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UTILITY BOARD OF THE CITY OF KEY WEST

March 1, 2016

Penelope Buys Florida Public Service Commission Sent via e-mail to <u>pbuys@PSC.STATE.FL.US</u>

RE: Storm Hardening Report for Keys Energy Services pursuant to Rule 25-6.0343, FAC for 2015

Dear Ms. Buys:

Pursuant to Rule 25-6.0343, Florida Administrative Code, attached is the Storm Hardening Report for 2015 for the Utility Board of the City of Key West (Keys Energy Services - KEYS).

If any questions develop during your review, please do not hesitate to contact me at 305.295.1042.

Sincerely,

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

DF/mpa

Copied via electronic mail:

L. Tejeda, General Manager & CEO

J. Wetzler, Asst. General Manager & CFO

F. Culpepper, Director of T&D

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J. Torrado, Director of Human Resources & Communications

M. Alfonso, Supervisor of Engineering

P. Arencibia, Supervisor of T&D

B. Veliz, Supervisor of T&D

Barry Moline, FMEA

SECTION 1 Introduction/Contact Information

Utility Name:	The Utility Board of the City of Key West, Florida dba Keys Energy Services (KEYS)

Address:

1001 James Street P. O. Box 6100 Key West, Florida 33040

Contacts:

Lynne Tejeda, General Manager/CEO Ph. 305-295-1020 Fax 305-295-1034 Lynne.Tejeda@KeysEnergy.com

Dale Z. Finigan, Director of Engineering/Control Center Ph. 305-295-1042 Fax 305-295-1044 Dale.Finigan@KeysEnergy.com

> NOTE: This report was developed by Dale Finigan. For questions and/or clarifications please call Dale Finigan at 305-295-1042

SECTION 2 Utility History and Description

History/Company Profile:

•Municipal Electrical Company Since 1943

•Five Members Elected Utility Board

•125 Employees

•KEYS Maintains and Operates Transmission, Distribution and Generation

•Number of Meters – 32,355

Member of FMPA

•FMPA Primary Power Provider

Service Territory:

•Key West Florida and the Lower Florida Keys

Electrical Facility Description:

 Transmission 	
-Voltage Level	-138kV and 69kV
-Circuit Miles	-68 Miles
-Age of Poles	-1965 through 2004
-Pole Types Qty:	
-Concrete	-700
-Steel	-150
-Wood	- 0
•Distribution:	
-Voltage Level	-13.8kV
-Circuit Miles	-230 OH & UG
-Age of Poles	-1954-2015
-90% Aerial	
-Pole Types Qty:	
-Concrete	- 6,247
-Ductile Iron	- 13
-Wood	- 7,851
 Substation: 	
-Voltage Level	-138kV, 69kV and 13.8kV
-Quantity of Substations:	-9
•Generation:	
-Quantity of Units	-7
-Type	-Medium Speed Diesel, Combustion Turbines, HSD
-Capacity	-111 MW
Customer Profile:	
 Total of Customers 	-31,167
•Breakdown:	,
-Residential	-81.9%
-Commercial	-13.8%
-Others	-4.3%
(Street Lights, churches)	
Load Profile:	
•2015 Peak Demand	-148.1MW
•2015 Energy Sold	-751.2GWH
= -	

SECTION 3 Standards of Construction

3a) National Electric Safety Code (NESC) Compliance:

•KEYS' current construction standards, policy, guidelines, practices and procedures comply with the NESC 2012 (ANSI C-2). These new standards took effect on February 1, 2012.

•KEYS' electrical facilities constructed prior to February 1, 2012, are governed by the edition of the NESC in effect at the time of the facilities' initial construction.

3b) Extreme Wind Loading Standards:

•KEYS is in compliance with the new NESC "Extreme Wind Load" requirement for KEYS' Distribution System for:

- 1) New construction
- 2) Major planned work, and relocation of facilities
- 3) Targeted critical infrastructure

•KEYS analyzed the wind impacts on its electrical facilities, and in 2006 KEYS' structurally studied the modifications needed in order to accomplish/adhere to new Florida Public Service Commission (FPSC) Rule. The following was performed by KEYS in 2006:

- 1) Structurally analyzed current system's capacity
- 2) Modified construction standards on distribution system to adhere to the "Extreme Wind Design"
- 3) Ordered new material in order to construct to the 150MPH -poles designed to meet new wind load
 - -anchoring and down guy systems
- 4) See Section (4) for status "report on poles replaced"

•KEYS submitted a significant amount of back up support data in its 2006 report.

3c) Flooding and Storm Surges:

•KEYS' Construction Standards, for underground construction, has always incorporated the elevation of switches and padmount transformers to the "FEMA Flood Elevation" in order to prevent electrical damage due to storm surge and flooding. This long standing policy for over 30 years, proved to be very successful during Hurricane Wilma. Significantly flooding occurred over the entire Florida Keys and Key West from 4 to 12 feet. No damage occurred to KEYS' underground system as a result of flooding due to this longstanding construction standard.

SECTION 3 continued

3d) Safe and Efficient Access of New and Replacement Distribution Facilities:

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. The Utility Board and the City of Key West approved a three year program to relocate facilities to a more accessible location (see attached).

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

<u>Step #2</u> – Over a three-year program KEYS will relocate all primary high voltage facilities that are currently in inaccessible locations. KEYS 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."

<u>Step #3</u> – 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. 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. The development of Phase II will occur after Phase I's completion.

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.

Remaining Reject Poles

In 2015, KEYS hired Osmose to survey all distribution poles in KEYS' service area to identify weak poles in need of replacement. Sixty-seven poles in inaccessible locations were identified as "reject poles." KEYS has stabilized 60 of these poles with a truss and bracing solution, and has replaced approximately seven. The remaining poles will be replaced by KEYS and AT&T crews.

SECTION 3 continued

3e) Attachments by Others:

•Electrical construction standards, policies, guidelines, practices, and procedures at KEYS include written safety, pole reliability, pole loading capacity, and engineering standards and procedures for attachments by others to the utility's electric transmission and distribution poles. We inspect these attachments on an eight year cycle. KEYS was under contract with Osmose to test 100% of our poles. All testing was completed as of August 2015. Sections 3 and 4 indicate inthe results from the testing.

SECTION 4 Facility Inspections

4a) KEYS' Policy, Guidelines, Practices and Procedures as they relate to Pole Testing:

•Distribution Poles:

- KEYS contracted Osmose, Inc. in 2015 to perform a detail testing of <u>100%</u> of KEYS' utility poles one at a time.
- 2) KEYS elected to test all poles for NESC compliance. Osmose commenced testing in February 2015. Testing of 100% of poles was completed in August 2015.
- 3) In summary, Osmose performed the task below:

Item #	Task Description
1	Site visit and visual inspection of pole (concrete and wood)
2	Sound and bore test for wood
3	Excavated base - soil around wood pole Reject pole
4	Excavated base - soil around wood pole External treat
5	Excavated base - soil around wood pole External treat, then reinforce using cost items below
6	Internal treat of wood pole
7	Difficult accessible (poles located in rear lot lines)
8	Ground wire repair near pole base
9	Load calculation assessment per pole as per PSC
10	Digital images/photos for reject poles and code problems in items (18,19 and 20)
11	Computerized report of task performed per pole (includes 3 copies of software)
12	Install "Guy Guard" on Down Guy
13	Osmose C2 external steel reinforce installation at base (35' wood pole) (All labor and material)
14	Osmose C2 external steel reinforce installation at base (40' wood pole) (All labor and material)
15	Osmose C2 external steel reinforce installation at base (45' wood pole) (All labor and material)
16	Down guy wire and anchor rod inspection (6" below grade)
17	Identify/document locations of missing KEYS' pole # on the pole
18	Identify/document locations that the "pole ground rod" extends above grade/ground
	Identify/document ADA non-compliance (b/w pole and any object) if clearance is lower than 33"
19	(on sidewalks).
	Identify/document locations that clearance between pole and fire hydrant is - less than four feet
20	(at ground level).
	Identify/document locations where clearance b/w OH wire and structure is less than 10 ft.
21	(overhead).
22	Joint Use Survey of two other utility attachments (for each of the foreign attachments).

SECTION 4 continued

•Transmission Poles:

1) KEYS has no "wood" transmission poles.

2) Since KEYS has only one incoming transmission line into its service territory. This is a combination of concrete and metal poles.

- •KEYS completed a contract to repair concrete pylons and concrete poles shown to have damage after the last inspection. This work is currently underway.
- •KEYS completed cleaning and repair of metal transmission poles with rust damage.
- •KEYS performed protective coating of metal poles.
 - •Detailed helicopter inspections of all concrete poles. This aerial inspection is performed every two years.
 - •Infrared survey KEYS performs a 100% infrared inspection every two years.

4b) Number and Percent of Transmission and Distribution Pole Inspections planned and completed:

- •Transmission Facility Inspections
 - ⇒Concrete Foundations -100% inspected in 2008, 2010 and 2012.
 - ⇒Aerial inspection 100% inspected in 2014
 - →Underwater inspection completed in 2014
- •Distribution Facility Inspection
 - ⇒See detail summary table below.

4c) Statistical data on T&D poles failing inspections

- Transmission
 - ➤Number of poles failed (rejected) -0.0
 - ⇒Percentage of rejected failed rate -0.0%

Distribution

SECTION 4 continued

POLE TESTING SUMMARY DISTRIBUTION - TESTING 2015							
	TEST AREA	KEYS ENERGY	ATT	COMBINED TOTALS			
TOTAL PO	DLES TESTED	10225	2220	12445			
DATE	TOTAL CONCRETE POLES TESTED TO	5304	519	5823			
	TOTAL WOOD POLES TESTED TO DATE	4915	1701	6616			
DATE	TOTAL OTHER TYPE POLES TESTED TO	6	0	6			
	% OF TOTAL POLES TESTED TO DATE	100%	100%	100%			
REJECT/	FAILED POLE SUMMARY						
	TOTAL CONCRETE REJECTS TO DATE	69	1	70			
	% OF TOTAL CONCRETE	1.3%	0.2%	1.2%			
	TOTAL WOOD POLE REJECT TO DATE	326	158	484			
	% OF TOTAL WOOD	6.6%	9.3%	7.3%			
DATE	TOTAL OTHER TYPE POLE REJECTS TO	0	0	0			
	% OF TOTAL OTHER TYPE	0.0%	0.0%	0.0%			
REJECT/ I	FAILURE REASONS						
	DECAYED TOP	24	16	40			
	% DECAYED TOP	6.1%	10.1%	7.2%			
	EXCESSIVE CRACKING CHECKING	57	1	58			
	% EXCESSIVE CRACKING CHECKING	14.4%	0.6%	10.5%			
	EXCESSIVE SPUR CUTS	1	0	1			
	% EXCESSIVE SPUR CUTS	0.3%	0.0%	0.2%			
	HOLLOW	4	0	4			
	% HOLLOW	1.0%	0.0%	0.7%			
	MECHANICAL DAMAGE	16	2	18			
	% MECHANICAL DAMAGE	4.1%	1.3%	3.2%			
	ROTTEN BUTT	14	7	21			
	% ROTTEN BUTT	3.5%	4.4%	3.8%			
	GROUND SHELL ROT	261	129	390			
	% GROUND SHELL ROT	66.1%	81.1%	70.4%			
	WIND SHAKE	4	1	5			
	% WIND SHAKE	1.0%	0.6%	0.9%			
	WOOD BORERS	1	0	1			
	% WOOD BORERS	0.3%	0.0%	0.2%			
	WOODPECKER HOLES	13	3	16			
	% WOODPECKER HOLES	3.3%	1.9%	2.9%			

SECTION 4 continued

4d) Number and Percentage of T&D Poles Replaced and the Remediation Plan to Correct

•Transmission Facilities Plan

No transmission facilities failed inspection. Concrete spalling repairs was completed in January 2011. An extensive inspection of all transmission facilities was done in December 2013. There are no significant issues or concerns.

•Distribution Facilities Plan

KEYS completed 100% field check of all poles in 2015. The Utility Board completed an aggressive schedule to correct and

replace failed facilities (Tab 7 & 8 for detailed plan). Below are some of the highlights of the remediation plan:

→KEYS went out for bids in January 2016, and closed the bid process in February 2016. KEYS is currently evaluating the bidders, and is looking to award a multi-year contract to provide labor services to replace approximately 485 poles. The \$2 million contract will serve to replace the 485 poles with storm harden facilities.

→KEYS approved a multi-year contract with McWane Poles (ductile iron pole manufacture) to manufacture 485 new ductile iron poles designed to the extreme wind load design.

SECTION 5 Keys Energy Services Vegetation Management Program

Mission:

 Keys Energy Services (KEYS) is dedicated to maintaining safe clearances surrounding electrical facilities to reduce outages and increase the public's safety and awareness. This is achieved through various programs including, continuous zone trimming, tree safety press releases, Tree Give-A-Way, and by responding to Customer Service requests for vegetation management. The following information describes KEYS programs in greater detail.

KEYS Service Area:

• KEYS' service area consists of 230 OH & UG miles of 3 phase distribution lines & 66.3 miles of transmission lines.

KEYS Staff and Contractual Crews:

- KEYS have a total of 5 tree trimming crews, 2 in-house crews and 3 contractor crews. KEYS in-house crews maintain all customer request orders, revisit tree trimming list as well as zone trimming and tree removals. Contractor crews specifically work in zone trimming and tree removals. All work is compiled and documented; such as footage, tree removals, zone trimming and man-hours it takes to complete these zones.
- These crews have received special training in the line clearance tree trimming and follow arborist guidelines for utilities which specify how trees should be cut. Industry standards specify the minimum safety clearances that must be maintained for safety and for reliability.

KEYS Trim Cycle Information:

- KEYS implemented a policy to maintain a two year cycle for system trimming, which KEYS has been able to complete in this time frame. This two year cycle has been in place since 2000 which includes trimming of all 3 phase feeders, laterals, secondary and communication conductors.
- KEYS performs a quarterly maintenance of tree clearances on all of the 66.3 miles of transmission lines and maintains these clearances.
- KEYS averages approximately four customer requests a day, the low volume of requests are due to the cycle trimming that is in place. KEYS in house crews spend approximately 25% of their time on customer generated requests, which include service trims, communication and conductor trims. When not working on customer requests, the KEYS' crews work on revisits and zone trimming.

SECTION 5 continued

• While zone trimming contractor crews as well as KEYS tree crews remove all invasive trees in the right-of-way and easements. Trees are cut to ground level and sprayed with an herbicide to prevent re-growth.

Problem Trees Outside Of Right-Of-Ways or Easements:

- For customer trees that are infringing into KEYS lines, KEYS will make contact with the customer and explain to the customer the safety issues that exist with a tree getting into high voltage lines. Most customers are receptive to the tree removal once contacted by KEYS.
- KEYS initiated a quarterly revisit list for the locations throughout the system where costumer's trees are infringing on KEYS lines and are not willing to have the tree removed. This revisit list was just put into place in late 2006 and is working well. The quarterly revisit list is necessary due to KEYS' tropical climate and the substantial growth rate throughout the year.
- KEYS is also looking into a tree replacement program as an incentive for reluctant customers to allow the removal of problem trees.

Addressing appropriate planting and landscaping:

 KEYS has a tree give-a-way program that has been in place since 1995 to help promote energy conservation and public awareness. KEYS help customers determine the proper placement of the tree to maintain adequate clearance from facilities with one on one consultation. KEYS review a site layout of the customer's yard and advice on the best placement for shade benefit and proper clearance. During the consultation, KEYS gives the customer a brief summary of what type of problems may occur if a tree was to be placed under the high voltage lines/service drops. Generally, the customer agrees to plant the tree where KEYS indicates on the layout of the property resulting in fewer future tree trimming problems and increases safety.

Benchmark Reports on Vegetation Management:

- KEYS implementation of the two year trim cycle, revisit list, tree removals, tree give-a-way program, and public service announcements, responding to customer request and hiring contractor crews for zone trimming has allowed KEYS to reduce outages.
- KEYS maintains records and produce an annual report of all outages throughout the system. In 2015, KEYS had one recloser, one feeder outage, and 26 lateral outages due to trees. These proactive measures have resulted in the low number of occurrences due to KEYS' Vegetation Management Program. KEYS will strive to continue to improve this program and further reduce outages and increase safety to the public and KEYS employees.

SECTION 5 continued

LINE CLEARANCES

KEYS strives to maintain the following line clearances where practical as follows-

- 15 feet clearance on all transmission lines
- 10 feet clearance on all open conductors greater than 600 volts (where possible)
- 5 feet minimum clearance on all open conductors less than 600 volts (where possible)
- 3 feet minimum clearance on all communication conductors

The Public Utility Research Center held two vegetation management workshops in 2007 and 2009. KEYS reviewed their reports and will use the information to continually improve vegetation management practices.

SECTION 6 Storm Hardening Research

Key West/Keys Energy Services is a member of the Florida Municipal Electric Association (FMEA), which is participating with all of Florida's electric utilities in storm hardening research through the Public Utility Research Center at the University of Florida. Under separate cover, FMEA is providing the FPSC with a report of research activities. For further information, contact Barry Moline, Executive Director, FMEA, 850-224-3314, ext-1, or <u>bmoline@publicpower.com</u>.

SECTION 7 Supplemental Data



Inaccessible Electrical Facilities Phase I

Revision#1- Multiple Riser Rebates

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. The rebate for condominium/apartment buildings will based on the number of meters; (for example if 4 meters then KEYS will pay $4 \times $2,100 = $8,400$). This cost estimated cost for all riser relocates 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.

RESOLUTION NO. 12-128

THE CITY RESOLUTION OF Α COMMISSION OF THE CITY KEY WEST, ENERGY KEYS FLORIDA, SUPPORTING EFFORTS TO REMOVE SERVICES' FACILITIES FROM ELECTRICAL WAIVING LOCATIONS; INACCESSIBLE PERMIT FEES FOR CERTAIN ELECTRICAL WORK; DIRECTING THE CITY MANAGER FACILITATE CUSTOMER UPGRADES; TO REMOVE SUPPORTING то EFFORTS FACILITIES SO EXCESS ADDITIONAL POLES CAN BE REMOVED IN A TIMELY MANNER; PROVIDING FOR CONDITIONS; PROVIDING FOR AN EFFECTIVE DATE

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 is committed to improving electrical reliability to all its customers; and

WHEREAS, the Florida Public Service Commission (FPSC) passed Order #25-06.0342 to specifically, "require the costeffective 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 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 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: <u>Section 1</u>. 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 inaccessible locations to locations adjacent to public roads.

<u>Section 2</u>. The City Commission hereby urges Keys Energy to continue to consider all local government and customer impacts when determining the cost-effective strengthening of critical electrical infrastructure. Placement of poles in many narrow City right-of-ways significantly impacts ADA sidewalk compliance mandated by Federal Law, customer parking, trees, and potentially impacts underground utilities. Private property easements adjacent to the front property lines should be sought for all right-of-ways 30 feet or less to facilitate ADA compliance, and in other instances where restricted right-of-way make it necessary.

<u>Section 3</u>. The City Commission 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.

<u>Section 4</u>. The City Commission hereby waives the cost of permitting the electrical work associated with relocating or extending risers and meter centers as a result of Phase I of the Keys Energy Services Relocation Project.

Section 5. The City Commission endorses an approach by the City Manager and the City's electrical inspector that allows for:

- o 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).
- o 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.
- o 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.

<u>Section 6</u>. The City Commission also encourages Keys Energy and City personnel to use all means available to assure Comcast and AT&T expedite the removal of their facilities so that excess poles can be removed in a timely fashion.

Section 7: This approval is specifically conditioned upon a subsequent agreement between the City, Comcast and AT&T (and their successors, if applicable) to transfer services to the new poles within 24 months of Keys Energy's establishment of such new facilities.

<u>Section 8</u>: That this Resolution shall go into effect immediately upon its passage and adoption and authentication by the signature of the Presiding Officer and the Clerk of the Commission.

Passed and adopted by the City Commission at a meeting held this 16 day of <u>April</u>, 2012.

Authenticated by the Presiding Officer and Clerk of the Commission on <u>17</u> day of <u>April</u>, 2012. Filed with the Clerk on <u>Arpil 17</u>, 2012.

ATTESI

CHERYL SMITH, CITY CLERK

Inaccessible Facilities Relocation Project

February 2nd 2016 Status Update Executive Summary

Construction

- Installation of utility poles progressing well with no construction concerns. Project layout and details of work completed are on the attached map/table.
- > KEYS completed 70% of all the high voltage line construction.
- 3300/3400 blocks of Riviera & Flagler, all electric, communication lines, and poles have been removed.
- > 1300 block of Flagler & Johnson have been completed with all poles installed.
- > 2800/2900 blocks of Harris & Fogarty, only have two remaining risers in this zone to complete.

Customer Interface

- KEYS continues to have an aggressive outreach program via letters, on-site meetings, dedicated KEYS phone line, website and FAQ's.
- > One customer issue. Customer does not want to pay above the \$2,100 maximum rebate.
- Engineering is working with the last two customers to complete their riser modifications within Zone D.
 - o 2807 Harris Ave (Aleida Valdez)
 - o 2811 Harris Ave (Harry Sody)
- Current target zone with riser relocations are Fogarty, Staples, Patterson and Harris Avenues; along with Seidenberg and Flagler Avenues. There are 143 meters remaining to relocate.

AT&T, Comcast & City Coordination

- KEYS continues to coordinate with AT&T and Comcast on performing their transfers in accordance with the City's requirement of a two-year time frame.
 - Letters on the two-year time frame were sent to AT&T and Comcast in January 2013.
 KEYS will be making a concerted effort to have them relocate their facilities. AT&T is looking to have their facilities completed by December 2015.
- City of Key West's Staff is very helpful and supportive on resolving issues ranging from tree trimming, ADA and pole location concerns on the City's Rights-of-Ways.
- > AT&T, Comcast & the City continue to work together to keep the project moving forward.

Riser Relocations

- > Relocation of risers is taking longer to perform than Staff expected.
- Riser relocation delays are not significantly impacting KEYS high voltage portion of the project at this time, but Staff will continue to monitor.
- > Total of 90 meter relocations to date out of 233. There are 143 meters remaining to relocate.
- The average of the 74 meter rebates processed is \$1,925. Fourteen customers have paid more than the rebate cap of \$2,100, with an average of \$590 over the maximum.

Project Cost and Budget

- > Project overall funding is on track. There are no issues or concerns at this time.
- > KEYS has processed over \$142,000 in customer rebates.

Current and Future Issues to Resolve

- Engineering identified 95 primary poles in the Lower Keys area to target after all the City zones are completed.
- > KEYS has gone out for bids to install new poles for the easements within the Lower Keys.

Overall Project Summary/Status

- ✓ Overall the project is progressing well considering the project's complexity.
- ✓ Staff is working to resolve one customer riser objection/issue. Customer's objection is not impacting KEYS' easement project schedule.
- High voltage line construction is within budget.
 - All KEYS high voltage work projected to be completed between Nov and Dec 2016.
 - All riser transfers & pole removals to be completed by 2018.
- ✓ Customer risers continue to be relocated, but at a slower rate than expected.
- City, AT&T and Comcast are cooperative and helpful. However, local utilities are falling behind on the City's two-year transfer requirement. KEYS to have a follow-up meeting in March 2016 in regards to the two-year time frame for Comcast and AT&T transfers.
- ✓ Staff has identified inaccessible locations in the Lower Keys; anticipated work has gone out for bids and is to commence in 2016.

Status Update															
			KEY:	<u>S Work</u>			ATT and	Comcast	Customers & Riser Issues						
Schedule	Circuit Legend	Location (Block & Street)	KEYS Poles to Install	% Work Completed	Engineering Design	Projected Construction Date	% Comcast Transferred	% ATT Transferred	Total Customers in Area	Qty of Meters Needing Modification	Meter Upgrades Completed	% of Riser Upgrades Completed	Qty Rebates Paid	Total F	≀ebates Paid y KEYS
	С	3300/3400 Blk Riviera & Flagler	8	100%	Completed	Completed	100%	100%	42	15	15	100%	15	\$	24,524
Voor 1	F	800 Blk Waddell & Washington*	1	100%	Completed	Completed	30%	25%	55	9	9	100%	9	\$	7,695
rear-r	E	800 Blk South & Washington*	6	100%	Completed	Completed	30%	30%	26	11	11	100%	11	\$	30,270
	D	2800 & 2900 Blocks of Harris*	8	100%	Completed	Completed	50%	0%	48	9	7	77%	6	\$	8,010
	D	2800 & 2900 Blocks of Fogarty*	8	100%	Completed	Completed	50%	0%	30	4	4	100%	4	\$	7,240
	D	2700 Blk Harris*	0	100%	Completed	Completed	50%	0%	11	1	1	100%	1	\$	2,100
		•	31	100%	Completed	Completed	52%	26%	212	49	47	96%	46	\$	79,839
	G	2400 Blk Harris & Seidenberg	8	75%	Completed	lun-16	0%	0%	32	12	0	0%	0	\$	-
	н	2600 Blk Flagler & Staples	10	50%	Completed	Jun-16	0%	0%	22	12	1	1%	1	\$	2.064
Year-2	- ï	2600 Blk Harris & Fogarty	6	75%	Completed	Jun-16	0%	0%	29	14	4	28%	4	\$	8,400
		2500 Blk Patterson & Fogarty	5	75%	Completed	Jun-16	0%	0%	36	6	2	33%	2	\$	2.877
-		2400 Blk Patterson & Fogarty	11	75%	Completed	Jun-16	0%	0%	50	14	0	0%	0	\$	-
	1	2300 Blk Patterson & Fogarty	5	75%	Completed	Jun-16	0%	0%	33	12	2	8%	1	\$	2,060
	1	2200 Blk Fogarty & Patterson	8	75%	Completed	Jun-16	0%	0%	18	10	2	10%	2	\$	3,408
	1	1900 Blk Fogarty & Patterson	9	75%	Completed	Jun-16	0%	0%	26	17	9	53%	4	\$	14,984
	1	2000 Blk Fogarty & Patterson	6	75%	Completed	Jun-16	0%	0%	42	18	7	33%	4	\$	8,925
	1	2100 Blk Fogarty & Patterson	6	75%	Completed	Jun-16	0%	0%	37	16	1	6%	1	\$	1,990
	1	1900 Blk Patterson & Roosevelt	3	75%	Completed	Aug-16	0%	0%	35	7	7	100%	2	\$	5,040
	- I	2000 Blk Patterson & Roosevelt	3	75%	Completed	Aug-16	0%	0%	13	7	4	57%	3	\$	4,920
	1	2100 Blk Patterson & Roosevelt	0	100%	Completed	Completed	0%	0%	8	6	0	0%	0	\$	-
			80	75%			0%	0%	381	151	39	25%	24	\$	54,668
	M	1200/1300 Blk Johnson & Flagler	3	100%	Completed	Completed	0%	0%	18	4	3	75%	3	\$	6,180
Noran C	Α	3500 Blk Flagler & Eagle (East)	4	0%	Completed	Nov-16	0%	0%	14	6	1	0%	1	\$	2,000
Year-3	В	3500 Blk Flagler & Eagle (West)	4	0%	Completed	Nov-16	0%	0%	15	7	0	0%	0	\$	-
	J	1800 Blk Harris & Seidenberg	9	25%	Completed	Nov-16	0%	0%	27	4	0	0%	0	\$	-
	К	1700 Blk Catherine & HOB School	4	25%	Completed	Nov-16	0%	0%	13	7	0	0%	0	\$	-
	K	1600 Blk Catherine & HOB School	3	0%	Completed	Nov-16	0%	0%	11	4	0	0%	0	\$	-
	L	2600 Blk Seidenberg & Harris	2	50%	Completed	Nov-16	0%	0%	6	1	0	0%	0	\$	-
			29	29%			0%	0%	104	33	4	0	4	\$	8,180









Other Miscellaneous info collected or work performed

- 250 guy guards installed
- 500 Pole numbers missing
- Pole photos collected
- 300 ground wire repaired
- 67 ADA locations identified for further investigation



NEXT STEPS

- ✓ Issue Letters to Customers to replace pole owned by them
- ✓ Finalize agreement with ATT to replace Att owned poles
- Perform "Bracing of Poles" that are in easements that are "restorable rejects"
- Procure long term agreement with Pole Manufacture
- ✓ Complete design and coordination for replacement of 400 poles
- Issues specification for High Voltage Contractor to replace poles over 2-3 yrs

SUMMARY

✓	Total Reject poles	450
~	Original Estimate of Reject poles qty	500
✓	Budget amount over next 3 yrs-	4.1 M
✓	Award of Poles and Construction -	Dec 2015
✓	Bracing of 95 poles	Oct 2015
✓	Start Pole replacement (contractor)	May 2016