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SOAH DOCKET NO. 473-15-3257
PUC DOCKET NO. 44572

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APPLICATION OF CENTERPOINT §
ENERGY HOUSTON ELECTRIC, LLC §
FOR APPROVAL OF A DISTRIBUTION §
COST RECOVERY FACTOR §
PURSUANT TO P.U.C. SUBST. R. 25.243 §

BEFORE THE
STATE OFFICE OF
ADMINISTRATIVE HEARINGS

May 15, 2015

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**CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC
PUC DOCKET NO. 44572
SOAH DOCKET NO. 473-15-3257**

**GULF COAST COALITION OF CITIES
REQUEST NO.: GCCC02-01**

QUESTION:

Refer to the Direct Testimony of Mary Kirk, page 19, lines 11-18. Please provide a description of the analysis conducted by CenterPoint to determine that it was necessary to implement its underground cable assessment program in 2013, and provide documentation supporting that decision.

ANSWER:

CenterPoint Energy has over 18,000 underground residential distribution (URD) loops comprised of over 13,000 miles of cable and associated distribution equipment. Nearly 24% of these loops have cable in excess of 35 years of age.

Historic failures have indicated that the URD cables over 35 years of age have the highest probability of failure within CenterPoint Energy's territory. Over the past several years, CenterPoint Energy has replaced an average of 35 URD loops. The replacement criteria were based on the age of the loops, loops that had experienced the worst performance based on a reliability perspective, and/or loops that were served behind large step-down transformers.

Since nearly 4800 loops have cable over 35 years in age, CenterPoint Energy could not continue to simply replace 35 loops per year and address all of the probable failures and aging URD infrastructure. As a result, CenterPoint Energy began piloting the cable assessment program in 2013. Positive results followed, indicating that CenterPoint Energy could assess and address over 10 times as many loops annually by utilizing the cable assessment program.

The cable assessment program also provides the ability to repair and/or replace only the facilities that have a higher probability of failure. This enables CenterPoint Energy to more effectively execute its URD reliability program.

SPONSOR:

David Baker

RESPONSIVE DOCUMENTS:

None

**CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC
PUC DOCKET NO. 44572
SOAH DOCKET NO. 473-15-3257**

**GULF COAST COALITION OF CITIES
REQUEST NO.: GCCC02-02**

QUESTION:

Refer to the Direct Testimony of Mary Kirk, page 19, lines 18-22. Please provide the actual expenditures for the underground cable assessment program for each year through 2014, and budgeted amounts for each year beginning in 2015 through the last year budgeted. Please provide the actual or budgeted expenditures separately for the amount expensed and the amount capitalized, and indicate the FERC accounts to which the expensed or capitalized amounts were booked.

ANSWER:

The direct testimony of Mary Kirk on page 19 refers to the capitalization of cable assessment program costs. Those costs capitalized to plant in service in this DCRF filing were \$2,662,605 in 2013 and \$13,821,869 in 2014.

Total expenditures incurred for the cable assessment program were \$5,765,348 in 2013 and \$12,221,464 in 2014. The difference between these amounts and the amounts in plant in service is due to timing. Expenditures incurred in one period may not be placed into plant in service until the following year.

See attached GCCC02-02 Cable Assessment Program Forecasted Spend (confidential). **The file is confidential and will be provided pursuant to the protective order issued in this docket.**

SPONSOR:
Mary Kirk

RESPONSIVE DOCUMENTS:
GCCC02-02 Cable Assessment Program Forecasted Spend (confidential)

**CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC
PUC DOCKET NO. 44572
SOAH DOCKET NO. 473-15-3257**

**GULF COAST COALITION OF CITIES
REQUEST NO.: GCCC02-03**

QUESTION:

Refer to the Direct Testimony of Mary Kirk, page 19, lines 23-25. Does CenterPoint have a routine maintenance program for underground cable? If so, please provide the amount of underground cable routine maintenance expense incurred for each year 2009 through 2014 and budgeted amounts for each year beginning in 2015 through the last year budgeted, and indicate the FERC accounts to which the costs were booked.

ANSWER:

No. CenterPoint Energy does not have a routine maintenance program for underground cable.

SPONSOR:

David Baker

RESPONSIVE DOCUMENTS:

None

**CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC
PUC DOCKET NO. 44572
SOAH DOCKET NO. 473-15-3257**

**GULF COAST COALITION OF CITIES
REQUEST NO.: GCCC02-04**

QUESTION:

Refer to the Direct Testimony of Mary Kirk, page 20, line 19 - page 21, line 9. Please provide a description and timeline of the process used by the accounting department to record plant to the final fixed asset FERC account after it is completed and in service.

ANSWER:

The following points describe the Capital Work Management process documented in GCCC02-04 Attachment 1.

1. Dollars are charged to capital work orders or cost objects.
2. On a monthly basis, those capital cost objects are settled to CWIP (FERC 107). While in CWIP, the dollars are assigned to specific FERC Classification Accounts (asset classes) such as 362 or 373.
3. As the capital cost objects are set to "field complete" by operations, the dollars move automatically to CCNC (FERC 106). As the dollars move to CCNC, they retain the asset class characteristics that were determined during settlement to CWIP. At this point the assets are in service and depreciation begins.
4. The dollars remain in CCNC in the asset class until the status on the capital cost object is set to "technically complete" by operations. This signifies that all pertinent paperwork has been received and that the Geographic Information System (GIS) has been updated to reflect the work that was performed.
5. Thirty days after the capital cost object has been set to "technically complete", the final fixed asset FERC accounts are determined based on the actual materials used on the capital cost object. This thirty day delay is required to ensure that the majority of charges have posted to the capital cost object. The dollars are then transferred to the appropriate plant-in-service assets (FERC 101) in the asset class such as 362 or 373.

SPONSOR:

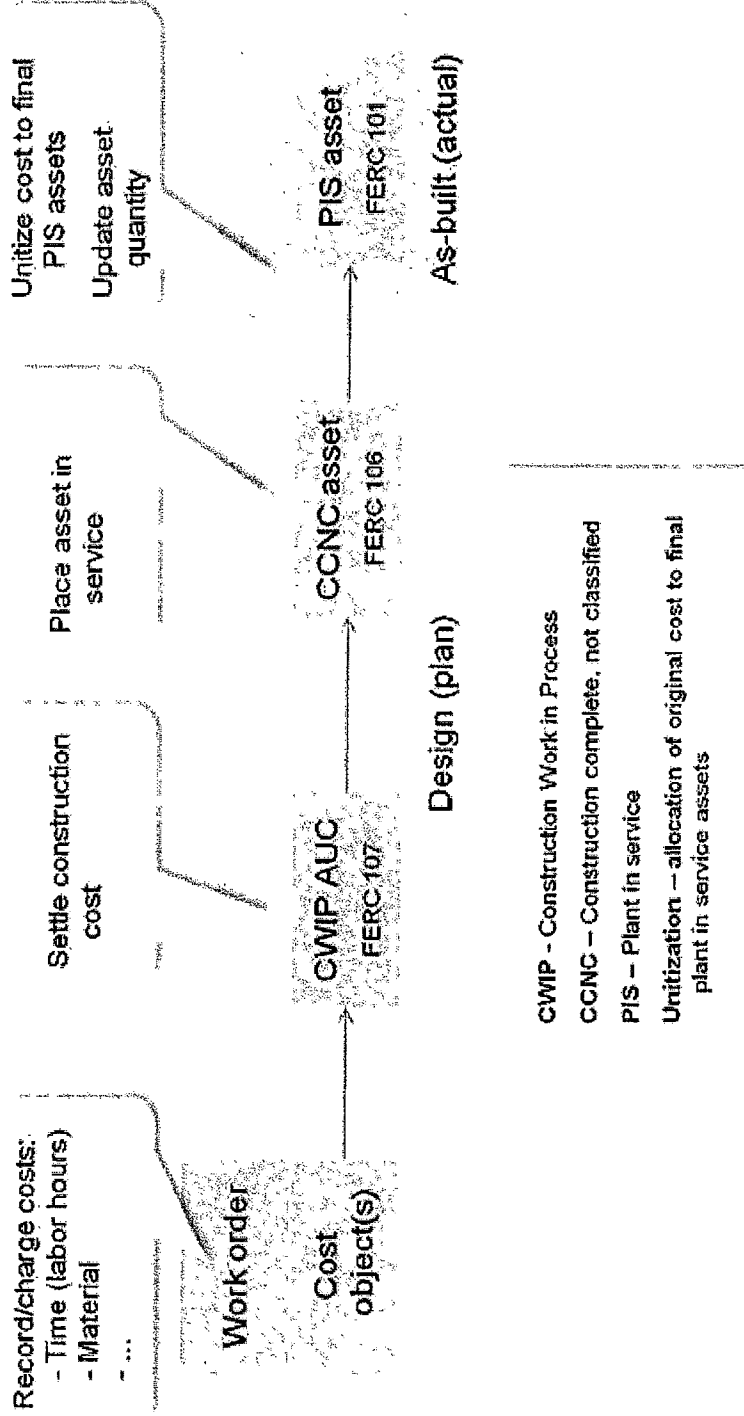
Mary Kirk

RESPONSIVE DOCUMENTS:

GCCC02-04 Attachment 1

Capital Work Management

Asset Construction – FERC Regulated Utilities



**CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC
PUC DOCKET NO. 44572
SOAH DOCKET NO. 473-15-3257**

**GULF COAST COALITION OF CITIES
REQUEST NO.: GCCC02-05**

QUESTION:

Refer to the Direct Testimony of Mary Kirk, page 20, line 19 - page 21, line 9. Please provide the plant investment included in the filing in FERC account 106 by sub-classification.

ANSWER:

Below are the sub-classifications and amounts for FERC 106 included in the Company's DCRF filing:

Sub-Account	Plant in Service
352.01	\$25
353.01	\$124,821
361.01	\$43,770
362.01	\$2,783,037
364.01	\$9,249,545
365.01	\$9,134,166
366.01	\$4,881,250
367.01	\$8,711,045
368.01	\$6,389,269
369.01	\$6,718,154
373.01	\$5,980,545
374.01	\$42,465
391.01	\$1,270
397.01	\$3,531,658
397.02	\$9,676,379

SPONSOR:

Mary Kirk

RESPONSIVE DOCUMENTS:

None

**CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC
PUC DOCKET NO. 44572
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**GULF COAST COALITION OF CITIES
REQUEST NO.: GCCC02-06**

QUESTION:

Refer to the Direct Testimony of David Baker, page 4, line 16 - page 5, line 5. Please provide a description and explain the purpose of the components that make up the underground residential distribution ("URD") equipment. Please explain if this is the equipment reflected in the 13,000 miles of underground residential conductors identified on line 10.

ANSWER:

The 13,000 miles of underground residential distribution conductors are a part of the components that make up the URD system. Pad-mounted transformers, secondary pedestals, primary pull holes, terminal poles, terminators, elbows and other equipment are additional components of the URD system. The residential distribution conductors are primary and secondary cables used to transport electrical service from terminal poles to pad-mounted transformers (primary) and transport electrical service from transformers to secondary pedestals (secondary). Pad-mounted transformers are used to step down the primary voltages from 7.2kV or 19.9 kV to 120/240v. Secondary pedestals are termination points for CNP's secondary conductors and customer owned underground service drops. Primary pull holes are used with CNP's underground conduit system to allow junction points for long primary conductor pulls. Terminal poles are used to transition electrical conductors from overhead configuration to underground configuration. Terminators and elbows are termination points on terminal poles and or pad-mounted transformers.

SPONSOR:

David Baker

RESPONSIVE DOCUMENTS:

None

**CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC
PUC DOCKET NO. 44572
SOAH DOCKET NO. 473-15-3257**

**GULF COAST COALITION OF CITIES
REQUEST NO.: GCCC02-07**

QUESTION:

Refer to the Direct Testimony of David Baker, page 4, line 16 - page 5, line 5. Please provide the initial written scope and work plan for the underground cable assessment program, and each revision to the scope and work plan.

ANSWER:

See attached Cable Assessment Charter and Cable Assessment Work Plan documents.

SPONSOR:

David Baker

RESPONSIVE DOCUMENTS:

GCCC02-07 Cable Assessment Project Charter

GCCC02-07 Cable Assessment Work Plan



Project Charter

Cable Assessment Program Project Charter



Project Charter

Document History

Revision History

Version Number	Revision Date	Revision By	Summary of Changes	Changes marked
1.0	1/30/2013	J. Sugarek	Initial Draft.	No

Approvals

This document requires following approvals.

Name	Title \ Project Role	Signature
Keith Gray	Team Lead	
Deryl Tumlinson	Team Lead	
	Project Manager	
David Baker	Executive Sponsor	



Project Charter

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Project Charter

1. Cable Assessment Program Project Team Charter

1.1 Organizational Context & Program Background

CenterPoint Energy Houston Electric has approximately 20,781 miles of underground distribution line of which 8,875 miles is underground primary. The life expectancy of underground cable installed today is thought to be greater than 30 years. And while underground systems experience about half as many system interruptions as overhead systems, the reliability gain is offset by a 58% increase in repair time. This increase is a result of the additional time needed to dispatch a specialized crew, locate and access the fault and repair the cable.

The current maintenance strategy for loops and spans is "run to failure." As evidenced by a pilot conducted in 2012, testing is available that will provide insight into which spans and loops are further degraded relative to the population. By identifying and addressing these urgent needs, reliability improvements can be achieved. In addition, the data collected from all testing and repairs can be collected and used to institute an on-going proactive maintenance program.

1.2 Team Mission

The Cable Assessment Program team is responsible for instituting a program to identify underground cable to target for testing, testing the cable and replacing loops and / or spans as appropriate.

1.3 Scope of Activity

1.3.1 The Cable Assessment Program Team is responsible for:

1. Identifying spans of underground primary that should be tested
2. Employing line skilled contract crews and a testing vendor to execute the required testing and provide results back to CenterPoint Energy
3. Defining processes to support the activity, including:
 - a. How (and what types of) data will be retrieved from the testing vendor and stored for future use and analysis
 - b. Quality standards and how the contract crews and vendors will be monitored
 - c. Scheduling work including isolating the spans for testing and the testing
 - d. Job site set-up
 - e. Performing partial discharge test
 - f. Reviewing work
4. Defining and adhering to a Detailed Work Plan



Project Charter

5. Defining and adhering to a Vendor Management Plan
6. Defining and adhering to a Financial Management Plan

1.3.2 The Cable Assessment Program Team is not responsible for:

1. Testing or replacing cable other than residential underground primary.
2. Identifying connectivity.
3. Extensive repairs.
4. Determining which loops and / or spans require immediate replacement and completing required repairs

1.4 General Philosophy

The Cable Assessment Program Team will adhere to the following principles:

- CNP Values
- Commitment to Excellence
- Diversity
- CNP Code of Conduct



Project Charter

2. Team Interaction and Integration

The Cable Assessment Program Team will regularly coordinate efforts with the following teams:

- Underground Reliability Team
- Asset Management
- Distribution Project Management

2.1.1 Finance

This project is considered a capital project. The Team Leads (or designee) will:

- Approve vendor invoices and verify the accuracy and completeness of the invoices with support by utilizing SAP and SAP workflow
- Establish tracking mechanisms for specific costs (e.g. vehicles or computer equipment)
- Match Financial Progress to Project Plan Progress
- Support all Regulatory Reporting efforts

2.1.2 Training

The training responsibilities of the Cable Assessment Program Project Team are listed below:

- Make subject matter experts (SME's) available to support training efforts
- Make SMEs available to aid in the development of training including course structure, materials and tools
- Provide SME's that will participate in training activities, including, but not limited to, teaching, as required by the Project and operational needs

The Training Team will:

- Recommend training strategy and guidelines based on level of engagement.
- Work with the Cable Assessment Program Project Team to coordinate efforts with other training resources as required.

2.1.3 Business Process

The Cable Assessment Program Project Team will support the Process Change team by:

- Identifying business processes and business units impacted by the Project
- Making SME's available to participate in process workshops for business process documentation and gap analysis.

The Business Process Change team will provide support to the Project Team including providing standard tools and processes for the Project and facilitating the development of processes.



Project Charter

3. Team Composition & Oversight

3.1 Project Roles & Responsibilities

The Cable Assessment Program team recommends the proposed team structure to maximize governance and accountability.

ROLE TITLE	ROLE MANAGER	ROLE RESPONSIBILITIES
Executive Sponsor	David Baker	Approves and finances the project; provides leadership and guidance as appropriate
Director of Distribution project Management	Deryl Tumlinson	Provides oversight and leadership to the Project Manager
Distribution Project Manager	Sammy Tomczyszyn	Provides oversight and leadership to the Project Manager
Project Manager		Provides the day-to-day support and planning for the overall project including scheduling, monitoring of budget, stakeholder communications...
Asset Management Subject Matter Expert	Dan Greenwood	Developing a data host to store testing data for future use
Subject Matter Experts	Keith Gray Cindy Pena Marsha Sommerfield Chris Cerney Jason Fabre John Engle	Provides input and insight into business process design, assists with program guideline establishment and supports training efforts as required.
Line skill contract crews		Isolate the span to be tested and return to normal operations
Testing vendor	IMCORP	Provides testing services and provides data to CenterPoint Energy

3.2 Specific Project Deliverables

The Cable Assessment Program team will produce the following deliverables:

- Business process designs



Project Charter

3.3 Team Project Assumptions, Constraints and Risks

3.3.1 Assumptions

- Financing for the project will be provided
- Team members will be allocated time from regular responsibilities to participate in team activities
- Contract resources will have the ability to ramp up efforts to support the project team's schedule
- The team is establishing a multi-year program to address aging infrastructure
- The project costs will be capitalized
- A project manager will be assigned to the project on a full-time basis

3.3.2 Constraints

- Budget limits will restrict the extent of testing and repair that occurs in 2013

3.3.3 Risks

- Team members have conflicting priorities that may impact the progress of the team's work
- EOP events impact the program
- Scope could expand and significantly impact the project schedule or cost
- Contractors are not able to ramp up in a timely manner
- The span fails during testing
- Safety

Assumptions	
Number of URD loops 35+ years of age	3735
Average number of spans per loop	17
Approximate number of spans 35+ years of age	63,495
Number of spans a crew can test per day	5
Number of available working days per year	250
Number of spans a crew can test per year	1250
Number of Crews	6
Total number of spans planned for assessment annually	7500
Total number of loops planned for assessment annually	441

**CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC
PUC DOCKET NO. 44572
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**GULF COAST COALITION OF CITIES
REQUEST NO.: GCCC02-08**

QUESTION:

Refer to the Direct Testimony of David Baker, page 4, line 16 -page 5, line 5. If not explicitly described in the scope and work plan, please provide a description of how cables and other URD components are determined whether or not to meet specifications or have a high probability of failure.

ANSWER:

Cables are de-energized and removed from the transformers and/or terminal poles. The cables are then connected to a device that sends an electrical charge through the conductor. If test results indicate that there is no discharge, then the cable and terminations are deemed acceptable and warranted. If discharge is identified, and depending on the location and degree of discharge, different repairs are performed. If the discharge is identified at the termination locations, on-site remediation is performed and then the cable is re-tested for acceptance. If the cable indicates discharge at a point other than the terminators, then the cable is noted as probable for failure and identified for replacement. Additionally, transformers and other equipment are also inspected during the cable testing. Equipment issues are either addressed immediately or identified for follow-up replacement and/or repair. This additional work is tracked separately from the cable assessment program and either capitalized or expensed, depending on the type of work required.

SPONSOR:

David Baker

RESPONSIVE DOCUMENTS:

None

**CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC
PUC DOCKET NO. 44572
SOAH DOCKET NO. 473-15-3257**

**GULF COAST COALITION OF CITIES
REQUEST NO.: GCCC02-09**

QUESTION:

Refer to the Direct Testimony of David Baker, page 4, line 16 - page 5, line 5. Please provide the costs for the underground cable assessment program broken down by activity type and WBS element for each year through 2014.

ANSWER:

For both 2013 and 2014, all cable assessment program dollars were isolated and reported using activity type "CAP" and corresponding WBS "S/101024/CE/ABCA".

The total dollars incurred in this activity type and WBS were \$5,765,348 in 2013 and \$12,221,464 in 2014. The total plant in service dollars included in this activity type and WBS were \$2,662,605 in 2013 and \$13,821,869 in 2014. These are different due to timing. We may incur costs in one year, but the plant in service may occur in the following year.

SPONSOR:

David Baker

RESPONSIVE DOCUMENTS:

None

**CENTERPOINT ENERGY HOUSTON ELECTRIC, LLC
PUC DOCKET NO. 44572
SOAH DOCKET NO. 473-15-3257**

**GULF COAST COALITION OF CITIES
REQUEST NO.: GCCC02-10**

QUESTION:

Refer to the Direct Testimony of David Baker, Exhibits DEB-2 through DEB-6. Please identify each project that was initiated as a result of the underground cable assessment program and describe how the project significantly enhanced and increased the life of the cable system beyond its original useful life.

ANSWER:

Refer to GCCC02-08. Discharge and other issues that are noted during the cable assessment process have a high probability of future failure. Typically, once a cable fails, the entire span is replaced.

By identifying weak points, such as faulty terminations, etc., the terminations can be replaced, thereby mitigating future failures, and extending the life of the asset. Approximately 25% of the cables tested were able to have on-site remediation, thus mitigating a probable failure and extending the life of the cable. These onsite remediation dollars are captured in project "ABCA".

When onsite remediation cannot be performed and the span requires replacement, the associated costs are captured in project "AB2S".

SPONSOR:

David Baker

RESPONSIVE DOCUMENTS:

None

CERTIFICATE OF SERVICE

I hereby certify that a true and correct copy of the foregoing was served on all parties of record in this proceeding via email, fax, hand delivery or U.S. first class mail on this the 15th day of May 2015.

_____