

TOWN OF PALM BEACH

Information for Town Council Meeting on: October 14, 2014

To: Mayor and Town Council

Via: Peter B. Elwell, Town Manager

From: Thomas G. Bradford, Deputy Town Manager

Re: FPL Hardening Plans and Neighborhood Underground (UG) Plans Relative to FPL Hardening Plans

Date: October 9, 2014

STAFF RECOMMENDATION

Staff recommends the Town Council hear the presentations on this subject matter and provide staff with direction on how to proceed. Policy questions to be considered are:

- 1) Shall FPL be allowed to improve system reliability on the island via their hardening plans?
- 2) Shall the Town pursue undergrounding in lieu of hardening? If so, shall undergrounding be done only in those areas impacted by FPL hardening plans or according to some other plan?

GENERAL INFORMATION

FPL Hardening Plans

FPL officials will be present to provide you with an overview of their hardening plans for the Palm Beach service area. Please see the attached exhibit marked as Attachment A to see the locations of FPL proposed hardening projects. Originally, hardening was a function of FPL's Storm Secure plan that was developed in response to the outages their electrical system incurred from the wrath of hurricanes experienced in the last decade. Hardening entails system upgrades to enable the electrical distribution system to withstand the effects of winds up to 150 miles per hour. Although hardening entails more than just different utility poles, what the average consumer sees is a taller, more substantial concrete pole.

Hardening originally applied to feeder lines as they are considered to be the backbone of the distribution system. Subsequently, the Florida Public Service Commission allowed FPL to expand the use of hardening to circuits that are in need of reliability upgrades. Most FPL proposed hardening in Town applies to feeder lines, but some hardening is being done to improve system reliability. It is important to note that when FPL hardens a feeder line in Town that feeder line is hardened on the mainland as well all the way back to the substation. This

means that whether the Town chooses to let FPL go forward with hardening in Palm Beach or to address increased reliability and infrastructure survivability via undergrounding, once completed Town residents will have the most secure electric service possible.

Many residents have expressed concern about the appearance of so called hardened facilities saying they look more commercial and detract from a residential neighborhood. One can gauge a general idea of what hardened utility poles will look like in comparison to what is most common in Town today. See the three pictures that appear below. The photo on the left is the most common sight in Town today being a wooden utility pole and the pictures on the right are akin to what will be installed for hardening standards using concrete poles.



Existing Pole Hardened Pole Hardened Pole

We should be appreciative of the fact that FPL is taking steps to make their electrical system serving Palm Beach more storm secure and reliable. FPL is under a tight timeline to get this work completed per the requirements of the Florida Public Service Commission (PSC). However, it is up to the Mayor and Town Council to decide whether or not hardening is the preferred method of improving reliability. Undergrounding can accomplish the same results, but comes with a cost which we will review below. Once a decision is made it should be considered to be final and irrevocable so that FPL can report to the PSC that reliability was improved one way or the other.

Proposed Neighborhood Underground Projects

Attachment A also shows where existing neighborhood underground conversion projects are located relative to FPL proposed hardening projects. Virtually every neighborhood project is impacted by FPL hardening plans. The impact has to do with the formula used to calculate FPL’s charges for converting to UG. Today, the neighborhood projects mostly entail conversion of depreciated FPL assets, in some cases fully depreciated assets, to UG. If FPL hardening plans go forward and neighborhood UG projects follow, the existing assets will be replaced with new overhead facilities that will have no depreciation attached thereto and result in the cost of undergrounding being higher than it would have been if the other facilities were left in place until underground conversion commenced.

Accordingly, if hardening is not the preferred way to improve reliability the question that must be answered is how much undergrounding shall the Town attempt to do? At a minimum, if the Town says no to hardening then we must pursue undergrounding every line proposed to be hardened. However, it is not really feasible to underground only those lines proposed to be

hardened. For starters, one has to ask who would pay the cost if only the hardened lines were to be buried. It does not seem fair for only those property owners adjacent to the lines scheduled for hardening to bear the cost of undergrounding those lines. Many lines proposed to be hardened are along arterial roadways in Town. It makes little sense to only bury those facilities along the arterial roadway when they are usually connected to distribution facilities running both east and west. It would make more sense to include the areas adjacent to the arterial roadways where hardening is proposed and the areas east and west from that point because they are all part of the same integral distribution system.

How much will pursuit of various options likely cost? This and other questions have at least been answered in part by the information Town staff requested of FPL this past spring when it became known that FPL desired to pursue hardening in Town. In this regard, please see the exhibit marked as Attachment B, which is a letter to the Town dated June 27, 2014, from FPL's Project Manager for Distribution Underground, John Lehr, wherein Mr. Lehr provides ballpark cost estimates for various scenarios as requested by staff. These scenarios cover undergrounding options that include the entire spectrum from the entire Town to just the lines proposed by FPL for hardening. The Project Segment table appearing in John Lehr's letter is reproduced here:

Town of Palm Beach

Project Segment	Ballpark Estimate*	Non-Refundable Engineering Deposit
Entire Town	\$35,000,000	\$258,522
Wells Rd. North to the Inlet-Beach to Intracoastal	\$10,600,000	\$81,860
N. County (ROW) – Wells Rd. to Tangier Avenue	\$460,000	\$3,340
Well Rd. South to Royal Poinciana Way – Beach to Intracoastal	\$3,400,000	\$24,443
Royal Poinciana Way South to Barton Avenue - Beach to Intracoastal	\$1,400,000	\$11,724
Sloan's Curve to Southern Town Limits - Beach to Intracoastal	\$4,300,000	\$31,044
Sloan's Curve to Lake Avenue - Beach to Intracoastal	\$2,500,000	\$17,549
Lake Avenue to Southern Town Limits - Beach to Intracoastal	\$1,900,000	\$13,495
Northwood – 40332 -2015 (Green, Exhibit "B")	\$2,800,000	\$19,895
Terminal – 40213 – 2014 (Pink, Exhibit "B")	\$1,800,000	\$14,867
Evernia – 4011862 – 2015 (Yellow, Exhibit "B")	\$739,000	\$6,524
Belvedere – 402533 – 2015 (Orange, Exhibit "B")	\$1,030,000	\$6,740
Skypass Improvements – 2015 – (Blue, Exhibit "B")	\$1,800,000	Not Provided by FPL, but estimated to be \$14,867

**Ballpark cost is for FPL facilities only. AT&T and Comcast facilities are extra, as are restoration costs and other project related expenses.*

The reference to the non-refundable deposit is the cost charged by FPL to provide a binding cost estimate. A binding cost estimate is based on an engineered design and, once provided, must be accepted within 180 days. If accepted, the cost of the work cannot be exceeded by 10%. In all neighborhood projects pursued to date, the lowest cost scenario is where the Town, via its selected contractor, does the work of installing the conduit, transformers and other facilities, including running the necessary wires. It is this scenario that should be requested when seeking a binding cost estimate.

Since this ballpark cost estimate data applies to FPL only we must add AT&T and Comcast costs and project management, engineering, legal, surveying, site restoration and milling and resurfacing costs to come up with a complete accurate cost estimate. Town staff recommends that any large scale undergrounding effort be pursued using the Construction Manager at Risk (CM@Risk) construction format. Underground conversion projects will also incorporate any Town or public utility infrastructure work for which there is funding that needs to be done for convenience while construction is underway. The CM@Risk contractor will oversee and coordinate all of this in conjunction with Town project managers and provide a guaranteed maximum price. This will provide the lowest possible milling and resurfacing price to residents as the cost of paving will be equitably shared by all Town and public utility entities engaged in working within any given project area. The end result will also provide for state of the art utilities and public infrastructure for many years into the future for the benefit of Palm Beach citizens.

The table below is an order of magnitude estimate based on costs incurred for similar work in South Florida adjusted for inflation. It assumes FPL ballpark numbers are accurate. Contingency must be added and has been at 20 %. Costs in the table are based on the assumption that any UG project pursued by the Town will use FPL Vista type feeder switches which are sealed against water intrusion and are smaller in size and more easily screened with landscaping. This type switch has been used in other large scale UG projects on barrier island communities in South Florida.

Townwide Underground Order of Magnitude Cost Estimate, All Utilities

Project Engineering	\$5,400,000
CM@Risk Project Management	\$3,415,000
Legal Costs	\$725,500
Survey Costs	\$1,232,000
Utility Conversion Costs (FPL)	\$35,000,000
FPL GAF Discount @ 25%	(\$7,947,169)
Utility Conversion Costs (AT&T & Comcast)	\$8,900,000
Conversion of FPL Service Connections	\$10,075,000
Site Landscape/ Hardscape Restoration Costs (Excluding Asphalt)	\$1,500,000
Asphalt Milling and Resurfacing Costs (1)	\$12,840,000
Sub-Total Project Costs	\$71,140,331
Contingency @ 20%	\$14,228,066
Total Project Costs	\$85,368,397

(1) \$17,120,000 if every road in Town is milled and resurfaced with the following exceptions. This figure does not include Ocean Blvd. as we are underground on much of it and are typically on one side of

the street with overhead. South of Sloan's Curve is excluded as there is plenty of grass area and no paving should be needed. Roadway and milling costs are based on adopted Town standards and will decrease where costs are shared with other Town or public utility underground or roadway improvements. Pricing assumes \$30 per square yard and assumes smaller segments will be paved. If larger segments are paved at a time pricing could drop below \$30 per square yard. Assumes the entire street would be milled and resurfaced which may not be true in all cases. Assumes 214,000 linear feet of streets with an assumed width of 24 feet of pavement, which also is not true in all cases. (214,000ft X 24ft X 1yd/9sq ft X \$30 = \$17,120,000). Additional analysis may reveal a lower cost. For now, assumes about 75% of paving cost will be borne by underground projects.

If large projects are pursued by the Town, the goal should be to convert 3 pole miles of lines per project. If that is done the Town receives a 25% GAF discount passed on to property owners. For example, using the 3 pole mile size as a minimum project area target and focusing from north to south, from the Palm Beach Inlet to the north side of Ocean Terrace would constitute one such area and from the south side of Ocean Terrace to List Road would constitute another and so on.

If special assessments are to be used for funding and the Town Council wishes to use the petition process similar to what is currently done for small scale UG projects, we need to segue to a more efficient mailed petition process. The land areas involved in the 3 pole mile target project size are too great to rely on neighborhood UG champions going door-to-door to secure affirmative petition signatures of 67% of the project area property owners. In this scenario, we recommend that the Town employ a mailed petition that must be mailed back to the Town by a time certain and only those mailed petitions received by the Town will be counted. 67% of those petitions received must affirmatively approve the proposed underground assessment project. It is envisioned that the Town would provide a cover letter of explanation, the petition and a return envelope. The petition ballot and envelopes will be marked with the property's property control number. Both the cover letter and petition can make reference to, and provide the link to, the Town's website where detailed project information will appear. LLC's would receive an affidavit to execute and return with the signed petition. A Canvassing Board would be established to count ballots.

Please see Attachment C to review the Town Clerk's memorandum to me on this subject offering her opinions on how this process should be set up along with a draft of the proposed cover letter and petition ballot.

Large UG projects will require financing. If we use the assessment process to pay for undergrounding we can use special assessment bonds. Pursuing large scale UG projects over a number of years interjects complexity to financing. The complexity stems from the cost, the timing of the projects, the size and number of project areas and the use of the assessment methodology. This is not insurmountable, it just requires good planning. The Town may need to use short term debt, such as bank loans or lines of credit to fund the initial projects. Once the projects are completed, the Town could refinance the bank debt with special assessment bonds payable with the proceeds from the assessments charged to the property owners that benefit from the project. One benefit of larger projects is the financing allows for longer repayment terms than the Town can provide with its internal financing plan. Indeed, use of special assessment bonds can allow repayment over 30 years resulting in much lower annual assessments and spreading the cost over potentially several generations of property owners. The downside to

longer term bank and bond financing is that it comes with closing costs and requires arbitrage avoidance planning. Interest rates remain relatively low, but will not stay that way forever.

Current rates available for bank loans and special assessment bonds are shown in the following table:

Scenario	Term	Debt Type	Base Interest Rate ¹	Costs of Issuance ²	All-In Interest Rate
1	10 - Year	Bank Loan	3.25%	0.25%	3.50%
2	15 - Year	Bank Loan	3.95%	0.25%	4.20%
3	20 - Year	Bank Loan	4.45%	0.25%	4.70%
4	10 - Year	Bonds	3.10%	0.35%	3.45%
5	15 - Year	Bonds	3.80%	0.35%	4.15%
6	20 - Year	Bonds	4.30%	0.35%	4.65%
7	25 - Year	Bonds	4.50%	0.35%	4.85%
8	30 - Year	Bonds	4.70%	0.35%	5.05%

1. Estimated rate (net of cost of issuance)
2. Cost of issuance shown as a %, based on a \$10 million financing

Staff is prepared to work with our Financial Advisors at PFM to prepare a financing plan for these projects once the Town Council decides on the scope to be accomplished.

If the order of magnitude estimate of \$85,368,397 were to hold true and the Town Council wished to pursue general obligation bonds (GO) in lieu of the special assessment bonds referenced above, which would require a townwide referendum, to give you some idea of the cost to a property owner in Town in the GO scenario it is estimated to cost \$371 per \$1 million of taxable value. See the table below. The all in rate used was 3.69%, which included closing costs and assumes a 30 year term.

General Obligation Bond Scenario

	Current Millage	Millage Impact
Cost of Program		85,368,397
Property Tax Revenue Needed		4,729,165
Millage Rate	3.4058	0.3709
Taxable Value	13,421,075,355	13,421,075,355
Taxes Generated		4,729,165
Taxes Per \$1 million		371
Percentage Increase		10.9%

The down side to using GO is that it changes the cost allocation to one's property value instead of being based upon the direct benefits each property receives from the improvement as is the case when using the Town Council adopted UG assessment methodology.

Streetlights

We should take this opportunity to let you know that the subject of streetlights will come into play sooner or later. Some property owners will likely wish to add decorative streetlights while a UG project is underway. Project designers must know this as soon as possible. These costs will be extra as the Town's current policy in the Code of Ordinances is that the majority of property owners must approve of the same by petition to dovetail UG petition requirements. We were in the process of changing that to 67% of the property owners approving decorative streetlights by petition. An ordinance effectuating this change was deferred from a previous Town Council meeting and will appear for first reading on October 14.

Streetlights can be handled separately from the underground petition process. We can notify people within any approved project area early on in the process that, if they wish to have decorative streetlights installed, the Town requires a majority or 67% of the owners to affirmatively sign a Town prepared petition and that we must receive same by a time certain or it will not be done in conjunction with the current UG project. Alternatively, to keep things simple and move along with UG projects as fast as possible, the Town Council could place a moratorium on any new streetlight requests until all UG projects authorized are completed.

We have two pending streetlight projects funded with 2013 ACIP bond funds that are being held in abeyance pending Town Council direction relative to the FPL Hardening plans and any undergrounding decisions that you may make. Paul Brazil has two agenda items following this hardening/UG presentation that he wishes for the Town Council to consider. The first pertains to continued replacement of existing decorative streetlights that require full replacement due to age and condition. The second streetlight project is for placement of decorative streetlights from Sloan's Curve to Lake Worth Road which is also funded by the 2013 ACIP bond proceeds.

Conclusion

To summarize,

- 1) Increased reliability is highly desirable, but hardening provides desired reliability with an aesthetic impact in the opinion of many.
- 2) Hardening negatively impacts proposed neighborhood UG projects already on the books by making the cost to underground go up.
- 3) Undergrounding is a preferred alternative to hardening for increased reliability for many, but it is expensive.
- 4) Shall FPL be allowed to improve system reliability on the island via their hardening plans?
- 5) Shall the Town pursue undergrounding in lieu of hardening?

- 6) If the Town shall pursue undergrounding in lieu of hardening, shall undergrounding be done only in those areas impacted by FPL hardening plans or according to some other plan?
- 7) Shall the Town use the CM@Risk construction process to make the general contractor our design and construction partner in the process, with competitive price selection of subcontractors and a guaranteed maximum price?
- 8) Establishing UG project areas of 3 pole miles provides the 25% FPL GAF discount and the lowest possible price to residents. Shall this be a parameter for Town staff to pursue?
- 9) How shall the cost of UG be financed? General obligation bonds, bank loans or special assessment bonds?
- 10) If UG projects are to be paid by assessments shall 67% of the property owners within proposed project areas affirmatively approve the proposal as is done with neighborhood UG projects? The Town's process is not required by state law.
- 11) If a petition process is to be used, shall we shift to the mailed petition process to allow for it to be more efficient and require 67% of the respondents to affirmatively approve?
- 12) How shall the Town deal with streetlighting requests?

No final decisions need be made relative to hardening and undergrounding on October 14. You can consider this to be the first step in a thoughtful decision process. Staff stands ready to assist you in this decision making process in every way possible.

Numerous people helped me prepare different aspects of this report or provided information helpful to the process and I wish to acknowledge their help and publicly thank them for their time and efforts, as follows.

- H. Paul Brazil, Director of Public Works
- Jane Struder, Director of Finance
- Chuck Langley, Senior Projects Engineer
- Cory Cordero, GIS Specialist
- Susan Owens, Town Clerk
- Danny Brannon, P.E., Brannon and Gillespie
- Maziar Keshavarz, P.E., Keshavarz and Associates
- John Lehr, Project Manager for Distribution Underground, FPL

cc: H. Paul Brazil, Director of Public Works
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