

“Enhancing Sustainable Utility Regulation [“ENSURE”]”

REGULATORY REPORTING AND MONITORING



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At the Workshop on “Enhancing Sustainable Utility Regulation” (“ENSURE”) held in Abuja, Nigeria, June 21- June 23, 2011

Participants: NARUC, OPSI, ECOWAS Regional Electricity Regulation Authority (ERERA), and West African Gas Pipeline Authority (WAGPA).

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OUTLINE

A. Background

- Formal Case Process – Players
- Rule Making Process – Setting Rates, Hearings (Adjudicated)
– Paper Proceeding (No Hearing)

(All result in requirements for “Regulatory Reporting and Monitoring” by the Commission)

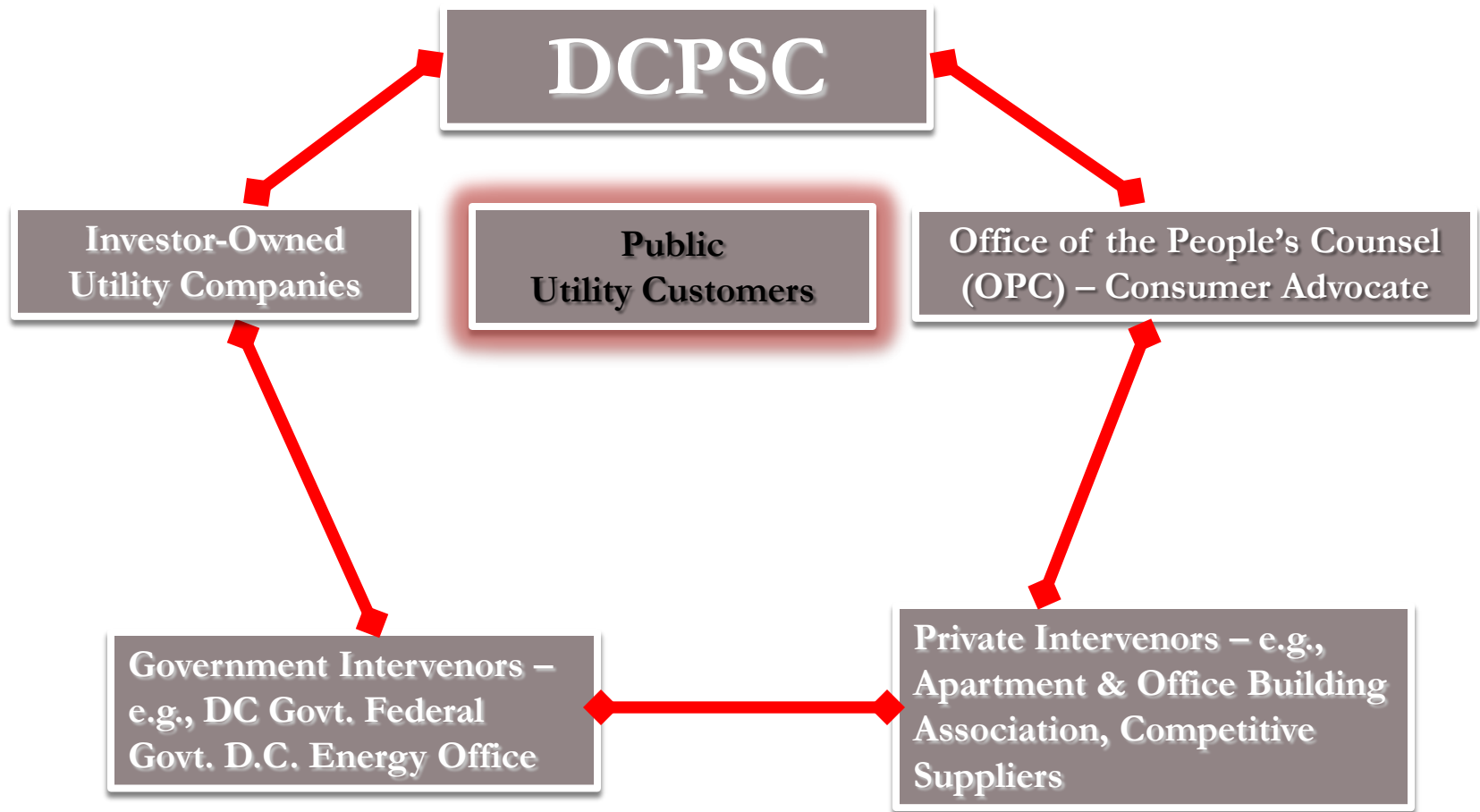
B. Application to EQSS – Results/Monitoring Compliance and Trends

C. Application to NGQSS – Results

D. Case Study – DC/MD/VA/FG Collaborative LNG/Hexane Coupling Leak Proceeding

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Formal Case Process



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Formal Case Process

Rulemaking Process Steps

- ☐ Step 1: Petition for Rulemaking
- ☐ Step 2: Notice of Proposed Rulemaking (Sometimes Preceded by NOI)
- ☐ Step 3: Further Notice of Proposed Rulemaking (if necessary)
- ☐ Step 4: Notice of Final Rulemaking
- ☐ Step 5: Report and Order
- ☐ Step 6: Petition for Reconsideration
- ☐ Step 7: Memorandum, Opinion and Order

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Formal Case Process

Rate Case Process for Setting Distribution Rates

- ❑ Most rate cases take 9-10 months to litigate
- ❑ The utility company files an application for a rate increase along with supporting documentation.
- ❑ The Commission issues an order, designating issues in the case.
- ❑ The utility company files Testimony in accordance with the designated issues. Other parties file data requests to which the utility company responds.
- ❑ Parties file Testimony and all parties file another round of discovery.
- ❑ All parties file Rebuttal Testimony and there is a third round of discovery.
- ❑ The Commission conducts a formal evidentiary hearing wherein the attorneys for each party cross-examine the witnesses and the Commissioners ask questions of the witnesses.
- ❑ The Commission holds 3 community hearings in 3 different wards of the District; one on a Saturday; one in the afternoon, and one during the evening.
- ❑ Within 90 days of the close of the record, the Commission issues a decisional order, after which parties have 30 days to file an application for reconsideration. The utility is directed to file revised rate schedules, after which the new rates go into effect.
- ❑ After the Commission issues its order on the applications for reconsideration, the parties can appeal all or part of the decision to the D.C. Court of Appeals

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Application of Formal Case Process

Electricity Quality of Service Standards (“EQSS”)

Evolved in Steps Over Many Years – PIWG; Interim Standards; Revisions (Reliability), Further Revisions (Reliability); Proposed Further Revisions (Reliability, Fines); Major Outage Restoration Standards Under development (NOI).

- ❑ The EQSS establish standards and requirements for an adequate level of quality and reliability in electricity services in DC.
- ❑ EQSS cover the following areas of service quality:

A. Reporting requirements for:

- Major Service Outages
- Non-major service outages
- Incidents
- Customer Service
- System Reliability
- Billing Error

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Application of Formal Case Process

EQSS – Reporting Requirements

- ❑ **Major Service Outages** – 10,000 customers or more and lasting more than 24 hours (customer base is approx. 235,000)
 - Notify PSC and OPC within 1 hour by phone and e-mail
 - File a written report within 3 weeks
- ❑ **Non-Major Service Outages** - customer service outages caused by the failure of devices lasting over eight (8) hours, regardless of how many customers are affected; or customer service outages affecting over 100 but less than 10,000 customers, regardless of duration.
 - Notify PSC and OPC within 1 hour by phone and e-mail
 - File a written report within 5 days
 - Provide detailed report on all non-major outages, manholes, loss of life and/or injury incidence to PIWG quarterly.

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Application of Formal Case Process

EQSS – Reporting Requirements (contd)

- ❑ **Incidents** – Manhole (smoking/fire/explosions); Loss of Life and/or Injury
 - Notify PSC and OPC within 30 minutes
 - File a written report within 5 days
- ❑ **Customer Service** – Walk in office, respond timely to phone calls and service requests from customers
 - Answer 70% of calls within 30 second. Call abandonment rate must be below 10%
 - Complete new residential service request within 10 business days (service provisioning)
- ❑ **System Reliability** – SAIFI and SAIDI of systems excluding major service outages
- ❑ **Billing Errors** – Notify PSC of billing error within one day of discovery, follow up report in 14 days and final report in 60 days with specified information.

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Application of Formal Case Process

EQSS – Measures Reported and Monitored

B. Reliability Standard

- System Average Interruption Frequency Index (SAIFI), System Average Interruption Duration Index (SAIDI), and Customer Average Interruption Duration Index (CAIDI)
- The benchmark levels for SAIFI, SAIDI, and CAIDI shall be calculated with a five-year moving average of OMS data
- The calculations shall exclude OMS data for major event days (MED) consistent with the IEEE 1366, Guide for Electric Power Distribution Reliability Indices standard
- The utility shall calculate the SAIFI, SAIDI, and CAIDI for each year excluding MED
- The benchmark shall be based on the mean of a rolling five year average plus two (2) standard deviations
- The SAIFI, SAIDI and CAIDI benchmarks shall be reset annually using a rolling five (5) year average.
- The SAIFI, SAIDI and CAIDI benchmarks for recent years are shown in the next table
- If the utility fails to comply it shall be required to develop a corrective action plan.

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Application of Formal Case Process

EQSS –Evaluation, Analysis and Results

Results

- ❑ The reported data are analyzed and evaluated for trends and compliance with measures
- ❑ The results inform decisions on how EQSS measures may be improved, how utility performance can be enhanced and improved and where penalties may be appropriate given utility performance.
- ❑ Some of the results are presented in subsequent slides.

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Application of Formal Case Process

EQSS – Results – Reliability Indices

Existing Reliability Indices Benchmarks as reported in Annual Consolidated Reports						
BENCHMARKS (2006 -2011)				ACTUAL PERFORMANCE (2007 – 2010)		
Year	SAIFI	SAIDI (Hours)	CAIDI (Hours)	SAIFI	SAIDI (Hours)	CAIDI (Hours)
2006	1.09	3.52	3.72	*	*	*
2007	1.12	5.48	5.46	1.07	3.83	3.57
2008	1.18	5.55	5.33	1.05	4.85	4.85
2009	1.18	4.85	4.85	1.06	2.35	2.23
2010	1.17	4.22	4.60	1.12	2.68	2.41
2011	1.22	4.24	4.64	-	-	-

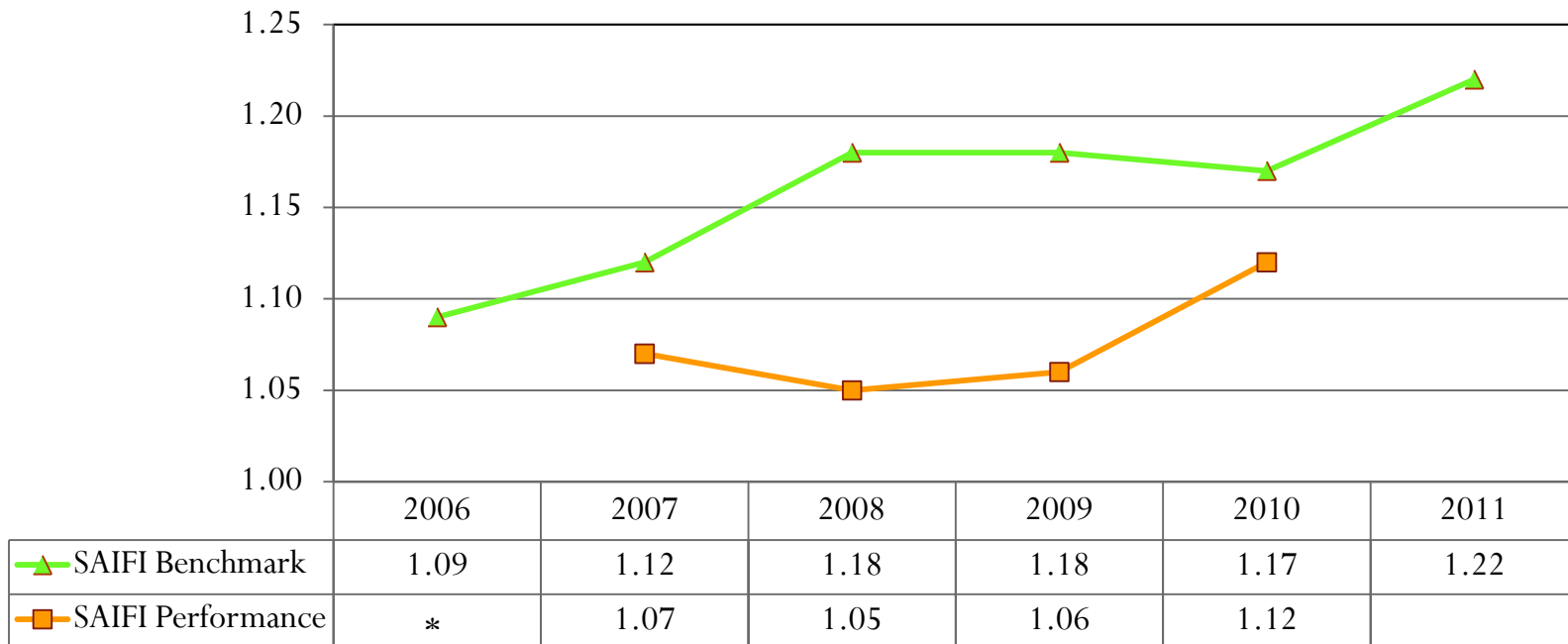
* Standards were first set in 2006, no performance measure for that year

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EQSS – Results

Reliability Index (SAIFI) - Benchmark and Performance



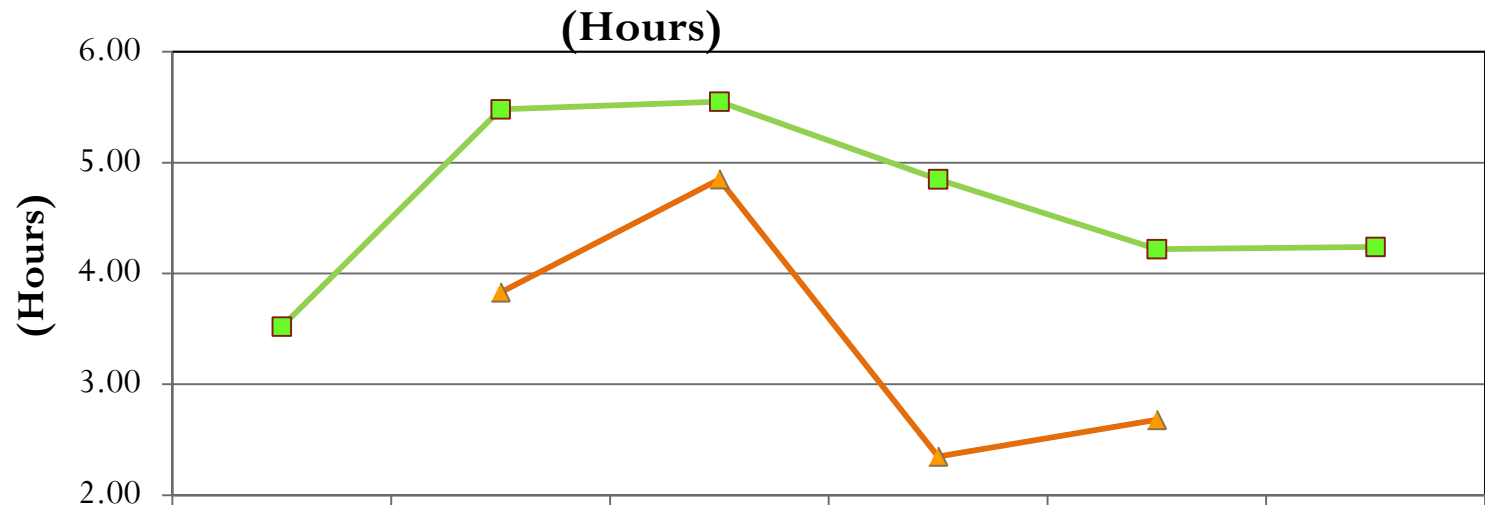
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EQSS – Results

Reliability Index (SAIDI) - Benchmark and Performance



SAIDI Benchmark	2006	2007	2008	2009	2010	2011
SAIDI Performance	*	3.83	4.85	2.35	2.68	

* Standards were first set in 2006, no performance measure for that year

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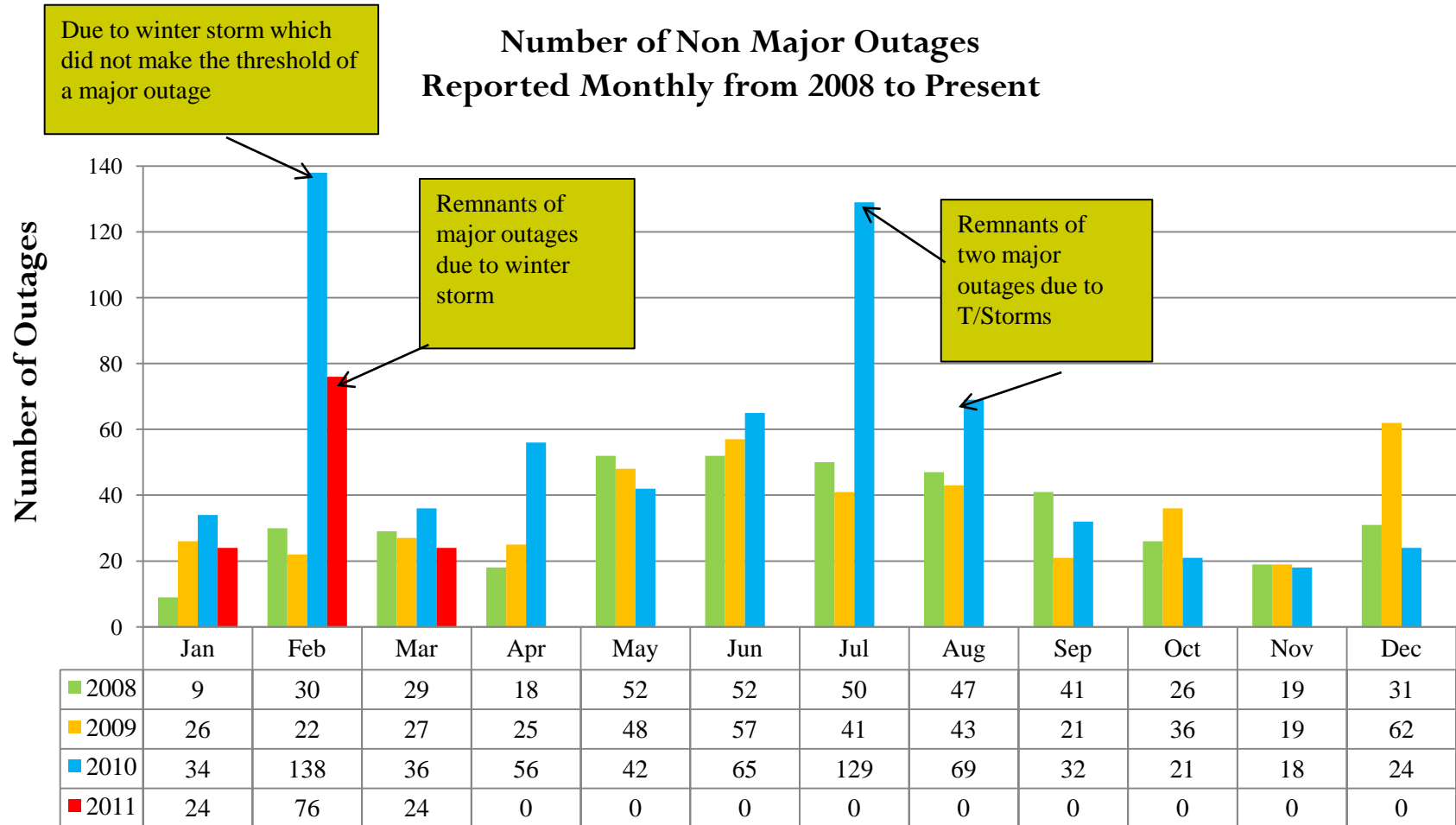
EQSS – Results

Proposed Reliability Indices Benchmarks Set In NOPR (Excludes OMS data for Major Service Outages)		
	BENCHMARKS	
Year	SAIFI	SAIDI (Hours)
2013	1.13	2.68
2014	1.09	2.43
2015	1.05	2.21
2016	1.02	2.00
2017	0.98	1.81
2018	0.95	1.65
2019	0.92	1.49
2020	0.89	1.35

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Application of Formal Case Process

EQSS –Results - Non-Major Outages

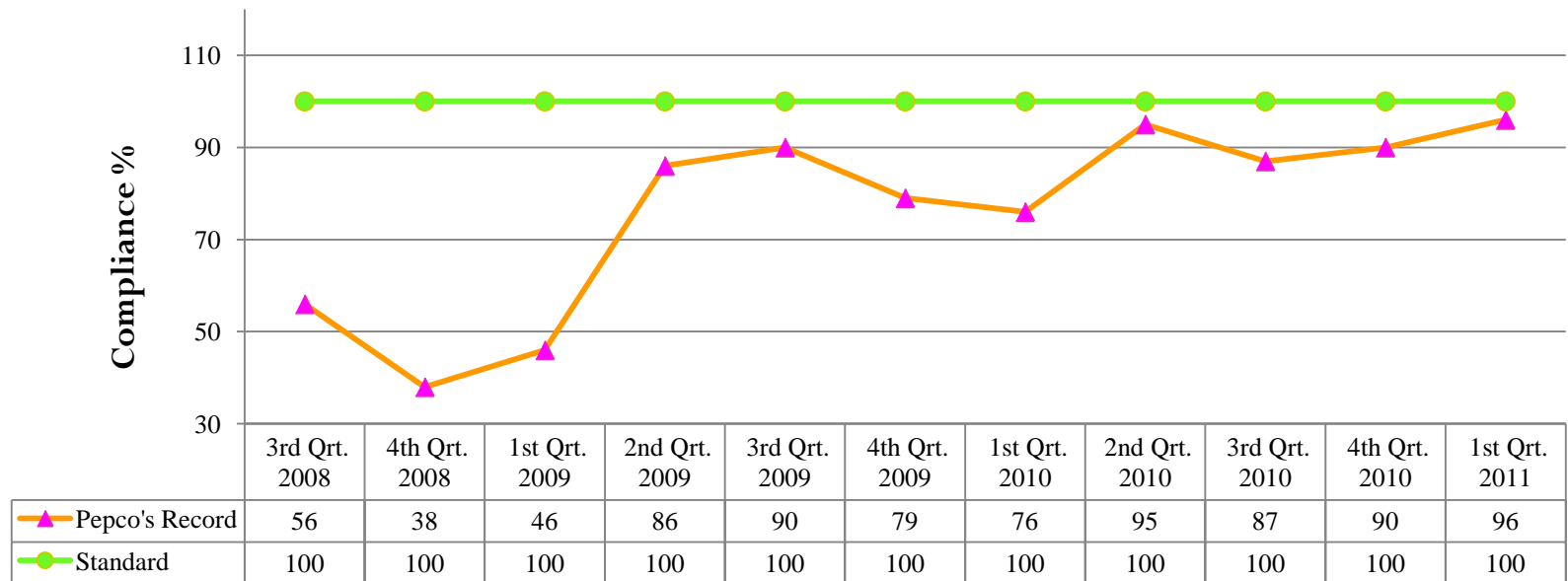


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EQSS – Results - Manhole Incidence (Timely Reporting)

Percentage of Manhole incidence Reported within 30 Minutes
(Pepco's Compliance Record with EQSS Section 3601.9/11)

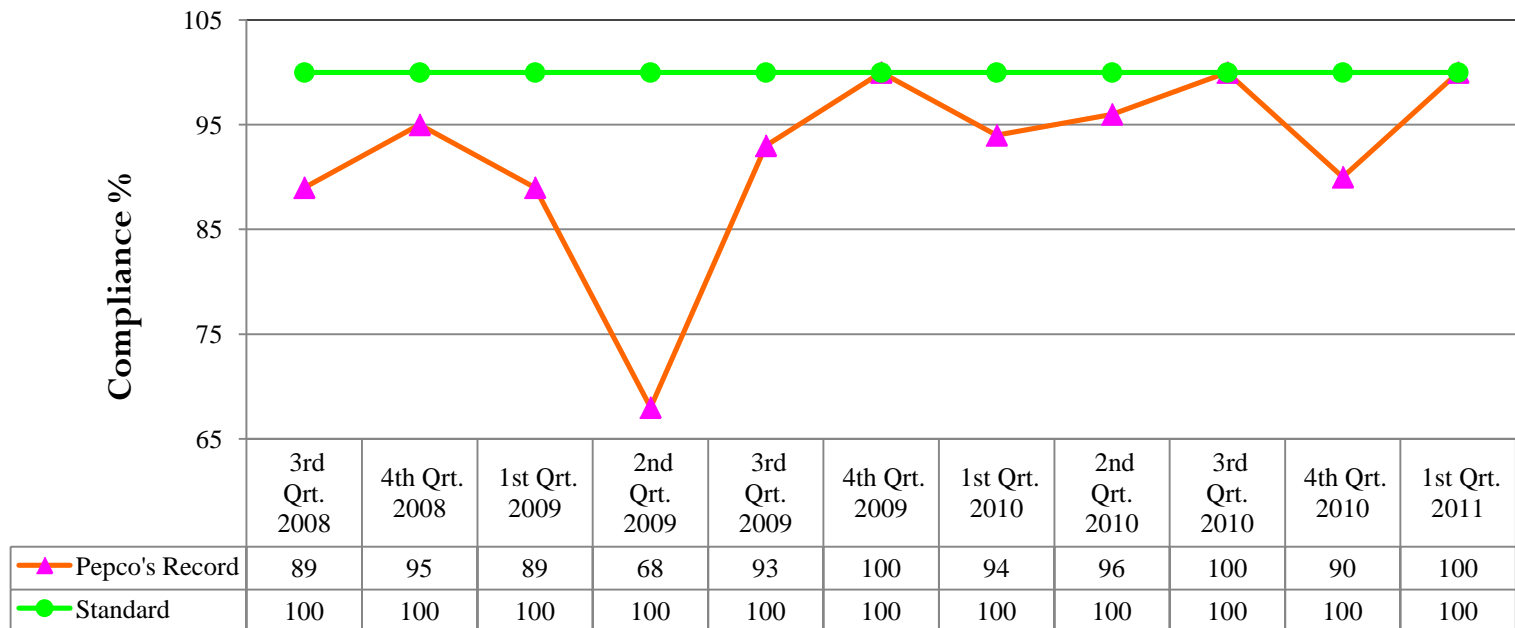


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EQSS – Results - Customer Service Standard

Complete New Residential Service Request Within 10 days
(Pepco's Compliance Record with EQSS Section 3602.14)

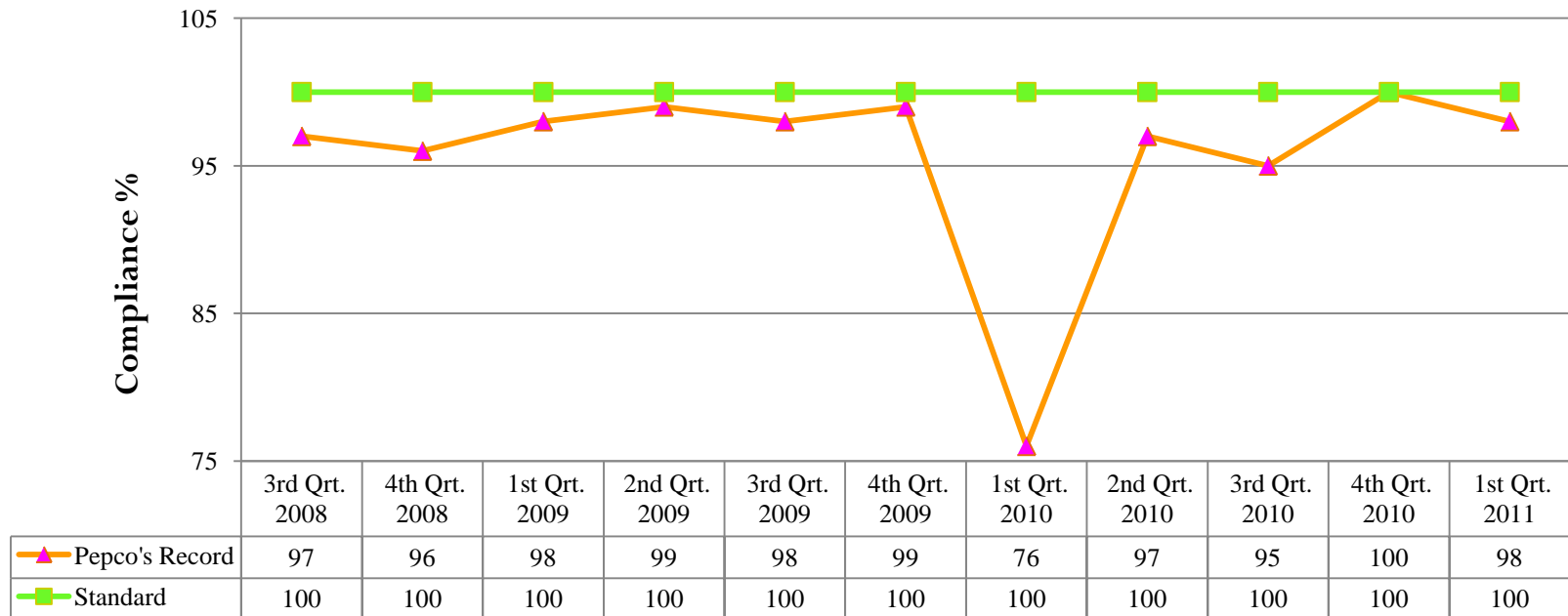


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EQSS –Results Example (Reliability)

Complete Service Restoration within 24 Hrs.
(Pepco's Compliance Record with 3603.7 Percentage)

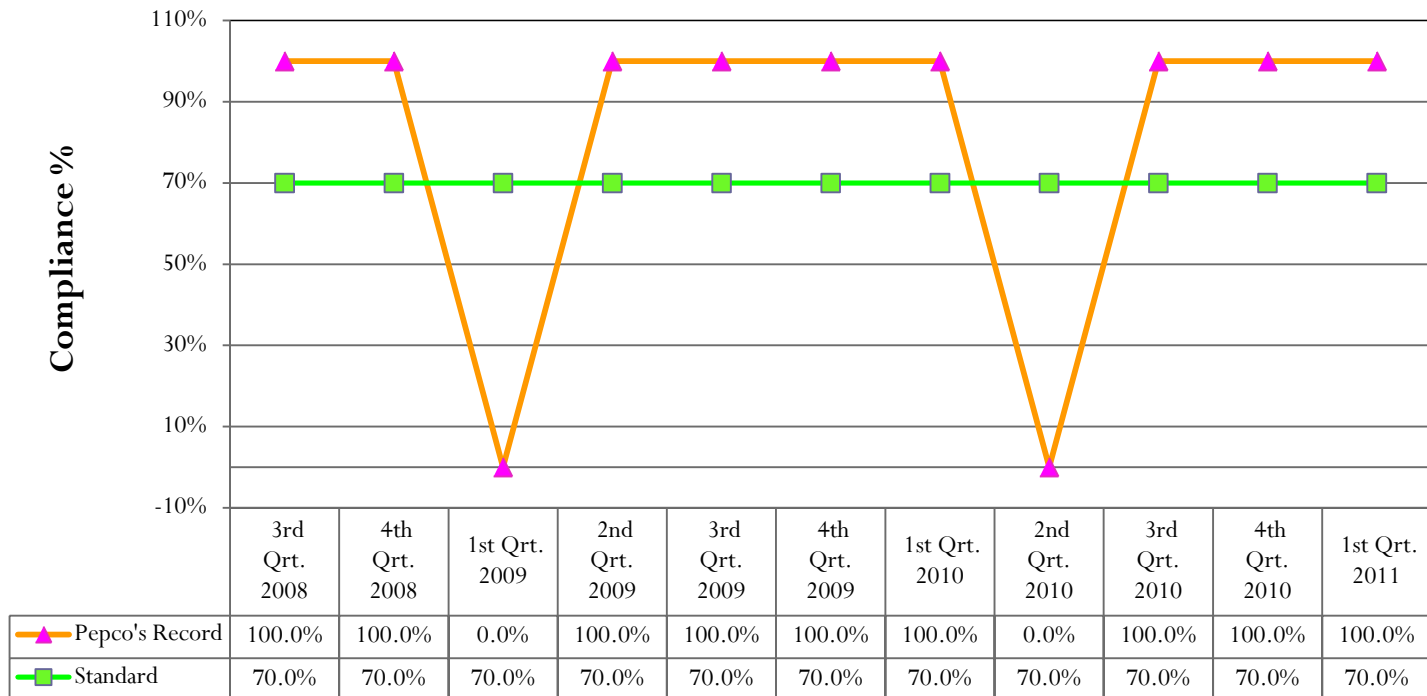


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EQSS – Results - Customer Service Standard

**Answer 70% of all calls within 30 seconds.
(Pepco's Compliance Record with EQSS Section 3602.2)**



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Application of Formal Case Process

EQSS – Lessons learned - Outcomes

- ❑ Identification of improvements to strengthen the EQSS including public input.
- ❑ Improving Pepco's service reliability and major outage restoration efforts will continue to be top priorities for the PSC.
- ❑ May review past and proposed spending on reliability in an upcoming Pepco rate case.
- ❑ Develop new requirements for major outage restoration
- ❑ Continue to monitor the effectiveness of Pepco's reliability improvement plan which includes increasing vegetation management, improving worst-performing feeders, meeting increased demand, installing advanced distribution controls, and identifying undergrounding projects.
- ❑ Include penalties and rewards for performance in EQSS

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Application of Formal Case Process

Natural Gas Quality of Service Standards (“NGQSS”)

- ❑ The NGQSS establish standards and requirements for an adequate level of quality, reliability, and safety in natural gas services in DC
- ❑ The NGQSS covers the following areas of service quality;
 - Service Outage and Gas Incidents
 - Gas Leaks and Odor Complaints
 - Gas Emergencies
 - Customer Service Standards, Customer Survey, Service Provisioning
 - Reliability Standards, Low Pressure Water Infiltration , Underground Damage Prevention
 - Billing Error Notification
 - Compliance Reporting

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Application of Formal Case Process

NGQSS –Reporting Requirements

❑ Service Outages and Gas Incidents

- Notify PSC and OPC within 1 hr. of all major [*2% or more (2500), and non-major (more than 8 hrs regardless of how many customers are affected or affecting 25 but fewer than 2500 regardless of duration)*] natural gas service outages, as well as incidents that result in the loss of human life, personal injury requiring hospitalization, property damage of over \$5,000.
- File a written report within 3 weeks with specified information

❑ Gas Leaks and Odor Complaints

- Four steps are required: (i) respond to all leaks and odor complaints; (ii) notify, by e-mail and telephone, OE and OPC; (iii) provide periodic updates to the initial notification; and (iv) submit written reports on the results of the leak detection and repair, and odor complaints.

❑ Gas Emergencies –

- The natural gas utility shall immediately dispatch personnel to the site of the natural gas-related emergency, and shall arrive at the site within fifty (50) minutes of receiving an emergency call during normal business and non-business hours.

❑ Customer Service Standards, Customer Surveys, Service Provisioning

- Walk in office
- Conduct surveys and respond timely to phone calls and service requests from customers

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Application of Formal Case Process

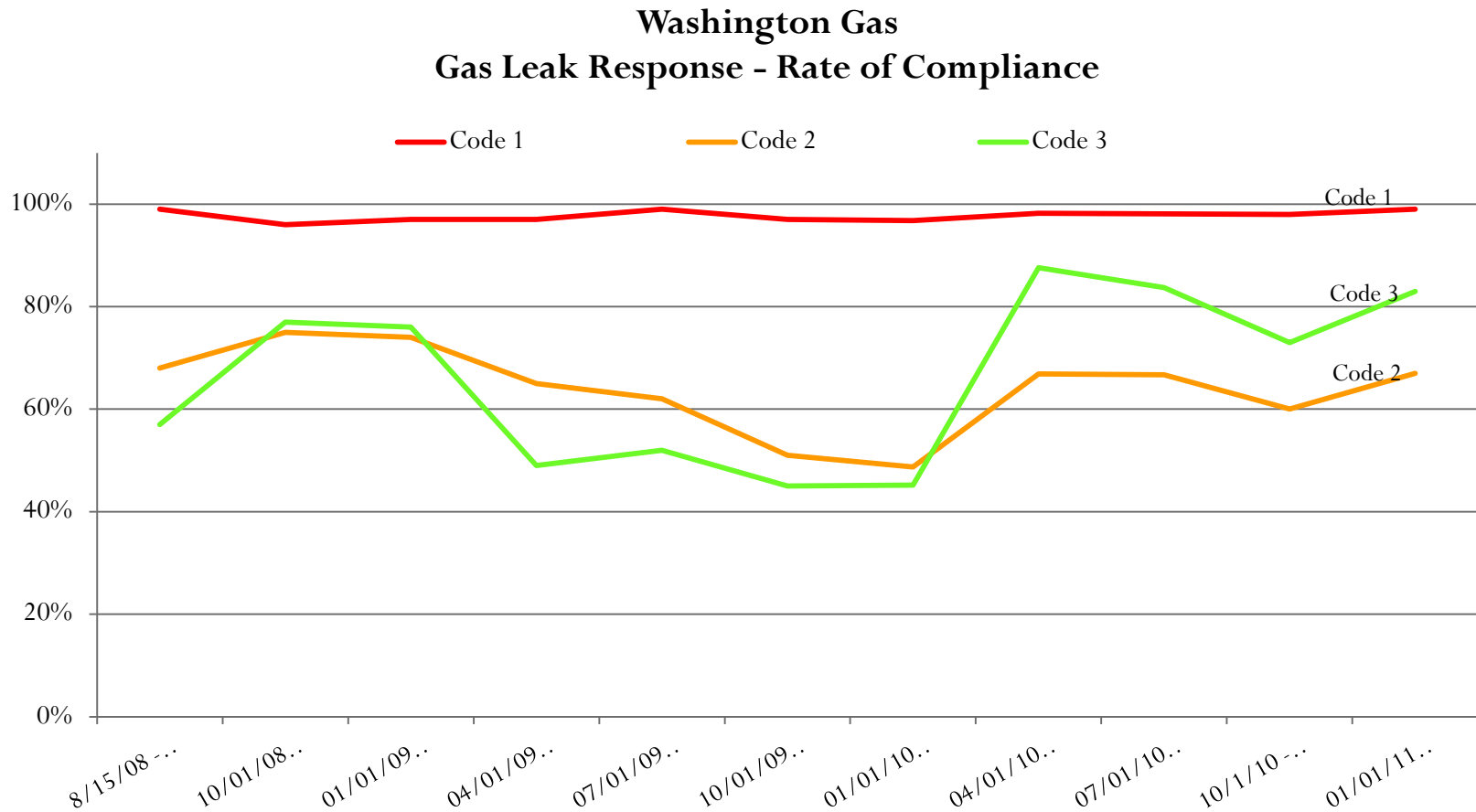
NGQSS –Reporting Requirements (contd)

- ❑ **Reliability Standards, Low Pressure Water Infiltration, Underground Damage Prevention**
 - Once each calendar year, the natural gas utility shall rank and identify areas of piping networks of its natural gas operating system requiring improvements to eliminate segments most susceptible to leakage, failure, supply interruptions or failure to meet its minimum design pressure and volume deliverability requirements.
- ❑ **Billing Error Notification**
 - The natural gas utility and all natural gas service providers must inform the PSC and OPC when a billing error affects 100 or more customers or two (2) percent of the natural gas utility's or natural gas service provider's customer base, whichever is fewer. Or when two (2) or more customers are affected if customer base is 100 or fewer customers.
- ❑ **Compliance Reporting**
 - The natural gas utility and all natural gas service providers shall collect and retain accurate data demonstrating compliance with the measures. Data are to be collected on a monthly basis in a format established by Commission Order.

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Application of Formal Case Process

NGQSS –Results



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Case Study – DC/MD/VA/FG Collaboration on LNG Hexane/Mechanical Coupling Leaks Proceeding

- ❑ 2005 DC began investigation of mechanical coupling leaks following a gas-related explosion and fire in District heights, Maryland (“MD”).
- ❑ Found potential devastating consequences if incident similar to MD’s happened in DC
- ❑ DC PSC ordered LDC to submit several leak survey reports
- ❑ LDC reported and claimed that regasified LNG entering its distribution system from supplier terminals in MD and Virginia (“VA”) caused the leaks in mechanical couplings by drying out coupling seals
- ❑ LDC began injecting hexane (C5) into its gas system in DC, MD and VA to counter the quantity and effect of LNG and “decrease” the associated leaks
- ❑ LDC petitioned MD & DC to approve its remedial actions and recover hexane costs, and to FERC to stop LNG expansion

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Case Study – DC/MD/VA/FG Collaboration on LNG Hexane/Mechanical Coupling Leaks Proceeding

- ❑ DC PSC opted to track the progress of MD PSC's investigations while conducting its own "hexane" proceeding
- ❑ Meanwhile DC PSC directed the LDC to record the hexane costs in a "pending account" for future determination
- ❑ FERC issued five ruling against LDC's petition against LNG expansion
- ❑ FERC attributed LDC's gas leaks to other factors beside LNG
- ❑ DC PSC continued its proceeding and adopted joint issues list proposed by LDC and ratepayers' advocate (OPC).
- ❑ Rather than adjudicate the case, OPC & LDC requested and was granted opportunity to attempt a settlement

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Case Study – DC/MD/VA/FG Collaboration on LNG Hexane/Mechanical Coupling Leaks Proceeding

- ❑ LDC and OPC submitted a proposed 7-year joint settlement agreement on hexane strategy and cost recovery to DC PSC with the following seven components:
 1. Mechanism for hexane commodity cost recovery
 2. 7-year vintage mechanical coupling replacement/encapsulation program
 3. Imposition of a surcharge for the program
 4. Provision for reviewing the program
 5. Leak survey and results filing requirements
 6. Reporting requirements, and
 7. Consumer education requirements related to replacement and encapsulation
- ❑ DC PSC analyzed and held a public interest hearing on the joint Settlement Agreement, and approved it with certain modifications, including continued monitoring
- ❑ MD PSC also found in favor of LDC's petition for cost recovery with coupling replacement and continued monitoring
- ❑ FERC ordered a reduced expansion of LNG supply

The End

Thank you!

