

**Comprehensive Exhibit List for Entry into Hearing Record for
September 30, 2014 in Docket 130223-EI**

Hearing I.D. #	Witness	I.D. # As Filed	Exhibit Description	Entered
STAFF				
1		Exhibit List	Comprehensive Exhibit List	
FLORIDA POWER & LIGHT COMPANY (FPL) (DIRECT)				
2	Robert A. Onsgard	RAO-1	FPL's original proposed tariff filed August 21, 2013	
3	Robert A. Onsgard	RAO-2	FPL's revised tariff filed January 17, 2014	
4	Robert A. Onsgard	RAO-3	Florida Public Service Commission Staff Briefing dated February 11, 2013	
5	Robert A. Onsgard	RAO-4	Cost analysis (Exhibit B to Petition for Approval of Optional Non-Standard Meter Rider filed August 21, 2013)	
6	Robert A. Onsgard	RAO-5	FPL Energy News, May 2014, including NSMR Tariff communication to all customers	
7	Terry Deason	JTD-1	J. Terry Deason Curriculum Vitae	
MARILYNNE MARTIN, ET AL. (MARTIN)(DIRECT)				
8	Marilynne Martin	MM-1	Resume of Marilynne Martin	
9	Marilynne Martin	MM-2	Non-Standard Meter Capital Avoidance Analysis	
10	Marilynne Martin	MM-3	National Action Plan Communications Plan Umbrella Action Guide	

STAFF				
11			FPL's responses to Staff's First Set of Interrogatories, Nos. 1-20 (See Hearing Exhibit CD for excel files re: Nos. 3 & 4) [Bates Nos. 0001-0063]	
12			FPL's responses to Staff's Second Set of Interrogatories, Nos. 21-31 [Bates Nos. 0064-0082]	
13			FPL's responses to Staff's First Data Request, Nos. 1-25, revised 26, and 27-32 (See Hearing Exhibit CD for excel file re: No. 12) [Bates Nos. 0083-0124]	
14			FPL's responses to Staff's Second Data Request, Nos. 2-11 [Bates Nos. 0125-0139]	
15			FPL's responses to OPC's First Set of Interrogatories, Nos. 1-15 [Bates Nos. 0140-0167]	
16			FPL's responses to Intervenor Martin's Amended First Set of Interrogatories, Nos. 2-9, 12, 14-21, 23-26 (<u>not including confidential attachment to No. 24</u>), 28, 33, 34, 36, 39-46, 48, and 51 [Bates Nos. 0168-0218]	
17			FPL's responses to Intervenor Martin's Second Set of Interrogatories, Nos. 53-56, and 58-60 [Bates Nos. 0219-0227]	
18			FPL's responses to Intervenor Martin's First Request for Production of Documents, No. 12 (OPC's POD No. 2) (FPL Bates Nos. 002232 NSMR-002259 NSMR) [Bates Nos. 0228-0257]	

HEARING EXHIBITS

Hearing I.D.	Witness	I.D. # As Filed	Exhibit Description	Entered
19	Robert A. Onsgard		FPL postcard notice for smart meter installation	
20	Robert A. Onsgard		FPL Response to OPC IRROG Nos. 8, 9, and 11	
21	Robert A. Onsgard		CAPUC Application 11-3-014 Pacific Gas and Elec approval for modification to Smartmeter program and increase Request to recover the costs	FPL Objected
22	Robert A. Onsgard		Maryland PUSC Case No. 9207 and 9208 and 9294	FPL Objected
23	Robert A. Onsgard		Petition for approval of Optinal non-standard meter rider	
24	Robert A. Onsgard		FPL Background analysis and support for calculation of charges of metter installions	
25	Robert A. Onsgard		Petition for Rate adjustments MFR's schedule in 080677 Schedule E13B	FPL Objected
26	Robert A. Onsgard		120015 Petion for rate adjustment, MFR Schedule E6B and E7	Not Offered
27	Terry Deason		FPL Resonponses to Intervenors Martin IRROGS 42	
28	Terry Deason		Responses to Staff's first data request No. 26	Not Offered
29	Terry Deason		120015 Rebuttal Testimony of Robert E. Barrett	Not Entered

INDEX OF RATE SCHEDULES		
<u>RATE SCHEDULE</u>	<u>DESCRIPTION</u>	<u>SHEET NO.</u>
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GST-1	General Service - Non Demand - Time of Use (0-20 kW)	8.103
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RS-1	Residential Service	8.201
RTR-1	Residential Time of Use Rider	8.203
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CS-2	Curtable Service (2000 kW +)	8.432
CST-2	Curtable Service -Time of Use (2000 kW +)	8.440
CST-3	Curtable Service -Time of Use (2000 kW +)	8.542
CS-3	Curtable Service (2000 kW +)	8.545
GSLD-3	General Service Large Demand (2000 kW +)	8.551
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OS-2	Sports Field Service	8.602
MET	Metropolitan Transit Service	8.610
CILC-1	Commercial/Industrial Load Control Program (Closed Schedule)	8.650
CDR	Commercial/Industrial Demand Reduction Rider	8.680
SL-1	Street Lighting	8.715
PL-1	Premium Lighting	8.720
OL-1	Outdoor Lighting	8.725
SL-2	Traffic Signal Service	8.730
RL-1	Recreational Lighting	8.743
SST-1	Standby and Supplemental Service	8.750
ISST-1	Interruptible Standby and Supplemental Service	8.760
EDR	Economic Development Rider	8.800
DSMAR	Demand Side Management Adjustment Rider	8.810
TR	Transformation Rider	8.820
SDTR	Seasonal Demand - Time of Use Rider	8.830
EFEDR	Existing Facility Economic Development Rider	8.900

NON-STANDARD METER RIDER – NSMR
(OPTIONAL)

RIDER: NSMR

AVAILABLE:

In all territory served to all customers.

APPLICATION:

This Rider is available to customers who elect non-standard non-communicating meter service in lieu of the standard communicating smart meter service ("Opt-Out Customer"). This is an optional Rider available to customers served under a standard or optional rate schedule for which a communicating smart meter is the standard meter service. Customers who fail to provide reasonable access to premises, or otherwise prevent replacement of the non-standard non-communicating meter with a standard communicating smart meter shall be deemed to have elected to take service under Rider NSMR, provided they are not prohibited from doing so pursuant to the "Limitation of Service" provision of this NSMR. Service under this schedule shall be provided with a non-communicating meter of the Company's choice.

SERVICE:

The same as that specified in the Opt-Out Customer's otherwise applicable rate schedule.

LIMITATION OF SERVICE:

RESERVED FOR FUTURE USE

This Rider is available to customers who have not tampered with the electric meter service or used service in a fraudulent or unauthorized manner.

CHARGES:

All charges and provisions of the Opt-Out Customer's otherwise applicable rate schedule shall apply. In addition, customers who elect service under this Rider will be charged an Enrollment Fee and a recurring Monthly Surcharge. The Enrollment Fee consists of an initial lump sum payment.

Enrollment Fee: \$105.00

Monthly Surcharge: \$16.00

TERM OF SERVICE:

Not less than one (1) billing period.

SPECIAL PROVISIONS:

Customers otherwise eligible at premises where FPL has intended to deploy smart meters who have not received a smart meter and have (a) actively enrolled in the NSMR program during the enrollment period or (b) not actively enrolled in the NSMR program during the enrollment period and have been deemed to have elected to take the non-standard service under the optional rate, will have a grace period of 45 days following the initial billing of NSMR charges to contact FPL requesting cancellation of service under NSMR and accept installation of a standard communicating meter. NSMR charges that have been billed (Enrollment Fee and Monthly Surcharge) will be waived after installation of the standard communicating meter.

A replacement for a non-standard meter may not be readily available should one require maintenance. Service under this Rider may require the temporary installation of a standard communicating meter in order to maintain electric service to the premise. All charges for NSMR shall continue to apply in this case.

Customers taking service under this Rider relocating to a new premise who wish to continue service under NSMR are required to request new service under the Rider including payment of the Enrollment Fee at the new premise. Customers who cancel service under this Rider and then later re-enroll for this service at any location would also be required to submit another Enrollment Fee.

RULES AND REGULATIONS:

Service under this Rider is subject to orders of governmental bodies having jurisdiction and to the currently effective "General Rules and Regulations for Electric Service" on file with the Florida Public Service Commission. In case of conflict between any provision of this schedule and said "General Rules and Regulations for Electric Service" the provision of this schedule shall apply.

INDEX OF RATE SCHEDULES

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OL-1	Outdoor Lighting	8.725
SL-2	Traffic Signal Service	8.730
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NON-STANDARD METER RIDER—NSMR
(OPTIONAL)

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In all territory served to all customers.

APPLICATION:

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SERVICE:

The same as that specified in the Opt-Out Customer's otherwise applicable rate schedule.

LIMITATION OF SERVICE:

This Rider is available to customers who have not tampered with the electric meter service or used service in a fraudulent or unauthorized manner.

CHARGES:

All charges and provisions of the Opt-Out Customer's otherwise applicable rate schedule shall apply. In addition, customers who elect service under this Rider will be charged an Enrollment Fee and a recurring Monthly Surcharge. The Enrollment Fee consists of an initial lump sum payment.

Enrollment Fee: \$105.00
Monthly Surcharge: \$16.00

TERM OF SERVICE:

Not less than one (1) billing period.

SPECIAL PROVISIONS:

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FLORIDA POWER & LIGHT COMPANY

~~Fiftieth Forty-Ninth~~ Revised Sheet No. 8.010
 Cancels ~~Forty-Ninth Forty-Eighth~~ Revised Sheet No. 8.010

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SDTR	Seasonal Demand - Time of Use Rider	8.830
EFEDR	Existing Facility Economic Development Rider	8.900

Issued by: S. E. Romig, Director, Rates and Tariffs
 Effective: July 1, 2013

FLORIDA PUBLIC SERVICE COMMISSION
 DOCKET: 130223-EI EXHIBIT: 3
 PARTY: FLORIDA POWER & LIGHT
 COMPANY (FPL) (DIRECT)
 DESCRIPTION: Robert A. Onsgard RAO-2

FLORIDA POWER & LIGHT COMPANY

Eleventh Revised Sheet No. 8.120
Cancels Tenth Revised Sheet No. 8.120

NON-STANDARD METER RIDER -- NSMR
(OPTIONAL)

RIDER: NSMR

AVAILABLE:

In all territory served to all customers.

APPLICATION:

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SERVICE:

The same as that specified in the Opt-Out Customer's otherwise applicable rate schedule.

LIMITATION OF SERVICE:

This Rider is available to customers who have not tampered with the electric meter service or used service in a fraudulent or unauthorized manner.

CHARGES:

All charges and provisions of the Opt-Out Customer's otherwise applicable rate schedule shall apply. In addition, customers who elect service under this Rider will be charged an Enrollment Fee and a recurring Monthly Surcharge. The Enrollment Fee consists of an initial lump sum payment.

Enrollment Fee: \$95.00

Monthly Surcharge: \$13.00

TERM OF SERVICE:

Not less than one (1) billing period.

SPECIAL PROVISIONS:

Customers otherwise eligible at premises where FPL has intended to deploy smart meters who have not received a smart meter and have (a) actively enrolled in the NSMR program during the enrollment period or (b) not actively enrolled in the NSMR program during the enrollment period and have been deemed to have elected to take the non-standard service under the optional rate, will have a grace period of 45 days following the initial billing of NSMR charges to contact FPL requesting cancellation of service under NSMR and accept installation of a standard communicating meter. NSMR charges that have been billed (Enrollment Fee and Monthly Surcharge) will be waived after installation of the standard communicating meter.

A replacement for a non-standard meter may not be readily available should one require maintenance. Service under this Rider may require the temporary installation of a standard communicating meter in order to maintain electric service to the premise. All charges for NSMR shall continue to apply in this case.

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Fiftieth Revised Sheet No. 8.010
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Issued by: S. E. Romig, Director, Rates and Tariffs
 Effective:

FLORIDA POWER & LIGHT COMPANY

Eleventh Revised Sheet No. 8.120
Cancels Tenth Revised Sheet No. 8.120

NON-STANDARD METER RIDER – NSMR
(OPTIONAL)

RIDER: NSMR

AVAILABLE:

In all territory served to all customers.

APPLICATION:

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Issued by: S. E. Romig, Director, Rates and Tariffs
Effective:



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-

DATE: February 11, 2013
TO: Braulio L. Baez, Executive Director
FROM: Walter Clemence, Public Utility Analyst II, Office of Industry Development and Market Analysis
Michael T. Lawson, Senior Attorney, Office of the General Counsel
RE: Briefing on Smart Meters: Technical Information and Regulatory Issues.

CRITICAL INFORMATION: Please place on the February 19, 2013 Internal Affairs. This item is being presented for briefing only.

Florida Public Service Commission (FPSC) staff held a public workshop on September 20, 2012 to gather information on smart meters and to address concerns raised by consumers. Topics addressed during the workshop included jurisdiction of government agencies, health, privacy, data security, and alternatives to smart meters. Presentations were made by subject matter experts from utilities, transmitter manufacturers, and meter manufacturers. Twelve consumers provided public comment during the workshop and numerous customer contacts have been received. Staff is providing a summary of the issues that have been of concern to customers for briefing purposes.

Introduction

The meters being installed by the investor-owned utilities are not identical and have been rolled out on different schedules. Florida Power & Light Company (FPL) uses advanced metering infrastructure (AMI) that utilizes Radio Frequency (RF) Mesh technology that provides two-way communications infrastructure to and from the customer's meter. FPL began installing meters in 2006 and plans to complete their installation of 4.6 million meters in May of 2013. Tampa Electric Company (TECO) uses an automated meter reading (AMR) meter that is capable of transmitting from the meter, but the meter is not capable of two-way communication. TECO started its AMR roll out in 2003 and completed the installation of approximately 682,000 meters in January 2012. Progress Energy Florida, Inc. (PEF) used a mix of cellular AMR for large customers, drive-by AMR for residential and small commercial customers, and AMI for medium size commercial customers. PEF began installing AMR meters for its industrial customers in the 1990's and plan to complete its installations with AMI meters in October of 2013. Gulf Power Company (Gulf) also uses AMI meters within its service territory. Gulf started its installation of AMI meters in 2007 and completed the installation of approximately 437,000 meters in 2012.

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET: 130223-EI EXHIBIT: 4
PARTY: FLORIDA POWER & LIGHT
COMPANY (FPL) (DIRECT)
DESCRIPTION: Robert A. Onsgard RAO-3

Jurisdiction

The FPSC has jurisdiction over cost recovery of smart meters, but does not have specific statutory authority over the smart meters themselves. As required by Section 366.04, Florida Statutes, the FPSC has adopted and enforces the safety standards found in the National Electrical Safety Code (NESC) for all electric utilities. However, the NESC does not address radio frequency transmitted by devices such as smart meters. RF emission standards are established by the Federal Communications Commission (FCC).

Section 366.03, Florida Statutes (F.S.), requires the utilities to furnish to each customer reasonably sufficient, adequate, and efficient service upon terms as required by the FPSC. Section 366.04(1), F.S., indicates that the Commission has jurisdiction to regulate and supervise each public utility with respect to rates and service. Utilities present at the workshop agreed that the rates and services aspects of the statutes apply to smart meters.

Section 366.045, F.S., provides that the FPSC shall have jurisdiction over the planning, development, and maintenance of a coordinated electric power grid throughout Florida. Section 366.05(1), F.S., discusses the FPSC's jurisdiction to prescribe fair and reasonable rates and charges, and classification standards of quality and measurements. Rule 25-6.049, Florida Administrative Code, requires utilities to use commercially acceptable measuring devices owned and maintained by the utility to measure their customers' energy usage. Meter manufacturers and utilities at the workshop stated that the meters being installed are commercially accepted measuring devices.

The participating utilities all indicate that the FCC has exclusive jurisdiction over any health effects from smart meters. The FCC's jurisdiction arose from the Federal Communications Act of 1934, continued with the Telecommunications Act of 1996. Workshop presenters agreed that the standards are uniformly adhered to by Florida's IOUs.

FPL presented information that the FCC corresponded with Florida Senator Bill Nelson in June of 2012 and reaffirmed that health issues related to smart meters are within their jurisdiction. Further, FPL indicated the FCC has stated that it has exercised its jurisdiction and will continue to exercise the FCC's jurisdiction over smart meter transmitters.

Commission staff invited the FCC and the California Council on Science and Technology (CCST) to attend the workshop. Both the FCC and CCST declined to attend the workshop.

Available Options

Staff does not believe that jurisdictional issues addressed at the workshop require any FPSC action.

Health

Smart meter transmitters are certified for compliance with RF emissions by the FCC. The transmitters within the meter have an FCC ID number that consumers could use to verify that it

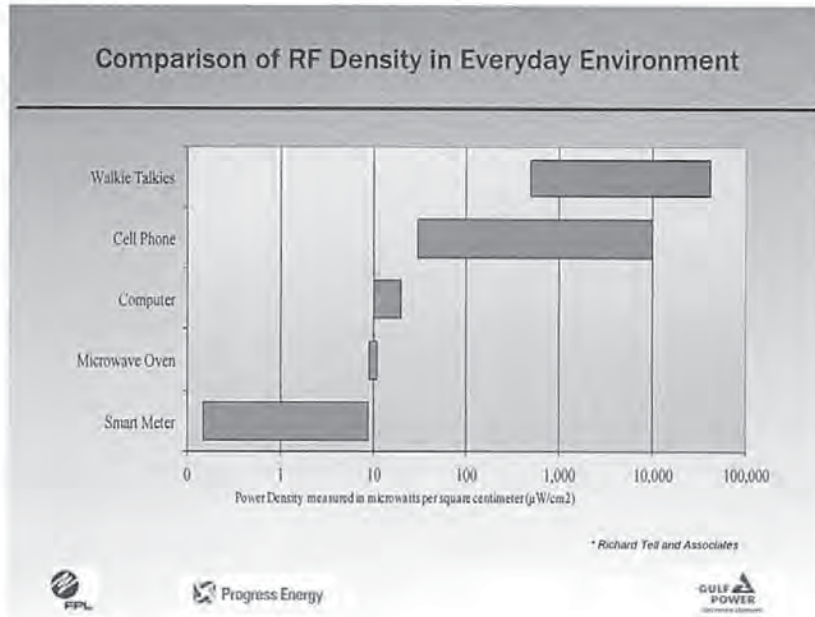
has been approved. RF emitting devices have been used since the 2nd World War and have been widely studied. The smart meter is a relatively new application of existing RF technology. Utilities and manufacturers presented information that smart meters are safe and operate within established authorized standards. However, during the public comment session, consumers presented information that the meters are unsafe and contended that the meters may operate outside the bounds of established standards.

The meter manufacturers who attended the workshop provided staff with an overview of the process for ensuring FCC RF compliance. First, the transmitter is tested by a third-party agency for compliance and then that information is filed with the FCC. Once approved, an FCC ID number is provided to transmitters that pass the test. Each FCC ID number is available to be verified on the FCC website, and consumers may reference the number that appears on any transmitter. In the event that a change is made to the transmitter, the testing and FCC filings must be resubmitted, and another FCC ID number would be assigned after compliance.

The effects of RF can be either thermal or non-thermal. At very low levels, RF can pass directly through the body and has no effect on a person. At higher levels, the RF can accumulate energy within the body, and this effect can raise body temperature. The standards set by the FCC focus primarily on the thermal effects from RF. The FCC does look at the non-thermal effects; however, it believes it is appropriate to use the thermal effects as a guide for setting standards. Non-thermal effects reported by customers include headaches and difficulty sleeping.

Comments were provided regarding multi-meter installations and the possible health effects from these meter banks. FPL conducted third-party testing and found that at a distance of one foot from 100 smart meters, the RF was 15% of the allowable exposure limit. The testing company also tested banks of 80 meters and came to the same conclusion. FPL's study found that the exposure from multi-meter installations was still well below the standards established by the FCC.

The following is a chart that was presented by the IOUs in a joint presentation at the workshop. The chart shows a comparison of RF emission levels from various devices typically found in a home.



Summary

The FPSC does not have regulatory authority over any potential health effects from smart meters; the FCC is the entity that has jurisdiction over the issue. However, staff will monitor the FCC for any updates to FCC standards.

Privacy

The IOUs all hold customer data confidentially, except for release for regulated business purposes and to comply with court orders. Municipal utilities must comply with Florida's Sunshine Law. Customer data that is maintained by a municipal utility must be disclosed as part of a public records request. The Florida Municipal Electric Association stated that it is considering seeking legislative support to allow for a delay in releasing interval data by 3 months, while maintaining the availability of current monthly data.

Smart meters do not transmit or store any personal customer identification information. The meters do not transmit customer names, billing information, or addresses. The Federal Trade Commission has regulations in place that are designed to prevent identity theft. The IOUs' privacy policies are designed to be consistent with Federal Trade Commission regulations. Further, the IOUs can use the FPSC confidentiality process to ensure that any customer information that is provided to the FPSC remains confidential.

The utilities were unanimous in their presentations that the only time customer data would be released to a third party is when it is specifically requested by the customer, unless required by law. However, the utilities look at ownership of the data differently; FPL and PEF see themselves as custodians of the data, TECO believes that it owns the information, and Gulf believes that the customer owns the data. In the future, commercial interests may want access to

this data and the ownership of the data may determine who receives any potential value from this data.

Customers expressed concern that the meter will indicate what appliances are being used and the information from the smart meter will be used to market items to consumers. Customers also expressed concern that smart meters are an attempt by United Nations Agenda 21 to regulate how consumers use electricity. The meter manufacturers stated that the meters only measure total usage and are unable to identify usage from specific appliances.

Summary

The IOUs have all represented that they have privacy policies in place. Staff will monitor any legislative changes that may require the FPSC or the utilities to act.

Data Security

The data transmitted by the smart meter does not contain any personal customer identification information. Smart meters only transmit information about usage, the meter number, meter type, tampering indications, and error checking information. Moreover, the information transmitted by the meters is encrypted, so if a person did intercept a signal, they would not be able to decipher it.

The utilities transmit the encrypted information securely, and have cyber and privacy policies in place. FPL, Gulf, and PEF have used third-party testing to ensure the security of their transmission of customer usage information from the meter to the utility. TECO's information technology staff consistently monitors their system to ensure security.

The National Institute of Standards Technology (NIST) is the leading board that promulgates security standards, and they have several working groups that promote and develop those standards. The NIST process is a collaborative one among private industry, public industry, and individuals who come together and establish standards for cyber security and interoperability.

During the last Congressional Session, several cybersecurity bills were before Congress; these bills did not pass.

Summary

It appears existing data security protocols are being followed and staff will monitor for further enhancements to security requirements, including federal legislation.

Alternatives

FPL commented during the workshop that it would be open to an alternative to requiring all customers to accept a smart meter. Gulf, TECO, and PEF do not believe that the FPSC should require a smart meter alternative. However, IOUs all appear to be in agreement that if an option is offered, the customer who requests an alternative type of meter should be responsible for all the related costs. The FPSC has a history of ensuring that the cost-causer pays the costs

associated with their request. Examples include undergrounding of distribution lines, distribution upgrades for net metering, and customer-requested electric line extensions.

Currently, FPL is placing customers who express concerns about smart meters on a "hold list" This delay allows FPL to temporarily delay the installation of a smart meter. FPL estimates it may have as many as 25,000 customers (.5% of all meter installations) on the hold list at the end of its smart meter deployment in May 2013. It is not known what FPL will do with these customers in May 2013. Currently, the costs to read these customers analog meters are being borne by the general body of ratepayers which reduces the overall savings that may be achieved by smart meters.

During the workshop, FPL indicated that allowing a customer to opt for a non-smart meter could cost as much as \$1,000 per customer over a five-year period. For FPL, or any utility, the question then becomes how to allocate these costs between an upfront cost and a monthly charge.

All customers who provided public comment at the workshop and many who have corresponded with the FPSC wish to have an alternative to a smart meter. Some advocated that before the smart meters were installed, there should have been an opt-in to the smart meter installation. The possible alternative includes a digital meter or the use of an analog meter. However, some customers expressed concerns about having a digital meter and only wanted an analog meter.

Providing an alternative to a smart meter would give customers a choice in their meter. Customer concerns about privacy, health, and data security might be alleviated. However, many of those customers that provided public comment did not want to be assessed a separate charge associated with their decision not to have a smart meter.

In California, Pacific Gas and Electric, Southern California Edison, and San Diego Gas & Electric all have a California Public Utilities Commission-approved opt-out program. Customers pay a \$75 fee to enroll and \$10 a month for meter reading. Low-income customers pay an initial fee of \$10 and \$5.00 a month for meter reading. Avista Utility in Oregon charges an upfront fee of \$221.61 and a monthly charge of \$50.88.

Not all opt-out programs come with a fee. Vermont's legislature passed a bill in 2012 that prohibits utilities from assessing fees from customers who opt out of a smart meter. The Vermont Department of Public Service staff had previously recommended the inclusion of guidelines that would have required cost-based fees for an opt out.

Summary

Most of the IOUs at the workshop stated that an opt out is not needed at this time. FPL appears to be open to an alternative to smart meters. Therefore, it may be more appropriate for the utility to file a tariff for FPSC review and approval that addresses their situation. Staff will continue to monitor issues associated with alternatives to smart meters in Florida.

The FPSC does have authority to act on the issue of alternative types of meter installations. While staff believes that a utility seeking such an alternative should file a tariff, there are other actions the FPSC might take. The FPSC could initiate rulemaking on this topic; however, there

appears no consensus among the utilities on the issue of smart meter alternatives. Staff could bring an item to Agenda or Internal Affairs and request that Commissioners approve an item that would require IOUs to file tariffs offering an opt-out. Finally, utilities could continue to handle customer requests for smart meter alternatives as they are currently. The costs of continuing to serve customers who have not yet had a smart meter installed would be borne by all customers under existing rates.

Public Comment

The most common concerns expressed by members of the public were health issues and privacy concerns. Presenters were concerned that: (1) the health effects have not been studied enough or that they are experiencing adverse effects from the meter; (2) utilities will know what appliances the customer is using and that usage information will be sold to third parties; and (3) that smart meters are a control device that will force them into time of use rates.

The most common concern expressed by customers in both the public comment section of the workshop and in post-workshop comments was the health effects of RF. As discussed earlier, the FPSC does not have authority over the health effects from smart meters.

Members of the public did provide studies to support their claims. However, while Commission staff does not have the expertise to evaluate and validate these or any health studies, staff would note that expert regulatory bodies have established standards to ensure that the transmissions from smart meters are safe.

Summary

Consumers have raised concerns and would like the option to opt-out of a smart meter, primarily without being assessed an additional fee. Staff will continue to be available to consumers to answer questions and will continue to serve as a source for information.

Conclusion

Staff does not believe that the FPSC needs to take any specific actions at this time to provide for an alternative to smart meters. The issues that are of concern to consumers are outside the jurisdiction of the FPSC. However, the FPSC should allow utilities to voluntarily provide their customers with new services under an appropriate, approved tariff. Staff would review any tariff that a utility files in response to smart meter concerns, and a recommendation on the filing would be brought before the FPSC at a scheduled Agenda Conference. As with any tariff, special attention would be paid to any charges requested by the utility. Staff believes all charges should be cost-based to ensure any subsidization is kept to a minimum. Further, the filing should clearly detail the purpose of offering the new tariff.

WC

**FLORIDA POWER AND LIGHT COMPANY
 SUMMARY OF NON-STANDARD METER FEES**

Line No.	Amount
1 <u>Non-Standard Meter Program Costs</u>	
2 Cumulative Net Present Value of Up-Front System and Communication Costs	\$ 3,078,882
3 Projected Non-Standard Meter Customers	12,000
4 Total Up-Front System and Communication Costs Per Customer (Line 2 / Line 3)	\$ 256.57
5	
6 One Time Non-Standard Meter Cost Per Customer	\$ 105.35
7	
8 Total Up-Front and One Time Non-Standard Meter Cost Per Customer (Line 4 + Line 6)	\$ 361.92
9	
10 Enrollment Fee Per Customer Limited to \$105	\$ 105.00
11 Remaining Up-Front and One Time Cost Per Customer (Line 8 - Line 10)	256.92
12 Remaining Up-Front and One Time Cost to be paid in Monthly Surcharge over 36 months (Line 11 / 36)	\$ 7.14
13 <u>On-going Operations & Maintenance (O&M) Costs to be recovered in the Monthly Surcharge:</u>	
14 Monthly Non-Standard O&M Meter Costs Per Customer	\$ 8.76
15	
16 <u>Summary of Charges:</u>	
17 Enrollment Fee limited to \$105	\$ 105.00
18 Monthly Surcharge for time customer takes service pursuant NMSR (Line 14+12, rounded to nearest \$)	\$ 16.00
19 <u>Note:</u>	
20 Totals may not add due to rounding	

FLORIDA PUBLIC SERVICE COMMISSION
 DOCKET: 130223-EI EXHIBIT: 5
 PARTY: FLORIDA POWER & LIGHT
 COMPANY (FPL) (DIRECT)
 DESCRIPTION: Robert A. Onsgard RAO-4

FLORIDA POWER AND LIGHT COMPANY
 NET PRESENT VALUE CALCULATION
 UP-FRONT NON-STANDARD METER PROGRAM COSTS

Line No.	Year	Rate Base Beg Bal ^(A)	Accum Depr	Rate Base End Bal	Average Rate Base	Pre-Tax COC ^(B)	Return on Rate Base	Depr Expense ^(C)	O&M ^(D)	Total Revenue Requirement	Net Present Value of Rev Req ^(E)	Annual Levelized 3 Year Rev Req
		(1)	(2)	(3) = (1)+(2)	(4) = ((1)+(3))/2	(5)	(6) = (4)*(5)	(7)	(8)	(9) = (6)+(7)+(8)	(10)	(12)
1	1	\$ 2,093,054	\$ (418,611)	\$ 1,674,443	\$ 1,883,748	9.48%	\$ 178,505	\$ 418,611	\$ 368,000	\$ 965,116	\$ 965,116	\$ 1,026,294
2	2	1,674,443	(837,222)	1,255,832	1,465,138	9.48%	138,837	418,611		557,448	509,196	1,026,294
3	3	1,255,832	(1,255,832)	837,222	1,046,527	9.48%	99,169	418,611		517,780	432,023	1,026,294
4	4	837,222	(1,674,443)	418,611	627,916	9.48%	59,502	418,611		478,112	364,395	
5	5	418,611	(2,093,054)	0	209,305	9.48%	19,834	418,611		438,445	305,238	
Totals							\$ 495,847	\$ 2,093,054	\$ 368,000	\$ 2,956,901	\$ 2,575,968	\$ 3,078,882

14 **Notes:**

- 15 (A) Support for upfront non-standard meter program capital costs is reflected on Page 3 and 4.
- 16 (B) Represents FPL's pre-tax weighted average cost of capital approved by the FPSC in Order PSC-13-0023-S-EI, Docket No. 120015-EI.
- 17 (C) One time capital costs for systems, infrastructure and communication equipment are estimated to be depreciated over five years.
- 18 (D) Support for upfront non-standard meter program operation and maintenance costs is reflected on Page 3 and 5.
- 19 (E) Net present value calculation utilizes a discount rate equal to FPL's pre-tax weighted average cost of capital reflected in column (5).

**FLORIDA POWER AND LIGHT COMPANY
 SUMMARY OF NON-STANDARD METER PROGRAM COSTS**

Line No.	Reference	Up-Front System and Communication Costs			One Time Cost Per Meter	Monthly Cost Per Meter
		CAPITAL	O&M	TOTAL	O&M	O&M
1						
2						
3	Page 4	\$ 1,952,000		\$ 1,952,000		
4	Page 6				\$11.30	
5	Page 5		\$ 368,000	\$368,000		
6						
7	Page 8				\$11.98	
8	Page 4	\$42,054		\$42,054		
9	Page 9					\$6.81
10	Page 10					\$0.05
11	Page 11					\$0.40
12						
13						
14	Page 4	\$99,000		\$99,000		
15	Page 12					\$0.45
16						
17						
18	Page 13					\$0.10
19						
20						
21	Page 7				\$77.06	
22						
23						
24	Page 7				\$ 5.00	
25						
26						
27	Page 14					\$0.95
28						
29		\$ 2,093,054	\$ 368,000	\$ 2,461,054	\$ 105.35	\$ 8.76
30						

31 **Notes:**

32 (1) It is assumed that there will be at least one site visit for each opt out over three years for meter test sampling, installing non-standard meters for customers with smart meters already installed, installing non-standard meters for opt out customers relocating to another premise, along with additional visits due to restoration/theft monitoring activities

FLORIDA POWER AND LIGHT COMPANY
 ONE TIME UP-FRONT NON-STANDARD METER PROGRAM CAPITAL COSTS

Line No.	Task	Task Description	Amount
1	Customer Information System Changes with Web Enrollment and Billing		
2	Data Conversion - Care Center and Customer System Initial configuration	* Conversion of manual postponement list from Excel to customer billing system, development of interfaces to FPL's other operational field systems (i.e. trouble call and distribution work management systems) and additional system functionality for tracking postponed customers. Foundational work for enrollment and billing changes.	\$ 477,000
3	Customer Information System - Billing and Financial components	* Create new service charge to bill initial charges * Create new service charge to bill monthly charges * Ability to adjust, backdate, cancel/replace above fees as needed. * Bill, track and report on charges from enrollment through final accounting.	\$ 808,500
4	Customer Information System - Core functionality	* System functionality to link customers, premises and their opt out requests throughout customer care processes. * Execute opt out functionality with new meter change orders for opt out and smart meters. * Create new workflows for meter reading routing (Reroute to non-smart meter route and issue meter change if applicable) * System functionality for Care Center to forward opt out communication requirements to back office	\$ 251,500
5	Web Enrollment - Enable customer web self-service enroll functionality	* Build new web application for customers to sign up for smart meter opt out on FPL.com	\$ 124,000
6	Customer system automation to enroll in opt out program	* Workflow logic to support system checks for smart meter enrollment status. * Counters for all decision points * Various decision points around previously submitted request, confirmation letter received	\$ 169,000
7	Care Center - Enrollment	* Develop business logic to define customer eligibility * Create care center scripting and functionality for the care center to request letters and other correspondence to be sent to opt out customers. * Generate letter to communicate opt out status to customer, display code status & dates	\$ 122,000
8	Total Customer Information System Changes with Web Enrollment and Billing		\$ 1,952,000
9			
10	Systems to Identify and Handle Opt Out Collection Issues		
11	Revenue Recovery - Online changes to support Remote Connect Switch	* Data Integrity - Changes to customer information system general maintenance screen for remote connect switch restrictions to ensure opt out accounts are not included	\$ 99,000
12	Total System Changes to Identify and Handle Opt Out Collection Issues		\$ 99,000
13			
14	Meter Reading Handhelds		
15	One time cost of Meter Reading Handhelds		
16	Cost per handheld		3,823
17	Cost of handhelds for 11 opt out FTE's	Line 16 X 11	42,054
18	Total Meter Reading Handheld Costs		\$ 42,054
19			
20	Total Estimated Capital Costs		\$ 2,093,054

FLORIDA POWER AND LIGHT COMPANY
ONE TIME UP-FRONT NON-STANDARD METER PROGRAM O&M COSTS
Communications

Line No.	Task	Amount
1	<u>Customer Brochures, Research and Mailings</u>	
2		
3	Notification - Design and first mailing to both postponed and unable to complete (UTC) customers (letter + brochure)	\$ 60,000
4	Notification - Follow-up mailing to both postponed and UTC customers (letter + brochure)	\$ 37,500
5	Final notification to customers who have not responded - to be sent certified mail, return receipt requested	\$ 70,000
6	Postage - self-addressed stamped envelopes	\$ 3,000
7	Notification - Opt out fact sheet/brochure	\$ 7,500
8	Email communication to reinforce first and second mailing to postponed plus UTC customers	\$ 16,000
9	Notification - Door hangers (2 sets @ 10,000 quantity)	\$ 20,000
10	Opt out confirmation - Mailing to confirm request for opt out	\$ 84,000
11	Research: Get customer feedback on effectiveness of communication materials	\$ 30,000
12	Design Support - Communication planning, implementation and copy writing	\$ 35,000
13	Foreign language translation (Spanish)	\$ 5,000
14		
15	Customer Brochures, Research and Mailings Costs	<u>\$ 368,000</u>

FLORIDA POWER AND LIGHT COMPANY
 ONE-TIME COSTS PER METER
 Care Center Enrollment, Customer Inquiries and Follow Up Costs

Line No.	Description	Assumptions	Amount
1	Inbound Call Volume		
2	Projected number of opt out customers		12,000
3	Estimated number of customer calls	Based on estimated call backs and information only calls	20,890
4	Cost per call ⁽¹⁾	Based on 2013 Estimate	\$ 6.21
5	Call Volume Cost (Line 3 * Line 4)		\$ 129,665
6			
7	Less: Estimated % of customers using self service web	Assumption is that 50% would use web to opt out	50%
8	Self Service Web Usage (Line 5 * Line 7)		\$ 64,832
9			
10	Back Office Cost	1 full time employee (FTE) at \$45k plus payroll loaders ⁽²⁾	\$ 70,821
11			
12	Total Cost Less Self Service Costs (Line 5 - Line 8 + Line 10)	Customer Care cost less self service enrollments	\$ 135,653
13			
14	Care Center Enrollment, Customer Inquiries and Follow Up Costs Per Customer (Line 12 / Line 2)		\$ 11.30
15			
16	Notes:		
17	(1) Includes the following payroll loaders from page 15: exempt and non-exempt pension & welfare taxes and insurance		
18	(PWTI), exempt performance incentives, and corporate administrative and general.		
19	(2) Includes the following payroll loaders from page 15: non-exempt pension & welfare taxes and insurance (PWTI), and		
20	corporate administrative and general.		

**FLORIDA POWER AND LIGHT COMPANY
 ONE-TIME COSTS PER METER
 Field Meter Costs to Visit Premises
 Ongoing Testing, Maintenance and Support Costs for Old Meters**

Line No.	Description	Assumptions	Amount
1	Field Meter Costs		
2			
3	Hourly wage	2012 Average hourly rate based on skill set from Memorandum of Agreement (MOA)	\$28.28
4	Total hourly wage + loaders	Loaders added for: Overtime Rate for skill set, Bargaining Unit Pension & Welfare Taxes and Insurance (PWTI) and Corporate Administrative and General	\$48.73
5	Time to replace meter	Standard site time for a typical meter installation	0:12:00
6	Time to travel to premise	Average drive time X 2 for return trip	0:35:35
7	Total time to replace (Lines 5+6)		0:47:35
8	Total time + loaders	Loaders added for: Wasted trips, vacation/holiday/illness, and downtime	1:16:22
9	Vehicle costs (Line 8 X the average hourly vehicle rate)	Hourly average per vehicle = \$6.10	\$ 7.75
10	Material costs	Total 2012 Material and Supplies (M&S) expenses times 20% ⁽¹⁾ to account for proportion of work related to meter changes divided by the total amount of meter changes performed in that timeframe	\$ 1.36
11	Cost per meter Replacement (Line 4 X Line 8 (in hours) + Lines 9 + 10)		\$71.01
12	Admin and Supervision	Admin + Supervision + Safety Meetings + Training expenses in 2012 divided by the total amount of meter changes performed in that timeframe	\$ 5.04
13	Field Meters Safety Cost per Visit		\$ 1.01
14	Fully Loaded Cost for Field Meters Visit to Premise (Lines 11+12+13)		\$ 77.06
15			
16	Ongoing Testing, Maintenance and Support for old meters		
17	Meter Test Center (MTC) cost of labor to do one meter test	2012 MTC Costs/Meters Tested, assume 1/3 tested (\$15/3=\$5)	\$ 5.00
18	Notes:		
19	(1) 20% - is the weighted proportion of work related to meter replacements. We apply this rate to general buckets such as		
20	tools, materials, administrative, and supervisory costs.		

**FLORIDA POWER AND LIGHT COMPANY
 ONE-TIME COSTS PER METER
 Meter Reading Workflow to Establish and Remove Route**

Line No.	Description	Amount
1	<u>Meter Reading Workflow to Establish and Remove Route</u>	
2		
3		
4	Transactions per hour	6
5	Meter Reader Lead average salary	\$ 47,518
6	Hours	2,080
7	Average hourly salary	\$ 22.85
8	Average hourly salary + loaders ⁽¹⁾	\$ 35.95
9		
10	Projected Cost per Transaction (Line 8 / Line 4)	\$ 5.99
11	Required Number of Pending Work Requests (establish and remove route)	2
12		
13	Cost per Opt Out Customer (Line 10 X Line 11)	<u>\$ 11.98</u>
14		
15	<u>Notes:</u>	
16	(1) Includes the following payroll loaders from page 15: non-exempt pension & welfare taxes	
17	and insurance (PWTI) and corporate administrative and general.	

FLORIDA POWER AND LIGHT COMPANY
MONTHLY COSTS PER METER
Monthly Manual Meter Reading

Line No.	Description	Amount
1	Meter Reading Opt Out Cost per Read	
2	Projected number of opt out customers	12,000
3	Annual cost per meter reading FTE	
4	Payroll cost per meter reading FTE (includes supervision)	\$ 47,354
5	Overhead cost per meter reading FTE	\$ 27,450
6	Non-payroll cost per meter reading FTE	\$ 11,738
7	Total annual cost per meter reading FTE	\$ 86,542
8		
9	Annual number of meter reads per year per meter reading FTE	12,708
10	Annual number of opt out reads (Line 2 X 12)	144,000
11	Opt out FTE's required (Line 10 / Line 9)	11
12	Total opt out cost (Line 7 X Line 11)	\$ 980,645
13		
14	Cost per Opt Out Read (Line 12 / Line 10)	\$ 6.81

EXHIBIT B
PAGE 10 OF 15

**FLORIDA POWER AND LIGHT COMPANY
MONTHLY COSTS PER METER
Monthly Meter OSHA and Vehicle Accident costs**

Line No.	Description	Amount
1	<u>Meter Reading OSHA and Vehicle Accident Cost</u>	
2	Projected number of opt out customers	12,000
3		
4	2011 OSHA & vehicle costs	\$ 266,832
5	2011 Meter Reader FTEs	405
6	Average cost per Meter Reader (Line 4/Line 5)	\$ 659
7	Opt out FTEs required	11
8	Annual cost for 11 FTEs (Line 6 X Line 7)	\$ 7,466
9		
10	Cost per Meter per Month (Line 8 / Line 2 / 12 months)	<u>\$ 0.05</u>

**FLORIDA POWER AND LIGHT COMPANY
 MONTHLY COSTS PER METER
 Billing and Project Support Operational Costs**

Line No.	Description	Amount
1	<u>Customer Billing - Billing, Projects & Support (BPS) Cost</u>	
2	Projected number of opt out customers	12,000
3	First year: 1.2 FTE's at \$46K/year	\$ 55,200
4	Ongoing: .60 FTE's at \$46K/year X 2 years	\$ 55,200
5	Total Payroll Cost for Three Years	\$ 110,400
6		
7	Total Projected Three Year Incremental BPS Cost for Opt Out Customers ⁽¹⁾	\$ 173,750
8		
9	Monthly Cost per Opt Out customer (Line 7 /Line 2 / 3 years / 12 months)	\$ 0.40
10		
11		
12		
13	<u>FTE Responsibilities</u>	
14	* Support for initial opt out request processing to ensure completeness and accuracy, auditable quality, tracking and follow-thru	
15		
16	* Initiate meter change order (MCO) for field services for the meter to be changed when needed	
17	* Once MCO is completed, initiate task for meter reading to re-route premise to a non-smart meter route	
18	* Bill initial charge to the customer and set up the customer to be billed for a monthly opt out charge	
19	* Support for Service Order process when non-smart meter customer leaves, customer billing system automatically issues MCO	
20		
21	* Miscellaneous ongoing support of automated processes and billing processes	
22		
23	<u>Notes:</u>	
24	(1) Includes the following payroll loaders from page 15: non-exempt pension & welfare taxes	
25	and insurance (PWTTI), and corporate administrative and general.	

FLORIDA POWER AND LIGHT COMPANY
MONTHLY COSTS PER METER
Costs for Field Visits for Collections and Disconnects

Line No.	Description	Amount
1	<u>Field visits for Collections</u>	
2	Projected number of opt out customers	12,000
3	Average % of customers that receive a field visit and pay in the field	4.84%
4	Projected annual number of opt out field visits (Line 3 X Line 2)	581
5	Full cost for manual field collection charge	\$ 25.80
6	Current Approved Service charge in Order No. PSC-13-0023-S-EI, Docket No. 120015-EI	\$ 5.11
7	Incremental cost above current approved service charge (Line 5-Line 6)	\$ 20.69
8	Projected annual incremental cost for field collections (Line 7 X Line 4)	\$ 12,021
9	Projected Monthly incremental cost for field collections (Line 8 / Line 2 / 12 months)	\$ 0.08
10		
11	<u>Disconnect/Reconnect</u>	
12	Average % of customers disconnected for non-pay	10.60%
13	Projected annual number of opt out that will be disconnected/reconnected (Line 12 X Line 2)	1,272
14	Full cost for manual reconnect for non-payment charge	\$ 59.27
15	Current Approved Service charge in Order No. PSC-13-0023-S-EI, Docket No. 120015-EI	\$ 17.66
16	Incremental cost above current approved service charge (Line 14 - Line 15)	\$ 41.61
17	Projected annual incremental cost for connect/disconnect (Line 16 X Line 13)	\$ 52,928
18	Projected Monthly incremental cost for disconnect/reconnect (Line 17 / Line 2 / 12 months)	\$ 0.37
19		
20		
21	Total Projected Incremental Collections per Month (Lines 9 + 18)	<u>\$ 0.45</u>

**FLORIDA POWER AND LIGHT COMPANY
 MONTHLY COSTS PER METER
 Costs for Truck Rolls from Inability to Ping Meter to Verify Power**

Line No.	Description	Amount
1	<u>Truck rolls from inability to ping meter to verify power</u>	
2		
3	Projected number of opt out customers	12,000
4	Estimated annual customers with an outage AND we can avoid the truck roll by pinging the smart meter	28,500
5	Number of FPL Residential Customers	4,500,000
6	Cost Per Customer (Line 4 / Line 5)	0.6%
7	Number of opt out customers with an outage AND we would have avoided the truck roll, had they had a smart meter (Line 3 X Line 6)	76
8	Average Cost per ticket ⁽¹⁾	\$ 182
9	Estimated Annual Cost (Line 7 X Line 8)	\$ 13,832
10	Cost per opt out customer per month (Line 9 / Line 3 / 12 months)	<u>\$ 0.10</u>
11		
12	<u>Notes:</u>	
13	(1) Based on bottoms-up calculation of hourly Restoration Specialist cost, including vehicle cost.	
14	Assumes average of 2 hours to investigate.	

FLORIDA POWER AND LIGHT COMPANY
MONTHLY COSTS PER METER
Costs to Administer Program Design, Implementation and True-ups

Line No.	Description	Amount
1	Project Management Office	
2	Projected number of opt out customers	12,000
3	Project Management ⁽¹⁾	
4	Annual Salary With Loaders ⁽²⁾	Mid Point \$ 136,981
5		
6	Cost per Meter per Month (Line 4 / Line 2 / 12 months)	<u>\$ 0.95</u>
7		
8		
9		
10	Notes:	
11	(1) One equivalent FTE to account for opt out program oversight across multiple business units and processes.	
12	Additionally cost accounting will require oversight for the integrity of cost data which is critical to project's success.	
13	(2) Includes the following payroll loaders from page 15: exempt pension & welfare taxes and insurance (PWTI),	
14	exempt performance incentives, and corporate administrative and general.	



Have you
tried your
Energy
Dashboard?

See how much energy you're using, find new ways to save

Families, like yours, are using their personalized online Energy Dashboard to make real changes in how they use energy. It's paying off for Kevin Linn. His family's bill is now \$100 lower per month than some of his neighbors. "When I could see our actual usage per hour, that's when I altered my behavior," said Linn. At first, he needed to urge his wife and kids to turn lights off and make other changes. But now they're on board. The family also swapped out light bulbs, upgraded the air conditioner and replaced the pool pump. See how much energy you're using and find new ways to save, just like the Linn family: FPL.com/energydashboard



Kevin Linn, South Florida



Your online bill upgrade is almost here

Soon you'll be able to navigate among payment options, account history, energy-use comparisons and more all from a new, more helpful online bill. Get a sneak peek: FPL.com/upgrade





Protecting Florida's natural treasures

When manatees migrate to Florida's warmer waters during the winter months, they particularly love the warm-water outflows from our power plants. Our newest clean energy center in Riviera Beach will continue to provide this winter safe haven. Plus, we'll also ensure future generations can learn about these endangered species through a new manatee education center scheduled to open to the public by the end of 2015. Learn more: FPL.com/riviera

Evacuation help for customers in need

When a severe storm threatens, help is available to ensure those with special needs stay safe. Your local government can help assist with evacuations. Make sure to register with your local emergency management office by checking your phone directory under "county government."



We offer a choice of meter

Smart meters provide important customer benefits, and that's why they're now the standard meter for FPL customers. However, eligible customers who prefer not to have the smart meter can choose to use a non-standard meter (the older technology replaced by the smart meter). Through a new tariff*, customers must pay an enrollment fee of \$95 and a monthly surcharge of \$13 to cover the cost of the non-standard service. Learn more:

» FPL.com/meteroption

*The tariff has been approved but is under review by the Florida Public Service Commission.

Ask the Energy Expert

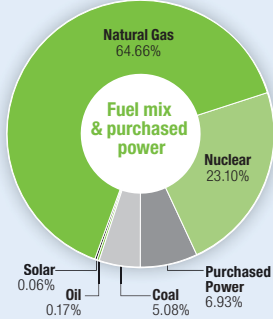


Q What can I do to save money on my bill?
- *Loris S. from Margate*

A Enrolling in our On Call® program is one of the easiest ways to save. Learn more about how you can get money back on your electric bill:
» FPLblog.com/oncall

Did you know?

We use mostly American-produced clean fuel sources to generate the electricity you use to power your home.



Sources of electricity generation for the 12 months that ended on Feb. 28, 2014

Safety check your home



Electrical codes change over the years. It is important to have your home's electrical system inspected by a licensed electrician every 20 years to ensure that it's safe, running properly and up to code. Also, remember to keep a certified and operable fire extinguisher on hand. Get more safety tips:

» FPL.com/homesafety

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E-Mail: tdeason@radeylaw.com

Practice Areas:

- Energy, Telecommunications, Water and Wastewater and Public Utilities

Education:

- United States Military Academy at West Point, 1972
- Florida State University, B.S., 1975, Accounting, summa cum laude
- Florida State University, Master of Accounting, 1989

Professional Experiences:

- Radey Thomas Yon & Clark, P.A., Special Consultant, 2007 - Present
- Florida Public Service Commission, Commissioner, 1991 - 2007
- Florida Public Service Commission, Chairman, 1993 - 1995, 2000 - 2001
- Office of the Public Counsel, Chief Regulatory Analyst, 1987 - 1991
- Florida Public Service Commission, Executive Assistant to the Commissioner, 1981 - 1987
- Office of the Public Counsel, Legislative Analyst II and III, 1979 - 1981
- Ben Johnson Associates, Inc., Research Analyst, 1978 - 1979
- Office of the Public Counsel, Legislative Analyst I, 1977 - 1978
- Quincy State Bank Trust Department, Staff Accountant and Trust Assistant, 1976 - 1977

Professional Associations and Memberships:

- National Association of Regulatory Utility Commissioners (NARUC), 1993 - 1998,
Member, Executive Committee
- National Association of Regulatory Utility Commissioners (NARUC), 1999 - 2006,
Board of Directors

Terry Deason*

- National Association of Regulatory Utility Commissioners (NARUC), 2005-2006,
Member, Committee on Electricity
- National Association of Regulatory Utility Commissioners (NARUC), 2004 - 2005,
Member, Committee on Telecommunications
- National Association of Regulatory Utility Commissioners (NARUC), 1991 - 2004,
Member, Committee on Finance and Technology
- National Association of Regulatory Utility Commissioners (NARUC), 1995 - 1998,
Member, Committee on Utility Association Oversight
- National Association of Regulatory Utility Commissioners (NARUC) 2002 *Member,*
Rights-of-Way Study
- Nuclear Waste Strategy Coalition, 2000 - 2006, *Board Member*
- Federal Energy Regulatory Commission (FERC) South Joint Board on Security
Constrained Economic Dispatch, 2005 - 2006, *Member*
- Southeastern Association of Regulatory Utility Commissioners, 1991 - 2006, *Member*
- Florida Energy 20/20 Study Commission, 2000 - 2001, *Member*
- FCC Federal/State Joint Conference on Accounting, 2003 - 2005, *Member*
- Joint NARUC/Department of Energy Study Commission on Tax and Rate
Treatment of Renewable Energy Projects, 1993, *Member*
- Bonbright Utilities Center at the University of Georgia, 2001, *Bonbright Distinguished Service
Award Recipient*
- Eastern NARUC Utility Rate School - Faculty Member



DOCKET NO. 130223-EI
TESTIMONY OF MARILYNNE MARTIN

RESUME

EXHIBIT MM-1

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET: 130223-EI EXHIBIT: 8
PARTY: MARILYNNE MARTIN, ET AL.
(MARTIN)(DIRECT)
DESCRIPTION: Marilynne Martin MM-1

MARILYNNE MARTIN, CPA

420 Cerromar Ct. #162
Venice, FL 34293

(941) 244-0783 Home
mmartin59@comcast.net

SENIOR FINANCIAL EXECUTIVE / CFO / CONTROLLER

Results oriented **SENIOR LEVEL FINANCIAL EXECUTIVE** recognized as a leader who successfully initiates, evaluates and implements operational improvements to realize strategic and financial objectives. Hands on professional with solid technical skills and proven global management experience in both corporate and divisional controllership roles for operations ranging in size from \$20M to \$13B. Diverse industry experience includes consumer products manufacturing, telecommunications, and directory publishing/advertising.

Self-motivated, operationally-oriented with a passion for excellence who has demonstrated ability to quickly learn the business operations, add value, and gain the confidence and respect of others. Strong analytical skills with a fine attention to detail. Significant experience in providing accurate and timely financial reports, establishing financial policies and controls, implementing financial and operational systems and initiating process changes to produce cost and productivity improvements. Maintains a high level of professional ethics and integrity at all times.

Areas of Expertise

- SEC and Management Reporting
- Financial Accounting (GAAP)
- Financial Planning and Analysis
- Financial Systems Implementation
- Sarbanes-Oxley (SOX)/Internal Controls
- Cost Reductions/Process Improvements
- Financial Policies and Procedures
- Organizational Analysis and Design
- Acquisitions /Business Integration
- Strategic and Business Planning

PROFESSIONAL EXPERIENCE

ESTEE LAUDER COMPANIES INC. - Long Island, New York
(*\$6 billion multi-national cosmetics manufacturer and marketer*)

1997 - 2006

Corporate Vice President - Finance, 2002 - 2006

Promoted to assume overall authority for the leadership of financial governance including Sarbanes-Oxley compliance, financial policies and procedures, and financial systems strategies and development. Reported to the CFO.

- Successfully led global multi-disciplined senior management team to document and assess internal controls for compliance with SOX 404. Coordinated efforts with external auditors. Regularly presented updates to audit committee.
- Established quarterly review program to facilitate compliance with SOX 302.
- Wrote Global Financial Policies & Procedures Manual to ensure compliance with GAAP among reporting entities.
- Analyzed the financial closing process. Recommendations reduced the days to close by 25%.
- Directed cross-functional team which identified and corrected \$60M inventory accounting and control issues.
- Designed process which enhanced accountability for financial system development and improved communications between user and information systems groups.

Vice President - Corporate Controller, 2000 - 2002

Promoted to oversee the global consolidated financial reporting and analysis, SEC filings, accounting, budgeting, A/P, A/R, payroll, acquisition analysis and cost accounting functions. Reported to CFO and supervised dept of 250.

- Created objective-based incentive program for financial staff to provide motivation for achievement of company and department goals as well as attract and retain talent. Program was later implemented by other dept.'s.
- Consolidated Canadian financial operations creating shared service center and reducing headcount.
- Initiated review of finance reporting structure and recommended reorganization to achieve greater control and accountability. Recommendations were implemented by CFO.
- Implemented JD Edwards financial systems and standardized chart of accounts in European Plants.
- Integrated financial operations of several new acquisitions onto corporate Oracle systems.

Staff Vice President - Corporate Financial Planning and Special Projects 1998 - 2000

Executive Director - Corporate Financial Planning 1997 - 1998

Brought onboard to upgrade the financial planning processes. Promoted within a year to assume additional responsibility of acquisition analysis. Directed the annual budget process and monthly forecasts, monitored actual monthly performance to plan, managed the corporate department's accounting functions and provided financial analysis and guidance on acquisitions. Supervised a staff of 12.

- Migrated monthly forecasting process from Excel to Hyperion which improved timeliness and accuracy of consolidation and provided enhanced reporting and analysis for monitoring brand and regional performance.
- Developed and issued formal planning guidelines along with Operating Expense Targets for brands.
- Revamped Corporate and Shared Service Allocation methodologies improving accuracy of business unit's financial results and greater accountability for overhead costs.
- Designed and implemented the financial review process for use in evaluating potential acquisitions.

CABLEVISION – LIGHTPATH – Long Island, New York

1996 - 1997

Director of Business Planning & Finance

Recruited to develop business and financial plans for new markets and services. Created financial plans and models for new residential telephone business. Developed business plans to launch commercial telephone service in a new geographic market.

CONSULTANT

1995 - 1996

Provided consulting services in accounting, financial systems, internal controls and business planning. Developed accounting policies and procedures for Great Plains accounting systems, established inventory controls and created business plans to diversify product lines and sales channels for a silver jewelry importer.

NYNEX CORPORATION (*currently known as Verizon Communications Inc*)

1983 - 1994

Chief Financial Officer – Manhattan Market Area, 1994

New York Telephone - New York, NY

Oversaw divisional financial reporting and analysis, capital planning, budgeting and asset management. Established profitability criteria for existing capital program and new product development focusing on improving capital utilization. Managed staff of 15 reporting to both the Corporate CFO and Division President for this \$1.5 billion business unit.

Director - Finance and Accounting, 1992 - 1994

Telesector Resources Group - White Plains, NY (\$1.2B subsidiary of NY and New England Telephone)

Brought in to resolve control issues identified by external auditors. Directed controllership functions which included financial reporting and analysis, budgeting and planning, inventory control, accounts payable, billing, regulatory accounting and audit support. Managed department of 90.

- Created integrated budget system that prioritized projects and identified opportunities for cost efficiencies. Directed teams that developed cost reduction goals. Decreased year over year expenditures by \$60 million and exceeded financial targets by \$90 million.
- Identified and corrected control deficiencies in fixed assets and inventory. Conducted self-assessment programs of internal controls throughout the company and implemented plans to correct problem areas. Reported progress to audit committee and senior management.
- Designed and facilitated an upper management seminar on critical issues affecting the telecommunications industry. Trained over 500 managers. The program heightened employee awareness of competitive market conditions and gained their commitment to changes necessary to achieve newly established strategic goals.

Vice President - Finance and Administration, 1988 - 1992

United Publishers Corporation - Los Angeles, CA (\$18 million Yellow Page directory subsidiary)

Re-engineered company from manual to totally automated systems requiring major cultural changes. Reporting to the President, assumed full responsibility for all financial, administrative, human resources, information systems, sales recruitment and training, and customer service functions. Managed department of 35.

- Installed financial systems that improved controls and reduced accounting staff by 40%.
- Revised collection department procedures improving cash flow by reducing bad debts by 33%.
- Designed and implemented production and sales systems. Computerized customer advertising profiles, providing sales personnel with the tools to better manage their territories and plan customer programs. Improved sales productivity while reducing number of customer contacts by 25%.
- Analyzed human resource needs and developed recruiting strategy that upgraded the skill set of the organization and reduced sales employee turnover by 160%. Developed intensive sales training program.
- Developed and implemented reorganization plan. Consolidated 3 regional offices into one operation and reduced staff and associated overhead costs by 10%.
- Created customer service policies which improved the overall quality of the directories and reduced the average complaint resolution time from 60 to 10 days.

Congressional Assistant - Senate Environment and Public Works Committee, 1987-1988

Congressional Assistant Program - Washington, D.C.

Nominated by CEO to be the NYNEX representative in the Congressional Assistant Program sponsored by the Conference Board. The program is designed to give business executives a working knowledge of the legislative process.

Assistant Controller, 1985-1987

NYNEX Information Resources Co. - Boston, MA (\$700M Yellow Page directory subsidiary)

Promoted within 18 months to assume full responsibility for divisional controller functions which included financial reporting, consolidation, tax, budgets, payroll, accounts payable, customer billing, credit and collections, cost accounting and quality. Managed dept. of 55.

- Installed G/L, AP, billing and A/R systems which significantly improved controls and financial analysis.
- Centralized collection units. Improved cash flow by reducing over 90-day receivables by 30%.
- Designed and developed a cost accounting system to assist sales and marketing in measuring product profitability by market.
- Developed strategic and financial responses to regulatory inquiries from the FCC and state PUC's.

Staff Manager - Accounting Principles, 1984-1985

Assistant Staff Manager- Accounting Principles, 1983-1984

NYNEX Corporate - New York, NY

Established the initial accounting records for corporate and the new subsidiaries formed as a result of divestiture from AT&T. Developed the financial sections for NYNEX's first 10Q, 10K and annual report. Provided technical advice and guidance on the implementation of FASB pronouncements.

PricewaterhouseCoopers, New York, N.Y.

1981 – 1983

THE BANK OF NEW YORK, Long Island, N.Y.

1976 – 1981

EDUCATION

BBA, Accounting, 1980
Hofstra University, Long Island, NY

Certified Public Accountant, State of New York
Member AICPA, New York State Society of CPA's

DOCKET NO. 130223-EI

TESTIMONY OF MARILYNNE MARTIN

NON-STANDARD METER CAPITAL AVOIDANCE ANALYSIS

EXHIBIT MM-2

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET: 130223-EI EXHIBIT: 9
PARTY: MARILYNNE MARTIN, ET AL.
(MARTIN)(DIRECT)
DESCRIPTION: Marilynne Martin MM-2

Docket No. 130223-EI
Testimony of Marilynne Martin Exhibit MM-2
AVOIDED PROJECT COSTS

FP&L's Tariff (1)

Cumulative Net Book Value of Up-Front System and Communication Costs(1)	\$ 3,352,312.00
Projected Non-Standard Meter Customers	<u>12,000</u>
Total Upfront System and Communication Costs Per Customer	\$ 279.36

Scenerio 1 (Including both Postpone List and Unable to Contact)

Cumulative Net Book Value of Up-Front System and Communication Costs (1)	\$ 3,352,312.00
Projected Non-Standard Meter Customers	<u>36,000</u>
Total Upfront System and Communication Costs Per Customer	\$ 93.12

Scenerio 2 (Including Postpone List Only)

Cumulative Net Book Value of Up-Front System and Communication Costs (1)	\$ 3,352,312.00
Projected Non-Standard Meter Customers	<u>24,000</u>
Total Upfront System and Communication Costs Per Customer	\$ 139.68

Capital Cost Avoidance of Not Installing Smart Meter

AMI Project Smart Meter Capital (2)	\$ 643,800,000.00
# of Meters projected to be Installed	<u>4,429,000</u>
Cost Per Meter	\$ 145.36

AMI Project Costs to Retire Old Meters

Cost of Retirement/Disposal (3)	\$ 101,081,858.00
# of Meters projected to be Installed	<u>4,429,000</u>
Cost Per Meter	\$ 22.82

Potential Expense Avoidance of Not Installing Smart Meter (4)

AMI Project Expenses (2)	\$ 61,688,000.00
# of Meters projected to be Installed	<u>4,429,000</u>
Cost Per Meter	\$ 13.93

Source:

- (1) - FP&L's Reply to Staff Data Request No. 9, Tab 1 of 2; Docket No. 130223-EI
- (2) - FP&L O&M project costs submitted in Docket No. 120015-EI, OPC interrogatory #173
- (3) - Docket No. 080677-EI, Order No 10-0153-FOPF-EI, page 25
- (4) - Illustrative only. Unknown how much of total expenses are unit based expenses.

DOCKET NO. 130223-EI

TESTIMONY OF MARILYNNE MARTIN

NATIONAL ACTION PLAN – COMMUNICATION PLAN UMBRELLA – ACTION

GUIDE – PART 1

EXHIBIT MM-3

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET: 130223-EI EXHIBIT: 10
PARTY: MARILYNNE MARTIN, ET AL.
(MARTIN)(DIRECT)
DESCRIPTION: Marilynne Martin MM-3

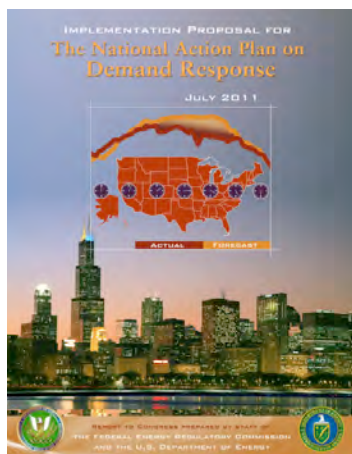
NATIONAL ACTION PLAN COMMUNICATIONS UMBRELLA

ACTION GUIDE – PART 1

FIRST EDITION • JULY 12, 2011 • NATIONAL ACTION PLAN DAY • WASHINGTON, D.C.

NATIONAL ACTION PLAN COMMUNICATIONS UMBRELLA

HOW TO USE THE ACTION GUIDE



The Implementation Proposal for the National Action Plan on Demand Response released on July 5, 2011 indicates that “Support materials should be designed to be ‘plug and play’ so that local entities can either use all available messages and materials or choose which elements to use.” The proposal directs the coalition to “develop a message framework with persuasive, adaptable messages aimed at various audience segments, all of which could be tailored by interested local stakeholders.”

This action guide is intended as such a reference to be used on an as-needed basis. It seeks to help communications specialists and program managers at utilities, consumer advocacy groups, public service commissions, technology companies and service programs, consultants, and trade groups involved in co-creating a sustainable energy future with consumers.

The guide includes **fundamental processes recommended as part of every communications and energy literacy program**, such as working with and through trusted community-based organizations.

There are other elements that **must be tailored to the priorities and social norms of the region**. One area’s most “obvious” vision driver, such as responding to climate change, might be a political hot potato in another place where energy independence is a more persuasive rationale for grid modernization. Creative teams are encouraged to **draw from menu of options provided**, assemble and localize their approaches, and test prototypes with target audiences.

This guide describes how specific messages resonate with different customer segments and energy worldviews. One person’s compelling motivator will be another person’s turn-off. That is why targeted communication channels and vehicles that permit the consumer to self-select are so important.

Note of caution: We have found that people often project their personal energy worldview onto others. Teams should be conscious of their own perspectives when designing for varied communities who might not share their viewpoint.





What is a communications umbrella?



A strategic plan and road map that synthesizes existing research, best practices to date, and new ideas to create concepts, models, and language likely to be effective.

COMMUNICATIONS UMBRELLA

The National Action Plan calls for the development of a Communications Umbrella. This includes:

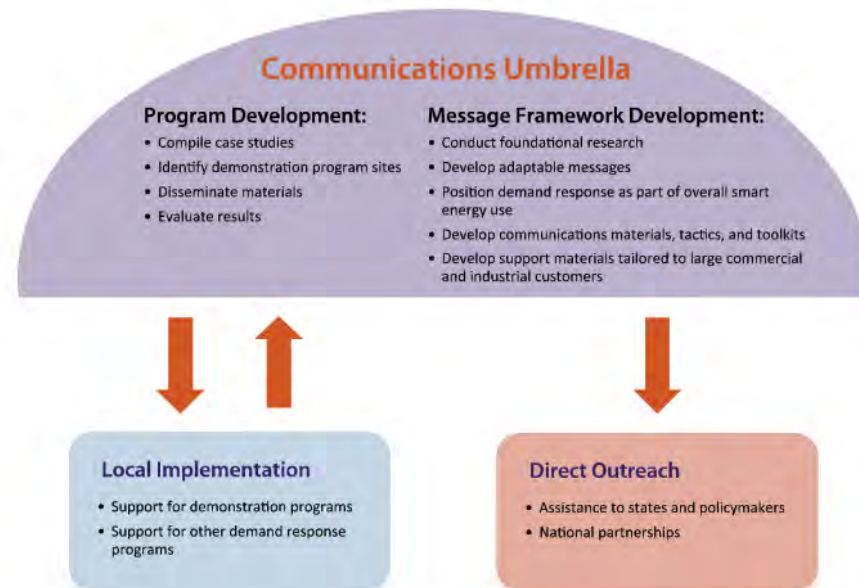
- The **conceptual interpretation of foundational research** (much of which was not available when the original plan was written);
- The structure of the **message framework** (i.e. how messages should be organized);
- **Adaptable messages and positioning;**
- How DR should be positioned in the **broader context of smart energy and smart grid;**
- The definition of a toolkit that includes **creative briefs, examples, and recommendations on how the materials can be used.**

Initially, we are focusing on residential consumers rather than large commercial and industrial customers. Case studies are being developed in a parallel effort.

Research and field experience support that improving **energy literacy will be a multi-tiered effort—a series of conversations rather than a commercial.**

To achieve our goal of a sustainable energy future we need to turn the foundational research into actionable strategies, tactics, and materials.

Figure 2: Program Structure



National Action Plan on Demand Response, page 36, Strategies and Activities

Simple actions like buying CFLs or power strips to reduce vampire load are initial steps in developing a new set of behaviors. Encouraging people to invest time in deferred consumption, or active monitoring of usage and money in home automation and small-scale generation is complex. The Action Guide examines how one encourages changes of behavior among multiple people and generations in the home by engaging them in the process.



Who is behind this document?



The National Action Plan Coalition is made up of organizations with a stake in demand response and smart grid. Each group represents its members and constituents. They have contributed expertise and knowledge from within their membership to work in a collaborative effort to implement the NAP.

NATIONAL ACTION PLAN COALITION



Members of the National Action Plan Coalition Include:

Alliance to Save Energy (ASE), American Council for an Energy Efficient Economy (ACEEE), American Public Power Association (APPA), Association for Demand Response and Smart Grid (ADS), Demand Response and Smart Grid Coalition (DRSG), Digital Energy Solutions Campaign (DESC), Edison Electric Institute (EEI), Environmental Defense Fund (EDF), National Association of Regulatory Utility Commissioners (NARUC), National Association of State Energy Officials (NASEO), National Rural Electric Cooperative Association (NRECA), OpenADR Alliance, Peak Load Management Alliance (PLMA), Utilimetrics. The National Association of State Utility Consumer Advocates (NASUCA) participates in an advisory capacity.

www.napcoalition.org

This Action Guide was prepared by Judith Schwartz, To the Point with input from members of the Coalition

The project was underwritten by



www.demandresponsesmartgrid.org



www.tothept.com



At most industry events, people talk about the need to document best practices and to come up with meaningful value propositions and messaging.

Why hasn't this been done yet?



There are enough effective and different examples and research data out there to know that a single tagline, message, or value proposition will not be equally effective in every region for every consumer. That is why we offer menus of “**next practices**” from which to choose identified with this green icon.



EXEC SUMMARY OF CONTENTS

Section 1: Conceptual Insights

Here are key foundation concepts we are using to inform the narratives, messages, and creative development.

Pages 6 through 16

The "magic" of a great communications program is based on how one **interprets available data** and then **conceptualizes effective ways to express** those core principles in order to **engage people on an emotional level**. This guide includes the background "meta-discussion" about what concepts are informing the creative thinking.

Section 2: Message Frameworks

High-level general concepts can be presented with specific messages targeted to each of the consumer segments.

Pages 17 through 25

Messages are phrases or sentences that describe particular aspects of the subject being communicated. It is expected that the program and creative teams will adjust the exact wording, level of detail, voice, and tone to suit the audience, context, and medium of delivery.

Section 3: Narratives and Stories

Highlights of the upcoming Action Guide—Part 2

Pages 26 through 27

The term “narrative” describes a story that is created in a constructive format (as a work of writing, speech, poetry, prose, pictures, song, motion pictures, video games, theatre or dance) providing a sequence of fictional or non-fictional events. The narrative puts the pieces together so it draws the reader, student, or viewer in and creates a desired overall impression or emotional reaction. We encourage readers to send suggestions, feedback, and other examples.

Appendix Pages 28 through 29

Bibliography, author's bio and other credits

? What are next practices?



A A willingness to admit that we may need to let go of some of our sacred cows and try some new ways of doing business.

5 CHALLENGES TO GO BEYOND BEST PRACTICES

The utility industry has been around for 150 years and like any mature field, it has established operating practices. We respectfully submit that the fundamental changes we are asking consumers to consider will require industry to modify business as usual especially for communication, regulatory, and customer service teams.



Are traditional silos getting in the way?

1 TELL THE STORY FROM THE CUSTOMERS' PERSPECTIVES
Whether Thomas Edison would recognize today's electrical grid is irrelevant to most people. What matters is if the lights turn on when they flip the switch. If a given distribution system is so old that it cannot deliver reliable service anymore, that might be a reason for consumers to want to learn about their infrastructure's past.

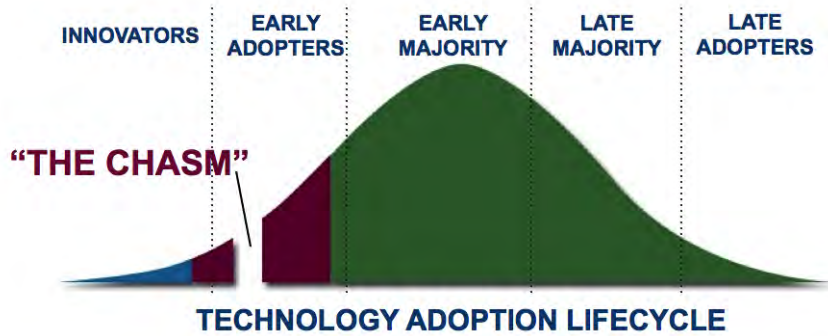
2 TRUST TRUMPS TAGLINES
If the person or organization delivering a message or slogan is not credible, it doesn't matter how skillfully words are crafted or how beautiful the production values. Utilities who build trust by partnering with regulators, advocates, and reliable community-based organizations are ahead of the game.

3 A KILO WHAT?
Terms of art that may be very meaningful to industry insiders are often obscure to the general public. People can be conscious and careful energy consumers without understanding what a kilowatt is just as they can be daily users of the Internet without knowing their computer's IP address.

4 YOU CAN'T LEARN A NEW LANGUAGE FROM A TAGLINE
Becoming energy literate requires a series of conversations, not a great commercial. Two-way exchanges with trusted sources that actively listen to concerns and issues will be far more effective at delivering targeted information (and less costly than big campaigns).

5 SMART THIS, SMART THAT, WHO CAN TELL THEM APART?
Program silos may be easier to fund and manage internally but the distinctions are confusing to most consumers. On top of that, it's very expensive to establish name recognition for multiple brands.

SECTION 1: CONCEPTUAL INSIGHTS



DIFFUSION OF INNOVATIONS BY EVERETT ROGER

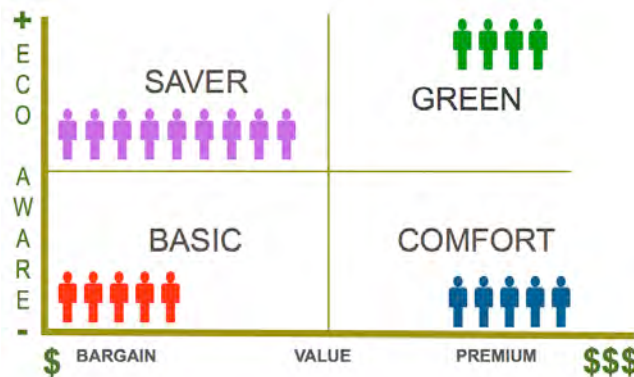
CROSSING THE CHASM BY GEOFF MOORE

Market Development Model

Geoffrey Moore
AUTHOR, CROSSING THE CHASM



This is the crossing-the-chasm change



SECTION 1: CONCEPTUAL INSIGHTS



A. Smart energy adoption model

People, regions, and organizations accept new ideas at different rates. A phased adoption mindset lets us target and deliver messages comfortably to stakeholders at varied stages and approaches.

B. Motivational segmentation and consumer adoption patterns

In developing educational materials and marketing programs, it is critical to know one's audience. Multiple research studies suggest that when it comes to being receptive to a given message, the key distinction among consumers of all ages and income levels begins with their motivations. It is reasonable that some groups will be more receptive than others to changing their behaviors.

C. Utility adoption: regional and timing variations

Not every utility or region of the country will progress the same way. This section looks at what the likely drivers will be for adoption. A portfolio of tools will be needed to support the various approaches.

D. Menu of vision drivers

There are multiple reasons to modernize the grid. A menu approach will allow utilities to choose which reasons to emphasize in their vision statements, integrated vision stories for their constituents, and various outreach materials.

E. Consumer archetypes and personas

The use of a representative example and description of distinct customer types will help keep the discussions grounded in human reality and make it easier for creative teams to keep the range of constituents in mind.

F. Value propositions

Messages are best absorbed if the recipients understand why the idea being put forth is meaningful and valuable to them. The reasons why consumers will see value in demand response and smart grid will vary.

G. Cross-stakeholder conversations

Successful adoption of other disruptive technologies like PCs or the Internet have shown all stakeholder groups and key influencers need to be part of the discussion.



What is a technology adoption model?



In 1962, sociologist Everett Roger derived the “diffusion of innovations” theory introducing the concept of ‘early adopters’ to refer to the group of consumers who try something that an entire population later embraces.

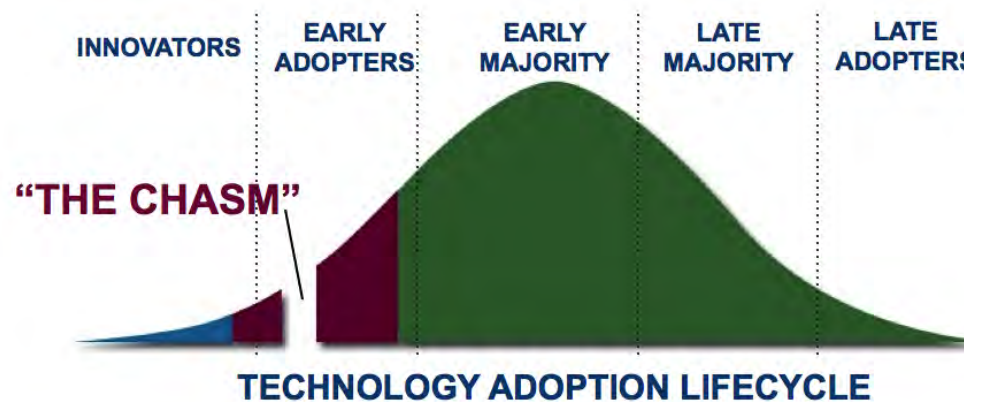
1A. SMART ENERGY ADOPTION MODEL

Early adopters will pay more, tolerate inconvenience, and participate in getting the kinks out. Business strategist and author, Geoff Moore added the idea of “the chasm” to Roger’s model to describe those situations where the later adopters never materialize.

Moore posits visionaries and pragmatists have very different expectations. Central to successfully crossing “the chasm,” includes choosing the right target markets to start, understanding the whole product concept, positioning the product, building a marketing strategy, and choosing the most appropriate distribution channel and pricing. We believe this **model applies directly to consumer participation in the smart energy vision.**

The model applies to stakeholders as well as customers. Those groups that are innovators will need different tools and messages than those who are not ready to embrace this transformation.

Creators of today’s smart energy programs owe a debt to the designers of large industrial and commercial demand response and energy efficiency programs. Our common goal is to inspire more conscious energy consumers who—through either self-discipline or technology—use less energy or delay tasks to off-peak hours.



DIFFUSION OF INNOVATIONS BY EVERETT ROGER

CROSSING THE CHASM BY GEOFF MOORE


Utilities have the added challenge of serving late adopter customers as well as innovators. Exchanges need to address those portions of the population from their own perspectives and legitimate concerns so consumers don’t become opponents of needed grid modernization.

On the following pages, we will make the connection between this model and the consumer segments that have been identified by multiple studies as well as how it applies to the utilities’ perspectives. That understanding provides the foundation for a message framework and structure that stakeholders can apply to their constituents.

CROSSING THE CHASM REQUIRES SOLVING AN URGENT PROBLEM

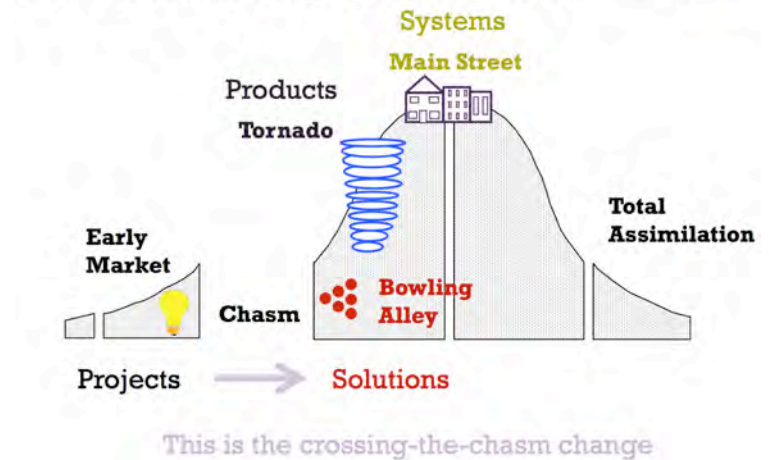
In Geoffrey Moore's keynote address at the 2011 ConnectivityWeek, he challenged the audience to think differently if we are to cross the chasm to mainstream adoption of a smart energy culture. Referencing his new book, *Escape Velocity*, Moore described the transition from a project-based (i.e. pilot) approach that tests selected ideas to a **solutions-oriented approach where various products and services are assembled and integrated to meet the pressing needs of specific audience segments.**

Who feels the sense of urgency in 2011?

 Foundational research indicates **people ready to act today as smart energy champions or advisors** fall into one of three categories:

- Those who believe the planet and human society are in danger. They are motivated to respond to climate disruption and **proactively deal with extreme climate events.**
- Those committed to making their **homes, institutions, and business locations more efficient as green buildings** either because they feel it is strategically the right thing to do or because the **cost savings are so compelling to them.**
- Large industrial, commercial businesses, and aggregators that have benefited financially from demand response programs and are **eager to identify new revenue opportunities.**

Market Development Model



From Geoffrey Moore's presentation "*Escape Velocity: Free the Smart Grid's Future from the Pull of the Past*," May 23, 2011, ConnectivityWeek, Santa Clara, CA

Holy Name High School in Worcester, MA raised \$1.5M to install this wind turbine to offset their rising electricity bills and be "stewards of the earth" (photo by Fox O'Rien)



? What is an energy worldview?

A The dominant motivational perspective of an individual with respect to their energy usage. These are more predictive of attitude than traditional demographics. Moving to action also requires a belief that personal effort can make a difference.

1B. MOTIVATIONS AND ENERGY WORLDVIEWS

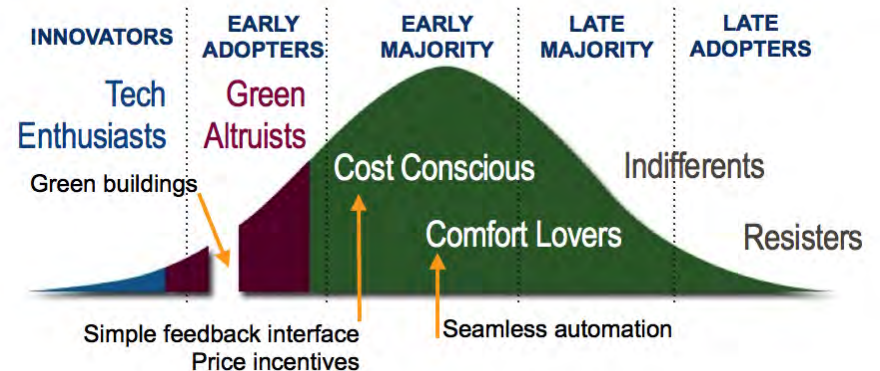
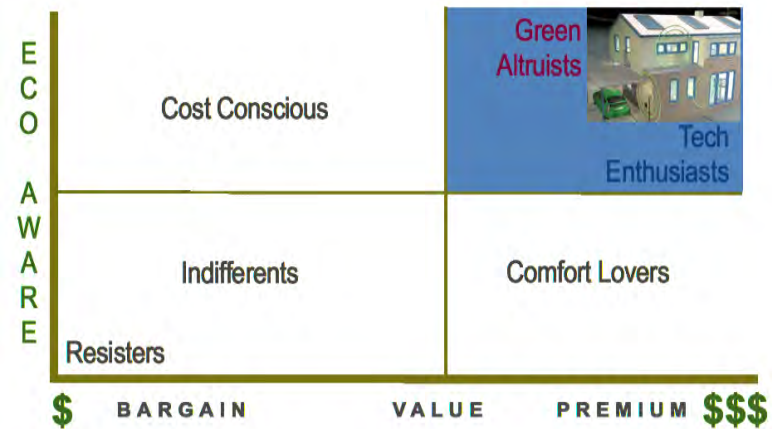
There are different variations of consumer segmentation that have been identified by leading research organizations. The common findings suggest personas of consumers who fit into each of these quadrants. This breakdown explains why a single motto or campaign will not successfully reach all audiences.

When the segments are mapped to the technology adoption model, we can anticipate trends and trigger points. In the near term, **tech enthusiasts** will embrace early incarnations of feedback devices, HEMS, and micro generation. **Green altruists** will invest in chasm-crossing green buildings (weatherization, lighting, etc.)

Cost conscious consumers will require more intuitive feedback interfaces coupled with price incentives before mainstream adoption can be achieved. **Comfort lovers** will likely wait for automation to advance and match their budgets before participating. **Indifferents** and **resisters** will rarely come on board until the social norms in their communities of influence align with active engagement.

Pockets of the country will embrace these technologies rapidly. However, broad national adoption is likely to be spread across a 10-20 year cycle.

 **Measure size and percentage mix of segments within a given service area to understand your local audience's priorities.**



The likely sequence and trigger points needed to reach widespread deployment.

? What is a utility adoption profile?

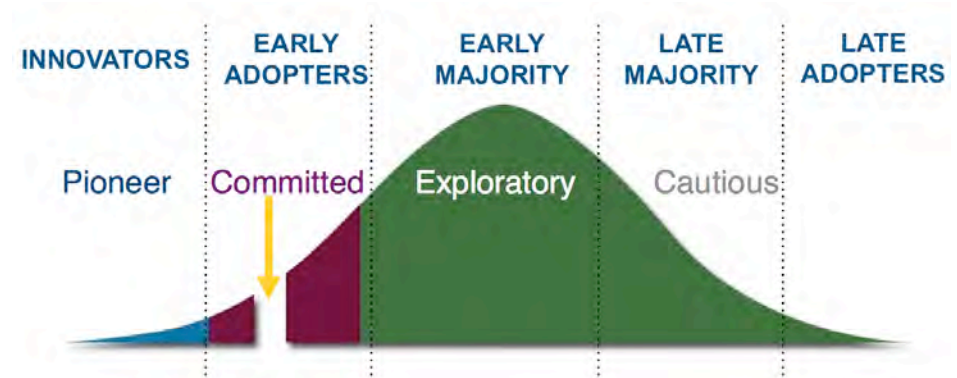
A The likely interest of a utility in embracing smart energy practices and technologies. A new IEE study* quantified the net benefits of smart grid deployment and found that benefits can exceed the costs of AMI deployment for all profile types.

1C. TIMING VARIATIONS: UTILITY ADOPTION

The technology adoption model applies to utilities as well as consumers. These profiles are based on a combination of regulatory mindset, social norms around climate issues, mix of consumer attitudes in the area, and suitability for local renewable generation. However, leadership vision and commitment to smart grid by regulators and utility execs trumps other drivers.

Regulatory mandates are the controlling factor for most of the investor owned utilities. Public perception and regional political attitudes will have a major impact on how quickly utilities embrace the smart energy story.

A range of tools and narratives will be needed for use by utilities in various states of adoption.



Similar prototype designations are analyzed in the Institute of Electric Efficiency Whitepaper: *Cost and Benefits of Smart Meters** (to be published July 2011)

Pioneer	Committed	Exploratory	Cautious
<ul style="list-style-type: none"> Leadership vision shared by regulators and utility CEO May have invested in earlier enhancements like AMR Limited ownership of centralized generation resources 	<ul style="list-style-type: none"> Regulatory mandates Social norm: climate change is an urgent problem Leadership vision Renewables are widely deployed in region Concentrations of green and tech enthusiasts 	<ul style="list-style-type: none"> Regulatory uncertainty Social norm: mixed perceptions on climate change Cost conscious consumers dominant in region Limited penetration of renewable generation 	<ul style="list-style-type: none"> Regulatory resistance Coal, nuclear, natural gas generation owned by utility Social norm: climate change skepticism Cost is dominant driver Many indifferents and resisters Limited local interest in renewable generation



What are vision drivers?



The compelling reasons for a given region to make the investment in modernizing their electrical grid.

1D. MENU OF VISION DRIVERS

Not everyone agrees on the reasons to modernize the grid. A menu approach allows utilities to choose which reasons to emphasize in their vision statements, integrated vision narratives for their constituents, and emphasize in their outreach materials.

It is NOT recommended that every utility communicate every driver in their narrative of their vision, nor will they prioritize them in the same order.

It should be noted that it is easier to justify Advanced Meter Infrastructure (AMI) expenditures or adoption of demand response (DR) practices if the reasons for doing so are based on shared imperatives (like sustainability, energy independence, or improving the local economy).



Town hall meetings and venues provided by community-based organizations will allow stakeholders to listen to concerns and issues expressed by consumers. Rather than working from a blank page, we recommend allowing people to react to a list or view prototypes of other narratives and discuss which points resonate with them.

This is one of those situations where a combination of quantitative and qualitative research will be most instructive. While surveys can measure the relative the priorities in a given area, human-centered research will provide greater insights into the nuances of belief and reaction.



MENU of reasons to modernize the grid

- a) Energy independence and security
- b) Climate change and carbon footprint reduction
- c) Population growth
- d) Proliferation of consumer electronics
- e) Competitive, sustainable energy economy
- f) Green jobs and manufacturing
- g) More precise and efficient use of limited resources
- h) Empowering customers to be part of cost mitigation
- i) Make it easier for individuals to control their bills
- j) Infrastructure is aging to the point of unreliability
- k) Concern for future generations

? What is a persona?

A A symbolic identity or archetype that helps program, system and creative designers associate recognizable characteristics to an audience segment.

1E. CONSUMER ARCHETYPES AND PERSONAS

The key to successful consumer education is the ability to speak directly to the individual's pressing concerns. The use of representative examples helps keep the planning discussions based in human reality rather than becoming mired in abstract or unlikely scenarios. This approach has proven effective in designing marketing programs, systems, and online learning tools.

Personas are used to draw out what the members or homes of each defined consumer segment cares about. These are often independent of income level, education, or ethnicity. Written descriptions, photographs and video clips can help creative teams construct targeted campaigns. The descriptive information can be seen as "Human Business Cases."



In the case of Comfort lovers it may be more helpful to focus on their residences to illustrate opportunities for energy savings.

★ Historically, utility programs have primarily been single-issue mass media campaigns. In the new paradigm, campaigns will need to target the range of individuals who make up the audience.



Fixed income & medically frail



Cost conscious



Tech enthusiast



Indifferents



Green altruists

Photos by Marshall Cetlin. Additional funding will need to be identified to produce images that can be shared among the stakeholders.

? What is a value proposition?


A A statement that explains why a person would be interested in making an investment or purchase. A compelling value proposition should answer the question “What’s in it for me?”

1F. VALUE PROPOSITIONS

Messages are best absorbed if the recipients understand why the idea being put forth is **meaningful and valuable to THEM**. Not everyone will see value in smart energy practices or technology for the same reasons. For example, a lower price for a product or service is not the only compelling rationale for a value proposition. Others include:

- Unanticipated benefits
- Enhanced services
- New functionality
- Value may be in eye of beholder



 If taxpayers and ratepayers are asked to invest or pay more, then the perceived value of grid modernization must be made apparent from their range of perspectives. Dynamic pricing and cost recovery models will need to be explained to the public as consumers become partners.

Consumers today willingly pay more for smart phones than they did for rotary dial phones because they perceive a greater value.

Medically-frail	Cost-conscious	Tech enthusiast	Indifferent	Green altruist	Comfort lover
New technology will enable quicker responses and fewer outages in extreme weather, faster restoration of service for at-risk residents (after first responders), and pro-active contact with loved ones and EMT response teams.	Digital technology on the grid will allow you to know your current balance, get pricing feedback to allow simple actions and automation to keep your bills as low as possible. Frugal use of electricity will be rewarded financially.	The smart grid platform will allow you to know how your home is using energy and control usage anywhere from the device of your choosing. New and innovative tools and apps are hitting the market all the time.	Whether you choose to take any action or not, you will receive system-wide benefits including faster repairs and better customer service. You will be able to control who sees your usage information.	The smart grid will make it possible to support more varied renewable generation, electric vehicles, and energy-saving devices and appliances. Your smart energy choices will reduce the need to build new power plants.	You'll stay comfortable with set and forget automation. You won't even be aware that your home energy management system is adjusting your AC, pool pump, and smart appliances to keep your bills manageable.

? What is the most important recommendation of a national communications plan?

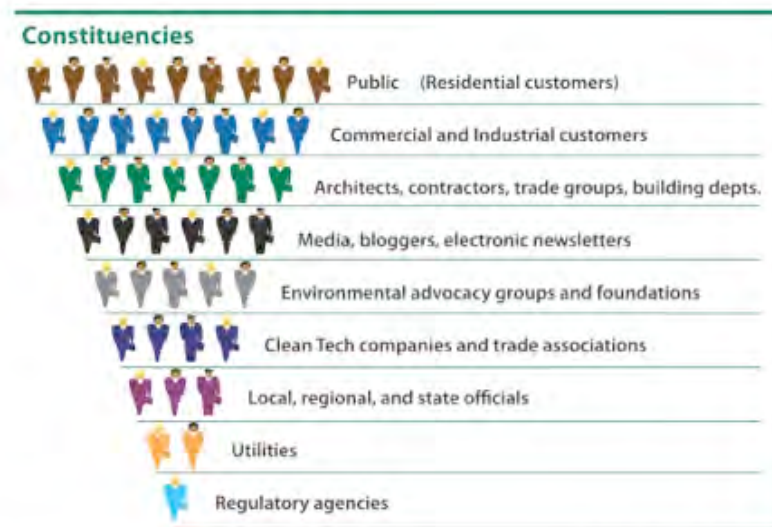
A Encouraging respectful dialog in as many forums as possible with as many individuals as possible.

1G. CROSS-STAKEHOLDER CONVERSATIONS

To effectively raise consumer awareness and achieve a sustainable transformation, it is important to engage key influencers and stakeholders. This goes beyond well-designed PR campaigns that distribute information targeted to all layers of the information infrastructure illustrated at right.

★ The ideal model for effective progress is consistent across regions and jurisdictions. Respectful exchanges among interested parties are critical for any consumer engagement program to succeed. These should be a combination of formal and informal meetings. While online forums can support the process, face-to-face interaction is needed.

Several cross-stakeholder groups including the National Action Plan Coalition of Coalitions; the Critical Issues Forums held by EEI, NARUC, NASUCA; and the Smart Grid Consumer Collaborative are actively fostering these conversations on a national level. The same activities should be encouraged at regional and local levels as well.



GRAPHIC COURTESY OF TO THE POINT

REGIS MCKENNA

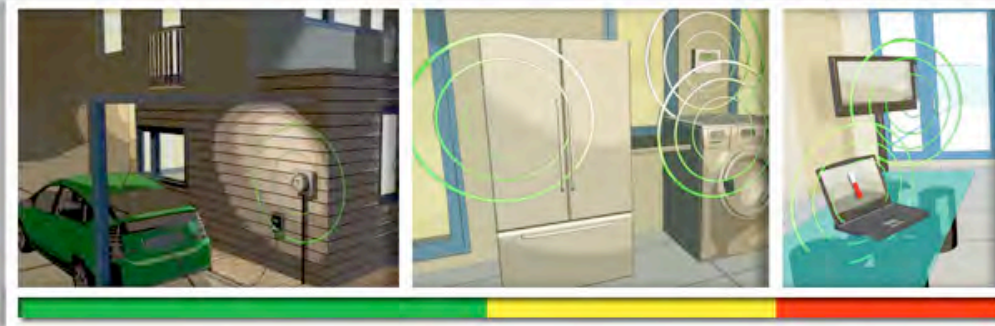


CW11 Consumer Symposium, Santa Clara, California



Appreciative Inquiry Summit in Cleveland, Ohio

SECTION 2: MESSAGING



Consume and store lowest price off-peak power

Offset power usage with energy-efficient appliances or make adjustments in response to feedback devices

Save money with voluntary programs during heat waves and cold snaps



SECTION 2: MESSAGE FRAMEWORKS

A. Who are we asking to do what?

While motivational mix appears across both genders and all age groups and income levels, there are other patterns related to gender, generation, and responsibility. Direct conversations yield clear insights though few publicly available studies detail the variances. These distinctions are important when choosing which message and communication vehicle to use.

B. DR in larger context

In the context of the national communications program, the NAP suggests DR be positioned as one element in an integrated smart energy story that will be better understood and more compelling to the public.

C. Explaining concepts around DR

Rather than use the industry-centric term of DR with the public, it will be more effective to explain concepts in accessible language.

D. Motivation and message matrix

Consumer segments can be aligned with the appropriate messages.

E. Addressing advocate concerns

Making sure that the concerns of consumer advocacy community are addressed is fundamental to protecting vulnerable populations as well as moving the discussion forward for everyone.

F. Self-selection and choices

Anticipating what a given person will respond to is very difficult outside of the context of a personal exchange. For outbound communications, it is much more effective for people to choose the path meaningful to them from labels and names that are obvious.

2A. WHO WE ARE ASKING TO DO WHAT?

What are we asking?	Frequency	Communication implications	Who is likely decision maker or person affected?
Respond to DR events or other emergencies in real time or with one-day advance notification	~10x/year, random	Because weather reports are not infallible, a pre-arranged communication channel (text, phone call, email) must be triggered either in real time or the day before with a subset of willing participants. "Please pitch in" will appeal to few people's sense of community but broader adoption will require financial incentives.	Homemakers*, elderly, self- and un-employed likely to be home in afternoon. Are they willing or able to be interrupted or change their plans a day in advance?
Allow utility to react to DR events and other emergencies by adjusting consumer AC, pool pumps, etc.	10 - 25x/year, random or 24 hour advance plan	Remote control capability is given to the utility (or aggregator) in advance, in exchange for some agreed upon benefit. Consumers can be invited to participate as part of new service or other outreach efforts and thereafter do not have to think about it.	Bill payer* or could be a family group decision <i>* high proportion are women</i>
Consciously use less at peak times and delay tasks	Hot afternoons or very cold mornings/nights	It may actually be easier to get consumers into a habit or routine for deferred energy use. Framing requests in terms of heat wave or cold snap pricing or time of day/season is easier to understand.	Person* who does laundry, dishes, cooks dinner, kicks kids off computer to play outside.
Research and purchase a home energy management system or network	One time or occasionally as new items/apps come on market	Affected by utility smart meter deployment schedule and personal motivations if the utility is not providing a solution. Encouraging use of available options ahead of AMI deployment builds audience for more robust applications.	Gadget person for now. In future, "green digital natives" will perceive as the new normal.
Pay attention to nudges like usage feedback or pricing to defer or reduce use	Intermittent (daily, weekly, or monthly when bill arrives)	Gadget person may not be the same as key user or bill payer. PR and educational outreach cannot overcome need for more accessible interface design. Word-of-mouth, influence by kids learning at school, targeted outreach will be most effective.	Bill payer* is obvious driver but enthusiasm can come from energy champions or other family members.
Buy EE consumables (CFLs, LEDs, filters)	Quarterly?	Gateway activity. Advise/drive to links to product info and available rebates from DOE, utility, or manufacturers	Person* who attends community events
Buy Energy Star appliances	Once every 5-15 years	Provide links to product info and make available rebates visible either from DOE, utility, or manufacturers	Homeowner, appliance user* and purchase advisor
Weatherize home	Occasional projects	Encourage energy audits, access to reputable service providers	Homeowners, renters, landlords
Purchase an EV	Once every 2-10 years	Only a few can afford electric vehicles now but entire neighborhood is affected by need for extra transformers, etc.	In the short term, affluent/green car buyers
Add solar, cool roof	15 year cycle	Major investments usually part of a broader green building mindset.	Homeowner, landlords

2C. EXPLAINING DR CONCEPTS

GRAPHIC COURTESY OF TO THE POINT



Consume and store lowest price off-peak power

Offset power usage with energy-efficient appliances or make adjustments in response to feedback devices

Save money with voluntary programs during heat waves and cold snaps

While some consumers are familiar with the concept of peak times for other services, the related terms are not universally understood.

“Critical Peak Pricing,” “Peak Time Rebates,” and “Clip the peak” might be re-phrased as “heat wave pricing,” no-risk rebates,” and “deferred” use.



Images can be used to illustrate night vs morning vs a scorching afternoon. What are needed are more stories that feel like real life (with kids, dogs and dirty dishes to be washed) rather than portraying a sleek, futuristic world that would only be available to the very wealthy. **Stakeholders are encouraged to consider long-term audience development (school children or church groups) to encourage early adopters at the local level in regions that are slower to embrace smart energy practices.**



Why can't we use the same messages for everyone?



One person's compelling reason is another's turn off.

Keep in mind the goal is to have people either be more conscious and careful in how or when they use energy, or leverage technology they can afford to automate efficient use of resources



2C. MOTIVATIONS & TOP LEVEL MESSAGES

Tech Enthusiasts	Green Altruists	Cost Conscious	Comfort Lovers	Indifferents	Resisters
The latest gadgets will allow you to control your energy use and get the best from dynamic pricing programs	Make a conscious effort for the cause of saving the environment by minimizing need for more power plants	You have the opportunity to save money on your personal bill by postponing certain tasks to cheaper times of day	An automated smart house is the latest status symbol. You won't even notice the minor adjustments to your AC or pool pump	A sustainable energy supply lets you keep your home secure and your country energy independent	It's unfair if frugal subsidize energy wasters who overuse AC and pool pumps during heat waves.
Are you game to compete with your neighbors?	Cooperate with your friends and neighbors to reduce demand for energy and offset system-wide cost increases			Why worry about cost and availability of future energy supplies?	You decide who sees your detailed usage data
Smart grid enables the latest personal energy technology like EVs and solar panels	Smart grid enables integration of renewable energy and electric vehicles within your neighborhood	We can't afford to do nothing and let the current system decay. We will be forced to build far more costly power plants.	Smart appliances fit your lifestyle		Smart grid helps you determine acceptable terms with your utility

The research shows that consumers **do see benefits in distribution automation** when framed as providing better service and lower operating costs for everyone. Many utilities have been reluctant to discuss those benefits. Greater transparency around these issues, including profitability benefits for investor-owned utilities will help build trust.

As creative teams work with this matrix, they should suggest specific language and imagery based on the regional priorities and the goals and brand identity of the utilities or organizations that are the clients.



Is it better to simply avoid the hot button issues?



No. Making sure concerns of consumer advocates are addressed is fundamental to protecting vulnerable populations and moving the discussion forward.



2E. ADDRESSING CONSUMER CONCERNS

Concerns expressed	Communication implications
Maintain existing consumer protections	Much of the turmoil centers around a reasonable fear that protections that exist today will be eliminated with the deployment of AMI. As part of introductory materials and meetings, utilities would do well to confirm that their existing policies (including disconnection criteria) will remain in effect or new ones added if necessary.
Dangers of remote disconnect	The benefits of remote connection should be emphasized as positive features in all communication materials so the public can be reassured. Switching account responsibility immediately when one moves and not having to wait to get the power turned on in the new location is especially positive for renters. Restrictions on shutting off people's power at night, on weekends, or in the dead of winter should reflect common sense.
Impact of dynamic pricing on low-income residents	Even though there is significant empirical evidence that dynamic pricing favors low-income consumers who typically have flatter load profiles and no empirical evidence that these rates hurt them, this issue remains a key sticking point. Examples in Part 2 of the Action Guide will show how low-income participants in pilots have taken positive advantage of dynamic pricing and utility subsidy/discount programs.
Protecting vulnerable populations	Utilities can promote positive ways to protect medically vulnerable residents who are dependent on special equipment. Develop advance emergency alert systems for residents and their off-premise guardians. Making proactive emergency/storm outage response and rapid recovery a key part of utility operations and the story is a positive way to overcome objections and collaborate with consumer advocates.
Smart meter accuracy	This is important to all types of consumers. In rollout preparation one should demonstrate and communicate how the utility is testing and verifying the new equipment is accurate. While it does not have to be the top message, credible 3 rd party validation should be readily accessible on the website, at community meetings, and in the hands of people who are visiting customer premises or answering phones.
Proactive, interactive consumer education	Energy literacy is needed to create engaged consumers and is especially effective with green altruists and low-income communities who are most likely to become energy advocates themselves. All the research shows the more opportunities for interaction with knowledgeable people, the smoother the introduction of new technologies, and the more likely people will form positive relationships with the utility. Community-based organizations are great partners and are proving more effective than expensive, mass media campaigns.

Individual control and choice	Being able to offer consumers a true choice of programs and solutions that match their needs and budgets will involve collaboration among the regulators, utilities, and consumer advocates. Choices should be clear and simple so consumers are not overwhelmed. Language must be backed up by actual, desirable options. Hype and overselling will fall flat and only reinforce distrust.
Shared risk and cost	If consumers are being asked to be partners and change behaviors to help utilities deliver what is a commodity that is taken for granted, they are going to need more transparency and visibility into the financials. While not everyone will want this information, utilities (especially IOUs) will need to adopt a different approach here than has been standard practice if they want public support.
Value proposition of AMI and cost benefits	Even if a utility wants to discuss DR in isolation, experience shows that the other issues will come to the front of the discussion. One reason for recommending DR be placed in the broader context is that it is the only way the numbers make sense. The isolated metric of individual households' saving as much on their personal bill through DR response programs to pay for the cost of the meter will not pencil out for everyone, nor should it.
Smart meters (AMI) vs direct load control	If there is not community support for integration of renewables or dynamic pricing in a given jurisdiction and they are not anticipated for the coming decade, then AMI may be difficult to justify in absence of some larger societal goals. However, if this functionality is needed, then AMI is required for safe deployment.
Big Brother or criminal hackers	Concerns around privacy are of greatest concern to resisters and those who generally distrust their local utility. Align with policy and architecture decisions by the regulators and utilities. If utilities only gather the aggregated household usage and allow the detailed usage data to remain on the premises, with the consumer determining who has access to view that data, much of the problem is solved. This structure will also make it easier to address matters of cybersecurity. The communications strategy should reflect actual implementation. With respect to direct load control, indifferents and resisters are likely to respond negatively even if cash incentives are offered. Allowing consumers to self-select their options based on their own priorities can avoid these potential triggers for distrust and dissatisfaction.
Health concerns over Radio Frequency emissions	The science supports that smart meters are not a danger and emit less than mobile phones, baby monitors, and microwave ovens. Links to 3 rd party studies, especially those conducted by health professionals, confirming findings should be made available on utility websites. For customers who remain unconvinced, the utilities would do well to provide alternatives such as relocation of the meter or "organic" meters without radio transmitters. As these are likely to be a few customers with big voices, from a communications' perspective, it is better to recognize the fear is real and let them opt-out. Encourage groups focused on environmental justice to write to local media and express their support for integration of renewables enabled by smart grid.
Prepay	Rather than using prepay as punishment for delinquent customers, position it as a one offering in a portfolio of options to intelligently manage costs with minimal cash flow. For low-income groups, offer prepay combined with energy literacy training, LIHEAP and fuel subsidies, weatherization, saver programs, etc.

? What if consumers could choose their pricing program?

A This is an invitation for innovation and creation of next practices on a policy as well as communication level. It can be validated in upcoming pilots and rollouts.

2F. SELF-SELECTION AND CHOICE

Despite the virtue of consumer choice being touted as one of the main benefits of Smart Grid, most of the pilot programs to date have assigned participants on a random basis. Self-selection based on voluntary participation in pilots has been used to criticize and question the validity of pilots.

★ Given the nature of long-term technology adoption and the clear pattern of disparate energy worldviews, perhaps random selection is not the best way to truly measure the potential power of consumer engagement?

<input type="checkbox"/> Subsidy request <input type="checkbox"/> Voluntary prepay SAVER	<input type="checkbox"/> Home Generation <input type="checkbox"/> EV GREEN
<input type="radio"/> Flat rate <input type="radio"/> No-risk Rebate <input type="radio"/> Heatwave Pricing <input type="radio"/> Time of Use	
BASIC	COMFORT

Another opportunity exists by linking subsidies with energy literacy and saver programs. Low-income consumers can become respected energy leaders and champions in their communities.

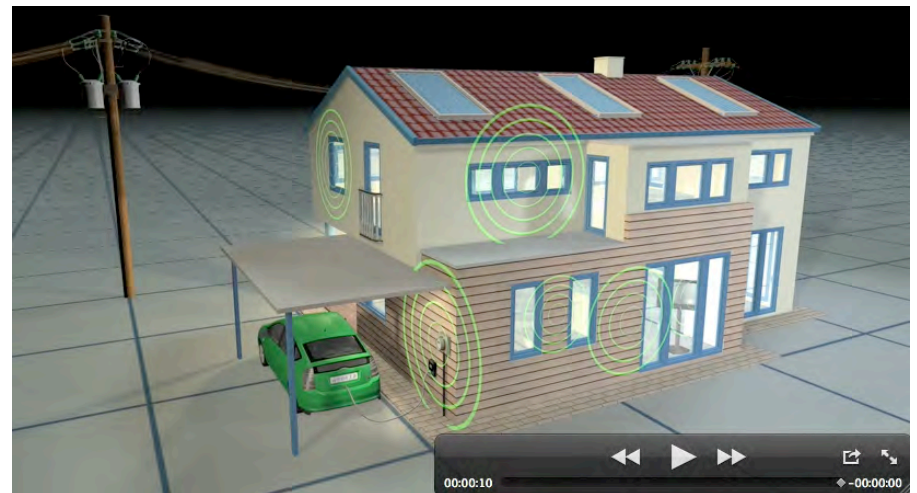
Think of this program design challenge in terms of buying a car. If the car dealership were to assign you to a given automobile at a set price based on their perception of you, you wouldn't be very happy unless they happened to match you up with the right car at the right price. The car industry has come a long way from black Model-A Fords with a global market with different vehicles, at different price points and features, with marketing messages and positioning targeting appropriate audiences.

If consumers are to be active participants rather than a captive audience, the same principles apply here. If consumers can choose the energy plan that matches their worldview and financial considerations, then they are far more likely to make it work for their household. To allow this shift in practice will clearly require the **cooperation and collaboration of regulators, consumer advocates, and utilities as well as the service and technology providers** that are part of the energy ecosystem.

From a communications perspective, if a consumer visiting a website, reading a brochure, or talking to a customer service rep is allowed to **self-identify and choose the plan that makes sense to them**; the utility doesn't have to guess what that household would want. The consumer weighs the features and descriptions of the different programs and then makes a voluntary selection.

Program labels don't need to be clever and unique enough for trademark protection as much as they need to be obvious to the people doing the choosing.

SECTION 3: NARRATIVES & STORIES



NARRATIVES & STORIES: COMING IN PART 2

A. Video narratives

Video is a particularly good medium for telling the story of the smart grid, especially when used in the context of an interactive session where people can ask questions and engage in conversation after a piece is shown.

B. Images that tell stories

Evocative imagery can give viewers a different perspective on the beauty of the transmission system or the sense of pride that comes from a child, family, or community contributing to the solution. The field personnel who work in the utility industry and the advocacy groups often come from their local communities and their commitment is beyond basic employment—there is authenticity and heroism in their dedication.

C. Consumer stories

The best voices to reassure skeptics that consumers value opportunities presented by smart energy technologies and practices are the voices of real people. Most people can instinctively hear the difference between promotional creations and actual human beings expressing their true opinions.

D. Memorable vision statements

These examples will show how to present the big picture in an integrated way that supports local modification.

E. Information architectures

The way that audiences are allowed to self-select and drill down to more detail has a big impact on how readily information is understood and absorbed.

F. Creative briefs

Examples that can be modified for use with local creative teams or agencies.

G. Provide a frame

As part of community events, organizers can provide a frame for a discussion topic and allow residents and leaders to paint pictures of implementation paths.

Appendix

Author's Bio

Judith Schwartz is an entrepreneur, marketing strategist, and communications professional on the forefront of sustainability issues, the Smart Grid, alternative energy, and the digital home. She is a Strategic Consultant to the National Action Plan Coalition. Her Silicon Valley-based firm, To the Point, designs human-centered strategies, conducts research and meta-analysis, creates narratives and messaging, facilitates cross-stakeholder conversations, and develops communications and outreach prototypes.

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Bibliography

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We encourage readers to look at the IDEO Human Centered Design Toolkit. <http://www.ideo.com/work/human-centered-design-toolkit/> While this toolkit is focused on NGOs and not on the smart grid, it's an excellent resource for describing this type of innovative approach.

In the same vein, we encourage readers to learn more about the Appreciative Inquiry Process where human-centered design principles are being applied to cross-stakeholder initiatives linking sustainability practices with economic development. <http://appreciativeinquiry.case.edu/> The methodology is being applied to the design of a smart grid pilot with National Grid and the City of Worcester to be held in September 2011. <http://www.green2growth.com>

Other analysis, publications, and presentations that have informed the development of this action guide include:

IEE Whitepaper: Costs and Benefits of Smart Meters, Institute for Electric Efficiency, Faruqui, Mitarotonda, Schwartz, Wood, Cooper, July 2011*

Leading Low-Income Regulatory Issues Facing Prepay, DEFG 2011 Utility Prepay Working Group; Schwartz, Cohen, Houseman, July 2011*

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* Expected publication date

11

**FPL's responses to Staff's
First Set of Interrogatories
Nos. 1-20**

**[See Hearing Exhibit CD
for excel files re: Nos. 3 & 4]**

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET: 130223-EI EXHIBIT: 11
PARTY: STAFF
DESCRIPTION: FPL's responses to Staff's First
Set of Interrogatories, Nos. 1-20 (See Hearing
Exhibit CD for excel...

QUESTION

Please refer to the testimony of witness Onsgard at page 25, lines 6 and 7. It is inferred that the Company's 90-day NSMR enrollment period ended May 31, 2014. Please confirm that this is the correct date for the conclusion of the enrollment period or, in the alternative, please provide the correct dates for the beginning and the end of the 90-day enrollment period.

RESPONSE

The 90-day initial enrollment period ran from March 1, 2014 through May 31, 2014. This initial enrollment period was focused on ensuring that all postponed and unable to complete (UTC) customers had ample information and time to make an informed decision regarding their choice of meter and to then notify FPL of their choice before billing began in June 2014. Notwithstanding the conclusion of this initial enrollment period, FPL customers have the continuing ability to enroll in the NSMR program.

QUESTION

Please refer to the testimony of witness Onsgard at page 26, lines 9 through 20. As of the end of the enrollment period, please provide the number of FPL customers enrolled in the NSMR program. Of the total number of NSMR customers, please indicate the number of customers that enrolled in the program through their own action and the number of customers that were enrolled in the program by default. Also, if any customers remain either on the Company's postpone list or the unable to complete (UTC) list, please provide the number of customers remaining on each list.

RESPONSE

As of the end of the initial enrollment period, FPL had 4,083 customers who had actively enrolled in the NSMR program through their own action and 3,658 customers who were defaulted into the NSMR program, for a total of 7,741 customers enrolled in the NSMR program. The defaulted customers represented all remaining customers on the postpone and UTC lists who had not indicated their meter choice by either accepting smart meter installation or actively enrolling in the NSMR program. As of July 25, 2014, there were 4,105 customers actively enrolled customers, but the number of customers defaulted into the program had decreased from 3,658 to 2,578, for a total of 6,683 customers enrolled in the NSMR program. This decrease reflects the customers who took advantage of the 45 day grace period FPL provided in the tariff. The grace period allows customers who have not yet had a smart meter installed to cancel their NSMR enrollment within 45 days of their initial billing, with the provision that FPL will waive NSMR charges once a smart meter is installed.

	6/2/2014	7/25/2014
NSMR Active Enrollments	4,083	4,105
NSMR Auto Enrolled	3,658	2,578
Total	7,741	6,683

QUESTION

Please refer to the Company's response to OPC's First Set of Interrogatories, Interrogatory No. 15, item (b). Please provide a comparison of what the Enrollment Fee and Monthly Surcharge would be at NSMR program participation levels of 11,000, 10,000, and 9,000 customers, respectively.

RESPONSE

Please see Attachment No. 1, which depicts the requested comparison of NSMR charges assuming NSMR enrollment levels of 9,000, 10,000 and 11,000 customers. Attachment No. 1 also includes the charges already provided at 6,000, 12,000 and 18,000 NSMR enrolled customers, along with charges assuming 7,000 and 8,000 NSMR enrolled customers. As indicated on Attachment No. 1, the Enrollment Fee has been kept constant for purposes of this response, with any changes reflected in the amount of the corresponding Monthly Surcharge.

QUESTION

Please refer to the testimony of witness Onsgard, Exhibit RAO-4, Page 4 of 15, lines 2, 3, 4, 5, 6, 7, and 11. Please provide a comparable exhibit showing actual expenditures as of the beginning of the June 2014 NSMR billings. For spreadsheets provided, please ensure that all formulas are intact and unlocked.

RESPONSE

Please see Attachment No. 1.

QUESTION

Please refer to the testimony of witness Onsgard at page 14, lines 10 through 13, page 15, lines 1 through 10, Exhibit RAO-4, Page 6 of 15, and Exhibit RAO-4, Page 8 of 15. Also, please refer to the Company's response to OPC's First Request for Production of Documents, POD 3, filename "130223 - OPC's POD 3 - 130223-E Part 2 of 3.pdf", FPL Bates stamp number 001598 NSMR. Please provide a description of how the workload of the Customer Care staff (4 FTE) and the Meter Reading Routing staff (1 FTE) has changed since the conclusion of the 90-day enrollment period.

RESPONSE

FPL's methodology of projecting incremental care center costs for enrollment was based on an estimated cost per call multiplied by the projected call volumes that would be expected for the enrollment process. Similarly, the methodology to project incremental meter reading routing costs was done based on transactions per hour. FPL's Exhibit B was structured this way to properly identify costs based on the number of participants. In order to respond to Question 13 in Staff's First Data Request, FPL derived the full time equivalent (FTE) based on the projected number of transactions for 12,000 participants. FPL then also accepted Staff's recommendation to reduce these FTEs, which effectively lowers the cost per transaction for these areas.

Customer Care has handled the following volume of transactions:

	90 Day Enrollment Period				
	March	April	May	June	July 1 - July 25
Calls	4,959	6,253	2,649	1,394	452
Mail (Back Office)	2,831	2,620	887	91	248

As FPL expected, the customer care workload following the 90 day enrollment period has decreased and it is expected that going forward it will continue at a level lower than what is occurring in July. The workload will be associated with existing non-standard meter customers requesting smart meters, new enrollments and general inquiries on the program.

Meter reading routes had to continually be adjusted as smart meter activation occurred during deployment. The non-standard meter routes also changed as the postponed and unable-to-complete (UTC) populations made their meter choice during the recent enrollment period. The location and density of the non-standard meters in the routes are changing again as enrolled customers reconsider their choices during the 45-day grace period afforded by FPL.

Meter Reading has handled the following volume of transactions:

	90 Day Enrollment Period				
	March	April	May	June	July 1 - July 15
No. of Reroute Transaction	239	285	252	178	307

The meter reading workload following the 90 day enrollment period peaked in July as customers continued to make choices during the 45 day window. The number of non-standard meters in the routes and the workload will continue to change during the life of the program as enrolled customers close accounts or cancel non-standard service. These changes will require rerouting of the customers account.

QUESTION

Please refer to the testimony of witness Onsgard at page 15, lines 11 through 21 and page 16, lines 1 through 22.

- a. Please elaborate in greater detail regarding the statement that it would not be “efficient or practical” to have a separate charge for individual site visits to the premises of NSMR customers.
- b. Please elaborate in greater detail regarding the statement that the Company’s projection of site visits “is actually conservative.”
- c. Please clarify the statement that the Company “...will be required to test the majority of the remaining non-standard meters...” by providing approximate percentage estimates of the remaining non-standard meters for which testing will be necessary over the next three years and next five years, respectively.
- d. Regarding the “4,800 site visits to customers on the postpone list to set non-standard meters,” please indicate how many of the 4,800 site visits represent return visits to premises that already have received a NSMR program-related site visit.

RESPONSE

- a. Establishing a separate fee for individual site visits would not be efficient or practical for several reasons. It would require FPL to make changes to its customer information systems to establish and bill these new charges which would result in additional system implementation costs to be borne by the NSMR population in these service charges. This approach would require Commission approval of separate tariffed charges. Separate fees would require NSMR customers to pay the site visit charge all at once instead of over the five years as approved by the Commission.

- b. FPL's estimate of an average of one field meter visit per NSMR customer is conservative based on the nature of the field meter site visits that will be required. Site visits will be required for non-standard meter installation, meter sampling for testing, outage restoration and monitoring for current diversion. As fully described in responses to subparts (c) & (d) below, field visits for non-standard meter test sampling and meter installations will account for more than one visit for each currently enrolled NSMR customer, and therefore FPL's average of one field meter visit per NSMR customer estimate is conservative. Meter sampling for the enrolled NSMR customers over the next five years will require 5,495 visits. In addition to those visits, FPL has already made 1,650 visits to install non-standard meters for customers enrolled in the program. Together these two types of site visits represent 7,145 visits, which is already more than the total population of NSMR enrolled customers. This is before accounting for site visits to NSMR customers due to the inability to "ping" NSMR meters before leaving outage-restored areas to ensure they are connected, or site visits that may be required for monitoring NSMR meters for current diversion.
- c. Due to the large number of different non-standard meter types remaining in the field for NSMR customers (approximately 100 different meter types), absent a change in Florida Administrative Code requirements and/or FPL's Commission approved Meter Sample Test Plans, the required sample sizes for testing will result in most non-standard meters requiring removal for testing or replacement over the next five years. Pursuant to Florida Administrative Code requirements and FPL's Commission approved Meter Sample Test Plans, FPL will test or replace 65%, or 4,324 of the remaining non-standard meters in the NSMR program over the next three years, and 83% or 5,495 of the remaining non-standard meters in the NSMR program over the next five years. A copy of FPL's Commission-approved Meter Sample Test Plan is provided in Attachment No. 1.
- d. The 4,800 site visits referenced in witness Onsgard's direct testimony reflect the number of postponed customer premises where FPL has installed non-standard meters since the postpone list began. The 4,800 visits do not include any second visits. More importantly, now that the initial 90-day enrollment period is over, FPL can report that for the approximately 7,000 customers who had enrolled in the NSMR program as of July 1, 2014, FPL has already made 1,650 field meter site visits to these premises to install non-standard meters. Now that the postpone and UTC lists have been resolved, future enrollments over the next five years will almost certainly require site visits to install non-standard meters.

**Test Procedures
and Test Plans
For
Metering Devices**

Florida Power & Light Co.

June 17, 2008

FPL Metering Device Test Procedures & Test Plans

RECORD OF REVISIONS

Rev. No.	Date	Description	By	Approval
0	1/06/97	Original Issue	ECM	JJM
1	4/03/97	Minor revisions/additions to Sections VI-C, VII-C & D, VIII-B, E & G	ECM	JJM
2	12/1/07	Revisions/additions to Sections III-D & E, IV-D & E, V-C & D, VI-C, VII-D, VIII-B, C, D, E, G, H, I & J, IX-E & G	JFD & DDP	DDR
3	6/17/08	Revised Figure 5 In-Service Sampling by Variables, Variance Known	JFD	DDR

FPL Metering Device Test Procedures & Test Plans

TABLE OF CONTENTS

RECORD OF REVISIONS.....	1
TABLE OF CONTENTS	2
I. Laboratory Standards	5
A. General	5
B. Accuracy	5
C. Traceability.....	5
1.NIST MAP	5
2.Independent Laboratory	5
D. Intercomparison Of Standards	5
E. Excessive Variation.....	5
F. Records	6
II. Portable Standards	7
A. General	7
B. Accuracy	7
C. Comparison with Reference Standards.....	7
D. Excessive Variation	7
III. Meter Testing - Shop	8
A. General	8
B. Test Board Accuracy.....	8
C. Comparison with Portable Standards.....	8
D. Watthour Meter Tests.....	8
1.Single-phase Electro-mechanical Meters.....	8
2.Polyphase Electro-mechanical Meters	8
3.Electronic Meters with or without Demand	9
4.Pulse Initiating Electronic Meters	9
5.Time Of Use (TOU) Meters	9
E. Load Profile Meters.....	9
F. Instrument Transformers.....	9
IV. Meter Testing - Field.....	10
A. General	10
B. Field Test Set Accuracy.....	10
C. Comparison with Reference Standards.....	10
D. Watthour Meter Tests	10
1.Single-phase Electro-mechanical Watthour Meters	10
2.Polyphase Electro-mechanical Watthour Meters	10
3.Electronic Meters with or without Demand	11

FPL Metering Device Test Procedures & Test Plans

4. Pulse Initiating Meters	11
5. Time Of Use (TOU) Meters	11
E. Load Profile Meters.....	11
V. Average Meter Error	12
A. General	12
B. Constant Load.....	12
C. Single Phase Varying Load	12
D. Polyphase Varying Load.....	12
VI. Acceptance Testing New Equipment	13
A. General	13
B. ANSI Standards	13
C. New Meters.....	13
VII. In Service Testing	14
A. General	14
B. ANSI Standards	14
C. Instrument Transformers	14
D. In Service Meters.....	14
VIII. Random Sampling Plans.....	15
A. General	15
B. Savings	15
C Meter Lots and Populations.....	15
D. Statistical Sampling Plans	16
E. Analysis of Results.....	16
F. Lots Not Meeting Acceptance Criteria	16
G. Attributes Plan For New Meters	16
H. Variables Plan For New Meters.....	21
I. Attributes Plan For In Service Meters	24
J. Variables Plan For In Service Meters.....	27
IX. Recordkeeping	31
A. General	31
B. Test Record Contents	31
C. Accounting Information.....	31
D. Records of Tests for Incoming Purchases	31
E. Records of Periodic and Annual In-service Meter Tests	32
F. Meter Data Collection System	33
G. Reports	33
1. Production Reports	33
2. Annual Reports	33

FPL Metering Device Test Procedures & Test Plans

TABLES AND FIGURES

Table 1 - New Meters Attributes Plan Sample, Lot Sizes and Acceptance Numbers.....	18
Table 2 - New Meters Attributes Plan LTPD.....	20
Table 3 - In-service Attributes Plan Sample, Lot and Acceptance Numbers.....	25
Figure 1 - OC Curve for New Meters Attributes Plan.....	20
Figure 2 - OC Curve for New Meters Variables Plan, Variance Known.....	23
Figure 3 - OC Curve for In-service Meters Attributes Plan.....	26
Figure 4 - OC Curve for In-service Meters Variables Plan, Variance Unknown.....	29
Figure 5 - OC Curve for In-service Meters Variables Plan, Variance known.....	30
APPENDIX A.....	34
APPENDIX B.....	35

FPL Metering Device Test Procedures & Test Plans

I. Laboratory Standards

- A. General - Florida Power & Light (FPL) has available one or more watthour meters and/or watthour meter standardization systems used as basic reference standards, of capacity and voltage range adequate to test all portable standards used by FPL.
- B. Accuracy - Watthour meters or watthour meter standardization systems used as basic reference standards will not be in error by more than $\pm 0.05\%$ at 1.00 power factor or by more than $\pm 0.1\%$ at 0.5 lagging power factor, after the application of standard correction factors.
- C. Traceability to National Standards - Traceability of FPL's basic reference standards to the national watthour standards is established annually using one of the following methods:
 1. NIST MAP - FPL establishes traceability to the national watthour standards through the Measurement Assurance Program (MAP) of the National Institute of Standards and Technology (NIST). With this method, the transport standard is provided by NIST.
 2. Independent Laboratory - FPL establishes traceability to the national watthour standards through an independent laboratory. With this method, the transport standard is provided by the independent laboratory, and is of the same nominal value and of quality equal to the basic reference standards used by FPL. FPL intends to utilize Radian Research, Inc. of Lafayette, Indiana as its independent laboratory. Radian Research meets all the Independent Standards Laboratory requirements of ANSI C12.1, and provides a level of accuracy comparable to NIST. Other laboratories meeting the requirements of ANSI C12.1 may be utilized in the future.
- D. Intercomparison of Standards - The percent registration of each FPL basic reference standard watthour meter or watthour meter standardization system is compared against the percent registration of every other FPL basic reference standard watthour meter or watthour meter standardization system at frequent intervals.
- E. Excessive Variation - If excessive variation in the percent registration of a basic reference standard watthour meter or watthour meter standardization system is observed in the comparisons of C. or D. above, the source of the variation will be investigated. If the source of the variation cannot be corrected, then the use of this watthour meter or watthour meter standardization system as a basic reference standard will be discontinued.

FPL Metering Device Test Procedures & Test Plans

- F. Records - Historical performance records for each watthour meter or watthour meter standardization system used as a basic reference standard are maintained by FPL as follows:
1. Comparisons of FPL's basic reference standards with national standards.
 2. Intercomparisons made with other FPL basic reference standards.

FPL Metering Device Test Procedures & Test Plans

II. Portable Standards

- A. General - FPL utilizes one or more watthour meters to be used as portable standards, of capacity and voltage range adequate to test all watthour meters used by FPL for billing purposes.
- B. Accuracy - Watthour meters used as portable standards will not be in error by more than $\pm 0.1\%$ at 1.00 power factor or by more than $\pm 0.2\%$ at 0.5 lagging power factor, after the application of standard correction factors.
- C. Comparison with Reference Standards - Each FPL watthour meter used as a portable standard is compared with a basic reference standard at least once a year.
- D. Excessive Variation - If excessive variation in the percent registration of a watthour meter used as a portable standard is observed in the comparisons of C. above, the source of the variation will be investigated. If the source of the variation cannot be corrected, then the use of this watthour meter as a portable standard will be discontinued.

FPL Metering Device Test Procedures & Test Plans

III. Meter Testing - Shop

- A. General - FPL utilizes one or more computer controlled, automatic watthour meter test comparators (test boards) to test watthour meters in a meter shop production environment. These test boards are of capacity and voltage range adequate to test all watthour meters used by FPL for billing purposes.
- B. Test Board Accuracy - Watthour meter test boards will not be in error by more than $\pm 0.5\%$ at 1.00 power factor or by more than $\pm 1.0\%$ at 0.5 lagging power factor, after the application of standard correction factors.
- C. Comparison with Portable Standards - Each FPL watthour meter test board is compared with a portable standard at least once a month.
- D. Watthour Meter Tests - Watthour meters are tested as follows:

1. Single-Phase Electro-mechanical Meters

- a. Visual inspection.
- b. Creep.
- c. Full Load (FL) - Test Amps at 1.00 power factor.
- d. Light Load (LL) - 10 % of Test Amps at 1.00 power factor.
- e. All tests are single revolution, series (single phase) tests, conducted on an automatic, computer controlled test board.
- f. Test sequence is: Creep, FL, LL.
- g. Adjustment limits - Meters are adjusted as close to zero error as practical whenever found to be in error by more than $\pm 0.5\%$ FL or LL.

2. Polyphase Electro-mechanical Meters

- a. Visual inspection.
- b. Creep.
- c. Series Full Load (FL) - Test Amps at 1.00 power factor.
- d. Series Light Load (LL) - 10 % of Test Amps at 1.00 power factor.
- e. Series Power Factor (PF) - Test Amps at 0.50 lagging power factor.
- f. Individual Element (A, B, C) - Test Amps at 1.00 power factor on each element, one at a time.
- g. All tests are single revolution, series (single phase) tests, conducted on an automatic, computer controlled test board.
- h. Test sequence is: Creep, FL, PF, LL, A, B, C for three element meters or Creep, FL, PF, LL, A, C for two element meters.
- i. Adjustment limits - Meters are adjusted as close to zero error as practical whenever found to be in error by more than $\pm 0.5\%$ FL, LL, A, B, or C or by more than $\pm 1.0\%$ PF.

FPL Metering Device Test Procedures & Test Plans

3. Electronic Meters with or without Demand
 - a. Visual inspection.
 - b. Creep.
 - c. Series Full Load - Test Amps at 1.00 power factor.
 - d. All tests are single revolution equivalent, series (single phase) tests, conducted on an automatic, computer controlled test board.
 - e. Test sequence is: Creep, FL
 - f. Verification that the meter contains the correct program.
4. Pulse Initiating Electronic Meters
 - a. Watthour tests above, appropriate for the type of meter.
 - b. Watthour meter running at Series Full Load current and 1.00 power factor.
 - c. KYZ pulse initiator output electrically connected to automatic, computer controlled test board.
 - d. Test duration to be a minimum of one full revolution (or equivalent).
5. Time Of Use (TOU) Meters
 - a. Watthour and demand tests above, appropriate for the type of meter.
 - b. Verification that the meter contains the correct TOU program.
- E. Load Profile Meters - Load Profile Meters are tested by connecting an external pulse generator(s) and recording pulses for a minimum of one demand interval. The number of recorded pulses will agree with the number of generated pulses, with a maximum allowable error of ± 1 pulse.
- F. Instrument Transformers (IT) are tested by connecting instrument transformers to an instrument transformer comparator and performing the following:
 1. Visual inspection.
 2. Transformer secondaries are connected to provide the maximum burden specified on the transformer nameplate.
 3. Instrument transformers are tested to comply with the requirements specified in ANSI C57.13.
 4. Current Transformers (CT's) will meet the ratio and phase angle requirements for 0.3 % class CT's when tested at 100 % of rated current and 10 % of rated current.
 5. Voltage Transformers (VT's) will meet the ratio and phase angle requirements for 0.3 % class VT's when tested between 90 % and 110 % of rated voltage.
 6. Applied Potential Dielectric Tests.
 7. Polarity check.

FPL Metering Device Test Procedures & Test Plans

IV. Meter Testing - Field

- A. General - FPL utilizes one or more portable field test sets to test meters in a field environment. Each field test set contains a Portable Watthour Standard and loading circuitry of capacity and voltage range adequate to test watthour meters used by FPL for billing purposes.
- B. Field Test Set Accuracy - Field test sets will not be in error by more than $\pm 0.5\%$ at 1.00 power factor or by more than $\pm 1.0\%$ at 0.5 lagging power factor, after the application of standard correction factors.
- C. Comparison with Reference Standards - Each FPL portable watthour standard used in a field test set is compared with a basic reference standard at least once a year.
- D. Watthour Meter Tests - Watthour meters are tested as follows:
 1. Single-phase Electro-mechanical Watthour Meters
 - a. Visual inspection.
 - b. Creep.
 - c. Full Load (FL) - Test Amps at 1.00 power factor.
 - d. Light Load (LL) - 10 % of Test Amps at 1.00 power factor.
 - e. All tests are single revolution, series (single phase) tests, conducted on a manually operated field test set with an optical pickup for disk rotation.
 - f. Test sequence is: Creep, FL, LL.
 - g. Adjustment limits - Meters are adjusted as close to zero error as practical whenever found to be in error by more than $\pm 1.0\%$ FL or LL.
 2. Polyphase Electro-mechanical Watthour Meters
 - a. Visual inspection.
 - b. Creep.
 - c. Series Full Load (FL) - Test Amps at 1.00 power factor.
 - d. Series Light Load (LL) - 10 % of Test Amps at 1.00 power factor.
 - e. Series Power Factor (PF) - Test Amps at 0.50 lagging power factor.
 - f. Individual Element (A, B, C) - Test Amps at 1.00 power factor on each element, one at a time.
 - g. All tests are single revolution, series (single phase) tests, conducted on a manually operated field test set with an optical pickup for disk rotation.
 - h. Test sequence is: Creep, FL, PF, LL, A, B, C for three element meters or Creep, FL, PF, LL, A, C for two element meters.
 - i. Adjustment limits - Meters are adjusted as close to zero error as practical whenever found to be in error by more than $\pm 1.0\%$ FL, LL, A, B, or C or by more than $\pm 1.5\%$ PF.

FPL Metering Device Test Procedures & Test Plans

3. Electronic Meters with or without Demand

- a. Visual inspection.
- b. Creep.
- c. Load - Any point within the load range of the meter.
- d. All tests are single revolution equivalent, series (single phase) tests, conducted on a manually operated field test set.
- e. Test sequence is: Creep, Series Load
- f. Adjustment limits - Meters are adjusted as close to zero error as practical whenever found to be in error by more than $\pm 0.5\%$ at any point tested.
- g. Verification that the meter contains the correct program.

4. Pulse Initiating Electronic Meters

- a. Watthour tests above, appropriate for the type of watthour meter.
- b. Watthour meter running at Series Full Load current and 1.00 power factor.
- c. KYZ pulse initiator output electrically connected to field test set.
- d. Test duration to be a minimum of one full revolution (or equivalent).

5. Time Of Use (TOU) Meters

- a. Watthour and demand tests above, appropriate for the type of meter.
- b. Verification that the meter contains the correct TOU program.

E. Load Profile Meters

Load Profile Meters are tested by connecting an external pulse generator(s) and recording pulses for a minimum of one demand interval. The number of recorded pulses will agree with the number of generated pulses, with a maximum allowable error of ± 1 pulse.

FPL Metering Device Test Procedures & Test Plans

V. Average Meter Error

- A. General - Whenever a metering installation is tested and found to exceed the accuracy limits, the average error will be determined in one of the following ways:
- B. Constant Load - If the metering installation is used to measure a load which has practically constant characteristics, such as a street-lighting load, the meter will be tested under similar conditions of load and the accuracy of the meter "as found" will be considered as the average accuracy.
- C. Single-phase Varying Load - If a single-phase metering installation is used on varying load, the average error will be determined in one of the following ways:
 - 1. Electro-mechanical Meters - The weighted algebraic average of the error at approximately 10 % and at approximately 100 % of the rated test amperes of the meter, the latter being given a weight of 4 times the former.
 - 2. Electronic Meters - A single point, when calculating the error of an electronic meter, the single point is an accurate representation of the error over the load range of the meter.
- D. Polyphase Varying Load - If a polyphase metering installation is used on a varying load, the average error will be determined in one of the following ways:
 - 1. Electro-Mechanical Meters - The weighted algebraic average of its error at light load (approximately 10 % rated test amperes) given a weighing of 1, its error at heavy load (approximately 100 % rated test amperes) and 100 % power factor given a weight of 4, and at heavy load (approximately 100 % rated test amperes) and 50 % lagging power factor given a weight of 2.
 - 2. Electronic Meters - A single point, when calculating the error of an electronic meter, the single point is an accurate representation of the error over the load range of the meter.

FPL Metering Device Test Procedures & Test Plans

VI. Acceptance Testing New Equipment

- A. General - The test of any unit of metering equipment consists of a comparison of its accuracy with a standard of known accuracy. Units not meeting the accuracy or other requirements of Florida Administrative Code Rule 25-6.052 at the time of the test will be corrected to meet such requirements and adjusted to within the required accuracy and as close to 100 % accurate as practicable or their use discontinued.
- B. ANSI Standards - Watthour meters and associated devices are tested as prescribed in ANSI C12.1 and ANSI C57.13.
- C. New Meters and associated metering devices are tested on a one-hundred percent (100 %) basis by the manufacturer and the manufacturer's one-hundred percent test data is used by FPL for acceptance of these devices.

In addition to the use of manufacturer's one-hundred percent test data, FPL may for prudent business reasons, test new meters on a statistically sampled basis utilizing the approved Attributes Random Sampling Plan For New Meters described in Section VIII, Paragraph G of this document or the approved Variables Random Sampling Plan For New Meters described in Section VIII, Paragraph H of this document.

FPL Metering Device Test Procedures & Test Plans

VII. In Service Testing

- A. General - The test of any unit of metering equipment consists of a comparison of its accuracy with a standard of known accuracy. Units not meeting the accuracy or other requirements of Florida Administrative Code Rule 25-6.052 at the time of the test will be corrected to meet such requirements and adjusted to within the required accuracy and as close to 100 % accurate as practicable or their use discontinued.
- B. ANSI Standards - Watthour meters and associated devices are tested as prescribed in ANSI C12.1 and ANSI C57.13.
- C. Instrument Transformers - Testing of in service instrument transformers is as follows:
 - 1. Instrument transformers which have been removed from service are tested prior to reinstallation if the reason for removal, or physical appearance, or record of performance gives cause to doubt their reliability.
 - 2. Instrument transformers which have been from removed from service are reinstalled without test if the reason for removal, or physical appearance, or record of performance does not give cause to doubt their reliability.
 - 3. Instrument transformers remaining in service do not require any testing unless their physical appearance or record of performance gives cause to doubt their reliability.
- D. In-Service Meters and associated metering devices are tested as follows:

All meters will be tested under an In Service Random Sampling Plan approved by the Commission. FPL may choose to Periodic test populations of meters identified by the utility as otherwise better accommodated by testing on a periodic basis; e.g., for populations less than 200 meters.

FPL Metering Device Test Procedures & Test Plans

VIII. Random Sampling Plans

- A. General - Random Sampling Plans are used to estimate fractions of mass-produced homogenous items that perform according to required specifications. Estimates of these fractions represent product quality and are made for specified quality levels. These statistics are then used to decide whether to accept or reject shipments of new products or the performance of in-service products.
- B. Savings - Two considerations for sample testing are (1) the savings that may be realized from not testing 100 % of the items in a population and (2) the possible quality lost by not testing 100 %. The sampling of electric meters in Florida was initiated because of the following; (1) the number of meters being purchased and used by the larger utilities became large enough to effect large dollar savings; (2) statistical methods for guarding against probable losses in meter quality became widely accepted; and (3) improvements were made in the quality of the meters being manufactured. FPL is currently purchasing and using enough meters and associated metering devices of all types that savings can be attained by sample testing newly purchased meters and metering devices along with in service meters and metering devices. Accordingly, because of the savings to be realized, with very little if any loss of product quality, sample testing of both new and in service meters and associated metering devices is appropriate.
- C. Meter Lots and Populations - An incoming shipment of new meters is called a "lot". Meters already in service are divided into groups based on common features. For sample testing purposes, groups of in service meters are treated as though they were lots. Either a lot of new meters or a group of similar meters already in service is tested as though it were a "population". The rationale for sample testing products such as electric meters follows the reasoning used to test statistical hypotheses concerning population averages and proportions. Inferences about population parameters are based on information contained in a randomly selected sample.

FPL presently utilizes the following general criteria for grouping in service meters into populations:

1. Single-phase and Network meters – FPL's Type Codes are based on meter manufacturer and models of similar design. New type codes are established whenever there is a distinctive change in the meter's design, the material(s) used, or the manufacturing process, and this change might affect the meter's in service performance. New Type Codes are also established by the utility, for meters of consistent manufacturer and model of design, in order to limit these populations to manageable sizes.

FPL Metering Device Test Procedures & Test Plans

2. Polyphase and all other Electro-mechanical meters - Type Codes are based on the function, the meter form, voltage class and class amps. These functional groupings are consistent with those required for in service statistical sample testing as discussed in the 2001 revision of ANSI C12.1., and the rules of the 1997 revision to the Florida Administrative Code.
 3. Electronic meters - Type Codes are based on meter manufacturer, models of similar design meter form and class amps. New Type codes are established whenever there is a distinctive change in the meter's design, the material(s) used, or the manufacturing process, and this change might affect the meter's in service performance.
- D. **Statistical Sampling Plans** – FPL's Sampling Plans were developed on the recommendation of Dr. Christopher Holloman of the Statistical Consulting Service of Ohio State University. These plans are based on nationally recognized Military Standard Sampling Plans. In addition, these plans provide a more rigorous analysis of the populations of meters to assist in choosing the appropriate sampling methodology (e.g., attributes vs variables, known variance vs unknown variance). The specific application of the Test Plan will be discussed in the following sections.
- E. **Analysis of Results** - Results of meter testing performed under statistical sampling plans must be looked over and analyzed very carefully. Decisions on acceptance or rejection of meter populations often carry large economic consequences. The data and associated records of statistical sampling plans provide an excellent historical perspective from which one can view trends, validate present data, and carefully consider in the determination of actions to be taken.
- F. **Lots Not Meeting Acceptance Criteria** - Meters and associated metering equipment in lots not meeting the acceptance criteria of a random sampling plan will be either: be sampled further, stratified into more than one group and retested, tested on a 100 % basis, maintained at an accelerated rate, rejected and returned to the manufacturer, retired at an accelerated rate, or some combination thereof, in order to maintain the required accuracy for acceptance as noted in the appropriate random sampling plan.
- G. Attributes Plan For New Meters** - FPL utilizes the following Attributes Random Sampling Plan in the acceptance testing of shipments of new meters and associated metering devices:
1. FPL's attributes random sampling plan for testing new meters and associated metering devices is based on procedures in Military Standard 105 - Sampling Procedures and Tables for Inspection by Attributes. FPL's Attribute Plan for New Meters uses a custom Operating Characteristic (OC) Curve based on the Acceptance Quality Level (AQL) and the Lot Tolerance Percent Defective (LTPD).

FPL Metering Device Test Procedures & Test Plans

2. Attributes Plan - An attributes sampling plan is used to test a sample of items to determine the number of items in the sample that perform according to certain specifications and to make an inference regarding the fraction of items in the entire population that perform according to those specifications. For each item, its "attribute" is whether it is defective. A population is accepted or rejected based on the number of defective items in the sample.
3. Plan Description - In FPL's application of the attributes procedure, one sample is drawn from each lot, and if the number of defective meters is zero, the lot is accepted. If the number of defective meters is equal to or greater than one, the lot is rejected
4. Statistical Design - The FPL attributes plan for new meters is a single-sampling plan with an acceptance number of zero. The sample sizes, which vary according to lot size, are listed in the table below. The acceptance criteria is established in a manner consistent with Military Standard 105 and tests whether the fraction of new meters that are within 99 % and 101 % accuracy are greater than 99.75 %. Plan design details are as follows:
 - a. Specification Limits - The specification limits of this plan are 99 % and 101 % meter accuracy.
 - b. AQL - The Acceptable Quality Level (AQL) of this plan is 0.25 %.
 - c. LTPD - The Lot Tolerance Percent Defective (LTPD) defines the unsatisfactory quality, the percentage of accepting a lot that should be rejected. The probability of accepting an LTPD is defined as the percent lot defective accepted only 10 % of the time and represents the Consumer Risk (Beta). See Table 2 for LTPD values.

FPL Metering Device Test Procedures & Test Plans

Table 1- New Meters Attributes Plan Sample, Lot Sizes and Acceptance Numbers

Lot Size	Sample Size	Acceptance Number
16 – 25	Full inspection	0
26 – 40	Full inspection	0
41 – 65	Full inspection	0
66 – 110	Full inspection	0
111 – 180	Full inspection	0
181 – 300	Full inspection	0
301 – 500	127	0
501 – 800	206	0
801 – 1300	206	0
1301 – 3200	209	0
3201 – 8000	202	0
8001 – 22000	211	0
22001 - 110000	212	0
110001 - 550000	213	0
550001+	213	0

5. Plan Hypotheses and Risk - The null hypothesis, alternate hypothesis, probabilities for committing Type I & Type II errors, and criteria for acceptance or rejection of the null hypothesis are as follow:
 - a. Null Hypothesis - That the fraction of a group of new meters that are within 99 % and 101 % accuracy is 99.75 % or greater.
 - b. Alternate Hypothesis - That the fraction of a group of new meters that are within 99 % and 101 % accuracy is less than 99.75 %.
 - c. Type I Error - The probability for committing a Type I Error (Producer's Risk or α error) is determined from the Operating Characteristic curves for this plan (Figure 1). It is found by using the appropriate lot size to select the Operating Characteristic Curve of the sample under review, then finding the point where the OC curve intersects the AQL value. Probability of Acceptance is read from the left axis and the Probability for committing a Type I Error is calculated by subtracting this Probability of Acceptance from 100 %.
 - d. Type II Error - The probability for committing a Type II Error (Consumer's Risk or β error) is determined from the Operating Characteristic curves for this plan (Figure 1 and Table 2). It is found by using the Typical Operating Characteristic Curve of the sample under review, then finding the point where the OC curve intersects the LTPD value. Probability of Acceptance is read from the left axis and the Probability for committing a Type II Error is

FPL Metering Device Test Procedures & Test Plans

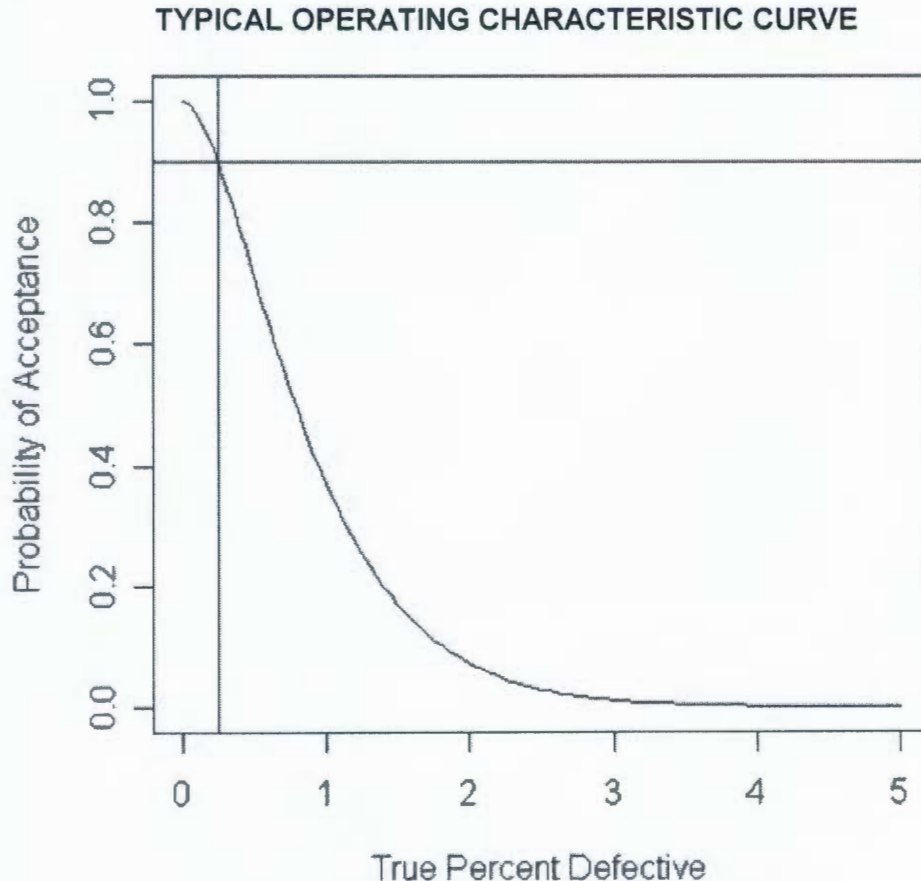
equal to this Probability of Acceptance.

- e. Criteria - The null hypothesis is accepted if the number of defective meters in the first sample is zero. If the number of defective meters is greater than one, the null hypothesis is rejected. If the number of defective meters is exactly one, a second sample is drawn. If no meters in the second sample are defective, the null hypothesis is accepted. The null hypothesis is rejected if the number of defective meters is greater than one.
6. Meter Groups - This attributes plan is applied to shipments of new meters segregated by characteristics such as manufacturer, model, and methods of construction likely to affect the meter's performance.
7. Prior Approval - This approach to sampling by attributes is consistent with FPL's previously approved plan. In addition, this approach applies more conservative criterion with regard to tightening the AQL and clearly defining the LTPD.
8. A high-level flow chart for this plan is attached in Appendix A.

FPL Metering Device Test Procedures & Test Plans

Figure 1 - Operating characteristic curve for new meters attributes plan

Each sample has its own Operating Characteristic Curve and all have an AQL of 0.25 %. For illustrative purposes a typical OC Curve is as follows:



For the first 6 lines of Table 1, the LTPD = AQL (0.25 %) since full inspection is performed. The remaining sample ranges provide slightly higher LTPD values but the AQL remains fixed at 0.25 %.

Table 2 - New Meters Attributes Plan LTPD

Lot Size	LTPD
Less Than 300	0.25 %
301 – 500	2.6 %
501 – 800	1.6 %
801 – 1300	1.7 %
1301 – 3200	1.8 %
3201 – 8000	1.9 %
8001+	1.8 %

FPL Metering Device Test Procedures & Test Plans

H. Variables Plan For New Meters - FPL utilizes the following Variables Random Sampling Plan in the acceptance testing of shipments of new meters and associated metering devices:

1. FPL's Variable Plan – FPL's variables sampling plan for testing new meters and associated metering devices is based on a design that requires an Anderson-Darling Test to determine if the distribution of the meter test results in the incoming lots are normally distributed. If the Anderson-Darling Test confirms the distribution to be normally distributed, a sampling by Variables, Variance Unknown, approach can be used. FPL's Variable Sampling Plan for new meters uses an Operating Characteristic (OC) Curve based on the Acceptance Quality Level (AQL) and the Lot Tolerance Percent Defective (LTPD) and a methodology consistent with Military Standard 414 - Sampling Procedures and Tables for Inspection by Variables. If the Anderson-Darling Test confirms the distribution is normally distributed, additional analysis is performed to calculate the percentage of contamination, standard deviation ratio and percent defective using Sampling by Variables Variance Unknown. If the percent contamination is less than or equal to 1 % and the variance is less than or equal to 2, or if the percent of contamination is between 1 % and 5 % and the estimated fraction defective is above 4 %, Sampling by Variables, Variance Unknown, can be used. If Sampling by Variables, Variance Unknown, cannot be used, then the Sampling by Attributes Plan in section G will be used.
2. Variables Plan - A variables sampling plan is used to estimate an average for a particular characteristic and then to estimate the fraction of items in a population which meet a particular specification. The estimate of the fraction is based on the estimated average and either a "known" measure of variability estimated from previous testing or an estimate of "unknown" variability calculated from the actual current sample meters. The "variable" is the characteristic measured to estimate the average and possibly the variance for the population. FPL's variables sampling plans will always use the unknown variance sampling plan. The variable in a variables meter sampling plan is percent accuracy of the meter.
3. Statistical Design - The FPL variables plan for new meters uses a methodology consistent with Military Standard 414 to test whether the fraction of its in service meters that are within 98 % and 102 % accuracy is greater than or equal to 99.75 % Plan design details are as follows:
 - a. Specification Limits - The specification limits of this plan are 98 % and 102 % meter accuracy.
 - b. AQL - The Acceptable Quality Level (AQL) of this plan is 0.25 %.
 - c. LTPD – The Lot Tolerance Percent Defective (LTPD) defines the unsatisfactory quality, the percentage of accepting a lot that should be

FPL Metering Device Test Procedures & Test Plans

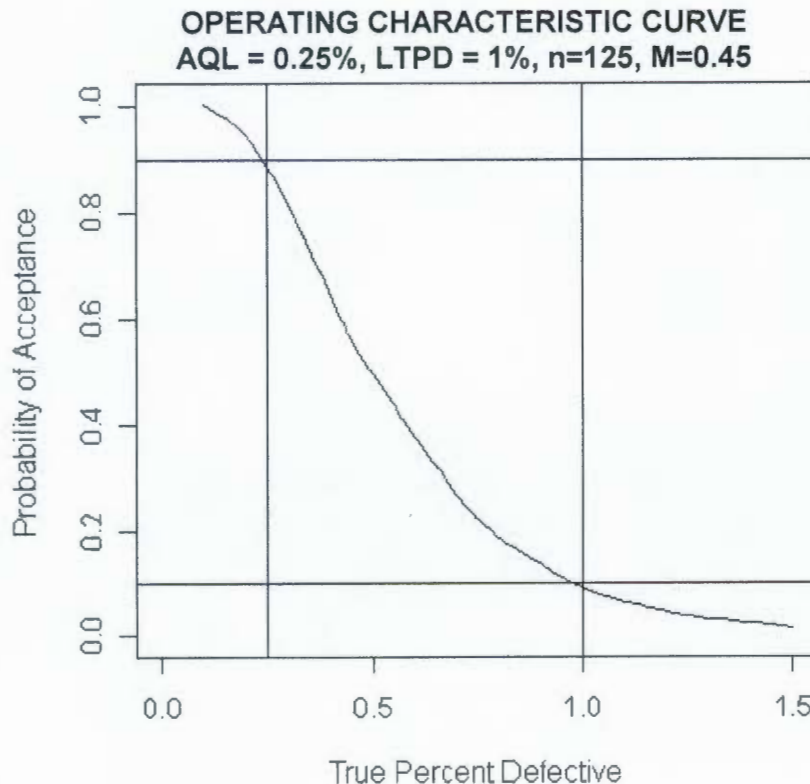
rejected. The probability of accepting an LTPD is defined as the percent lot defective accepted only 10 % of the time and represents the Consumer Risk (Beta). For New meters variables plan LTPD = 1 %.

- d. Known Variance - Testing for Known Variance is not used since it requires large samples to be pulled in order to achieve the desired levels of Type 1 and Type 2 risks. All tests by variables will be conducted using Unknown Variance criteria.
 - e. Unknown Variance - All tests by variables will be conducted using Unknown Variance criteria. There will only be one sample size (125 meters) for all shipments. Lots less than (125) will be 100 % tested.
4. Plan Hypotheses and Risk - The null hypothesis, alternate hypothesis, probabilities for committing Type I & Type II errors, and criteria for acceptance or rejection of the null hypothesis are as follow:
- a. Null Hypothesis - That the fraction of a group of new meters that are within 98 % and 102 % accuracy is 99.75 % or greater.
 - b. Alternate Hypothesis - That the fraction of a group of new meters that are within 98 % and 102 % accuracy is less than 99.75 %.
 - c. Type I Error - The probability for committing a Type I Error (Producer's Risk or α error) is determined from the Operating Characteristic curves for this plan (Figure 2). It is found by using the appropriate lot size to select the Operating Characteristic Curve of the sample under review, then finding the point where the OC curve intersects the AQL value. Probability of Acceptance is read from the left axis and the Probability for committing a Type I Error is calculated by subtracting this Probability of Acceptance from 100 %.
 - d. Type II Error - The probability for committing a Type II Error (Consumer's Risk or β error) is determined from the Operating Characteristic curves for this plan (Figure 2). It is found by using the Typical Operating Characteristic Curve of the sample under review, then finding the point where the OC curve intersects the LTPD value. Probability of Acceptance is read from the left axis and the Probability for committing a Type II Error is equal to this Probability of Acceptance.
 - e. Criteria - The Null Hypothesis is accepted if the lot percent defective is less than or equal to the maximum allowable percent defective (M). The Null Hypothesis is rejected if the lot percent defective is greater than the maximum allowable percent defective (M).

FPL Metering Device Test Procedures & Test Plans

5. Meter Groups - This variables plan is applied to groups of meters segregated by characteristics such as manufacturer, model, and methods of construction likely to affect the meter's performance.
6. Prior Approval - This variables random sampling plan differs from the previously approved plan as a result of removing the test for known variance. Omitting this test and using the unknown variance ensures that the desired quality levels are achieved while avoiding the large sample sizes required to correctly determine known variance.
7. A high-level flow chart for this plan is attached in Appendix A

Figure 2 – Operating characteristic curve for new meters Variables plan, Variance Unknown



FPL Metering Device Test Procedures & Test Plans

I. Attributes Plan For In Service Meters - FPL utilizes the following Attributes

Random Sampling Plan in the testing of in service meters and associated metering devices:

1. FPL's attributes random sampling plan for In-service meters and associated metering devices is based on procedures in Military Standard 105 - Sampling Procedures and Tables for Inspection by Attributes. FPL's Attribute Plan for New Meters uses a custom Operating Characteristic (OC) Curve based on the Acceptance Quality Level (AQL) and the Lot Tolerance Percent Defective (LTPD).
2. Attributes Plan - An attributes sampling plan is used to test a sample of items to determine the number of items in the sample that perform according to certain specifications and to make an inference regarding the fraction of items in the entire population that perform according to those specifications. For each item, its "attribute" is whether it is defective. A population is accepted or rejected based on the number of defective items in the sample.
3. Plan Description - In FPL's application of the attributes procedure, one sample is drawn from each lot, and if the number of defective meters for the particular sample size is reached, then the lot is rejected (Table 3).
4. Statistical Design - The FPL attributes plan for in service meters is similar to Military Standard 105, to test whether the fraction of its in service meters that are within 98 % and 102 % accuracy, is greater than 97.5 % Plan design details are as follows:
 - a. Specification Limits - The specification limits of this plan are 98 % and 102 % meter accuracy.
 - b. AQL - The Acceptable Quality Level (AQL) of this plan is 2.5 %.
 - c. LTPD - The Lot Tolerance Percent Defective (LTPD) defines the unsatisfactory quality, the percentage of accepting a lot that should be rejected. The probability of accepting an LTPD is defined as the percent lot defective accepted only 10 % of the time and represents the Consumer Risk (Beta). For in-service attributes plan LTPD = 8 %.
 - d. Sample Sizes and Acceptance Numbers are determined from Table 3 AQL of 2.5 %.

FPL Metering Device Test Procedures & Test Plans

Table 3 - In-service Attributes Plan Sample, Lot and Acceptance Numbers

Lot Size	Sample Size	Acceptance Number
16 – 25	Full inspection	1
26 – 40	Full inspection	1
41 – 65	Full inspection	2
66 – 110	46	2
111 – 180	53	2
181 – 300	71	3
301 – 500	92	4
501 – 800	95	4
801 – 1300	96	4
1301 – 3200	97	4
3201 – 8000	98	4
8001 – 22000	98	4
22001 - 110000	98	4
110001 - 550000	98	4
550001+	98	4

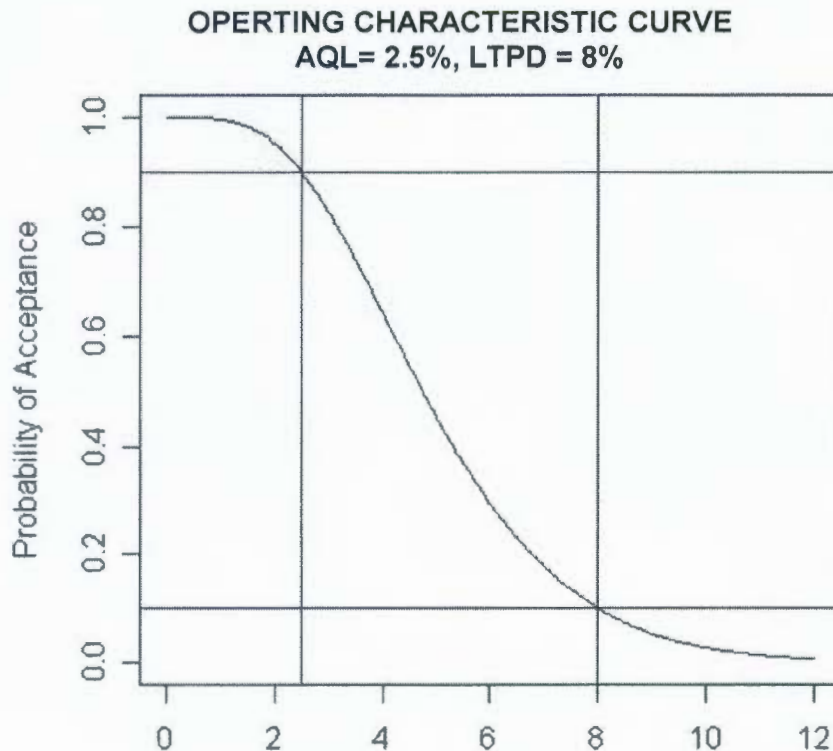
5. Plan Hypotheses and Risk - The null hypothesis, alternate hypothesis, probabilities for committing Type I & Type II errors, and criteria for acceptance or rejection of the null hypothesis are as follow:
 - a. Null Hypothesis - That the fraction of a group of in service meters that are within 98 % and 102 % accuracy is 97.50 % or greater.
 - b. Alternate Hypothesis - That the fraction of a group of in service meters that are within 98 % and 102 % accuracy is less than 97.50 %.
 - c. Type I Error - The probability for committing a Type I Error (Producer's Risk or α error) is determined from the Operating Characteristic curves (see next page) for this plan. It is found by using the appropriate lot size to select the Operating Characteristic Curve of the sample under review, then finding the point where the OC curve intersects the AQL value. Probability of Acceptance is read from the left axis and the Probability for committing a Type I Error is calculated by subtracting this Probability of Acceptance from 100 %.
 - d. Type II Error - The probability for committing a Type II Error (Consumer's Risk or β error) is determined from the Operating Characteristic curves (see

FPL Metering Device Test Procedures & Test Plans

next page) for this plan. It is found by using the Typical Operating Characteristic Curve of the sample under review, then finding the point where the OC curve intersects the LTPD value. Probability of Acceptance is read from the left axis and the Probability for committing a Type II Error is equal to this Probability of Acceptance.

- e. Criteria - The Null Hypothesis is accepted if the number of defective meters is equal to or less than the Acceptance Number. The Null Hypothesis is rejected if the number of defective meters is equal to or greater than the Rejection Number
6. Meter Groups - This attributes plan is applied to groups of meters segregated by characteristics such as manufacturer, model, meter form, class volts, class amp and methods of construction, likely to affect the meter's performance.
7. Prior Approval - This approach to sampling by attributes is consistent with FPL's previously approved plan. In addition, this approach applies more conservative criterion with regard to tightening the AQL and clearly defining the LTPD.
8. A high-level flow chart for this plan is attached in Appendix B.

Figure 3 - Operating characteristic curve for In-service Attributes Plan



FPL Metering Device Test Procedures & Test Plans

J. Variables Plan For In Service Meters- FPL utilizes the following Variables Random Sampling Plan in the testing of in service meters and associated metering devices:

1. FPL Variables Plan – FPL's variables sampling plan for testing in-service meters and associated metering devices is based on a design that requires an Anderson-Darling Test to determine if the distribution of the meter test results in the sampled lots are normally distributed. This determines if a sampling by variance approach can be used. FPL's Variable Sampling Plan for new meters uses an Operating Characteristic (OC) Curve based on the Acceptance Quality Level (AQL) and the Lot Tolerance Percent Defective (LTPD) and a methodology consistent with Military Standard 414 - Sampling Procedures and Tables for Inspection by Variables. If the Anderson-Darling Test does not confirm the distribution to be normally distributed, additional analysis is performed to calculate the percentage of contamination, standard deviation ratio and percent defective using Sampling by Variables, Variance Unknown. If the percent contamination is less than or equal to 1 % and the variance is less than or equal to 2, or if the percent of contamination is between 1 % and 5 % and the estimated fraction defective is above 4 %, Sampling by Variables, Variance Unknown can be used. If Sampling by Variables, Variance Unknown cannot be used then the Sampling by Attributes Plan will be used. If the Anderson-Darling Test confirms the historical meter data to be normally distributed a Statistical Process Control analysis must still be performed to determine if the historical data is in control and can be evaluated using the Variables, Variance Known process.
2. Variables Plan - A variables sampling plan is used to estimate an average for a particular characteristic and then to estimate the fraction of items in a population which meet a particular specification. The estimate of the fraction is based on the estimated average and either a "known" measure of variability estimated from previous testing or an estimate of "unknown" variability calculated from the actual current sample meters. The "variable" is the characteristic measured to estimate the average and possibly the variance for the population. FPL's variables sampling plans are termed either "known variance sampling plans" or "unknown variance sampling plans". The variable in a variables meter sampling plan is percent accuracy of the meter.
3. Statistical Design - The FPL variables plans for in service meters uses a methodology consistent with Military Standard 414 to test whether the fraction of its in service meters that are within 98 % and 102 % accuracy, is greater than or equal to 97.5 % Plan design details are as follows:
 - a. Specification Limits - The specification limits of this plan are 98 % and 102 % meter accuracy.
 - b. AQL - The Acceptable Quality Level (AQL) of this plan is 2.5 %.

FPL Metering Device Test Procedures & Test Plans

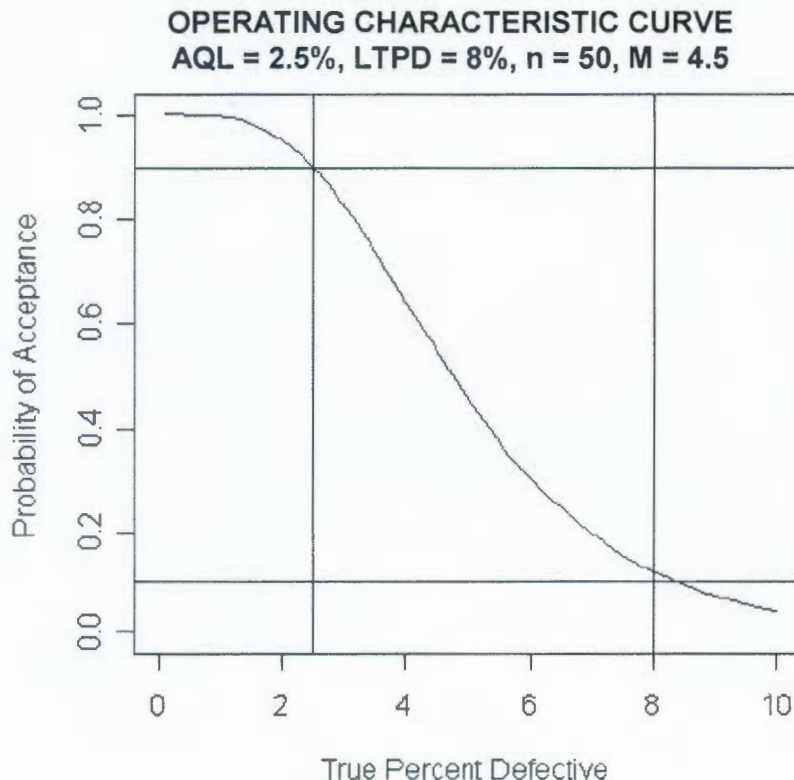
- c. LTPD - The Lot Tolerance Percent Defective (LTPD) defines the unsatisfactory quality, the percentage of accepting a lot that should be rejected. The probability of accepting an LTPD is defined as the percent lot defective accepted only 10 % of the time and represents the Consumer Risk (Beta). For in-service variables plan LTPD = 5 % for variance known and 8 % for variance unknown.
 - d. Sample Sizes are as follows: For Variance Known, 9 meters and for Variance Unknown, 50 meters.
 - e. Known Variance - Known Variance sampling is used when all the criteria has been met to statistically justify this approach. The population has passed the Anderson-Darling Test to show the data is normally distributed and the Statistical Process Control (SPC) analysis shows the process is stable
 - f. Unknown Variance - Unknown Variance sampling is used whenever the criteria for sampling by Variance Known is not met.
4. Plan Hypotheses and Risk - The null hypothesis, alternate hypothesis, probabilities for committing Type I & Type II errors, and criteria for acceptance or rejection of the null hypothesis are as follow:
- a. Null Hypothesis - That the fraction of a group of in service meters that are within 98 % and 102 % accuracy is 97.5 % or greater.
 - b. Alternate Hypothesis - That the fraction of a group of in service meters that are within 98 % and 102 % accuracy is less than 97.5 %.
 - c. Type I Error - The probability for committing a Type I Error (Producer's Risk or α error) is determined from the Operating Characteristic curves for this plan (Figures 4 & 5). It is found by using the appropriate lot size to select the Operating Characteristic Curve of the sample under review, then finding the point where the OC curve intersects the AQL value. Probability of Acceptance is read from the left axis and the Probability for committing a Type I Error is calculated by subtracting this Probability of Acceptance from 100 %.
 - d. Type II Error - The probability for committing a Type II Error (Consumer's Risk or β error) is determined from the Operating Characteristic curves for this plan (Figures 4 & 5). It is found by using the Typical Operating Characteristic Curve of the sample under review, then finding the point where the OC curve intersects the LTPD value. Probability of Acceptance is read from the left axis and the Probability for committing a Type II Error is equal to this Probability of Acceptance.
 - e. Criteria - The Null Hypothesis is accepted if the lot percent defective is less

FPL Metering Device Test Procedures & Test Plans

than or equal to the maximum allowable percent defective (M). The Null Hypothesis is rejected if the lot percent defective is greater than the maximum allowable percent defective (M).

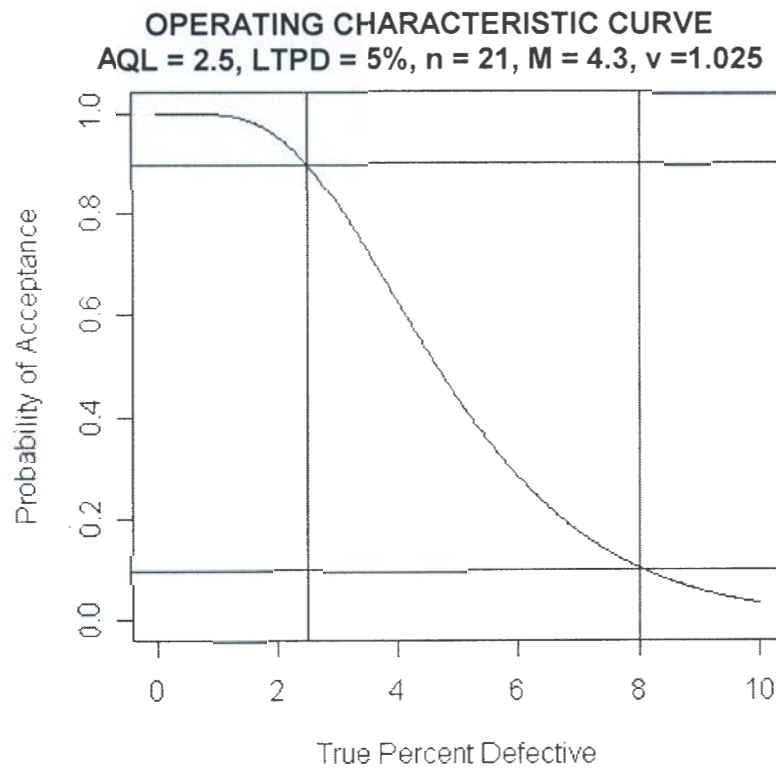
5. Meter Groups - This variables plan is applied to groups of meters segregated by characteristics such as manufacturer, model, meter form, class volts, class amp and methods of construction, likely to affect the meter's performance.
6. Prior Approval - This approach to sampling by variables is consistent with FPL's previously approved plan. In addition, this approach applies more conservative criterion with regard to tightening the AQL and clearly defining the LTPD.
7. A high-level flow chart for this plan is attached in Appendix B.

Figure 4 - Operating Characteristic Curve for In-service Variables plan, Variance Unknown



FPL Metering Device Test Procedures & Test Plans

Figure 5 - Operating characteristic curve for In-service Variables plan, Variance Known



FPL Metering Device Test Procedures & Test Plans

IX. Recordkeeping

- A. General - A test record is made whenever a unit of metering equipment is tested, but need not be retained after the equipment is again tested.
- B. Test Record Contents - The test record will show the following information:
1. Identification of the unit - FPL identification, manufacturer name and serial number, manufacturer model number.
 2. Equipment with which the unit is associated.
 3. The date of test.
 4. Reason for the test.
 5. Readings before and after the test.
 6. If the meter creeps, a statement as to the rate of creeping.
 7. The "as found" accuracy.
 8. A statement of repairs made, if any.
 9. Identification of the person making the test.
 10. The completion of each test will signify that the "as left" accuracy falls within the required limits specified in Florida Administrative Code (FAC) Rule 25-6.052, unless the meter is to be retired.
- C. Accounting Information - FPL maintains a record for each unit of metering equipment which contains the following information:
1. The date the unit was purchased, if available.
 2. The utility's identification.
 3. Associated equipment.
 4. Essential name plate data.
 5. Date of test.
 6. Results of "as found" test.
 7. Current location where installed with date of installation.
- D. Records of Tests for Incoming Purchases - FPL maintains its test records for each purchase of new meters and associated metering devices in such a manner that the following information can be readily compiled and made available to the Commission upon request:
1. Type of meter, including manufacturer, model number, and any features which will subsequently be used to classify the meters purchased into a population of meters for in-service tests.
 2. The number of meters purchased.
 3. The total number of meters tested.

FPL Metering Device Test Procedures & Test Plans

4. The number of meters tested measuring each percent registration recorded - This count of meters tested by percent registration will be provided to a resolution of 0.1 %.
5. Average percent registration for the lot tested - **x bar**.
6. Variance about the average percent registration (population or sample variance) - **sigma**.
7. Results regarding whether the meters tested meet FPL's acceptance criteria.

Data provided by equipment manufacturers concerning units tested on a one hundred percent basis by the manufacturer, with the manufacturer's test results used as a basis for acceptance testing, is also retained and identified as such.

- E. Records of Periodic and Annual In-Service Meter Tests - FPL maintains its test records for each periodic and annual in-service test of electric meters and associated metering devices in such a manner that the following information can be readily compiled and made available to the Commission upon request:
1. Type(s) of meter, including manufacturer, model number, and any features which are currently used to classify the meters tested into a population of meters for in-service tests.
 2. The number of meters in the population.
 3. The total number of meters tested.
 4. The number of meters tested measuring each percent registration recorded - This count of meters tested by percent registration will be provided to a resolution of 0.1 %.
 5. Average percent registration for the lot tested - **x bar**.
 6. Variance about the average percent registration (population or sample variance) - **sigma**.
 7. Results regarding whether the meters tested under an approved random sampling plan meet FPL's acceptance criteria.
 8. A statement of the action to be taken to make further tests or replace inaccurate meters, when the meters tested under an approved random sampling program do not meet the acceptance criteria.

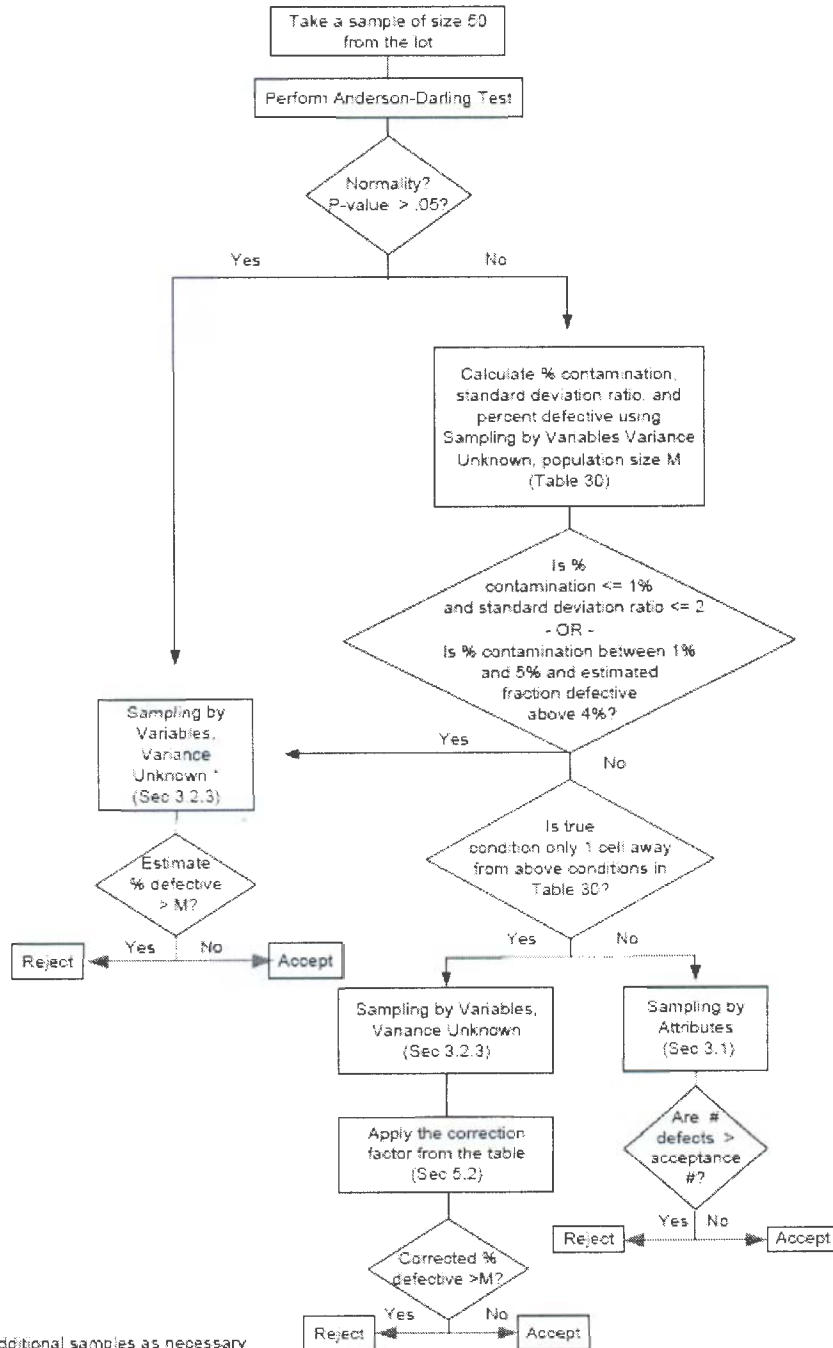
FPL Metering Device Test Procedures & Test Plans

- F. Meter Data Collection System - All FPL meter test records required to satisfy the recordkeeping requirements of this section reside in an automated Data Collection System. Each test record contains various codes and the raw data elements to provide for the generation of each needed report.
- G. Reports - Reports discussed in the preceding sections of this document, necessary to satisfy the requirements of the Florida Administrative Code are generated upon demand. In general, reports are generated as needed from the raw data residing the Meter Data Collection System. Reports may be of two types:
1. Production Reports - Production reports needed to satisfy the daily operational requirements of FPL are generated on the Meter Data Collection System directly. An example of a report of this type is the Sample Acceptance Report on a shipment of new meters.
 2. Annual Reports - Reports needed to satisfy the periodic or annual in-service testing requirements of FPL are generated by FPL's Meter Engineering Department. Raw data from the Meter Data Collection System is extracted and provided to meter engineering, where it is used to generate all required reports. An example of a report of this type is FPL's Watthour Meter Sample Test Report for In-Service Meters.

FPL Metering Device Test Procedures & Test Plans

Appendix A

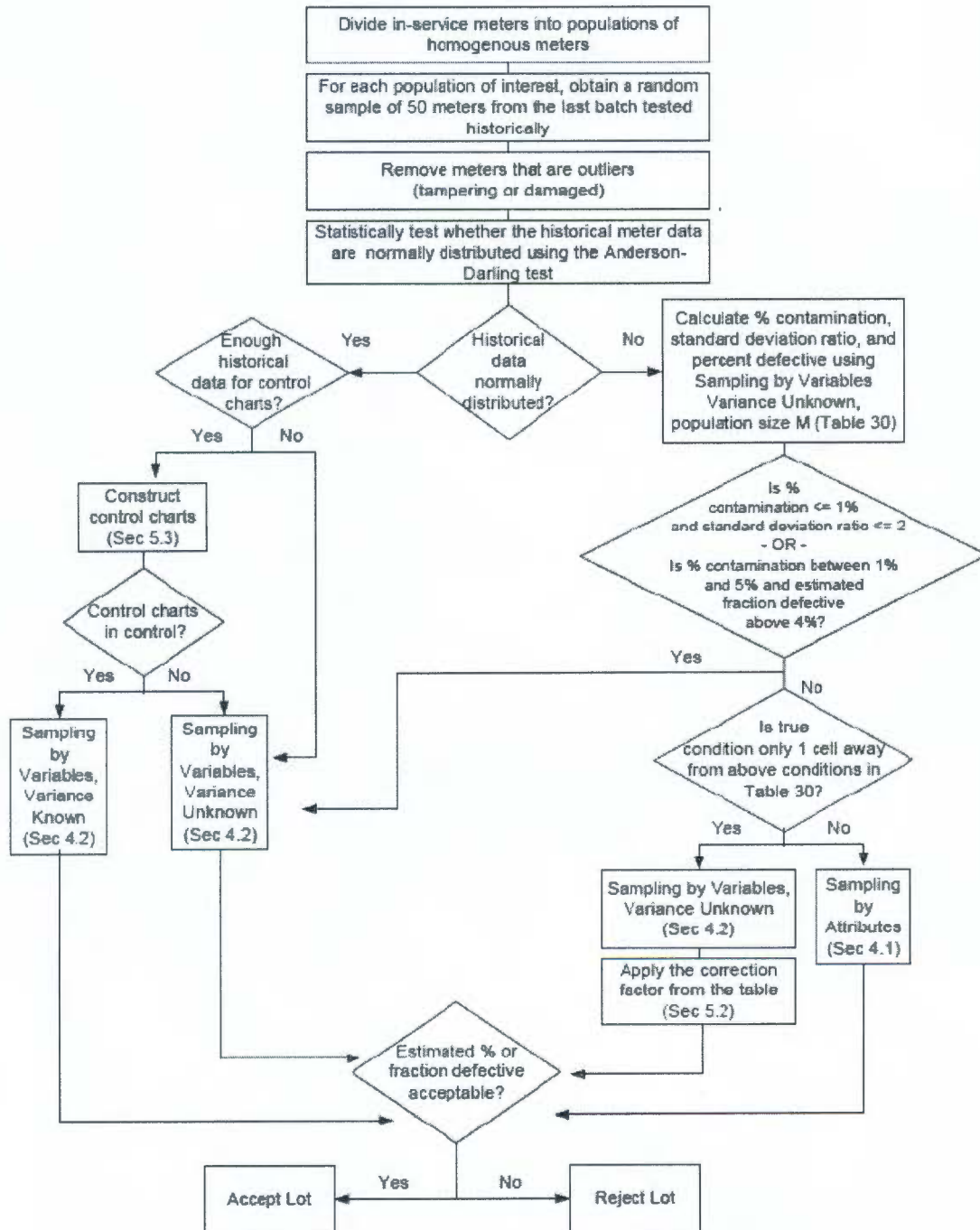
High Level Flow Chart for New Lots Sample Plan



FPL Metering Device Test Procedures & Test Plans

Appendix A

High Level Flow Chart for In-service Sample Plan



QUESTION

Please refer to the testimony of witness Onsgard at page 21, lines 9 through 18.

- a. Please describe in greater detail the "identified costs that were not included in original projections and were not included in either the Enrollment Fee or the Monthly Surcharge."
- b. Please confirm the Company's understanding that if the Remaining Up-Front and One Time Cost to be paid in Monthly Surcharge were to be recovered in five years, consideration should be given to reducing the Monthly Surcharge by \$4.65 beginning in June 2019.

RESPONSE

- a. An example of incremental costs not initially identified, and therefore omitted from the NSMR tariff filing, is the work done by FPL's Customer Advocacy group which:
 - Handles all elevated calls from the Care Center regarding the opt-out program, ensuring that customers receive accurate, customer-focused, thorough communications about the NSMR program and fees;
 - Ensures that elevated NSMR questions/issues have proper processes, policies and consistent messaging for resolution;
 - Handles all calls, including calls regarding 45-day grace period cancelations and assures that these requests are worked accurately and in a timely manner;
 - Developed processes to address manual "exception" handling, ensuring that the NSMR customer status is correct in the system and that meter change orders are processed accurately; and
 - Manually reviewed all first-cycle billings for NSMR customers to further ensure that all charges were appropriate.

For the period from January through June, 2014 FPL has incurred incremental costs of more than \$300,000 for these Customer Advocacy activities, which would equate to an additional \$0.75 per month for NSMR customers based on the approximately 6,700 customers currently enrolled. Some Customer Advocacy activities will continue throughout the NSMR program.

- b. If in fact all up front and one time costs are recovered over the next five years (which seems unlikely in light of current NSMR enrollment levels), and if there are no changes to the incremental costs or required processes to deliver non-standard meter service prior to June 2019, (which FPL believes is also unlikely), it would be logical that consideration should be given to reduce the Monthly Surcharge by \$4.65 at that time.

QUESTION

Please refer to the testimony of witness Onsgard at page 5, lines 14 through 21. Please explain whether or not FPL's decision to defer analysis of the feasibility of an opt-out program until after standard meter deployment was completed affected the costs associated with the NSMR program.

RESPONSE

No, it did not. The incremental costs required to provide the non-standard meter service are unique and specific to that service, and did not increase by waiting until deployment was completed. In fact, waiting until the end of deployment saved opt-out customers up to four years of non-standard service charges that would have been in effect if NSMR enrollment was undertaken during smart meter deployment. Additionally, if NSMR enrollment had been undertaken in conjunction with deployment, the opt-out charges would have been based on significantly less accurate assumptions, as costs could not have been reasonably determined and the opt-out population could not have been reasonably projected at that time.

QUESTION

Please refer to the Company's response to OPC's First Set of Interrogatories, Interrogatory No. 8. In its response to the Interrogatory, FPL asserts that the Company "does not avoid any costs associated with purchasing and installing a smart meter when an existing customer declines a smart meter." Please identify other AMI meter program costs besides purchase/installation of a smart meter, if any, which potentially may be avoided if a customer does not accept a smart meter.

RESPONSE

FPL has identified only one minor area where costs potentially may be avoided if a customer does not accept a smart meter. This is for costs associated with smart meter communication failures that were not reflected in FPL's incremental cost study. While both smart meters and non-standard meters require costs to maintain, FPL has determined that the Company spends approximately \$0.07 more per month per meter for smart meter communication repairs. However, the incremental non-standard meter costs associated with Customer Advocacy described in FPL's response to Staff's First Set of Interrogatories No. 7 that were omitted from FPL's NSMR tariff filing far outweigh the \$.07 per month associated with the smart meter communication failures.

QUESTION

Please refer to the testimony of witness Onsgard, Exhibit RAO-4, Page 12 of 15. Please state whether or not consideration was given to having separate charges for "Field Visits for Collections" and "Disconnect/Reconnect" field visits such that only the NSMR customers who required such services would pay the incremental costs rather than the entire body of NSMR customers.

RESPONSE

FPL did consider separate service charges for "Field Visits for Collections" and "Disconnect/Reconnect" field visits, but ultimately rejected this approach. Establishing separate fees in this manner would have unnecessarily increased the cost of these services by requiring changes to FPL's customer information systems. This approach would have also required Commission approval of the two separate tariffed charges. Consistent with the Company's treatment of the other incremental costs associated with this optional service, FPL instead projected the total costs and allocated those costs to the projected population of NSMR customers.

QUESTION

Please refer to the testimony of intervenor Martin at page 7, lines 5 through 9. Please explain why the Company filed a separate petition for the NSMR tariff rather than handling it in the context of a general rate proceeding.

RESPONSE

FPL filed a separate petition to timely offer customers the opportunity to choose to receive electric service pursuant to a non-standard meter option. It would not have been appropriate to wait to address this in a general rate proceeding. As stated in FPL witness Deason's rebuttal testimony at page 8, line 19 through page 9 line 3, "... the timing of rate cases can be uncertain. If efforts to control regulatory lag are successful and increases in uncontrollable costs are minimal, the amount of time between rate cases can be several years. During this time, there will be the need to introduce new services or make changes to existing services. Requiring rate cases to address these tariff changes would be both inefficient and disruptive to meeting customer needs in a timely manner. It would also be difficult to meet changing regulatory requirements, changing technologies, and changing economic conditions." In addition, waiting until the next rate case to propose the NSMR tariff would result in unnecessary regulatory lag and would unduly extend the time during which NSMR customers would not bear the expenses associated with the non-standard meter service they have selected.

QUESTION

Please refer to the testimony of intervenor Martin at page 10, lines 1 through 4. Since the Company has chosen to file a separate petition for a NSMR tariff outside of a general rate proceeding, please explain why it would not be more appropriate to file a NSMR petition in 2015.

RESPONSE

FPL filed the NSMR tariff in August 2013 to timely offer customers the opportunity to choose to receive electric service pursuant to a non-standard meter option. This action was taken by FPL once the incremental costs of providing that non-standard meter service could reasonably be determined and FPL could reasonably project the potential population of customers who would take such service. In addition, waiting until 2015 to propose the NSMR tariff would result in unnecessary regulatory lag, would unduly extend the time during which NSMR customers would not bear the expenses associated with the non-standard meter service they have selected, and would unnecessarily delay giving appropriate price signals.

QUESTION

Please refer to the testimony of intervenor Martin at page 21, lines 12 through 17, and Exhibit MM-2. Please explain why the \$145.36 presented as a potential avoided unit cost of not installing a standard AMI meter should not be considered as an offset to the NSMR program costs per customer.

RESPONSE

The \$145.36 cited in witness Martin's Exhibit MM-2 was an estimate of the per meter capital cost of the smart meter project from FPL's last base rate case, Docket No. 120015-EI. As a cost recovery principle, deployed capital is recovered from all customers over the useful life of the asset through rates and charges for standard electric service. In Order No. PSC-10-0153-FOF-EI, the Commission authorized the Company to recover the AMI meters (Plant Account 370.10) using a 20-year life. The fact that NSMR customers have elected to take non-standard service does not relieve FPL from the obligation to provide standard service to all customers should they elect in the future. Therefore, witness Martin's assertion that there were avoided capital costs that could offset NSMR costs is not correct.

QUESTION

Please refer to the testimony of intervenor Martin at page 21, lines 22-23, page 22, lines 1-3, and Exhibit MM-2. Please explain why the \$22.82 presented as a potential avoided unit cost of not retiring the existing meter on NSMR customers' premises should not be considered as an offset to the NSMR program costs per customer.

RESPONSE

The calculation provided by Witness Martin in Exhibit MM-2, "AMI Project Costs to Retire Old Meters" is not accurate. The \$101 million relates to the net book value related to analog meters (Plant Account 370) which was estimated during the last depreciation study prepared during 2008 and filed in Docket No. 090130-EI. This amount was ordered to be offset against the estimated reserve surplus reflected in Order No. PSC-10-0153-FOF-EI. The amortization was completed prior to the last rate case for which current base rates are set. Amounts presented in Docket No. 120015-EI did not include any amount of amortization costs to offset incremental NSMR costs. Therefore, there is no correlation between the two numbers and thus should not be used to depict "Cost per Meter" avoided, or considered an offset to NSMR participants.

Additionally, regardless of the manner in which the amortization of legacy meters was accounted for, FPL does not account for mass property, like meters, on a customer specific basis. It would not be appropriate, nor currently possible, for FPL's accounting systems to try to track mass property on a customer specific basis.

QUESTION

Please refer to the testimony of intervenor Martin at page 22, lines 5-16. Please explain why having a full inventory of standard AMI meters does not provide a benefit to the general body of ratepayers.

RESPONSE

Having a full meter inventory does provide a benefit to the general body of customers, including NSMR customers. As stated in witness Onsgard's rebuttal testimony at page 18, lines 3 through 8, "FPL's inventory balance cost is borne by, and provides benefits to, our general body of customers, including NSMR customers. FPL maintains inventories of smart meters to provide required standard service within our service territory. The fact that NSMR customers have elected to take non-standard service does not relieve FPL from the obligation to provide standard service to all customers should they so elect at any time."

QUESTION

Please refer to the testimony of intervenor Martin at page 24, lines 4 through 21. Please explain why the identified potential avoided AMI meter-related variable costs of data resource management, repairs to AMI meter communication components, Energy Dashboard assistance calls, and depreciation impacts should not be considered as an offset to the costs of administering the NSMR program to NSMR customers.

RESPONSE

As stated by FPL witness Onsgard in his rebuttal testimony at page 20, line 17 through page 22, line 9, "FPL completed its comprehensive analysis of non-standard meter costs and savings, and in the following areas determined there were no cost savings related to providing non-standard service:

1. "Big Data" storage and software licensing: FPL incurs these costs on an enterprise-wide basis. As stated for smart meter inventory, the fact that NSMR customers have elected to take non-standard service today does not relieve FPL from the obligation to be ready to provide standard service to all customers should they so elect at any time. Additionally, FPL is not able to adjust this enterprise-wide, vendor-supplied storage capacity or software licensing on an ad-hoc basis for the small population of non-standard customers.
2. Energy Dashboard savings from reduced calls to the care center from non-standard service customers because they do not have access to the dashboard: FPL performed a review to determine if the Company actually received reduced calls to the care center due to NSMR customers not calling about the energy dashboard. There are no savings; having a smart meter vs. not having a smart meter did not change the care center call rate between the two populations. The number of calls received asking general questions about the energy dashboard or calls inquiring about high bills from both populations were nearly identical.
3. Reduced workload because non-standard meter customers would not require customer service representatives to activate their smart meter or enroll non-standard meter customers in other smart meter services: There are no non-standard meter customer cost savings related to these items. Customer service representatives do not spend any time activating smart meters and there are no other smart meter services that require enrollment. NSMR customers are actually a cost driver in the activation process since they must be re-routed to non-activated routes.

4. Depreciation savings from longer useful lives of non-communicating meters: There are no depreciation savings from the NSMR program. In fact, non-standard meter customers actually require FPL to maintain inventories of non-standard meters for repairs, as well as smart meters in case the non-standard service customer moves or requests standard smart meter service.

FPL did identify costs associated with smart meter communication failures that were not reflected in its incremental cost study that was completed prior to the filing of the Petition for Approval of Optional Non-standard Meter Rider on August 21, 2013. While both smart meters and non-standard meters require costs to maintain, FPL determined that the Company spends approximately \$0.07 more per month per meter for smart meter communication repairs.

The incremental non-standard meter costs associated with Customer Advocacy that were omitted from FPL's NSMR tariff filing, as described in FPL's response to Staff's First Set of Interrogatories No. 7, far outweigh the \$.07 per month associated with the smart meter communication failures.

QUESTION

Please refer to the testimony of intervenor Martin at page 28, lines 1-4. Please explain why the identified potential avoided OSHA-related costs of Company personnel conducting field work to service AMI meters should not be considered as an offset to the costs of administering the NSMR program to NSMR customers.

RESPONSE

FPL will incur incremental OSHA related costs due to field personnel continuing to be in the field to service non-standard meters. As stated by witness Deason in his rebuttal testimony at page 4, lines 11 through 15, "Under an incremental cost approach, it is only the incremental costs of the optional service that are relevant and not the costs reflected in existing base rates." In this instance, the OSHA-related costs referred to in witness Martin's testimony would not be incurred but for the NSMR program, and such incremental costs should properly be borne by customers electing the optional non-standard meter service.

QUESTION

Please refer to the testimony of intervenor Martin at page 29, lines 22-23, and page 30, lines 1 through 4. Also, please refer to the testimony of witness Onsgard, Exhibit RAO-4, Page 14 of 15, and to the Company's response to OPC's First Request for Production of Documents, POD 3, filename "130223 - OPC's POD 3 - 130223-E part 3 of 3.pdf", FPL Bates stamp number 001618 NSMR. Please elaborate in greater detail regarding the prospective duties and responsibilities of the NSMR project manager position subsequent to the completion of the initial program enrollment period.

RESPONSE

The administration of this project is complex and the accounting oversight critical to the proper billing and reporting of the project. Two things are important to note regarding the project management cost. First, FPL has included one equivalent full-time position in the cost structure; however, during the initial phase of this project, as FPL expected, substantially more than one full-time position has been necessary. Second, and perhaps most significant, FPL should have reflected the project management costs as a fixed cost in FPL's petition, but they were included as a variable cost. Project management cost will be essentially the same regardless of the participation levels. The costs for project management will only be recovered at the 12,000 participant level originally projected. If current enrollment levels remain at approximately half this projected participation level, FPL will only recover approximately half of the project management cost.

The high-level duties and responsibilities of NSMR project management are:

- Overall project management responsibilities of NSMR program
 - o Billings – Maintain and monitor controls over NSMR billings to ensure billings are accurate
 - o Meter Change Orders – Maintain and monitor controls over meter change orders to ensure NSMR customers who enroll receive timely installation of non-standard meters
 - o Systems Changes – Monitor other system changes that could affect NSMR billing and support, including all interfaces to field work management systems as well as future system enhancement that smart meters may provide
 - o Process Management - Monitor related processes for change and improve as needed
 - o On-Going Enrollments - Oversight of customers coming in and out of program

- Overall on-going cost accounting structure responsibilities to capture payroll and non-payroll costs related to NSMR across many business units
- Overall metrics and reporting responsibilities for NSMR Project Key Measures to be used in monthly management reporting and annual reporting to Commission
 - o Total Billings, Capital and O&M Costs
 - o Care Center Costs and Call Volumes
 - o Field Meter Non-Standard Meter Costs and Site Visits
 - o Meter Reading Costs and Number of Reads
 - o Meter Sampling Costs and Site Visits
 - o Non-Standard Meter Inventories
 - o NSMR Billing Support Costs
 - o Collection Costs and Site Visits
 - o Connect and Disconnect Costs and Visits
 - o Distribution Outage Costs and Field Visits
 - o Storm Restoration Costs and Field Visits
 - o Credits given customers through 45 Day Grace window
 - o Customer Advocacy Costs
 - o Delinquent Account Status
 - o Track and report NSMR enrollment activity from:
 - § Web Site
 - § Tear Off Mailer
 - § Call Center Calls

QUESTION

Please refer to the testimony of intervenor Martin at page 31, lines 7 through 16. Please explain any disadvantages/ problems with offering NSMR customers an alternative to FPL manual monthly meter readings such as the use of estimated readings or customer self-reads.

RESPONSE

There are both operational and procedural disadvantages with using estimated readings or customer self-reads. Operationally these methods cannot be used in and of themselves for accurate meter reading as they require Company meter readings to true up the accounts which result in over/under billings that adversely impact either the customer or the Company. Also many customers would not be willing or able to conduct self-reads.

As discussed in witness Onsgard's rebuttal testimony at page 13, lines 6 through 18: "Accurate and timely meter reading is a fundamental responsibility for all utilities to properly bill customers. FPL does not believe either self-reads or estimated bills are appropriate methods for the primary controls over reading meters and billing customers. The Commission's rules also disfavor self-read and estimated bills. Rule 25-6.099, Florida Administrative Code, provides that "meters *shall* be read at monthly intervals on the approximate corresponding day of each meter-reading period" unless special circumstances warrant. Also, Rule 25-6.100(1) directs that "bills shall be rendered monthly and as promptly as possible following the reading of meters," which expresses the Commission's preference that bills be based on actual meter readings. More to the point, Rule 25-6.100(3) states that "estimated bills may be submitted" only "when there is sufficient cause."

QUESTION

Please refer to the testimony of intervenor Martin at page 15, lines 19 through 23. Are there incremental costs associated with FPL Budget Billing? If yes, please describe the costs and explain how a customer pays for Budget Billing. If no, please explain why not.

RESPONSE

FPL Budget Billing was implemented in the early 1980's pursuant to Commission Order No. 10047 (Docket 800110-EU) which directed all investor owned electric utilities to design such programs immediately. As the Commission acknowledged in that Order, Budget Billing yields overall benefits to the general body of customers, not just the subscribing population.

Because more than 30 years have passed since FPL Budget Billing was originally implemented, FPL no longer has records of the initial project costs. Budget Billing is now integrated into FPL's customer information system and requires no manual processes. There are no ongoing system personnel costs or annual maintenance expenses attributable to Budget Billing. As with most of our customer services, FPL has incurred cost to develop an online application to allow enrollment on FPL.com, which in turn reduced costs by eliminating calls to FPL's customer care center.

Ongoing incremental costs associated with FPL Budget Billing involve enrollment calls placed to FPL's Customer Care Center. Mass communications to make customers aware of the existence of Budget Billing are not charged to the program participants; the same is true for communications to FPL's general body of customers regarding the NSMR Program. In sum, elimination of Budget Billing would not result in any savings to customers, whether participants or the general body of customers.

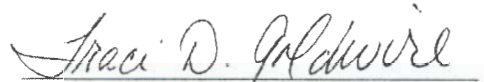
AFFIDAVIT


Robert A. Onsgard

State of Florida)
County of Palm Beach)

I hereby certify that on this 1ST day of August, 2014, before me, an officer duly authorized in the State and County aforesaid to take acknowledgments, personally appeared Robert A. Onsgard, who is personally known to me, and he acknowledged before me that he sponsored the answers to Interrogatory Nos. 1-12, 15, and 17-20, and co-sponsored the answers to Interrogatory Nos. 13, 14 and 16 from Staff's First Set of Interrogatories to Florida Power & Light Company (Nos. 1-20) in Docket No. 130223-EI, and that the responses are true and correct based on his personal knowledge.

In Witness Whereof, I have hereunto set my hand and seal in the State and County aforesaid as of this 1ST day of August, 2014.


Notary Public, State of Florida

Notary Stamp:



AFFIDAVIT

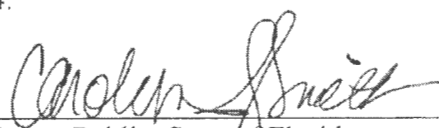

Sol Stamm

State of Florida)

County of Miami-Dade

I hereby certify that on this 31st day of July, 2014, before me, an officer duly authorized in the State and County aforesaid to take acknowledgments, personally appeared Sol Stamm, who is personally known to me, and he acknowledged before me that he co-sponsored the answers to Interrogatory Nos. 13, 14 and 16 from Staff's First Set of Interrogatories to Florida Power & Light Company (Nos. 1-20) in Docket No. 130223-EI, and that the responses are true and correct based on his personal knowledge.

In Witness Whereof, I have hereunto set my hand and seal in the State and County aforesaid as of this 31st day of July, 2014.


Notary Public, State of Florida

Notary Stamp:



12

**FPL's responses to Staff's
Second Set of Interrogatories
Nos. 21-31**

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET: 130223-EI EXHIBIT: 12
PARTY: STAFF
DESCRIPTION: FPL's responses to Staff's
Second Set of Interrogatories, Nos. 21-31 [Bates
Nos. 0064-0082]

QUESTION

Please refer to the rebuttal testimony of witness Onsgard at page 6 of 24, line 6, and the direct testimony of witness Onsgard at Exhibit RAO-4, page 1 of 15, line 8. Please state whether the estimated amount of "Up-Front and One-Time costs per NSMR customer" shown in the rebuttal testimony should be \$362 rather than \$310 based on 12,000 participants.

RESPONSE

No, the estimated amount of Up-Front and One-Time costs as reflected in the original proposed tariff is \$310. The \$362 amount (reflected in Exhibit RAO-4) includes the revenue requirements associated with the Up-Front costs.

FPL's Up-Front and One-Time costs per customer were estimated to be as follows:

Up-Front	\$205.09
One-Time	<u>\$105.35</u>
Sub-total	<u>\$310.44</u>
Revenue Requirements	<u>\$ 51.49</u>
Total	<u>\$361.93</u>

QUESTION

Please refer to the rebuttal testimony of witness Onsgard at page 13 of 24, lines 7 through 9, and to the Company's response to Staff's First Set of Interrogatories, No. 19. Please elaborate in greater detail why "FPL does not believe either self-read or estimated bills are appropriate methods for the primary controls over reading meters and billing customers." Please include references to relevant studies the Company might have in its possession that address the practices of estimated monthly meter readings or submission of monthly meter readings by customers.

RESPONSE

Estimating customer's bills is not the appropriate way to conduct business when actual meter readings can be obtained. Note that customer self-reads are considered by FPL to be estimated readings. Accurate meter readings are a critical step in the Company's financial process and provide the appropriate controls. When using actual meter readings, FPL is ensuring accurate and timely bills are rendered to our customers and accurate revenue is recorded.

FPL does not have any studies that address practices of estimated monthly meter readings or customer reads; however, data has been gathered that shows customers who have received an estimated bill are 16 times more likely to contact the Florida Public Service Commission with a billing complaint than customers that are billed using an actual reading. In addition, as discussed in FPL's response to Staff's First Set of Interrogatories No. 19, there are operational disadvantages with using estimated readings. Operationally these methods cannot be used in and of themselves for accurate meter reading as they require Company meter readings to true up the accounts which result in over/under billings that adversely impact either the customer or the Company. Because estimated bills use historical data, the estimate may become more inaccurate when customers have a short length of service at the property or there has been a significant change in electric usage such as changing out an older air conditioner with a new high efficiency unit. Other operational impacts from estimated billings include increased work in customer accounting due to required billing validations and reviews, the need for manual rereads and re-billing, and increased calls to customer care.

FPL does not currently have a program for customers to send or call in meter readings. If FPL was required to have a customer read program, there are significant costs and operational processes that would need to be understood prior to implementation. In addition to the cost and operational changes required to implement a customer read program, there are potential issues including misreads, not reading on the scheduled read date by customers, and customers who may be unable or unwilling to read their meter. Also, Rule 25-6.100(3) requires "that with the third consecutive estimated bill the company shall contact the customer explaining the reason for the estimated billing and who to contact in order to obtain an actual meter reading," creating additional work that would otherwise not exist.

QUESTION

Please refer to the Company's response to Staff's First Set of Interrogatories, No. 4, Attachment No. 1.

- a. Regarding lines 3, 4, 5, 6, 7, and 11, please explain the reasons for the variances between the "Estimated" and "Actual" costs for the indicated "Task" items.
- b. Please indicate which Tasks were performed by in-house personnel and which Tasks were performed by outside contractors.
- c. Please show additional "Up-Front Non-Standard Meter Program Capital Costs", if any, that the Company has incurred subsequent to the commencement of June 2014 billings.

RESPONSE

- a. Explanation of variances by task;
 - 3 & 4. New billing, financial requirements and other core functionality changes in the Customer Information System ("CIS") for NSMR were completed in 13,722 fewer man hours than was estimated. This was primarily achieved by designing CIS system requirements to take advantage of existing programming code.
 - 5, 6 & 7. Enrollment activities took longer to complete by 14,637 man hours due to: (i) the complexity of the operational changes required around meter change orders, (ii) the automated communications to ensure customers were properly informed about the NSMR program before they were automatically enrolled, (iii) the number and complexity of reports required to flag exceptions was more significant than initially estimated, and (iv) the need for involvement by FPL's technical team during the post-implementation period to facilitate data analysis and clean-up.
 11. The estimate for the collection related programming changes included making modification to multiple user interface screens. During development of these screens, man hours were reduced by 1,287 by limiting the requirements so that only minor changes were needed to fewer screens. Programmatic calculation changes included in the estimate were also eliminated.

- b. Approximate breakdown of technical resources by task:
- | | | |
|--|---------|-----------------|
| 3. Billing and Financial Components: | 50% FPL | 50% contractors |
| 4. Core Functionality: | 40% FPL | 60% contractors |
| 5. Web Enrollment - Enable Customer web self-service enroll functionality: | 40% FPL | 60% contractors |
| 6. Customer System Automation to enroll in opt-out program: | 40% FPL | 60% contractors |
| 7. Care Center - Enrollment: | 40% FPL | 60% contractors |
| 11. Revenue Recovery - Online changes: | 50% FPL | 50% contractors |
- c. Since June 2014, FPL incurred an additional \$2,866 for the allocation of a technical lead programmer that assisted with the data analysis and clean-up after production implementation of the billing changes. FPL is also evaluating additional NSMR system enhancements in 2015 to provide care center representatives with system prompts to automatically offer NSMR service when existing NSMR customers transfer to a new location.

QUESTION

Please refer to the Company's response to Staff's First Set of Interrogatories, No. 6, page 2 of 2, item (c). Please describe how the numbers of non-standard meters to be tested or replaced over the next three years and five years (4,324 and 5,495, respectively) were derived. In your response, please include appropriate references to relevant parts of Attachment No. 1 to Interrogatory No. 6, entitled "Test Procedures and Test Plans for Metering Devices" (FPL, 6/17/08), and explain how they were used to determine the numbers of meters to be tested or replaced.

RESPONSE

The NSMR meters were stratified by manufacturer and meter model into homogenous populations (lots). In accordance with Rule 25-6.056 these populations of In-service meters are required to be sample tested, and if not tested as otherwise required, they should be replaced. The sample sizes of these populations were determined from FPL's Test Procedures and Test Plans for Metering Devices, June 17, 2008 –Table 3. It is by the application of this in-service sample program that the quantities of non-standard meters to be tested or replaced over the next three (4,324) and five years (5,495) were derived. See Attachment No. 1.

FPL NSMR Meter Test Analysis
July 2014

Florida Power & Light Company
Docket No. 130223-E1
Staff's Second Set of Interrogatories
Interrogatory No. 24
Attachment No. 1
Tab 1 of 1

Typecode	Year 1 - 2016		Year 2 - 2016		Year 3 - 2017		Year 4 - 2018		Year 5 - 2019		2020	Total	Percent
	Pop.	Sample Size	Pop.	Sample Size	Pop.	Sample Size	Pop.	Sample Size	Pop.	Sample Size	Pop.		
4	1	1										1	
18	7	7										7	
18	1	1										1	
21	2	2										2	
25	140	64	76	55	21	21						140	
27	10	10										10	
28	34	34										34	
29	179	64	115	64	51	51						179	
30	79	55	24	24								79	
34	212	85	127	64	63	63						212	
35	284	85	199	85	114	64	50	50				284	
36	235	85	150	64	86	55	31	31				235	
37	882	115	767	114	653	114	539	114	425	110	315	567	
39	2	2										2	
42	1	1										1	
43	396	110	286	85	201	85	116	64	52	52		396	
44	120	64	56	56								120	
52	14	14										14	
53	30	30										30	
54	5	5										5	
56	6	6										6	
60	12	12										12	
61	1	1										1	
62	10	10										10	
63	22	22										22	
64	25	25										25	
65	23	23										23	
66	1	1										1	
67	7	7										7	
68	12	12										12	
69	1	1										1	
71	38	38										38	
72	17	17										17	
74	192	85	107	64	43	43						192	
75	162	64	98	55	43	43						162	
76	261	85	176	64	112	64	48	48				261	
80	3	3										3	
81	807	115	692	114	578	114	464	114	350	110	240	567	
82	4	4										4	
84	32	32										32	
85	6	6										6	
86	97	55	42	42								97	
87	5	5										5	
90	5	5										5	
91	1	1										1	
94	3	3										3	
96	4	4										4	
A1	1	1										1	
E2	2	2										2	
E3	1	1										1	
EL	1	1										1	
G1	4	4										4	
G4	1	1										1	
GT	218	85	131	64	67	55	12	12				218	
L1	39	39										39	
L3	3	3										3	
L5	2	2										2	
L6	8	8										8	
LB	7	7										7	
LD	61	61										61	
LE	11	11										11	
LG	2	2										2	
LL	213	85	128	64	64	64						213	
LN	2	2										2	
LX	18	18										18	
S1	5	5										5	
S2	11	11										11	
S4	5	5										5	
SS	1,301	116	1,185	115	1,070	115	955	115	840	115	725	576	
Typecode currently unknown	349		349		349		349		349		349	349	
Replacement Meters			1,946	116	3,139	118	4,090	118	4,638	118	5,025	470	
Yearly Meters to be sampled		1,946		1,309		1,089		666		508		5,495	83%
Yearly Meters to be tested		1,417		1,211		784		625		453		4,390	66%
Meters not to be tested		529		98		305		141		55		1,105	
Grand Total	6,654		6,654		6,654		6,654		6,654		6,654		
Percent to be sampled						65%				83%			
Meters sampled						4,324				5,495			

Red shade indicates last remaining meters in type code

Recap Meter Testing Costs in Tariff vs Actual	Testing Cost
Cost recovered per tariff at 6,654 enrolled	\$ 33,237
Projected actual cost based on meters enrolled	\$ (65,850)
Projected underrecovery	\$ (32,613)

QUESTION

Please refer to the rebuttal testimony of witness Onsgard at page 11 of 24, lines 13 through 18.

- a. Please clarify what is meant by “to set non-standard meters since the postponement list began” [emphasis added] as the reason for the 4,800 site visits.
- b. Please clarify whether or not the “1,650 field meter site visits ... to install non-standard meters” are included in the “4,800 site visits to customers on the postponed list.”

RESPONSE

- a. "To set non-standard meters since the postponement list began" means the number of postponed premises where customers had already received a smart meter, after which FPL had to make a field meter site visit to install a non-standard meter.
- b. Yes, the 1,650 represents the subset of customers from the postpone list that required a site visit to install a non-standard meter who ultimately enrolled in the NSMR program.

QUESTION

Please list all types of non-standard meters that may be used by NSMR customers and include a notation regarding whether each meter type is analog or digital.

RESPONSE

If a customer electing non-standard meter service already had a non-standard meter, that meter was left in the socket. The non-standard meters that are currently being used by NSMR customers are as follows:

Manufacturer	Model	Type
DUNCAN	MK	ANALOG
DUNCAN	MSII	ANALOG
DUNCAN	MT 12K	ANALOG
DUNCAN	TMS	ANALOG
ELSTER	AB1	ANALOG
GE	I-50	ANALOG
GE	I-55	ANALOG
GE	I-60	ANALOG
GE	I-60	ANALOG
GE	I-70S	ANALOG
GE	I-70S/1	ANALOG
GE	I-70S/II	ANALOG
GE	V612	ANALOG
LANDIS & GYR	MX	ANALOG
SANGAMO	J	ANALOG
SANGAMO	J2	ANALOG
SANGAMO	J3	ANALOG
SANGAMO	J5SG	ANALOG
SANGAMO	J5ST	ANALOG
SANGAMO	S12S	ANALOG
SCHLUMBERGER	J5S	ANALOG

Manufacturer	Model	Type
WESTINGHOUSE	ABS-7	ANALOG
WESTINGHOUSE	D	ANALOG
WESTINGHOUSE	D2	ANALOG
WESTINGHOUSE	D2S5U	ANALOG
WESTINGHOUSE	D3	ANALOG
WESTINGHOUSE	D4	ANALOG
WESTINGHOUSE	D4ST	ANALOG
WESTINGHOUSE	D5ST	ANALOG
WESTINGHOUSE	D5ST	ANALOG
ABB	A1D	DIGITAL
ABB	A1D+	DIGITAL
ELSTER	A1T+	DIGITAL
GE	I-210+	DIGITAL
GE	KV	DIGITAL
GE	KV2	DIGITAL
LANDIS & GYR	AL-ALT	DIGITAL
LANDIS & GYR	AXS4	DIGITAL
LANDIS & GYR	AXS4e	DIGITAL
LANDIS & GYR	FOCUS	DIGITAL
LANDIS & GYR	FOCUS ALF	DIGITAL
SCHLUMBERGER	CENTRON	DIGITAL
SCHLUMBERGER	SENTINEL	DIGITAL

Going forward, if the premise of a customer electing non-standard meter service has a smart meter, it will be replaced with a meter from FPL inventory which currently includes the following meters:

Manufacturer	Model	Type
Elster	A3D	Digital
Itron	J5S	Analog
Itron	C1S	Digital
Itron	CN1S	Digital
Itron	Sentinel SS4S1D	Digital
Landis & Gyr	AXS4e	Digital

QUESTION

Please describe how FPL determines which type of non-standard non-communicating meter a customer would receive if the customer already has a smart meter and chooses to enroll in the NSMR program.

RESPONSE

Unless the customer that already had a smart meter installed specifically requested an analog meter, Field Meter personnel would install an electronic non-communicating meter. The specific type of electronic non-communicating meter would be determined by the non-standard meter inventories available near the customer's premise.

QUESTION

Does FPL test smart meters pursuant to rule and the Commission-approved Meter Sample Test Plan provided as Attachment No. 1 to the Company's response to Interrogatory No. 6? If the answer is affirmative:

- a. Please discuss FPL's procedures for testing smart meters and include an explanation of how these procedures may differ from procedures used to test non-standard meters.
- b. Please discuss how the Company recovers the costs associated with testing smart meters.
- c. Please explain why the testing of non-standard meters is an incremental cost when testing of all meters is required by rule and the Commission-approved Meter Sample Test Plan.

RESPONSE

Yes, FPL does test smart meters pursuant to the rule and the Commission-approved Meter Sample Test Plan.

- a. The accuracy testing required in the Commission approved Meter Sample Test Plan is performed by FPL using the Meter Accuracy Test Station purchased from Watthour Engineering, which is certified by the National Institute of Science and Technology (NIST). The procedure requires each meter to be inserted into this device and tested to determine its accuracy. This testing procedure is the same for smart meters and non-standard meters.

It should be noted that FPL would not test NSMR meter types if the statistically required sample size is equal to or greater than the remaining population of a given meter type. FPL will still be required to make site visits to remove the meters and replace them with another non-standard meter, but accuracy testing will not be needed as there will be no more of that meter type in the field.

FPL can now better determine the number of meters that will be sampled but that will not require testing using the currently enrolled non-standard meter types. FPL's proposed tariff assumed 33% of the NSMR meters would be tested over three years; however, with the currently enrolled meter types, 66% of the NSMR meters will be required to be tested over the now five years of the program. Based on this, FPL estimates it will not recover approximately \$32,600 of meter test costs attributable to non-standard meter testing over the next five years. See summary attached to FPL's response to Staff's Second Set of Interrogatories No. 24.

- b. All costs associated with sample accuracy testing of smart meters are recorded as a component of O&M (FERC account 586). As such, they are recovered as part of FPL's base rates.
- c. The costs for testing of non-standard meters installed for NSMR customers are incremental costs that FPL would not incur but for the customers electing to receive non-standard service.

Non-standard meters will form new meter populations and those populations must be tested pursuant to Rule 25-6.056, F.A.C. Metering Device Test Plans. There would be no or minimal impact to the meter sample program if the NSMR customers had not elected NSMR, and were included in the larger smart meter population.

QUESTION

The following questions refer to the rebuttal testimony of Witness Onsgard, page 15 of 24, lines 4-5 (smart-metered premises) and to the direct testimony of Witness Onsgard at page 14, lines 18-19.

- a. Discuss whether all (or a portion) of smart-metered premises have enabled Remote Connect Service.
- b. Can FPL make an initial connection remotely? If yes, please state whether the customer is assessed the \$14.88 service charge for initial connection and explain why it is appropriate to charge the customer the charge.
- c. Can FPL remotely disconnect service for nonpayment or violation of rule?
- d. Can FPL remotely reconnect service after disconnection for nonpayment? If yes, please state whether the customer is assessed the \$17.66 reconnection charge and explain why it is appropriate to charge the customer the charge.

RESPONSE

- a. The majority (92%) of smart meters have enabled remote connect service (RCS). Meters that do not have RCS or RCS that is not enabled include:
 - Commercial/Industrial customers
 - Critical facilities such as railroad crossings and cellular towers
 - Meters included in the initial smart meter pilot (these meters are passively being replaced with RCS enabled meters)
 - Customers enrolled in FPL's Medically Essential Service Program
 - Meters that are in transient operational conditions where RCS may be temporarily disabled for various reasons including pending meter changes, new premises requiring a certificate of occupancy or other conditions requiring investigation.
- b. Yes, FPL can make an initial connection remotely for customers with smart meters that have RCS. All customers are charged \$14.88 for establishing a new or existing account with FPL. As part of the minimum filing requirements in Docket No. 120015-EI, FPL filed updated service charges reflecting 2013 projected costs and transactions for a blend of manual and automated connect and disconnect activities. The actual costs incurred in establishing a new account were substantially higher than existing service charges as outlined in the chart below. However, FPL proposed to keep the then current charges for the following service charges and not increase them to the 2013 projected costs as provided in MFR E-7 in Docket No. 120015-EI.

Service Charge	Current Charge	2013 Cost Based Charge from MFR E-7
Reconnect for Non-payment	\$17.66	\$46.13
Initial Connect/Disconnect	\$14.88	\$18.21
Existing Connect/Disconnect	\$14.88	\$16.64
Field Collections	\$5.11	\$25.80

FPL responded to Staff's Third Set of Interrogatories No. 45 in Docket No. 120015-EI that as automation continues over time, the costs associated with the service charge activity will decrease, resulting in lower service charge costs than what is included in MFR E-7. FPL believed that maintaining the current charges in light of higher automation beyond 2013 was the appropriate thing to do as it recognized that actual costs would decrease with automation while the new rates were in effect and also minimized rate volatility. The Commission approved keeping the service charges at their current rates in Order No. PSC-13-0023-S-EI. It is appropriate to charge customers the current service charges until the Company's next rate case at which time a new cost of service study will be performed and updated service charges developed.

- c. Yes, FPL can remotely disconnect service for nonpayment or violation of rule for customers with smart meters that have enabled RCS.
- d. Yes, FPL can remotely reconnect service after disconnection for nonpayment for customers with smart meters that have enabled RCS. A customer is charged \$17.66 for reconnection of service after disconnect for non-payment. Refer to FPL's response provided to subpart (b) above.

QUESTION

Please refer to the rebuttal testimony of Witness Deason, page 4, lines 6-8, and discuss and quantify the costs and savings associated with smart meters that are currently reflected in base rates.

RESPONSE

The O&M cost and savings included in Docket No. 120015-EI for the 2013 test year were:

(in Millions)	2013 Test Year
O&M	\$20.7
O&M Savings	\$17.0
Net O&M Savings	\$3.7

QUESTION

Please explain what options other than the proposed Non-Standard Meter Rider tariff, if any, the company considered to provide customers with a non-standard meter service. If applicable, please explain why the company chose to file for the NSMR tariff instead of the other options.

RESPONSE

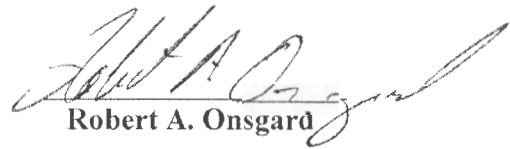
FPL considered options other than the proposed Non-Standard Meter Rider tariff, but ultimately determined that a cost-based tariff for an optional non-standard service best served the dual purpose of offering customers a choice of meters while avoiding to the greatest degree possible subsidization of the optional program by the great majority of FPL customers receiving the standard service. The other options were: 1) not offer non-standard meter service, which has been the approach used by other utilities, 2) offer non-standard service without charge, which is being done by only one state, or 3) offer non-standard meter service at a tariffed rate that does not fully recover the costs and results in subsidization by the general body of customers.

FPL considered these alternatives while it completed the smart meter deployment and participated in the smart meter workshop with the other Florida investor-owned utilities in the Fall of 2012. Ultimately FPL agreed with and supported the conclusion in Staff's Briefing on Smart Meters: Technical Information and Regulatory Issues, February 11, 2013, which states:

Staff does not believe that the FPSC needs to take any specific actions at this time to provide for an alternative to smart meters. The issues that are of concern to consumers are outside the jurisdiction of the FPSC. However, the FPSC should allow utilities to voluntarily provide their customers with new services under an appropriate, approved tariff. Staff would review any tariff that a utility files in response to smart meter concerns, and a recommendation on the filing would be brought before the FPSC at a scheduled Agenda Conference. As with any tariff, special attention would be paid to any charges requested by the utility. Staff believes all charges should be cost-based to ensure any subsidization is kept to a minimum. Further, the filing should clearly detail the purpose of offering the new tariff.

Based on these considerations, FPL has offered a cost based non-standard meter option at a rate that is designed to recover the incremental costs of that optional service from those that elect to receive it, keeping subsidization to a minimum.

AFFIDAVIT

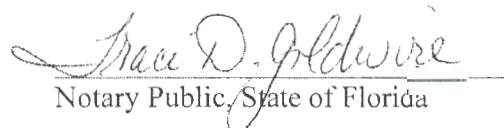

Robert A. Onsgard

State of Florida)

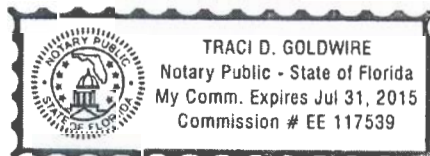
County of Palm Beach)

I hereby certify that on this 21st day of August, 2014, before me, an officer duly authorized in the State and County aforesaid to take acknowledgments, personally appeared Robert A. Onsgard, who is personally known to me, and he acknowledged before me that he sponsored the answers to Interrogatory Nos. 21-28 and 31 from Staff's Second Set of Interrogatories to Florida Power & Light Company (Nos. 21-31) in Docket No. 130223-EI, and that the responses are true and correct based on his personal knowledge.

In Witness Whereof, I have hereunto set my hand and seal in the State and County aforesaid as of this 21st day of August, 2014.


Notary Public, State of Florida

Notary Stamp:



AFFIDAVIT



Kenneth Getchell

State of Florida)

County of Palm Beach

I hereby certify that on this 21st day of August, 2014, before me, an officer duly authorized in the State and County aforesaid to take acknowledgments, personally appeared Kenneth Getchell, who is personally known to me, and he acknowledged before me that he sponsored the answers to Interrogatory Nos. 29 and 30 from Staff's Second Set of Interrogatories to Florida Power & Light Company (Nos. 21-31) in Docket No. 130223-EI, and that the responses are true and correct based on his personal knowledge.

In Witness Whereof, I have hereunto set my hand and seal in the State and County aforesaid as of this 21st day of August, 2014.


Notary Public, State of Florida

Notary Stamp:



13

**FPL's responses to Staff's
First Data Request
Nos. 1-25, revised 26, and 27-32**

**[See Hearing Exhibit CD
for excel files re: No. 12]**

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET: 130223-EI EXHIBIT: 13
PARTY: STAFF
DESCRIPTION: FPL's responses to Staff's First
Data Request, Nos. 1-25, revised 26, and 27-32
(See Hearing Exhibit...

QUESTION

Please refer to Page 1 of the petition and also to Page 10, Paragraph 31 of the petition which indicate a proposed effective date for the optional non-standard meter rider (NSMR) tariff of April 1, 2014.

- a. It is understood that the pilot project to inspect approximately 400 smart meter enclosures that is referred to in Order No. PSC-13-0387-DS-EI is expected to be completed "in the first quarter of 2014." Please indicate if the referenced pilot project will be completed prior to the April 1, 2014 effective date proposed for the NSMR tariff. Please state if staff will have a copy of the report before the NSMR tariff goes into effect.
- b. Please indicate if the results of the referenced pilot project will have an impact on the costs submitted in support of the proposed NSMR tariff including specific examples of whether the pilot project findings could be used to adjust any of the cost estimates that have been provided for the proposed Enrollment Fee and the proposed Monthly Surcharge.

RESPONSE

- a. The field testing for the meter enclosure project is scheduled to be completed during the first quarter of 2014. If the project milestones that FPL established in Docket No. 130160-EI hold, FPL's written report of the results and the plan for the future use of the model should be available for staff before the NSMR goes into effect. FPL's ability to achieve the milestones it set for itself in Docket No. 130160-EI is primarily dependent upon the willingness of FPL's customers to participate in the project.
- b. The purpose of the meter enclosure project is to further validate and refine a predictive tool that FPL is developing to identify probable future smart meter communications failures likely to be caused by conditions within customer-owned meter enclosures. That project will have no impact on the costs submitted in support of the proposed NSMR tariff. There are no examples of pilot project findings that could be used to adjust any of the tariff costs.

QUESTION

Please refer to Page 7, Paragraph 23 of the petition, which refers to customers on the postpone list.

- a. Please define smart meter eligible customers.
- b. Are any customers exempt from being smart meter eligible?
- c. Have any commercial customers asked to be on the postpone list?

RESPONSE

- a. FPL expects to install smart meters for all customers, and therefore all customers will be smart meter eligible customers. The NSMR tariff will be available to all of these customers as long as they have not tampered with or used service in a fraudulent manner. FPL's current smart meter eligible customers are those customers whose premises currently are intended to receive a smart meter. This includes over 4.5 million customers to date.
- b. There are customers whose premises are not yet included in the "eligible" group because their smart meter installations and activations have not yet been completed. This group of customers is primarily made up of Commercial/Industrial customers outside of Miami-Dade County. The remaining customers are scheduled to have smart meter installations completed by 2015.
- c. Yes, 743 Commercial/Industrial customers have asked to be placed on the postpone list.

QUESTION

Please refer to Page 7, Paragraph 24 of the petition. Please provide the work papers that comprise "the analysis performed by FPL in July 2013 [which] reflects that utilities throughout the United States that have provided an optional rate for non-standard service have experienced opt-out enrollment rates of between 17% and 72% of the populations that had been postponed during smart meter implementations." For spreadsheets provided, please ensure that all formulas are intact and unlocked.

- a. Please explain if the analysis included all utilities that provide a postpone option.
- b. Please identify the utilities included in the analysis.
- c. Please provide the complete set of data, including but not limited to, the number of opt-out customers identified per utility.
- d. Please identify the number of smart meter eligible customers per utility.
- e. Please identify the recurring and non-recurring fees assessed to opt-out for each of the utilities in the analysis.

RESPONSE

FPL obtained this information through publicly available sources and conversations with representatives from other utilities. The analysis of this information is attached. It should be noted that most of the established utility opt out programs we found are not intended to recover all opt-out costs from opt-out customers and therefore spread at least a portion of the opt-out costs to customers receiving smart meters. FPL's proposal attempts to avoid such a result, instead imposing the costs of the opt-out on those who elect to maintain a non-standard service.

- a. FPL has no way of knowing all utilities that may have a postpone option, but did attempt to identify all the large electric utilities that have provided a postpone option. The results of this analysis yielded the rates of 17% to 72% referenced in staff's question.
- b. c. d. and e. See Attachment No. 1 for analysis.

Most Commission approved opt-outs not cost based and participation rates vary

Based on data July 15, 2013

Utility	Up-front fee (Requested)	Monthly Fee (Requested)	Total customers	Current participants (% of total customers)	Original Postponed (Accepted opt-out)
PG&E (CA)	\$75 (\$275)	\$10 (\$15)	5.45M	0.5%	174k (17% Accepted)
So Cal Ed (CA)	\$75 (\$91)	\$10 (\$25)	4.4M	0.4%	29k (72% Accepted)
NV Energy (NV)	\$53 (\$99/\$108)	\$9 (\$8/\$11)	2.4M	0.3%	Not provided
FPL			4.6M	Proposing 0.27%	24k postponed 14k UTC
SDG&E (CA)	\$75 (\$219)	\$10 (\$15)	1.25M	0.2%	Not provided
DTE (IL)	\$67.20 (\$87)	\$9.80 (\$15)	2.1M	0.7% (Plan approved)	3.2k (Not available)
CMP (ME)	\$40	\$12	560k	1.4%	Estimated 16k (50% Accepted)
Consumers (MI)	\$69/\$124 (\$70/\$124)	\$9.72 (\$11)	1.8M		
CVPS (VT)	Free	Free		Not provided	Not provided
Portland GE (OR)	\$254	\$51	800k	0.0004%	
Sumter (FL) Lakeland(FL)	\$0 \$65	\$40 \$16.25	175k 120k	0.066% 0.02%	

QUESTION

Please refer to Page 7, Paragraph 25 of the petition which refers to limited data available as of July 2013 that reflects ".02% to 0.5% of all smart meter eligible customers in the majority of programs around the country have agreed to pay a fee to opt-out." For spreadsheets provided, please ensure that all formulas are intact and unlocked.

- a. Please provide the "data available as of July 2013" that led FPL to assert that "0.02% to 0.5% of all smart meter eligible customers in the majority of programs around the country have agreed to pay a fee to opt out.
- b. Please identify the utilities included in the data.
- c. Please provide the complete set of data, including but not limited to, the number of opt-out customers identified per utility who were willing to pay an opt-out fee.
- d. Please identify the number of smart meter eligible customers per utility.
- e. Please identify the recurring and non-recurring fees assessed to opt-out for each of the utilities.

RESPONSE

- a. See FPL's response to Staff's First Data Request No. 3. There were two participation rate data points (CMP and Portland) that were excluded from our expected range due to being extremely high and low outliers. Many of the currently established utility opt out programs are not cost based (i.e., those programs are not designed or intended to recover all opt-out costs from opt-out customers) and therefore spread at least a portion of the opt-out costs to customers receiving smart meters. FPL's proposal attempts to avoid such a result, instead imposing the costs of the opt-out on those who elect to maintain a non-standard service.
- b. c. d. & e. Please see FPL's response to Staff's First Data Request No. 3.

QUESTION

Please refer to Page 7. Paragraph 26 of the petition. Regarding the "14,000 additional eligible premises" on which FPL has been unable to install smart meters:

- a. Please provide the number of customers that have failed to allow FPL representatives access to their premises to install smart meters.
- b. Please provide the number of customers that have refused to allow FPL representatives access to their premises to install smart meters.
- c. Please describe in detail the analysis performed by FPL to arrive at the conclusion that a small number of these customers may ultimately take service under the NSMR.
- d. Please indicate the number of customers who have altered their structure in order to prevent a meter change out.
- e. Please describe the ways customers have altered their structures in order to prevent a meter change out.
- f. Has FPL conducted any research regarding acceptance of the opt-out tariff by the 14,000 customers?
- g. If the response to Question No. 5f is yes, please provide the results of such research, including the data results and description of the methodology used.
- h. How does FPL currently read the meter of the 14,000 customers?

RESPONSE

- a. Approximately 12,000 customers have failed to allow FPL representatives access to their premises to install smart meters. This number is lower than the 14,000 identified in the petition due to FPL's continued efforts to contact these customers and complete installations.
- b. The petition's reference to customer refusal to allow FPL representatives access to their premise to install a smart meter should not have been associated with the group of 14,000 (now 12,000). All customers who refused to allow FPL representatives access to their premises on the basis of an objection to the installation of the smart meters have been included on the postpone list and were not part of the 14,000 (now 12,000).

- c. These customers have not indicated any objection to the smart meter. They have simply been unresponsive to FPL's requests to access their premises. Although FPL has the legal right to install the smart meter or to take other appropriate action, the Company has elected to continue to try to contact these customers pending Commission approval of the NSMR. Once that option is available for the cost based fee, FPL believes the ratio of enrollment for these customers will be the same as our general population. $(12,000 / 4,500,000) \times 12,000 =$ approximately 32 customers.
- d. As of September 15, 2013, approximately 830 customers remain who have altered their structure or have other property obstructions such as trees and fences which have prevented a smart meter change out.
- e. Examples of the ways customers have altered their structures or allowed other obstructions that prevent a meter change out include stuccoing over meter enclosures, constructing framing over meter enclosures, allowing trees to block meter enclosures, and constructing fences blocking access to meter enclosures.
- f. FPL has not conducted any formal research regarding acceptance of the opt-out tariff by the 14,000 (now 12,000) customers. However, FPL and its installation contractor have made repeated efforts to contact these customers at their premises, by phone and by mail. Those customers who remain in the group of 14,000 (now 12,000) have been unresponsive.
- g. Not Applicable.
- h. FPL manually reads meters with access issues by reading meters from a distance with the use of visual aids such as binoculars. When necessary and pursuant to Rule 25-6.100, F.A.C., FPL may estimate bills up to a maximum of 6 consecutive billing cycles.

QUESTION

Please provide the number of customers that are not currently on the postpone or the 14,000 list the company expects to take service under the NSMR tariff.

RESPONSE

The Company expects very few customers who are not currently on the postpone list or the list of 14,000 (now 12,000) to take service under the NSMR tariff. FPL voluntarily created the postpone list during the early phase of the smart meter deployment and assumes that the great majority of customers who did not want the smart meter were placed on that list. For customers whose smart meters had already been installed when the postpone list was created and/or who had not been aware that a postpone list existed, FPL temporarily removed the smart meter when asked to do so by the customer and placed them on the postpone list. None of the customers on the postpone list or on the list of 12,000 have been charged any fees in conjunction with their retention of the non-standard meter. As a result, FPL believes that the great majority of customers who may choose to take service pursuant to the NSMR tariff will come from the postpone list.

QUESTION

Please refer to Exhibit A of the petition, page 4 of 4 containing the terms of the proposed NSMR tariff. Pursuant to the second paragraph under the "Special Provisions" section, "A replacement for a non-standard meter may not be readily available should one require maintenance. Service. . . may require the temporary installation of a standard communicating meter in order to maintain electric service to the premise. All charges for NSMR shall continue to apply in this case."

- a. Please provide an estimate of the typical length of time necessary to repair or replace a non-standard meter for customers at whose premises temporary standard meters have been installed to maintain service.
- b. In the event that a non-standard meter customer had to use a temporary standard meter for an interval in excess of one or more full billing cycles, please explain why the Monthly Surcharge should not be suspended during those billing cycles.

RESPONSE

- a. The typical length of time for non-emergency meter change outs is 5 to 10 weekdays. This assumes normal operations and may not apply during storm restoration periods. In the interim the customer will be served with a standard meter.
- b. Under normal operating conditions the use of a temporary standard meter in this situation should not exceed one full billing period. If the customer who is taking service pursuant to the NSMR tariff is required to have the standard meter for more than one full billing cycle, FPL will suspend the Monthly Surcharge until a non-standard meter is installed.

QUESTION

Describe the metering technology provided to net metering customers. Are net metering customers also considered to be customers who elect non-standard non-communicating meter service in lieu of the standard communicating smart meter service?

- a. If yes, please explain why it is necessary for the net metering customers to pay the proposed opt-out fees.
- b. If no, please advise where in the NSMR or other tariff sheets the net metering customers are exempt from the proposed NSMR?

RESPONSE

Electronic net meters are designed to measure energy flow in both directions through the meter. The meter measures the energy consumed and produced by a customer in two separate registers. A Smart Net Meter has the communications module allowing the usage data from the two registers to be read remotely. Smart Net Meters are currently being installed at all of FPL's net metering customers' locations as the standard net meter.

No, net metering customers will have the option of taking service pursuant to the NSMR tariff.

- a. Not Applicable.
- b. Net metering customers are not exempt from the NSMR tariff.

QUESTION

Explain whether a "standard communicating meter" referenced in the Special Provisions Section is the same as a "standard communicating smart meter" that is referred to in the Application Section.

RESPONSE

The "standard communicating meter" referenced in the Special Provisions Section is the same as a "standard communicating smart meter" that is referred to in the Application Section.

QUESTION

Please refer to the Application provision of the proposed NSMR tariff and define "non-communicating meter of the Company's choice." Will customers under the NSMR tariff keep their current meter, or be given a new non-communicating meter?

RESPONSE

Customers under the NSMR tariff will keep their current meters. If the customer already has a smart meter and elects service under the NSMR, a non-communicating meter will be installed.

QUESTION

Please refer to Exhibit A, page 4 of 4 containing the terms of the proposed NSMR tariff. Explain "This Rider is available to customers who have not tampered with the electric meter service or used service in a fraudulent or unauthorized manner." Does this provision preclude customers who have built around or made the meter box inaccessible from taking service under the rider?

RESPONSE

Company processes provide that meter tampering or fraudulent use claims are thoroughly investigated before accounts are designated as such. Smart meters help deter meter tampering and fraudulent use, and should be required for those found to have committed such actions.

No, the fact that a customer has built around or made the meter box inaccessible does not by itself preclude that customer from taking service under the rider.

QUESTION

Please provide electronic copies of the files and work papers used to produce pages 1-15 of Exhibit B. For spreadsheets provided, please ensure that all formulas are intact and unlocked.

RESPONSE

Please see Attachment No. 1.

QUESTION

Please identify how many new full-time and part-time employees FPL will be hiring to implement its non-standard meter program. For each new hire, identify the position title and describe the duties.

RESPONSE

With the exception of customer care activities, FPL does not plan on hiring new employees, but plans on using employees whose positions would have been eliminated as part of planned smart meter reductions. For customer care, FPL will utilize its outsourcing partner to offset the incremental work. Below are the incremental staffing requirements, positions titles, and description of duties.

Activity	Full Time Equivalent 2014
Customer Care	4
Meter Reading Routing	1
Meter Reading	11
Customer Accounting	1
Field Collections	0.5
Field Meters	1
Meter Testing	0.25
Project Management	1

Position and Description of Duties

Customer Service Representative: Responsible for handling customer enrollment mailings and calls related to enrollment in the non-standard meter rider, general program inquiries and follow-up calls.

Meter Reading Lead: Responsible for creating manual meter reading routes for customers who enroll in the non-standard meter rider and maintenance of routes as additional customers are added and removed to ensure efficient routing.

Meter Reader: Responsible for monthly manual meter reading and visual inspection of meters for customers who enroll in the non-standard meter rider.

Customer Account Representative: Responsible for the processing of the customer enrollment in the non-standard meter rider, overseeing the initial billing for the enrollment fee and the monthly surcharge, resolving any processing exceptions throughout the initial enrollment/billing period, submission of meter change orders and rerouting requests and miscellaneous billing support.

Field Collector: Responsible for manual field collections of past due receivables and/or disconnections of service for non-payment.

Meter Electrician B: Responsible for maintenance and support of non-standard meters including removal and replacement of meters for testing and maintenance and reconnection of service that was disconnected for non-payment.

Electronic Technician: Responsible for performing meter testing.

Project Manager: Responsible for management of non-standard meter rider program including oversight of processes across multiple business units, system integration, cost accounting, reporting and regulatory requirements.

QUESTION

Please refer to Exhibit B, page 1 (Line 2) and page 2 of 15 (Line 7, Column (12)). Please explain why the revenue requirements [\$3,078,882] are calculated to be recovered during a three-year period rather than the five-year period over which the rate base is being depreciated.

RESPONSE

As the NSMR is an optional service, FPL has little data to estimate how long customers may choose to stay in the program. FPL believes the three year recovery period is reasonable to ensure that costs are recovered from those customers who choose to participate in the NSMR tariff.

QUESTION

Please refer to Exhibit B, page 1, and explain why the Enrollment fee was capped at \$105 and why up-front costs are to be recovered through a monthly surcharge.

RESPONSE

The Enrollment Fee of \$105 is intended to reimburse the Company for NSMR one time costs per meter incurred in connection with customers enrolling for service under the optional tariff, while spreading the additional infrastructure up-front costs over a 3 year time frame. Those one time costs (\$105) are identified in the Company's One Time Costs Per Meter on Exhibit B, page 3. This approach is consistent with opt out programs in a number of other jurisdictions and provides the customer with an opportunity to spread out payment of the up front costs for this optional service over a longer period of time.

QUESTION

Please refer to Exhibit B, page 1 (Line 12). If the "Remaining Up-Front and One Time Cost to be paid in Monthly Surcharge" were to be recovered in 36 months, please explain why the Monthly Surcharge should not be reduced by \$7.14 beginning in month 37.

RESPONSE

The Company will monitor the accuracy of its NSMR tariff assumptions, and agrees that the Monthly Surcharge and the Enrollment Fee should be reviewed after three years. Additionally, FPL plans to include updates concerning the tariff in the annual smart meter progress report, which FPL files each year pursuant to Order No. PSC-10-0153-FOF-EI.

As noted in our petition, the Commission has continuing jurisdiction to monitor and evaluate the number of participants in the program, the costs associated with the program, and the resulting charges to customers within the opt-out class in order to assure that the program remains cost based.

QUESTION

Please refer to Exhibit B, page 4 (lines 15-18) and explain the need for additional handhelds.

RESPONSE

FPL's installation of smart meters did not account for an estimated opt-out population which requires an estimated 11 meter readers previously scheduled for reduction. FPL's current handheld and meter reading system is in the process of a full system and handheld replacement (project slated for completion year-end 2013). Handheld purchases were increased to account for the additional 11 handhelds needed specifically for these opt-out customers, which otherwise FPL would not have purchased. These costs were not included in base rates.

QUESTION

Please refer to Exhibit B, page 5 and provide a complete listing of all languages the materials will be available in and state whether the foreign language translation shown on line 13 will be done by an FPL employee or outsourced.

RESPONSE

The materials will be provided in English and Spanish. The translations will be outsourced to an agency, with FPL employees conducting quality control reviews to ensure accuracy. The cost shown in Exhibit B is to cover the cost of outsourced translation services for the letters, brochures, fact sheets, and door hangers to be used for the Non-standard Meter Option communication.

QUESTION

Please refer to Exhibit B, page 5. Please indicate the cost per letter, and identify any special postal services needed and the number of letters to be sent out for the following:

- a. Notification-Design and first mailing to both postponed and unable to complete (UTC) customers (letter + brochure)
- b. Final notification to customers who have not responded - to be sent certified mail , return receipt requested
- c. Opt out confirmation - Mailing to confirm request to opt out

RESPONSE

The NSMR tariff is based on the following assumptions:

- a. Notification: Design, printing and fulfillment services estimated at \$0.85/unit. Postage (pre-sorted first class) was estimated at \$0.65/unit. Those estimates are based on mailing to 40,000 customers (representing customers on the postponed list and customers who have not responded to FPL's requests to gain access to the meter).
- b. Final Notification: Design, printing and fulfillment services estimated at \$0.89/unit. Postage (pre-sorted first class) was estimated at \$6.11/unit for certified mail with traditional return receipt. Those estimates are based on mailing to 10,000 customers (representing customers on the postpone list and customers who have not responded to FPL's requests to gain access to the meter).
- c. Opt out confirmation: Design, printing and fulfillment services estimated at \$0.89/unit. Postage (pre-sorted first class) was estimated at \$6.11/unit for certified mail with traditional return receipt. Those estimates are based on mailing to 12,000 customers (representing customers on the postpone list and customers who have not responded to FPL's requests to gain access to the meter).

We will refine our plan based on customer feedback obtained in our research. Also see FPL's response to Staff's First Data Request No. 20.

QUESTION

Please refer to Exhibit B, page 5, line 11. How will customer feedback be obtained (phone call survey, e-mail inquiry, etc.)? Why does FPL believe it needs such feedback and how will the feedback be used as it relates to the non-standard meter program?

RESPONSE

FPL plans to obtain customer feedback on the communication package via its online "Power Panel" (essentially an online focus group) and through in-person customer focus groups. In discussions with other utilities that have implemented opt-out programs, we were cautioned that there is potential for confusion over the choice of meter. Given that the choice will have an impact on customers' budgets and level of service, FPL believes it's important to make sure the choices and their implications are clear. The feedback will be used to ensure that the materials are clear and easy to understand, and customers are fully informed about their options and the implications. In an effort to maximize the number of customer responses to the mailings, we will also seek feedback on the mailing plan and may refine it based on the input we receive.

QUESTION

Please refer to Exhibit B, page 6 (Line 10) and page 11 of 15 (Lines 1-7 and 13-21). Please describe how the work duties listed for the support staff for which associated costs are presented on page 11 differ from the work duties performed by the "back office" support staff for which associated costs are presented on page 6.

RESPONSE

The back office costs are unique to each of these functional groups, Care Center and Customer Billing, and are incremental to costs included in base rates. The Care Center back office work costs on Exhibit B, page 6, relate to the handling of customer enrollment mailings received and manually initiating the NSMR enrollment process in the customer information system. This back office work specifically consists of using the customer enrollment requests received from scanned mailers, opening the newly designed opt out application and completing the request based on the customer's selection. They will basically be doing the same work a phone representative will be doing except they are receiving the information via a letter vs. a phone call.

The Customer Billing back office work costs on Exhibit B, page 11, relate to the initiation of customers' NSMR billing. It is specifically for overseeing the billing for the Enrollment Fee and the Monthly Surcharge to the customer as well as resolving any processing exceptions. They will also be initiating meter change orders if required, and initiating scheduling for meter reading to re-route premises to a non-standard meter route.

QUESTION

Please refer to Exhibit B, page 7 (line 8). Please explain how wasted trips are an incremental cost associated with the NSMR tariff and what is meant by "downtime."

RESPONSE

The workforce costs to perform any function have associated non-productive time that is included in the cost of that service. Non-productive time includes such things as wasted trips associated with attempts to install meters where access to the premise or a safe installation was not possible, and other downtime associated with training, safety and administration duties.

QUESTION

Please refer to Exhibit B, page 8 and explain what is meant by "transaction" and how the number of transactions per hour were determined.

RESPONSE

The "transaction" involves identifying the appropriate manual reading route for a NSMR customer, and rerouting the customer to that route. Using the average time for the Meter Reading Support group to complete a transaction (10 min), FPL assumed 6 transactions per hour for typical rerouting tasks.

QUESTION

Please refer to Exhibit B, page 9. Please provide additional documentation to illustrate and support the derivation of the amounts shown on Lines 4, 5, 6, and 9.

RESPONSE

See Attachment No. 1.

Meter Reading Opt Out Option Cost

2013 Staffing and Field Service Orders (FSO)

Exempts	18
Non-exempt	197
FSO's	149,780
FSOs/year/FTE	12,708
FSO FTE's	12
% of Staffing	6.0%

Note:
 2013 Manpower Average
 2013 Manpower Average
 2013 Estimate
 1059 (2007 FSO Monthly Read-Rate) *12
 149,780 / 12,708
 12 / 197

Summary Cost per FSO FTE	
Payroll	\$ 47,354
Overheads	\$ 27,450
Non-Payroll	\$ 11,738
	\$ 86,542

Expense	Amount	Source	Budget as a % of FSO's	Cost per FSO FTE
Exempt Straight Time Payroll	\$ 1,305,603	2013 MR budget	\$ 78,113	\$ 6,627
Non-exempt Straight Time Payroll	\$ 7,702,148	2013 MR budget	\$ 460,810	\$ 39,097
Non-exempt Overtime	\$ 164,393	2013 MR budget	\$ 9,835	\$ 834
Other Earnings	\$ 156,600	2013 MR budget	\$ 9,369	\$ 795
Overheads				
Exempt PWTI 23.72%	\$ 309,686	Calculation	\$ 18,528	\$ 1,572
Exempt PERP 13.39%	\$ 174,831	Calculation	\$ 10,460	\$ 887
TI on PERP 7.57%	\$ 13,227	Calculation	\$ 791	\$ 67
Non Exempt PWTI 34.35%	\$ 2,756,269	Calculation	\$ 164,904	\$ 13,991
Corporate A&G 23.03%	\$ 2,153,691	Calculation	\$ 128,853	\$ 10,932
Employee Related Expenses	\$ 1,322,530	2013 MR budget	\$ 79,125	\$ 6,713
Contractors & Professional Svcs	\$ 23,490	2013 MR budget	\$ 1,405	\$ 119
M&S, Transportation & Equipment	\$ 672,364	2013 MR budget	\$ 40,227	\$ 3,413
Workers Comp Expenses	\$ 164,090	2013 MR budget	\$ 9,817	\$ 833
Office Facilities, Rent & Administration	\$ 47,653	2013 MR budget	\$ 2,851	\$ 242
Technology Expenses	\$ 82,192	2013 MR budget	\$ 4,917	\$ 417
Total INCLUDING Overheads	\$ 17,048,767		\$ 1,020,007	\$ 86,542
% of workload for FSO meter reads	6.0%	12 / 197		
Budget as a % of FSO workload	\$ 1,020,007	\$17,048,767 * 6.0%		
2013 number of FSO's	149,780	2013 estimate		
Cost per FSO read	\$ 6.81	\$1,038,504 / 149,780		

Meter Reading Opt Out Option Cost

2013 Budget Details

Account	Description	2013 Budget
5250000	PAYROLL EXPENSE: Other Earnings	\$ 156,600
5310000	EMPLOYEE WELFARE	\$ 17,162
5340000	EDUCATION AND TRAINING	\$ 3,628
5400100	MATERIALS & SUPPLIES: General	\$ 9,250
5400101	MATERIALS & SUPPLIES: General - FPL Sto	\$ 108,984
5400600	SAFETY EQUIPMENT	\$ 79,653
5400700	FREIGHT: Excluding Fuel	\$ 5,532
5401700	VEHICLE: Utilization Charges	\$ 453,600
5401720	VEHICLE: Maintenance	\$ 3,912
5410100	TELECOMMUNICATIONS: Equipment & Maint.	\$ 1,080
5500500	CELLULAR TELEPHONE AND PAGERS	\$ 24,712
5600000	BUSINESS TRAVEL: Lodging	\$ 30,996
5600100	Meals & Entertainment - 50%	\$ 28,203
5600200	BUSINESS TRAVEL: Air	\$ 5,000
5600500	BUSINESS TRAVEL: Misc Expenses	\$ 14,259
5600700	BUSINESS TRAVEL: Occasional Use Mileage	\$ 1,192,006
5750700	OUTSIDE SERVICES: Other	\$ 23,490
5760120	COMPUTER EQUIPMENT MAINTENANCE	\$ 81,112
5760300	OFFICE SUPPLIES	\$ 12,577
5760350	FORMS & DUPLICATING	\$ 5,184
5760400	POSTAGE	\$ 7,680
5760500	OFFICE FURNITURE AND EQUIPMENT	\$ 22,212
5800000	OTHER EXPENSE	\$ 6,564
5992200	POWER PLANT: FPL - Exempt ST	\$ 1,305,603
5992201	POWER PLANT: FPL - Non-Exempt ST	\$ 7,702,148
5992205	POWER PLANT: FPL - Non-Exempt Overtime	\$ 164,393
5992213	POWER PLANT: Stores - Overhead	\$ 11,432
5992220	POWER PLANT: BU - Workers Compensation	\$ 164,090
Overall Result		\$ 11,641,062

Non-payroll Summary

Employee Related Expenses	\$ 1,322,530
M&S, Transportation & Equipment	\$ 672,364
Workers Compensation	\$ 164,090
Office Facilities, Rent & Administration	\$ 47,653
Technology Expenses	\$ 82,192
Contractors & Professional Services	\$ 23,490

COMBINED Required Bodies		2007 Data									
MR	FSO	Leads (Inside Study)	Sub Total	Vacation / Floating Hol	Sick	Train/Team	Turnover	Meeting	Total Required	Military Leave / FMLA	Meter Growth
400.87	38.11	30.0	468.98	32.49	4.52	3.82	42.72	6.47	558.99	5	3.04

Loaders split: 0.08 7.31
0.92 82.70

Net Total **567.03**

2007 Staffing Model Formula Summary		Leads (Inside Study)	Sub Total	Vacation Bodies	Sick Bodies	Train/Team Bodies (16 hours)	Turnover Bodies (area avg)	Meeting Bodies (22 hours)	Total Required Bodies	Military / FMLA Historical Sys Est	Meter Growth
MR Bodies	AFSO / FSO	Mgmt decision	Field Staff	Field Staff	Field Staff	Field Staff	Field Staff	Field Staff	Field Staff	Est #	Est meter growth
Average hours per	12 MOE FSO X		+	X	X	X	X	X	+	based on	from PS
Dist cycle day	FSO Time Factor		AFSO / FSO	Dist Avg Hrs	Dist Avg Hrs	16 hrs p/emp.	Benchmark %	22 Hrs.	Vacation Bodies	previous year	/12
/ 6.5 hrs per day	+		+	+ 16 hrs floating	Taken	/ 2016	X	/ 1638	+		
	12 MOE AFSO X		Leads	X	/ 2016		296 Hrs NH Trng		Sick bodies		Cumulative Monthly
	AFSO Time Factor			/ 2016			/ 2016		+		grwth
	/ 60						+		Train/Team Bodies		/ (Sys Mtrs / MR fld
	/ 1638						Turnover x NH		+		staff)
							Adder Factor		Turnover Bodies		
Meter Growth is							Benchmark %	Uses 1638	+	System Staff adder	
separate calculation	Eliminates % Orders			Based on Avg Dist	Based on Avg Dist		Dist Field Staff	hours instead	Meeting Bodies	This is an unknown	
Avg time by Dist & CyD	Uses 6.5 vs 8.0 hr day	No Change		hours taken	hours taken	No Change	Includes learning	of 2016	+	as to where it will	
6.5 hr day	Utilizes time factors			x # Field Staff	x # Field Staff		curve factor		Military / FMLA	occur during year	

FSO cost study / 2007 Staffing model	FSOs
Authorized FTEs Loaded	45
Number of reads (in M units)	571,947
Reads per FSO FTE	12,592
Reads per month	1,050
Reads per cycle day	50

QUESTION

Please refer to Exhibit B, page 10. Please provide additional documentation to illustrate and support the derivation of the amount shown on Line 4 and explain what Meter Reading OSHA and Vehicle Accident Cost are designed to recover. Are those costs exclusive to meter reading?

RESPONSE

Yes. The 2011 OSHA and Vehicle Accident costs on Exhibit B, page 10, line 4 are the actual costs experienced by the Company for meter reading injuries and vehicle accidents in 2011. See Attachment No. 1.

OSHA and Vehicle Claims Meter Readers

Functional Group	Total	% of Accidents	Adjusted Claims Total
50019304 BILLING	33	36.67%	\$ 105,300.10
50019340 FIELD OPERATIONS	4	4.44%	
50019431 REVENUE RECOVERY	12	13.33%	
50520816 FIELD OPERATIONS - METERS (blank)	41	45.56%	
		100.00%	

Contact Total Incurred 2011 (X 37%) + Fleet Vehicle
 $(181,710.70 \times 37\%) + 38,672.84 = 105,300.10$

TOTAL VEHICLE CLAIMS (FLEET AND CONTRACT)

2011 Contact	\$ 181,710.70	
Fleet	\$ 38,672.84	See Meter Reading Fleet Vehicle below
TOTAL	\$ 220,383.54	

Contract
 Sum of TOTAL INCURRED
 Year Paid

Total
2011 \$ 181,710.70

TOTAL OSHA CLAIMS

2011 OSHA \$\$	\$ 161,532.00
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TOTAL OSHA & VEHICLE	\$ 266,832.10
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Fleet Vehicle Claims - Meter Reading 2011

Loss Date	Group	Veh. #	Bodily Injur	Paid Date	Amount Paid	Expenses	Amount Paid	Paid Date	Total	Month	Year
	40736 MR	2355		0	\$ -		\$ 13.00	40805	\$ 13.00	7	2011
	40737 MR	1401		0	\$ 115.00	40752	\$ -		\$ 115.00	7	2011
	40751 MR	2317		0	\$ 125.00	40763	\$ -		\$ 125.00	7	2011
	40675 MR	4413		0	\$ 290.00	40732	\$ -		\$ 290.00	5	2011
	40577 MR	2693		0	\$ 956.87	40604	\$ 85.00	40644	\$ 1,041.87	2	2011
	40668 MR	4327		0	\$ 1,483.60	40716	\$ -		\$ 1,483.60	5	2011
	40749 MR	4645		0	\$ 1,591.87	40764	\$ 75.00	40771	\$ 1,666.87	7	2011
	40668 MR	4645		0	\$ 6,279.32	40793	\$ -		\$ 6,279.32	5	2011
	40854 MR	2441		0	\$ 2,555.73	40918	\$ 1,971.80	40961	\$ 4,527.53	11	2011
	40884 MR	4807		0	\$ 8,468.98	40926	\$ 3,021.30	41193	\$ 11,490.28	12	2011
	40676 MR	4634		5500	\$ 1,846.77	40732	\$ 4,293.60	41213	\$ 11,640.37	5	2011
					<u>\$ 23,713.14</u>		<u>\$ 9,459.70</u>		<u>\$ 38,672.84</u>		

QUESTION

Please refer to Exhibit B, page 12. Please provide additional documentation to illustrate and support the derivation of the amounts shown on Lines 3, 5, 12 and 14.

RESPONSE

Upon additional review, FPL has determined that a small portion of the information in the Notes/Assumptions sections of FPL's response to Staff's First Data Request No. 26 had not been properly updated. Please see Attachment No. 1 for FPL's updated support schedules in response to Staff's First Data Request No. 26.

**Development of Service Charge
Disconnect for Non-Payment and Reconnect - Manual**

Activity	Responsibility	Allocated Cost	Note/Assumption
1 Send past due final notice	Revenue Recovery	\$3.25	Final notice allocated cost was calculated by dividing total activity cost (\$2,284,948) by the total number of collections (field and reconnect for non-payment) service charge transactions (704,018).
2 Execute outbound telephone collection call	Revenue Recovery	\$2.20	Outbound Telephone Collections (OTC) allocated cost was calculated by dividing total OTC budget (\$1,551,845) by the total number of collections (field and reconnect for non-payment) service charge transactions (704,018).
3 Execute field disconnect for non-payment	Field Collections	\$20.35	Field Collection allocated cost was calculated by multiplying the Field Collections total budget (\$11,604,534) by the total disconnect activity workload (62.59% of total Field Collections workload) and then dividing by the total number of <u>manual</u> disconnects transactions (357,968).
4 Customer reconnect inquiry. Customers call the customer care center approximately 1 out of every 3 reconnect service charge transactions.	Customer Care	\$1.67	Customer Care reconnect inquiry call allocated cost was calculated by multiplying the Customer Care total budget (\$49,341,735) by the total reconnect inquiry call activity workload (1.66% as a percent of total Customer Care workload) and then dividing by the total number of reconnect service charge transactions (both manual and automated - 490,083).
5 Field meters manually reconnects meter	Field Meters	\$31.79	Field Meters reconnect allocated cost was calculated by multiplying the Field Meters total budget (\$31,419,906) by the total reconnect activity workload (35.59% of total Field Meters workload) and then dividing by the total number of <u>manual</u> reconnect transactions (351,669).

Total Cost	<u>\$59.27</u>
Existing Charge	\$17.66

QUESTION

Please refer to Exhibit B, page 14. Please provide additional supporting information describing the specific work responsibilities that would explain the need for a new senior level management position.

RESPONSE

This cost represents the aggregate estimated work days, equating to one FTE, for the project management support required for a program of this magnitude. This project involves coordination amongst eight different business units and over 16 different departments. A project leader is essential for the continuing management of the process design, the complex implementation of systems, and the administration of the on-going operation of this program.

QUESTION

Please refer to Exhibit B, page 14 (Line 4) and page 15 (Line 4, Column 2). According to the documentation provided, the average annual salary (not loaded) for an exempt employee is \$71,189. Please explain why this amount was not used as the starting point to calculate the "Annual Salary With Loaders" amount shown on page 14, Line 4.

RESPONSE

The \$71,189 was based on the average of all exempt positions across Customer Service. The base salary of \$85,000 plus loaders that was used in page 14 of Exhibit B was within the salary band specific to a project manager position.

QUESTION

Please explain how long the average FPL residential customer takes service at a single location.

RESPONSE

The average period FPL's residential customers take service at a single location is 9.4 years.

QUESTION

Please provide any customer acceptance studies, with results, the company has conducted with FPL customers on smart meter opt-out tariff terms and costs.

RESPONSE

The Company has not performed any customer acceptance studies with FPL customers on smart meter opt-out tariff terms and costs.

QUESTION

Please indicate the number of customers that were on the postpone list each month since the postpone list started.

- a. Please indicate the number of smart meters installed each month since the postpone list started.

RESPONSE

See Attachment No. 1.

Postponed by Month and Cumulative

**Smart Meter
Deployment by
Month**

Year-Month Postponed	Month Total	Cumulative
thur 2010 -08	1	1
2010-09	1	2
2010-10	1	3
2010-11	1	4
2010-12	9	13
2011-01	10	23
2011-02	3	26
2011-03	7	33
2011-04	6	39
2011-05	7	46
2011-06	12	58
2011-07	17	75
2011-08	37	112
2011-09	39	151
2011-10	202	353
2011-11	514	867
2011-12	489	1,356
2012-01	597	1,953
2012-02	1,216	3,169
2012-03	1,133	4,302
2012-04	1,623	5,925
2012-05	1,299	7,224
2012-06	1,521	8,745
2012-07	1,776	10,521
2012-08	1,712	12,233
2012-09	2,633	14,866
2012-10	3,851	18,717
2012-11	1,632	20,349
2012-12	905	21,254
2013-01	694	21,948
2013-02	416	22,364
2013-03	156	22,520
2013-04	253	22,773
2013-05	260	23,033
2013-06	278	23,311
2013-07	244	23,555
2013-08	328	23,883
Total Postponed	23,883	

Total
957,235
104,177
131,298
144,882
130,536
120,695
127,184
129,390
103,427
104,840
105,920
80,114
90,044
96,961
115,205
127,470
140,440
121,398
117,985
105,770
97,658
114,421
136,225
153,454
152,870
149,633
162,566
102,716
109,559
103,953
50,431
3,071
3,573
6,782
10,165
8,862
9,477
4,530,387

QUESTION

Does FPL plan to examine the accuracy of its assumption regarding the numbers of opt out customers at any point in the future? If so, when? If not, why not?

RESPONSE

Yes. FPL will monitor the number of opt out customers and plans to include updates concerning the tariff in the annual smart meter progress report.

14

**FPL's responses to Staff's
Second Data Request
Nos. 2-11**

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET: 130223-EI EXHIBIT: 14
PARTY: STAFF
DESCRIPTION: FPL's responses to Staff's
Second Data Request, Nos. 2-11 [Bates Nos.
0125-0139]

QUESTION

For the questions 1-5, please refer to the Petition for Approval of Optional Non-Standard Meter Rider, Exhibit B, page 4 of 15, lines 1-8.

If in-house staff will be responsible for amending the Information System, please respond to the following questions:

- a) Are the staff who will perform the system changes salaried employees? Are they currently employed at FPL?
- b) Is amending the Information System, such as for the implementation of the Optional Non-Standard Meter Rider, considered to be part of the standard job responsibilities of such staffers?
- c) Will these staffers be paid for overtime?
- d) If the response to (c) is affirmative, is overtime pay included in the estimate of \$1,952,000?
- e) If the response to (d) is affirmative, please indicate the amount of overtime pay included in the estimate of \$1,952,000.

RESPONSE

As described in FPL's response to Staff's Second Data Request No. 1, both outsourcing and in-house staff are being used for these system changes. The work done by in-house staff to amend the Information System to accommodate the Optional Non-Standard Meter Rider has required FPL to delay work on other projects and to outsource work previously planned to be completed by in-house staff. In an effort to help ensure that the NSMR tariff remains a cost based program where the cost causer bears the costs, FPL has included both the in-house and outsourced staffing costs in its analysis.

- a) Are the staff who will perform the system changes salaried employees? Yes.
Are they currently employed at FPL.? Yes.

- b) At the time that FPL developed the test year forecast upon which rates have been established, amending the Information System for implementation of the Optional Non-Standard Meter Rider was not among the standard job responsibilities for this staff. However, amending the Information System to accommodate the development of the proposed NSMR has become part of the standard job responsibilities for these staffers as they possess the skills needed to complete this work. Some of their former responsibilities will now, by necessity, need to be outsourced.
- c) We do not anticipate paying any overtime to complete the system changes.
- d) Not applicable.
- e) Not applicable.

QUESTION

For the questions 1-5, please refer to the Petition for Approval of Optional Non-Standard Meter Rider, Exhibit B, page 4 of 15, lines 1-8.

Does the estimate of \$1,952,000 for Information System changes cover any ongoing maintenance expenses during the implementation period?

- b) If the response to is affirmative, please explain in detail the anticipated maintenance schedule and the associated costs related to the Information System upgrades.

RESPONSE

There are no projected ongoing maintenance expenses for Information System changes during the implementation period.

Note: Staff's Second Data request No. 3 does not contain a subpart a.

QUESTION

For the questions 1-5, please refer to the Petition for Approval of Optional Non-Standard Meter Rider, Exhibit B, page 4 of 15, lines 1-8.

When will the changes to the Information Systems begin?

RESPONSE

In order for the system to be ready for enrollment in January 2014 and billing in April 2014, Information Systems change work began in July 2013.

QUESTION

For the questions 1-5, please refer to the Petition for Approval of Optional Non-Standard Meter Rider, Exhibit B, page 4 of 15, lines 1-8.

How long will it take to program and test the changes to the Information System?

RESPONSE

FPL estimated that it would take nine (9) months to program and test the Information System changes. The work on this aspect of the project began in July of 2013. The Company remains on schedule to meet our target completion dates to be ready for enrollment in January 2014 and for billing in April 2014.

QUESTION

Please refer to FPL's response to Staff's First Set of Data Requests, No. 7, item b. Is FPL willing to add language to its tariff addressing the suspension of the Monthly Surcharge? If not, why not?

RESPONSE

Yes, the Company agrees to modify the tariff to include the following language:

Under normal operating conditions the use of a temporary standard meter should not exceed one full billing period. If the customer who is taking service pursuant to the NSMR tariff is required to have the standard meter for more than one full billing cycle, FPL will suspend the Monthly Surcharge until a non-standard meter is installed.

QUESTION

Please refer to FPL's responses to OPC's informal Question No. 3 and to Staff's First Set of Data Requests, No. 13. Provide support (testimony, MFR Schedule, discovery response, etc.) that the employees and their associated salaries identified in FPL's response to the above referenced data request were not included in the 2013 test year as submitted in Docket 120015-E1.

RESPONSE

When the 2013 test year data was prepared in 2011, the Company had less than 50 customers objecting to smart meters. Based upon the information available to FPL at that time, the Company did not plan for or project any costs associated with a non-standard meter option. As a result, FPL did not have any basis to include the costs associated with the non-standard meter option in testimony, the MFRs, or discovery responses submitted in connection with Docket 120015-E1.

QUESTION

Please refer to FPL's response to Staff's First Set of Data Requests, No. 24, Attachment No. 1, Page 2 of 3. Please describe in greater detail the nature of the charges associated with each of the Accounts shown below and explain why they should be included in the "Monthly Cost per Meter" O & M costs.

Account	Description of Charges	2013 Budget
5250000	PAYROLL EXPENSE: Other Earnings	\$156,600
5310000	EMPLOYEE WELFARE	\$17,162
5340000	EDUCATION AND TRAINING	\$3,628
5500500	CELLULAR TELEPHONE AND PAGERS	\$24,712
5600000	BUSINESS TRAVEL: Lodging	\$30,996
5600100	Meals & Entertainment - 50%	\$28,203
5600200	BUSINESS TRAVEL: Air	\$5,000
5600500	BUSINESS TRAVEL: Misc Expenses	\$14,259
5600700	BUSINESS TRAVEL: Occasional Use Mileage	\$1,192,006
5750700	OUTSIDE SERVICES: Other	\$23,490
5800000	OTHER EXPENSE	\$6,564
Sum		\$1,502,620

Florida Power & Light Company
Docket No. 130223-EI
Staff's Second Data Request
Request No. 8
Page 2 of 2

RESPONSE

Account	Description of Charges	2013 Budget	Nature of Charges
5250000	PAYROLL EXPENSE- Other Earnings -	\$156,600	Meter Reading pay for performance program that awards exceptional performance semi-annually. This is paid in a lump sum bonus
5310000	EMPLOYEE WELFARE -	\$17,162	Spend for employee/employer relationships geared towards employee motivation and morale. FPL uses employee relations for hydration stations, safety milestone celebrations, etc.
5340000	EDUCATION AND TRAINING	\$3,628	Education and Training for meter reading operations
5500500	CELLULAR TELEPHONE AND PAGERS	\$24,712	Cellular Telephone charges for meter reading operations
5600000	BUSINESS TRAVEL: Lodging	\$30,996	Hotel Charges for meter reading operations, primarily used for out of town training
5600100	Meals & Entertainment - 50%	\$28,203	Meals for meter reading operations
5600200	BUSINESS TRAVEL: Air	\$5,000	Airline Charges for meter reading operations
5600500	BUSINESS TRAVEL: Misc Expenses	\$14,259	Miscellaneous - tolls, parking, other for meter reading operations
5600700	BUSINESS TRAVEL: Occasional Use Mileage	\$1,192,006	Mileage Charges for meter reading routes
5750700	OUTSIDE SERVICES- Other -	\$23,490	Employee physicals, water delivery for the offices, facility management services, and courier services for meter readers
5800000	OTHER EXPENSE -	\$6,564	Expenses incurred that do not fall under another category - examples include: property damage claims and airport clearance IDs
Sum		\$1,502,620	

All of these expenses are appropriate, prudent and reasonable costs associated with the work performed by meter readers under normal meter reading operations.

QUESTION

Please make the appropriate revisions to Tab 2 and Tab 1 of FPL's response to Staff's First Set of Data Requests, No. 12 to illustrate the effect of recovering the revenue requirements over a five-year period rather than a three-year period.

RESPONSE

See Attachment No. 1 for requested revisions to Tabs 1 and 2 of Attachment No. 1 to FPL's response to Staff's First Data Request No. 12. Note, FPL believes the three year recovery period is reasonable to help ensure that the NSMR program remains cost based and costs are recovered from those customers who choose to participate in the NSMR tariff.

FLORIDA POWER AND LIGHT COMPANY
SUMMARY OF NON-STANDARD METER FEES

Line No.		3 Year Recovery
1	<u>Non-Standard Meter Program Costs</u>	
2	Cumulative Net Present Value of Up-Front System and Communication Costs	\$ 3,078,882
3	Projected Non-Standard Meter Customers	12,000
4	Total Up-Front System and Communication Costs Per Customer (Line 2 / Line 3)	\$ 256.57
5		
6	One Time Non-Standard Meter Cost Per Customer	\$ 105.35
7		
8	Total Up-Front and One Time Non-Standard Meter Cost Per Customer (Line 4 + Line 6)	\$ 361.92
9		
10	Enrollment Fee Per Customer Limited to \$105	\$ 105.00
11	Remaining Up-Front and One Time Cost Per Customer (Line 8 - Line 10)	256.92
12	Remaining Up-Front and One Time Cost to be paid in Monthly Surcharge over 36 months (Line 11 / 36)	\$ 7.14
13	<u>On-going Operations & Maintenance (O&M) Costs to be recovered in the Monthly Surcharge:</u>	
14	Monthly Non-Standard O&M Meter Costs Per Customer	\$ 8.76
15		
16	<u>Summary of Charges:</u>	
17	Enrollment Fee limited to \$105	\$ 105.00
18	Monthly Surcharge for time customer takes service pursuant NMSR (Line 14 + 12, rounded to nearest \$)	\$ 16.00
19	<u>Note:</u>	
20	Totals may not add due to rounding	
21		
22		
23		
24		5 Year Recovery
25		
26	<u>Non-Standard Meter Program Costs</u>	
27	Cumulative Net Present Value of Up-Front System and Communication Costs	\$ 3,352,312
28	Projected Non-Standard Meter Customers	12,000
29	Total Up-Front System and Communication Costs Per Customer (Line 27 / Line 28)	\$ 279.36
30		
31	One Time Non-Standard Meter Cost Per Customer	\$ 105.35
32		
33	Total Up-Front and One Time Non-Standard Meter Cost Per Customer (Line 29 + Line 31)	\$ 384.71
34		
35	Enrollment Fee Per Customer Limited to \$105	\$ 105.00
36	Remaining Up-Front and One Time Cost Per Customer (Line 33 - Line 35)	279.71
37	Remaining Up-Front and One Time Cost to be paid in Monthly Surcharge over 60 months (Line 36 / 60)	\$ 4.66
38	<u>On-going Operations & Maintenance (O&M) Costs to be recovered in the Monthly Surcharge:</u>	
39	Monthly Non-Standard O&M Meter Costs Per Customer	\$ 8.76
40		
41	<u>Summary of Charges:</u>	
42	Enrollment Fee limited to \$105	\$ 105.00
43	Monthly Surcharge for time customer takes service pursuant NMSR (Line 37 + 39, rounded to nearest \$)	\$ 13.00
44		
45		
46		
47		
48	<u>Note:</u>	
49	Totals may not add due to rounding	
50		

**FLORIDA POWER AND LIGHT COMPANY
NET PRESENT VALUE CALCULATION
UP-FRONT NON-STANDARD METER PROGRAM COSTS**

Line No.	Year	Rate Base Beg Bal ^(A)	Accum Depr	Rate Base End Bal	Average Rate Base	Pre-Tax COC ^(B)	Return on Rate Base	Depr Expense ^(C)	O&M ^(D)	Total Revenue Requirement	Net Present Value of Rev Req ^(E)	Annual Levelized 3 Year Rev Req	Annual Levelized 5 Year Rev Req	
		(1)	(2)	(3) = (1)+(2)	(4) = ((1)+(3))/2	(5)	(6) = (4)*(5)	(7)	(8)	(9) = (6)+(7)+(8)	(10)	(12)	(13)	
1	1	\$ 2,093,054	\$ (418,611)	\$ 1,674,443	\$ 1,883,748	9.48%	\$ 178,505	\$ 418,611	\$368,000	\$ 965,116	\$ 965,116	\$ 1,026,294	\$ 670,462	
2	2	1,674,443	737,222	1,255,832	1,465,138	9.48%	138,837	418,611		567,448	509,195	1,026,294	670,462	
3	3	1,255,832	(1,255,832)	837,222	1,046,527	9.48%	99,169	418,611		517,780	432,023	1,026,294	670,462	
4	4	837,222	(1,674,443)	418,611	627,916	9.48%	59,502	418,611		478,112	364,395		670,462	
5	5	418,611	(2,093,054)	0	299,305	9.48%	19,834	418,611		438,445	395,238		670,462	
							Totals	\$ 495,847	\$ 2,093,054	\$368,000	\$ 2,956,901	\$ 2,575,968	\$ 3,078,882	\$ 3,352,312

14 **Notes:**

- 15 (A) Support for upfront non-standard meter program capital costs is reflected on Page 3 and 4
- 16 (B) Represents FPL's pre-tax weighted average cost of capital approved by the FPSC in
- 17 Order PSC-13-0023-S-EI, Docket No. 120015-EI.
- 18 (C) One time capital costs for systems infrastructure and communication equipment are estimated to be depreciated over five years.
- 19 (D) Support for upfront non-standard meter program operation and maintenance costs is reflected on Page 3 and 5
- 20 (E) Net present value calculation utilizes a discount rate equal to FPL's pre-tax weighted average cost of capital reflected in column (5)

QUESTION

Please refer to the proposed NSMR tariff, special provisions (b). For customers who fail to cancel NSMR service within the 45 days grace period, and are billed NSMR charges, please state if those customers would be subject to disconnection if they only pay the portion of their electric bill that reflects the non-NSMR charges (i.e., customer refuses to pay NSMR charges). If yes, please explain the process by which FPL would disconnect those customers.

RESPONSE

Yes. Customers who take service pursuant to the NSMR, whether through active enrollment or because FPL has been prevented from installing the smart meter, who refuse to pay the associated tariff fees would be subject to normal collection processes, up to and including disconnection of service for non-payment.

QUESTION

Referring to Staff's First Set of Data Requests, No. 16, please list all the information FPL intends to include in the progress reports.

RESPONSE

Pursuant to Order No. PSC-10-0153-FOF-EI, issued in Docket No. 080677-EI on March 17, 2010, FPL files an annual Smart Meter Progress Report in March in the ECCR docket. The referenced order describes the requirements of the report as follows:

FPL shall provide annually a progress report on implementation of smart meters in the Energy Conservation Cost Recovery docket. The report shall include a detailed description of how FPL intends to utilize smart meters to allow customers to better manage their energy consumption, including new programs or rate offerings associated with smart meters.

See Order 10-0153 at pg. 96. In addition to other pertinent smart meter developments, FPL intends to provide information regarding the NSMR program including the number of enrolled opt out customers, associated revenues received (Enrollment Fees and Monthly Surcharge payments) from customers taking service pursuant to the NSMR tariff, and costs of the program to date.

15

**FPL's responses to OPC's
First Set of Interrogatories
Nos. 1-15**

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET: 130223-EI EXHIBIT: 15
PARTY: STAFF
DESCRIPTION: FPL's responses to OPC's First
Set of Interrogatories, Nos. 1-15 [Bates Nos.
0140-0167]

QUESTION

How many FPL customers have smart meters, and how many have analog or other non-communicating meters? Break down totals by class.

RESPONSE

As of March 31, 2014		
Class	Smart Meter	Non Standard Meter
Residential	4,224,798	26,275
Commercial / Industrial	358,550	206,868
Total	4,583,348	233,143 ⁽¹⁾

⁽¹⁾As of March 31, 2014, non-standard meters include remaining meters scheduled for smart meter installation during 2014/15, primarily Commercial/Industrial (208,401), smart meters accepted by customers during enrollment and pending installation (5,470), NSMR enrolled customers (1,743) postponed customers who have not yet responded (11,956) and Unable To Complete customers who have not yet responded (5,573) .

QUESTION

As of February 28, 2014, how many customers have asked FPL to refrain from installing a smart meter? Of these customers, how many accepted smart meters when informed that they would be required to pay additional charges to keep the analog or non-communicating meters?

RESPONSE

As of February 28, 2014, approximately 21,250 FPL customers were on the temporary postponement list (at no cost to the customer) based upon requests that the Company refrain from installing a smart meter, and approximately 7,500 customers had not allowed FPL to complete smart meter installation (at no cost to the customer), for a total of 28,750 total customers. On March 3, 2014, FPL initiated communications with these customers regarding the Commission approved non-standard meter option and the fees associated with that optional service. As of March 31, 2014, approximately 9,500 of these customers had affirmatively requested smart meters, approximately 1,750 of these customers had elected to take service pursuant to the NSMR tariff, and approximately 17,500 of these customers had yet to communicate a response.

QUESTION

As of February 28, 2014, how many customers have stated no objection to smart meters, but have failed to provide FPL access to their property for the purpose of installing a smart meter? Describe the form, nature, and substantive content of FPL's communications with these customers.

RESPONSE

As of February 28, 2014, approximately 7,500 customers had not asserted any objections to smart meters but had not provided FPL access to their property to install a smart meter.

See Attachment Nos. 1, 2 and 3 for the letters, emails and phone messages sent beginning March 3, 2014, to these customers.

Email #1

You have a choice of meter.

We're writing to advise you that the Florida Public Service Commission has approved Florida Power & Light Company's proposal to offer a Non-Standard Meter Option to eligible customers who prefer not to have a smart meter, which is the standard meter FPL provides.

Our records show that you currently have a non-standard meter. **If you wish to keep the non-standard meter, you will need to sign for the Non-Standard Meter Option, which includes additional fees.** Please choose your meter option no later than <20 days from date of email>.

Making your choice is easy. Just follow three simple steps:

- (1) **Know the facts.** Smart meters provide important customer benefits and an enhanced level of service at no additional charge. They provide you with more information to help you manage your electricity use and bills, and they help us prevent power outages and get the lights back on faster if outages do occur. That's why they're now the standard meter FPL provides.
- (2) **Compare the costs and benefits.** The benefits of smart meters are not available with non-standard meters. In addition, **if you choose the Non-Standard Meter Option, you will pay an enrollment fee of \$95 and a monthly surcharge of \$13 to help cover FPL's costs of providing this non-standard service.** These charges would be included in your electric bill. For more information please go to www.FPL.com/meteroption.
- (3) **Make your choice by <20 days from date of email>.** Please go to www.FPL.com/meteroption for more information. When you're ready to make your choice, simply scroll down to the green button that says "Log In to Choose."

For your convenience, we have also sent you information in the mail.

Thank you in advance for making your choice.



CHANGING THE CURRENT. FPL.

<<mailing_name>>
<<Mailing_Address 1>>
<<Mailing_Address 2>>
<<MAILING_CITY>> <<MAILING_ST>> <<MAILING_ZIP>>

Dear <<CUSTOMER NAME>>:
Service Address: <<SERVICE ADDRESS>>

You have a choice of meter.

We're writing to advise you that the Florida Public Service Commission has approved Florida Power & Light Company's proposal to offer a Non-Standard Meter Option to eligible customers who prefer not to have a smart meter, which is the standard meter FPL provides.

Our records show that we have tried several times to contact you to install a smart meter at the service address shown above. If you wish to keep the non-standard meter currently at this address, you will need to sign up for the Non-Standard Meter Option, which includes additional fees. If not, please contact us to arrange for an installation of the smart meter.

Please choose your meter option no later than <20 days from date of this letter>.

Making your choice is easy. Just follow three simple steps:

1. Know the facts. Smart meters provide important customer benefits and an enhanced level of service at no additional charge. They provide you with more information to help you manage your electricity use and bills, and they help us prevent power outages and get the lights back on faster if outages do occur. That's why they're now the standard meter FPL uses.

For more information, please review the enclosed brochure or go to FPL.com/meteroption.

2. Compare the costs and benefits. The benefits of smart meters are not available with non-standard meters. In addition, if you choose the Non-Standard Meter Option, you will pay an enrollment fee of \$95 and a monthly surcharge of \$13 to help cover FPL's costs of providing this non-standard service. These charges would be included in your electric bill. For more information, please see the enclosed brochure or go to FPL.com/meteroption.

3. Please notify us of your decision by <20 days from date of letter>. You may notify us by:

- Filling out the simple online form at FPL.com/meteroption, or
- Completing the form below and using the envelope we've provided to mail it to us by <20 days from date of letter>. We'll pay the postage for you, or
- Calling 1-866-252-6047.

Thank you in advance for making your choice.

Sincerely,
Maria Gomez
Director, Customer Service

<<Account Number>>
<<Customer_name>>
<<Mailing_Address 1>>
<<Mailing_Address 2>>

Phone number: _____ Email address: _____
Best time to call: Morning Afternoon Evening (We will only call if it's necessary to clarify your responses on this form.)

Please choose one:

Smart Meter (Standard Meter). I understand there is no extra charge for this service and agree to ensure safe access to the existing meter so installation can be completed.

Is meter accessible for installation? (Not behind a locked fence, no dogs in yard.) Yes No I don't know
If not, we will call to schedule installation.

Non-Standard Meter. I understand I will be billed an enrollment fee of \$95 and a monthly surcharge of \$13 to help cover the cost of the non-standard service. I also understand that I will not have access to the benefits provided by smart meters.

Signature: _____

Print Name: _____

1

**Know the facts
about smart meters**

2

**Compare the
costs and benefits**

3

**Choose your
meter option**

The Choice is Yours

FPL.com/meteroption

PDS Script

Wave 1

This is a courtesy call from Florida Power & Light Company.

We are calling to let you know you have a choice of electric meter.

FPL's standard meter is the smart meter. Our records show that you do not have the standard meter. If you wish to keep the non-standard meter, you may do so by enrolling in FPL's Non-Standard Meter Option. The Non-Standard Meter Option requires an enrollment fee of \$95 and a monthly surcharge of \$13, which would be included in your electric bill. If you do not want to pay additional fees, please contact us to arrange for installation of the smart meter.

You can choose the meter you prefer by going to [www-dot-FPL-dot com-backslash meter option](http://www-dot-FPL-dot-com-backslash-meter-option). Or call us at 1-866-252-6047. You can also expect to receive information in the mail if you haven't already.

QUESTION

For the period July 1, 2013 - February (sic) 28, 2014, please provide (a) the total number of new connections eligible to receive smart meters and (b) the number of the new connections that opted out of the installation of a smart meter.

RESPONSE

During the period July 1, 2013 - February 28, 2014, FPL had approximately 856,000 connections, transfers and new construction customers eligible to have smart meters. Of this total, only 250 customers asked to be included on the postpone list.

QUESTION

Describe in detail the manner in which FPL currently renders a bill to a customer who does not have a smart meter. In your answer, describe each step in which FPL gathers information regarding the customer's consumption, transmits the information to the department responsible for rendering the bill, and converts the information into a bill that is delivered to the customer. For each step, identify the equipment, facilities (including, but not limited to, computer hardware/software), personnel, and systems (accounting/billing) that FPL employs

RESPONSE

Process: Obtain and Transmit Meter Readings - Non-Standard Meter

Equipment: Desktop or Laptop Computers
FC300/G5 Handheld Meter Reading Device

Facilities: FPL Offices - Meter Reading Locations

Systems: Customer Information System (CIS)
Field Collection System (FCS)
Meter Reading Management System (MRMS)

Personnel: Meter Reading

Three business days before an account's scheduled read date, data needed to obtain a meter reading is downloaded from the Customer Information System (CIS) to the Field Collection System (FCS) or Meter Reading Management System (MRMS). This data includes the account's address or location, information about the meter such as its location at the property and its type, whether the meter reading has been estimated in the past, and any known hazardous conditions. Accounts requiring a start reading to establish service, a final reading to close service, or verification of a previous meter reading are also downloaded. This data is loaded onto the FC300/G5 Handheld Meter Reading Device at the beginning of each work day.

At the beginning of every work day, the Lead Meter Reader for each Meter Reading Location assigns the routes that contain the accounts that are scheduled to be read that day to that location's Meter Readers. The Meter Readers then receive their assignments and leave the office to obtain meter readings for the accounts on the routes they have been assigned to read.

The Meter Reader drives to the first location on the first route, locates the meter to be read, and enters the meter information and meter readings into the FC300/G5 Handheld Meter Reading Device. Depending on the distance, the Meter Reader may then walk to the next location on that route, or may return to the vehicle and drive to the next location.

Once readings for all assigned routes have been obtained, the Meter Reader drives back to the FPL office and uploads the information and meter readings from the FC300/G5 Handheld Meter Reading Device to FCS/MRMS. When all meter readings from all Meter Reading Locations have been uploaded to FCS/MRMS, then FCS/MRMS transmits the data to CIS.

Process: Reconcile Meter Readings

Equipment: Desktop or Laptop Computers

Facilities: FPL Offices - General Office

Systems: Customer Information System (CIS)
Field Collection System (FCS)
Meter Reading Management System (MRMS)

Personnel: Billing Projects & Support
Information Management Support
Quality Assurance & Analysis

The Field Collection System (FCS) or Meter Reading Management System (MRMS) transmits Meter Reading data to the Customer Information System (CIS). Meter reading data is reconciled to ensure that all readings expected to be received for the billing cycle day were successfully transmitted to the CIS. Any reconciliation exceptions are resolved by Billing Projects & Support, Quality Assurance & Analysis, and Information Management Support personnel

Process: Validate Meter Readings

Equipment: N/A

Facilities: FPL Offices - General Office

Systems: Customer Information System (CIS)

Personnel: N/A

After reconciliation, meter readings and usage for each account are automatically validated for accuracy using predefined algorithms. Validations include high-low usage parameters, correct number of reading digits received based on the account's meter type, current meter reading cannot be less than the previous meter reading, etc.

If all validations are passed, the account is ready to be sent to billing.

If any validations are not passed, the account is pended for further review by the Customer Accounting Department before the bill is rendered and sent to the customer. Review of validation failures begins on the morning of the next business day.

Process: Resolve Exceptions - Non-Standard Meter

Equipment: Desktop or Laptop Computers

Facilities: FPL Offices - General Office, Customer Service East Area Office

Systems: Customer Account Local Liaison System (CALLS)
Customer Information System (CIS)
Field Meters Operations System (FMOS)
Field Work Management System (FWMS)
On-Demand Reporting System
Trouble Call Management System (TCMS)
Work Management System (WMS)

Personnel: Customer Accounting
Field Meters Operations
Meter Reading

At the beginning of every work day, the Customer Accounting Supervisors review and assign exceptions to Customer Accounting Representatives. Exceptions are worked through an online Pending Work Queue (PWQ). Representatives analyze and resolve exceptions utilizing standard work processes, and access data about the account in multiple systems. These work processes and procedures are specific to accounts that do not have a smart meter.

Exception resolution may include requesting Field Meters Operations and/or Meter Reading personnel to visit the account's location to investigate a meter condition, or to verify the meter reading or meter number. Because a field visit is required, the exception cannot be resolved until the requested information is returned from Meter Reading or Field Meters Operations. These exceptions therefore require a longer period of time to complete before the bill can be rendered to the customer.

Some exceptions require cancel/replace billing to issue credits or debits to customer accounts.

When all exceptions for an account are resolved, the account is ready to be sent to billing.

Process: Calculate Bill - Quality Bill Check

Equipment: Desktop or Laptop Computers

Facilities: FPL Offices - General Office

Systems: Customer Information System (CIS)
Quality Bill Check System (QBCS)
Web-based Rate Analysis Program (WRAP)

Personnel: Billing Projects & Support
Information Management Support

Prior to billing the entire population of accounts that are ready for billing on a given day, a subset of accounts is randomly selected from that population and billed by the CIS. The same accounts are then sent to a quality bill check process using the Quality Bill Check System (QBCS) and the Web-based Rate Analysis Program (WRAP) and billed. This program is separate from the CIS.

The WRAP calculations are compared programmatically to the CIS calculations, and any exceptions are reviewed by Billing Projects & Support and Information Management Support to determine if discrepancies identified impact CIS billings.

If the root cause of the discrepancy is determined to be in the CIS, batch billing is not performed for the remaining affected account(s). If the root cause of the discrepancy is in the WRAP or is determined to be any other error not impacting billing accuracy in the CIS, a ticket is generated by Billing Projects & Support to Information Management Support for resolution, and batch billing proceeds.

Process: Calculate Bill - Batch Billing

Equipment: N/A

Facilities: FPL Offices - General Office

Systems: Customer Information System (CIS)

Personnel: N/A

The Customer Information System (CIS) uses predefined algorithms to automatically calculate customer bills based on tariff and taxing authority. CIS validates each account's billing based on service dates, tariff in effect on the scheduled read date, tax classification, and jurisdictional taxing authority designation.

When calculation is complete, each account is balanced to ensure that all credits and debits have posted to the account correctly. The CIS controls the updating of the customer account and the CIS sub-general ledger.

Process: Create Bill Statement

Equipment: Xerox CF650DUP High Speed Printers

Facilities: FPL Offices - General Office

Systems: Customer Information System (CIS)

Personnel: Print Room

The Customer Information System (CIS) creates a bill statement for every account billed. The statement contains information such as the meter number, previous and current meter readings, usage, account location, service dates, next scheduled meter reading date, rate factors, tariff under which the account was billed, previous balance, payments received, credit and debit adjustments, electric service amount, fees and taxes, total new charges, and total amount due.

Each night, Print Room Operators print the bills for customers who receive a paper bill statement. An electronic image of each bill statement is also created.

Process: Send Bill

Equipment: Burster/Merger
Folder
High Speed APS 22K Bill Inserters
Postage Meter Machine
Strapper

Facilities: FPL Offices - General Office
U.S. Postal Service - General Mail Facility

Systems: Customer Information System (CIS)
FPL Customer Web Portal (FPL.com)

Personnel: Print Room Operators

After bill statements are created and printed, they are bursted and merged, and loaded into an inserter that uses bar codes on the bill to insert the correct bills in each envelope. Print Room Operators prepare mailing trays by zip code, tray size and tag trays of customer bills for United States Postal Service (USPS) according to USPS rules and regulations. Printed bill statements are delivered to the USPS General Mail Facility and sent to the customers via U.S. Mail.

The electronic image of the bill statement is uploaded to the FPL Customer Web Portal at www.FPL.com and can be viewed when a customer logs in to their secure account. A customer may elect to only receive an email bill and forgo the hard copy described above. An email is sent to those customers who elect to participate in FPL's Email Bill Program, notifying them that their bill is ready to view.

QUESTION

With respect to your answer to (5) above: Compare this process to that which was in place prior to the deployment of "smart meters." Identify any equipment, facilities, personnel, systems, or other resources related to rendering customers bills which differ from that which was in place prior to the deployment of the "smart meters."

RESPONSE

Although the processes for rendering a bill referenced in FPL's response to interrogatory (5) above remain the same as those in place prior to the deployment of smart meters, customers who have a non-standard meter require additional resources, processes and personnel that were not originally intended as part of FPL's Smart Grid project. Distinct work processes must also be maintained as described in our response to question (5) in order to serve these customers.

In addition, customers who require these additional services, which include visits to obtain a monthly meter reading in order to render bills, and visits to obtain start readings to establish service and final readings to close service, are geographically dispersed, thereby impeding our ability to fully optimize efficiency and increasing the cost to obtain such readings.

Non-Standard meter exception resolution requires additional time due to the need to send resources to the field to obtain the information needed, as detailed in our response to question (5). Exceptions for accounts with a smart meter can usually be resolved more quickly by accessing meter readings or other required information directly from AMI systems. Also, accounts with a non-standard meter generate a proportionally greater percentage of billing exceptions which more often result in the need to issue cancel/replace billing.

Separate Meter Reading systems, the FCS and MRMS systems, must also be implemented and maintained to support customers who keep a non-standard meter. Were it not for the need to support customers who decline a smart meter, the FCS and MRMS systems and the associated FC300 and G5 handheld meter reading devices would no longer be required.

Because customers who do not have a smart meter are now the exception rather than the rule, continuing to support these separate processes and systems requires incremental effort and retention of personnel in both Meter Reading and Customer Accounting, and incremental effort in Billing Projects and Support and Information Management.

QUESTION

Will existing customers who choose not to have a smart meter continue to use the meter that is currently installed on their premises? Please explain your answer. What portion of the calculated cost of rendering a bill to a customer who chooses not to have a smart meter, if any, is related to the assumption that the customer would need a different meter to take the place of the one currently installed?

RESPONSE

Yes, existing customers who take service pursuant to the NSMR tariff will keep the meter that is currently installed on their premise. When the existing meter requires normal maintenance, testing for accuracy, or needs to be replaced for any reason, it will be replaced with a non-communicating meter. FPL's projections supporting the NSMR tariff do not include any costs related to the eventual replacement of the existing meter with another non-communicating meter.

QUESTION

Do the provisions of the "opt out tariff" reflect that an existing customer who declines a smart meter enables FPL to avoid the cost of purchasing and installing the smart meter? If so, how is the avoidance factored into the tariff's charges? In other words, does FPL's "opt out tariff" differentiate between existing customers (for whom FPL will not incur an immediate meter cost) and new customers (for whom FPL will incur the cost of an alternative meter)? If not, why not?

RESPONSE

FPL does not avoid any costs associated with purchasing and installing a smart meter when an existing customer declines a smart meter.

FPL performed a thorough analysis leading to the NSMR tariff proposal and identified a number of categories of incremental costs the Company will incur in conjunction with the NSMR tariff which were not included in the NSMR tariff rates. Smart meters need to be available for all new and existing customers. During smart meter deployment the Company could not know how many, or where, customers would be that might choose the non-standard meter option. Therefore, FPL purchased meters and mobilized contractors to install smart meters to all customers. It is also possible for customers to accept smart meter installation and then subsequently elect non-standard meter service, which also supports the need for full smart meter inventory. In addition to the full inventory of smart meters, FPL must now also keep an inventory of non-standard meters for the NSMR population, the cost of which has not been included in the NSMR tariff. FPL also anticipates that over half of the postpone population will elect to accept a smart meter, which will require an incremental field visit to install each smart meter. The need for incremental field visits throughout FPL's service territory where smart meter installations had already been completed will be at a much higher cost than would have been incurred during mass deployment, and these costs also have not been included in the NSMR tariff.

QUESTION

Does FPL intend to use the equipment, facilities, personnel, systems, and other resources, that it now employs to render bills for customers who do not have smart meters for those customers who choose to opt out of the smart meter? If not, why not?

RESPONSE

Yes, FPL intends to use the equipment, facilities, personnel, and other resources that it now employs to render bills for customers who do not have smart meters for those customers who choose to opt out of the smart meter. However, the existing Customer Information System (CIS) and Customer Web Portal (FPL.com) required significant enhancements to accommodate the NSMR customers with incremental modifications.

These enhancements include, among other things: creating an enrollment portal for customers to enroll on-line; creating a Customer Care Center portal so that Care Center representatives can assist customers who call to enroll, properly accounting for and maintaining non-standard meter customers in the CIS; scheduling meter change orders and appointments; creating new billing functionality to accommodate this non-standard meter service; establishing new entries in the CIS sub-general ledger to properly book the new charges; adding the new charges to the paper bill statement and electronic billing documents and files; providing and enhancing interfaces for all field meter activities including collections, connection of service, and trouble call system, as well as interfacing with other work management systems that non-standard meters affect. These changes are detailed and included in Exhibit B.

Additionally, support and maintenance of separate systems and equipment, as well as retention of personnel, are also required as detailed in FPL's response to OPC's First Set of Interrogatories No. 6.

Furthermore, should the number of customers who decline a smart meter going forward increase above the level currently projected, additional equipment, personnel, and other resources will be required to continue to render bills to those customers.

QUESTION

With respect to the equipment, facilities, personnel, systems, and other resources that are presently in place for the processing of bills for customers who do not wish to have a smart meter: Are such equipment, facilities, personnel, systems, and other resources available (in terms of functionality and/or capacity) to use in rendering bills to customers who decline smart meters "going forward"? If your answer is "no," please explain in detail.

RESPONSE

Yes. See FPL's response to OPC's First Set of Interrogatories Nos. 6 and 9.

QUESTION

With respect to the equipment, facilities, personnel, systems, and other resources in place for the rendering of bills to customers who decline smart meters: Which equipment, facilities, personnel, systems, and other resources, if any, will FPL continue to use when rendering a bill to customers who accept smart meters? If FPL will continue to use some portion of such equipment, facilities, personnel, systems, or other resources when rendering bills to customers who accept smart meters: In its analysis of the costs associated with customers who opt out of the smart meter, has FPL allocated a portion of the cost of that portion to customers who accept smart meters? Please explain your answer.

RESPONSE

FPL will continue to use the same equipment, facilities, personnel, systems, and other resources, that are already in place today for rendering bills to customers with smart meters. FPL's projections supporting the NSMR tariff include only the incremental costs over and above the equipment, facilities, personnel, systems, and other resources caused by the non-standard meter customers. As a result, it would be inappropriate to allocate any of these costs to customers accepting smart meters.

For customers who decline smart meters, Meter Reading employees are required to obtain a monthly meter reading in order to render bills to those customers, and to obtain start readings to establish service and final readings to close service when needed. For customers who accept a smart meter, visits to obtain these meter readings are not required. Customers who require these additional services are geographically dispersed, thereby impeding our ability to fully optimize efficiency and increasing the cost to obtain such readings, as described in FPL's response OPC's First Set of Interrogatories No. 6.

Field Meters Operations personnel and equipment will also be used to resolve exceptions and perform field investigations for customers who decline smart meters and for customers who accept smart meters; however, incremental personnel and equipment are required in order to perform this work, as well as the maintenance of additional separate processes and procedures.

Billing Projects & Support, Customer Accounting, Information Management, and Quality Assurance & Analysis personnel will be used to support billing processes and resolve exceptions for customers who decline smart meters and for customers who accept smart meters; however, the procedures, processes, and systems used for support and exception resolution are different for these groups of customers as described in FPL's response to OPC's First Set of Interrogatories No. 5.

The Customer Information System, while used for both groups of customers, required significant

modifications as detailed both in Exhibit B and in FPL's response to OPC's First Set of Interrogatories Nos. 9 and 10. This was incremental work required specifically to support customers who decline a smart meter.

In addition, FPL must maintain and support separate processes and systems to collect unpaid balances for customers who do not have a smart meter. Collection of unpaid debt requires a visit to the customer's account location to attempt to obtain payment, and also requires field collection employees with a specialized skill set to perform disconnection of service should payment not be received. For customers who have a smart meter, field visits to collect unpaid debt are not performed, and disconnection and reconnection of service is performed remotely.

QUESTION

If 100% of FPL's customers had accepted smart meters, would FPL have incurred any costs in the retirement, dismantling, conversion, or other disposition of existing equipment, facilities, personnel, systems, and other resources used in rendering bills for non-smart meters? If your answer is "yes," please identify each such cost, the facility/person/system involved, and the manner in which FPL would have quantified and recovered each such cost. In deriving the costs and resulting charges for the "opt out tariff," did FPL credit to customers who decline smart meters the avoidance of such costs of replacement? Please explain your answer.

RESPONSE

Refer to FPL response to OPC's First Set of Interrogatories Nos. 6, 8, 9, 10 and 13. In addition, if 100% of FPL's customers had accepted the smart-meters, FPL would not be rendering bills for non-standard meters.

QUESTION

Please explain how FPL accounts for the analog meters that it removes and retires as it installs smart meters. Include the treatment given to depreciation expense, cost of removal, and salvage, if and as applicable. Physically, what did FPL do with the analog meters that it removed during the deployment of smart meters? Please identify any amount of money that FPL received in the disposition of the analog meters.

RESPONSE

At the onset of the smart meter deployment project, FPL projected it would retire 4,290,207 analog meters. The estimated remaining net book value of \$77,464,268 associated with those analog meters as well as estimated expected removal cost of \$23,617,590 was included on a capital recovery schedule as filed in Docket No. 080677-EI, Depreciation Study Exhibit CRC-1. In Order No. PSC-10-0153-FOF-EI, the Commission ordered that the amounts included in the capital recovery schedule be offset against a portion of the depreciation reserve surplus determined in that same proceeding. Therefore, the accumulated provision for depreciation was credited for the total recovery of the net book value of retirements and its cost of removal for a total of \$101,081,858.

Generally, at the time an analog meter is retired, the gross plant cost is credited to plant in service and the corresponding amount debited to the accumulated provision for depreciation. The actual cost of removal is also debited to the accumulated provision for depreciation whereas any salvage realized is credited to the accumulated provision for depreciation.

FPL sold the analog meters for scrap. Through December 2013, FPL has received approximately \$4.3 million in salvage proceeds, which as described above, were credited to the accumulated provision for depreciation.

QUESTION

- (a) Beginning with the initial rollout of smart meters and through the end of calendar year 2013, what has been the cumulative reduction in operating and maintenance expense associated with the deployment of smart meters (relative to the level associated with 100% analog meters)?
- (b) By how much was total operations and maintenance expense (O&M) lower in calendar year 2013 as a result of the deployment of smart meters (relative to 100% analog meters)?
- (c) How much would the total O&M reductions have been in 2013 had 100% of FPL's customers accepted smart meters? Please provide your assumptions and describe the calculation in narrative form.

RESPONSE

See FPL's Objection to OPC's First Set of Interrogatories and First Request for Production of Documents filed March 31, 2014.

QUESTION

- (a) How sensitive are the rate component values of the opt-out tariff to the estimates of the numbers of customers who decline smart meters?
- (b) Please provide the enrollment fee and monthly charge values that correspond to the upper bounds of the ranges of FPL' s estimates of customers who will opt out of smart meter provisioning rather than the averages of those ranges.

RESPONSE

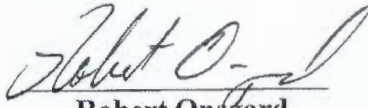
- (a) The NSMR rates are more sensitive to reductions in the number of customers who elect to take service pursuant to the NSMR than to increases in the number of customers who participate. This nonlinear relationship happens whenever fixed costs are allocated to a smaller population.
- (b) The impact of variations in the number of customers taking service pursuant to the NSMR tariff is shown below, using the low, middle and high numbers upon which FPL's projections were based.

Response to OPC 1st Set Interrogatories - No. 15(B)

Recap scenarios - NSMO

	12,000 participants <i>(base case)</i>	6,000 participants <i>(low case)</i>	18,000 participants <i>(high case)</i>
FPL - As filed			
Enrollment Fee	\$105	\$105	\$105
Monthly Surcharge:	\$16	\$24	\$13
Staff - As approved			
Enrollment Fee	\$95	\$95	\$95
Monthly Surcharge:	\$13	\$19	\$12

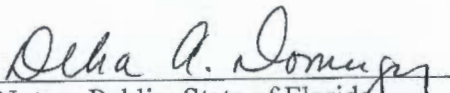
AFFIDAVIT


Robert Onsgard

State of Florida)
County of Pinellas

I hereby certify that on this 14 day of APRIL, 2014, before me, an officer duly authorized in the State and County aforesaid to take acknowledgments, personally appeared Robert Onsgard, who is personally known to me, and he acknowledged before me that he sponsored the answers to Interrogatory Nos. 1-12 and 15 from Florida Citizens' ("Citizens" or "OPC") First Set of Interrogatories to Florida Power & Light Company in Docket No. 130223-EI, and that the responses are true and correct based on his personal knowledge.

In Witness Whereof, I have hereunto set my hand and seal in the State and County aforesaid as of this 14 day of APRIL, 2014.


Notary Public, State of Florida

Notary Stamp:



AFFIDAVIT

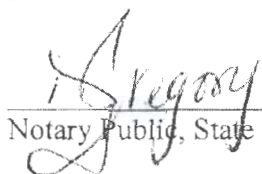


Sol Stamm

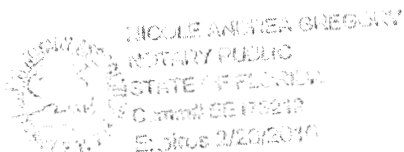
State of Florida)
County of Palm Beach

I hereby certify that on this 14 day of April, 2014, before me, an officer duly authorized in the State and County aforesaid to take acknowledgments, personally appeared Sol Stamm, who is personally known to me, and he acknowledged before me that he sponsored the answer to Interrogatory No. 13 from Florida Citizens' ("Citizens" or "OPC") First Set of Interrogatories to Florida Power & Light Company in Docket No. 130223-EI, and that the response is true and correct based on his personal knowledge.

In Witness Whereof, I have hereunto set my hand and seal in the State and County aforesaid as of this 14 day of April, 2014.


Notary Public, State of Florida

Notary Stamp:



16

**FPL's responses to Intervenor
Martin's Amended First Set of
Interrogatories**

**Nos. 2-9, 12, 14-21, 23-26
(not including confidential
attachment to No. 24), 28, 33,
34, 36, 39-46, 48, and 51**

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET: 130223-EI EXHIBIT: 16
PARTY: STAFF
DESCRIPTION: FPL's responses to Intervenor Martin's
Amended First Set of Interrogatories, Nos. 2-9, 12,
14-21, 23...

QUESTION

Please provide the total number of FPL customers with non-communicating meters still in service, organized by class of service, and designate whether smart meter service was ever offered to customers in this response.

RESPONSE

Non Communicating Meters as of 7/31/2014	Commercial	Residential	Offered Smart Meter
Commercial / Industrial Deployment Ongoing	135,408	317 ¹	Not Yet
Enrolled in NSMR	285	6,335	Yes
Pending Smart Meter Installation	182	1,217	Yes
Total	135,875	7,869	
1 - FPL has a few hundred Power Billing accounts on a residential rate			

QUESTION

During the time period of the AMI deployment program, please identify all instances where, for a new service account, a customer requested a non-communicating meter. Please explain if, and under what circumstances such a customer was placed on the postponement list.

RESPONSE

There were 4,239,956 new service or transferred service requests from September 2009 through March 2013. Of those accounts, 3,123, or 0.07%, were placed on the postponement list. If the customer requested a non-communicating meter, the customer care representative would have referred the request to FPL's customer advocacy department. A customer advocacy representative would then attempt to contact the customer. If the representative was:

- able to reach the customer, the customer advocacy representative would try to resolve the customer's concerns regarding smart meters and explain the benefits of the smart meter to the customer. If the customer still wanted the non-communicating meter service, the customer's account would be placed on the postponement list.
- unable to reach the customer, the customer advocacy representative would send a "request to contact letter" providing the FPL representative's name and direct number for contact. The new customer's account would not be placed on the postponement list and a smart meter would remain on the account until customer advocacy contact was made with the customer.

QUESTION

Please identify the equipment/manufacture for all non-communicating meters still in service by FPL, and the total meters in service for each provider/manufacture.

RESPONSE

Please see Attachment No. 1.

Florida Power & Light Company, Docket No. 130223-EI,
 Martin, et al.'s Amended First Set of Interrogatories
 Interrogatory No. 4, Attachment No. 1, Page 1 of 2

Meter Model	Manufacturer									Total
	ABB	DUNCAN	ELSTER	GE	LANDIS & GYR	SANGAMO	SCHLUMBERGER	WESTINGHOUSE	Unknown	
A1D	5,212									5,212
A1T	13									13
A1T+			6,460							6,460
AB1	956		2,895							3,851
ABS-5U	13									13
ABS-7			3,194					27,316		30,510
ALTIMUS					232					232
AX-ALT					377					377
AXS4					54,226					54,226
AXS4e					14,368					14,368
CENTINEL							1,704			1,704
CENTRON							46			46
D								19		19
D2								78		78
D2S5U								4		4
D3								262		262
D4								331		331
D4S5U								4		4
D4ST								15		15
D5S5U								146		146
D5ST								51		51
DXS2					961					961
FOCUS					1					1
Focus ALF					500					500
I-210+				280						280
I-50				59						59
I-55				41						41
I-60				64						64
I-70S				11,095						11,095
I-70S/1				26						26
I-70S/II				10						10
J						16				16
J2						25				25
J3						1				1
J4						3				3
J5S							5,135			5,135
J5SG						155				155
J5ST						159				159

Florida Power & Light Company, Docket No. 130223-EI,
 Martin, et al.'s Amended First Set of Interrogatories
 Interrogatory No. 4, Attachment No. 1, Page 2 of 2

Meter Model	Manufacturer									Total
	ABB	DUNCAN	ELSTER	GE	LANDIS & GYR	SANGAMO	SCHLUMBERGER	WESTINGHOUSE	Unknown	
KV				1,555						1,555
KV2				2,091						2,091
L2					1					1
M90AE				35						35
MK		2								2
MSII		120			1,112					1,232
MSK		1								1
MT		36								36
MT 12K		50								50
MT 12S		6								6
MX					208					208
S12S						91				91
SENTINEL							13,167			13,167
TMS		87								87
V612				25						25
VECTRON							13			13
Unknown									263	263
Total	6,194	302	12,549	15,281	71,986	450	20,065	28,226	263	155,316

QUESTION

If under the NSMR, a new customer requests a non-communicating meter, please describe the work flow and processes in customer information, in customer billing, and in customer meter operations by which FPL would comply with this request?

RESPONSE

The work flow/process to comply with a new request for a non-communicating meter under NSMR is as follows:

- Customers can request non-communicating meter service either by calling FPL's customer care center, using the FPL.com web application, or mailing their request from a tear-off application contained in the notifications that NSMR service was available.
- FPL.com application, NSMR notifications, and customer care representatives all provide facts about smart meter benefits, the missed benefits and fees associated with non-standard meter service.
 1. If the customer requests the non-communicating meter and there is a smart meter at the premise, we ask if the meter area is safe to access (e.g., dogs in the yard, etc.) and accessible (e.g., locked gate, etc.)
 - a. If accessible:
 - i) A meter change order is issued to the field meter department
 - ii) The customer's account is placed in an NSMR status of "pend enrolled" for system processing
 - iii) Once a non-communicating meter is installed, the customer's account is placed in an NSMR status of "enrolled"
 - iv) The customer's account is billed NSMR fees on next bill (the \$13 monthly fee is prorated based on number of days enrolled in billing cycle) and a letter explaining the fees is included with the first bill
 - b. If not accessible:
 - i) The customer is referred to our deployment department to schedule an appointment for the meter change – the customer is provided with various dates/times (including Saturdays) to have the meter changed
 - ii) The rest of the process is the same as bullets ii-iv above
 2. If the customer requests the non-communicating meter and there is a non-communicating meter at the premise:
 - a. The customer's account is placed in an NSMR status of "enrolled"
 - b. The customer's account is billed NSMR fees on next bill (the \$13 monthly fee is prorated based on number of days enrolled in billing cycle) and a letter explaining the fees is included with the first bill

QUESTION

Please describe the FPL work flow and processes for a new customer account, in the areas of customer information, customer billing and meter operations when a new customer account is established using an AMI meter.

RESPONSE

The work flow/process when a new customer account is established at an existing premise with a smart meter is as follows:

1. Customer requests service at a premise with a smart meter
2. Customer provides his/her information (name, social security number, phone number, etc.)
3. Customer is provided with deposit requirement and/or deposit alternative information if applicable
4. Customer provides order information (requested effective date of order, ownership type, mailing address, etc.)
5. Customer confirms power availability
 - a. If power is on we advise power is available
 - b. If power is off we ask customer to ensure property is safe to receive power (no stoves on, etc.)
6. Order is submitted
 - a. If power is on customer begins billing with reading on effective date
 - b. If power is off and Effective Date:
 - i) Is today, customer is advised power will be turned on within 4 hours, remote connect service connects meter, customer billing begins with reading obtained at time of remote connect
 - ii) Is a future date, customer is advised power will be turned on that morning, remote connect service connects meter that morning, customer billing begins with reading obtained at time of remote connect

QUESTION

For the period January 1, 2009 through December 31, 2013, please provide the number of non-communicating meters and smart meters which were kept in inventory, and the manner in which costs for these meters were accounted for?

RESPONSE

Please see Attachment No. 1 for inventory balances on hand from January 1, 2009 through December 31, 2013. The manner in which costs for these meters are accounted for is the same; meters are pre-capitalized upon purchase and retired when no longer in service or inventory. This accounting method is based on requirements from FERC and FPSC.

Meter Inventory Balances by Month

	Non Communicating Meter	Smart Meters
01/2009	5,890	1
02/2009	5,606	1
03/2009	5,660	1
04/2009	6,263	7
05/2009	6,372	7
06/2009	7,428	7
07/2009	5,402	7
08/2009	5,100	7
09/2009	5,626	288
10/2009	4,471	111
11/2009	4,319	1,647
12/2009	4,464	2,127
01/2010	15,876	12,986
02/2010	9,855	3,129
03/2010	9,164	909
04/2010	11,241	9,785
05/2010	11,758	3,639
06/2010	10,748	7,643
07/2010	3,322	7,371
08/2010	3,986	3,150
09/2010	4,966	2,072
10/2010	8,531	2,322
11/2010	5,969	3,741
12/2010	4,973	1,912
01/2011	5,379	2,280
02/2011	11,850	5,909
03/2011	4,417	8,103
04/2011	3,861	4,609
05/2011	4,825	12,401
06/2011	4,211	3,379
07/2011	13,405	3,351
08/2011	17,665	4,111
09/2011	25,517	22,373
10/2011	17,503	11,676
11/2011	13,712	10,546
12/2011	12,437	9,209
01/2012	13,743	12,860
02/2012	13,158	20,393
03/2012	12,041	29,605
04/2012	11,156	28,910

Meter Inventory Balances by Month

	<u>Non Communicating Meter</u>	<u>Smart Meters</u>
05/2012	9,043	21,220
06/2012	27,926	34,647
07/2012	26,397	27,594
08/2012	29,814	27,281
09/2012	28,774	43,492
10/2012	32,544	79,614
11/2012	33,159	35,706
12/2012	32,451	55,125
01/2013	34,647	106,768
02/2013	44,973	184,920
03/2013	51,624	257,601
04/2013	58,258	258,562
05/2013	62,723	227,908
06/2013	60,911	218,959
07/2013	63,527	213,483
08/2013	46,886	199,336
09/2013	45,812	192,072
10/2013	45,978	179,833
11/2013	45,040	172,650
12/2013	35,410	209,755

QUESTION

For a request for NSMR from a new customer account, what type of non-communicating meter would be installed? Please provide manufacturer name, make and model.

RESPONSE

If the premise already has a non-standard meter, that meter is left in the socket.

If the premise has a smart meter it would be replaced with a meter from FPL inventory, which currently contains the following non-standard meters:

Manufacturer	Model	Type
Elster	A3D	Digital
Itron	J5S	Analog
Itron	C1S	Digital
Itron	CN1S	Digital
Itron	Sentinel SS4S1D	Digital
Landis & Gyr	AXS4e	Digital

QUESTION

In establishing service for a new customer that requests a non-communicating meter, please provide FPL's procedure for assigning a meter to the account. Would that procedure ever consider a refurbished meter from the inventory of meters removed during the AMI deployment program?

RESPONSE

When a customer requests a change to a non-standard meter, a meter change ticket is created. Meter change tickets are completed by Field Meter personnel who obtain the non-standard meters from FPL's existing non-standard meter inventories. When the meter change ticket is closed, the meter number is assigned to the customer account in the Customer Information System.

During smart meter deployment, FPL did reclaim some non-communicating meters to inventory. These meters may be used for a customer requesting a non-communicating meter.

QUESTION

For the period January 1, 2009 through December 31, 2013, please provide the annual number of trouble tickets for non-communicating meter and maintenance trouble tickets for smart meters.

RESPONSE

TROUBLE TICKETS			
Year	Smart Meter	Non-Standard Meter	Grand Total
2009	5,781	153,410	159,191
2010	31,457	123,690	155,147
2011	74,179	89,222	163,401
2012	108,335	49,811	158,146
2013	133,528	18,610	152,138
Grand Total	353,280	434,743	788,023

QUESTION

Please refer to the Direct Testimony of witness Onsgard at page 5, lines 14 through 21. Please provide the levels of enrollment projected and used in the company's assessment to determine the feasibility of an opt-out program.

RESPONSE

The potential levels of enrollment projected and used in the Company's initial assessments to determine the feasibility of an opt-out program and the projected costs ranged from 5,000 to 50,000 customers.

QUESTION

Please provide the earliest date when FPL business units commenced the cost estimate and feasibility analysis of providing an opt-out alternative to the AMI program.

RESPONSE

In November of 2011, FPL functional groups started to perform cost studies related to the potential of offering customers an opt-out alternative to smart meters and the feasibility of such an offering.

QUESTION

Please refer to the Rebuttal Testimony of witness Onsgard at page 5, lines 9 through 23. Please provide the detailed rationale and analysis utilized by FPL in reaching its position that the incremental costs and processes for providing non-standard meter service could not be determined and optimized until after the full implementation of the project.

RESPONSE

It was clearly in both customers' and FPL's best interests to utilize the postponement policy and to wait until the smart meter deployment was essentially complete before proposing the NSMR program. The efficient and methodical deployment and activation of smart meters throughout FPL's service territory, while at the same time maintaining a postponement list, facilitated FPL's ability to gather FPL data and to better understand data from other jurisdictions so that FPL would be in the best position to project costs and prospective enrollments in a cost-based opt-out program.

Waiting until the end of smart meter deployment to propose the opt-out tariff allowed:

- 1) better estimates of the impacts of the geographic dispersion of potential NSMR customers,
- 2) better estimates of whether the smart grid network would need to be augmented with additional devices due to the missing communicating meters,
- 3) time for regulatory review at a state level before initiating the tariff,
- 4) customers who ultimately became enrolled in the opt-out program to save up to four years of non-standard service charges that would have been in effect if enrollment was undertaken during smart meter deployment,
- 5) up to four years for the smart meter industry to mature and allow customers to become more informed about the facts regarding smart meters, and
- 6) the ability for customers to be given clearer communication of when the meter option would be available, as it would not have been appropriate to start billing NSMR until their service area was activated.

QUESTION

Please explain the reasons and rationale to support the company's contention that there were benefits for the general body of ratepayers which resulted from delaying the offer of the non-standard meter tariff until the AMI deployment was significantly complete.

RESPONSE

Proposing a non-standard meter tariff following deployment and activation of smart meters allowed for the proper balance between the successful (and rapid) deployment and development of a cost-based tariff. FPL's general body of customers benefited from the prompt and efficient deployment of smart meters and also benefited, for the reasons outlined in FPL's response to Martin, et al.'s Amended First Set of Interrogatories No. 16, from FPL being in the best position to mitigate subsidization of costs for the opt out program. It would not have benefited any of FPL's customers to delay the smart meter deployment and in fact would have hindered FPL's ability to efficiently comply with the Commission's order that FPL proceed with smart meter deployment without delay.

QUESTION

Please describe the internal optimization processes undertaken by FPL during deployment of the smart meters to minimize overall company costs in customer information and support operations, in billing operations, in meter operations, and in collections operations.

RESPONSE

To facilitate a project of the scale of the deployment and activation of 4.5 million smart meters, FPL established a robust governance structure and comprehensive deployment organization. Under the leadership of an Executive Smart Grid Steering Committee, cross functional teams were established for the critical components of deployment. Smart meter project elements such as customer information and support operations, billing operations, meter operations, and collections operations, were carefully managed to ensure overall company costs were minimized while also ensuring that project requirements and timetables were on target.

QUESTION

Please refer to FPL's response to Interrogatory No. 16 of Staff's First Set of Interrogatories. Please list and describe all instances where NSMR enrollees share in costs for elements of service for standard meter service; i.e. costs which are not a part of the non-standard, non-communications meter service, but are allocated to the NSMR because they are costs necessary for FPL "to provide standard service to all customers should they so elect at any time."

RESPONSE

All FPL customers, including those enrolled in the NSMR program, share in the costs associated with FPL's standard services through base rates. There are no costs for standard service that should be credited to NSMR customers as FPL must be ready to provide standard service to all customers should they elect at any time.

QUESTION

Please provide the workflows employed by FPL during the AMI deployment to provide service to customers on the postponement list in the areas of customer service, billing, meter reading, collections, and distribution management.

RESPONSE

The work flows during smart meter deployment (Sept. 2009 – March 2013) to provide service to postponed customers, as they differ from smart meter customers are below.

Note: Many new smart meter tools/processes were implemented by area during smart meter deployment. For example, FPL implemented the activation of smart meters for remote billing/meter reading in 2010, remote Connect/Disconnect service for disconnect for non-payment/reconnection (collections) in 2013, and various distribution management diagnostic processes/tools were implemented beginning in 2010. Customers on the postponement list would have different processes from smart meter customers as these tools and processes were implemented in their area. These include:

- General Customer Service – Developed processes to:
 1. Refer customers who did not want a smart meter to FPL's customer advocacy department.
 2. Ensure customer advocacy representatives had the tools/training to address smart meter concerns and explain the benefits of smart meters.
 3. Manually notate postponed accounts in an effort to prevent inadvertent smart meter installation if possible
 4. Manually record and manage postponement requests to ensure records were accurate once a long term solution was approved

- Billing – Postponed meters processes varied from smart meter process as follows:
 1. Manual meter readings were obtained monthly to bill account
 2. Irregularities in manual readings identified by customer accounting would have generated a request for another manual meter reading
 3. Orders to open or close an account may require a manual meter reading (depending on when the last reading or next reading is obtained) to issue the first or final bill
 4. The need to access the meter and read it manually often creates more estimated bills

- Meter Reading – Postponed meters process varied from smart meter process as follows:
 1. Postponed customers were placed on a “manual route” to ensure we identify and correctly staff meter readers to obtain readings
 2. Others processes are the same as Billing 1-3 above
- Collections – Remote Connect/Disconnect service for non-payment/reconnection (collections) began April 2013 after testing was completed in first quarter 2013. Postponed meter processes varied from smart meter process as follows:
 1. Postponed customers are visited by a field collector who attempts to collect payment
 2. If payment is not made, service is manually disconnected
 3. Once payment is received, the customer is advised it will take up to 24 hours to have service reconnected and that access to the customer’s meter is required
 4. An order is sent to Field Meters to reconnect service
 5. Field Meters manually reconnects the meter
- Distribution Management – Postponed meter processes varied from smart meter processes as follows:
 1. Single No Current Analysis - Postponed customers who call with an identified, unresolved, isolated power outage must be manually checked by a field crew to determine if the problem is with the customer’s equipment vs. FPL’s equipment. Smart meters enable FPL to communicate with the meter to determine if the customer has electric service. This could avoid unnecessary field trips, while allowing service to be restored more quickly if the customer is able to resolve the issue himself.
 2. Restoration Verification - When an area that has experienced a power outage is restored, FPL has no process for remote verification of power restoration for postponed customers. Smart meters provide FPL the capability to perform restoration verification before leaving an area. After power has been restored initially to an area, the restoration specialists have the ability to quickly view power restore messages automatically transmitted by the smart meters. If a restore message was not received from a smart meter, the restoration specialists can initiate communication with the meter to determine if power was restored or if further restoration work is required before leaving the area.

3. Others - There are other diagnostic tools used by FPL in the area of distribution management that are not available for, and vary the processes for, postponed customers. These tools help FPL proactively identify potential issues to prevent outages, and help resolve outages, after they occur, to restore service more efficiently and thoroughly. These include but are not limited to:
 - a. Proactive Ticket Creation – Real time events from smart meters are used to quickly determine the extent of a power outage as opposed to relying solely on communication from customers.
 - b. High Voltage Transformer Identification – Hourly voltage readings from all smart meters on a transformer are used to detect possible failing equipment.
 - c. Premise Troubleshooting Tool – This application can be used to ping meters to obtain real-time voltage data and also displays meter usage and event history to assist in troubleshooting and discussions with customers about momentary interruptions, etc.
 - d. iMVP – This application displays geographical areas with higher smart meter event counts to help investigate potential issues and narrow down pockets of trouble.
 - e. Topology mismatch – Voltage readings and meter events are used in this application to help confirm correct meter to transformer association and make corrections when identified.

QUESTION

Please refer to the Rebuttal Testimony of witness Onsgard at page 7, lines 4 through 13. Please explain and provide detailed descriptions of the referenced processes, and the rational and analysis for the statement “ [c]ontinuing to provide service with non-communicating meters requires FPL to implement new processes as well as maintain certain old processes that otherwise would not be needed.”

RESPONSE

See Attachment No. 1.

Florida Power & Light Company
Docket No. 130223-EI
Martin, et al.'s Amended First Set of Interrogatories
Interrogatory No. 21
Attachment No. 1
Page 1 of 1

NSMR Processes	New or Old	Used on Postpone during deployment
<u>Customer Enrollment in Non-Standard Option</u>		
System Changes with Web Enrollment and Billing	New - Developed and implemented specifically to enroll NSMR customers	No
Care Center Enrollment, Customer Inquiries and Follow Up	New - Developed and implemented specifically to enroll NSMR customers	No
Customer Brochures, Research and Mailings	New - Developed and implemented specifically to enroll NSMR customers	No
<u>Meter Reading and Billing</u>		
Meter Reading workflow to establish and remove route	Old - Process that would not be needed for NSMR customers but for their electing non-standard meter service	Yes
Meter Reading Handhelds	New - Additional equipment that would not have been needed but for their electing NSMR service	No
Monthly manual meter reading	Old - Process that would not be needed for NSMR customers but for their electing non-standard meter service	Yes
Monthly Meter OSHA and vehicle accident cost	Old - Process that would not be needed for NSMR customers but for their electing non-standard meter service	Yes
Billing and Project Support Operational Costs	Old - Process that would not be needed for NSMR customers but for their electing non-standard meter service	No
<u>Collection and Disconnect/Reconnect</u>		
Systems to Identify and Handle Collection Issues	New - Developed and implemented specifically for NSMR customers	No
Field visits for Collections, Disconnects/Reconnects	Old - Process that would not be needed for NSMR customers but for their electing non-standard meter service	Yes
<u>Distribution Outage</u>		
Truck rolls from inability to ping meter to verify power	Old - Process that would not be needed for NSMR customers but for their electing non-standard meter service	Yes
<u>Field Meter Visits</u>		
Average at least one field visit per opt out	Old - Process that would not be needed for NSMR customers but for their electing non-standard meter service	Yes
<u>Meter Technology Center</u>		
Meter sampling and testing for non-standard meters	Old - Process that would not be needed for this customer but for their electing NSMR service	No
<u>Project Management</u>		
Administer design, implementation, on-going operations and true-ups	New - Developed and implemented specifically for NSMR customers	No

QUESTION

Please provide the total number of customers who were listed on the postponement list who initially received a smart meter which was then replaced with a non-communicating meter. Include the costs recorded for this replacement, and how these costs were recorded in FPL's book of accounts.

RESPONSE

FPL has made more than 4,800 site visits to customers on the postponement list who initially received a smart meter which was then replaced with a non-communicating non-standard meter. FPL does not record these expenses separately from other field activities. However, as part of the cost analysis performed for FPL's Petition for Approval of Optional Non-standard Meter Rider (Exhibit B, page 7), the fully loaded average cost associated with Field Meter Costs to Visit Premises was calculated to be \$77.03, and this cost would be the same for replacing a smart meter with a non-communicating meter for customers on the postponement list. All costs associated with this activity are recorded in FPL's books and records as components of O&M.

QUESTION

Please refer to FPL's response to Interrogatory No. 4 of Staff's First Set of Interrogatories. Please describe and provide detailed cost elements for activities related to line nos. 5 (Web-enrollment), 6 (customer system automation) and 7 (customer care enrollment).

RESPONSE

- Line #5 - Web Enrollment (Cost: \$318,512) – *See Attachment No. 1 for requirements*
- Created new application to facilitate the enrollment of customers in the Non-Standard Meter Option (NSMO) program through FPL's website (FPL.com)
- Line # 6 - Customer System Automation (Cost: \$411,519) – *See Attachment No. 2 for requirements*
- Developed a conversion program that after three months of customer communication about the effective date of the Non-Standard Meter Option program, automatically enrolls all customers that requested not to have a standard meter installed at their service address
 - Created reports for the NSMO program management providing number of customers enrolled, account statuses, revenues and other relevant information
 - Created Meter Change Orders based on customer selection of the preferred meter (standard vs non-standard)
 - Created new pending work queue for review and approval of canceled NSMO enrollment fees and monthly surcharges
- Line #7 - Customer Care Enrollment (Cost: \$314,384) - *See Attachment No. 1 for requirements*
- Created a new system application to facilitate the interaction between the Customer Care representatives (CSR) and FPL customers regarding the new NSMO program
 - Included the addition of notations for customer contact as well as special messaging to aid the CSRs in their handling of calls related to the program

The attachments responsive to this interrogatory are confidential and will be made available, pursuant to established procedures, for inspection at FPL's Tallahassee Office at 215 South Monroe Street, Suite 810, Tallahassee, Florida, during regular business hours, 8 a.m. to 5 p.m., Monday through Friday, upon reasonable notice to FPL's counsel.

QUESTION

Please provide dates of install or implementation for all FPL system upgrades and process upgrades which were instituted to support the NSMR, and identify how the costs for these upgrades were recorded in the book of accounts.

RESPONSE

System Upgrades	Release Date
MS: Production Go Live- Release 2A.1 Inactive Accounts	10/31/2013
MS: Production Go Live- Release 2A.2 IVR CALL Routing, RP Screens, RRD Analytics Enrollment	12/12/2013
MS: Production Go Live- Release 2A.3 IVR Changes	1/9/2014
MS: Production Go Live- Release 2A.4 Pilot Implementation of FPL.com and FPL.com Care Center apps	2/5/2014
MS: Production Go Live- Release 2A.5 FPL.com, FPL.com CC, Phase 1 Interfaces; GMPE; internal JAVA application.	2/20/2014
MS: Production Go Live- Release 2A.6 Eligibility, Communications, Enrollment Reports; FBIL Automation	2/25/2014
MS: Production Go Live- Release 2A.7 IVR Spanish Vocabulary Change; turn on changes on all 9 IVR servers	2/26/2014
MS: Production Go Live- Release 2A.8 Fixes for internal JAVA app, FPL.com, FPL.com Care Center	2/27/2014
MS: Production Go Live- Release 2A.9 Meter Change Order; MCO Report	3/6/2014
MS: Production Go Live Release 2B.1 Billing	6/2/2014
MS: Production Go Live Release 2B.2 Billing Fixes	6/26/2014
MS: Production Go Live Release 2B.3 Billing Report Fixes	7/10/2014

FPL's Financial System is SAP, and the costs for these upgrades were processed through Internal Orders created to track IT costs related to the NSMR system implementation. These costs were capitalized in the Company's financial records as system costs.

QUESTION

Please describe the time estimates for the daily detail duties, responsibilities for the NSMR Project Manager, along with the anticipated daily work flow, as anticipated after completion of the enrollment period.

RESPONSE

As stated in FPL's response to Staff's First Set of Interrogatories No. 18, the administration of this project is complex and the accounting oversight critical to the proper billing and reporting of the project. Two things are important to note regarding the project management cost. First, FPL has included one equivalent full-time position in the cost structure; however, during the initial phase of this project, as FPL expected, substantially more than one full-time position has been necessary. Second, and perhaps most significantly, FPL should have reflected the project management costs as a fixed cost in FPL's petition, but they were included as a variable cost. Project management costs will be essentially the same regardless of the participation levels. The costs for project management will only be recovered at the 12,000 participant level originally projected. If current enrollment levels remain at approximately half this projected participation level, FPL will only recover approximately half of the project management cost.

The high-level duties and responsibilities of NSMR project management are listed below, and any to all of these could be part of the NSMR project management's daily duties. Rough estimates of daily time provided below.

- Overall project management responsibilities of NSMR program
 - Billings – Maintain and monitor controls over NSMR billings to ensure billings are accurate ~ 1 hours per day
 - Meter Change Orders – Maintain and monitor controls over meter change orders to ensure NSMR customers who enroll receive timely installation of non-standard meters ~ 1/2 hour per day
 - Systems Changes – Monitor other system changes that could affect NSMR billing and support, including all interfaces to field work management systems as well as future system enhancement that smart meters may provide ~ 1/2 hours per day
 - Process Management - Monitor related processes for change and improve as needed ~ 1/2 hour per day
 - On-Going Enrollments - Oversight of customers coming in and out of program ~ 1 hour per day
- Overall on-going cost accounting structure responsibilities to capture payroll and non-payroll costs related to NSMR across many business units ~ 1 hour per day

Overall metrics and reporting responsibilities for NSMR Project Key Measures to be used in monthly management reporting and annual reporting to Commission - 2 hours per day

- o Total Billings, Capital and O&M Costs
- o Care Center Costs and Call Volumes
- o Field Meter Non-Standard Meter Costs and Site Visits
- o Meter Reading Costs and Number of Reads
- o Meter Sampling Costs and Site Visits
- o Non-Standard Meter Inventories
- o NSMR Billing Support Costs
- o Collection Costs and Site Visits
- o Connect and Disconnect Costs and Visits
- o Distribution Outage Costs and Field Visits
- o Storm Restoration Costs and Field Visits
- o Credits given customers through 45 Day Grace window
- o Customer Advocacy Costs
- o Delinquent Account Status
- o Track and report NSMR enrollment activity from:
 - § Web Site
 - § Tear Off Mailer
 - § Call Center Calls

QUESTION

Will any of the processes, systems or activities represented in the incremental costs identified by FPL for the NSMR tariff be utilized by customers in areas not yet deployed with smart meters?

RESPONSE

FPL's original plan was to deploy smart meters for residential, small business, and medium business customers. This deployment has been completed and customers that chose not to have a smart meter are now participating in the NSMR program. In 2014, FPL began another deployment phase installing smart meters for commercial/industrial customers which will be completed in 2015. During this implementation of smart meters, commercial/industrial customers that do not yet have a smart meter will continue to be serviced with the same processes, system and activities used for all other customers during deployment, including manual meter reading, manual connection and disconnection and potential truck rolls related to outage restoration calls for single customers without power. Commercial and Industrial customers that do not yet have a smart meter do not use the systems and processes introduced and/or retained to serve NSMR customers.

QUESTION

Please provide the total, annual operating and maintenance costs for the Spanish customer service (including translation costs of all materials and the cost of the website).

RESPONSE

For 2013, FPL spent \$14,587, which includes the costs for Spanish translation services, as well as all materials and any costs associated with the website.

QUESTION

Please provide any instance where a customer account was billed based on usage data other than the data generated by the smart meter, though a smart meter was installed at the service location. In each instance, please provide the method of billing used instead of the smart meter.

RESPONSE

For all smart meter accounts, usage data from the meter is utilized for billing processing. In 2013, standard automated processes accounted for 99.85% of all meter readings to make them available for billing processing. Through the end of July 2014, standard automated processes have accounted for 99.89% of all meter readings available for billing processing.

FPL has designed its billing system to minimize estimating bills. If an automated reading is not available on the scheduled read date, the billing system automatically looks for stored readings for up to 3 days prior to the scheduled read date to bill the customer. When there are no usable readings available to allow automated processing to occur during the scheduled meter reading billing window, the accounts become exceptions. In these exception situations, the billing period is estimated by utilizing historical consumption in accordance with Rule 25-6.100(3) which states that "When there is sufficient cause, estimated bills may be submitted." As stated in FPL's response to Staff's Second Set of Interrogatories No. 22, it is FPL's position that estimating customers' bills is not the appropriate way to conduct regular business when actual meter readings can be obtained, and the Company designed its billing system to maximize the use of available smart meter readings for billing and developed processes in our Smart Meter Operations group to quickly address exceptions to ensure we maintain a high read rate for our smart meter customers and avoid estimated bills.

QUESTION

Please provide the deployment schedule for FPL's AMI program, detailing service area, date deployment started by service area and date smart meter service was activated.

RESPONSE

AMI DEPLOYMENT SCHEDULE			
District	Service Area Name	Meter Deployment Start	Meter Activation
73	NORTH BROWARD	March-11	October-11
71	FT LAUDERDALE	September-09	October-10
86	NORTH DADE	November-09	September-10
85	MIAMI	November-09	March-11
74	CENTRAL BROWARD	January-10	November-10
84	MIAMI BEACH	April-10	October-10
72	HOLLYWOOD	May-10	June-11
83	HIALEAH	July-10	May-11
81	CORAL GABLES	August-10	July-11
82	SOUTH DADE	September-10	August-11
41	DELRAY BEACH	December-10	October-11
42	SOUTH PALM (GLADES)	May-11	January-12
45	WEST PALM	July-11	April-12
54	NAPLES	August-11	May-12
44	STUART	October-11	July-12
53	FT MYERS	January-12	August-12
22	MELBOURNE	February-12	October-12
46	ST LUCIE	March-12	August-12
21	COCOA	April-12	January-13
43	OKEECHOBEE	April-12	November-12
55	PUNTA GORDA	April-12	November-12

AMI DEPLOYMENT SCHEDULE			
District	Service Area Name	Meter Deployment Start	Meter Activation
57	VENICE	July-12	January-13
11	DAYTONA	July-12	April-13
51	ARCADIA	August-12	February-13
32	LAKE CITY	September-12	May-13
56	SARASOTA	September-12	March-13
34	MACCLENNY	October-12	May-13
23	SANFORD	October-12	May-13
13	ST AUGUSTINE	November-12	August-13
52	BRADENTON	December-12	July-13
12	PALATKA	December-12	August-13

QUESTION

Does FP&L use any communication vendors (e.g. Verizon) as part of its communication system to receive smart meter meter read data? If so, are they fixed terms or variable (e.g. based on volume, etc.)? Please provide terms.

RESPONSE

Yes, FPL uses communication vendors as part of the communication system to receive smart meter read data. FPL pays these vendors based on data volumes per access point. Access points are devices on the FPL network that allow data to be backhauled to FPL. Each access point services approximately 2,600 meters on average and FPL pays multiple vendors an average of approximately \$20 per month for each access point.

QUESTION

Prior to the smart meter deployment, on average, what is the probability that a would be tested for accuracy over its useful life? What were the steps and costs to test these meters?

RESPONSE

Pursuant to Rule 25-6.056, F.A.C., all meters would have an accuracy test record from the manufacturer when purchased and that record would be retained by FPL. The probability that any meter would be pulled for additional in-service testing throughout its service life would depend on the size of the homogenous population from which it was pulled to satisfy the required statistically valid sample size. The in-service sample is a statistically random sample, so a meter may never be chosen or it could be chosen more than once.

QUESTION

What is the average remaining life of the meters which have been left in place for customers who were on the postpone list and when were they last tested for accuracy?

RESPONSE

The table below contains an analysis of the 3,250 meters which have been left in place (through July 31, 2014) for customers who were on the postpone list and are now enrolled in the NSMR program. For each meter type the chart lists the average remaining life and the last time the meter type was tested for accuracy.

FPL NSMR Meter Types Left In Field								
Typecode	Manufacturer	Model	Type	In-Service Year	Average Age	Average Remaining Life	Date Last Tested for Accuracy	Quantity
4	DUNCAN	TMS	ANALOG	1986	28	12	2006 *	1
15	LANDIS & GYR	DSX2	DIGITAL	1996	18	2	2012	1
16	WESTINGHOUSE	ABS-7	ANALOG	1992	22	18	2012	6
18	ABB	A1D	DIGITAL	1995	19	21	2011	1
25	GE	I-70S	ANALOG	1988	26	14	2011	109
27	WESTINGHOUSE	D5ST	ANALOG	1990	24	16	2011	6
28	LANDIS & GYR	MSII	ANALOG	1990	24	16	2011	26
29	GE	I-70S	ANALOG	1989	25	15	2011	134
30	SANGAMO	J5SG	ANALOG	1990	24	16	2011	56
34	GE	I-70S	ANALOG	1992	22	18	2011	132
35	SCHLUMBERGER	J5S	ANALOG	1993	21	19	2011	179
36	ABB	AB1	ANALOG	1995	19	21	2011	164
37	SCHLUMBERGER	J5S	ANALOG	2000	14	26	2011	416
39	SCHLUMBERGER	J5S	ANALOG	2000	14	26	2011	1
43	SCHLUMBERGER	J5S	ANALOG	2004	10	30	2011	191
44	ELSTER	AB1	ANALOG	2005	9	31	2011	24
52	GE	I-70S/1	ANALOG	2000	14	26	2011	8
53	LANDIS & GYR	MX	ANALOG	2003	11	29	2011	21
54	DUNCAN	MT 12K	ANALOG	1990	24	16	2011	2
60	SANGAMO	J2	ANALOG	1957	57	-17	2011	8
62	WESTINGHOUSE	D	ANALOG	1957	57	-17	2007 *	1
63	GE	I-50	ANALOG	1951	63	-23	2011	13
64	GE	I-55	ANALOG	1956	58	-18	2011	16
65	GE	I-60	ANALOG	1961	53	-13	2011	19

FPL NSMR Meter Types Left In Field								
Typecode	Manufacturer	Model	Type	In-Service Year	Average Age	Average Remaining Life	Date Last Tested for Accuracy	Quantity
66	SANGAMO	J3	ANALOG	1965	49	-9	2011	1
67	GE	I-70S/II	ANALOG	2003	11	29	2011	2
68	WESTINGHOUSE	D2	ANALOG	1961	53	-13	2011	7
69	WESTINGHOUSE	D	ANALOG	1957	57	-17	2011	1
71	WESTINGHOUSE	D2	ANALOG	1961	53	-13	2011	23
72	GE	I-60	ANALOG	1966	48	-8	2011	10
74	WESTINGHOUSE	D3	ANALOG	1965	49	-9	2011	150
75	WESTINGHOUSE	D4	ANALOG	1972	42	-2	2011	86
76	GE	I-70S	ANALOG	1971	43	-3	2011	206
81	GE	I-70S	ANALOG	1981	33	7	2011	622
82	WESTINGHOUSE	D4ST	ANALOG	1976	38	2	2011	1
84	DUNCAN	MSII	ANALOG	1986	28	12	2011	26
85	WESTINGHOUSE	D5ST	ANALOG	1984	30	10	2011	3
86	SANGAMO	J5ST	ANALOG	1986	28	12	2011	66
90	GE	V612	ANALOG	1980	34	6	2011	4
91	WESTINGHOUSE	D2S5U	ANALOG	1973	41	-1	2011	1
94	SANGAMO	S12S	ANALOG	1983	31	9	2011	1
96	SANGAMO	S12S	ANALOG	1990	24	16	2011	3
E2	ELSTER	A1D+	DIGITAL	2006	8	12	2012	1
E5	ELSTER	ABS-7	ANALOG	1992	22	18	2012	2
G1	GE	KV	DIGITAL	1998	16	4	2012	2
G4	GE	KV2	DIGITAL	2006	8	12	2012	1
GT	GE	I-210+	DIGITAL	2009	5	15	2012	48
L1	LANDIS & GYR	AXS4	DIGITAL	1997	17	3	2012	34
L3	LANDIS & GYR	AL-ALT	DIGITAL	2004	10	10	2012	3
L6	LANDIS & GYR	AXS4	DIGITAL	2007	7	13	2012	3
LB	LANDIS & GYR	FOCUS	DIGITAL	2008	6	14	2012	3
LD	LANDIS & GYR	AXS4e	DIGITAL	2009	5	15	2012	9
LE	LANDIS & GYR	AXS4e	DIGITAL	2008	6	14	2012	4
LF	LANDIS & GYR	AXS4e	DIGITAL	2006	8	12	2012	1
LL	LANDIS & GYR	FOCUS ALF	DIGITAL	2009	5	15	2012	73
LN	LANDIS & GYR	AXS4e	DIGITAL	2009	5	15	2012	1
LX	LANDIS & GYR	AXS4e	DIGITAL	2009	5	15	2012	4
S1	SCHLUMBERGER	CENTRON	DIGITAL	2003	11	9	2012	1
S2	SCHLUMBERGER	CENTRON	DIGITAL	2004	10	10	2012	8
S4	ITRON	CENTRON	DIGITAL	2007	7	13	2012	4
S7	ITRON	SENTINEL	DIGITAL	2006	8	12	2012	2
SS	SCHLUMBERGER	SENTINEL	DIGITAL	2006	8	12	2012	298
							Total	3,250

These two meters types (*) are on Active Retirement List, which are being removed from service and then retired.

QUESTION

Did the company fully adjust its current associated tariffs for collections and connects/disconnects to fully reflect the new smart meter standard process (no truck rolls required) under the smart meter standard service in the recent rate case (2013 test year)? If not, what amount is included in the test year and tariffs for these services?

RESPONSE

As part of the minimum filing requirements in Docket No. 120015-EI, FPL filed updated service charges reflecting 2013 projected costs and transactions for a blend of manual and automated collections and connect/disconnect activities. The actual costs incurred for collections-related activities and establishing a new account were substantially higher than existing service charges as outlined in the chart below. However, FPL proposed keeping the current charges for the following service charges and not increasing them to the 2013 projected costs as provided in MFR E-7 in Docket No. 120015-EI.

Service Charge	Current Charge	2013 Cost Based Charge from MFR E-7
Reconnect for Non-payment	\$17.66	\$46.13
Initial Connect/Disconnect	\$14.88	\$18.21
Existing Connect/Disconnect	\$14.88	\$16.64
Field Collections	\$5.11	\$25.80

FPL responded in Staff's Third Set of Interrogatories No. 45 in Docket No. 120015-EI that as automation continues over time, the costs associated with the service charge activity will decrease, resulting in lower service charge costs than what is included in MFR E-7. FPL believed that maintaining the current charges in light of higher automation beyond 2013 was the appropriate thing to do as it recognized that actual costs would decrease with automation while the new rates were in effect and also minimized rate volatility. The field collections service charge costs are not affected by automation; however, since FPL was not proposing to increase the other service charges, to minimize rate volatility the Company decided to keep this charge at the current rate. The Commission approved keeping the service charges at their current rates in Order No. PSC-13-0023-S-EI.

QUESTION

Please refer to Staff First Data Request #31. Attachment No. 1 indicates the postpone list was created prior to August 2010. What was the actual date the postpone list was created?

RESPONSE

FPL did not have an official postponement list during the initial requests received not to install a smart meter. As FPL received more requests it was determined that it was necessary to develop a process and a list to track these requests. FPL started the initial postpone process and list on December 29, 2010.

QUESTION

For customers in areas planned for smart meter deployment, however where smart meters are not yet deployed, how are service requirements for customers in these areas managed by the customer service, meter operations and billing groups? Will FP&L be utilizing any of the systems changes and programs developed for the NSMR customers to manage any customers in areas not yet deployed with smart meters?

RESPONSE

FPL's original plan was to deploy smart meters for residential, small business, and medium business customers. This deployment has been completed and customers that chose not to have a smart meter are now participating in the NSMR program. In 2014, FPL began another deployment phase installing smart meters for commercial/industrial customers which will be completed in 2015. During this implementation of smart meters, commercial/industrial customers that do not yet have a smart meter will continue to be serviced with the same processes, system and activities used for all other customers during deployment, including manual meter reading, manual connection and disconnection and potential truck rolls related to outage restoration calls for single customers without power. Commercial and Industrial customers that do not yet have a smart meter do not use the systems and processes introduced and/or retained to serve NSMR customers.

QUESTION

As of July 31, 2014, how many customers, qualifying for the NSMR program, enrolled in the program and how many were auto-enrolled?

RESPONSE

	7/31/2014
NSMR Active Enrollments	4,118
NSMR Auto Enrolled	2,502
Total	6,620

QUESTION

In Staff's First Set of Data Requests, Request #17, FP&L stated that additional handhelds need to be purchased because the system was in the process of a "full system and handheld replacement (project slated for completion year-end 2013). If all residential and commercial/industrial customers are being scheduled for smart meters that do not require manual meter readings, why was the handheld meter reading system being replaced?

RESPONSE

The handheld meter reading system was replaced because FPL was operating under a version that was no longer supported by Itron, the meter reading system provider. System support from Itron expired on December 31, 2012 and could not be extended. As such, this upgrade to the Meter Reading system was critical for FPL to ensure our ability to continue to read meters and ensure support was provided by Itron should any hardware or software issues occur.

QUESTION

Please provide the work flow for verification of restoration of power to non-communicating meters during power outages, and the annual number of meters where this process was followed in the period from 2010 through 2013.

RESPONSE

Non-communicating meters - FPL has no process for verification of power during power outages other than customer calls.

Smart meters - FPL has created an application to provide restoration specialists an automated tool to perform restoration verification. After power has been restored initially to an area, the restoration specialists have the ability to remotely contact the smart meters associated with outage and verify they are now re-energized. When a smart meter signals it does not have proper voltage, the restoration specialist will stay on site and then proceed to restore this potential nested outage. For non-standard meter customers the potential nested outage will not be visible to the restoration specialist. This results in the customer having to call FPL to report their outage (possibly after calling the first time) and additional field visit(s) would be needed to address the cause of the potential outage and make repairs. FPL systems do not currently track the number of nested meter outages where additional field visits were required, so FPL cannot provide the number of occurrences between 2010 and 2013. Below are representative screen shots of the training tool for Restoration Verification functionality.



Restoration Verification

You are in: Restoration Verification > Overview

- Restoration Verification
- Overview
- AMI Events
- Application Access
- Page Sections
- Additional Information
- Ping A Smart Meter
- Ping Status Description
- Pinging Info
- Out of Service Events
- Restored Service Events

The Restoration Verification functionality will provide a method for Restoration Specialists and others to determine if a meter or collection of meters assigned to a ticket have been successfully restored. This tool can be used to understand the status of the outage before closing a ticket and leaving the outage area. It can help identify embedded outages as well as help prevent additional customer callbacks.

Restoration Verification TCMS LAT Ticket#1550 Auto Timer Off

need help? Ticket Date: 09-May-2012 Ticket Number: 1550 Search

Premise	Meter #	⊗	Status		Address	City	Zip	Transferr
2026330	ACD5229	A	No Last Gasp	Ping	6700 SW 64TH ST	SOUTH MIAMI	33143	8-6550-8
2026333	ACD5230	A	No Last Gasp	Ping	6776 SW 64TH ST	SOUTH MIAMI	33143	8-6550-8
629017357	AA05260	A	No Last Gasp	Ping	6701 SW 64TH ST # CATV	SOUTH MIAMI	33143	8-6550-8
2026332	ACD5156	A	No Last Gasp	Ping	6753 SW 64TH ST	SOUTH MIAMI	33143	8-6550-8
2026331	ACD7271	A	No Last Gasp	Ping	6751 SW 64TH ST	SOUTH MIAMI	33143	8-6550-8
2026336	ACD5181	C	No Last Gasp	Ping	6765 SW 64TH ST	SOUTH MIAMI	33143	8-6550-7
2026342	ACD5222	C	No Last Gasp	Ping	6780 SW 63RD ST	SOUTH MIAMI	33143	8-6550-7
2026354	ACD3780	C	No Last Gasp	Ping	6770 SW 63RD ST	SOUTH MIAMI	33143	8-6550-7
2026355	ACD0299	C	No Last Gasp	Ping	6301 SW 67TH CT	MIAMI	33143	8-6550-7
2026337	ACD5180	C	No Last Gasp	Ping	6775 SW 64TH ST	SOUTH MIAMI	33143	8-6550-7
2026338	ACD5182	C	No Last Gasp	Ping	6625 SW 64TH ST	SOUTH MIAMI	33143	8-6550-7
2026349	ACD5196	C	No Last Gasp	Ping	6800 SW 63RD ST	SOUTH MIAMI	33143	8-6550-7

Progress

Restoration Verification

You are in: Restoration Verification > Restored Service Example

On this page you can see an example of what the restoration verification page looks like when the meters have been restored.

Here we have an Underground Transformer Ticket that affected 13 meters. Out of those 13, 10 returned a Power Restore message with a timestamp of 14:01.

Three of the meters were not Smart meters, so we would not expect a restore timestamp. This ticket should then be considered 100% restored based on the AMI data available.

Restoration Verification TCMS TXU Ticket# 708
 Auto Timer Off

Ticket Date: 20-Oct-2011 Ticket Number: 708

Premise	Meter #	Status	Address	City	Zip	Transformer
2670018	ACD5429	A On @ 10/20/2011 14:01:34	Ping	21422 NW 40TH CIRCLE CT MIAMI GARDENS	33055	8-6769-9811-0-0
2670025	ACD5448	A On @ 10/20/2011 14:01:35	Ping	21436 NW 40TH CIRCLE CT MIAMI GARDENS	33055	8-6769-9811-0-0
2670020	ACD5449	A On @ 10/20/2011 14:01:35	Ping	21426 NW 40TH CIRCLE CT MIAMI GARDENS	33055	8-6769-9811-0-0
2670026	ACD5450	A On @ 10/20/2011 14:01:34	Ping	21438 NW 40TH CIRCLE CT MIAMI GARDENS	33055	8-6769-9811-0-0
2670027	ACD5451	A On @ 10/20/2011 14:01:34	Ping	21440 NW 40TH CIRCLE CT MIAMI GARDENS	33055	8-6769-9811-0-0
2670030	ACD5452	A On @ 10/20/2011 14:01:34	Ping	21446 NW 40TH CIRCLE CT MIAMI GARDENS	33055	8-6769-9811-0-0
2670024	ACD5460	A On @ 10/20/2011 14:01:35	Ping	21434 NW 40TH CIRCLE CT MIAMI GARDENS	33055	8-6769-9811-0-0
2670031	ACD8221	A On @ 10/20/2011 14:01:35	Ping	21448 NW 40TH CIRCLE CT MIAMI GARDENS	33055	8-6769-9811-0-0
2670028	ACD8223	A On @ 10/20/2011 14:01:35	Ping	21442 NW 40TH CIRCLE CT MIAMI GARDENS	33055	8-6769-9811-0-0
2670019	ACD2511	A On @ 10/20/2011 14:01:35	Ping	21424 NW 40TH CIRCLE CT MIAMI GARDENS	33055	8-6769-9811-0-0
2670021	SC99361	Not AMI		21428 NW 40TH CIRCLE CT MIAMI GARDENS	33055	8-6769-9811-0-0
2670029	SC94214	Not AMI		21444 NW 40TH CIRCLE CT MIAMI GARDENS	33055	8-6769-9811-0-0
2670022	SC39259	Not AMI		21430 NW 40TH CIRCLE CT MIAMI GARDENS	33055	8-6769-9811-0-0

Progress

QUESTION

How many customer contacts to access the Energy Dashboard were there in 2013? How many inquiries has FP&L received on the energy dashboard since inception, broken down by year?

RESPONSE

There were 1,879,724 total customer contacts to the Energy Dashboard in 2013 and a total of 111,589 customer contacts to the Billing History Graph on the web which is available to customers with a legacy (non-standard) meter. Although FPL performed a review by listening to a sample of 179 smart meter related calls to determine that the Company had not actually received reduced calls to the care center due to NSMR customers not calling about the energy dashboard, FPL has no way of tracking the exact numbers of inquiries received about the energy dashboard since inception.

AFFIDAVIT



Ian Robson

State of Florida)

County of _____)

I hereby certify that on this 28 day of August, 2014, before me, an officer duly authorized in the State and County aforesaid to take acknowledgments, personally appeared Ian Robson, who is personally known to me, and he acknowledged before me that he co-sponsored the answer to Interrogatory No. 24 from Martin, et. al.'s Amended First Set of Interrogatories to Florida Power & Light Company (Nos. 1-51) in Docket No. 130223-EI, and that the response is true and correct based on his personal knowledge.

In Witness Whereof, I have hereunto set my hand and seal in the State and County aforesaid as of this 28 day of August, 2014.

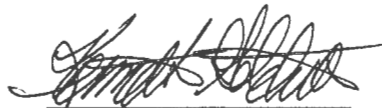


Notary Public, State of Florida

Notary Stamp:



AFFIDAVIT

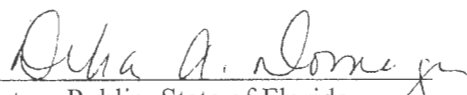

✓ Kenneth Getchell

State of Florida)

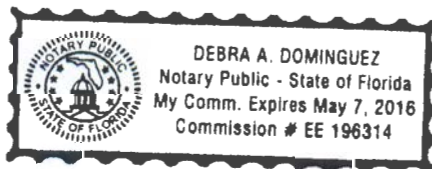
County of Dade)

I hereby certify that on this 28 day of August, 2014, before me, an officer duly authorized in the State and County aforesaid to take acknowledgments, personally appeared Kenneth Getchell, who is personally known to me, and he acknowledged before me that he sponsored the answer to Interrogatory No. 42 from Martin, et. al.'s Amended First Set of Interrogatories to Florida Power & Light Company (Nos. 1-51) in Docket No. 130223-EI, and that the response is true and correct based on his personal knowledge.

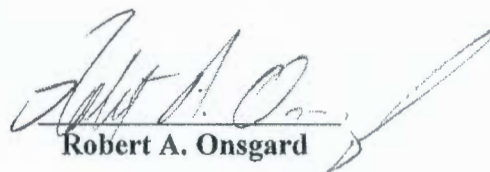
In Witness Whereof, I have hereunto set my hand and seal in the State and County aforesaid as of this 28 day of August, 2014.


Notary Public, State of Florida

Notary Stamp:



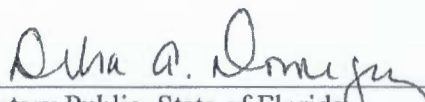
AFFIDAVIT


Robert A. Onsgard

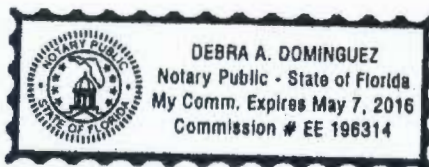
State of Florida)
County of Dade)

I hereby certify that on this 28 day of August, 2014, before me, an officer duly authorized in the State and County aforesaid to take acknowledgments, personally appeared Robert A. Onsgard, who is personally known to me, and he acknowledged before me that he sponsored the answers to Interrogatory Nos. 1-23, 25-41 and 43-51, and co-sponsored the answer to Interrogatory No. 24 from Martin, et. al.'s Amended First Set of Interrogatories to Florida Power & Light Company (Nos. 1-51) in Docket No. 130223-EI, and that the responses are true and correct based on his personal knowledge.

In Witness Whereof, I have hereunto set my hand and seal in the State and County aforesaid as of this 28 day of August, 2014.


Notary Public, State of Florida

Notary Stamp:



17

**FPL's responses to Intervenor
Martin's Second Set of Interrogatories
Nos. 53-56, and 58-60**

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET: 130223-EI EXHIBIT: 17
PARTY: STAFF
DESCRIPTION: FPL's responses to Intervenor Martin's
Second Set of Interrogatories, Nos. 53-56, and 58-60
[Bates N...

QUESTION

From the time period since the NSMR went into effect until the August, 2014 billing cycle, please identify and describe all instances where customers who were charged under the NSMR surcharge actually received an estimated bill for usage at the same service address for billing purposes.

RESPONSE

NSMR Estimate Bills	
Month	Total
June 2014	709
July 2014	672
August 2014	596

The number of estimate bills for NSMR customers is influenced by the fact that 18% of the current NSMR enrolled population were "Unable to Complete" (UTC) customers. The UTC population was comprised of customers who were unresponsive to FPL's repeated request for access to their premise to install a smart meter. Estimate bills are the result of the meter readers' inability to access the premise to read the meter. The fact that bills are estimated does not eliminate the cost of the meter reader who attempted, but was not able, to collect a reading. The terms of FPL's service require safe and unobstructed access to the meter. In these cases FPL's meter readers have been denied safe and unobstructed access to the meter by the customer, but as indicated above, this does not obviate the need for the meter reader to make the site visit to attempt to read the meter.

QUESTION

Please identify and describe all pilot projects conducted by FPL for the installation and operation of smart meters prior to commencing the formal deployment of the AMI project? Please provide dates of commencement and completion of the pilot tests.

RESPONSE

During 4th Quarter 2002, FPL deployed 1,000 smart meters testing power line carrier (PLC) technology.

Between 3rd Quarter 2005 and 3rd Quarter 2006, FPL deployed 34,000 PLC smart meters and 13,500 wireless smart meters in Broward County.

Between 2nd Quarter 2007 and 3rd Quarter 2008, FPL deployed 100,000 wireless mesh smart meters in Broward County.

QUESTION

For each smart meter pilot project identified in interrogatory no. 54 above, please identify the number customers who declined the offer for installation of a smart meter in each such pilot.

RESPONSE

FPL did not have any customers who refused installation of a smart meter in any of the programs listed in FPL's response to Martin, et al.'s Second Set of Interrogatories No. 54.

QUESTION

For the customers identified in interrogatory no 55, please identify how many were subsequently placed on the postponement list and grandfathered onto the NSMR at the inception of each.

RESPONSE

As stated in FPL's Response to Martin, et al.'s Second Set of Interrogatories No. 55, no customer refused installations during the course of FPL's pilot projects. Therefore, no such customers were subsequently placed on the postponement list and "grandfathered" into the NSMR program.

QUESTION

Please refer to the direct testimony of Witness Onsgard, page 14, lines 18-19. Regarding the remote connect/disconnect switch, please provide the specific number of smart meters in the Company's inventory which do not have this device.

RESPONSE

The specific number of smart meters installed as of September 5, 2014 which did not have the remote connect service (RCS) was 380,572. This population of meters is comprised of:

- Meter types that currently are not capable of utilizing the remote connect service (primarily commercial accounts);
- Meters that were part of smart meter pilot projects which were not equipped with remote connect service because that technology was not yet available (these meters are being passively replaced with RCS enabled meters); or
- Meters that have been excluded from the RCS process because they serve critical functions such as rail road crossings, cellular service towers, airport lighting, pumps and other such critical functions.

See also FPL's response to Staff's Second Set of Interrogatories No. 29.

QUESTION

As of January 31, 2014, please specify whether any smart meters required truck rolls to perform a connect/disconnect or violation (collection) reconnect? If smart meter customers have required truck rolls for such services please detail and explain.

RESPONSE

Yes. Smart meters that do not have remote connect service do require truck rolls to perform connect/disconnect or violation reconnect. Smart meters from pilot projects which were not equipped with remote connect service technology are being passively replaced with RCS enabled meters. See also FPL's response to Staff's Second Set of Interrogatories No. 29.

QUESTION

Please refer the Company's response to Intervenor Martin et. al. interrogatory no. 12. How many of the trouble tickets listed by category related specifically to troubles with meters malfunctioning?

RESPONSE

FPL does not categorize trouble tickets as "meter malfunctioning." FPL provides below the number of trouble tickets identified in FPL's response to Martin, et al.'s Amended First Set of Interrogatories No. 12 that resulted in a meter change for any reason.

TROUBLE TICKETS THAT RESULTED IN METER CHANGE			
Year	Smart Meter	Non-Standard Meter	Grand Total
2009	265	7,580	7,845
2010	1,887	5,177	7,064
2011	3,234	2,701	5,935
2012	3,923	1,480	5,403
2013	5,694	544	6,238
Grand Total	15,003	17,482	32,485


AFFIDAVIT


Robert A. Onsgard

State of Florida)
County of Palm Beach

I hereby certify that on this 17th day of September, 2014, before me, an officer duly authorized in the State and County aforesaid to take acknowledgments, personally appeared Robert A. Onsgard, who is personally known to me, and he acknowledged before me that he sponsored the answers to Interrogatory Nos. 52-60 from Martin, et. al.'s Second Set of Interrogatories to Florida Power & Light Company (Nos. 52-60) in Docket No. 130223-EI, and that the responses are true and correct based on his personal knowledge.

In Witness Whereof, I have hereunto set my hand and seal in the State and County aforesaid as of this 17th day of September, 2014.


Notary Public, State of Florida

Notary Stamp:



18

**FPL's responses to Intervenor
Martin's First Request for
Production of Documents
No. 12**

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET: 130223-EI EXHIBIT: 18
PARTY: STAFF
DESCRIPTION: FPL's responses to Intervenor Martin's
First Request for Production of Documents, No. 12
(OPC's POD ...

QUESTION

All work papers, background materials and analysis to support the Company's contention that a \$100 enrollment fee is a proper price signal to consumers seeking an alternative to smart meters.

RESPONSE

All work papers, background materials and analysis to support the Company's contention that a \$100 enrollment fee is a proper price signal to consumers seeking an alternative to smart meters are included in FPL's supplemental response to OPC's First Request for Production of Documents No. 2 at Bates numbers 002232 NSMR - 002259 NSMR.

From: Onsgard, Robert
Sent: Thursday, April 18, 2013 8:59 AM
To: Sharma, Anita; Babcock, Ana; Robson, Ian
Cc: Steele, Butch; Kramer, Heidi; Gonzalez, Martha
Subject: FW: Smart Meter Opt Out Tariff - 4/18 Call
Attachments: Smart Meter Opt Out Charge for 4.18.13 mgmt rev final draft.pptx

Fyi – final deck for today's meeting with management

Robert

From: Kaufer, Ilan
Sent: Wednesday, April 17, 2013 4:36 PM
To: Silagy, Eric; Caplan, Deborah; Hoffman, Kenneth; Santos, Marlene; Barrett, Robert E J; Litchfield, Wade; Olnick, Bryan; Rubin, Ken; Onsgard, Robert; Stamm, Sol; Romig, Steve; Weintraub, Inna; Leary, Barbara; Dubin, Kory
Cc: Sprouse, Jeanne; Nesmith, Nanci; Confessore, Kathy; Dezendorf, Maite; Carrero, Elizabeth; Dominguez, Debra; Danek, Diane
Subject: Smart Meter Opt Out Tariff - 4/18 Call

Please find attached the deck for tomorrow's smart meter call.

Please let me know if you have any questions.

Thank you.

Ilan

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STATEMENT OF CONFIDENTIALITY

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Proposed Smart Meter “Opt-Out” Tariff

April 18, 2013

Customer requests to “opt out” of AMI meter installations will result in significant costs that should be recovered from those customers

Executive Summary

- **We estimate that 40,000 intended smart meter customers will not have a smart meter**
 - 25,000 customers postponed and 15,000 “UTCs” (“unable to complete”)
- **FPL’s proposed tariff assumes 13,000, or about one-third of the 40,000 customers, as opt-out customers**
 - Based on PG&E’s experience, about two-thirds of customers without a smart meter ultimately took a smart meter after fees were set
- **One-time capital costs of \$2.2 MM and significant O&M costs are required to support these non-standard meters**
 - The “cost-causers” should be responsible for such costs incurred
- **Recommended opt-out tariff charge includes:**
 - \$100 up-front fee, \$32 monthly in year one, \$9 monthly thereafter
- **Target filing date of May 1 for the tariff approval petition**
 - Commission decision would be expected by year-end, with billing to begin in ~April 2014

Customers who do not want a smart meter will be allowed to “opt out” from what is now our standard meter service, i.e., a smart meter

Background

- **We estimate that 40,000 intended smart meter customers will not have a smart meter**
- **PG&E’s experience suggests that two-thirds of customers who do not have a smart meter will ultimately take a smart meter after fees are set, with one-third remaining as opt-outs**
 - One-third of FPL’s 40,000 would result in approximately 13,000 opt-out customers under a fee-based approach
 - Very little data is available on the experience of other utilities, so FPL’s tariff assumes 13,000 opt-out customers

NON-RESPONSIVE

The Commission appears to be supportive of utility opt-out tariffs that properly assign costs to the cost-causers (i.e., the opt-out customers)

Commission's Perspective

- **NON-RESPONSIVE
WORK PRODUCT**

- Lakeland Electric's proposed opt-out tariff was scheduled to be addressed at the April 9 agenda; however, the docket was subsequently closed and approved administratively
- Sumter Electric filed an opt-out tariff, but it was not scheduled for review

- **NON-RESPONSIVE
WORK PRODUCT**

- **Two partially competing objectives drive the opt-out charge:**
 - Recover FPL's costs resulting from opt-out customers, and
 - Send the appropriate price signal (i.e., "cost causer" pays) and encourage customers to accept the smart meter

**The higher the charge in year one, the greater the cost recovery;
however, a higher charge could result in fewer opt-outs,
which in turn reduces cost recovery**

NON-RESPONSIVE

NON-RESPONSIVE

Four different approaches / options were identified for FPL's proposed opt-out tariff charge

Opt-Out Tariff Options

(Charges Assume 13,000 Customers)

- Options 1 and 2 recover all one-time costs over 3 years
- Options 3 and 4 recover all one-time costs in the first year

	Sumter	Lakeland	FPL's Options			
			Option 1 (Sumter)	Option 2 (Lakeland)	Option 3 (Two-Step)	Option 4 ⁽¹⁾ (Hybrid 2 & 3)
Up-front Cost	NA	\$65	NA	\$100	NA	\$100
Monthly Charge Year 1	\$40	\$16.25	\$20	\$17	\$40 ⁽²⁾ (\$31 + \$9)	\$32 ⁽²⁾ (\$23 + \$9)
Monthly Charge Thereafter	\$40	\$16.25	\$20	\$17	\$9 ⁽³⁾	\$9 ⁽³⁾

- 1) Customers will have the option to pay all the one-time costs (\$376) up front, and then pay only \$9/month starting in year 1
- 2) Higher charge in the first 12 months to recover remaining one-time costs plus monthly meter reading cost
- 3) Monthly charge to recover only recurring meter reading costs

The recommended approach (option 4) balances the competing objectives of cost recovery and opt-out minimization (“price signal”)

Summary - Recommendation

- The four options were evaluated based on key considerations (scale of 1 to 4, with 4 being the best):

Evaluation considerations	Option 1 \$20/month; no up-front fee (Sumter approach) 3 Year min. term	Option 2 \$100 Fee + \$17/month (Lakeland approach) 3 Year min. term	Option 3 Two-step approach; \$40/month in year 1, \$9/month thereafter 1 Year min. term	Option 4 2 & 3 hybrid; \$100 fee, \$32/month in year 1, \$9/month thereafter* 1 Year min. term
Commission receptivity	4	4	4	4
<i>The Commission is generally receptive, and has not shown any preference for one approach over another at this point</i>				
Cost recovery	1 <i>Slowest recovery</i>	2 <i>\$100 up front improves recovery</i>	3 <i>Full one-time cost recovery in year one</i>	4 <i>Improves timing of cost recovery in year one</i>
Price signal	1	2	3	4
Overall / Total	6	8	10	12

*Customers will have the option to pay all the costs (\$376) up front, and then pay only \$9/month starting in year one

Option 4 best meets the objectives of cost recovery and sending an appropriate price signal

Recommendation Summary

- **Propose an opt-out tariff using option 4**
 - \$100 up-front fee, \$32/month charge for the first 12 months, \$9/month thereafter
 - One year minimum term

• NON-RESPONSIVE

• NON-RESPONSIVE
WORK PRODUCT

• NON-RESPONSIVE

• NON-RESPONSIVE

NON-RESPONSIVE WORK PRODUCT

Summary of CIS Changes and Regulatory Timeline

	2013 Q1			2013 Q2			2013 Q3			2013 Q4			2014 Q1			2014 Q2		Total IM Spend	
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May		
Regulatory Tariff Filing		Prepare and File Tariff							FPSC Ruling Expected				Effective Date						
System Changes Phase 1	Data conversion																		
Phase 2							Billing system changes to support the opt-out tariff												
IM Cashflows (000)	\$70	\$90	\$110	\$70	\$70	\$70	\$80	\$90	\$110	\$150	\$120	\$120	\$250	\$220	\$230	\$200	\$150	\$2,200	

- Phase 1 above reflects work already underway for data conversion and to build interfaces required to support the use of non-standard meters
- Phase 2 billing system changes must begin in July in advance of expected Tariff approval
 - \$910k between January and October, prior to Commission decision
 - \$1,290k between November and completion
- Customer enrollment is targeted for 1Q2014, with billing to begin ~April 2014



Appendix

- **WORK PRODUCT**
- **Additional costs associated with opt-out**
- **Sumter and Lakeland opt-out charges**
- **Opt-out approaches in other jurisdictions**
- **February 19 Internal Affairs meeting**
- **WORK PRODUCT**
- **WORK PRODUCT**
- **NON-RESPONSIVE**

WORK PRODUCT

There are significant incremental costs that will be incurred to support the continued use of legacy meters for “opt-out” customers

Costs for a Non-Standard Meter

- 1. One-time capital systems cost of \$2.2 MM for CIS and other customer service systems**
- 2. One-time O&M of \$244,000 for Marketing related costs**
 - This cost is incurred “up-front”
- 3. One-time O&M meter-related costs of \$182 per meter**
 - This cost is incurred subsequent to initial customer enrollment
 - E.g., \$87 per meter for testing and maintenance of each legacy meter
- 4. Ongoing monthly meter reading cost of ~\$9 per meter**

Summary of Costs

- **Capital and O&M cost estimates as of 4/15/13:**

Customer Enrollment in Non-Standard Option

CISII System Changes with Web/IVR Enrollment and Billing
 Care Center Enrollment, Customer Inquiries and Follow Up
 Web, Customer Brochures, Research and Mailings
 Smart Meter Installations when customer leaves premise

Meter Reading and Billing

Meter Reading workflow to establish and remove route
 Monthly manual meter reading and handheld
 Monthly Meter OSHA and vehicle accident cost
 Billing and Project Support Operational Costs

Collection and Disconnect/Reconnect

Systems to identify and handle collection issues
 Field visits for Collections, Disconnects and Write-offs (1)

Distribution Outage

Truck rolls from inability to ping meter to verify power

Meter Testing Costs

Ongoing Testing, Maintenance and Support for old meters

Project Management

Administer program design, implementation and true-ups

Total Preliminary Costs

(1) Incremental to current collection and reconnect Service Charge fees of \$5 and \$18

(2) Capital would not include \$244 Mktg

	One Time Systems/Mktg	One Time Per Meter	Monthly Per Meter
(000)			
\$ 1,855		\$ 11	
\$ 244		\$ 72	
		\$ 11	
\$ 23			\$ 6.85
			\$ 0.07
			\$ 0.42
\$ 342			
			\$ 0.43
			\$ 0.10
		\$ 87	
			\$ 0.65
\$ 2,465 (2)		\$ 182	\$ 8.51

	1,855
	23
	<u>342</u>
Cap Systems	2,220
Marketing	<u>244</u>
Total	2,464

Cost Basis for Charges Under Option #4

Line No.		Reference	Amount
1			
2			
3	<u>One Time Systems/Mktg Costs:</u>		
4	Cummulative Net Present Value of One Time System and Marketing Costs	Page 2	\$ 2,586,650
5	Projected Non-Standard Meter Customers		13,000
6	Total One Time System and Marketing Costs Per Customer (Line 4 / Line 5)		\$ 198.97
7			
8	One Time Non-Standard Meter Cost Per Customer	Page 3	\$ 181.72
9			
10	Total Up-Front Non-Standard Meter Cost Per Customer (Line 6 + Line 8)		\$ 380.70
11			
12	Limited Up-Front Fee Per Customer		\$ 100.00
13	Remaining Up-Front Fee Per Customer (Line 10 - Line 12)		280.70
14	Monthly Up-Front Fee for First Year Per Customer (Line 13 / 12)		\$ 23.39
15			
16	Monthly Non-Standard O&M Meter Costs Per Customer	Page 3	\$ 8.51
17			
18	Total Up-Front Fee Per Customer (Line 12)		\$ 100
19	Monthly Up-Front Fee for First Year Per Customer (Line 14)		\$ 23
20	Monthly Non-Standard O&M Meter Costs Per Customer (Line 16)		9
21	Total Monthly Fee for First Year (Line 19 + Line 20)		\$ 32
22	Total Monthly Fee after First Year (Line 16)		\$ 9

Sumter and Lakeland Opt-Out Tariffs

- **The PSC has “rate structure” jurisdiction over municipalities and cooperatives, but does not have jurisdiction over their revenue requirements**
 - Responsible to ensure that revenues are fairly collected from the customer classes
- **Sumter filed its planned tariff in December**
 - Ongoing monthly charge of \$40; no one-time up-front fee
 - Sumter actually calculated a cost of \$59, but chose \$40 to be consistent with its current disconnect/reconnect fee
 - Sumter has converted 20% of its customers to smart meters, and has put the conversion on hold temporarily
- **Lakeland filed its tariff in February, to be effective March 1**
 - One-time fee of \$65 and a recurring monthly charge of \$16.25
 - The one-time fee covers the cost of the meter and a locking ring
 - The monthly charge reflects the actual cost to read the meter (including labor and travel time)

Background - Approaches in Other Jurisdictions

- **Full recovery: At least five states have or are considering full cost recovery for opt-out programs**
 - Maine and Oregon established full-recovery opt-out fees
 - Portland General Electric charges \$254 up front and \$51 per month
 - Maryland and Michigan are recommending similar approaches
 - DTE proposed a one-time fee of \$89 and a monthly fee of \$15
- **Partial recovery: Programs that are partially subsidized**
 - California customers pay a \$75 setup fee and a \$10 monthly charge, but this does not reflect full recovery; the CA IOUs are requesting full recovery
 - Nevada was initially full recovery, but reconsidered its initial decision and lowered the fee, resulting in a partial subsidy
- **Other**
 - Vermont Commission approved full recovery, but the legislature negated the Commission action by approving opt-out at the company's expense
 - New Hampshire legislature has prohibited utilities from installing smart meters without a property owner's consent (no fees and no current deployments)
- **Florida**
 - Lakeland implemented a \$16.25 monthly fee for opt-outs and a \$65 one-time meter equipment fee
 - In December, Sumter Electric Cooperative filed with the FPSC an opt-out charge of \$40 per month (informational filing only – no PSC approval requested)

There is a wide variety of approaches in other jurisdictions
(a more detailed list is provided in the appendix)

Several states have already established opt-out programs

Established Opt-Outs

Utility	Opt-Out Option	Up-front fee Actual (Requested)	Monthly Fee Actual (Requested)	Estimated Opt-Out
PG&E (CA)	Analog	\$75 (\$275)	\$10 (\$15)	54,000 1.0%
SDG&E (CA)	Analog	\$75 (\$219)	\$10 (\$15)	3,000 0.2%
So Cal Ed (CA)	Customer's current meter	\$75 (\$91)	\$10 (\$25)	30,000 0.6%
CMP (ME)	Non-Smart Meter	\$40	\$12	8,000 1.3%
NV Energy	Non-Smart Meter	\$99/\$53	\$8/\$9	7,500 0.3%
CVPS (VT)	Non-Smart Meter	Free	Free	Not provided
Portland GE (OR)	Non-Smart Meter	\$254	\$51	4 0.0004%

Several states are reviewing opt-out programs

Proposed Opt-Outs

Utility	Opt-Out Option	Up-front fee Proposed	Monthly Proposed	Estimated Opt-Out
DTE	Non-Smart Meter	\$87	\$15	4,000 0.1%
BGE	Non-Smart Meter	\$100	\$12	13,000 1.0%
Tex/New Mex Power	Analog or Non-Smart Meter	Not provided	\$56 (based on 1,000 meters)	Not provided
Oncor	Analog or Non-Smart Meter	\$177 (based on 1,000 meters)	\$28 (based on 1,000 meters)	Not provided
CenterPoint	Non-Smart Meter	\$170 (based on 5,000 meters)	27.69 (based on 5,000 meters)	42 0.002%
Lakeland Electric	Non-Smart Meter	\$65	\$16.25	80 0.066%
Sumter Elec. Coop. (FL)	Analog	\$0	\$40	25 0.014%

Based on cost data submitted in various PSCs request/dockets, good for general comparison

At the PSC's February 19 Internal Affairs ("IA") meeting, the Commission expressed support for an opt-out charge

February 19 Internal Affairs Meeting

- **Staff issued a memo on February 11 prior to the IA meeting**
 - Staff noted that FPL estimates 25,000 opt-out customers, the costs of which are borne by the general body of customers
 - The number is actually 40,000: 25,000 postponed based on the initial field contact, and 15,000 "UTCs" (unable to complete)
 - Staff's summary notes that "it may be more appropriate for the utility to file a ["opt-out"] tariff for FPSC review and approval that addresses their situation."
 - Staff concluded that the Commission does not need to take any action at this time, and that issues of concern raised by customers are outside the Commission's jurisdiction
 - PSC has jurisdiction over cost recovery, but not over the meter themselves
 - FCC has jurisdiction over health effects
 - Staff also noted that utilities may voluntarily provide customers with new services (e.g., opt-out tariff); Staff's primary concern is that such tariffs be cost-based

NON-RESPONSIVE

NON-RESPONSIVE
WORK PRODUCT

NON-RESPONSIVE WORK PRODUCT

NON-RESPONSIVE
WORK PRODUCT

NON-RESPONSIVE
WORK PRODUCT

NON-RESPONSIVE
WORK PRODUCT

NON-RESPONSIVE

EXHIBIT NO. 19

DOCKET NO: 130223-EI

WITNESS: ~~Deason~~ Robert Onsgard

PARTY: FPL

DESCRIPTION: FPL Postcard Notice for Smart Meter Installation

DOCUMENTS:

PROFFERED BY: Intervenors Martin et. al.; Jacobs

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET: 130223-EI EXHIBIT: 19
PARTY: Martin et al.
DESCRIPTION: Robert A. Onsgard

We'll be in your area
to install a smart meter



In the coming weeks, we will be in your neighborhood to replace your meter with a **smart meter**.

Installation is simple and included as part of our service. There is no additional charge to you. As long as we can access the meter at your home or business, you don't need to be present.

- An FPL-approved contractor, Honeywell or an FPL technician, will perform the meter upgrade
- Installers carry identification, but will not need to enter your home or business
- Expect a momentary interruption to your service – a normal part of a meter change
- If we can't access your meter, we'll leave a door hanger with information to contact us to schedule a time for the meter change that is convenient for you

We will continue to read the meter manually, and we'll need safe access to the meter until the transition to smart meters in your area is complete. At that time:

- We will read the meter remotely (although we will still need occasional access to perform routine maintenance)
- You will be able to log on to our secure website to see how much energy you are using by the hour, day and month to help you make more informed energy choices

It could take several months to complete the transition because there are a lot of associated communications and networking components that must be put into place. When the smart meter is activated, we will send you more details about these and other smart meter benefits. Visit www.FPL.com/smartmeter for more information.

Questions, please contact us at 1-800-871-5711.

8/14 Cynthia Grew
to suit out hrs
305-552-3596

7/31/12
Verney.
1:10 PM.
2 business days.

PRSRD STD
U.S. POSTAGE
PAID
MIAMI FL
PERMIT NO. 2013

Cynthia Grew
cynthia.g.grew@fpl.com
Honeywell installers

*****AUTO**5-DIGIT 34293 T32 P1
CURRENT RESIDENT
420 CERROMAR CT APT 162
VENICE FL 34293-4339

→ Tom Tookes
1-800-56-6257
x205

EXHIBIT NO. 20

DOCKET NO: 130223-EI

WITNESS: Deason Robert Onsgard

PARTY: FPL

DESCRIPTION: Docket No. 130223-EI FPL Response to Office of Public Counsel
Interrogatory Nos. 8, 9 and 11

DOCUMENTS:

PROFFERED BY: Intervenors Martin et. al.; Jacobs

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET: 130223-EI EXHIBIT: 20
PARTY: Martin et al.
DESCRIPTION: Robert A. Onsgard

QUESTION

Do the provisions of the "opt out tariff" reflect that an existing customer who declines a smart meter enables FPL to avoid the cost of purchasing and installing the smart meter? If so, how is the avoidance factored into the tariff's charges? In other words, does FPL's "opt out tariff" differentiate between existing customers (for whom FPL will not incur an immediate meter cost) and new customers (for whom FPL will incur the cost of an alternative meter)? If not, why not?

RESPONSE

FPL does not avoid any costs associated with purchasing and installing a smart meter when an existing customer declines a smart meter.

FPL performed a thorough analysis leading to the NSMR tariff proposal and identified a number of categories of incremental costs the Company will incur in conjunction with the NSMR tariff which were not included in the NSMR tariff rates. Smart meters need to be available for all new and existing customers. During smart meter deployment the Company could not know how many, or where, customers would be that might choose the non-standard meter option. Therefore, FPL purchased meters and mobilized contractors to install smart meters to all customers. It is also possible for customers to accept smart meter installation and then subsequently elect non-standard meter service, which also supports the need for full smart meter inventory. In addition to the full inventory of smart meters, FPL must now also keep an inventory of non-standard meters for the NSMR population, the cost of which has not been included in the NSMR tariff. FPL also anticipates that over half of the postpone population will elect to accept a smart meter, which will require an incremental field visit to install each smart meter. The need for incremental field visits throughout FPL's service territory where smart meter installations had already been completed will be at a much higher cost than would have been incurred during mass deployment, and these costs also have not been included in the NSMR tariff.

QUESTION

Does FPL intend to use the equipment, facilities, personnel, systems, and other resources, that it now employs to render bills for customers who do not have smart meters for those customers who choose to opt out of the smart meter? If not, why not?

RESPONSE

Yes, FPL intends to use the equipment, facilities, personnel, and other resources that it now employs to render bills for customers who do not have smart meters for those customers who choose to opt out of the smart meter. However, the existing Customer Information System (CIS) and Customer Web Portal (FPL.com) required significant enhancements to accommodate the NSMR customers with incremental modifications.

These enhancements include, among other things: creating an enrollment portal for customers to enroll on-line; creating a Customer Care Center portal so that Care Center representatives can assist customers who call to enroll; properly accounting for and maintaining non-standard meter customers in the CIS; scheduling meter change orders and appointments; creating new billing functionality to accommodate this non-standard meter service; establishing new entries in the CIS sub-general ledger to properly book the new charges; adding the new charges to the paper bill statement and electronic billing documents and files; providing and enhancing interfaces for all field meter activities including collections, connection of service, and trouble call system, as well as interfacing with other work management systems that non-standard meters affect. These changes are detailed and included in Exhibit B.

Additionally, support and maintenance of separate systems and equipment, as well as retention of personnel, are also required as detailed in FPL's response to OPC's First Set of Interrogatories No. 6.

Furthermore, should the number of customers who decline a smart meter going forward increase above the level currently projected, additional equipment, personnel, and other resources will be required to continue to render bills to those customers.

QUESTION

With respect to the equipment, facilities, personnel, systems , and other resources in place for the rendering of bills to customers who decline smart meters: Which equipment, facilities, personnel, systems, and other resources, if any, will FPL continue to use when rendering a bill to customers who accept smart meters? If FPL will continue to use some portion of such equipment, facilities, personnel, systems, or other resources when rendering bills to customers who accept smart meters: In its analysis of the costs associated with customers who opt out of the smart meter, has FPL allocated a portion of the cost of that portion to customers who accept smart meters? Please explain your answer.

RESPONSE

FPL will continue to use the same equipment, facilities, personnel, systems, and other resources, that are already in place today for rendering bills to customers with smart meters. FPL's projections supporting the NSMR tariff include only the incremental costs over and above the equipment, facilities, personnel, systems, and other resources caused by the non-standard meter customers. As a result, it would be inappropriate to allocate any of these costs to customers accepting smart meters.

For customers who decline smart meters, Meter Reading employees are required to obtain a monthly meter reading in order to render bills to those customers, and to obtain start readings to establish service and final readings to close service when needed. For customers who accept a smart meter, visits to obtain these meter readings are not required. Customers who require these additional services are geographically dispersed, thereby impeding our ability to fully optimize efficiency and increasing the cost to obtain such readings, as described in FPL's response OPC's First Set of Interrogatories No. 6.

Field Meters Operations personnel and equipment will also be used to resolve exceptions and perform field investigations for customers who decline smart meters and for customers who accept smart meters; however, incremental personnel and equipment are required in order to perform this work, as well as the maintenance of additional separate processes and procedures.

Billing Projects & Support, Customer Accounting, Information Management, and Quality Assurance & Analysis personnel will be used to support billing processes and resolve exceptions for customers who decline smart meters and for customers who accept smart meters; however, the procedures, processes, and systems used for support and exception resolution are different for these groups of customers as described in FPL's response to OPC's First Set of Interrogatories No. 5.

The Customer Information System, while used for both groups of customers, required significant

Florida Power & Light Company
Docket No. 130223-EI
OPC's First Set of Interrogatories
Interrogatory No. 11
Page 2 of 2

modifications as detailed both in Exhibit B and in FPL's response to OPC's First Set of Interrogatories Nos. 9 and 10. This was incremental work required specifically to support customers who decline a smart meter.

In addition, FPL must maintain and support separate processes and systems to collect unpaid balances for customers who do not have a smart meter. Collection of unpaid debt requires a visit to the customer's account location to attempt to obtain payment, and also requires field collection employees with a specialized skill set to perform disconnection of service should payment not be received. For customers who have a smart meter, field visits to collect unpaid debt are not performed, and disconnection and reconnection of service is performed remotely.

Exhibit Objected by FPL .

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET: 130223-EI EXHIBIT: 21
PARTY: Martin et al.
DESCRIPTION: Robert A. Onsgard

Exhibit Objected by FPL .

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET: 130223-EI EXHIBIT: 22
PARTY: Martin et al..
DESCRIPTION: Robert A. Onsgard

EXHIBIT NO. 23

DOCKET NO: 130223-EI

WITNESS: ~~Deaton~~ Robert Onsgard

PARTY: FPL

DESCRIPTION: Docket No. 130223 FPL Petition For Approval of Optional Non-Standard
Meter Rider - Exhibit "B"

DOCUMENTS:

PROFFERED BY: Intervenors Martin et. al.; Jacobs

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET: 130223-EI EXHIBIT: 23
PARTY: Martin et al.
DESCRIPTION: Robert A. Onsgard

FLORIDA POWER AND LIGHT COMPANY
SUMMARY OF NON-STANDARD METER FEES

Line No.	Amount
1	<u>Non-Standard Meter Program Costs</u>
2	Cumulative Net Present Value of Up-Front System and Communication Costs \$ 3,078,882
3	Projected Non-Standard Meter Customers <u>12,000</u>
4	Total Up-Front System and Communication Costs Per Customer (Line 2 / Line 3) \$ 256.57
5	
6	One Time Non-Standard Meter Cost Per Customer <u>\$ 105.35</u>
7	
8	Total Up-Front and One Time Non-Standard Meter Cost Per Customer (Line 4 + Line 6) \$ 361.92
9	
10	Enrollment Fee Per Customer Limited to \$105 \$ 105.00
11	Remaining Up-Front and One Time Cost Per Customer (Line 8 - Line 10) <u>256.92</u>
12	Remaining Up-Front and One Time Cost to be paid in Monthly Surcharge over 36 months (Line 11 / 36) \$ 7.14
13	<u>On-going Operations & Maintenance (O&M) Costs to be recovered in the Monthly Surcharge:</u>
14	Monthly Non-Standard O&M Meter Costs Per Customer \$ 8.76
15	
16	<u>Summary of Charges:</u>
17	Enrollment Fee limited to \$105 \$ 105.00
18	Monthly Surcharge for time customer takes service pursuant NMSR (Line 14+12, rounded to nearest \$) \$ 16.00
19	<u>Note:</u>
20	Totals may not add due to rounding

FLORIDA POWER AND LIGHT COMPANY
NET PRESENT VALUE CALCULATION
UP-FRONT NON-STANDARD METER PROGRAM COSTS

Line No.	Year	Rate Base Beg Bal ^(A)	Accum Depr	Rate Base End Bal	Average Rate Base	Pre-Tax COC ^(B)	Return on Rate Base	Depr Expense ^(C)	O&M ^(D)	Total Revenue Requirement	Net Present Value of Rev Req ^(E)	Annual Levelized 3 Year Rev Req	
		(1)	(2)	(3) = (1)+(2)	(4) = ((1)-(3))/2	(5)	(6) = (4)*(5)	(7)	(8)	(9) = (6)+(7)+(8)	(10)	(12)	
1	1	\$ 2,093,054	\$ (418,811)	\$ 1,674,443	\$ 1,883,748	9.48%	\$ 178,505	\$ 418,811	\$ 368,000	\$ 965,116	\$ 965,116	\$ 1,026,294	
2	2	1,674,443	(837,222)	1,255,832	1,465,138	9.48%	138,837	418,811		557,448	509,196	1,026,294	
3	3	1,255,832	(1,255,832)	837,222	1,046,527	9.48%	99,169	418,811		517,780	432,023	1,026,294	
4	4	837,222	(1,674,443)	418,811	627,916	9.48%	59,502	418,811		478,112	364,395		
5	5	418,811	(2,093,054)	0	209,305	9.48%	19,834	418,811		438,445	305,238		
							Totals	\$ 495,847	\$ 2,093,054	\$ 368,000	\$ 2,956,901	\$ 2,675,968	\$ 3,078,882

14 **Notes:**

- 15 (A) Support for upfront non-standard meter program capital costs is reflected on Page 3 and 4
 16 (B) Represents FPL's pre-tax weighted average cost of capital approved by the FPSC in
 17 Order PSC-13-0023-S-EI, Docket No. 120015-EI
 18 (C) One time capital costs for systems, infrastructure and communication equipment are estimated to be depreciated over five years
 19 (D) Support for upfront non-standard meter program operation and maintenance costs is reflected on Page 3 and 5
 20 (E) Net present value calculation utilizes a discount rate equal to FPL's pre-tax weighted average cost of capital reflected in column (5).

FLORIDA POWER AND LIGHT COMPANY
SUMMARY OF NON-STANDARD METER PROGRAM COSTS

Line No.	Reference	Up-Front System and Communication Costs			One Time Cost Per Meter	Monthly Cost Per Meter
		CAPITAL	O&M	TOTAL	O&M	O&M
1						
Customer Enrollment in Non-Standard Option						
2	Customer Information System Changes with Web Enrollment and Billing					
3	Care Center Enrollment, Customer Inquiries and Follow Up				\$11.30	
4	Customer Brochures, Research and Mailings		\$368,000	\$368,000		
5						
6						
Meter Reading and Billing						
7	Meter Reading workflow to establish and remove route				\$11.98	
8	Meter Reading Handhelds	\$42,054		\$42,054		
9	Monthly manual meter reading					\$6.81
10	Monthly Meter OSHA and vehicle accident cost					\$0.05
11	Billing and Project Support Operational Costs					\$0.41
12						
Collection and Disconnect/Reconnect						
13						
14	Systems to Identify and Handle Collection issues	\$99,000		\$99,000		
15	Field visits for Collections, Disconnects/Reconnects					\$0.45
16						
Distribution Outage						
17						
18	Truck rolls from inability to ping meter to verify power					\$0.10
19						
Field Meter Visits						
20						
21	Average at least one field visit per opt out ⁽¹⁾				\$77.06	
22						
Meter Technology Center						
23						
24	Meter sampling and testing for non-standard meters				\$5.00	
25						
Project Management						
26						
27	Administer program design, implementation and true-ups					\$0.95
28						
29	Total Estimated Costs	\$2,093,054	\$368,000	\$2,461,054	\$105.35	\$8.76
30						

31 Notes:

32 (1) It is assumed that there will be at least one site visit for each opt out over three years for meter test sampling, installing non-standard meters for customers with smart meters already installed, installing non-standard meters for opt out customers relocating to another premise, along with additional visits due to restoration/theft monitoring activities

**FLORIDA POWER AND LIGHT COMPANY
ONE TIME UP-FRONT NON-STANDARD METER PROGRAM CAPITAL COSTS**

Line No.	Task	Task Description	Amount
1	Customer Information System Changes with Web Enrollment and Billing		
2	Data Conversion - Care Center and Customer System initial configuration	* Conversion of manual postponement list from Excel to customer billing system, development of interfaces to FPL's other operational field systems (i.e. trouble call and distribution work management systems) and additional system functionality for tracking postponed customers. Foundational work for enrollment and billing changes.	\$ 477,000
3	Customer Information System - Billing and Financial components	* Create new service charge to bill initial charges * Create new service charge to bill monthly charges * Ability to adjust, backdate, cancel/replace above fees as needed * Bill, track and report on charges from enrollment through final accounting	\$ 808,500
4	Customer information System - Core functionality	* System functionality to link customers, premises and their opt out requests throughout customer care processes * Execute opt out functionality with new meter change orders for opt out and smart meters * Create new workflows for meter reading routing (Reroute to non-smart meter route and issue meter change if applicable) * System functionality for Care Center to forward opt out communication requirements to back office	\$ 251,500
5	Web Enrollment - Enable customer web self-service enroll functionality	* Build new web application for customers to sign up for smart meter opt out on FPL.com	\$ 124,000
6	Customer system automation to enroll in opt out program	* Workflow logic to support system checks for smart meter enrollment status * Counters for all decision points * Various decision points around previously submitted request, confirmation letter received	\$ 169,000
7	Care Center - Enrollment	* Develop business logic to define customer eligibility * Create care center scripting and functionality for the care center to request letters and other correspondence to be sent to opt out customers. * Generate letter to communicate opt out status to customer, display code status & dates	\$ 122,000
8	Total Customer Information System Changes with Web Enrollment and Billing		\$ 1,952,000
9			
10	Systems to Identify and Handle Opt Out Collection Issues		
11	Revenue Recovery - Online changes to support Remote Connect Switch	* Data Integrity - Changes to customer information system general maintenance screen for remote connect switch restrictions to ensure opt out accounts are not included	\$ 99,000
12	Total System Changes to Identify and Handle Opt Out Collection Issues		\$ 99,000
13			
14	Meter Reading Handhelds		
15	One-time cost of Meter Reading Handhelds		
16	Cost per handheld		3,823
17	Cost of handhelds for 11 opt out FTE's	Line 16 X 11	42,054
18	Total Meter Reading Handheld Costs		\$ 42,054
19			
20	Total Estimated Capital Costs		\$ 2,093,054

FLORIDA POWER AND LIGHT COMPANY
ONE TIME UP-FRONT NON-STANDARD METER PROGRAM O&M COSTS
Communications

Line No.	Task	Amount
1	<u>Customer Brochures, Research and Mailings</u>	
2		
3	Notification - Design and first mailing to both postponed and unable to complete (UTC) customers (letter + brochure)	\$ 60,000
4	Notification - Follow-up mailing to both postponed and UTC customers (letter + brochure)	\$ 37,500
5	Final notification to customers who have not responded - to be sent certified mail, return receipt requested	\$ 70,000
6	Postage - self-addressed stamped envelopes	\$ 3,000
7	Notification - Opt out fact sheet/brochure	\$ 7,500
8	Email communication to reinforce first and second mailing to postponed plus UTC customers	\$ 16,000
9	Notification - Door hangers (2 sets @ 10,000 quantity)	\$ 20,000
10	Opt out confirmation - Mailing to confirm request for opt out	\$ 84,000
11	Research: Get customer feedback on effectiveness of communication materials	\$ 30,000
12	Design Support - Communication planning, implementation and copy writing	\$ 35,000
13	Foreign language translation (Spanish)	\$ 5,000
14		
15	Customer Brochures, Research and Mailings Costs	<u>\$ 368,000</u>

**FLORIDA POWER AND LIGHT COMPANY
ONE-TIME COSTS PER METER
Care Center Enrollment, Customer Inquiries and Follow Up Costs**

Line No.	Description	Assumptions	Amount
1	Inbound Call Volume		
2	Projected number of opt out customers		12,000
3	Estimated number of customer calls	Based on estimated call backs and information only calls	20,880
4	Cost per call ⁽¹⁾	Based on 2013 Estimate	\$ 6.21
5	Call Volume Cost (Line 3 * Line 4)		\$ 129,665
6			
7	Less: Estimated % of customers using self service web	Assumption is that 50% would use web to opt out	50%
8	Self Service Web Usage (Line 5 * Line 7)		\$ 64,832
9			
10	Back Office Cost	1 full time employee (FTE) at \$45k plus payroll loaders ⁽²⁾	\$ 70,821
11			
12	Total Cost Less Self Service Costs (Line 5 - Line 8 + Line 10)	Customer Care cost less self service enrollments	\$ 135,653
13			
14	Care Center Enrollment, Customer Inquiries and Follow Up Costs Per Customer (Line 12 / Line 2)		\$ 11.30
15			
16	Notes:		
17	(1) Includes the following payroll loaders from page 15: exempt and non-exempt pension & welfare taxes and insurance		
18	(PWTI), exempt performance incentives, and corporate administrative and general		
19	(2) Includes the following payroll loaders from page 15: non-exempt pension & welfare taxes and insurance (PWTI), and		
20	corporate administrative and general		

FLORIDA POWER AND LIGHT COMPANY
ONE-TIME COSTS PER METER
Field Meter Costs to Visit Premises
Ongoing Testing, Maintenance and Support Costs for Old Meters

Line No.	Description	Assumptions	Amount
1	Field Meter Costs		
2			
3	Hourly wage	2012 Average hourly rate based on skill set from Memorandum of Agreement (MOA)	\$28.28
4	Total hourly wage + loaders	Loaders added for: Overtime Rate for skill set, Bargaining Unit Pension & Welfare Taxes and Insurance (PWTT) and Corporate Administrative and General	\$ 48.73
5	Time to replace meter	Standard site time for a typical meter installation	0:12:00
6	Time to travel to premise	Average drive time X 2 for return trip	0:35:35
7	Total time to replace (Lines 5+6)		0:47:35
8	Total time + loaders	Loaders added for: Wasted trips, vacation/holiday/illness, and downtime	1:16:22
9	Vehicle costs (Line 8 X the average hourly vehicle rate)	Hourly average per vehicle = \$6.10	\$ 7.75
10	Material costs	Total 2012 Material and Supplies (M&S) expenses times 20% ⁽¹⁾ to account for proportion of work related to meter changes divided by the total amount of meter changes performed in that timeframe	\$ 1.36
11	Cost per meter Replacement (Line 4 X Line 8 (in hours) + Lines 9 + 10)		\$71.01
12	Admin and Supervision	Admin + Supervision + Safety Meetings + Training expenses in 2012 divided by the total amount of meter changes performed in that timeframe	\$ 5.04
13	Field Meters Safety Cost per Visit		\$ 1.01
14	Fully Loaded Cost for Field Meters Visit to Premise (Lines 11+12+13)		\$77.06
15			
16	Ongoing Testing, Maintenance and Support for old meters		
17	Meter Test Center (MTC) cost of labor to do one meter test	2012 MTC Costs/Meters Tested, assume 1/3 tested (\$15/3=\$5)	\$ 5.00

18 **Notes:**

19 (1) 20% - is the weighted proportion of work related to meter replacements. We apply this rate to general buckets such as
20 tools, materials, administrative, and supervisory costs

EXHIBIT NO. 24

DOCKET NO: 130223-EI

WITNESS: ~~Denson~~ Robert Onsgard

PARTY: FPL

DESCRIPTION: FPL Background Analysis and Support for Calculation of Charges of
Meter Installation

DOCUMENTS:

PROFFERED BY: Intervenors Martin et. al.; Jacobs

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET: 130223-EI EXHIBIT: 24
PARTY: Martin et al..
DESCRIPTION: Robert A. Onsgard



FPL

Smart Meter Installation Resolution of Postponement Cost Detail

Live Meeting August 1, 2012

Extensive analysis has been done to identify all requirements for a framework to support a FPL non-standard meter option

Key Requirements and Assumptions

- **Regulatory approval for meter option would specify:**
 - One time and recurring monthly service charges unique to each IOU ⁽¹⁾
 - Unresponsive customers (UTC) also assessed service charges ⁽²⁾
- **Existing meter will not be replaced to be least disruptive to customer**
- **All incremental costs included**
- **Customer systems fully automated customer tracking and billing ⁽³⁾**
- **Enrollment made available via web, IVR or calling Care Center**
- **Utilize unique routes and personnel for manual monthly meter reading, which also provides ongoing revenue and theft protection ⁽⁴⁾**
- **Charges include installing smart meter for next premise customer ⁽⁵⁾**

Cross functional team was used to define new processes based on these assumptions and generate detailed cost estimates

⁽¹⁾ Includes all PWTI and A&G loaders where appropriate

⁽²⁾ Unable to Connect (UTC) are customers who have been unresponsive after several attempts to access premise

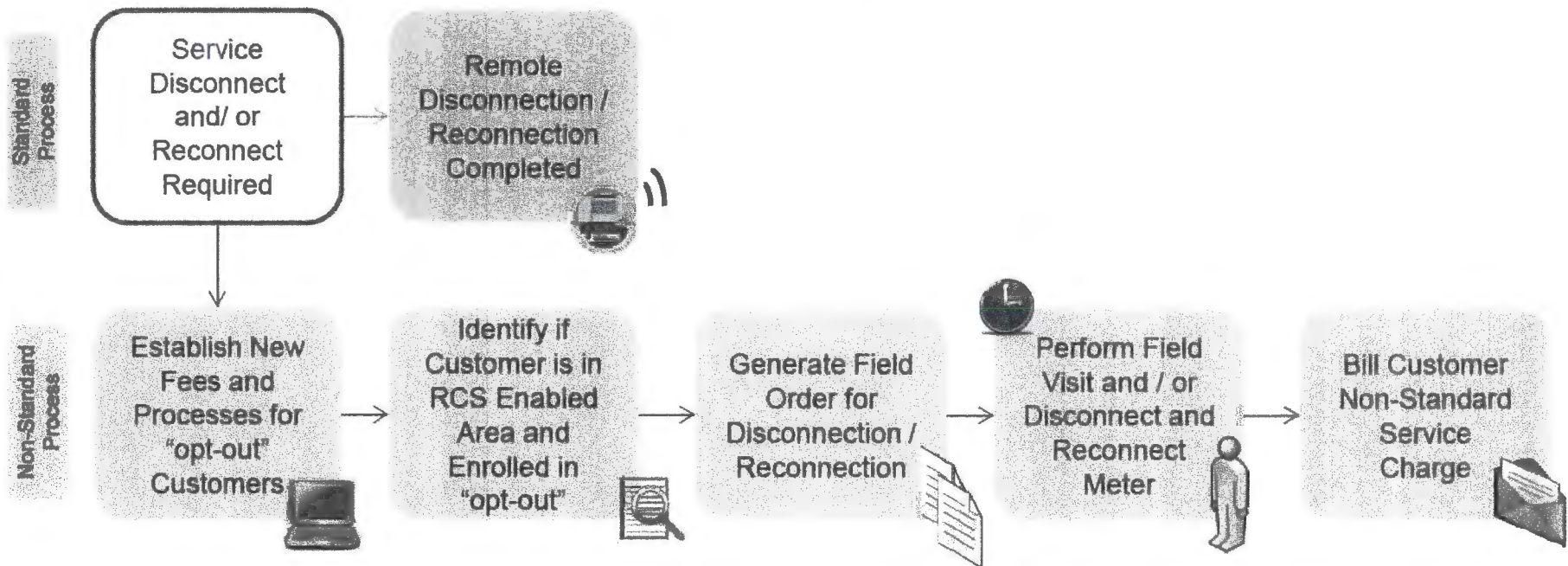
⁽³⁾ Lower cost options with less automation, more manual processing, and less functionality available

⁽⁴⁾ Costs will be lower if combined with remaining meter reading routes for CI customers

⁽⁵⁾ Other states have been denied recovery of this cost

Process comparison

Collections: Disconnect and Reconnect



	One Time Systems/Mktg (000)	One Time Per Meter	Monthly Per Meter
Systems to identify and handle collection issues	\$ 228	\$	\$
Field visits for Collections, Disconnects and Write-offs	\$	\$	\$ 0.43

OAC 15 PDD# 2
Supplement

From: Onsgard, Robert
Sent: Wednesday, August 01, 2012 12:57 PM
To: Kramer, Heidi; Reynolds, Dennis; Prieto, Eduardo A; Lopez, Juan P; Getchell, Ken; Legra, Milagros; Gandarillas, Carlos; Brito, Jose L; Santos, Barbara; Mason, Mark; Stepien, Craig; Leary, Barbara; Fuentes, Elizabeth; Steele, Butch; Gonzalez, Martha; Jackson, JoAnne Stamm, Sol; Deaton, Renae; Cuba, Tony; Urquiaga, Alejandro; Perez, Blanca
Cc:
Subject: RE: Smart Meter Option Costs

File name



Here is the deck from this morning's call. Let me know if you have questions.

Robert

-----Original Appointment-----

From: Onsgard, Robert
Sent: Wednesday, July 11, 2012 3:11 PM
To: Onsgard, Robert; Kramer, Heidi; Reynolds, Dennis; Prieto, Eduardo A; Lopez, Juan P; Getchell, Ken; Legra, Milagros; Gandarillas, Carlos; Brito, Jose L; Santos, Barbara; Mason, Mark; Stepien, Craig; Leary, Barbara; Fuentes, Elizabeth; Steele, Butch; Gonzalez, Martha; Jackson, JoAnne
Cc: Olrick, Bryan; Stamm, Sol; Deaton, Renae; Cuba, Tony; Strickland, Monika; Urquiaga, Alejandro; Perez, Blanca; Scott, R L
Subject: Smart Meter Option Costs
When: Wednesday, August 01, 2012 11:00 AM-12:00 PM (GMT-05:00) Eastern Time (US & Canada).
Where: Live Meeting - Conference Call 305 552 3000, 5524481#

-----+-----
Onsgard, Robert has invited you to attend an online meeting using Microsoft® Office Communications Server.
[Join the meeting](#)

- Make sure the Office Live Meeting client is installed before the meeting:
- I am connecting from [inside the Florida Power & Light network](#)
 - I am connecting from [outside the Florida Power & Light network](#)

TROUBLESHOOTING

Unable to join the meeting? Start Office Live Meeting and join the meeting with the following information:
Meeting ID: dff0c10786134a80b53f0e03a3804a3e
Entry Code: VP7G6ckrDoZ
Location:
meet:slp:Robert_Onsgard@fpl.com:gruu:opaque=app:conf:focus:ld:dff0c10786134a80b53f0e03a3804a3e%3Fconf-key=VP7G6ckrDoZ

- If you still cannot enter the meeting, contact support:
- [Inside the Florida Power & Light network](#)

- Outside the Florida Power & Light network

NOTICE

Office Live Meeting can be used to record meetings. By participating in this meeting, you agree that your communications may be monitored or recorded at any time during the meeting.

Exhibit not offered.

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET: 130223-EI EXHIBIT: 25
PARTY: Martin et al.
DESCRIPTION: Robert A. Onsgard

Exhibit not offered.

FLORIDA PUBLIC SERVICE
COMMISSION
DOCKET: 130223-EI EXHIBIT: 26
PARTY: Martin et al.
DESCRIPTION: Robert A. Onsgard

EXHIBIT NO. 27

DOCKET NO: 130223-EI

WITNESS: Deason

PARTY: FPL

DESCRIPTION: Docket No. 130223-EI FPL Response to Intervenors Martin et. al.
Interrogatory No. 42

DOCUMENTS:

PROFFERED BY: Intervenors Martin et. al.; Jacobs

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET: 130223-EI EXHIBIT: 27
PARTY: Martin et al.
DESCRIPTION: Terry Deason

Exhibit not offered.

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET: 130223-EI EXHIBIT: 28
PARTY: Martin et al.
DESCRIPTION: Terry Deason

Exhibit not Entered in the Record

FLORIDA PUBLIC SERVICE COMMISSION
DOCKET: 130223-EI EXHIBIT: 29
PARTY: Martin et al.
DESCRIPTION: Terry Deason