



Control Number: 43512



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PROJECT NO. 43512

7-21-15

STAFF INVESTIGATION OF STORM-
RELATED ELECTRIC SERVICE §
OUTAGES IN OCTOBER 2014 §
§

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PUBLIC UTILITY COMMISSION
PUBLIC UTILITY COMMISSION
FILING CLERK
OF TEXAS

February 18, 2015

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**CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC
PUC PROJECT NO. 43512**

**PUBLIC UTILITY COMMISSION OF TEXAS
REQUEST NO.: PUC04-01**

QUESTION:

Please provide a complete discussion of whether you provide more reliable service to newer developing neighborhoods than more mature neighborhoods.

ANSWER:

CenterPoint Energy does not provide more reliable service to newer developing neighborhoods than more mature neighborhoods. The aspect of new versus old is not a factor in the reliability of an area or a neighborhood. Furthermore, as stated in the Company's response to PUC03-09, CenterPoint Energy provides reliable service to both old and new customers. The Company does not give any neighborhood preference when allocating resources. All maintenance and inspection programs, including the pole maintenance program, the hot fuse program, the 10% and 300% circuit program, tree trimming, infra-red inspections and feeder inspections, are implemented across all neighborhoods and all circuits.

SPONSOR:

Richard Moffatt

RESPONSIVE DOCUMENTS:

None

**CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC
PUC PROJECT NO. 43512**

**PUBLIC UTILITY COMMISSION OF TEXAS
REQUEST NO.: PUC04-02**

QUESTION:

Please provide any post-storm analyses related to the October 2 and/or 9, 2014 storms conducted by you or on your behalf.

ANSWER:

CenterPoint Energy did not conduct any after action reviews or post storm analyses following the October 2 or the October 9, 2014 storms.

SPONSOR:

Richard Moffatt

RESPONSIVE DOCUMENTS:

None

**CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC
PUC PROJECT NO. 43512**

**PUBLIC UTILITY COMMISSION OF TEXAS
REQUEST NO.: PUC04-03**

QUESTION:

Please provide a comprehensive list of the cause codes for outages in your outage management system, the procedure for using the codes, and the procedure for closing an outage report.

ANSWER:

See attachment "PUC04-03 CenterPoint Energy Cause Codes" for a list of the cause codes utilized for outages in the outage management system.

The cause codes are used by the field crew when providing information to close an outage report. The procedure for closing an outage report is as follows. Initially, an outage event is created by the outage management system and placed into Mobile Data (Service Suite). The outage case is given to a crew by Dispatching via Mobile Data. The crew will enter the time that it went in-route and arrived on-site. After the crew restores service, the crew will complete certain restoration steps in Service Suite. The crew will enter voltage and amps, if applicable, completion remarks, and selects the "cause" (not the condition), that caused the event from a drop down list. The crew selects the "action taken" to resolve the event and selects up to 6 actions from a drop down list. The crew has the ability to make the event a Capital SAP order if capital items were used to resolve the event. The crew has the ability to indicate that transformers were removed or installed for the event. If the customer has an issue on their side (their main breaker or below), the crew can indicate that as well. The crew selects the customer's issue that applies from a drop down list. The crew indicates if the customer's main was left on or off. This closes out the outage report.

If the original crew was unable to restore service and refers the outage case to another crew, then the case will show that it has been referred and the new crew will enter the in-route and on-site information, and will close out the outage report when complete.

After service restoration, the crew also has the ability to create a follow-up SAP notification to repair anything else that may be needed, even though service has been restored.

SPONSOR:
Richard Moffatt

RESPONSIVE DOCUMENTS:
PUC04-03 CenterPoint Energy Cause Codes

CenterPoint Energy - PUC Reliability Report - Explanation of Outage Causes
 Effective January 1, 2002, CenterPoint Energy implemented the following new set of cause codes:

Project No. 43512
 PUC04-03

CenterPoint Energy Cause Codes

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PUC Category	PUC Cause	CNP Code	CNP Cause
FORCED INTERR.	EQUIPMENT FAILURE	E1	TRANSFORMER
FORCED INTERR.	EQUIPMENT FAILURE	E2	REGULATOR
FORCED INTERR.	EQUIPMENT FAILURE	E3	RECLOSER
FORCED INTERR.	EQUIPMENT FAILURE	E4	CAPACITOR
FORCED INTERR.	EQUIPMENT FAILURE	E5	SECTIONALIZER
FORCED INTERR.	EQUIPMENT FAILURE	E6	POLE TOP SWITCH
FORCED INTERR.	EQUIPMENT FAILURE	E7	LIGHTNING ARRESTER
FORCED INTERR.	EQUIPMENT FAILURE	E8	BU DISC OR BARREL
FORCED INTERR.	EQUIPMENT FAILURE	E9	INSULATOR
FORCED INTERR.	EQUIPMENT FAILURE	F1	PRIMARY CONDUCTOR
FORCED INTERR.	EQUIPMENT FAILURE	F2	SEC COND OR DROPS
FORCED INTERR.	EQUIPMENT FAILURE	F3	O/H PRIMARY CLAMP
FORCED INTERR.	EQUIPMENT FAILURE	F4	OH SEC/DR CL HOT L
FORCED INTERR.	EQUIPMENT FAILURE	F5	OH SEC/DR CL NEUTR
FORCED INTERR.	EQUIPMENT FAILURE	F6	GUY/ANCHOR
FORCED INTERR.	EQUIPMENT FAILURE	F7	ROTTEN POLE
FORCED INTERR.	EQUIPMENT FAILURE	F8	OTHER EQUIPMENT
FORCED INTERR.	EQUIPMENT FAILURE	F9	METER EQUIPMENT
FORCED INTERR.	EQUIPMENT FAILURE	G1	TERMINATOR
FORCED INTERR.	EQUIPMENT FAILURE	G2	SLACK SPANS
FORCED INTERR.	EQUIPMENT FAILURE	M1	3 PHASE UG BREAKER
FORCED INTERR.	EQUIPMENT FAILURE	M2	RELAY
FORCED INTERR.	EQUIPMENT FAILURE	M3	3 PHASE UG CABLE
FORCED INTERR.	EQUIPMENT FAILURE	M4	NETWORK PROTECTOR
FORCED INTERR.	EQUIPMENT FAILURE	U1	SPLICE
FORCED INTERR.	EQUIPMENT FAILURE	U2	URD ELBOW
FORCED INTERR.	EQUIPMENT FAILURE	U3	URD BUSHING
FORCED INTERR.	EQUIPMENT FAILURE	U4	URD DROPS (HL&P)
FORCED INTERR.	EQUIPMENT FAILURE	U5	URD DROPS (CUST)
FORCED INTERR.	EQUIPMENT FAILURE	U6	URD SEC PDSTL TRML
FORCED INTERR.	EQUIPMENT FAILURE	U7	URD XFMR SEC BUS
FORCED INTERR.	OTHER	C1	LINE FUSE OPERATED
FORCED INTERR.	OTHER	C2	XFMR FUSE OPERATED
FORCED INTERR.	OTHER	C3	WORK TAG
FORCED INTERR.	OTHER	C4	OTHER CIRCUIT
FORCED INTERR.	OTHER	P1	FOREIGN MATERIAL
FORCED INTERR.	OTHER	P2	HUMAN ERROR
FORCED INTERR.	OTHER	P3	OVERLOAD
FORCED INTERR.	OTHER	P4	OTHER
FORCED INTERR.	THIRD PARTY CAUSES	T1	VANDALISM
FORCED INTERR.	THIRD PARTY CAUSES	T2	COLLISION
FORCED INTERR.	THIRD PARTY CAUSES	T3	CONTRACTOR-NON HLP
FORCED INTERR.	THIRD PARTY CAUSES	T4	CONTRACTOR (HL&P)
FORCED INTERR.	THIRD PARTY CAUSES	T5	CUST EQP RELATED
FORCED INTERR.	THIRD PARTY CAUSES	T6	ELECTRICAL CONTACT
FORCED INTERR.	THIRD PARTY CAUSES	T7	FIRE
FORCED INTERR.	THIRD PARTY CAUSES	T8	POLICE/LAW ENFRMNT
FORCED INTERR.	UNKNOWN	Z1	UNKNOWN
FORCED INTERR.	VEGETATION	V1	TREE CLEARANCE
FORCED INTERR.	VEGETATION	V2	FLLNG TREE IN EASE
FORCED INTERR.	VEGETATION	V3	FLLNG TREE OUT EAS
FORCED INTERR.	VEGETATION	V4	FALLING DEAD TREE
FORCED INTERR.	VEGETATION	V5	VINES
FORCED INTERR.	WEATHER	W1	LIGHTNING
FORCED INTERR.	WEATHER	W2	STRONG WIND
FORCED INTERR.	WEATHER	W3	ICE
FORCED INTERR.	WEATHER	W4	RISING WATER
FORCED INTERR.	WEATHER	W5	TORNADO
FORCED INTERR.	WEATHER	W6	HURRICANE
FORCED INTERR.	WILDLIFE	A1	SQUIRREL
FORCED INTERR.	WILDLIFE	A2	BIRD
FORCED INTERR.	WILDLIFE	A3	ANTS
FORCED INTERR.	WILDLIFE	A4	SNAKE
FORCED INTERR.	WILDLIFE	A5	OTHER WILDLIFE
OUTSIDE CAUSES	GENERATION	C5	GENERATION
OUTSIDE CAUSES	SUBSTATION	C7	SUBSTATION
OUTSIDE CAUSES	TRANSMISSION	C6	TRANSMISSION
SCHEDULED INTERR.	SCHEDULED INTERR.	CR	CREW-CUST REQUEST
SCHEDULED INTERR.	SCHEDULED INTERR.	DC	CREW-DANGER CONDTN
SCHEDULED INTERR.	SCHEDULED INTERR.	EM	CREW-SYS EMERGENCY
SCHEDULED INTERR.	SCHEDULED INTERR.	GA	CREW-NO GRANT ACCS
SCHEDULED INTERR.	SCHEDULED INTERR.	IN	CREW-INS/RPR/CHANG
SCHEDULED INTERR.	SCHEDULED INTERR.	LA	CREW-LEGAL AUTHRTY
SCHEDULED INTERR.	SCHEDULED INTERR.	RS	CREW-RESTR SVC OTH
SCHEDULED INTERR.	SCHEDULED INTERR.	TM	CREW-TAMPER/BYPASS
SCHEDULED INTERR.	SCHEDULED INTERR.	UU	CREW-UNAUTHRZD USE
SCHEDULED INTERR.	SCHEDULED INTERR.	VT	CREW-VIO OF TARIFF

**CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC
PUC PROJECT NO. 43512**

**PUBLIC UTILITY COMMISSION OF TEXAS
REQUEST NO.: PUC04-04**

QUESTION:

Please provide a complete discussion of what would be required for you to measure customer average interruption frequency index (CAIFI) for your customers.

ANSWER:

The Customer Average Interruption Frequency Index (CAIFI) calculates the average frequency of sustained interruptions for those customers experiencing sustained interruptions. CenterPoint Energy currently does not have the capability to calculate CAIFI. CenterPoint Energy's legacy Outage Analysis System cannot determine the number of unique customers interrupted when aggregating interruption events, which is a necessary component in order to calculate CAIFI. CenterPoint Energy believes that the computer resources needed during a storm to calculate this metric are extremely large. CenterPoint Energy's new outage system, that will be implemented this year, does not currently calculate CAIFI either. Fairly extensive and presumably costly enhancements by the Company and/or its vendor would be required. We have not contemplated this enhancement and cannot provide a complete discussion of what would be required to calculate CAIFI as requested.

SPONSOR:

Richard Moffatt

RESPONSIVE DOCUMENTS:

None