



Entergy New Orleans, Inc.
1600 Perdido Street, Bldg #505
New Orleans, LA 70112
Tel 504 670 3680
Fax 504 670 3615

Gary E. Huntley
Vice President
Regulatory and Governmental Affairs
ghuntle@entergy.com

January 21, 2016

Ms. Lora Johnson, Director
Clerk of Council of the City of New Orleans
New Orleans City Hall Room 1E09
1300 Perdido Street
New Orleans, LA 70112

RE: Entergy New Orleans, Inc. Update on the Status of Gas Infrastructure
Rebuild Pursuant to Council Resolution R-07-377
Docket No. UD-07-02

Dear Ms. Johnson:

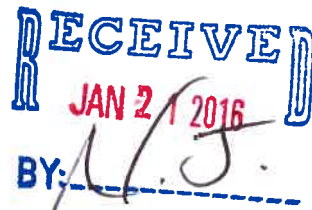
Enclosed for your further handling, please find an original and three copies of the Entergy New Orleans, Inc.'s Supplemental Report and Update on the Status of the Plan for Gas Infrastructure Rebuild. Kindly file the appropriate number of copies into the record and return a conformed copy of same to our courier.

If you have any questions, please contact me at (504) 670-3680.

Sincerely,

A handwritten signature in black ink that reads "Gary E. Huntley".

Gary E. Huntley



10 4 10

Enclosure

cc: All Councilmembers
Council Utilities Regulatory Office
Joseph A. Vumbaco, PE
Presley Reed, Esq.
Walter J. Wilkerson, Esq.
Errol Smith, CPA
Service List

Entergy New Orleans, Inc.

Update on the Status of the Plan for Gas

Infrastructure Rebuild

Pursuant to Council Resolution R-07-377

January 21, 2016

Table of Contents

- I. Executive Summary
- II. Status of ENO's Gas System
 - A. General Description of the System and Damage following Hurricanes Katrina and Rita
 - B. Status of the Gas Infrastructure Rebuild
 - C. Current Assessment of the ENO Gas System
- III. ENO's Plans for the Near-Term Gas Infrastructure Rebuild
- IV. Anticipated Effect of the Rebuild on Gas Rates

I. Executive Summary

In accordance with Council of the City of New Orleans (the "Council") Resolution R-07-377, and as a follow up to a presentation at the Council Utility Committee's January 17, 2013 meeting, Entergy New Orleans, Inc. ("ENO" or the "Company") submits this update on the status of the rebuild of its gas infrastructure left damaged as a result of Hurricanes Katrina and Rita. Resolution R-07-377 acknowledged the Council's receipt of the Company's initial report, which report presented its three-year plan for gas infrastructure rebuild filed on June 29, 2007. The same resolution also acknowledged that, at the time of ENO's filing, there were key uncertainties that could materially affect the timing and the cost of the gas infrastructure rebuild plan, and as such, it would have been premature for the Council to issue a formal ruling on ENO's plan in light of those uncertainties. On this basis, the Council established Docket UD-07-02 to consider ENO's proposed Plan for Gas Infrastructure Rebuild and periodic filings in order to update the Council. This report is the fourth of such periodic filings.

Since 2007 ENO has been engaged in the systematic rebuilding of substantial portions of approximately 844 miles of gas distribution pipe flooded as a result of Hurricanes Katrina and Rita and the prolonged flooding throughout the City of New Orleans that followed these hurricanes. The gas infrastructure rebuilding effort was undertaken in accordance with the condition-based approach described in ENO's 2007 Gas Rebuild report. ENO's 2007 Gas Rebuild report further described a three-year initial plan focused on replacement of 130-135 miles of low pressure pipe. The plan called for commencing the rebuild project with the portion of the system located in the City, which, at that time, was 1) experiencing higher rates of repopulation than other areas of the City and 2) ongoing reliability issues. ENO proposed to replace the deteriorating low pressure pipe with high density, high pressure polyethylene pipe through a directional boring process that ENO

anticipated would minimize the effect on traffic within the City and on customers. The Company projected that under the plan described in the 2007 Gas Rebuild Report, adequate funding of \$70 - \$75 million would be available to support the initial three-year rebuild plan, such that there would be no incremental rate effect on customers.

As of December 31, 2015, ENO has replaced approximately 328 miles of saltwater infiltrated pipe at a cost of approximately \$152 million. The Company continues to use the condition-based approach outlined in its 2007 Gas Rebuild Report to prioritize the replacement of the affected pipe. The conditioned-based approach takes into account reliability of service (gauged by number of outages), leak information, rate of re-population, high pressure availability, integrity of the low pressure system and the timing of city-mandated projects. As a result of the findings of the conditioned-based approach, the rebuild sequencing deviated from initial projections. However, as discussed in further detail below, this approach has proven to be very effective in improving system operations as evidenced by an approximate 90% reduction in water-related outages from 2006 to 2015.

In 2009, the Platts Global Energy Awards, an international energy industry association, recognized ENO's gas rebuild project as the Global Infrastructure Project of the Year; the Infrastructure Project award recognizes significant achievement in bringing a much-needed, high-profile energy project online in a timely manner. Platts recognized ENO's gas rebuild plan to repair the post- Katrina flooding damage as having exemplified the type of project that recognized a critical need or opportunity, quickly moved to propose and finance new facilities, dealt with special or daunting political, regulatory, and/or technological issues before and during construction and brought the project online in a timely fashion.

Over the past nine years of the rebuild, the Company has continually evaluated the performance of the gas system. As further discussed below, based on the data accumulated and experiences of the field operations personnel involved in leak and outage responses, the Company believes that it would be appropriate to continue with the rebuild program, annually replacing approximately twenty five miles of pipe in 2016 and beyond. For the reasons set forth below, the Company believes that this rate of replacement will permit ENO to continue to provide safe and reliable service to the growing customer base. Insurance proceeds are available to support the project for all of 2016, but, if current spending levels continue as proposed, the remaining insurance proceedings will be depleted in the first quarter of 2017. The Company is evaluating options for continuing the rebuilding effort beyond the first quarter of 2017 and anticipates providing more detail on those options within the next several months.

II. Status of ENO's Gas System

A. General Description of the System and Damage following Hurricanes Katrina and Rita

At the time that Hurricanes Katrina and Rita struck the City of New Orleans, the ENO gas system consisted of 1,495 miles of gas pipeline and an additional 1,030 miles of service lines. The gas system is operated at two different pressures: high pressure ("HP"), which operates at 60-90 pounds per square inch ("psi"); and low or utilization pressure ("UP") which operates at 0.25 psi. As a result of the storms, the levee breaches and the prolonged flooding in the City, approximately 844 miles of the pipe in the gas system was inundated by saltwater, silt, and other debris that entered the system through damaged facilities, such as meters, city gate/metering facilities, regulator stations, service lines, mains and customers' internal gas piping. Approximately 257 miles of cast iron pipe and 277 miles of steel pipe in the low pressure system were flooded.

Approximately 310 miles of steel pipe in the high pressure system was flooded, along with approximately 110,000 gas meters and regulators. Due to the level of damage and corrosion in the ENO gas system observed by the operations management team, including a third party expert, ENO developed and implemented a plan to replace/rebuild the gas system using a condition-based approach that prioritized the replacement of gas pipe in a way that would address the most pressing operational (*i.e.*, safety and reliability) needs first.

B. Status of the Gas Infrastructure Rebuild

As of December 31, 2015, ENO has replaced 328 miles of pipe at a cost of approximately \$152 million. The 2007-2015 portion of the rebuild project performed under budget. The cost per mile of the rebuild was originally projected to be approximately \$577,000. Due to improvements in the restoration process, the project cost to date is approximately \$464,000 per mile. The efficiencies gained in the process that resulted in the reduction in the unit cost of the project has allowed ENO to replace over 42 more miles of pipe than originally planned, plus another year of construction to add even more pipe. Below is a summary of the project spending year over year for 2007-2015.

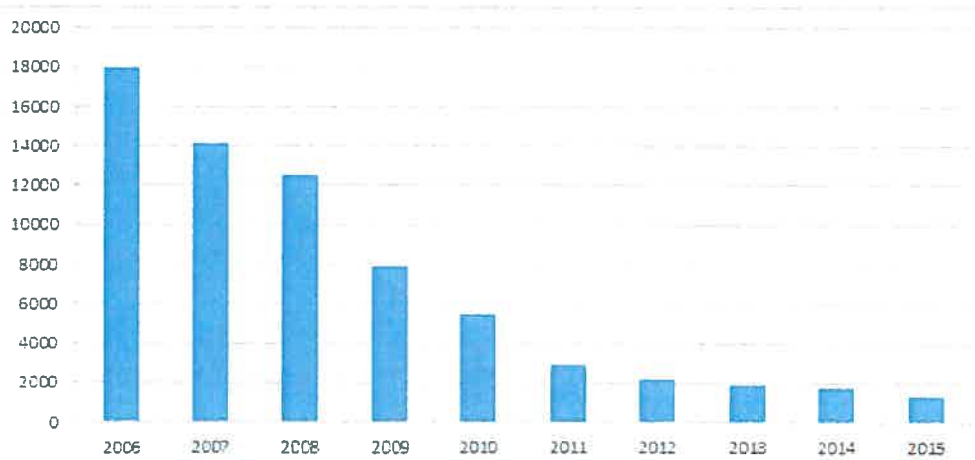
| Category | 2015 Rebuild | 2015 Reliability Rebuild | 2015 Reliability-Service/Meter Replacement | 2007 Total | 2008 Total | 2009 Total | 2010 Total | 2011 Total | 2012 Total | 2013 Total | 2014 Total | 2015 Total | Cumulative Project Total |
|-------------------|-----------------|--------------------------|--|---------------|-----------------|------------------|------------------|-----------------|-----------------|------------------|-----------------|------------------|--------------------------|
| Contractor | \$ 5,127 | \$ 1,775 | \$ - | 10,549 | \$ 20,048 | \$ 18,197 | \$ 16,377 | \$ 6,273 | \$ 6,325 | \$ 6,559 | \$ 6,043 | \$ 6,902 | \$ 97,274 |
| Material | \$ 1,489 | \$ 476 | \$ - | 4,324 | \$ 5,656 | \$ 5,503 | \$ 3,882 | \$ 2,334 | \$ 1,730 | \$ 1,904 | \$ 1,887 | \$ 1,966 | \$ 29,186 |
| Owner's Cost | \$ 1,524 | \$ 165 | \$ - | 3,709 | \$ 3,711 | \$ 3,794 | \$ 2,869 | \$ 2,913 | \$ 3,159 | \$ 2,451 | \$ 1,409 | \$ 1,689 | \$ 25,704 |
| Total Cost | \$ 8,140 | \$ 2,417 | \$ - | 18,582 | \$29,414 | \$ 27,495 | \$ 23,129 | \$11,520 | \$11,213 | \$ 10,913 | \$ 9,340 | \$ 10,557 | \$ 152,163 |

One of the primary goals of the rebuild project was to replace flooded gas mains using a systematic approach, working from the river towards the lake in sections, while using a condition-based approach to prioritize the replacement to ensure the areas experiencing the most operational issues would be replaced in a timely fashion. The condition-based approach used by the Company takes

into consideration a number of criteria. These criteria include pipe sample results, reliability of service (gauged by number of outages), leak information, repopulation rate, high pressure availability, integrity of the low pressure system and timing of city-mandated projects.

Based on the initial pipe conditions, confirmed by the third-party industry experts, P-PIC, ENO focused its initial rebuild efforts on the low pressure system where the deterioration was believed to be more accelerated. This approach has been very effective. As a major factor in the condition-based approach utilized by ENO, these customer outages caused ENO to adjust the focus of the rebuild efforts, resulting in redirection of the rebuild sequence to the areas where outages on the existing low pressure system were concentrated. In these areas, the low pressure pipe is being replaced with high pressure pipe to mitigate the outage issues in those areas. As can be seen on the graph below, this approach has had a major positive impact on reliability, reducing outages on the system 90% from 2006 to 2015. The trend is consistent throughout the years, even during winter months when water-related outages typically increase with the greater demand for natural gas to heat customers' homes. As the flow of natural gas increases on the system, water tends to move to different locations on the system causing customers to experience outages. ENO expects to see the water-related outages continue to decline.

Number of Gas System Outages (2006-2015)



C. Current Assessment of the ENO Gas System

Over the last nine years ENO has seen improvement in the operational performance of the Gas Distribution system. The improvements have been observed in two primary areas, reliability and leak performance.¹ In 2006, ENO established a reliability team to evaluate outage trends and develop solutions for customers experiencing multiple outages. This team, through rebuild and other replacement and maintenance options, drove a significant reduction in outages. Additionally, underground leaks on the flooded system were reduced as evidenced by results from leak surveys and decreased work backlogs. Based on the demonstrable improvement in system performance, ENO believes it is appropriate to continue the rebuild plan as described below.

III. ENO's Plans for the Near-Term Gas Infrastructure Rebuild

Based on system performance measured by significant decreases in outage and leak rates, ENO plans to continue the pace of the Gas Rebuild program in years 2016 and beyond. First, with

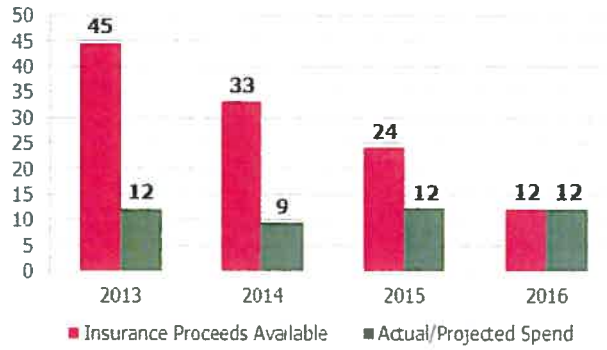
¹ Attached to this report as "Appendix A" are updated charts that demonstrate ENO's improvements in outage and leak rates, as well as updated rebuild status maps, through 2015.

44% of the flooded, low pressure (UP) pipe having been replaced, ENO believes that it can use condition-based monitoring and assessment to continue to effectively manage the rebuild program at the proposed pace. Second, use of the GIS system allows ENO to leverage specific data to establish outage and leak rates for each section within the City. These rates are then used to establish prioritization by overall ranking, based on leaks per mile of flooded pipe in the area. Third, the use of the new Distribution Integrity Management software will help analyze the distribution system and prioritize replacement of pipe based on a matrix of factors, including, but not limited to facility age, pipe material, previous leak history, population density, and gas volume. Fourth, continuing the current pace of the program would allow ENO to ensure that it is rebuilding the segments of the system that optimize system performance and providing more information that would support better informed decisions with respect to which replacement areas are appropriate. Fifth, a more deliberate pace has the potential to further reduce effects on the City in terms of traffic interruption and other factors that affect the neighborhoods. Finally, the more deliberate pace is expected to maintain construction costs overall by maintaining a sufficient pace to retain the economies of scale from which ENO currently benefits. This plan optimizes both system performance and the overall financial effect on gas customers.

IV. Anticipated Effect of the Rebuild on Gas Rates

There will be no incremental effect on customer rates due to gas rebuild-related spending through December 31, 2015. Approximately \$12 million remains of the insurance funds, which at the current pace would exhaust the balance of remaining dollars at the end of 2016.

Spending (\$ million)



V. Conclusion

The information presented herein demonstrates that the first six years of ENO rebuild have been prudent in restoring and providing natural gas service to its customers. Likewise, based on current information, ENO has presented a reasonable plan to continue providing safe and reliable natural gas service to its customers.

Appendix A

Table 1

Main Leaks by Cause 2004- 2014

| Leak Cause | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 |
|----------------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| CORROSION | 9 | 13 | 17 | 14 | 31 | 10 | 36 | 29 | 19 | 28 | 16 |
| NATURAL FORCES | 162 | 139 | 71 | 63 | 74 | 63 | 159 | 135 | 70 | 51 | 80 |
| EXCAVATION DAMAGE | 42 | 38 | 29 | 19 | 30 | 36 | 32 | 34 | 37 | 32 | 30 |
| OTHER OUTSIDE FORCE DAMAGE | 6 | 1 | 6 | 7 | 8 | 15 | 12 | 4 | 8 | 7 | 0 |
| MATERIAL OR WELDS | 33 | 27 | 19 | 21 | 48 | 38 | 34 | 46 | 35 | 12 | 24 |
| EQUIPMENT | 9 | 6 | 0 | 4 | 5 | 2 | 2 | 8 | 3 | 9 | 14 |
| INCORRECT OPERATIONS | 2 | 0 | 1 | | 1 | 1 | 2 | 0 | 0 | 0 | 0 |
| OTHER | 95 | 139 | 48 | 41 | 36 | 17 | 31 | 20 | 20 | 28 | 8 |
| Total | 358 | 363 | 191 | 169 | 233 | 184 | 308 | 276 | 191 | 167 | 172 |

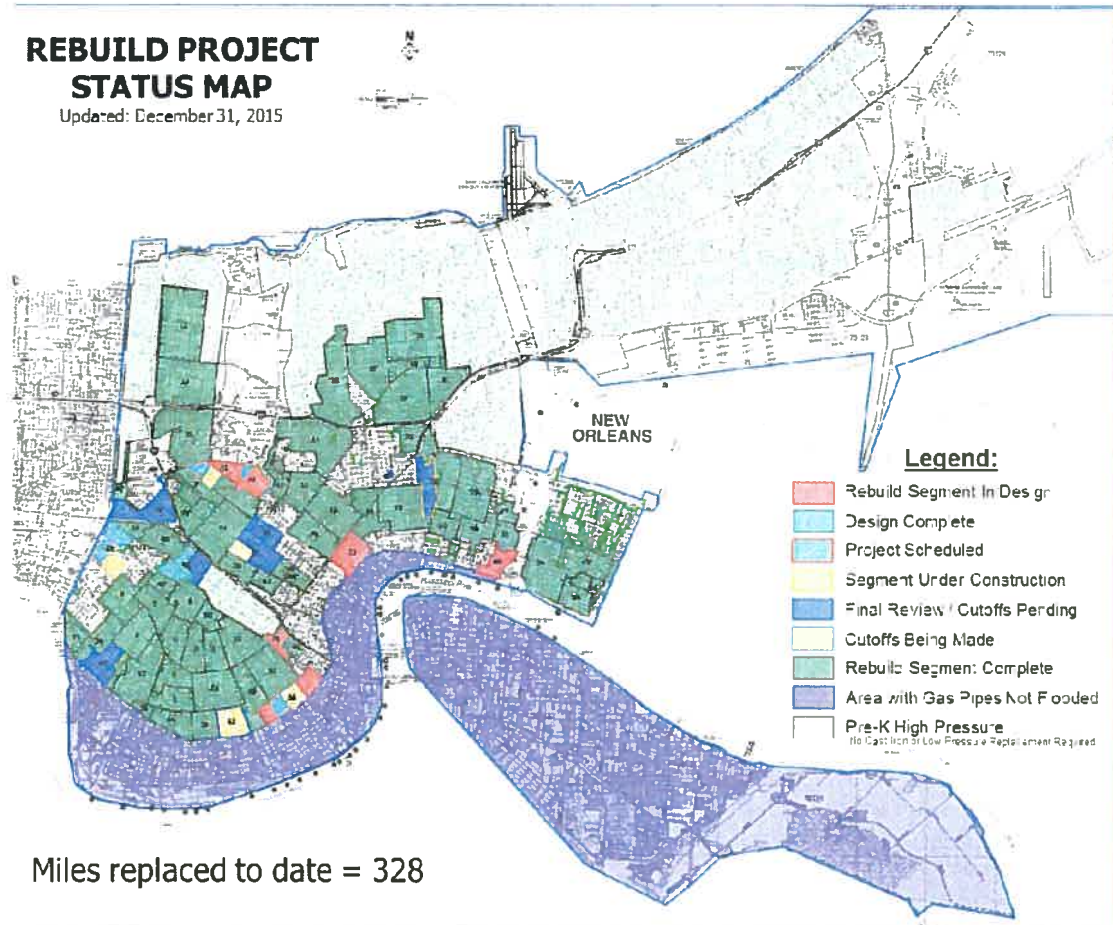
Table 2

Service Leaks by Cause 2004- 2014

| Leak Cause | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 |
|----------------------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|------------|
| CORROSION | 232 | 196 | 274 | 137 | 267 | 168 | 170 | 181 | 122 | 102 | 111 |
| NATURAL FORCES | 33 | 62 | 33 | 16 | 30 | 31 | 49 | 38 | 22 | 19 | 20 |
| EXCAVATION DAMAGE | 147 | 80 | 143 | 95 | 148 | 111 | 124 | 118 | 73 | 72 | 87 |
| OTHER OUTSIDE FORCE DAMAGE | 9 | 22 | 34 | 29 | 61 | 42 | 54 | 21 | 43 | 45 | 10 |
| MATERIAL OR WELDS | 65 | 63 | 65 | 48 | 63 | 61 | 74 | 58 | 39 | 23 | 20 |
| EQUIPMENT | 41 | 10 | 8 | 5 | 13 | 7 | 6 | 13 | 25 | 24 | 28 |
| INCORRECT OPERATIONS | 3 | 0 | 0 | 2 | 2 | 2 | 2 | 3 | 0 | 1 | 1 |
| OTHER | 56 | 47 | 79 | 43 | 54 | 38 | 43 | 27 | 22 | 23 | 8 |
| Total | 586 | 480 | 635 | 365 | 638 | 460 | 522 | 459 | 347 | 309 | 285 |

REBUILD PROJECT STATUS MAP

Updated: December 31, 2015

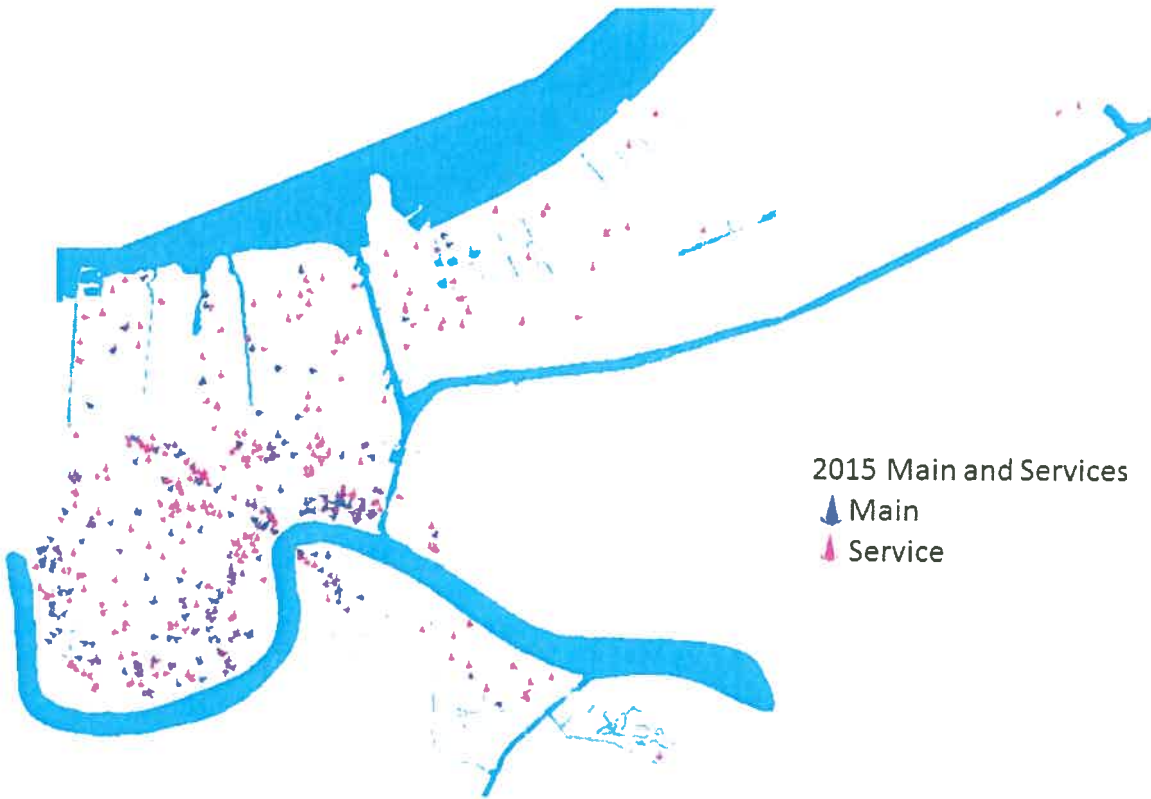


Miles replaced to date = 328

ENO versus Industry Leak Comparison (2014)

| Leak Cause | Mains | | | | Services | | | |
|----------------------------|-------------------------|--------------------|--------------------|--------------------|----------------------------|---------------------|-----------------------|---------------------|
| | Main Leaks for Industry | Per 1,000 per mile | Main Leaks for ENO | Per 1,000 per mile | Service Leaks for Industry | Per 10,000 Services | Service Leaks for ENO | Per 10,000 Services |
| CORROSION | 51956 | 41 | 16 | 9 | 72983 | 11 | 111 | 11 |
| NATURAL FORCES | 15983 | 13 | 80 | 47 | 17614 | 3 | 20 | 2 |
| EXCAVATION DAMAGE | 14916 | 12 | 30 | 13 | 58842 | 9 | 87 | 9 |
| OTHER OUTSIDE FORCE DAMAGE | 1628 | 1 | 0 | 0 | 12232 | 2 | 10 | 1 |
| MATERIAL OR WELDS | 10840 | 9 | 24 | 14 | 34942 | 5 | 20 | 2 |
| EQUIPMENT | 16407 | 13 | 14 | 8 | 114419 | 17 | 28 | 3 |
| INCORRECT OPERATIONS | 2283 | 2 | 0 | 0 | 9410 | 1 | 1 | 0 |
| OTHER | 31751 | 25 | 8 | 5 | 41560 | 6 | 8 | 1 |
| Total | 145774 | 115 | 172 | 101 | 362002 | 54 | 285 | 29 |

System Map Showing Areas



System Map Showing Location of Leaks in 2015

CERTIFICATE OF SERVICE

I, the undersigned counsel, hereby certify that a copy of the above and foregoing has been served on the persons listed below by: electronic mail, facsimile, overnight mail, hand delivery, and/or United States Postal Service, postage prepaid, and addressed as follows:

Lora W. Johnson, CMC
Clerk of Council
New Orleans City Council
City Hall, Room 1E09
1300 Perdido Street
New Orleans, LA 70112

Pearlina Thomas,
Chief of Staff, Council Utilities Regulatory
Office
W. Thomas Stratton, Jr.
Director
City Council Utilities Regulatory Office
City Hall, Room 6E07
1300 Perdido Street
New Orleans, LA 70112

Evelyn F. Pugh, Esq.
Council Chief of Staff
Matt Lindsay
Deputy Chief of Staff
City Hall, Room 1E06
1300 Perdido Street
New Orleans, LA 70112

Rebecca Dietz
New Orleans City Attorney
City Hall, 5th Floor
1300 Perdido Street
New Orleans, LA 70112

Norman S. Foster
Department of Finance
City Hall, Room 3W06
1300 Perdido Street
New Orleans, LA 70112

Clinton A. Vince, Esq.
Presley R. Reed, Jr., Esq.
Orlando E. Vidal, Esq.
William D. Booth, Esq.
SNR Denton US LLP
1301 K Street, N.W.
Suite 600, East Tower
Washington, DC 20005-3364

Walter J. Wilkerson, Esq.
Wilkerson and Associates, PLC
650 Poydras Street, Suite 1913
New Orleans, LA 70130

Joseph A. Vumbaco, P.E.
Legend Consulting Group
8055 East Tufts Avenue, Suite 1250
Denver, CO 80237-2835

Errol Smith, CPA
Bruno and Tervalon
4298 Elysian Fields Avenue
New Orleans, LA 70122

Kenneth C. Paillet, CPA
Paillet, Meunier & LeBlanc, LLP
3421 N. Causeway Boulevard, Suite 701
Metairie, LA 70002

Gary Huntley
Entergy New Orleans, Inc.
Vice President, Regulatory &
Governmental Affairs
Mail Unit L-MAG-505B
1600 Perdido Street
New Orleans, LA 70112

Seth Cureington
Polly S. Rosemond
Albert D. Eiffert
Entergy New Orleans, Inc.
Mail Unit L-MAG-505B
1600 Perdido Street
New Orleans, LA 70112

Kathryn J. Lichtenberg, Esq.
Timothy S. Cragin, Esq.
John Christopher Neel, Esq.
Courtney R. Nicholson, Esq.
Matthew Brady, Esq.
Entergy Services, Inc.
639 Loyola Avenue
Mail Unit L-ENT-26E
New Orleans, LA 70113

Joseph J. Romano, III
Bonnie Milner
Suzanne Fontan
Entergy Services, Inc.
Mail Unit L-ENT-4C
639 Loyola Avenue
New Orleans, LA 70113

Forest Bradley-Wright
Alliance for Affordable Energy
2372 St. Claude Ave
New Orleans, LA 70117

J.A. "Jay" Beatmann, Jr.
The Poydras Center, Suite 2850
650 Poydras Street
New Orleans, LA 70130-6132

Michael L. Winberry
Business Manager
Jacobs Technology Inc.
13800 Old Gentilly Road, Building 320
New Orleans, LA 70129

Christopher P. Todaro
Plant Manager
The Folger Coffee Company
14601 Old Gentilly Road
New Orleans, LA 70129

Ernest L. Edwards, Jr.
Beirne, Maynard & Parsons, L.L.P.
601 Poydras Street, Suite 2200
New Orleans, LA 70130-6097

Fred M. Mazurski, CEM, CDSM
Energy USG Corporation
550 West Adams Street
Chicago, IL 60661-3676

John H. Chavanne
Chavanne Enterprises
Post Office Box 807
111 West Main Street, Suite 2B
New Roads, LA 70706

Brian A. Ferrara
Sewerage and Water Board of New Orleans
625 St. Joseph Street, Room 201
New Orleans, LA 70165

New Orleans, Louisiana, this 21st day of January, 2016.


Alyssa Maurice-Anderson