company's standard lighting agreement.
- 2. The customer shall be responsible for the cost incurred to repair or replace any company facilities that have been damaged as a result of any cause other than normal wear and tear. The company shall not be required to make such repair or replacement prior to payment by the customer for such damage. At the customer's expense, and at the company's discretion, the company may install a Luminaire protective shield to protect any Equipment repaired or replaced as a result of vandalism.
- 3. The customer shall arrange for tree trimming by qualified personnel at the customer's sole expense when the installation of, illumination from or maintenance access to the Equipment is obstructed by trees and other vegetation. The company shall not be responsible for tree trimming for lighting installation or illumination obstruction.
- 4. The company will not be required to install or continue to operate equipment at any location where the service may be or has become objectionable to others. If it is found either during or after installation that the light is objectionable to others, the customer shall be responsible for the costs incurred to relocate, remove, or shield the equipment in addressing the objection unless the customer is otherwise able to fully address and satisfy the third-party objections in question.
- 5. In the event that the Customer fails to pay the Company for any of the services provided herein, or violates the terms of this agreement, the Company may, at its option and on five (5) days' written notice, terminate this agreement. If such termination occurs prior to the expiration of the primary term, the Customer agrees to pay the Company, as liquidated damages, an amount equal to the net present value of the monthly rate for each service taken, less all applicable fuel and other adjustment clause charges, and (where applicable) franchise fees and taxes, for each month of the unexpired primary term

Continued to Sheet No. 6.821

ORIGINAL SHEET NO. 6.821



Continued from Sheet No. 6.820

SPECIAL PROVISIONS (continued):

6. In no event shall the Customer, or any other Grantor, place upon or attach to the Equipment, except with the Company's prior written consent and as set forth in applicable Tampa Electric attachment guidelines, any sign or device of any nature, or place, install or permit to exist, anything, including trees or shrubbery, which would interfere with the Equipment or tend to create a dangerous condition. The Company is hereby granted the right to remove, without liability, anything placed, installed, or existing in violation of this paragraph.

Should such a request to physically attach be made to the Company by written application, each request shall be individually reviewed for approval by the Company. Applicable terms and conditions of an attachment approved by the Company shall be memorialize by a separate agreement and shall not supersede the terms and conditions of the Agreement.

Should such application to attach be made by a party other than the Customer, the initiating party shall obtain additional written approval from the Customer to attach to the specific Equipment as identified by the pole tag number. Such approval of the Customer must be provided to the Company before final approval is granted for physical attachment.

7. The Customer shall locate and advise the Company, through the provision of an accurate map and other necessary written descriptions, of the exact location of all underground facilities including, but not limited to: sewage pipes, septic tanks, wells, swimming pools, sprinkler systems, conduits, cables, valves, lines, fuel storage tanks, and storm drainage systems ("Underground Facilities") at the Installation Site at least two (2) days prior to the commencement of any work by the Company at the Installation Site.

ISSUED BY: G. L. Gillette, President

TAMPA ELECTRIC COMPANY EXHIBIT B PAGE 7 OF 15

FIFTH REVISED SHEET NO. 7.200 CANCELS FOURTH REVISED SHEET NO. 7.200



AN EMERA COMPANY

TAMPA ELECTRIC COMPANY BRIGHT CHOICES Outdoor Lighting Agreement

Pursuant to the terms and conditions set forth in this outdoor lighting agreement (the	"Agreement"),
Tampa Electric Company (the "Company") agrees to provide and	
(Customer Name, Billing Address and Physical Address)	(the
"Customer") agrees to accept and pay for the outdoor lighting services specified below.	

1. Scope of Work

The Company shall furnish, install, operate and maintain, the following lighting equipment (all of which, together with accessories, attachments, replacement parts, additions and repairs, shall be referred to herein as "Equipment"): ______

____ at the following location _____("Installation Site"), subject to

the availability of such Equipment, for the term of the Agreement..

2. System Design and Approval

If applicable, based on written lighting system design specifications approved by the Customer and/or the Equipment selected by the Customer, the Company shall prepare and provide the Customer with a copy of the final design and/or sketch at least five (5) business days prior to the commencement of installation of the Equipment at the Installation Site. If the Company is unable to provide all of the Equipment selected by the Customer or the Company is unable to install the selected Equipment in reasonable proximity to the locations identified in the approved design specifications for the initial installation of the Equipment, the Company shall note any material deviations from the approved design specifications or Equipment selections in the final design sketch and if applicable, written notification of any adjustments affecting monthly charges. If the final design sketch has been provided to the Customer, as required immediately above, and the Customer has not advised the Company of specific changes to be made to the final design sketch prior to the commencement of work at the Installation Site, then the Customer will be deemed to have consented to the configuration and installation of Equipment pursuant to the final design sketch. The final design sketch will conform, to the extent practicable, to the Customer's preferences or preferred design.

The Equipment shall be repaired or replaced with the closest available light and/or light pole and associated rate(s) should parts or Equipment become unavailable.

THE COMPANY MAKES NO WARRANTY, EITHER EXPRESSED OR IMPLIED, INCLUDING AN IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE of either the Equipment or the lighting design plan pursuant to which the Equipment is installed.

3. Change Orders

The Equipment shall be configured and installed pursuant to the final design sketch. Any change order requested by the Customer after consenting to the final design sketch shall be carried out at the Customer's expense.

Continued to Sheet No. 7.201

SEVENTH REVISED SHEET NO. 7.201 CANCELS SIXTH REVISED SHEET NO. 7.201



Continued from Sheet No. 7.200

4. Damages During Construction

The Customer shall be responsible for all costs incurred to repair or replace any Equipment which is damaged by the Customer, its agents, employees, representatives or third parties other than the Company during construction of Customer's facilities including but not limited to costs incurred to repair or relocate Equipment to proper depths in response to a lowering of the grade of the soil above any conduit serving the Equipment.

5. Customer Information and Preparation

The Customer shall locate and advise the Company, through the provision of an accurate map and other necessary written descriptions, of the exact location of all underground facilities including, but not limited to: sewage pipes, septic tanks, wells, swimming pools, sprinkler systems, conduits, cables, valves, lines, fuel storage tanks, and storm drainage systems ("Underground Facilities") at the Installation Site at least two (2) days prior to the commencement of any work by the Company at the Installation Site. Any and all cost or liability for damage to Underground Facilities by the Company that were not properly identified by the Customer, as described under this Paragraph, shall be paid by the Customer. Except for those claims, losses and damages arising out of Company's sole negligence, the Customer agrees to defend, at its own expense, and indemnify the Company for any and all claims, losses and damages, including attorney's fees and costs, which arise or are alleged to have arisen out of furnishing, design, installation, operation, maintenance or removal of the Equipment. The phrase "property damage" includes, but is not limited to, damage to the property of the Customer, the Company, or any third parties. For purposes of this indemnification, and the exculpation of liability provided in Paragraph 11 of this Agreement, the "Company" shall be defined as Tampa Electric Company, its parent, Emera, Inc., and all subsidiaries and affiliates thereof, and each of their respective officers, directors, affiliates, insurers, representatives, agents, servants, employees, contractors, or parent, sister, of successor corporations.

6. Location of Equipment

If applicable, the Customer shall stake the locations of Equipment on roadways and commercial property prior to the installation of the Equipment by the Company. To assist the Customer with the staking process, the Company shall provide the Customer with an approved design that reflects the Equipment locations approved by the Customer.

7. Non-Standard Service Charges

The Customer shall pay all costs associated with any additional Company facilities and services that are not considered standard for providing lighting service including, but not limited to: installation of distribution transformers, relays, protective shields, bird deterrent devices, light trespass shields, any devices required by local regulations to control the level or duration of illumination including any associated planning and engineering costs, removal and replacement of pavement required to install underground lighting cable, and directional boring. Charges will also be assessed for light rotations and light pole relocations. The Company will bill the Customer the actual cost of such non-standard facilities and services as incurred.

Continued to Sheet No. 7.202

ISSUED BY: G. L. Gillette, President

SIXTH REVISED SHEET NO. 7.202 CANCELS FIFTH REVISED SHEET NO. 7.202



Continued from Sheet No. 7.201

8. Customer Contribution in Aid of Construction

The Company shall pay for all normal Equipment installation costs, with the exception of the following: \$_______ for _______. If applicable, a final invoice or partial refund shall be issued to the Customer based upon deviations of actual costs in relation to the estimated customer contribution. CIAC payment to satisfy actual costs are non-refundable.

9. Monthly Payment

During the term of this Agreement, the Customer shall pay the Company monthly for the lighting services provided pursuant to Rate Schedule LS-1 as the rate schedule, which is on file with the Florida Public Service Commission, may be amended from time to time. All bills shall be due when rendered.

The current monthly base charges for facilities installed under this agreement are_____. Fuel and other adjustment clause charges and (where applicable) franchise fees and taxes per month under current tax rates pursuant to the Rate Schedule shall be _____. The total monthly charge shall be ______ per month.

If Applicable, Customer agrees to deposit with the Company, the additional cash sum of ______, which is equivalent to approximately two (2) months service under this Agreement, or upon acceptance if the Company so agrees, provide a surety bond or an irrevocable letter of credit from a bank, in favor of the Company in the same amount. The Company will annually credit the Customer's bill with an interest amount, at the rate currently approved by the Florida Public Service Commission, for cash deposits received. The currently authorized interest rate is __%.

The monthly charges specified in this agreement are tied to the tariff charges currently on file with the Florida Public Service Commission and may change during the term of this Agreement in accordance with filed changes to the relevant tariffs.

10. Term

This Agreement shall be effective on the later of the dates indicated on the signature block ("Effective Date") and shall remain in force for a primary term of ten (10) year(s) (the "Primary Term") beginning on the date one or more of the Equipment is installed and, if applicable, at least one light is energized and ready for use and shall continue thereafter for successive one year terms (each, a "Renewal Term") until terminated by either party upon providing the other party with ninety (90) days prior written notice of termination.

11. Limitation on Damages

The Company will furnish electricity to operate the Equipment for dusk to dawn service or less, depending on the controlling device, each calendar year. The Company will use reasonable diligence at all times to provide continuous operation during the term. The Company shall not be liable to the Customer for any damages arising from causes beyond its control or from the negligence of the Company including, but not limited to, complete or partial failure or interruption of service, shut down for repairs or adjustments, delay in providing or restoring service, or for failure to warn of any interruption of service or lighting.

Continued to Sheet No. 7.203

SIXTH REVISED SHEET NO. 7.203 CANCELS FIFTH REVISED SHEET NO. 7.203



Continued from Sheet No. 7.202

12. Outage Notification

The Customer shall be responsible for monitoring the function of the Equipment and for notifying the Company of all Equipment outages.

13. Tree Trimming

Failure of the Customer to maintain adequate clearance (e.g. trees and other vegetation) around the Equipment may cause illumination obstruction and/or a delay in requested repairs or required maintenance.

14. Termination, Removal

The Customer shall have the right to terminate this Agreement without any liability or obligation to the Company during the three (3) business day period following the Effective Date ("Initial Termination Period"), provided that written notice of such termination is received by the Company no later than the close of business on the third business day following the Effective Date. In addition, the Customer may terminate this Agreement during the period that commences at the close of the Initial Termination Period and ends at 5:00 p.m. on the business day immediately preceding the date on which installation of the Equipment at the Installation Site is scheduled to commence ("Final Termination Period"), provided that written notice of such termination is received by the Company no later than 5:00 p.m. on the business day immediately preceding the date on which installation of the Equipment commences and, provided further, that the Customer reimburses the Company for any costs incurred by the Company up to the time of the termination by the Customer. These costs include, but are not limited to, shipping and storeroom handling cost for items purchased pursuant to or in contemplation of the Agreement, restocking fees on returned purchases, the cost of purchased Equipment that cannot be returned, or in the Company's sole judgment, reasonably absorbed in current inventory, and engineering time. The Customer may not terminate this Agreement once installation of the Equipment has commenced.

The company may, at its option and on five (5) days written notice to Customer, terminate this agreement in the event that:

- (a) the Customer fails to pay the Company for any of the services provided herein;
- (b) the Customer violates the terms of this agreement;
- (c) a petition for adjudication of bankruptcy or for reorganization or rearrangement is filed by Customer pursuant to any federal or state bankruptcy law or similar federal or state law; or
- (d) a trustee or receiver is appointed to take possession of the Installation Site (or if Customer is a tenant at the Installation Site, tenant's interest in the Installation Site) and possession is not restored to Tenant within thirty (30) days.

Continued to Sheet No. 7.204

ISSUED BY: G. L. Gillette, President

TAMPA ELECTRIC COMPANY EXHIBIT B PAGE 11 OF 15

SEVENTH REVISED SHEET NO. 7.204 CANCELS SIXTH REVISED SHEET NO. 7.204



AN EMERA COMPANY

Continued from Sheet No. 7.203

If such termination occurs prior to the expiration of the Primary Term, the Customer agrees to pay the Company, as liquidated damages, an amount equal to the net present value of the monthly rate for each service taken, less all applicable fuel and other adjustment clause charges, and (where applicable) franchise fees and taxes, for each month of the unexpired Primary Term.

15. Easements

The Property Owner covenants that it owns or controls the Installation Site and is authorized to grant the Company an easement to permit performance of the Agreement. The Customer and the Property Owner of the Installation Site, if other than the Customer (individually, the "Grantor" collectively, the "Grantors"), hereby grant the Company a **Non-exclusive Easement** for ingress and egress over and under the Installation Site for installation, inspection, operation, maintenance, repair, replacement, and removal of the Equipment. The Non-exclusive Easement shall terminate upon the Company's removal of the Equipment. The Equipment shall remain the Company's personal property, notwithstanding the manner or mode of its attachment to the Installation Site and shall not be deemed fixtures. Any claim(s) that the Company has or may hereafter have with respect to the Equipment shall be superior to any lien, right or claim of any nature that any Grantor or anyone claiming through Grantor now has or may hereafter have with respect to the Equipment or otherwise.

In the event that this agreement is terminated pursuant to Paragraph 14 or expires pursuant to Paragraph 10, each of the Grantors expressly grants the Company or its assigns or agents the continued right of entry at any reasonable time to remove the Equipment, or any part hereof, from the Installation Site. The Grantors, individually or collectively, shall make no claim whatsoever to the Equipment or any interest or right therein.

16. Physical **Attachments**

In no event shall the Customer, or any other Grantor, place upon or attach to the Equipment, except with the Company's prior written consent and as set forth in applicable Tampa Electric guidelines, any sign or device of any nature, or place, install or permit to exist, anything, including trees or shrubbery, which would interfere with the Equipment or tend to create a dangerous condition. The Company is hereby granted the right to remove, without liability, anything placed, installed, or existing in violation of this paragraph.

Should such a request to physically attach be made to the Company by written application, each request shall be individually reviewed for approval by the Company. Applicable terms and conditions of an attachment approved by the Company shall be memorialize by a separate agreement and shall not supersede the terms and conditions of the Agreement.

Should such application to attach be made by a party other than the Customer, the initiating party shall obtain additional written approval from the Customer to attach to the specific Equipment as identified by the pole tag number. Such approval of the Customer must be provided to the Company before final approval is granted for physical attachment.

Continued to Sheet No. 7.205





TAMPA ELECTRIC COMPANY EXHIBIT B PAGE 12 OF 15 NINTH REVISED SHEET NO. 7.205 CANCELS EIGHTH REVISED SHEET NO. 7.205

Continued from Sheet No. 7.204

17. Insurance

Customer, at his sole cost and expense, shall maintain insurance, in amounts and under policy forms satisfactory to Company at all times during the life of this Agreement. Failure to provide insurance in accordance with this Section shall constitute a material breach of this Agreement.

18. Amendments

During the term of this Agreement, Company and Customer may amend or enter into additional addenda to the Agreement ("Addenda") upon the mutual written agreement of both parties in the form of Addendum "A" hereto.

19. Light Trespass

Customer acknowledges and agrees that the Customer is solely responsible for specifying the general location of the Equipment and the direction and orientation of the illumination provided thereby. The Company will not be required to install or continue to operate the Equipment at any location where the service may be or has become objectionable to others. If removal of any Equipment is the only practicable resolution of the objection, such removal will be deemed a termination prior to the expiration of the Primary Term as provided in Paragraph 15 and Customer promptly shall pay the Company the liquidated damages specified therein for the percentage or portion of the Equipment that must be removed.

20. Assignments

This Agreement shall inure to the benefit of, and be binding upon, the respective heirs, legal representatives, successors and assigns of the parties hereto. This Agreement may be assigned by the Customer only with the Company's prior written consent. In the event of an Assignment, the assignee may be substituted herein for the Customer and/or other Grantor with respect to all Customer rights and obligations, but the initial Customer shall not be released from the obligations of this Agreement except by a separate writing from the Company in the Company's sole discretion.

Continued to Sheet No. 7.206



TAMPA ELECTRIC COMPANY EXHIBIT B PAGE 13 OF 15 THIRD REVISED SHEET NO. 7.206 CANCELS SECOND REVISED SHEET NO. 7.206

Continued from Sheet No. 7.205

21. General

No delay or failure by the Customer or the Company to exercise any right under this Agreement shall constitute a waiver of that or any other right, unless otherwise expressly provided herein.

This Agreement shall be construed in accordance with and governed by the laws of the State of Florida.

IN WITNESS WHEREOF, the parties, each of whom represents and warrants that he or she is duly authorized to execute this Agreement, have caused this instrument to be executed in due form of law.

Customer:	Tampa Electric Company Representative:
By/Title:	By/Title:
Name (print):	Signature:
Signature:	Department:
Date:	Date:
Phone #:	Date
Email:	
Property Owner:	Tampa Electric Company Manager:
By/Title:	By/Title:
Name (print):	Signature:
Signature:	Department:
Date:	Date:
Phone #:	
Email:	
Contract No.	

TAMPA ELECTRIC COMPANY EXHIBIT B PAGE 14 OF 15

FIFTH REVISED SHEET NO. 7.207 CANCELS FOURTH REVISED SHEET NO. 7.207



BRIGHT CHOICES ® Outdoor Lighting Agreement ADDENDUM A

THIS Addendum to the Tampa Electric Bright Choices Outdoor Lighting Agreement (the "Agreement") is made this _____ day of _____ by and between Tampa Electric Company (the "Company") and ______

(Customer Name, Billing Address and Physical Address) and is made in reference to the lighting services specified below. For purposes of this Agreement the Company shall be defined as Tampa Electric Company, its parent, Emera, Inc., and all subsidiaries and affiliates thereof, and each of their respective officers, directors, affiliates, insures, representatives, agents, servants, employees, contractors, or parent, sister, or successor corporations.

WHEREAS, the Company and Customer are parties to the Agreement, which requires the Company to furnish, install, operate and maintain certain outdoor lighting equipment (the "Equipment") in exchange for payment of certain monthly charges paid by Customer for the term of the Agreement.

WHEREAS, Customer has requested Company to furnish, install, operate and maintain, for the term of the Agreement, the following additional lighting equipment, together with accessories, attachments, replacement parts, additions and repairs (the "Equipment").

In consideration of the mutual promises contained herein and other good and valuable consideration, the parties agree as follows:

1. The Company shall furnish, install, operate and maintain, for the term of this Addendum, the following additional Equipment:

2. In exchange for Company's installation, operation and maintenance of such additional Equipment, Customer agrees to pay the following additional monthly fees for the term of this Addendum:

Continued to Sheet No. 7.208

TAMPA ELECTRIC COMPANY EXHIBIT B PAGE 15 OF 15 ORIGINAL SHEET NO. 7.208



Continued from Sheet No. 7.207 The current monthly base charges for Equipment installed under this Addendum are ______. Fuel and other adjustment clause charges and (where applicable) franchise fees and taxes per month under current tax rates pursuant to the Rate Schedule are ______. The total monthly charge is ______ per month.

If applicable, Customer agrees to deposit with the Company, the additional cash sum of ______, which is equivalent to approximately two (2) months service for the facilities installed under this Addendum.

3. All terms and conditions set forth in the Agreement are hereby incorporated by this reference. To the extent, this Addendum conflicts with the Agreement, the terms and conditions of the Agreement shall be controlling.

In Witness Whereof, the parties, each of whom represents and warrants that he or she is duly authorized to execute this agreement, have caused this instrument to be executed in due form of law, this day and year first written above.

Customer: By/Title: Name (print): Signature: Date: Phone #: Email:	Tampa Electric Company Representative: By/Title: Signature: Department: Date:
Property Owner: By/Title: Name (print): Signature: Date: Phone #: Email:	Tampa Electric Company Manager: By/Title: Signature: Department: Date:
Original Contract No Addendum Contract No	

EXHIBIT C

TAMPA ELECTRIC COMPANY EXHIBIT C PAGE 1 OF 5

EXHIBIT C

The proposed Lighting Conversion Program will remove and retire the existing non-LED lighting facilities infrastructure that is currently delivering a lighting service to Tampa Electric customers and then continue the delivery of lighting services to those same customers through the installation of a new smart LED infrastructure. The Lighting Conversion Program will be executed in two ways:

First, any non-LED fixture that is reported to Tampa Electric as being in an outage will be returned to service with a new LED. This process will follow standard business practices that are currently in place to acknowledge and resolve outages. Outage reporting follows a predictable annual pattern where outage reporting is elevated during storm season and peaks during the months of September and October due to the time change. February through April are generally lower outage reporting months as compared to other months.

Second, a work plan will be implemented that will seek to systematically convert the entire Tampa Electric service territory through a planned geographical sequence. This sequenced work plan will follow a defined order by either circuit or by grid area. This work plan will be collaboratively defined by Tampa Electric and key community partners. Additionally, Tampa Electric will seek synergies to align on-going roadway work and other infrastructure upgrades while also considering specific constituent needs. LED conversions for a specific geographical area will be planned several months in advance of performing the work in the field. Planning resources will identify all non-LED lighting infrastructure within a geographical area and select the equivalent LED that is to replace it. An LED equivalent will be selected based upon the photometric properties, fixture style and application, billing rate of the existing fixture, and whether it is in a residential area. Additionally, planning will involve identifying issues with site access, special customer coordination requirements, maintenance of traffic (MOT), and/or special permitting. Groupings of fixtures will be packaged together in the form of a work request and assigned at a pace to match available work capacity.

As previously stated, an identifiable pattern exists with respect to outage reporting. A constant crew count will be maintained across each year of the conversion program and defined by the number

of crews required to maintain an appropriate return to service response for outage reporting during the peak of that specific year. During non-peak months, crews will be reallocated to execute the planned work along the defined geographical path and then reallocated to convert outage driven infrastructure to LED as the outage reporting rate ramps to the peak season.

The primary point of operational risk is in material availability and supply chain. Once the conversion effort begins, approximately 5,000 fixtures will be converted to LED per month. Across the first 18 months it is expected that nearly 70 percent of conversions to LED will take place through outage resolution. It is difficult to predict the quantity of a specific type of fixture that will fail therefore that failure rate across the entire non-LED lighting system is considered in conjunction with the existing installed quantities of each type of non-LED fixture to determine the estimated LED inventory. Based upon the quantities of non-LED fixtures in each service area, a two-week inventory will be stocked at each storeroom location throughout Tampa Electric's service area and select contractor sites. Minimum quantities will be defined in the company's supply chain based upon a one-week turnover rate. To further ensure adequate material availability, cycle counts at each location will be performed on a weekly basis to confirm or reconcile inventory. Additionally, back-up inventory will be kept by two different distributors and by each product manufacturer earmarked for Tampa Electric.

As installations are converted to LED, field crews will record asset information to document location, equipment installed, serial number of the network lighting controller, and other information of interest to update mapping and asset management databases. The collection and transmission of this data will be streamlined using devices capable of reading barcodes. Furthermore, each installed LED will automatically report back as online and operational through the NLC if network coverage is present.

The NLC will have the ability to communicate to and through other endpoint devices such as meters in route to a collector gateway router (CGR), an access point to the company's data management servers. This network of end points is called the communication mesh which will primarily be comprised of approximately 730,000 electric meters and approximately 223,000 fixtures. Each CGR, is strategically placed based upon modelling to accommodate both end-point density and

coverage strength. This communication infrastructure is estimated to be completed by the end of 2019 at which point all fixtures equipped with a NLC will have coverage. Additionally, new automatic metering infrastructure (AMI) will begin to be implemented across Tampa Electric's service territory. The NLCs will report fixture operational metrics back to a headend system and dashboard that will be monitored for outages and other alarm conditions requiring resolution.

Another primary point of focus will be on public outreach in both preparing the service territory for the Lighting Conversion Program and in providing instruction about LED proactively. A general campaign will be launched through social media, company website, and through community partners to discuss the safety and environmental benefits of LEDs. Discussion will address what infrastructure changes can be expected across the next few years. Customers will also be provided several methods to obtain more information. As infrastructure is returned to service from an outage with an LED, a door hanger will be left behind as appropriate to inform the customer of the upgrade to LED, a description of the benefits will be provided as well as where to obtain more information. There will be situations where a single fixture is converted to LED at a customer's location due to an outage where other non-LED fixtures are still operational. Customers may desire that all infrastructure be upgraded after receiving the door hanger. Upon restoration, Tampa Electric may proactively convert other non-LED fixtures on the same pole or property depending on quantity, other pending restoration activities, and immediate material availability. In response to such inquiries, the customer will be informed of approximately when their other fixtures are expected to be converted according to their place on the geographical work plan. Customers whose lighting installations are to be converted to LED along the geographically planned work path will receive correspondence from Tampa Electric via bill insert or a direct mailer that will inform them of the near-term infrastructure change, the benefits that they will receive, what to expect, and where to get more information. Furthermore, a rapid response team will be set up to address issues that arise and provide resolution in support of maintaining an ideal customer experience.

Another area of significant consideration is that of cost controls and prudent resource allocation. Project expenses will primarily be incurred through material and labor needed to complete the scope of work. Tampa Electric has completed a material bid process for the new LED fixtures that will be installed across the service territory. The bid results successfully leveraged the volume of new fixtures required to achieve a substantial material discount. Pricing for fixtures is unit based and firm through the end of 2018 after which any potential pricing increases are contractually dampened by an annual price increase limitation. Each non-post-top fixture in the field is attached to a pole with a bracket. New fixtures selected through the bid process were chosen to ensure most brackets that are currently in the field can be reused for the new LEDs. Tampa Electric estimated that 85 percent of existing brackets will be reused with only flood light and shoebox installations requiring a different bracket. These economies of scale are reflected in the proposed new fixture rates.

The work in the field will require a mixture of internal and contracted labor resources. The scope of work related to a unit infrastructure change out to LED does require more time than compared to a general lighting repair thus less crew productivity per day. Unit based conversion pricing was memorialized by agreements with multiple contractors performing the scope of field work thereby providing an effective sensitivity hedge while also providing greater budgetary certainty.

Another area of cost sensitivity is ensuring consistency in material handling and installation practices among crews performing the work. To help address this, specific LED packaging is being utilized to take advantage of spacing limitations and limit the impact of mechanical vibration of a bucket truck. This packaging will allow multiple fixtures to be transported by a crew while at the same time mitigate many of the causes for damage/breakage. Additionally, formal training related to best installation practices from each manufacturer will be given prior to the project and annually thereafter. Other directed training related to identified issues or specific field nuances will be provided to crews on a regular basis by various personnel to elevate crew competency in installing the new LED fixtures and provide a productivity benefit too. All existing non-LED fixtures and associated bulbs that are removed from the field will also need to be handled appropriately as part of the company's environmental compliance. As a standard practice, all bulbs are to be removed and placed into a bubble wrap pouch to both contain the contents and prevent breakage. All bulbs are disposed of at each respective storeroom's designated bulb disposal area. Each disposal area will be equipped with multiple drums with sealable interior liners that can be removed for appropriate handling and disposal.

Any training provided will have a strong focus on safety with respect to required personal protective equipment (PPE), Safe Work Practices, and scope specific discussion related to hazards and conditions. The greatest safety risk that crews will regularly encounter is from other vehicles. Many lighting installations are installed along roadways which will required MOT to be set up to allow for proper truck positioning for the work to take place. This however does not fully mitigate the hazards related to working in a roadway, therefore situational awareness and other additional tactical precautions will be utilized to ensure safety of life.

From a quality assurance standpoint, an inspector will provide a post completion field review of work performed. Aspects of interest for inspection can include workmanship and scope completion. As inspection data is collected, findings will be compiled and communicated to ensure each occurrence is resolved, training topics are specifically targeted, standard operating procedures and safe work practices are reinforced, and invoicing is appropriately adjusted.

In summary, Tampa Electric expects that all actively billing existing non-LED infrastructure will be removed and replaced with a new LED fixture equipped with an NLC by which lighting service will continue to be rendered. The non-LED infrastructure changeout will take place across 5 years. The restoration conversion volume is expected to dominate the beginning phases while planned geographical conversions is expected to dominate the latter phases and drive to full scope completion. In support of the ideal customer experience, the overall value proposition to customers will strengthen as a better product will be provided with future capabilities to be determined, reliability will improve, and costs to the customer will generally remain neutral to less than. Tampa Electric anticipates obtaining a positive response from its customer base through general and targeted communications and instruction related to the Lighting Conversion Program.

EXHIBIT D

			Monthly	Proposed Monthly Base and Maintenance Charges									Current					
			New			Unit Cost	Subtotal						Total	Total				
		Replacement	Energy	Base	Base	of	Monthly		Capacity	Conserv.	Environ.		Monthly	Monthly				Bill
LS-1 MH and HPS Offerings	New LED LS-1 Offerings	Units	kWh	Energy	Facilities	Maintenance	Base Charge	Fuel	ĊCR	ECCR	ECRC	GRT	Charge	Charge	New Vs Prop	osed - Units	Ľ	Difference
Fixture Type	FIXTURE TYPE:												LED		Lower Sa	ame Hig	her	
COBRA 50 WATT HPS	27W Roadway	6,332	9	\$ 0.25	\$ 4.83	\$ 1.74	\$ 6.82	0.26	0.00	0.01	0.03	0.01	\$ 7.14	\$ 6.90		63	32 \$	0.24
COBRA_NEMA 70 WATT HPS	27W Roadway	11,755	9	\$ 0.25	\$ 4.83	\$ 1.74	\$ 6.82	\$ 0.26	\$ 0.00	\$ 0.01	\$ 0.03	\$ 0.01	\$ 7.14	\$ 7.14	11	755		
COBRA_NEMA 100 WATT HPS	47W Roadway	87,970	16	\$ 0.44	\$ 5.97	\$ 1.74	\$ 8.15	\$ 0.47	\$ 0.00	\$ 0.02	\$ 0.06	\$ 0.03	\$ 8.73	\$ 8.73		970		
COBRA 150 WATT HPS	105W Roadway	14,300	37	\$ 1.01	\$ 6.83	\$ 1.19	\$ 9.03	\$ 1.08	\$ 0.01	\$ 0.04	\$ 0.14	\$ 0.06	\$ 10.35	\$ 10.35	14	300		
COBRA 250 WATT HPS	145W Roadway	18,240	51	\$ 1.39	\$ 8.61	\$ 2.26	\$ 12.26	\$ 1.49	\$ 0.01	\$ 0.05	\$ 0.19	\$ 0.08	\$ 14.08	\$ 14.08	18	240		
COBRA 400 WATT HPS	182W Roadway	13,355	64	\$ 1.75	\$ 11.81	\$ 2.51	\$ 16.07	\$ 1.87	\$ 0.01	\$ 0.06	\$ 0.24	\$ 0.10	\$ 18.35	\$ 18.35	13	355		
FLOOD 250 WATT HPS	199W Flood	886	70	\$ 1.91	\$ 11.12	\$ 3.45	\$ 16.48	\$ 2.04	\$ 0.01	\$ 0.07	\$ 0.27	\$ 0.11	\$ 18.98	\$ 14.58		88	6\$	4.40
FLOOD 400 WATT HPS	199W Flood	2,043	70	\$ 1.91	\$ 11.12	\$ 3.45	\$ 16.48	\$ 2.04	\$ 0.01	\$ 0.07	\$ 0.27	\$ 0.11	\$ 18.98	\$ 18.98	2	043		
MONGOOSE 400 WATT HPS	225W Mongoose	375	79	\$ 2.15	\$ 11.78	\$ 3.04	\$ 16.97	\$ 2.30	\$ 0.01	\$ 0.08	\$ 0.30	\$ 0.12	\$ 19.79	\$ 19.79	3	75		
PT 50 WATT HPS	26W Granville PT	20	9	\$ 0.25	\$ 5.80	\$ 2.28	\$ 8.33	\$ 0.26	\$ 0.00	\$ 0.01	\$ 0.03	\$ 0.01	\$ 8.65	\$ 7.72		2) \$	0.93
CLASSIC PT 100 WATT HPS	39W Granville PT	6,603	14	\$ 0.38	\$ 13.35	\$ 2.28	\$ 16.01	\$ 0.41	\$ 0.00	\$ 0.01	\$ 0.05	\$ 0.02	\$ 16.51	\$ 16.51	6	503		
ENHANCED CLASSIC PT	39W Granville PT Enhanced	2,300	14	\$ 0.38	\$ 15.35	\$ 2.28	\$ 18.01	\$ 0.41	\$ 0.00	\$ 0.01	\$ 0.05	\$ 0.02	\$ 18.51	\$ 16.51		23	00 \$	2.00
COACH PT 70 WATT HPS	26W Granville PT	4,088	9	\$ 0.25	\$ 5.80	\$ 2.28	\$ 8.33	\$ 0.26	\$ 0.00	\$ 0.01	\$ 0.03	\$ 0.01	\$ 8.65	\$ 8.65	4	088		
COLONIAL PT 100 WATT HPS	76W Salem PT	3,387	27	\$ 0.74	\$ 13.17	\$ 1.54	\$ 15.45	\$ 0.79	\$ 0.00	\$ 0.03	\$ 0.10	\$ 0.04	\$ 16.41	\$ 16.41	3	387		
SALEM _STND_ PT 100 WATT HPS	55W Salem PT	18,602	19	\$ 0.52	\$ 10.95	\$ 1.54	\$ 13.01	\$ 0.55	\$ 0.00	\$ 0.02	\$ 0.07	\$ 0.03	\$ 13.69	\$ 13.69	18	602		
SHOEBOX 100 WATT HPS	88W Roadway/Area	2,211	31	\$ 0.85	\$ 8.97	\$ 1.74	\$ 11.56	\$ 0.90	\$ 0.01	\$ 0.03	\$ 0.12	\$ 0.05	\$ 12.67	\$ 12.67	2	211		
SHOEBOX 250 WATT HPS	133W Roadway/Area	1,646	47	\$ 1.28	\$ 14.15	\$ 1.38	\$ 16.81	\$ 1.37	\$ 0.01	\$ 0.05	\$ 0.18	\$ 0.07	\$ 18.48	\$ 18.48	10	646		
SHOEBOX 400 WATT HPS	182W Roadway	1,380	64	\$ 1.75	\$ 11.81	\$ 2.51	\$ 16.07	\$ 1.87	\$ 0.01	\$ 0.06	\$ 0.24	\$ 0.10	\$ 18.35	\$ 22.23	1380		\$	(3.88)
COBRA 350 WATT MH	133W Roadway/Area	131	47	\$ 1.27	\$ 14.15	\$ 1.38	\$ 16.80	\$ 1.36	\$ 0.01	\$ 0.05	\$ 0.18	\$ 0.07	\$ 18.46	\$ 21.21	131		\$	(2.75)
COBRA 400 WATT MH	133W Roadway/Area	534	47	\$ 1.27	\$ 14.15	\$ 1.38	\$ 16.80	\$ 1.36	\$ 0.01	\$ 0.05	\$ 0.18	\$ 0.07	\$ 18.46	\$ 20.06	534		\$	(1.60)
FLOOD 350 WATT MH	199W Flood	51	70	\$ 1.91	\$ 11.12	\$ 3.45	\$ 16.48	\$ 2.04	\$ 0.01	\$ 0.07	\$ 0.27	\$ 0.11	\$ 18.98	\$ 22.28	51		\$	(3.30)
FLOOD 400 WATT MH	199W Flood	1,031	70	\$ 1.91	\$ 11.12	\$ 3.45	\$ 16.48	\$ 2.04	\$ 0.01	\$ 0.07	\$ 0.27	\$ 0.11	\$ 18.98	\$ 22.40	1031		\$	(3.42)
FLOOD 1000 WATT MH	255W Flood	2,165	89	\$ 2.43	\$ 21.48	\$ 4.10	\$ 28.01	\$ 2.60	\$ 0.02	\$ 0.09	\$ 0.34	\$ 0.14	\$ 31.19	\$ 42.78	2165		\$	(11.59)
GENERAL PT 150 WATT MH	39W Granville PT	102	14	\$ 0.38	\$ 13.35	\$ 2.28	\$ 16.01	\$ 0.41	\$ 0.00	\$ 0.01	\$ 0.05	\$ 0.02	\$ 16.51	\$ 18.75	102		\$	(2.23)
GENERAL PT 175 WATT MH	39W Granville PT	801	14	\$ 0.38	\$ 13.35	\$ 2.28	\$ 16.01	\$ 0.41	\$ 0.00	\$ 0.01	\$ 0.05	\$ 0.02	\$ 16.51	\$ 19.29	801		\$	(2.77)
SALEM PT 150 WATT MH	76W Salem PT	283	27	\$ 0.74	\$ 13.17	\$ 1.54	\$ 15.45	\$ 0.79	\$ 0.00	\$ 0.03	\$ 0.10	\$ 0.04	\$ 16.41	\$ 17.48	283		\$	(1.06)
SALEM PT 175 WATT MH	76W Salem PT	946	27	\$ 0.74	\$ 13.17	\$ 1.54	\$ 15.45	\$ 0.79	\$ 0.00	\$ 0.03	\$ 0.10	\$ 0.04	\$ 16.41	\$ 17.79	946		\$	(1.37)
SHOEBOX 150 WATT MH	105W Roadway	13	37	\$ 1.01	\$ 6.83	\$ 1.19	\$ 9.03	\$ 1.08	\$ 0.01	\$ 0.04	\$ 0.14	\$ 0.06	\$ 10.35	\$ 15.37	13		\$	(5.01)
SHOEBOX 175 WATT MH	105W Roadway	13	37	\$ 1.01	\$ 6.83	\$ 1.19	\$ 9.03	\$ 1.08	\$ 0.01	\$ 0.04	\$ 0.14	\$ 0.06	\$ 10.35	\$ 16.32	13		\$	(5.96)
SHOEBOX 350 WATT MH	182W Roadway	323	64	\$ 1.75	\$ 11.81	\$ 2.51	\$ 16.07	\$ 1.87	\$ 0.01	\$ 0.06	\$ 0.24	\$ 0.10	\$ 18.35	\$ 23.17	323		\$	(4.82)
SHOEBOX 400 WATT MH	247W Area	4,570	86	\$ 2.35	\$ 16.07	\$ 2.51	\$ 20.93	\$ 2.51	\$ 0.01	\$ 0.09	\$ 0.33	\$ 0.14	\$ 24.01	\$ 24.01		570		
SHOEBOX 1000 WATT MH	330W Area	3,365	116	\$ 3.16	\$ 20.13	\$ 1.55	\$ 24.84	\$ 3.38	\$ 0.02	\$ 0.11	\$ 0.44	\$ 0.18	\$ 28.98	\$ 48.78	3365		\$	(19.80)
	Total Luminaires	209,821																
		_																

Weighted Average Rate

\$12.11 \$12.57 5% 90% 5%

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TAMPA ELECTRIC COMPANY EXHIBIT D PAGE 1 OF 1