

**MINUTES  
CITY OF ORMOND BEACH  
QUALITY OF LIFE ADVISORY BOARD  
REGULAR MEETING**

**April 5, 2018**

**6:00 PM**

**City of Ormond Beach  
Training Room  
22 South Beach Street  
Ormond Beach, Florida**

**1) Call to Order**

Dr. Shapiro called the meeting to order at 6:00 p.m.

Members present were: William Masters, Susan Persis, Troy Railsback, Dr. Philip Shapiro and Margaret Sharifi. Excused was John Adams and absent was Ali Mehrabian. Commissioner Rob Littleton was also present.

Staff present was: Human Resource Director Clair Whitley and Principal Landscape Architect Paul MacDonald and Recording Secretary Shá Moss.

**2) Approval of Minutes – February 1, 2018**

Dr. Shapiro made corrections to page 8 of the minutes.

**Mr. Railsback moved seconded by Mr. Masters to accept the minutes of the February 1, 2018 meeting, as amended. The motion passed unanimously.**

**3) Audience Remarks**

**4) Citywide Streetlight Replacement Presentation**

Mr. MacDonald stated they met with FLP about a month ago and the presentation will show where the City is regarding the Citywide streetlight replacement project.

*Changing the Way Florida Looks at Night*  
*FPL LT-1 LED Lighting Tarriff*  
*Franc Arbide, Business Development Manager*  
*FPL LED Lighting Solutions*

*Our History Runs Deep*  
*Founded in Florida*

- *The Founding Company – Florida Power & Light Company (FPL)*
- *Began in the final days of 1925*
- *Joined the New York Stock Exchange in 1950*
- *Largest electric utility in Florida*

*A leading Florida employer (approximately 8,900 employees)*

*The Next Era Begins*

- *In 2010, FPL's parent company (PFL Group) was renamed NextEra Energy, a forward-looking enterprise that sees the future and gets there first*
- *Headquartered in Juno Beach, Florida*
- *Ranked the top "green utility" in the United States in 2015 and 2016*

*Pioneers of Power*  
*FPL*

- *Serves nearly 5 million accounts or more than 10 million people across nearly half of the state of Florida*
- *Residential and business rates among the lowest in the state and the nation*
- *One of the cleanest power plant fleets among all utilities nationwide*

*NextEra*

*Operations in 30 states and Canada*

- *Largest generator of renewable energy in the world*
- *Capacity 45.9 GW*

*Leaders in Light*  
*FPL*

- *Providing street light services for more than 60 years*
- *Currently providing street light services for more than 500K owned and maintained street lights*
- *Services/replaces approximately 150 K lights per year*
  - *Automobile accidents*
  - *Hurricanes*
  - *Routine maintenance*
- *Through smart grid technology, FPL owned street lights are now equipped with "Smart Nodes" that can auto-generate trouble tickets*

*Tariff Overview*  
*New LT-1 Tariff*

*Approved by the PSC on April 28, 2017, this tariff provides for the installation of FPL owned LED lights at no upfront cost to customers\*.*

- *The Tariff allows us to offer a variety of LED street and area light solutions in a variety of different scenarios:*
  - *Convert HPS lights currently under SL-1*
  - *Convert customer owned and maintained lights to LED*
  - *Install new LED street and area lights*
- *Monthly fixture, maintenance, and energy charges are determined based on the fixture chosen by the customer*
- *Customers may pay additional monthly charges for dedicated light poles, underground construction and conversions*

*\*In cases where directional boring or other uncommon construction exist, an upfront fee may be required*

Mr. MacDonald stated FPL has been talking about bringing the LED lights to the City for several years, but did not have a tariff on how they could charge. So through the State of Florida, there is now a new LT-1 tariff and FPL is able to move forward with their project

#### *Proliferation of LED*

*LEDs are in our cars, our offices, our homes and even out pockets*

#### *LED Street Light Conversions are Happening Across the US Just some of the US Cities Converting*

Los Angeles, CA  
Lax Vegas, NV  
Boston, MA  
New York City, NY  
West Palm Beach  
Detroit, MI  
San Francisco, CA  
Cleveland, OH  
St. Louis, MO  
Portland, OR

Orlando, FL  
Asheville, NC  
Raleigh, NC  
Oahu, HI  
Pittsburg, PA  
Pueblo, CO  
Austin, TX  
San Antonio, TX  
Seattle, WA  
Salt Lake City, UT

Phoenix, AZ  
Anchorage, AK  
Topeka, KS  
Des Moines, IA  
Chattanooga, TN  
Canton, OH  
Mobile, AL  
Tampa, FL  
Chicago, IL  
Providence, RI

Mr. MacDonald noted some of the initial cities signed on with the LED lights with the 5000K, but now we are learning more on where we should be with the LED technology.

#### *Demand is High the LED Street Light Conversion FPL Municipalities in the Queue for LED*

*Miami Springs  
Hallandale Beach  
City of Palm Coast  
City of South Bay  
Florida City*

*Miramar  
Tamarac  
Wellington  
City of Weston  
Miami Lakes*

*City of Fort Lauderdale  
Wilton Manors Inland City  
Juno Beach  
Highland Beach  
Miami Shores Village*

Mr. MacDonald stated FPL wants to visit several municipalities and get them to convert all 500K street lights to LED.

Mr. Masters asked if there were any cities opting out of the project; where Mr. MacDonald answered that he did not know of any.

### *LED Advantages*

#### *Benefits of LED*

#### *LEDs offer:*

- *Superior color rendition and differentiation*
  - *High color rendering index (CRI)*
  - *More natural colors than HPS*
- *High efficiency*
  - *Energy savings up to 50%+*
- *Greater variety of choices*
- *Comparison of LED fixtures (left) versus High Pressure Sodium (HPS) fixtures (right)*

Mr. MacDonald reviewed the slide and noted the current lights have an orange glow, which is high pressure sodium. The LED lights would have better uniformity, better lighting and using 61% less light causing less light spillage.

### *LED Advantages*

#### *Why Choose LED over HPS?*

- *Compare color rendering from HPS lights vs LED on the building*
- *Compare light pollution contribution from HPS lights vs LED*
- *Compare uplight component from HPS lights vs LED*
- *Compare color rendering from HPS lights vs LED on the strip colors*

#### *Object Detection Distance Example*

- *250W and 400W HPS Baseline*
- *3500K, 4200K and 5000K LED*

Mr. MacDonald stated the existing light were 2200 Kelvin HPS. 3000 Kelvin goes from the orange light towards the whiter, natural light and 4000 Kelvin is more into the blue scale lighting. Some of the cities that got the LED lights earlier has to have them redone because the residents has noticed the 5000K lights are blue which causes you to not be able to sleep. Mr. MacDonald noted the initial cities have to retrofit the lights and the majority of them are choosing the 3000K. The American Medical Association noted that all lights should be at or below the 3000K. That is what the City wants to go with. The City would be using less energy and have better uniformity for the street lights. FPL will do all the work, replacing around 3800 streets lights and the City will save around \$20,000 annual switching over to the new LED lights.

### *Lighting Choices*

#### *We Work With Top Brands*

*Thanks to the flexibility of the new LT-1 tariff, we are able to offer dozens of street and area lighting options from leading LED manufactures such as CREE, GE, Cooper, Holophane and AEL*

#### *LED: Why 3000L of Less*

*According to IDA using 3000K or Less*

- *Saves Energy & Lowers Cost*
- *Protects Health & Human Safety*
- *Conserves Nocturnal Wildlife*
- *Protects Natural Nightscapes*

#### *Benefits*

*FPL will replace 3,782 street lights with current LED technology*

- *\$19,200 yearly savings*
- *Reduce power consumption by 1,072,176 kWh per year*
- *Eliminates 754 metric tons of Co2 every year*
- *Equivalent to removing 160 cars from the road*

Mr. MacDonald noted the City has been waiting for this project for quite some time and residents have been calling asking when the City was going to switch over. In small increments, the City has been doing some things. FPL came to the City years ago with their pilot program, but the City had to pay all the upfront costs and it was very expensive so they decided to wait. FPL gave the City a choice of 3000K or 4000K and after doing a lot of research, the recommendation to the City Commission is going to be to go with 3000K LED lights and allow FPL to move forward with the project.

Dr. Shapiro asked compared to the current lights, how long would the bulbs last.

Mr. MacDonald stated it's not really a bulb. LED is light emitted diode, so there are little diodes in the top and they use a driver. The bulbs don't burn out. You may have one engine that burns out, but the driver has to be changed. With the HPS, the lamps would have to be replaced and the output of the light drops significantly over the 4 years from 100% to 50% lumens. LED takes about 10 years for each driver on average and the lumens would only drop from 100% to 70% over time. Mr. MacDonald noted it's like going from a 90 watt HPS to a 29 watt HPS, so there is a little bit of energy savings, but the real savings is you don't have to send a crew out every 4 years to retrofit the light, which is the most expensive part.

Mr. MacDonald noted this is the first year FPL is doing the program, so they don't have a track record of maintenance costs. The City will realize a cost savings as FPL works

more into the program. With the current program, the City pays a monthly fee for the fixture, the power usage and the maintenance.

Dr. Shapiro asked whether the coastal cities were having any issues with corrosion.

Mr. MacDonald noted that it was a new project so he was not aware of any issues.

Mr. MacDonald noted the City will pay \$1.50 per month for the fixture and if it goes bad, FPL will replace it. He noted if the City purchased the fixture for FPL to put up, it would cost \$1500 and if it corroded then we would have to purchase another fixture.

Mr. Railsback asked if the tariff was the maintenance cost built in and where did the \$19,200 cost come in. He asked does the City have the same maintenance fee and does the City own the fixtures.

Mr. MacDonald stated the City did not own the fixtures. FPL went throughout the city and listed all the watts at each location and noted what the current rate was and gave 3 options. Option 1 was to go with all 4000K fixtures. They compared what the cost would be. Mr. MacDonald noted currently when a street light goes out, FPL requires the pole information so they can be replaced. The LED fixtures will print a report ticket so it will know an outage.

Ms. Sharifi asked whether the light fixtures at the sports complex would be maintained by the City.

Mr. MacDonald stated the City recently completed a \$1.3 million project at the sports complex adding LED lights on fields 4-10. There are currently 4000K LED lights already in the downtown area as well as in some of the CDBG area. The cost is expensive, which was why there were not more areas covered. He noted the City worked with Mosco regarding the lights at the sports complex and they have a 25 year turn key and they monitor those lights from their headquarters. Should something go wrong with the lights, they will maintain them for 25 years.

Mr. Railsback asked how many lights were in the City and why was staff recommending 3000K to for the project.

Mr. MacDonald stated in the downtown area, the color is 4000K and there have not been any complaints, but since then the AMA strongly recommended staying at 3000K. There are about 3800 lights within the City and every two weeks they can replace about 100 fixtures. The start list has been received and it will take some time for the replacements to be completed.

Ms. Sharifi asked how that affects the subdivisions; wherein Mr. MacDonald answered that this would be an option for the subdivisions and they would contract with FPL.

Mr. MacDonald noted the only way you could do a LED project in the past was if it was metered.

Mrs. Persis noted that there would be a lot of savings for the other large cities as well including Las Vegas and Los Angeles.

Mr. MacDonald noted one of the unintended consequences was that the city would go from an orange glow to a really bright light and instead the sky would be worse with the higher Kelvin which was why 3000K was recommended.

Mr. Masters asked when the project will start.

Mr. MacDonald stated FPL was taking their project to other cities, the recommendation has to be approved by the City Commission and if approved, FPL would put the City in their que to start. According to FPL, the project should take about a year from start to finish. It takes about 90-120 days to get the fixtures and they will proceed after that.

Dr. Shapiro asked whether there were any downsides.

Mr. MacDonald stated that a lot has been learned over the years, such as color. There might be some issues on A1A with turtle lighting because the lights are hard to shield. The light can be lower, but that decision may have to be made between the State and the County.

**Mr. Masters moves, seconded by Mrs. Persis that the Quality of Life Advisory Board supports the Citywide Streetlight Replacement Project as presented by staff. The motion passed unanimously.**

Mr. MacDonald stated he would keep the Board updated.

Ms. Whitley stated one of the benefits would be that a report being generated when the lights are out especially during hurricane season. During Hurricane Irma, there were a lot of lights out and in addition to everything else staff had to they were also identifying those outages.

Mr. MacDonald noted that the current LED lights are updating and they are under warranty so they will be replaced. The coastal finish failed on the current lights after 5 years and needed to be changed. The next ones that they sent only lasted 3 years, so they were changed out as well. Mr. MacDonald stated that new fixtures are being placed on the bridge as a testing ground.

Dr. Shapiro thanked Mr. MacDonald for his presentation.

**5) Member Comments**

Dr. Shapiro noted that the Board would be discussing the CIP at the next meeting. Though the Board reviews their 3 designated areas, they are at liberty to speak on anything in the CIP.

**6) Adjournment – Next Meeting – June 7, 2018**

The meeting adjourned at 6:30 p.m.

Respectfully submitted,

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Shá Moss, Recording Secretary

ATTEST:

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Dr. Philip J. Shapiro, Chairman