Inaccessible Electrical Facilities Phase I

Executive Summary

Florida Public Service Commission

In 2006 following the 2004 and 2005 hurricane seasons that were damaging to electrical systems throughout Florida, the Florida Public Service Commission passed Order #25-06.0342 which "requires the cost-effective strengthening of critical electric infrastructure to increase the ability of transmission and distribution facilities to withstand extreme weather conditions, and reduce restoration costs and outage times to end-use customers associated with extreme weather conditions."

The PSC also adopted a companion Order 25-6.0341 which states "in order to facilitate safe and efficient access for installation and maintenance, to the extent feasible, and cost-effective, electric distribution facilities shall be placed adjacent to a public road, normally in front of the customers' premises."

KEYS Response

As a result of PSC Order#25-06.0342, KEYS has undertaken a multi-year program to respond to the PSC Order which has included testing all poles; replacing all poles identified as deficient; changing our construction standards; and fortifying infrastructure designated as critical (feeder to hospital). Additionally, in order to comply with Order 25-6.0341, KEYS staff has been developing a plan to address facilities that are in inaccessible locations in order to comply with PSC orders and to further have a strong, reliable system. The Utility Board participated in a workshop on the subject on August 23, 2011 in order to better understand the scope of the project and the impacts on customers. Based on input from the Utility Board and continued analysis, KEYS staff has determined that inaccessible facilities should be divided into two categories – those that support primary lines and those that support secondary lines.

Program Description

Phase I will address inaccessible facilities that support primary lines and will be addressed over a 36-month period from the time the plan is approved. The primary facilities have been organized into 13 distinct circuits and staff developed the plan by prioritizing the circuits based on reliability criteria. In total, approximately 122 poles will be installed and this will affect up to 163 customer risers. KEYS' Engineering Department will complete all design work and it is anticipated that all construction work will be completed by KEYS' Transmission and Distribution crews. The total cost for constructing the new lines and removing the old lines is estimated at $1,036,614.

KEYS' Engineering Department will work closely with the affected customers to help them identify a solution. KEYS (or a contractor TBD) will either set a customer pole, which the customer will assume ownership of, so the customer can continue to use the existing meter center/riser OR KEYS will reimburse the customer up to $2,100 of the costs associated with hiring an electrician to modify the meter center/riser (relocate or extend) so it can receive power from the new lines. This cost is estimated to be $352,871.

Coordination

KEYS will work closely with the City of Key West throughout the project on a variety of issues including: ADA Compliance, Customer Coordination, Tree Trimming, and Street Lights. Additionally, KEYS will work with AT&T and Comcast to urge these telecommunications companies to move expediently.

KEYS' Engineering Field Representatives will meet with each customer to help establish a solution that best meets the customer's and KEYS' needs.

Inaccessible Electrical Facilities Phase I

Program Description

Program Description - General

In order to comply with the Florida Public Service Commission's Order 25-6.0341 which states "in order to facilitate safe and efficient access for installation and maintenance, to the extent feasible, and cost-effective, electric distribution facilities shall be placed adjacent to a public road, normally in front of the customers' premises," KEYS has developed a program with a long-term goal of constructing all electrical facilities adjacent to public roads and removing all facilities that are currently in inaccessible locations.

Step #1 - All future design work will ensure that new construction occurs adjacent to public roads. KEYS staff will work with developers, City staff and County staff regarding future construction and will not allow the construction of any facilities in rear or side lot lines whether easements or rights-of-way.

Step #2 – Over a three-year program KEYS will relocate all primary facilities that are currently in inaccessible locations and will coordinate efforts with the customer, AT&T and Comcast to ensure existing facilities are ready for timely removal. This is referred to as "Phase I."

Step #3 – KEYS will develop a multi-year program to relocate all secondary facilities that are currently in inaccessible locations in Key West and will coordinate efforts with the customer, AT&T and Comcast to ensure existing facilities are ready for timely removal. Although Stadium Trailer Park has some primary inaccessible facilities, this area will be considered as part of this phase. The program will be presented to the Utility Board for approval prior to implementation. This is referred to as "Phase II" but may be completed in multiple phases.

Advance Work

In advance of the program being fully developed, KEYS engineering field representatives will work with homeowners and electricians who are doing voluntary upgrades to ensure that placement of risers and meter centers will accommodate future relocation plans.

Reject Poles

Dealing with Reject Poles – In 2006, KEYS hired Osmose to survey all distribution poles in KEYS' service area to identify weak poles in need of replacement. Ninety-seven poles in inaccessible locations were identified as "reject poles." KEYS has stabilized 27 of these poles with a truss and bracing solution. The remaining poles will be replaced by KEYS and the telecommunications companies crews. Another survey will be conducted in 2014, and poles that are identified as "reject" poles will be handled in a similar fashion.

Program Description - Phase I

Over a three-year program KEYS will relocate all primary facilities that are currently in inaccessible locations and will coordinate efforts with the customer, AT&T and Comcast to ensure existing facilities are ready for timely removal.

Electrical Summary

- Divide High Voltage Lines into 13 distinct circuits
- Develop detailed reliability criteria and ranked circuits to assist in priorities (see Exhibit 6 in Program Details Section)
- Develop three-year construction relocation plan for High Voltage Lines

Details

Year 1	Year 2	Year 3
Poles – 26	Poles – 63	Poles – 33
Riser – 36	Risers – 91	Risers – 36
*Cost - $174,000	*Cost - $566,100	*Cost - $296,514

*These costs represent the capital cost of building new facilities along public roadways. They do not include the O&M costs associated with customer assistance.

Design and Construction Resources

- Project Design – KEYS staff
- High Voltage Distribution Construction – KEYS crews
- Riser NEC code corrections
    - Customer Tap Pole option – KEYS crews
    - Riser Modifications – Local Licensed Electrician

Riser Compliance

KEYS has identified 163 risers that cannot be served from the new pole line constructed adjacent to the public road. KEYS can offer the customer one of three solutions with estimated costs of:

1) Install a Tap Pole on the customer property		$2,100
2) *Modify Riser	a) to side of house	$2,800
	b) Riser extension in existing location	$2,000

*Modify Riser is the preferred option as it will avoid future pole maintenance by the customer and is aesthetically more pleasing.

See Exhibit 8 Determination of Tap Pole Cost

AT&T and Comcast

KEYS will coordinate with AT&T and Comcast on project goals and schedule in an effort to have these third party attachments relocated in a timely manner.

As necessary, KEYS will ask the City of Key West to send letters urging the telecommunications providers to move expediently.

Map of Primary in "*Rear Lot line*" Locations

Site Map- KW

FDR NAME	LOCATION (BLK & ST)	LEGEND
KDS-5	3500 BLK FLAGLER & EAGLE (east side)	A
	3500 BLK FLAGLER & EAGLE (west side)	B
KDS-9	3300/3400 BLK RIVIERA & FLAGLER	C
KDS-10	2900 BLK HARRIS & FOGARTY	D
	2800 BLK HARRIS & FOGARTY	
	2700 BLK HARRIS	
TSS-2	800 BLK SOUTH & WASHINGTON	E
	800 BLK WADDELL & WASHINGTON ST	F
TSS-4	2400 BLK HARRIS & SEIDENBERG	G
	2600 BLK FLAGLER & STAPLES AVE	H
	2600 BLK HARRIS & FOGARTY	I
	2500 BLK PATTERSON & FOGARTY	
	2400 BLK PATTERSON & FOGARTY	
	2300 BLK PATTERSON & FOGARTY	
	2200 BLK FOGARTY & PATTERSON	
	1900 BLK FOGARTY & PATTERSON	
	2000 BLK FOGARTY & PATTERSON	
	2100 BLK FOGARTY & PATTERSON	
	1900 BLK PATTERSON & ROOSEVELT DR.	
	2000 BLK PATTERSON & ROOSEVELT DR.	
	2100 BLK PATTERSON & ROOSEVELT DR.	
	1800 BLK HARRIS & SEIDENBERG	J
	1700 BLK CATHERINE & HOB SCHOOL	K
	1600 BLK CATHERINE & HOB SCHOOL	
	2600 BLK SEIDENBERG & HARRIS	L
TSS-5	1200 & 1300 BLKS JOHNSON & FLAGLER	M

Detailed Locations

Three(3) Year Constuction Plan

SCHEDULE		LOCATION (BLK & ST)	RELOCATION POLE QTY		POLE COUNT & COST		Adder info for Customer Poles			
FY End		STREET & BLK	DISTRIBUTION POLES	TAP POLES KEYS	CREW-DAYS	COST --$$	TAP POLES FOR CUSTOMER	Customer pole COUNT & CREW-DAYS	COST --$$	
2012	C	3300/3400 BLK RIVIERA & FLAGLER	0	9	9	$ 27,000	16	8	$ 33,600	
	F	800 BLK WADDELL & WASHINGTON ST	1	1	4	$ 12,000	3	2	$ 6,300	
	D	2900 BLK HARRIS & FOGARTY	8	0	38	$ 135,000	3	2	$ 6,300	
		2800 BLK HARRIS & FOGARTY	7	0			8	4	$ 16,800	
		2700 BLK HARRIS	0	0			2	1	$ 4,200	
			16	10	51	$ 174,000	32	16	$ 67,200	$ 241,200
2013	G	2400 BLK HARRIS & SEIDENBERG	8	0	20	$ 72,000	6	3	$ 12,600	
	H	2600 BLK FLAGLER & STAPLES AVE	6	1	16	$ 57,000	9	4	$ 18,900	
	I	2600 BLK HARRIS & FOGARTY	6	0	119	$ 426,000	4	33	$ 138,600	
		2500 BLK PATTERSON & FOGARTY	4	0			2			
		2400 BLK PATTERSON & FOGARTY	8	0			9			
		2300 BLK PATTERSON & FOGARTY	5	0			11			
		2200 BLK FOGARTY & PATTERSON	5	0			6			
		1900 BLK FOGARTY & PATTERSON	4	0			12			
		2000 BLK FOGARTY & PATTERSON	5	0			9			
		2100 BLK FOGARTY & PATTERSON	2	1			3			
		1900 BLK PATTERSON & ROOSEVELT DR.	4	0			4			
		2000 BLK PATTERSON & ROOSEVELT DR.	3	0			4			
		2100 BLK PATTERSON & ROOSEVELT DR.	1	0			2			
			61	2	155	$ 555,000	81	40	$ 170,100	$ 725,100
2014	A	3500 BLK FLAGLER & EAGLE (east side)	2	0	5	$ 18,000	5	3	$ 10,500	
	B	3500 BLK FLAGLER & EAGLE (west side)	5	0	13	$ 45,000	5	3	$ 10,500	
	E	800 BLK SOUTH & WASHINGTON	4	0	10	$ 36,000	5	3	$ 10,500	
	J	1800 BLK HARRIS & SEIDENBERG	7	0	18	$ 63,000	3	2	$ 6,300	
	K	1700 BLK CATHERINE & HOB SCHOOL	3	0	15	$ 54,000	4	4	$ 16,800	
		1600 BLK CATHERINE & HOB SCHOOL	3	0			4			
	L	2600 BLK SEIDENBERG & HARRIS	7	0	18	63,000	2	1	4,200	
	M	1200 & 1300 BLKS JOHNSON & FLAGLER	0	2	2	6,000	7	3.5	14,700	
			31	2	81	$ 285,000	35	18	$ 73,500	$ 358,500

Inaccessible Electrical Facilities Phase I

Customer Assistance Program

Customer Assistance
Inaccessible Facilities Project – Phase I

In order to be meet the Florida Public Service Commission Storm Hardening Orders – and specifically Order #25-06.0341 which states, "in order to facilitate safe and efficient access for installation and maintenance, to extent feasible and cost-effective, electric distribution facilities shall be placed adjacent to a public road, normally in front of the customer's premises," KEYS has developed the Inaccessible Facility Project – Phase I. Phase I specifically works to relocate inaccessible primary facilities to public roads. KEYS' goal is to not only construct accessible facilities, but also to remove the old, inaccessible facilities as soon as possible so that KEYS doesn't have the continuing maintenance costs and so that customers don't have unsightly facilities. Please note, this last initiative is dependent upon the telecommunication companies removing their services.

In Phase I, a total of 85 poles affecting 163 customers will ultimately be removed and replaced with 122 new poles installed along public roadways. As a result of the facilities being moved to the public road, customers may need to relocate their risers and meter centers to accommodate the move. Recognizing that this relocation may create a financial burden on KEYS customers, KEYS has developed a plan to minimize this burden on customers.

<u>Option 1 – Customer Owned Pole</u>
For customers who do not wish to incur any costs, KEYS crews will set a customer pole so that the service drop can utilize the existing riser/meter center. The responsibility of setting the pole and transferring service to the pole will be KEYS responsibility (customer will be required to provide underground clearance for KEYS to set the pole). The customer will be required to assume ownership of this pole. If there is any damage to this pole in the future, for example: normal wear and tear or hurricane damage, it will be the customers full responsibility to replace, repair or remove the pole.

<u>*Option 2 – Modify Riser/Meter Center (Riser Extension)</u>
For customers who prefer to avoid having a pole set on their property (and the ongoing responsibility of said pole), KEYS will provide a rebate per riser on the electrical work required to move the riser/meter center. Customers will be required to provide three quotes from licensed electricians and KEYS will provide a rebate in the amount of the lowest quote. The customer can select whichever licensed electrician they wish, but the rebate will be based upon the lowest quote provided up to but not exceeding $2,100 (the estimated cost associated with setting a customer pole). The rebate will be issued to the customer in a check at the time KEYS is provided final inspection by the City. In order to qualify for the rebate, work must be completed by a licensed electrician. KEYS will not provide rebates for work done as an owner/builder.

Within six months after the customer has met with KEYS' Field Representative to discuss possible solutions, the customer should decide between option 1 or option 2. If the customer has not signed an agreement to take ownership of their new customer pole or has not had an electrician complete the work, KEYS reserves the right to disconnect service until customer takes action.

*Modify Riser is the preferred option as it will avoid future pole maintenance by the customer and will be aesthetically more pleasing.

Service Fee Waiver

Typically, KEYS charges customers a Service fee when a service disconnect is performed. This is typically done at the customers' or their electrician's request when they are performing an upgrade of the customers' own internal wiring/panel/meter center. For connects/disconnects that are specifically related to this project, the Utility Board authorizes staff to waive such fees. Fees are set forth in KEYS miscellaneous charges tariff - currently such charges are $140-$280.

Collaboration with Customer

The Engineering Field Representatives will meet with each affected customer in order to identify the customer's needs and to custom design a solution that best meets the customer's and KEYS' needs. This plan anticipates that Engineering Field Representatives may have to meet with customers during the evenings or weekends. All design alternatives within NEC & NESC requirements will be considered to make the process as simple and inexpensive as possible for customers. The Engineering Field Representatives will provide each customer with a meter location form indicating a recommended solution that the customer can then provide to their electrician. Additionally, the Engineering Field Representatives will meet with the customer and electrician upon request.

KEYS reviewed the existing accounts and determined that 94% of the accounts are currently active. The remaining 6% of accounts that are inactive may require additional coordination efforts since some of these may be bank owned. (see Exhibit 9)

Transfer of Ownership for Customer Utility Pole

In order to comply with the Florida Public Service Commission's Order 25-6.0341 which states "in order to facilitate safe and efficient access for installation and maintenance, to the extent feasible, and cost-effective, electric distribution facilities shall be placed adjacent to a public road, normally in front of the customers' premises," KEYS has developed a program often referred to as the "Storm Hardening Project" with a long-term goal of constructing all electrical facilities adjacent to public roads and removing all facilities that are currently in inaccessible locations.

Electrical service for (property address/property description) has been connected to KEYS infrastructure via a pole that is in an inaccessible location to KEYS crews. As part of KEYS' storm hardening project, the electrical service for this property has been upgraded and moved to the front of the property along the public roadway. It is therefore agree between KEYS and customer as follows:

I, (property owner's name), have elected to leave my electrical facilities (weatherhead/riser/meter center) in their current location instead of moving them so they can connect directly with the new facilities along the public roadway. In order to continue electrical service, I have decided to have KEYS install a secondary wood tap pole on my property.

I, (property owner's name), acknowledge that I will own and be fully responsible for this secondary tap pole upon installation. I will be responsible for maintenance, for upkeep, for repairs and for replacement. I further acknowledge that KEYS shall not have any liability in negligence of tort with respect to the secondary wood tap pole and KEYS shall not be liable for consequential or special damages under any circumstances.

SIGNED: _____
For customer
DATE: _____

PRINT NAME: _____

ADDRESS: _____
_____

PHONE #: _____

SIGNED: _____
For KEYS
DATE: _____

PRINT NAME: _____

ADDRESS: _____
_____

PHONE #: _____

Witness: _____
Address: _____

Inaccessible Electrical Facilities Phase I

Coordination

City of Key West Coordination
Inaccessible Facilities Project – Phase I

In order for the inaccessible facilities project to succeed, KEYS will have to have a high level of support and coordination with the City of Key West.

- Meet with City of Key West electrical inspector for clarification (has happened)
- Request meeting with key City staff to discuss plan and request coordination (see attached letter)
- Request City Commission support in form of Resolution (See attached)
- Submit plan to City for adequate coordination with City's other projects
- Work closely with City on ADA (American with Disabilities Act) and sidewalk clearance conflicts
- Coordinate closely with City to minimize customer financial impacts (ongoing)
- Work with CITY on customer complaints on Public Right of Ways as a result of the proposed pole location/design
- Minimize tree trimming impacts on public right-of-ways
- Work with City on street light adjustments due to new pole line in front of Right of Ways
- Work with City to encourage the telecommunications companies to expedite relocating their facilities.

City of Key West Coordination Customer Riser and NEC Code compliance
Inaccessible Facilities Project – Phase I

In an effort to fully understand the riser relocation options, KEYS consulted with the City of Key West building officials

KEYS was pleased with the discussion outcomes and the available options:

NEC code clarifications

Clarified NESC and NEC code conflicts.

- Resolved that NESC will rule for riser clearances

Riser Extensions

- City will allow riser upgrades to 5' above roof line
- Riser conduit to be 2.5 rigid
- No guy required
- Will allow 3' vertical clearance over flat roof for "drip loop"

Riser Clarifications

Electrical upgrades required beyond riser relocations by City

- No Customer panel upgrade needed if no additional KW load is added

Permits, Inspections and Fees

- Contractor must be licensed in City.
- Permit fees are applicable
- Inspections and issues to be quickly resolved b/w KEYS and CITY

City – 1

Jim Scholl
City Manager
City of Key West
PO Box 1409
Key West, FL 33040

Dear Mr. Scholl,

KEYS has continued working on and refining our plans for removing inaccessible electric facilities as part of our storm hardening project. I would like to have the opportunity to meet with our liaison, Commissioner Yaniz, you and key staff members including the City Attorney to share our plans with you and also to seek your continued support on this project.

Since our last meeting July 12th, KEYS' staff has met with the Utility Board and received valuable input from them. We have revised our plans, so we are now focusing our initial efforts on inaccessible facilities that only have primary high voltage lines since primary tends to impact the largest number of customers. We have developed a customer assistance program, a communications plan and a multiyear budget. I have enclosed this information as background for you.

KEYS is seeking support from the City on several issues that I would like to discuss with you. Those areas include primarily how inspections of customer upgrades are handled and consideration for waiving permit fees for electrical work associated with this project. I have drafted a possible Resolution for the City Commission to formalize the City's support. I hope that this draft can serve as a starting point for our discussion.

I look forward to the opportunity to discuss these plans with you, we'll call to set up an appointment.

RESOLUTION NO.

A RESOLUTION OF THE CITY COMMISSION OF THE CITY KEY WEST, FLORIDA, SUPPORTING KEYS ENERGY SERVICES EFFORTS TO REMOVE ELECTRICAL FACILITIES FROM INACCESSIBLE LOCATIONS; WAIVING CITY PERMIT FEES ASSOCIATED WITH RELOCATING RISERS AND METER CENTERS AS A DIRECT RESULT OF THIS PROJECT; DIRECTING THE ELECTRICAL INSPECTOR TO FACILITATE CUSTOMER UPGRADES

WHEREAS, the Utility Board of the City of Key West, Florida d/b/a/ Keys Energy Services is the utility that provides electrical service in the City of Key West and the Lower Florida Keys, and

WHEREAS, Keys Energy Services has a distribution reliability record that is superior to municipal and investor-owned utilities in Florida with customers experiencing on average 10 percent fewer distribution outage minutes than other municipal utilities in the state, and is committed to further improving electrical reliability to all its customers, and

WHEREAS, the Florida Public Service Commission (FPSC) passed Order #25-06.0342 which specifically, “require the cost-effective strengthening of critical electric infrastructure to increase the ability of transmission and distribution facilities to withstand extreme weather conditions; and reduce restoration costs and outage times to end-use customers with extreme weather conditions, and

WHEREAS, the Florida Public Service Commission (FPSC) also passed Order #25-06.0341 specifically stating, “in order to facilitate safe and efficient access for installation and maintenance, to extent feasible and cost-effective, electric distribution facilities shall be placed adjacent to a public road, normally in front of the customer’s premises,” and

WHEREAS, Keys Energy Services has already replaced approximately 2,300 wooden poles with storm hardened concrete poles and has identified 615 wood poles in the City of Key West that are in the rear of customers’ properties with 425 of these poles are inaccessible due to being occupied with customers’ structures, pools, fences, and vegetation, and

WHEREAS, these obstructions in easements and rights-of-ways have created accessibility issues making it difficult for Keys Energy Services to perform safe maintenance and replacement of such poles, and

WHEREAS, the Utility Board has approved a plan to replace an estimated 83 of these inaccessible poles that carry primary high voltage distribution lines over the next three years and help customers who are affected by this replacement.

NOW, THEREFORE, BE IT RESOLVED by the City Commission of the City of Key West, Florida, as follows:

Section 1. The City Commission of the City of Key West, Florida supports the Utility Board in its efforts to fortify the electrical system with storm hardened poles and with replacing facilities in accessible locations to locations adjacent to public roads.

Section 2. The Commission of the City of Key West endorses the plan adopted by the Utility Board during their January 11, 2012 regular meeting, which creates a 36-month program to construct primary lines along public roads; requires affected property owners to either modify/extend their riser/meter center or accept ownership of a tap pole; and provides for rebates to offset the cost customers may incur hiring a licensed electrician.

Section 3. The City Commission of the City of Key West hereby waives the cost of permitting the electrical work associated with specifically relocating or extending risers and meter centers as a result of this project over the next three years.

Section 4. The City Commission of the City of Key West endorses an approach by the City's electrical inspector that allows for:

- Requiring customer or his/her designee to follow normal permitting process for all work associated with this project
- Not requiring customers to upgrade their electrical panels (or anything past the meter on the condition that no load is added)
- Replacing risers located in the rear of the property up to five feet above the roof line on the condition that this type of location meets the three foot clearance above the entire roof that NESC requires for service drops.
- Utilizing a vertical three foot drip loop clearance on the condition that this type of solution meets the three foot clearance above the entire roof that NESC requires.

Section 5. The City Commission of the City of Key West also supports City staff lobbying Comcast and AT&T to expedite the removal of their facilities as well.

Passed and adopted by the Commission at a meeting held this day of 2012.

Authenticated by the presiding officer and Clerk of the Commission on xxx2012

Filed with the Clerk.... , 2012.

CRAIG CATES, MAYOR

ATTEST:

CHERYL SMITH, CITY CLERK

Telecommunications Coordination
Inaccessible Facilities Project – Phase I

KEYS will also have to coordinate closely with AT&T and Comcast.

KEYS plans to:
Meet with AT&T and Comcast to present plan overview in an effort for them to budget and plan accordingly;
Encourage AT&T and Comcast to transfer in a timely manner to reduce customer complaints;
And keep City informed of the project so the City can encourage the telecommunications company to affect timely transfers from Public Right-of-Ways.

Licensed Electrician Coordination
Inaccessible Facilities Project – Phase I

In an effort to make the process as simple as possible for KEYS customers, KEYS will hold workshops with licensed electricians.

All licensed electricians in Key West and Monroe County will be invited.

The Meeting's Agenda will include:

1) Overview of the Inaccessible Facilities Project
2) Discussion on Goals - Keep As Simple and Inexpensive As Possible for Customers
3) Discussion on Engineering Field Representatives providing Meter Location Forms to Customers
4) Review of Rebate Program
    a. A minimum of three quotes
    b. Timing of payments to customer and thus to electrician

KEYS will provide a list of those licensed electricians who participated in the workshop to customer upon request.

Inaccessible Electrical Facilities Phase I

Communications Plan

Keys Energy Services
Relocation of Electrical Facilities Frequently Asked Questions

BACKGROUND

As a result of two active hurricane seasons (2004 and 2005), the Florida Public Service Commission (FPSC) has recognized how customers have been adversely impacted from storm damaged electrical facilities. While KEYS customers have been extremely fortunate with post-storm restorations, the FPSC developed and passed orders requiring utilities to test the integrity of their electrical infrastructures and to "Storm Harden" their system for new and replacement facilities.

In addition to hardening the system, KEYS and other local utilities (AT&T and Comcast) have been dealing with the issue of facilities in public right-of-ways (ROWs) and easements where customer structures, pools, fences, and vegetation have made these facilities inaccessible for utilities to perform safe and efficient operations.

In order for KEYS to conform to FPSC orders, the Utility Board approved on January 11, 2012 a Plan to Address Inaccessible Facilities - Phase I. This Plan will specifically address relocating high voltage lines that are currently behind your home to the front of your property.

FACILITIES

Question: What do I have to do to my property?

Answer: KEYS will arrange for one of our Engineering Field Representatives to visit your property and collaborate with you and your electrician to determine a solution that is best for you and KEYS.

Question: I thought KEYS owned the lines all the way into my house?

Answer: KEYS owns the service drop to the house. The homeowner owns the weather head, riser, and meter can. (see attached photo for more clarification)

Question: Are poles going in front of my house? Driveway?

Answer: Final site plans have yet to be drafted/developed, but KEYS will work with homeowners to ensure that new power poles do not block driveways. KEYS design will make every effort to make sure new poles are sited along the property lines rather than in-front of homes.

Question: Is the pole going to be a large pole? Will it be concrete or wood?

Answer: All new and/or replacement poles will be concrete. The size of the pole will be dependent on the individual needs of the home/neighborhood. As plans are developed more information will be known. Currently, the poles can range anywhere from 30 feet to 45 Feet in height. A typical pole will have a foot print size up to 16" x 16".

Question: There are already power poles in front of my house, are you placing more poles out front, or replacing them?

Answer: Depending on the final plan, KEYS will most likely replace the poles that are currently there in order to ensure their reliability and allow for the safe installation of electrical facilities.

Question: There are poles across the street, do I still need a pole in front of my house?

Answer: Depending on the final plan, poles may be needed on both sides of the street to accommodate upgraded electrical facilities. This depends on the width of the street and the customer's riser location.

Question: What about the tall trees in front of my house, are you going to trim/remove them?

Answer: Depending on the final plan and accessibility, it may be necessary to have the trees trimmed and/or removed. The location of the tree will determine who would be responsible for its pruning/removal. Trees in the Right-of-Way would be removed or trimmed by KEYS, trees on private property may be the responsibility of the homeowner.

Question: How come KEYS does not install electrical lines underground?

Answer: Converting utilities underground is extremely costly both to utilities and homeowners. While the reliability of such lines is greater than overhead lines, restoration times are longer because electrical faults are not immediately visible and accessible. Additionally, the use of underground facilities requires that customers "site transformers" on their property (rather than on overhead poles) and most customers are not willing to part with valuable property space for such equipment. Also, customers will have to pay approximately $8,000 to install underground secondary lines from the transformer to their home. Similar work would also need to be agreed upon with AT&T and Comcast – such costs are unknown.

Question: Who will coordinate this work?

Answer: KEYS will coordinate this project, however, it will be the responsibility of the homeowner to work with a private electrical contractor to make necessary changes/upgrades to equipment (riser/meter center) that does not fall under the purview of KEYS. KEYS will make contact with each homeowner in order to explain all options and to discuss our customer assistance program.

TIMING

Question: When will work commence?

Answer: After the decision to relocate facilities to the front is made, KEYS hopes to have all work completed within the next four years. Please note that typically work will be block-by-block lasting approximately up to 6 weeks with minimal traffic or electrical service disruptions.

Question: When should I contact my electrician?

Answer: KEYS will notify all affected customers as the project proceeds as to what will be required from you and appropriate time frames. Customers should wait to contact their electricians until they have heard from KEYS on the details of the upgrades that KEYS has specifically recommended.

Question: When is all this going to happen?

Answer: Over the next one to three years. KEYS will be prioritizing the work and moving through the neighborhoods. For details on the anticipated time for your block, please contact Engineering.

FINANCIAL IMPACT

Question: How much will this cost?

Answer: Customers may have to hire a licensed electrical contractor if it necessary for a homeowner to relocate or raise their weather head/riser. This could cost anywhere from $2,000 to $2,800. Please note these are estimates that will be charged by an electrician not KEYS. If the customer has additional work or if the customer's meter center is particularly old or in a difficult location, this cost could vary significantly.

Question: Who is going to pay? Who do I pay?

Answer: Customers will be responsible for all upgrades to their meter center and will have to work with, and pay, a licensed electrical contractor to make the necessary repairs. However, KEYS will be offering rebates in the amount of up to $2,100 to help offset or cover the costs. The rebate will be provided in a separate check to the customer.

Question: Are my electric bills going to increase as a result of this project?

Answer: No. KEYS does not anticipate an increase to customer electric bills as a result of this project.

Question: Can KEYS add the cost of this project to my electric bill?

Answer: No. KEYS can only bill for services it provides, any work performed by a private electrical contractor will have to be billed separately by them. KEYS will however, provide a rebate of up to $2,100 to help offset or cover the costs.

Question: I don't have the money to do this now, what am I supposed to do?

Answer: KEYS will offer rebates to help offset costs for this project. Additionally, KEYS can set a customer pole at no cost to you that will enable you to maintain your current meter center/riser. This pole will become yours and you will be responsibility for future maintenance, upgrades or replacement.

Question: If KEYS indicates that the appropriate solution for me is to extend my riser, can I opt to pay the additional costs to move the meter center and riser to the side of my house?

Answer: Yes

RESPONSIBILITY

Question: It was like this when I bought the property, why should I have to fix it?

Answer: The Florida Public Service Commission passed new regulations in order to make the electrical infrastructure throughout the entire state more storm ready. Regardless of what the property was like when you purchased it, all affected properties must be storm hardened in preparation of future hurricanes.

Question: Why should I have to pay?

Answer: You are not being asked to pay for the relocation of KEYS electrical facilities – only of your own facilities. However, keep in mind that KEYS will be helping by offering rebates to help offset or cover the majority of costs.

Question: Why should I pay if my section of easement is not affected?

Answer: As long as electrical facilities are inaccessible to KEYS in your neighborhood, your reliability could be affected. While your pole specifically may be accessible - the

next pole may not be and unfortunately, this project cannot be pole by pole but rather must be for an entire pole line.

Question: How come you are not making my neighbor pay, they are the ones that took over the easement?

Answer: Each customer will have to be responsible for the costs of getting power from our facilities into their home.

MISCELLANEOUS

Question: Can KEYS come to my house to show and explain to me what the problem is and what I have to do?

Answer: KEYS would be pleased to set up an appointment with you, simply contact KEYS Engineering at 305-295-1042

Question: The roadway behind my house is clear, why does this project still impact me?

Answer: While your block may be in compliance, your entire neighborhood may not. KEYS, AT&T, and Comcast cannot zig-zag utility poles/lines in order to accommodate compliant and non-compliant properties.

Question: If the poles are moved from the back, does this mean I can build on the easement or "Right-of-Way"?

Answer: All questions concerning property should be referred to the City of Key West. If the poles are relocated to the front of homes, KEYS will have no need for the easement and will process any paperwork to relinquish them.

Question: If KEYS moved the electric from back to front, what about Comcast and AT&T?

Answer: KEYS is working with Comcast and AT&T to encourage them to relocate to the new poles in a timely manner. KEYS and the City of Key West cannot legally require them to move, but we are aggressively working with them.

Question: What if I do not understand these questions and answers? Can KEYS help?

Answer: Absolutely. A KEYS representative will to meet "one on one" with homeowners to explain the project and options.

Question: I have a street light on a pole near my house, will that stay?

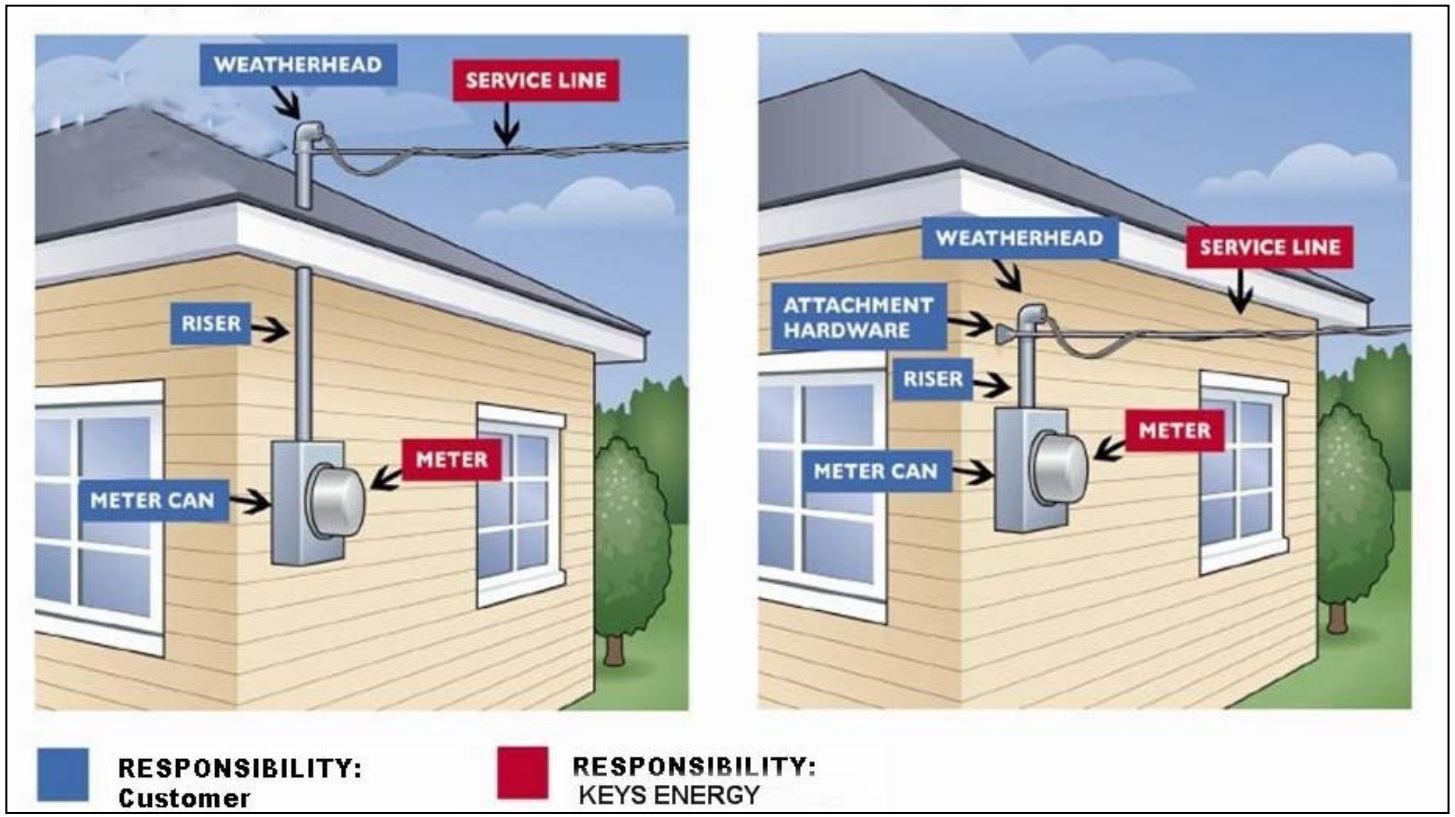
Answer: KEYS is working with the City of Key West to reinstall new lighting on the new poles out front. The ultimate decision on light placement is made by the City.

Question: I have a sidewalk in front of my house. How will the new poles affect the sidewalk and ADA (accessibility) around the pole?

Answer: KEYS and the City of Key West are working very closely on the design and pole locations in order to maintain code clearances in accordance with all Local and Federal Laws.

Please see attached diagram to understand some of the terminology used in these Questions and Answers.

METER CENTER RESPONSIBILITIES



The diagram on the right illustrates a meter center that no longer meets current electrical codes. If/when this type of meter center is replaced, KEYS customers will have to update their facilities to reflect the diagram on the left.

(305) 295-1000
1001 James Street
PO Box 6100
Key West, FL 33040-6100
www.KeysEnergy.com

UTILITY BOARD OF THE CITY OF KEY WEST

Sample Letter to the Customer – with Riser issue
Inaccessible Facilities Project – Phase I

DATE

ADDRESS BLOCK

Dear NAME:

Keys Energy Services (KEYS) is undertaking a major reliability improvement project that may affect you. This project is driven by KEYS' goals to maintain high levels of reliability and by Florida Public Service Commission (FPSC) requirements that all utilities in the State "storm harden" their facilities to reduce down time following a hurricane. In order to meet our goals and FPSC requirements, Keys Energy Services (KEYS) is in the midst of a multi-year project to relocate electrical facilities from inaccessible easements and rights-of-way.

KEYS has developed a multi-year program within the City of Key West to perform the relocation of the old poles behind your residence with a new concrete pole in the front of homes in your area.

In addressing the issue of inaccessible facilities, the way your home's meter center is fed will need to be reviewed and possibly changed. In the coming weeks, we will be in touch with you to discuss existing issues with your meter center and the necessary upgrades you may need to complete. We will be able to discuss options and potential costs with you on site. These costs will vary depending on your unique circumstances. The good news is that the Utility Board is offering a rebate to offset most or in some cases, all of the cost you may incur. Additionally, we will work with you to give you a reasonable amount of time with which to comply given current economic conditions.

A KEYS representative from our Engineering Department will be contacting you prior to KEYS' performing any work. We are willing to meet with you to fully explain the project. I have also attached a FAQ's (Frequently Asked Questions) that will answer a majority of your questions.

In the meantime, if you have an immediate concern or additional questions, please do not hesitate to contact KEYS at (305)295-1043.

Sincerely,

Dale Finigan
Director of Engineering & Control
Dale.Finigan@KeysEnergy.com

DF/mpd

(305) 295-1000
1001 James Street
PO Box 6100
Key West, FL 33040-6100
www.KeysEnergy.com

UTILITY BOARD OF THE CITY OF KEY WEST

Sample Letter to the Customer – with No Riser issue
Inaccessible Facilities Project – Phase I

DATE

ADDRESS BLOCK

Dear NAME:

Keys Energy Services (KEYS) is undertaking a major reliability improvement project that may affect you as you travel to and from your home. This project is driven by KEYS' goals to maintain high levels of reliability and by Florida Public Service Commission requirements that all utilities in the State "storm harden" their facilities to reduce down time following a hurricane. In order to meet our goals and FPSC requirements, Keys Energy Services (KEYS) is in the midst of a multi-year project to relocate electrical facilities from inaccessible easements and right-of-ways.

KEYS has developed a multi-year program within the City of Key West to perform the relocation of the old poles behind your residence with a new concrete pole in the front of your home. While your residence will not be directly impacted, and we will do everything possible to site poles along property lines, you will see design and work crews in your neighborhood over the course of the coming weeks as this project is completed.

I have attached a FAQ's (Frequently Asked Questions) that will answer a majority of your questions regarding the project and the pole relocations in your area. If you have any concerns or questions, please do not hesitate to contact KEYS at (305)295-1043.

Sincerely,

Dale Finigan
Director of Engineering & Control
Dale.Finigan@KeysEnergy.com

DF/mpd

(305) 295-1000
1001 James Street
PO Box 6100
Key West, FL 33040-6100
www.KeysEnergy.com

UTILITY BOARD OF THE CITY OF KEY WEST

Sample Letter to the Title Companies & Realtors
Inaccessible Facilities Project – Phase I

DATE

ADDRESS BLOCK

Dear NAME:

Keys Energy Services (KEYS) is undertaking a major reliability improvement project that may impact properties under your purview. This project is driven by KEYS' goals to maintain high levels of reliability and by Florida Public Service Commission requirements that all utilities in the State "storm harden" their facilities to reduce down time following a hurricane. In order to meet our goals and FPSC requirements, Keys Energy Services (KEYS) is in the midst of a multi-year project to relocate electrical facilities from inaccessible easements and right-of-ways.

KEYS has developed a multi-year program within the City of Key West to perform the relocation of the old poles from behind homes and easements with a new concrete pole in the front. KEYS will be working with all affected customers directly to address their individual issues and to find solutions for potential impacts to their property once the poles are relocated.

I have attached a construction schedule so that you can see the neighborhoods that will be impacted as well as FAQ's (Frequently Asked Questions) that will answer a majority of your questions regarding the project. If you have any concerns or questions, please do not hesitate to contact KEYS at (305)295-1043.

Sincerely,

Dale Finigan
Director of Engineering & Control
Dale.Finigan@KeysEnergy.com

DF/mpd

Inaccessible Electrical Facilities Phase I

Budget

Utility Board of the City of Key West, Inc.
Schedule of Budgeted and Projected Costs, Inaccessible Easements

	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	Total
Capital											
Budget	720,000	66,735	296,514	376,817	384,353	392,041	399,881	407,879	416,037	424,357	3,884,614
Proposed Amendments	(46,635)	-	-	-	-	-	-	-	-	-	(46,635)
Amended Budget	673,365	66,735	296,514	376,817	384,353	392,041	399,881	407,879	416,037	424,357	3,837,979
Cumulative Budget	673,365	740,100	1,036,614	1,413,431	1,797,785	2,189,825	2,589,707	2,997,586	3,413,622	3,837,979	3,837,979
Projected Costs - Phase 1	174,000	566,100	296,514	-	-	-	-	-	-	-	1,036,614
Projected Costs - Phase 2	-	-	-	376,817	384,353	392,041	399,881	407,879	416,037	424,357	2,801,365
Total Costs	174,000	566,100	296,514	376,817	384,353	392,041	399,881	407,879	416,037	424,357	3,837,979
Cumulative Costs	174,000	740,100	1,036,614	1,413,431	1,797,785	2,189,825	2,589,707	2,997,586	3,413,622	3,837,979	3,837,979
O&M											
Projected Rebates -Phase 1											
# of Rebates	20	65	50	28	-	-	-	-	-	-	163
Cost of Rebate	2,100	2,142	2,185	2,229	-	-	-	-	-	-	8,655
Rebate Cost - Phase 1	42,000	139,230	109,242	62,399	-	-	-	-	-	-	352,871
Projected Rebates -Phase 2											
# of Rebates	-	-	-	114	114	114	114	114	114	114	800
Cost of Rebates	-	-	-	2,229	2,273	2,319	2,365	2,412	2,460	2,510	16,568
Rebate Cost - Phase 2	-	-	-	254,690	259,784	264,979	270,279	275,685	281,198	286,822	1,893,437
Total Rebate Cost	42,000	139,230	109,242	317,089	259,784	264,979	270,279	275,685	281,198	286,822	2,246,308
Overtime [100 after hours per year]	4,635	4,728	4,822	-	-	-	-	-	-	-	14,185
O&M Rebate Budget	-	139,230	109,242	317,089	259,784	264,979	270,279	275,685	281,198	286,822	2,204,308
O&M Overtime Budget	-	4,728	4,822								
Proposed Amendment	46,635	-	-	-	-	-	-	-	-	-	46,635
Amended Budget	46,635	143,958	114,064	317,089	259,784	264,979	270,279	275,685	281,198	286,822	2,260,493
Total Costs	46,635	143,958	114,064	317,089	259,784	264,979	270,279	275,685	281,198	286,822	2,260,493
Cumulative Costs	46,635	190,593	304,657	621,746	881,530	1,146,509	1,416,788	1,692,473	1,973,671	2,260,493	2,260,493
Total Easement Cost	720,000	210,693	410,578	693,906	644,137	657,020	670,160	683,564	697,235	711,180	6,098,472
Cumulative Budget	720,000	930,693	1,341,271	2,035,177	2,679,314	3,336,334	4,006,495	4,690,058	5,387,293	6,098,472	6,098,472

Note:
The Utility Board has only approved the budget for FY12; future years' budgets have not been approvec

FY16 reflects $1,820,000 for Storm Hardening , which includes an estimate of $1.1M for the beginning of the 2nd round of Storm Hardening and $720,000 for Inaccessible Easements
An annual 2% inflation factor has been applied to all construction and rebate costs, commencing FY13

Inaccessible Electrical Facilities Phase I

Background

Background
What's in this Section

Exhibit 1 FPSC Language
Exhibit 2 Terminology
Exhibit 3 KEYS' History
Exhibit 4 Map of all Affected Facilities
Exhibit 5 Detailed Technical Data Table
Exhibit 6 Ranking and Evaluation Criteria
Exhibit 7 Riser Examples
Exhibit 8 Cost of Customer Pole and Rebate Determination Table
Exhibit 9 Customer Profile Table
Exhibit 10 PSC Mandates – Does KEYS have to Comply
Exhibit 11 What are other Utilities Doing

Exhibit 1 – Florida Public Service Commission Language

Florida Public Service Commission

25-6.0341 Location of the Utility's Electric Distribution Facilities.

(1) In order to facilitate safe and efficient access for installation and maintenance, to the extent feasible and cost-effective, electric distribution facilities shall be placed adjacent to a public road, normally in front of the customer's premises.

(2) For initial installation, expansion, rebuild, or relocation of overhead facilities, utilities shall use easements, public streets, roads and highways along which the utility has the legal right to occupy, and public lands and private property across which rights-of-way and easements have been provided by the applicant for service.

(3) For initial installation, expansion, rebuild, or relocation of underground facilities, the utility shall require the applicant for service to provide easements along the front edge of the property, unless the utility determines there is an operational, economic, or reliability benefit to use another location.

(4) For conversions of existing overhead facilities to underground facilities, the utility shall, if the applicant for service is a local government that provides all necessary permits and meets the utility's legal, financial, and operational requirements, place facilities in road rights-of-way in lieu of requiring easements.

(5) Where the expansion, rebuild, or relocation of electric distribution facilities affects existing third-party attachments or the facilities of existing joint users, and will result in the relocation of such facilities to a new location adjacent to a public road, the utility shall notify and attempt in good faith to accommodate concerns raised by third-party attachers and joint users, including input and concerns related to the cost impacts of the proposed relocation on attaching entities. The electric utility shall also, to the extent practical, coordinate the construction of its facilities with the affected third-party attachers and joint users.

(6) Any dispute or challenge related to the implementation of this rule by a customer, applicant for service, or attaching entity shall be resolved by the Commission.

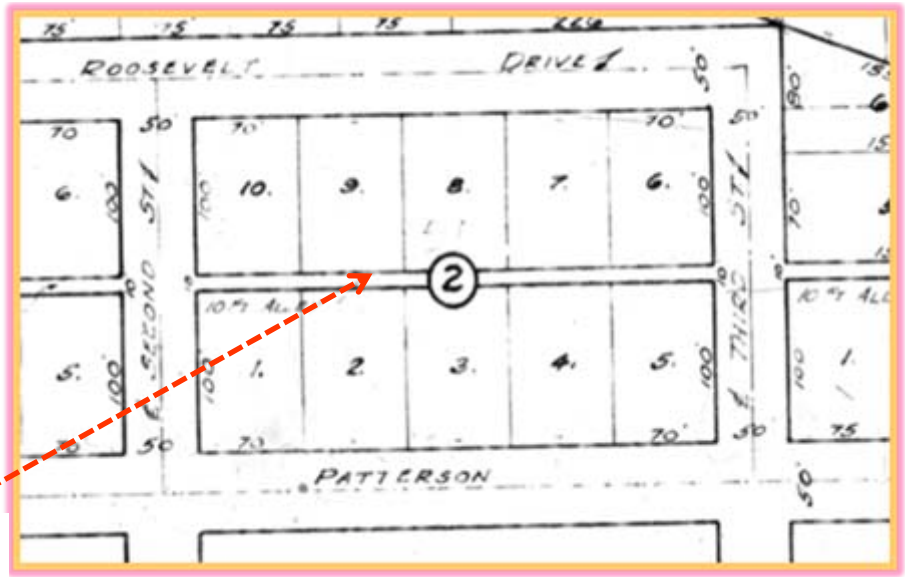
Specific Authority 350.127(2), 366.05(1) FS. Law Implemented 366.04(2)(c), (5), (6), 366.05(1) FS. History–New 2-1-07.

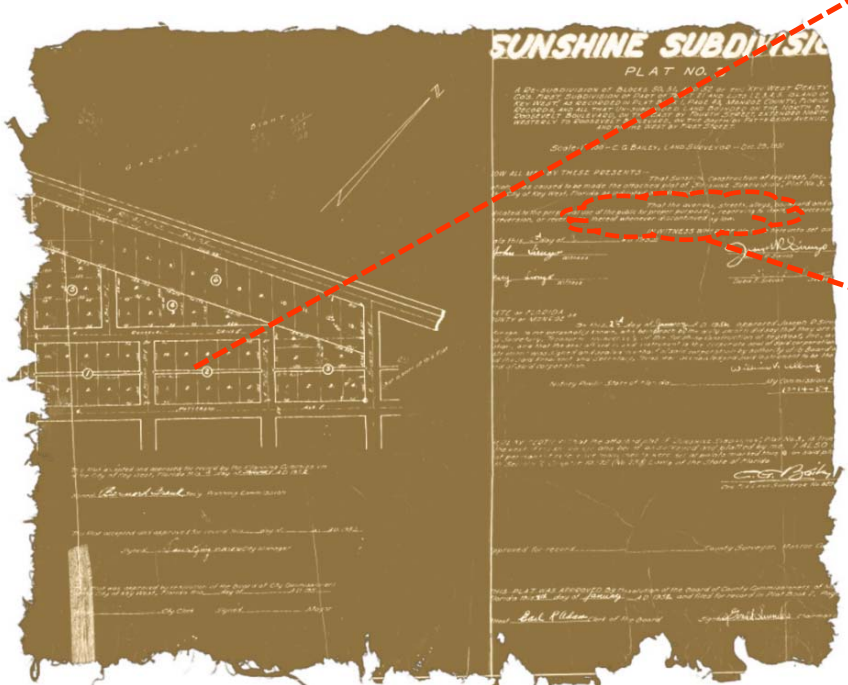
Exhibit 2 - Terminology & Definitions

- **Land Designations/classifications**
  - ✓ Public ROW (Right-of-Ways)
  - ✓ Platted Utility Easements
  - ✓ KEYS secured individual easements
- **Service Riser and Ownership Delineation**
- **Primary and Secondary Electrical Facilities**
- **Tap Service Pole**

Exhibit 2 - Terminology & Definitions

- ✓ **Public ROW (Rights-of-Way)**

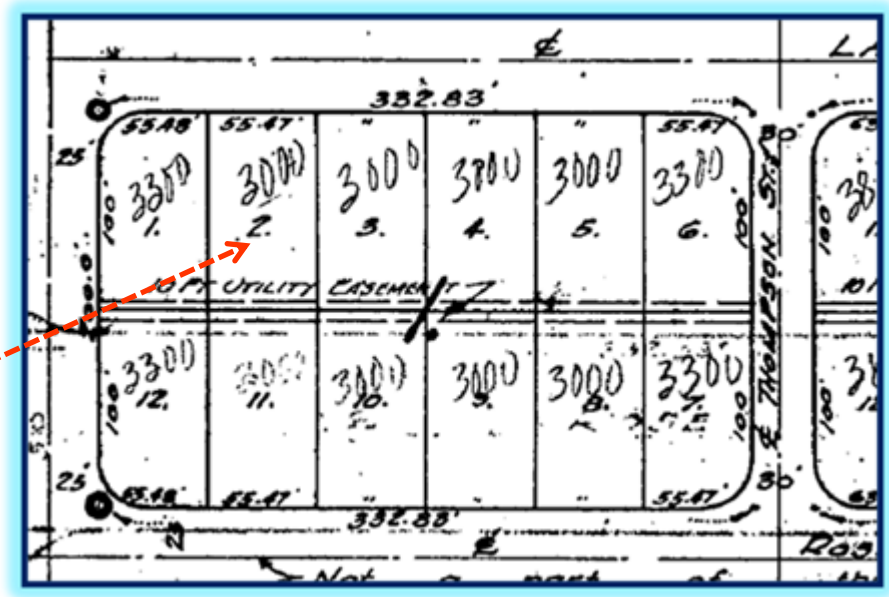


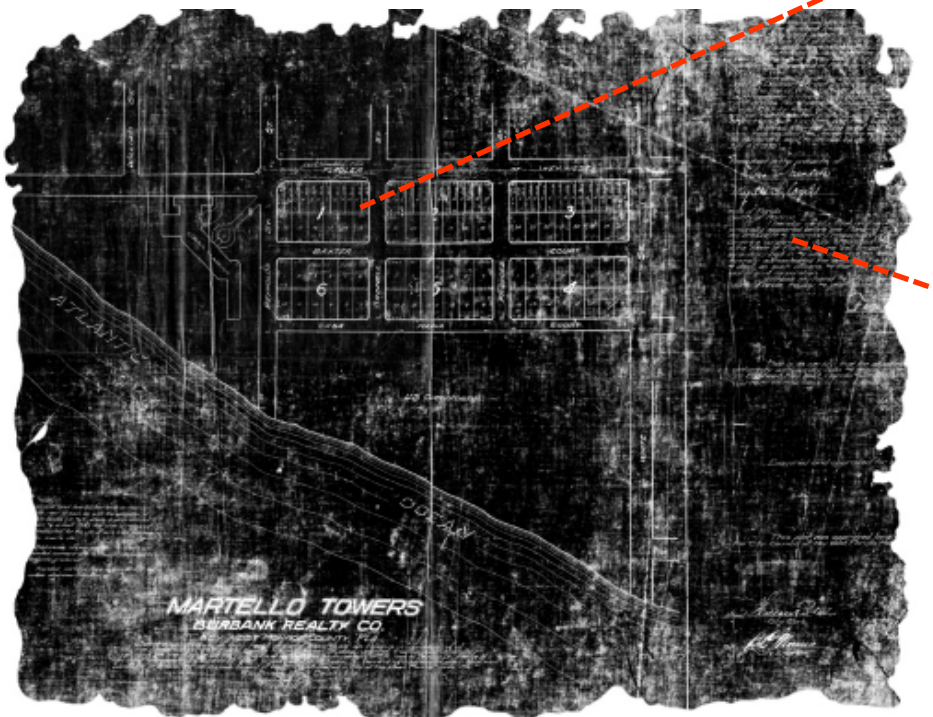


That the avenues, streets, alleys, boulevard and drive are hereby dedicated to the perpetual use of the public for proper purpose, reserving to itself, its successors and assigns, reversion, or reversions, thereof whenever discontinued by law

Exhibit 2 - Terminology & Definitions

- ✓ **Platted Utility Easement**

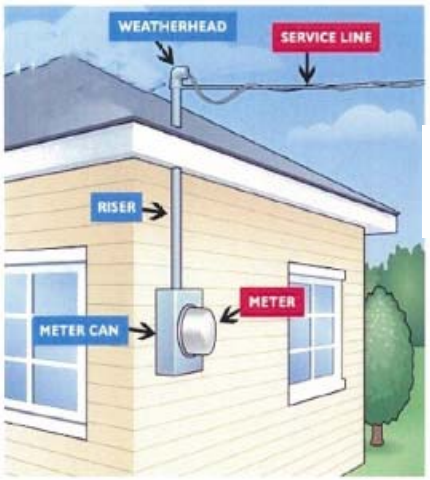




A strip of land five (5) feet wide is reserved in the rear of each lot, with the exception of lots in blocks 1, 2, and 3, where a strip of land seven and a half (7 ½) feet wide is reserved as indicated for the use of wire lines, pipe lines, poles, sewers, etc.

Exhibit 2 - Terminology & Definitions

✓ **Electrical Riser and Meter Center**



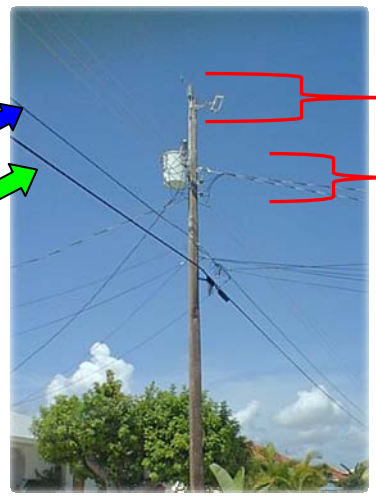
RESPONSIBILITY: Customer

RESPONSIBILITY: KEYS ENERGY

Easements photos-
Multiple photos

"click" above Hyperlink

✓ **Primary and Secondary Electrical Facilities**



Cable

Phone Line

Distribution Line

Secondary/Neutral Lines

Exhibit 3 – History of KEYS' Efforts

Pre-PSC new Rules

- ✓ KEYS Staff routinely inquired to City Staff on "encroachment issues"
- ✓ City Staff did a review/report of issue in 2001
- ✓ City Staff presented finding to City Commission in 2002
- ✓ City performed Test/Pilot "clean up" area (reclaim ROW)
- ✓ City's Test Program – Stopped in 2003

Yr 2006

After -PSC new Rules

- ✓ PSC adopted Rule. Effective 2007.
- ✓ KEYS Staff developed Impact Study #1 in 2007
- ✓ KEYS Passed UB Resolution #748 in 2007
- ✓ Website additions and FAQ's developed on this topic for public awareness
- ✓ KEYS and City Managers met to discuss
- ✓ KEYS and City performed Impact Study #2 - 2009
- ✓ KEYS performed additional "cost estimates" by zone
- ✓ KEYS developed various presentation formats
  - ✓ Layers on Boards
  - ✓ Summary Reports
  - ✓ Google earth digitized layering and viewing
- ✓ City and KEYS met to discuss and gain feed back
- ✓ Plan/Coordinated UB workshop – August 2011

Exhibit 4 - Overview Map of Facilities Affected –

Easements Closed off- Inaccessible

Exhibit 5

UTILITY IMPACT SURVEY

Primary High Voltage -- ONLY

FEEDER	LOCATION (BLK & ST)	REAR LOT LINE TYPE			INACCESSIBILITY	ACCESS TYPE	UTILITIES OCCUPIED			% TREE IMPACTS			KEYS FACILITIES-- IN REAR								CUSTOMER IMPACT				RESTORATION TIMES (HRS)		RELOCATION POLE QTY		RELOCATION TO FRONT				PHOTO
NAME/#	STREET & BLK	UTILITY EASEMENT	CITY ROW	UNKNOWN	PERCENT	TO THE POLES	KEYS	ATT	COMCAST	ON GRADE	IN SEC	IN PRI	QTY POLES	REJECT QTY	KEYS	ATT	AVG. AGE	OW SEC	TRI SEC	# of Phase	BACKUP FEED (Y or N)	AVG # OF DROPS /POLE	CUSTOMER QTY ON THE BLOCK	# RISERS TO RELOCATE	DOWNSTREAM PAST BLOCK	AT THE BLOCK	DISTRIBUTION POLES	TAP POLES	CIRCUIT LEDGEND	RANKING	CREW-DAYS	COST --$$	PHOTO # LINK
KDS-5	3500 BLK FLAGLER & EAGLE (east side)		X		50	Back Yd mach.	X	X	X	100	50	10	3	0	2	1	1991	-	X	3	N	4	6	5	10	10	2	0	A	--	5	$ 18,000	37
	3500 BLK FLAGLER & EAGLE (west side)		X		50	Back Yd mach.	X	X	X	100	50	10	3	0	3	0	2005		X	1	N	4	13	5	10	10	5	0	B	--	13	$ 45,000	36
KDS-9	3300/3400 BLK RIVIERA & FLAGLER			X	100	Back Yd mach.	X	X	--	75	75	50	11	2	7	4	1973	X	X	1	N	4	33	17	10	10	0	9	C	1	9	$ 27,000	33, 217-221
KDS-10	2900 BLK HARRIS & FOGARTY	X			100	Walk only	X	X	X	100	50	0	4	1	4	0	1968	X	X	3	Y	4	19	3	2	10	8	0	D	4	38	$ 135,000	228-231
	2800 BLK HARRIS & FOGARTY	X			100	Walk only	X	X	X	100	50	0	4	0	1	3	1974	X	-	3	Y	4	16	8	2	10	7	0					246-248
	2700 BLK HARRIS			X	100	Walk only	X	X	X	75	40	0	2	0	1	2	1968	-	X	3	Y	4	7	2	2	10	0	0					251
TSS-2	800 BLK SOUTH & WASHINGTON		X		50	Back Yd mach.	X	X	X	50	25	0	4	0	4	0	1975	-	X	1	N	4	26	4	10	10	4	0	E	--	10	$ 36,000	204
	800 BLK WADDELL & WASHINGTON ST		X		100	Back Yd mach.	X	--	X	0	0	25	5	0	5	0	1972	-	X	1	N	4	12	6	10	10	1	1	F	2	4	$ 12,000	203
TSS-4	2400 BLK HARRIS & SEIDENBERG		X		100	Back Yd mach.	X	X	X	100	50	25	3	0	0	3	1966	X	-	2	N	4	14	6	10	10	8	0	G	--	20	$ 72,000	72, 73
	2600 BLK FLAGLER & STAPLES AVE		X		50	Back Yd mach.	X	X	X	50	50	25	3	0	2	1	1988	-	X	1	N	4	12	9	2	10	6	1	H	3	16	$ 57,000	49
	2600 BLK HARRIS & FOGARTY		X		50	Back Yd mach.	X	X	X	50	25	10	3	0	2	1	1972	-	X	3	Y	4	16	7	2	10	6	0	I	--	119	$ 426,000	53, 54
	2500 BLK PATTERSON & FOGARTY		X		100	Back Yd mach.	X	X	X	100	50	10	3	1	3	0	1972	X	X	3	Y	4	22	2	2	10	4	0					60, 61
	2400 BLK PATTERSON & FOGARTY		X		100	Back Yd mach.	X	X	X	70	50	25	3	0	1	2	1982	X	-	3	Y	4	23	9	2	10	8	0					69
	2300 BLK PATTERSON & FOGARTY		X		0	PU truck	X	X	X	10	10	0	4	1	1	3	1978	X	-	3	Y	4	19	11	2	10	5	0					83, 84
	2200 BLK FOGARTY & PATTERSON		X		100	Back Yd mach.	X	X	X	50	0	0	3	1	0	3	1970	-	X	3	Y	4	12	7	2	10	5	0					101, 102
	1900 BLK FOGARTY & PATTERSON		X		0	PU truck	X	X	X	0	0	0	3	1	3	0	1991	-	-	3	Y	4	19	12	2	10	4	0					127, 128
	2000 BLK FOGARTY & PATTERSON		X		10	Back Yd mach.	X	X	X	10	0	0	3	0	3	0	1985	-	X	3	Y	4	15	9	2	10	5	0					129, 130
	2100 BLK FOGARTY & PATTERSON		X		25	Back Yd mach.	X	X	X	10	0	0	2	0	2	0	1990	-	X	3	Y	4	15	5	2	10	2	1					131, 132
	1900 BLK PATTERSON & ROOSEVELT DR.		X		0	PU Bucket truck	X	X	X	0	0	0	2	0	2	0	1989	-	X	3	Y	4	11	6	2	10	4	0					133, 134
	2000 BLK PATTERSON & ROOSEVELT DR.		X		0	PU Bucket truck	X	X	X	0	0	0	2	0	2	0	1975	-	X	3	Y	4	9	6	2	10	3	0					135, 136
	2100 BLK PATTERSON & ROOSEVELT DR.		X		0	PU Bucket truck	X	X	X	0	0	0	1	0	1	0	1975	-	X	3	Y	4	2	2	2	10	1	0					137, 138
	1800 BLK HARRIS & SEIDENBERG		X		25	Back Yd mach.	X	X	X	50	25	0	3	0	0	3	1979	-	X	1	N	4	13	3	10	10	7	0	J	--	18	$ 63,000	258, 259
	1700 BLK CATHERINE & HOB SCHOOL			X	25	Bucket	X	X	X	50	25	25	2	0	2	0	1964	-	X	1	N	2	4	4	10	10	3	0	K	--	15	$ 54,000	285
	1600 BLK CATHERINE & HOB SCHOOL			X	25	Back Yd mach.	X	X	X	75	50	25	3	0	3	0	1975	-	X	1	N	2	7	5	10	10	3	0					286, 287
	2600 BLK SEIDENBERG & HARRIS		X		100	Back Yd mach.	X	X	X	100	50	0	3	0	3	0	1979	-	X	1	N	4	9	3	2	10	7	0	L	5	18	$ 63,000	51,52
TSS-5	1200 & 1300 BLKS JOHNSON & FLAGLER			X	100	Back Yd mach.	X	X	X	75	50	10	3	0	3	0	1980	X	X	1	N	4	7	7	10	10	0	2	M	6	2	$ 6,000	192
													85	7	60	26								163			108	14			284	$ 1,014,000	

Relocation Ranking Evaluation

Ranking Matrix

		Raw SCORE- Circuit													Weighted SCORE- Circuit											
Evaluation Criteria	**% weight**	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**	**L**	**M**	**A**	**B**	**C**	**D**	**E**	**F**	**G**	**H**	**I**	**J**	**K**	**L**	**M**
In-accessibility to poles	10%	5	5	8	10	5	10	5	10	4	3	3	10	10	50	50	80	100	50	100	50	100	40	30	30	100	100
Vegetation impacts	5%	3	2	7	4	3	2	4	3	3	2	4	4	2	15	10	35	20	15	10	20	15	15	10	20	20	10
Reject/failed poles- existing	20%	1	1	5	3	1	1	1	1	4	1	2	2	1	20	20	100	60	20	20	20	20	80	20	40	40	20
Backup switching capability	20%	8	8	8	2	8	8	8	8	3	8	8	8	8	160	160	160	40	160	160	160	160	60	160	160	160	160
Customers impacted/pole failure	10%	5	6	5	6	7	6	6	6	6	5	3	4	3	50	60	50	60	70	60	60	60	60	50	30	40	30
Relocation cost to front	10%	4	4	5	5	3	3	2	2	10	2	4	2	2	40	40	50	50	30	30	20	20	100	20	40	20	20
Safety concerns-Line repairs	10%	5	5	8	9	5	8	5	8	4	4	2	4	7	50	50	80	90	50	80	50	80	40	40	20	40	70
Outage history	15%	5	5	5	5	5	5	5	5	5	5	5	5	5	75	75	75	75	75	75	75	75	75	75	75	75	75
	100%														460	465	630	495	470	535	455	530	470	405	415	495	485

Evaluator- Engineering section

Keys Energy

Sept 2011

Ranking and Scoring Method

When scoring a circuit, base it on the criteria above.
The "higher a score" will promote the determination
that the "electrical circuit" should be relocated to the front

Definitions	
In-accessibility to poles	How accessible is pole. How much of easement/ROW has been encroached upon. Also take into account "Access equipment Type" data
Vegetation impacts	How much "Vegetation" impacts on the Maintenance and outages. Is vegetation in primary, or only on grade. Take into account Less impacts on Tpx
Reject/failed poles- existing	The number of existing failed/reject poles on this line section. Take into account Age of poles
Backup switching capability	Does the Circuit have the ability to be quickly restored by "back feeding" from another source (isolating a failed pole/block)
Customers impacted per pole	If a pole or block area is isolated due to problem, how many customer are effected long-term (base on Customer Minutes)
Relocation cost to front	For the section of line under consideration, How many customer risers need to be relocated
Safety concerns-Line repairs	Because of inaccessibly via a Truck. Poles need to be climbed. This will capture any safety concerns for tree and line maintenance personnel
Outage history	Historical problems in this area during normal and moderate weather events. Data from OMS and/or field personnel with history

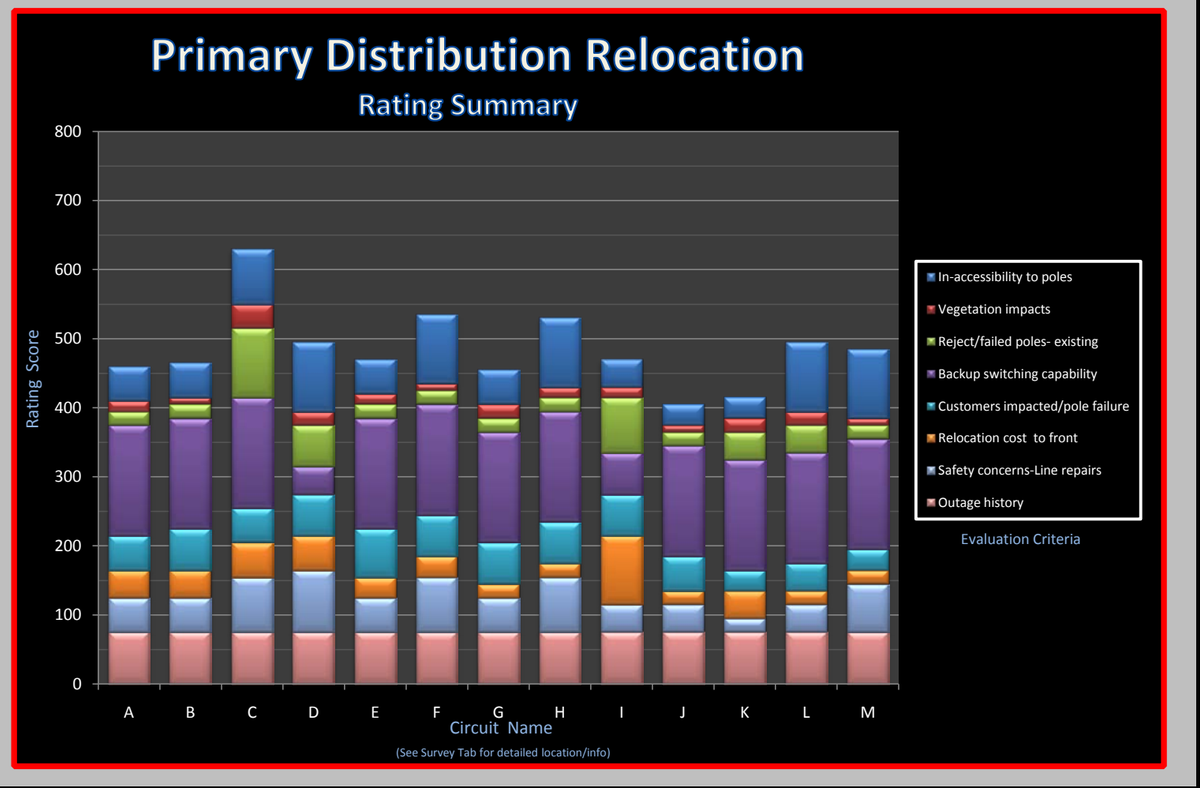


Exhibit 7 - Examples of Riser Issue

Riser
Sample Pictures

"click" above Hyperlink

Lines out Front

Secondary drop to homes

Tap Poles

FEEDER NAME/#	LOCATION (BLK & ST) STREET & BLK	TAP POLES LOCATION: TAP POLES IN FRONT	TAP POLES ON SIDE	TAP POLES IN BACK	MUST RELO RISERS	TOTAL RISERS
KDS-5	3500 BLK FLAGLER & EAGLE (east side)	1-HD	0	4-BYM	0	5
	3500 BLK FLAGLER & EAGLE (west side)	0	0	1-HD/4-BYM	0	5
KDS-9	3300/3400 BLK RIVIERA & FLAGLER	0	2-HD/3-BYM	4-HD/7-BYM	1	17
KDS-10	2900 BLK HARRIS & FOGARTY	0	1-HD	1-HD/1-BYM	0	3
	2800 BLK HARRIS & FOGARTY	0	1-BYM	7-BYM	0	8
	2700 BLK HARRIS	0	0	2-BYM	0	2
TSS-2	800 BLK SOUTH & WASHINGTON	0	2-HD/1-BYM	2-HD	0	4
	800 BLK WADDELL & WASHINGTON ST	0	1-HD/1-BYM	1-BYM	4	6
TSS-4	2400 BLK HARRIS & SEIDENBERG	0	0	1-TR/5-BYM	0	6
	2600 BLK FLAGLER & STAPLES AVE	0	1-BYM	5-HD/3-BYM	0	9
	2600 BLK HARRIS & FOGARTY	0	3-HD	1-BYM	3	7
	2500 BLK PATTERSON & FOGARTY	0	1-BYM	1-BYM	0	2
	2400 BLK PATTERSON & FOGARTY	0	0	9-BYM	0	9
	2300 BLK PATTERSON & FOGARTY	0	0	11-BYM	0	11
	2200 BLK FOGARTY & PATTERSON	0	0	6-BYM	1	7
	1900 BLK FOGARTY & PATTERSON	1-TRUCK	0	11-BYM	0	12
	2000 BLK FOGARTY & PATTERSON	0	2-BYM	7-BYM	0	9
	2100 BLK FOGARTY & PATTERSON	0	0	3-BYM	2	5
	1900 BLK PATTERSON & ROOSEVELT	0	0	4-BYM	2	6
	2000 BLK PATTERSON & ROOSEVELT	0	1-HD	3-BYM	2	6
	2100 BLK PATTERSON & ROOSEVELT	0	0	2-BYM	0	2
	1800 BLK HARRIS & SEIDENBERG	0	1-HD	2-BYM	0	3
	1700 BLK CATHERINE & HOB SCHOOL	0	1-BYM	3-BYM	0	4
	1600 BLK CATHERINE & HOB SCHOOL	0	1-TRUCK	3-BYM	1	5
	2600 BLK SEIDENBERG & HARRIS	0	0	2-HD	1	3
TSS-5	1200 & 1300 BLKS JOHNSON & FLAGLER	1-BYM	1-HD/1-BYM	4-HD	1	7
					18	163

TRUCK- KEYS digger for poles
BYM - Back Yard Machine
HD - Hand Dig

Note- stadium trailer Park not incuded in the % calculations as it will not have an a major effect on the calculators for this page

Summary			
	Truck	3	2%
	HD	31	21%
	BYM	111	77%
		145	

Total Tap Poles	145
Total Risers relocated	18
	163

Sample of view of tap pole

TRUCK- KEYS digger for poles
BYM - Back Yard Machine
HD - Hand Dig

KEYS doing work

Cost estimate- Total KEYS cost with A&G	
Truck	$1,251
BYM	$1,886
HD	$2,884

Contractor doing work

Cost estimate- Total cost with A&G	
Contractor	$2,088

Weighed average cost $2,086

Straight average cost $2,007

Exhibit 8 Page 2

LOCATION NO. 1 1005 17TH TER

WORK SCOPE: **Option 1 SERVICE RELOCATION**
INSTALL NEW
200 AMP METER,
DISCONNECT, 2"
RISER 3" 1/2"

CONTRACTOR: Electrician A CONTRACTOR: Electrician B

WORK SCOPE: **Option 2: EXTEND RISER 5' ABOVE ROOF**
UPGRADE EXISTING
RISER TO 2 1/2"
DISCONNECT,
INSTALLATION OF NEW

CONTRACTOR: Electrician A CONTRACTOR: Electrician B

LOCATION NO. 2 1527 4TH STREET

WORK SCOPE: **Option 1 SERVICE RELOCATION**
INSTALL NEW 200 AMP METER, DISCONNECT, 2"
RISER 3' 1/2" THROUGH THE ROOF, 30 FEEDER

CONTRACTOR: Electrician A CONTRACTOR: Electrician B

WORK SCOPE: **Option 2: EXTEND RISER 5' ABOVE ROOF**
UPGRADE EXISTING RISER TO 2 1/2" CONDUIT

Includes Meter back

CONTRACTOR: Electrician A CONTRACTOR: Electrician B

Purpose of section

In order to adequately address the impacts to KEYS and/or its customers for riser relocations. staff obtained firm quotes from local reputable electricians to perform riser relocation and extension. Every location is some what different in what needs to be done. Therefore staff obtained a few "work types" in order to get quotes within reason.

Cost Estimates- Summary

	Option # 1 Riser Relocation	Option # 2 Riser Extention
Proposal #1	$2,500	$1,600
Proposal #2	$2,855	$2,300
Average Cost	$2,678	$1,950
KEYS Proposed #	$2,700	$2,000

Old meter center. Can be raised, but needs meterpack

Cost Estimates- Summary

	Option # 1 Riser Relocation	Option # 2 Riser Extention
Proposal #1	$2,700	$1,600
Proposal #2	$3,047	$2,300
Average Cost	$2,874	$1,950
KEYS Proposed #	$2,900	$2,000

Customer Profile

Active or Inactive

	LOCATION (BLK & ST)	CUSTOMER CLASSIFICATION	
CIRCUIT LEDGEND	STREET & BLK	INACTIVE CUSTOMER ON BLOCK	ACTIVE CUSTOMERS ON BLOCK
A	3500 BLK FLAGLER & EAGLE (east side)	1	6
B	3500 BLK FLAGLER & EAGLE (west side)	0	13
C	3300/3400 BLK RIVIERA & FLAGLER	0	33
D	2900 BLK HARRIS & FOGARTY	0	19
	2800 BLK HARRIS & FOGARTY	1	16
	2700 BLK HARRIS	2	7
E	800 BLK SOUTH & WASHINGTON	0	26
F	800 BLK WADDELL & WASHINGTON ST	0	12
G	2400 BLK HARRIS & SEIDENBERG	1	14
H	2600 BLK FLAGLER & STAPLES AVE	2	12
I	2600 BLK HARRIS & FOGARTY	2	16
	2500 BLK PATTERSON & FOGARTY	0	22
	2400 BLK PATTERSON & FOGARTY	0	23
	2300 BLK PATTERSON & FOGARTY	0	19
	2200 BLK FOGARTY & PATTERSON	0	12
	1900 BLK FOGARTY & PATTERSON	0	19
	2000 BLK FOGARTY & PATTERSON	2	15
	2100 BLK FOGARTY & PATTERSON	0	15
	1900 BLK PATTERSON & ROOSEVELT DR.	0	11
	2000 BLK PATTERSON & ROOSEVELT DR.	0	9
	2100 BLK PATTERSON & ROOSEVELT DR.	1	2
J	1800 BLK HARRIS & SEIDENBERG	0	13
K	1700 BLK CATHERINE & HOB SCHOOL	0	4
	1600 BLK CATHERINE & HOB SCHOOL	0	7
L	2600 BLK SEIDENBERG & HARRIS	2	9
M	1200 & 1300 BLKS JOHNSON & FLAGLER	0	7
		14	361
		4%	96%

Note- stadium trailer Park not incuded in the % calculations
as it will not have an a major effect on the percentages

Exhibit 10 - PSC Mandates- Does KEYS have to conform?

KEYS inquired as to what is KEYS' legal requirement as a "Municipal Utility" to conform to the PSC Mandates.

Barry Moline at FMEA said that we are required to conform to the PSC Storm Hardening rules. If a Municipal Utility does not want to conform, then the Utility would have to justify (at length) to the PSC why they are not doing task to "Storm Harden" their electrical system.

Such "justifications" to the PSC are, for example……

- ✓ Public hearing with the outcome the public is satisfied with "Not Conforming"
- ✓ Studies that show we have good restoration response time during a 140mph storm
- ✓ Hold a public referendum that local community does not want to make "storm hardening changes and are satisfied."

… In summary...

KEYS to conform to the Florida PSC storm hardening rules

Exhibit 11 - What Other Utilities are doing

Detailed Survey of other Utilities

"click" above Hyperlink

- ✓ "Back lot Line" electric Utility has been eliminated - *Jacksonville*
- ✓ Provide for placement of new and Replacement Facilities as so to facilitate Safe and efficient access for install and maintenance – *Bushnell, Ft Pierce, Bartow*
- ✓ Utilities decide on a Case-by-Case basis when existing facilities need to be Relocated -- *Green Cove springs, Quincy, Winter Park*
- ✓ Utility has not build new rear property line in 30 years – *JEA, Orlando*
- ✓ Where Significant reconstruction of inaccessible may occur, they are considered from relocation to the roadway –*Lakeland*
- ✓ When feasible, any infrastructure currently construed on "rear" lot lines is modified to front during any replacing or upgrade – *Kissimmee*
- ✓ All feeder main lines have already been upgraded to front lot lines – *Leesburg*
- ✓ Right of ways are maintained to existing overhead back lot lines as much as possible – *Vero Beach*
- ✓ Relocating all Overhead Primary lines from rear to street as part of upgrades. Multiyear project until all has been upgraded/relocated– *Withalachocee River*