

**Public Service Commission** 

CAPITAL CIRCLE OFFICE CENTER • 2540 SHUMARD OAK BOULEVARD TALLAHASSEE, FLORIDA 32399-0850

#### -M-E-M-O-R-A-N-D-U-M-

RE:	Storage of confidential audit work papers related to document No. 04702-15, Docket 150217-EI
FROM:	Robert L. Fisher, Government Analyst II, Office of Auditing and Performance Analysis
TO:	Carlotta S. Stauffer, Commission Clerk, Office of Commission Clerk
DATE:	December 18, 2015

Pursuant to Commission Administrative Procedures, Chapter 11, please store the following confidential work papers in Docket 150217-EI. The confidential information request was made in document number DN-04702-15, and was approved in Order No. PSC-15-0531-CFO-EI. These confidential work papers relate to information provided by Florida Power & Light Company during audit staff's *Review of Data Accuracy in Electric Reliability Reporting by Florida Electric IOUs* (PA-15-01-003).

cc: Carl Vinson Adria Harper



FILED DEC 18, 2015

DOCUMENT NO. 07943-15 FPSC - COMMISSION CLERK

#### FLORIDA PUBLIC SERVICE COMMISSION AUDIT DOCUMENT/RECORD REQUEST NOTICE OF INTENT

TO: Mr. Dave Bromley

# REDACTED

UTILITY: Florida Power & Light Company

FROM: Lynn Fisher

REQUEST NUMBER: DR-2

DATE OF REQUEST: 2/26/15

AUDIT MANAGER

Lynn Fisher

AUDIT PURPOSE: To review electric service reliability data collection and reporting.

REFERENCE RULE 25-22.006, F.A.C., THIS REQUEST IS MADE: INCIDENT TO AN INQUIRY

#### X OUTSIDE OF AN INQUIRY

DR-2.1 Please provide two paper copies of the following internal audit reports (requested confidential by company):

a. The second and second reports in response to DR-1.1b.

b. The **Description** and **Description** internal audit reports in response to DR-1.4b.

c. The contract of the second and second reports in response to DR-1.31.

d. The 2011-201 Benchmark Studies provided in response to DR-1.32.

- DR-2.2 Provide a summary showing the total number of verification/validation audits conducted monthly for the Pole Inspection Program, during the period 2010-2015 to date. (ref. DR-1.1b)
- DR-2.3 a. Provide a summary showing the total number of audit/surveys conducted monthly for the Joint Use Pole Inspection Program, during the period 2010-2015 to date. (ref. DR-1.8)
- DR-2.4 a. Provide a summary showing the total number of Transmission random sample verification audits conducted monthly for the Transmission Sructure Inspection Program, during the period 2010-2015 to date. (ref. DR-1.10)
- DR-2.5 Provide a list of any ongoing or planned audits of FPL's Pole Inspection Program, Vegetation Management Program, Storm Hardening Program, or Annual Reliability Reporting, during 2015.

DR-2.6 Please provide a copy of the most current Pole Inspection Deployment Plan.

### FLORIDA PUBLIC SERVICE COMMISSION AUDIT DOCUMENT/RECORD REQUEST NOTICE OF INTENT

TO:	Mr. Dave Bromley	
UTIL	TY: <u>Florida Power &amp; Light Company</u>	Lynn Fisher
FROM	1:Lynn Fisher	AUDIT MANAGER
REQU	UEST NUMBER: DR-4	DATE OF REQUEST: <u>4/29/15</u>
AUDI	T PURPOSE: <u>To review electric service reliabili</u>	ity data collection and reporting.
REQU	UEST THE FOLLOWING ITEM(S) BE PROVID	DED BY:5/4/15
REFE	RENCE RULE 25-22.006, F.A.C., THIS REQU	EST IS MADE: INCIDENT TO AN INQUIRY
		X OUTSIDE OF AN INQUIRY
DR-4.1	a. Please provide <b>an an a</b>	on Contract Administration, discussed in the $4/24/15$ conference call.
DR-4.2	<ul><li>a. Provide an explanation of the reasons why FPL did not con Program and joint use poles during 2010-2011.</li><li>b. Discuss why changes were made to re-implement the QA</li></ul>	mplete QA validation/verification reviews for the Pole Inspection process again in 2013, and why it continues today.
TO: AU	JDIT MANAGER	DATE:
THE RI	EQUESTED RECORD OR DOCUMENTATION:	
(1)	HAS BEEN PROVIDED TODAY	
(2)	CANNOT BE PROVIDED BY THE REQUESTED DA	TE BUT WILL BE MADE AVAILABLE BY
(3)	AND IN MY OPINION, ITEMS(S) BUSINESS INFORMATION AS DEFINED IN 364.183 CONFIDENTIAL HANDLING OF THIS MATERIAL, TH AFTER THE AUDIT EXIT CONFERENCE, FILE A REQ DIVISION OF COMMISSION CLERK AND ADMINISTR	IS (ARE) PROPRIETARY AND CONFIDENTIAL 3, 366.093, OR 367.156 F.S. TO MAINTAIN CONTINUED HE UTILITY OR OTHER PERSON MUST, WITHIN 21 DAYS QUEST FOR CONFIDENTIAL CLASSIFICATION WITH THE RATIVE SERVICES. REFER TO RULE 25-22.006, F.A.C.

(4) THE ITEM WILL NOT BE PROVIDED. (SEE ATTACHED MEMORANDUM)

SIGNATURE AND TITLE OF RESPONDENT

## FLORIDA PUBLIC SERVICE COMMISSION AUDIT DOCUMENT/RECORD REQUEST NOTICE OF INTENT

TO: _Mr.]	Dave Bromley	
UTILITY: .	Florida Power & Light Company	Lynn Fisher
FROM: <u> </u>	ynn Fisher	
REQUEST N	NUMBER: DR-4	DATE OF REQUEST: <u>4/29/15</u>
AUDIT PUR	POSE: To review electric service reliabili	ty data collection and reporting.
REQUEST T	THE FOLLOWING ITEM(S) BE PROVID	DED BY:
KEFERENC	E KULE 25-22.000, F.A.C., THIS KEQUE	X OUTSIDE OF AN INOURY
DR-4.1 a. Pleas b. Plea call.	se provide <b>completed in</b> completed in se provide <b>completed in</b> o	n discussed in the 4/24/15 conference call. n discussed in the 4/24/15 conference
DR-4.2 a. Provi Program b. Disc	ide an explanation of the reasons why FPL did not com m and joint use poles during 2010-2011. uss why changes were made to re-implement the QA p	plete QA validation/verification reviews for the Pole Inspection process again in 2013, and why it continues today.
TO: AUDIT M	ANAGER LYNN EISHER	DATE: 5/4/15
THE REQUEST	FED RECORD OR DOCUMENTATION:	
(1) X H/	AS BEEN PROVIDED TODAY	
(2) 🗌 CA	ANNOT BE PROVIDED BY THE REQUESTED DA	TE BUT WILL BE MADE AVAILABLE BY
(3) AI BUSIN CONFI AFTER DIVISI	ND IN MY OPINION, ITEMS(S) $4.1046$ IESS INFORMATION AS DEFINED IN 364.183, IDENTIAL HANDLING OF THIS MATERIAL, TH THE AUDIT EXIT CONFERENCE, FILE A REQU ION OF COMMISSION CLERK AND ADMINISTR.	IS (ARE) PROPRIETARY AND CONFIDENTIAL 366.093, OR 367.156 F.S. TO MAINTAIN CONTINUED E UTILITY OR OTHER PERSON MUST, WITHIN 21 DAYS UEST FOR CONFIDENTIAL CLASSIFICATION WITH THE ATIVE SERVICES. REFER TO RULE 25-22.006, F.A.C.
(4) 🗌 TH	IE ITEM WILL NOT BE PROVIDED. (SEE ATTAC	HED MEMORANDUM) howley LE OF RESPONDENT
		$\smile$

Office of Auditing and Performance Analysis		
	Document Summa	ry and Control Log
Company:Florida Power & Light CorArea:Electric Reliability ReportiAuditor(s):L. Fisher	npany ng Review	Workload Control #: <u>PA-15-01-003</u> File Name: <u>I:/PERFORMANCE ANALYSIS SECTION\00\PERFORMANCE</u> <u>ANALYSIS AUDITS\Electric Reliability Reporting</u> Review\Workpapers\3.3Document Summaries\DSL DS-1.doc
Document: DR-1.1 Date Requested: 1/6/15 Date Received: 1/6/15 Comments: (i.e., Confidential)	<b>Document Title and Purpose of Review</b> the company's wood pole inspection resu first eight-year cycle.	a. Please describe in detail the processes for planning, tracking, and auditing/validating lts. b. Please provide all audits conducted on the wood pole inspection process over the
CONFIDENTIAL NOI Requests DR-1.1b information in FPL Tallahassee offices to be held confidential during the audit.	Summary of Contents: a. FPL inspects approx. 1/8 of the total 1.2 million distribution poles annually; FPL has nine management areas as zones and annually performs pole inspections/necessary remediation in each zone; FPL and AT&T partner w/pole inspection vendor to ensure FPL/AT&T joint use poles are also inspected; Ranking/priority criteria used to determine which poles to inspect annually include: last inspection date, reliability (outage and momentary history), customer base, geographical/historic data (coastal areas, grade B vs. C construct. Older poles); Vendor uses mobile computing technology to record inspection data results and calculate pole strength and loading conditions; data is transferred to FPL Asset Management System (AMS) and the GIS; Inspection Metrics tracked include: number/percentage of poles reinforced/replaced due to decay/overload, number of joint use poles identified requiring transfer number of inaccessible locations, poles inspected, and inspection remediation costs (budget vs actual); Monthly, FPL selects 500 poles to verify/validate vendor inspection results to ensure FPL agrees w/inspection assessments, safety hazards are adequately addressed, inspection data is properly recorded, and contractor invoicing is accurate; b. An example of a monthly random sample report provides the year, month, management area, substation, pole number, unique ID, GPS coordinate, location, reason for non-compliance, and feedback from vendor; Feedback from the pole inspection vendor is included in response to non-compliant poles identified by the vendor. Confidential interview and model in the trallahassee offices for staff review. FPL also provided a listing of all verification/validation audits completed in the Tallahassee office.	
	Data Request(s) Generated:         No.       Description:         No.       Description:	
Document: DR-1.2       Document Title and Purpose of Review: Please provide the budgeted and actual expenditures for wood pole in for each year 2010 through 2014, and projected 2015.         Date Received: 1/6/15       for each year 2010 through 2014, and projected 2015.		<b>w</b> : Please provide the budgeted and actual expenditures for wood pole inspection activities jected 2015.
Comments: (i.e., Confidential)	Summary of Contents: Budgeted and ac           Year         Budget         Actual           2010         \$52.1         \$50.0           2011         66.8         67.0           2012         65.5         67.5           2013         68.8         69.7           2014         69.5         70.1           2015         55.8	tual expenditures for 2010 through 2014 and projected 2015 are:

	Conclusions:
	Data Request(s) Generated:         No.       Description:         No.       Description:
	Follow-up Required:
Document: DR-1.3 Date Requested: 1/6/15 Date Received: 1/6/15	<b>Document Title and Purpose of Review:</b> Please describe any changes that are being considered to the company's wood pole inspection processes and activities.
Comments: (i.e., Confidential)	Summary of Contents: No changes are being considered by the company at this time.
-	Conclusions:
	Data Request(s) Generated:         No.       Description:         No.       Description:
	Follow-up Required:
Document: DR-1.4 Date Requested: 1/6/15 Date Received: 1/6/15 Comments: (i.e., Confidential)	<b>Document Title and Purpose of Review:</b> a. Please describe in detail the processes for planning, tracking, and auditing/validating the company's vegetation management results. b. Please provide all audits conducted on the vegetation management process over the first eight-year cycle.
CONFIDENTIAL NOI Requests DR-1.4b information in FPL Tallahassee offices to be held confidential during the audit.	Summary of Contents: a. Annually, FPL trims approximately 1/3 of its feeders (3 yr. average cycle) and 1/6 (6 yr. average cycle); FPL also has a mid-cycle program to address feeder conditions requiring trimming prior to the next 3-yr. cycle trim (for fast growing species); All feeders are assigned a 1, 2, or 3 to the year of the cycle they are trimmed; feeders are ranked/prioritized based on historical reliability performance; Laterals recently trimmed are removed from the list and laterals not yet trimmed are moved up in priority rank; As FPL tree contractors complete planned tree trimming, FPL's Work Management System (WMS) is updated to reflect plan progress; Actual miles trimmed is compared to the planned trim and budgeted costs to ensure miles actually trimmed and costs are in line w/budget expenditures; W/in 30 days of vendor notification that work is complete, <u>100% of vendor completed</u> feeder work is inspected by FPL employees, to ensure work is consistent w/FPL plan/standards and is appropriately recorded; For laterals FPL selects, inspects, and validates a sample of completed lateral trimming; to ensure conformance and compliance w/FPL plan/standards; b. FPL will list applicable verification/validation audits and internal audits conducted (for the first inspection cycle); copies of the internal audits and a sample of each verification/validation audit are provided in FPL Tallahassee offices for review; examples of the 100% feeder validation audits and random sample lateral validation audits are attached; An example of the Vegetation Management Quality Control & Compliance PM Inspection Forms (Feeder Validation) were attached; Confidential were made available in FPL Tallahassee offices for staff review. FPL also provided a listing of all verification/validation audits completed in the Tallahassee office. <b>Conclusions:</b> <b>Data Request(s) Generated:</b>
	No Description:
	Follow-up Required:

Data Request(s) Generated:         No.       Description:         No.       Description:
Follow-up Required:
Document Title and Purpose of Review: For the period 2010 to date, please provide a copy of all studies, audits, or assessments to
ensure that the reliability indices are being implemented as prescribed.
available for review in FPL's Tallahassee office.
Conclusions:
Data Request(s) Generated:         No.       Description:         No.       Description:
Follow-up Required:
Document Title and Purpose of Review: For the period 2010 to date, please provide a copy of all benchmarking analyses performed on the company's reliability indices, including systems and databases used to track reliability information.         Summary of Contents: Confidential reports from and and analyses of the review in FPL's Tallahassee office.
Conclusions:
Data Request(s) Generated:         No.       Description:         No.       Description:         Follow-up Required:
<b>Document Title and Purpose of Review:</b> Please describe how service reliability complaints to the company and the Commission are used to assess the accuracy of service reliability data or the adequacy of customer service.
Summary of Contents: Service reliability complaints are not used to assess the accuracy of service reliability data, but service reliability data (outages and momentaries) is used to confirm and assess service reliability complaints; Investigations of service reliability complaints/issues can result in opportunities to improve customer reliability through identifying necessary repairs, targeted tree trimming, equipment upgrades, etc.
Data Request(s) Generated:         No.       Description:         No.       Description:
Follow-up Required:
Document Title and Purpose of Review: a Please discuss the increases in FPI. SAIDI during the period 2006-2011 and the
changes made to reduce SAIDI levels during 2012-2013. b. Please discuss any FPL efforts and changes made to reduce SAIFI
during the period 2008-2013. c. Please discuss FPL efforts and changes made to reduce MAIFIe during the period 2010-2013. d.
Please discuss FPL efforts and changes made to reduce CEMI5 during the period 2008-2013. e. Please discuss the causes of increased FPL CAIDI during 2009-2013 and any planned changes to further reduce CAIDI in the future. f. Please describe any changes in systems, processes, controls, measurements, or calculation methodology used to improve results discussed in response to

	Office of Auditing and	l Performance Analysis
Document Summary and Control Log		
Company:Florida Power & Light (Area:Electric Reliability RepoAuditor(s):L. Fisher	Company rting Review	Workload Control #: <u>PA-14-10-004</u> File Name: <u>I:/PERFORMANCE ANALYSIS SECTION\00\PERFORMANCE</u> <u>ANALYSIS AUDITS\Electric Reliability Reporting</u> Review\Workpapers\3.3Doc:ment Summaries\DS!_DR-2.doc
Document: DR-2.1 Date Requested: 2/26/15 Date Received: 3/10/15 Comments: (i.e., Confidential) CONFIDENTIAL	Document Title and Purpose of Revie         confidential by company):         a. The         and         b. The         and         c. The         and         d. The         Summary of Contents: Audits and bence         Conclusions:         Data Request(s) Generated:         No.       Description:         No.       Description:         Follow-up Required:	ew: Please provide two paper copies of the following (requested in response to DR-1.1b. response to DR-1.4b. provided in response to DR-1.32. hmarking studies were reviewed and returned to company (a,b,c,d);
Document: DR-2.2 Date Requested: 2/26/15 Date Received: 3/10/15 Comments: (i.e., Confidential)	Document Title and Purpose of ReviewProvide a summary showing the total nuduring the period 2010-2015 to date. (ref.Summary of Contents: Chart of Pole Inst	: mber of verification/validation audits conducted monthly for the Pole Inspection Program, DR-1.1b) spection Random Sample Verification/Validation Audits 2010-2015 (Feb.)
	Conclusions:	
	Data Request(s) Generated:         No.       Description:         No.       Description:         Follow-up Required:	
Document: DR-2.3 Date Requested: 2/26/15 Date Received: 3/10/15 Comments: (i.e., Confidential)	Document Title and Purpose of Reviewa. Provide a summary showing the totalduring the period 2010-2015 to date. (ref.Summary of Contents: summary of annu	number of audit/surveys conducted monthly for the Joint Use Pole Inspection Program, DR-1.8) ual joint-use audits/surveys of approximately 20% of joint use poles 2010-2015.
	Conclusions:	
	Data Request(s) Generated:         No.       Description:         No.       Description:         Follow-up Required:	
Document: DR-2.4 Date Requested: 2/26/15 Date Received: 3/10/15	<b>Document Title and Purpose of Review</b> a. Provide a summary showing the total n Transmission Structure Inspection Progra	umber of Transmission random sample verification audits conducted monthly for the um, during the period 2010-2015 to date. (ref. DR-1.10).

	Office of Auditing	and Performance Analysis
	Document Sur	mmary and Control Log
Company:Florida Power & Light CArea:Electric Reliability ReportAuditor(s):L. Fisher	Company rting Review	Workload Control #: <u>PA-15-01-003</u> File Name: <u>I:/PERFORMANCE ANALYSIS SECTION\00\PERFORMANCE</u> <u>ANALYSIS AUDITS\Electric Reliability Reporting</u> Review\Worknapers\3 3Document Summaries\DSL DR-4 doc
Document: DR-4.1 Date Requested: 4/29/15 Date Received: 5/4/15 Comments: (i.e., Confidential) CONFIDENTIAL	Document Title and Purpose of I a. Please provide FPL's b. Please provide FPL's Summary of Contents: a. Company provided b. Company provided Conclusions:	Review: on completed in completed in company discussed in the 4/24/15 conference call. completed in company discussed in the 4/24/15 conference call. (returned to company) (returned to company)
	Data Request(s) Generated:         No.       Description:         No.       Description:         Follow-up Required:	•
Document: DR-4.2 Date Requested: 4/29/15 Date Received: 5/4/15 Comments: (i.e., Confidential)	Document Title and Purpose of a. Provide an explanation of the re- Program and joint use poles during b. Discuss why changes were mad Summary of Contents: a. Company responded that as p validation/verification audits were business unit reorganization; in A QA audits were temporarily reass 2015 FPL averaged the QA valida b. The QA verification/validation integrity of the pole inspection pro- Conclusions:	Review: asons why FPL did not complete QA validation/verification reviews for the Pole Inspection g 2010-2011. e to re-implement the QA process again in 2013, and why it continues today. provided in DR 2.2, the last seven months of 2010 and February and March 2011, no QA e conducted due to the team (performing the audits) being disbanded, early retirements, and pril 2011 QA audits were re-established; In August and September 2011 the resources performing igned to perform a pole pulling survey; according to data provided, from October 2011 to March tion/verification audit target of 500 per month. audits were reestablished in April 2011; FPL believed /believes the QA audits help maintain the ogram and pole population.
	Data Request(s) Generated:         No.       Description:         No.       Description:         Follow-up Required:	

## Tony Maceo Questions

•	(DR-1.1b)
The Manag	followed a second and second provide the requested by Distribution gement.
1.	Were the <b>Manual</b> and <b>Exclusion</b> requested by Distribution Management, over <b>Exclusion</b> of a specific nature?
2.	Were the <b>manual</b> reviewed in <b>manual</b> and the <b>manual</b> considered adequate with recommendation for improvement as was the <b>manual</b> of the <b>ma</b>
3.	Was the second due to second d
4.	Was there any concern expressed of
5.	Were there any concerns of <b>the second secon</b>
6.	Was the ultimate conclusion that differences and the second state of the second state
	(DR-1.1b)
1.	<ul> <li>a. Was the Green Belt quality project mentioned completed in completed in completed in completed in completed in completed in complete completed in complete complete</li></ul>
2.	Did the <b>concerns related to the </b> and <b>concerns related to the </b> through
3.	Has Internal Audit conducted any additional <b>sector sector and additional add</b>
4.	Are there any current investigations or attorney-client engagements related to the any

1.	The look at and and was in regards to and the and the second seco	ie
	customer counts on some tickets were	
	a. Who expressed the <b>manager</b> , other and the <b>manager</b> , and	er
	department?)	
	b. was the state of the state o	
	c. The term <b>was used</b> in the <b>was used</b> in the <b>was as a potential reasonal as a potential reasonal as a potential reasonal and would</b>	n t,
	d. Is the same condition of the same second se	
	being limited to the same second it was during the same second at the same second seco	
	e. Were the from across the entire company or within specific areas? (explain if	
	f. How were the when the states they could not be	ie
	or once the dispatcher's Partners In Performance and and the second wet	re
	removed in <b>a set a</b> were there <b>and the set and the s</b>	
1.	The IA statement in the first paragraph seems to indicate that	
2.	In the under Current Status, the response notes has added additional measurements to this effect on the in accuracy of processing tickets. The answer seems to rather that	ne is an
	Can you explain? Were measures are or measures or measures	
1	The page of this stated that the this seems to sa	ut
	as of made previously.	.11
2	Based on the <b>Experimentation of the believe</b> and <b>Experimentation</b> and <b>Experimentation</b> FPSC rules?	

#### **Interview Topics**

#### Wood Pole Inspections (DR 1.1-1.3)

- Develop an understanding of the database that captures wood pole inspections results as well as the process flow
- How are QA audits conducted and performed?
  - o Determination of random sample to verify/validate vendor inspection results
- Planning and tracking of wood pole inspections
  - Ranking of Wood Poles to be inspected annually
- Process of rejection and replacement of poles
- Understanding of verification of systems data accuracy in AMS/GIS with vendor work completed
- Discussion of improvements as a result of and and

#### Initiative 1: Vegetation Management (DR 1.4-1.6)

- Develop an understanding of the database that captures vegetation management results as well as the process flow
- Planning and tracking of vegetation management (work planned vs. completed, budget vs. actual, and vendor billing vs. paid)
- · Process for auditing vegetation management work performed
- Discussion of 100% feeder validation audits inspection and validation process
- Random sample lateral validation audits selection criteria
- Updating WMS to measure plan progress
- Understanding of verification/validation of systems data accuracy
- Discussion of improvements as a result of a second and a second s

#### Initiative 2: Joint-Use Pole Attachment Audits (DR1.7-1.9)

- Planning and determination of joint-use pole inspections
- Develop an understanding of the database that captures joint-use pole attachment audit and load analysis results as well as the process flow
- How are inspections of audits of joint-use attachment poles conducted?
- Understand the process for reviewing attachment records
- Determining pole strength and remaining strength and records process
- How the 5 year cycle is tracked vs. completed inspections
- Annual 20% audits/survey completion and recording
- Pole replacements due to overloading and updating system data
- Discussion of improvements as a result of a contract and

#### Initiative 3: Six-Year Transmission Structure Inspection Program (DR 1.10-1.12)

- Planning and tracking of Transmission pole inspections
  - o Ranking of Poles and Structures to be inspected annually
- · Process tracking and auditing transmission inspection results
- Database and process flow
- · Determination of random sample to verify/validate vendor inspection results
- Understanding of verification of systems data accuracy

#### Initiative 4: Storm Hardening of Existing Transmission Structures (DR 1.13-1.15)

- Develop an understanding of the database that captures storm hardening of transmission results as well as the process flow
- Monthly tracking of progress for Transmission hardening activities in the AMP system
- Tracking of inspections and replacements completed
- Understanding of verification/validation of systems data accuracy

#### Initiative 5: GIS (DR 1.16-1.18)

- · Process flow for integrating facilities and assets into GIS
- Interactions between GIS and other applications (e.g. OMS, AMP, others)
- Data verification/validation for accuracy
- How GIS costs budgeted and tracked

#### Initiative 6: Post-Storm Data Collection (DR.1.19-1.21)

- Develop an understanding of the database that captures forensic analysis results as well as the process flow
- Experience with Post-storm Data Collection in FPL's annual company-wide dry run

#### Initiative 7: Overhead vs. Underground Reliability (DR 1.22)

- Capture and use of overhead/underground reliability results
- Experience with Post-storm Data Collection in FPL's annual company-wide dry run

#### Reliability Indices (DR 1.23-1.33)

- Overview of organizational structure and responsibilities
- Discussion of the system chart provided in DR 1.25 and Data Warehouse input/output for indices
  - Process of capturing interruptions (i.e. Are all individual customers included?)
  - TCMS validation process
  - Feeder Lockdown instructions
  - Ticket Coding and post-day ticket validation
  - CEMI customer validation process
- Verification and reconciliation of data
- Walk-through of Outage Auditing process
- Walk-through of exclusions and determination of areas affected
- Benchmarking analyses for reliability indices etc.)
- IEEE 1366
- Benefit of 2.5β and other internal and external indices for measuring reliability performance
- Walk-through FPL's process to ensure that the Commission reliability indices are being implemented as prescribed
- Discuss FPL's use of service reliability complaints to improve reliability performance

Bureau of Perfo	ormance Analysis
Interview	Summary
Company: Florida Power & Light Company Area: Electric Reliability Report Auditor(s): L. Fisher/C. Vinson	Interview Number: IVS-5 File Name:
Name: Severine Lopez, Regulatory & Distribution, Tony Maceo, Manager of Internal Audit	Date of Interview: 4/24/15 Location: Teleconference Telephone Number: FPL called into my office
1) Purpose of Interview: To understand conducted conducted	for an and the second during the period and the date
<ul> <li>a. The standard stand</li></ul>	follow-up the FPSC and company, and the second during the second and according to Tony, the second are made to the second followed a normal pattern of the second and the second second and the second
that the but a management change d. and and e.	of the concerns
all goals and incentives were	about a part of the company where the and to move the needle on a to move the needle on a
to remove any potential and their was measured more on f. during the period of the asked whether, based on the EPSC are accurate and in compliance with EPSC rules	the changes expected had been however, all changes and the to the
<ul><li>(3) Conclusions:</li></ul>	
(4) Date Request(s) Generated: No No No	
(5) Follow-up Required:	

lateral lines experiencing more than 3 momentaries in a month; Area Managers receive daily outage recaps to FPL also has a 4+ Feeder program targeting the cause of feeders with more than 4 outages in a month; FPL noted that customer complaints have been useful in identifying system conditions that contribute to outages and momentaries; FPL has identified the CEMM measure to track customers with multiple momentaries as high as 50, due to low voltages and other causes; FPL noted that their effort to address CEMM50 was completed last year, and the next goal is to eliminate all CEMM35 events and further reduce customer momentaries; the benefit of AMI is to identify fault current and real-time information to determine the cause of the momentary; in the last few years the control center has had tools to find faults more quickly; Fault Current Identifiers (FCI) are part of the Smart Grid technology that is FPL's Energy Smart Florida:
g. FPL explained that the Data Warehouse is used to interface with FPL field systems which gather outage data used to calculate and report reliability metrics and data regarding the ten initiatives; the warehouse stores data that can be reviewed by company management and be used for further analysis and reporting to management;
h. The interviewees did not know who initially and and and and a second and a secon
due to limited impact on individual and group
a small revision was reported to FPSC to ensure indices were reported correctly; a follow-up review of the and found a second was completed on the and found
(3) Conclusions:
(4) Date Request(s) Generated: No No No
<ul> <li>(5) Follow-up Required:</li> <li>1. Clarify reporting numbers for Distribution Operations Lead and General Manager organizations</li> <li>2. Review examples of Delivery Assurance monthly sampling reviews of ticket data</li> <li>3. Provide the monthly control center error rates for Feeder and Lateral tickets during 2014 and 2015 to date</li> <li>4. Provide a list of SLIDs of employees making errors for Feeder and Lateral tickets during 2014 and 2015 to date</li> <li>5. Provide a copy of current Ticket Validation Procedures (if not in DR-1 or DR-2)</li> </ul>

technology consulting; <u>all work is captured in the Work Management System (WMS)</u>; <u>WMS allows contractors to input completed</u> work directly through an interface; it also allows managers to track Work Requests (WRs), which include data regarding, feeder number, type line, miles of line, start date and finish date, percent complete; <u>QA survey results are also tracked in WMS</u>; <u>QA is</u> completed by Environmental Construction Inc. (ECI) and ACRC arborists; if rework is needed the inspector writes up needed rework on the existing 'NR;

h. The Vegetation Management Plan is loaded annually and progress is tracked continually; the <u>plan is developed based on the</u> <u>feeder\lateral trim list, feeder reliability, PSC cycle target</u> (1/6 of system per year) and develops a weighted index that considers CI, CEMI on each circuit; each circuit has a unique identifier as well; the Plan is built on a rolling three year basis, with targets developed monthly and quarterly; <u>an automated controller interface takes work units and generates WMS Work Requests</u>; FPL uses Asplundh and two other tree trim contractors to complete the work; <u>Veg. Mgmt. is constantly balancing and prioritizing work to available</u> <u>contract labor resources</u>; Vegetation Management also conducts interim cycle trimming through a separate mid-cycle plan; vendors are held to trim targets and <u>QA inspections are completed by an independent contractor; QA is not a full time job for all areas</u>; vendors input their vegetation trim work start date (form 599 start date), % complete, and complete dates (form 731 request inspection) to track and document whether work is completed on time; <u>Billing is completed on a cost per mile rate for each contractor</u>; any <u>rework is free</u> from the vendor; vendors are notified of rework conditions through WMS with an attached rework notice; FPL invoices vendors monthly;

Overall results were

i.

VM-TVS is used for hot spot, T&M, customer trim request

work, and reliability work; if FPL cannot combine this work into regularly scheduled trim work they will "hot spot" trim to ensure fast growing trees are trimmed in their off cycle; some trees and shrubs are faster growing than others and must be trimmed between normal cycles to ensure reliability; this is when mid cycle and hot spot trimming are necessary; the WMS selects the 1% of CM jobs to be reviewed by QA;

results were	Overall
(3) Conclusions:	
(4) Date Request(s) Generated: No No No	
(5) Follow-up Required:	

Bureau of Perfo	ormance Analysis	
Interview Summary		
Company: Florida Power & Light Company Area: Electric Reliability Report Auditor(s): L. Fisher/C. Vinson	Interview Number: IVS-1 File Name:	
Name: Dave Bromley, Regulatory & Distribution, Tom Allain, Gen. Mgr. Central Maintenance, James Pike, Pole Inspection Lead, Eileen Tomayo, Pole Engineering, Scott Gordon, Gen. Counsel	Date of Interview: 3/16/15 Location: 7200 NW 4 <sup>th</sup> St., Plantation, Fl Telephone Number:	
accuracy of reliability metrics reported to the FPSC	is, processes and controls used to capture, analyze, and ensure the	
<ul> <li>(2) Interview Summary:</li> <li>a. Central Maintenance is responsible for construction work, OH/ other duties; James Pike is the Pole Inspection Lead, responsil inspection program and reports to Tom Allain, Gen. Mgr.;</li> <li>b. FPL's vendor completes inspections and uses portable compute system until 2012, when the system was retired; currently the very Vendor inspection data is reviewed by their supervisors, prior to vendor inspection data is reviewed by FPL QA; this second review work ordered is comparable to the work performed by the vendor agreement, and whether unnecessary work is completed, or rework conducted on a.n ongoing basis; AMS/GIS is updated internally to completed;</li> <li>c. FPL Central Maintenance maintains updated inspection data in vendor to update the Central Maintenance stored excel files and uploaded via high density XML files to FPL Information Tech Management System (AMS) to update pole records and other update d. Pole Inspection techniques include visual, sound, bore, and exc strength and load assessments to ensure poles do not violate NES of pole and height of pole are reviewed; all poles inspected are treat e. FPL's Work Management System (WMS) tracks pole inspect monitored to ensure the activity is completed in a timely manner; f. As a result of the first pole inspection cycle, FPL requested the excavations and load calculations because of the low failure rations inspection excavation period for new CCA poles from 16 years to before required inspection in the second inspection cycle. There art g. An</li> </ul>	UG conversions, cable services, Distribution pole inspections, and ole for ensuring pole inspections are completed on cycle per the ar to capture results; The vendor results were stored in their Fastgate ndor provides pole inspection data through a direct feed to FPL IT. sending data and invoices to FPL; Monthly a 500 pole sample of w of inspection data by FPL QA inspectors, determines whether the or, verifies whether vendor charges are reflective of the contractual k is necessary; administrative checks against contract prices are also by FPL upon completion, inspection, review, and approval of work excel files; FPL Pole Inspection uses the raw data results from the d complete pole inspection reports; vendor raw data files are also inology; pole data from the vendor is also loaded into the Asset ate purposes; avation to 18" deep for wood poles; The vendor also completes pole C standards; Additionally, pole spans, equipment attachments, class ated around the base of the pole excavation, ion work activity; weekly status of follow-up work and rework is that the Commission modify requirements for CCA pole inspection te for CCA poles; the Commission approved an extension of the 0 28 years, and load calculation for wood poles to greater than 80% e cost savings for 2 <sup>nd</sup> cycle inspections due to the FPSC change;	
the work was completed by the vendor,		
Today, stated that the bottom line was the XML/Excel files are the docum	Central Maintenance worked Tom Allain ent of record for pole inspections;	
(3) Conclusions:	· · · · ·	
(4) Date Request(s) Generated:		
<ul><li>(5) Follow-up Required:</li><li>1. Ask for the monthly reviews of the 500 sample pole inspections</li><li>2. Describe the changes made to FPL's AMS/GIS systems to ensure the statement of the systems to ensure the system.</li></ul>	audited by QA inspectors.	
3. Provide a copy of the latest AMS/GIS reconciliation perform	ed (through March 2015), showing the number of pole inspections	
4. Provide a copy of the latest AMS/GIS/Deployment Plan reconciliation performed (through March 2015), showing the number of		
<ul><li>5. Provide a copy of the latest Central Maintenance stored excel performed.</li></ul>	files (through March 2015) showing the number of pole inspections	