



# **Power Delivery: Rate Case- Transmission**

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Florida Power and Light: Power Delivery

## Agenda

- **Introduction**
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  - Goals and Objectives
- **Review of Estimated Removals (2006-2015)**
  - Pole Removal Costs
  - Number of Estimated Poles Removed
  - Estimated Removal Cost per Pole
- **Review of Labor Costs**
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- **Summary**

## Introduction

### Background

- During last rate case, the Office of Public Council (OPC) asked FPL, “Why pole retirement costs were increasing?”
- FPL Property Accounting asked Power Delivery for assistance in reviewing estimated pole retirement costs in preparation for our 2016 rate case
- The following two (2) data sources were used in performing this analysis
  - ICE-T a program used by engineers when estimating transmission line projects
  - PUR a program used by engineers for project scheduling

### Goal and Objective

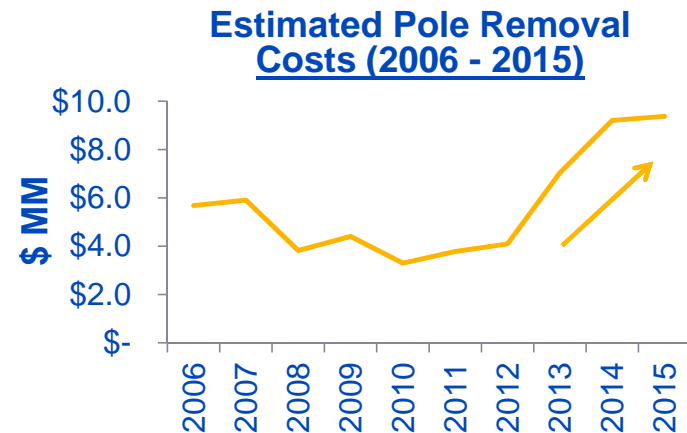
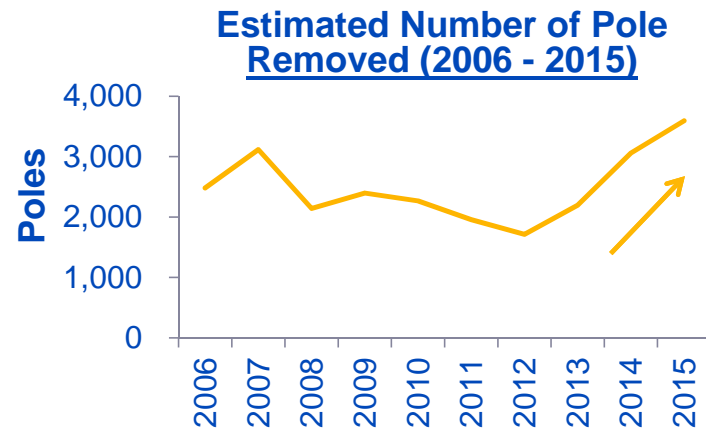
- The purpose of this document is to provide supporting documentation from the estimating program within Power Delivery on why pole retirement costs have been increasing



## The Florida Public Service Commission (FPSC) approved FPL's 2013 hardening plan which accelerated replacing its wood transmission structures

### Estimated Removals

- The FPSC requires all investor owned utilities to file hardening plans every three years
  - 2013 filing covers 2013-2015
- During this time there has been a **28% increase in the number of poles removed annually**
  - 2,950 estimated poles removed annually between 2013-2015
  - 2,296 estimated poles removed annually between 2006-2012
- **93% increase in the estimated annual pole removal costs**
  - \$8.5MM estimated annual pole removal cost between 2013-2015
  - \$4.4MM between 2006-2012



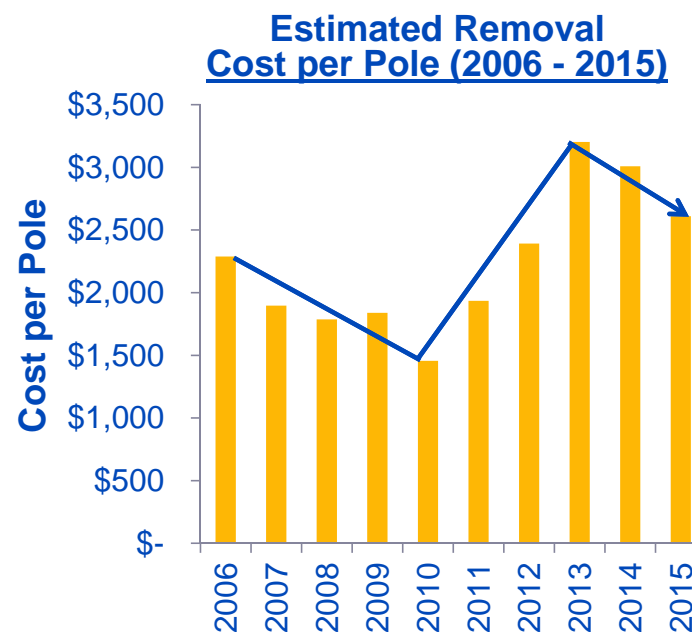
**The increase in the number of poles removed resulted in a 93% increase in the estimated annual pole removal cost**



**An increased number of transmission structures removed is only the first explanation in the increase in total removal costs**

## Estimated Removal Cost per Pole

- **The estimated removal cost per pole increased in 2013**
  - 50% increase (\$966) in estimated removal cost per pole
    - \$1,929 per removed pole estimated between 2006-2012
    - \$2,895 per removed pole estimated between 2013-2015
- **The estimated removal cost per pole has been decreasing since 2013**
  - 2015 removal cost per pole is \$682 above the average from 2006-2012



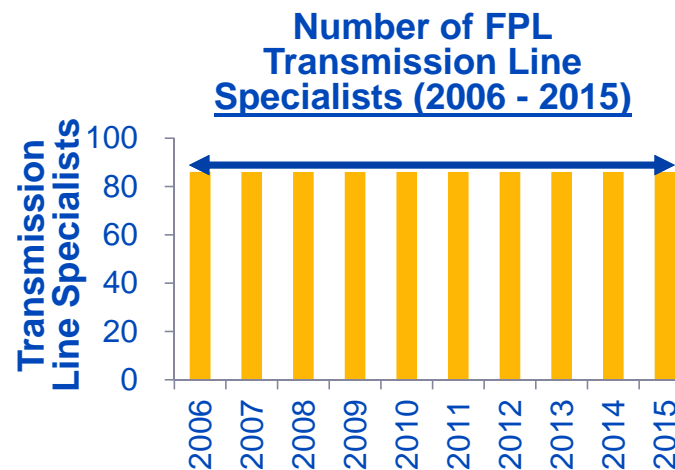
**The complete picture includes understanding why the estimated cost per pole removal increased**



## Labor is part of the estimated removal cost per pole

### Review of Estimated Labor

- The number of FPL transmission line specialists has remained same from 2006 to 2015
- FPL has contracted out the incremental pole replacements approved in the 2013 FPSC filing
- Over this time there was a 31% increase in contractor labor rates over FPL rates
- ICE-T estimates 7.93 man-hours to remove a wood pole (75'-85')
  - 5.85 MHs in labor rate 008-062 to remove wood pole (75'-85')
  - 2.08 MHs in labor rate 008-086 to cut wood pole on ground
  - Increased contractor labor equates to ~\$255 increase in cost to remove each pole



Estimated Hourly Rates (2006 - 2015)

Year	FPL	Contractor
2012	\$ 102.62	\$ 116.72
2013	\$ 103.46	\$ 119.16
2014	\$ 106.72	\$ 134.80

**Increase in labor costs is a second reason why estimated pole removal costs have increased**



## Equipment, such as cranes, is another part of the estimated removal cost per pole

### Review of Estimated Equipment

- **New hardened poles are heavier and require larger cranes**
  - The estimated pole weight can be approximately ~42% greater for the same length pole now with twice the capacity
- **The same crane used to install the new pole is often estimated to remove the existing pole**
  - This is more efficient than having multiple pieces of equipment at the work site and/or mobilizing
- **The estimated hourly rate of an 101 ton crane (or larger) is ~72% greater than the hourly rate of a 60-100 ton crane**
  - The increased estimated crane rates equate to an ~\$303 increase in cost to remove each pole

#### Estimated Hourly Crane Rates

Year	FPL
30-59 ton crane	\$ 90.00
60-100 ton crane	\$ 160.00
101 ton crane, or larger	\$ 275.00

**An increase in equipment costs is another reason why estimated pole removal costs have increased**



## Summary

- **The following three (3) reasons are the primary drivers as to why, the total estimated pole removal costs have increased over the last 3 years**
  - FPL increased the total number of poles removed annually as part of our 2013 storm hardening filing with the FPSC
  - FPL has utilized contractors with a higher labor rates in order to execute the increased demand for the hardening plans
  - Rental equipment, such as cranes, have become more expensive as hardened structures become heavier