

ORLANDO UTILITIES COMMISSION



CALENDAR 2017 STORM HARDENING REPORT

**PURSUANT TO FLORIDA PUBLIC SERVICE
COMMISSION RULE 25-6.0343**

**Orlando Utilities Commission
Florida Public Service Commission Pursuant to
Rule 25-6.0343, F.A.C.
Calendar Year 2017**

1) Introduction

City of Orlando, Orlando Utilities Commission

100 West Anderson Street, Orlando FL 32801

Contact information:

Clint Bullock, Vice-President, Electric Delivery Business Unit
407-434-4186, cbullock@ouc.com

Troy Morris, Director, Distribution Construction & Maintenance
407-434-4199, tmorris@ouc.com

2) Number of meters served in calendar year 2017

Orlando Utilities Commission served 238,901 electric meters in the Cities of Orlando and St. Cloud and surrounding Orange and Osceola counties as of December 31, 2017.

3) Standards of Construction

a) National Electric Safety Code Compliance

The Orlando Utilities Commission (OUC) complies with the construction standards, policies, guidelines, practices, and procedures directed within the National Electrical Safety Code (ANSI C-2) [NESC]. For electrical facilities constructed on or after February 1, 2007, the 2007 NESC applies. The edition of the NESC in effect at the time of the facility's initial construction governs electrical facilities constructed prior to February 1, 2007.

b) Extreme Wind Loading Standards

Construction standards, policies, guidelines, practices, and procedures at the Orlando Utilities Commission are guided by the extreme wind loading standards specified by Figure 250-2(d) of the 2002 edition of the NESC for 1) new construction; 2) major planned work, including expansion, rebuild, or relocation of existing facilities, assigned on or after December 10, 2006; and 3) targeted critical infrastructure facilities and major thoroughfares.

OUC has verified that all future construction will meet the NESC requirements with particular focus on the extreme wind loading standards.

c) Flooding and Storm Surges

The Orlando Utilities Commission service area is in the middle of Florida. Therefore, flooding and storm surges do not apply.

d) Safe and Efficient Access of New and Replacement Distribution Facilities

Electrical construction standards, policies, guidelines, practices, and procedures at OUC provide for placement of new and replacement distribution facilities so as to facilitate safe and efficient access for installation and maintenance.

Since the 1980's, Orlando Utilities has been installing underground and overhead distribution along property frontage corridors. This gives efficient and safer access to these facilities. OUC provides vegetation maintenance and replacement of aged equipment to ensure an efficient, safe, & robust system for all OUC facilities including existing rear lot installations.

e) Attachments by Others

Electrical construction standards, policies, guidelines, practices, and procedures at the Orlando Utilities Commission include contractual agreement to enable attachment by others. These contracts state that attachments must adhere to the guidelines of the NESC and all governmental authorities that have jurisdiction.

4. Facility Inspections

a) Policies, guidelines, practices, and procedures for inspecting transmission and distribution lines, poles, and structures.

Summary

Orlando Utilities Commission (OUC) has maintained an active pole inspection and replacement program with records dating back to 1990. We currently uphold an eight-year quadrant based inspection cycle along with annual inspections targeting essential distribution and transmission equipment. Shared transmission structures are inspected and maintained by OUC based on past inspection date.

Distribution and Transmission pole inspection replacements are tracked through an existing maintenance work order database to insure timely replacement.

Inspection Procedures

Visual inspection shall be made of all poles from the ground line to the top before any other inspection. Visual inspection shall include: type of wood, original treatment, circumference, and age of pole, (if it can be determined), height, obvious splits, woodpecker holes, and any other physical damages to the pole. Also a visual check within the limitations of the inspector's expertise, is to be made at such time of the attachments to the pole being inspected for obvious conditions that appear improper, such as slack guy wires, slack overhead conductors, broken insulators, leaking transformers, missing guy guards, rotten cross arms, loose or faulty equipment, abandoned poles, etc.

Excavation

Earth shall be removed from the entire circumference of the pole to a minimum depth of 18 inches below ground line. Width of the hole shall be 4 inches clearance for the pole surface at the bottom and 10 inches at the ground line.

Poles with electric risers should not be excavated, but should be inspected by sounding, boring and fumigating.

Sounding and Boring

The pole must be sounded from the ground line to a minimum of six feet above the ground line. Sounding shall be done on all four sides of the pole to locate any shell rot or rot pockets on the side.

Sounding shall be done with an approved hammer that leaves a distinctive hammer pattern. If there is evidence of possible interior voids or rot, at least one boring shall be made where a void is indicated. If rot or voids are detected, several borings shall be made per rot or void location and a shell gauge shall be used to determine the extent of all voids or rot. In any event at least two borings shall be made at the ground line to check for rot.

Poles set in concrete or pavement shall be bored at least twice at opposite sides at the ground line down at a 45-degree angle into the pole and the boring sample checked for rot or voids.

Removal of Exterior Decay

All exterior decay must be removed where possible, from 18 inches below the ground line to 3 inches above ground line. The rotted wood is to be removed from the premises and deposited in a proper manner.

Evaluation of Pole Condition

After the sounding and boring has been performed and all exterior decay has been removed, the effective circumference of the pole, from 18 inches below the ground line to 15 inches above the ground line, is to be determined.

Internal Treatment

All sound poles are internally treated if any specific voids of specific internal decay pockets are found. This should involve a sufficient number of bored 3/8 inch holes and the preservative is applied under at least 50 psi of pressure. Internal pole treatment also utilizes MITC-Fume or and OUC approved fumigant.

Ground Line Treatment

All poles not previously rejected are covered from 18 inches below the ground line to 3 inches above the ground line by an OUC approved preservative and moisture barrier film. Preservative treatment penetrates a minimum of two inches into the pole. Long-term treatment retention studies are kept to assure future review and results.

b) Number and percentage of transmission and distribution inspections planned and completed for 2017.

Distribution and Transmission Planned Inspections					
Year	Total System Poles	Planned Inspection	Planned Percentage of System	Inspection Completed	Completed Percentage of System
2017	49643	6200	12%	6389	13%
2016	50049	6400	12%	6419	13%
2015	50915	6400	12%	6758	13%
2014	50582	6400	12%	6410	13%
2013	50721	6400	12%	6415	13%
2012	50804	6400	12%	6400	12%
2011	50938	6400	12%	6730	13%
2010	51142	6400	12%	6534	13%
2009	51435	6400	12%	6411	12%
2008	51114	6400	12%	6124	12%
2007	50536	6400	12.5%	8124	16%

c) Number and percentage of transmission and distribution poles / structures failing inspection and the reason for the failure.

Poles Failing Inspection		
	Percentage of Inspection Failure	Total Inspected Poles Failing Inspection
2017	0.4%	27
2016	0.9%	58
2015	1.3%	97
2014	2.3%	145
2013	5.5%	352
2012	6.2%	396
2011	8.9 %	600
2010	9.8 %	642
2009	4.4%	280
2008	3.0 %	189

A detailed report with pole failure causes is attached.

Attachment 1: (OUC 2017 Pole Report.xls)

d) Number and percentage of transmission poles, structures and distribution poles, by pole type and class of structure, replaced or for which remediation was taken after inspection, including a description of the remediation taken.

Poles needing Remediation					
Year	Total Inspection Poles Failing Inspection	Priority Replacement (Complete)	Restoration (Complete) C-Truss	Work Orders Generated for Replacement	Work Orders Completed
2017	27	2	0	27	2
2016	58	3	7	61	3
2015	97	15	9	73	8
2014	145	2	3	140	479
2013	352	5	56	296	282
2012	396	8	10	386	456
2011	600	2	66	532	267
2010	642	7	121	514	435
2009	280	4	66	210	208
2008	189	9	82	98	98
2007	226	1	81	144	144
2006	208	10	146	52	52

A total of (27) twenty seven poles failed inspection criteria, (2) two poles deemed priority replacement, (2) two are completed. There are (0) zero poles which restoration was deemed necessary using a reinforcing truss, which will be completed in the first quarter of 2018. The remaining (25) twenty five poles are in progress of being generated for replacement in 2018 and 2019.

A detailed report denoting the type and class structure is attached.

Attachment 1: (OUC 2017 Pole Report.xls)

5. Vegetation Management

- a) Utility's policies, guidelines, practices, and procedures for vegetation management, including programs addressing appropriate planting, landscaping, and problem tree removal practices for vegetation management outside of road right-of-ways or easements, and an explanation as to why the utility believes its vegetation management practices are sufficient.*

Maintenance Guidelines and Procedures

The Orlando Utilities Commission (OUC) provides essential electrical service closely tied to our communities' safety, economy and welfare. In delivering reliable electrical service OUC manages the vegetation for approximately 1261 miles of overhead distribution lines and 213 miles of transmission lines within Orange and Osceola Counties. Vegetation line clearance of distribution facilities are trimmed on a three year maintenance cycle. Transmission right of ways' are maintained in two sub-divided regions, urban right of way on an annual cycle, and rural on a three year cycle. Measures to ensure our vegetation program is sufficient and remains on schedule, comprise of annual inspections of the distribution and transmission system.

OUC follows pruning and safety methods outlined in American National Standards Institute A300 and Z133.1. A three-year maintenance cycle of distribution facilities anticipates an average annual growth of 2.5 feet. Trees in close proximity of distribution facilities are trimmed to a minimum distance of 10 feet clearance from energized un-insulated conductors. Fast growing invasive species are targeted for removal during distribution pruning. This proactive measure relieves future trimming requirements and ensures clearances within the cycle will be maintained.

The distribution three year cycle is divided into over 175 distribution segments reviewed on a quarterly basis. The review is used to make adjustments to crew resources to remain on cycle. OUC currently procures vegetation maintenance labor and equipment through a contract with Davey Tree Experts. The contract comprises ten to twenty production line trimming crews used in distribution and transmission line clearance.

Vegetation pruning requests are tracked using an internal CIS system available in the distribution operations, customer service, construction and maintenance area. Requests generated from a system outage are either trimmed immediately or given a work order priority for completion. The general foreman provides additional feedback if additional area trimming is needed.

Appropriate Planting

OUC outlines appropriate planting through educational information presented by the Florida Urban Forestry Council. The council presents a theme “Right Tree in the Right Place” to insure proper distance between trees and power lines. By practicing proper planting our goals to ensure safety, reliability and lowered maintenance costs become factors which all of our customers benefit.

Vegetation located outside of the right of way is pruned to a distance 10’ from energized conductors. The “Right Tree Right Place” concept is reviewed in cases where removals may become prudent. OUC annually sponsors tree planting events during Arbor Day to promote proper planting.

Measures to Ensure Sufficient Vegetation Management

OUC has applied a Reliability Centered Maintenance (RCM) approach from NFPA 70B to assure our vegetation management practices area sufficient. An annual inspection of all main feeder distribution lines is conducted to survey acceptable clearances in distribution system throughout the three-year treatment plan. The RCM inspections document vegetation to conductor distances with less than one year’s anticipated growth (2.5’). Vegetation work orders are generated and completed during seasonal non-peak time frame to ensure electrical system is fully prepared for the Florida summer storm season.

Two measures are used to verify sufficient vegetation management in our maintenance cycle.

- a. The documented number of RCM clearances are compared against the trim cycle order. (A circuit about to be trimmed is expected to have more areas of clearance.)
- b. Outage management system (OMS) indices relating to sustained and momentary outages are also compared to the trim cycle order.

Vegetation Management Annual Plan

The 2017 annual budget for Distribution and Transmission Vegetation management was approximately three million dollars and will remain consistent for 2018. OUC plans to continue with treatment of 421 miles of distribution line clearance and 88 miles of transmission ROW to remain on established cycles in 2018. Treatment of distribution line clearance will consist of bucket and rear lot climbing crews. Treatment of the transmission rural corridors, conducted on a three-year cycle, are maintained using a combination of integrated vegetation management (IVM). Transmission urban corridors are maintained annually with a more traditional pruning and removal maintenance methods.

* OUC's Transmission Vegetation Management Plan (TVMP) allows until May 30th 2018 for completion.

Vegetation Treatment				
Year	Distribution Total System Miles 1261		Transmission Total System Miles 213 (Urban-Annual, Rural 3 Year Cycle)	
	Planned	Completed	Planned	Completed
2017	450	100%	99	100%
2016	333	100%	107	100%
2015	335	100%	88	100%
2014	328	100%	99	100%
2013	287	100%	107	100%
2012	332	100%	127	100%
2011	312	100%	107	100%
2010	329	100%	99	100%
2009	328	100%	105	100%
2008	330	100%	99	100%
2007	330	100%	114	100%

2017 OUC Distribution Maintenance Schedule – 3 Year Trimming Cycle Work Completed

Line Segment	Circuit Number	Location	Work Schedule		GIS Mileage				
			Initiated Date	Completion Date	Circuit Total Billable Miles	Truck Access (S)	Limited Acces (LA)	Rear Lot (R)	Non Billable Miles
Yr. 1 First Quarter - October / December 2016									
16	12-34, 12-311	Orlando		12/31/2016	8.29	2.89		5.40	0.33
128	6-23, 35-12, 35-33	Orlando	3/9/2016	5/16/2016	76.64	63.55		11.53	1.63
139	4-32	Orlando	3/11/2017	3/11/2017	1.76	1.12			0.64
144	27-233	St. Cloud	5/16/2016	11/1/2016	20.37	15.43	0.32	3.51	1.11
146	1-11	Orlando	7/26/2016	12/31/2016	3.88	3.63			0.24
147	27-232	St. Cloud	11/14/2016	11/24/2016	11.91	9.94		1.83	0.14
Quarterly Total Mileage					122.85	96.56	0.32	23.15	3.21
Yr. 1 Second Quarter - January / March 2017									
140	19-11	Orlando	2/18/2017	2/18/2017	1.54	0.77	0.77		
141	5-15	Orlando	3/18/2017	3/18/2017	2.49	1.90		0.59	
142	6-22	Orlando	2/25/2017	11/4/2017	2.94	2.70	0.08	0.16	
143	1-23	Orlando	3/18/2017	4/22/2017	0.98	0.60		0.38	
145	3-31	Orlando	1/21/2017	11/4/2017	6.05	4.06	0.10	1.89	1.95
148	4-13	Orlando	3/25/2017	4/1/2017	4.11	3.94		0.17	
150	2-33	Orlando	12/15/2016	1/7/2017	5.32	3.53		1.79	
151	33-213	St. Cloud	3/25/2017	6/27/2017	4.37	3.71	0.26	0.40	
152	9-31	Orlando	1/14/2017	3/25/2017	8.36	7.24		1.12	
153	10-21, 18-32, 18-42	Orlando	1/14/2017	3/25/2017	2.31	2.26		0.05	
154	20-11	Orlando	4/1/2017	4/15/2017	7.77	4.40	0.18	3.19	0.69
155	19-12, 20-31	Orlando	3/4/2017	3/4/2017	3.84	2.10	0.40	1.34	0.30
156	2-42	Orlando	1/14/2017	2/18/2017	7.43	6.64		0.79	0.03
157	2-14, 12-26	Orlando	1/7/2017	1/28/2017	5.64	2.72		2.92	1.45
158	6-23	Orlando	3/4/2017	3/11/2017	9.39	7.23	0.17	1.99	0.01
159	11-23, 11-43	Orlando	4/8/2017	4/15/2017	6.86	4.85		2.01	
160	12-33	Orlando	3/18/2017	4/1/2017	6.65	6.20	0.10	0.35	0.16
161	6-13, 6-24	Orlando	3/11/2017	3/18/2017	6.46	3.18	0.33	2.95	
162	13-13	Orlando	4/1/2017	4/22/2017	5.72	4.77	0.08	0.87	
163	13-21	Orlando	4/15/2017	4/29/2017	4.17	3.80		0.37	
165	10-21	Orlando	3/18/2017	4/1/2017	6.35	6.27		0.08	
Quarterly Total Mileage					108.76	82.88	2.47	23.41	4.59
Yr. 1 Third Quarter - April / June 2017									
164	2-21	Orlando	4/22/2017	6/24/2017	6.64	3.78	0.12	2.74	0.75
166	9-22	Orlando	5/6/2017	5/13/2017	3.36	3.18	0.03	0.15	0.44
167	5-13	Orlando	5/27/2017	12/2/2017	5.70	2.53		3.17	0.97
168	10-43	Orlando	5/6/2017	10/7/2017	5.19	4.40		0.79	
169	9-34	Orlando	5/13/2017	9/30/2017	7.27	4.27		3.00	0.14
170	4-42	Orlando	4/22/2017	4/22/2017	0.51	0.33		0.18	
171	6-14	Orlando	5/20/2017	5/20/2017	3.11	2.43	0.12	0.56	1.23
172	16-14	Orlando	4/22/2017	5/27/2017	0.57	0.57			0.01
173	14-44	Orlando	5/6/2017	5/20/2017	1.55	1.55			
174	35-23	Orlando	4/22/2017	4/22/2017	1.90	1.90			0.79
175	30-36	Orlando	4/22/2017	4/22/2017	0.70	0.70			
176	11-33	Orlando	4/29/2017	4/29/2017	3.72	3.53		0.19	
177	27-231, 29-222, 33-213, 33-222	St. Cloud	4/22/2017	7/15/2017	61.36	45.93	0.16	15.27	
179	32-13	Orlando		No Work	0.00				2.28
182	20-32	Orlando	5/6/2017	5/6/2017	2.32	0.12		2.20	
Quarterly Total Mileage					103.91	75.23	0.43	28.25	6.61
Yr. 1 Forth Quarter - July / September 2017									
7	12-12, 12-21	Orlando	6/12/2017	7/20/2017	5.56	3.55		2.01	0.82
14	12-11	Orlando	8/5/2017	10/28/2017	13.94	10.76		3.18	
47	12-21	Orlando	9/7/2017	11/4/2017	12.20	9.90		2.30	
178	6-11	Orlando	7/31/2017	10/7/2017	3.48	1.74		1.74	
180	6-21	Orlando	8/3/2017	9/30/2017	3.06	1.44		1.62	
181	4-33	Orlando	7/2/2017	7/8/2017	0.04	0.04			
183	10-35, 13-22	Orlando	6/8/2017	6/8/2017	1.97	1.74		0.23	
184	11-31	Orlando	7/15/2017	8/5/2017	1.96	1.73		0.23	
186	5-44	Orlando	7/31/2017	8/5/2017	3.69	3.03		0.66	0.96
187	21-13	Orlando	7/22/2017	8/12/2017	0.64	0.38		0.26	0.34
188	4-44, 14-34	Orlando	6/3/2017	10/7/2017	1.80	1.56		0.24	
189	12-35	Orlando	9/7/2017	12/9/2017	2.53	1.58		0.95	
190	33-221	Orlando	9/25/2017	10/7/2017	3.37	2.99		0.38	0.99
192	27-225, 27-231	St. Cloud	6/1/2017	7/31/2017	17.89	13.94		3.95	
193	9-13	Orlando	7/8/2017	10/21/2017	5.88	4.52		1.36	
194	18-42	Orlando	7/8/2017	10/7/2017	7.88	7.44		0.44	
195	16-21	Orlando	7/31/2017	12/9/2017	4.16	1.77		2.39	
196	18-24	Orlando	7/10/2017	10/7/2017	5.57	5.57			
197	13-11, 13-23	Orlando	10/4/2017	12/9/2017	2.40	1.91		0.49	
198	20-12	Orlando	10/4/2017	10/7/2017	1.12	0.37		0.75	
200	21-11	Orlando	7/10/2017	7/22/2017	1.44	0.28		1.16	
207	29-221	Holopaw	8/26/2017	9/2/2017	13.42	13.42			
Quarterly Total Mileage					114.01	89.67	0.00	24.34	3.11
Annual Total Miles					449.52	344.33	3.22	99.15	17.52

2018 OUC Distribution Maintenance Schedule – 3 Year Trimming Cycle Work Plan

Line Segment	Circuit Number	Location	Work Schedule		GIS Mileage				
			Initiated Date	Completion Date	Circuit Total Billable Miles	Truck Access (S)	Limited Access (LA)	Rear Lot (R)	Non Billable Miles
Yr. 2 First Quarter - October / December 2017									
1	3-14	Orlando	10/7/2017	12/30/17	9.35	7.33		2.02	
2	10-12	Orlando	08/15/17	8/26/2017	3.39	2.40		0.99	1.16
4	1-22	Orlando	10/7/2017	10/21/2017	5.72	5.52		0.20	
6	3-23	Orlando	9/16/2017	9/30/2017	2.69	1.14		1.55	1.88
5	14-41	Orlando		No Work	0.00				0.20
8	27-231, 28-213, 28-223, 29-224	St. Cloud	11/13/17	12/9/17	46.59	32.55		14.04	0.26
9	10-11	Orlando	10/7/2017	12/9/17	7.96	7.30		0.66	
10	1-33	Orlando	10/7/2017	10/7/2017	0.60	0.52		0.08	0.58
11	4-12	Orlando	10/28/2017	11/11/2017	5.51	5.33		0.18	0.28
12	1-32	Orlando	12/30/17	12/30/17	0.20			0.20	
13	4-31	Orlando	10/21/17	12/19/17	2.23	0.80		1.43	
15	32-222	St. Cloud	11/09/17	12/16/17	5.75	1.62		4.13	5.32
17	14-23	Orlando	10/30/17	1/13/2018	6.56	0.82		5.74	0.71
18	12-31	Orlando	10/30/17	1/20/2018	6.66	4.25		2.41	
191	30-31, 30-36	St. Cloud	6/10/2017	7/1/2017	4.17	1.18		2.99	0.21
202	5-45	Orlando	No Work	No Work	0.00				0.67
204	4-24	Orlando	No Work	No Work	0.00				0.51
205	4-41	Orlando	No Work	No Work	0.00				0.50
Quarterly Mileage					107.38	70.76	0.00	36.62	12.28
Yr. 2 Second Quarter - January / March 2018									
19	2-332	Orlando	1/17/2018	2/3/2018	4.37	3.02		1.35	4.34
20	27-222	St. Cloud	12/9/2017	12/16/2017	3.02	2.35		0.67	0.03
21	9-21	Orlando	1/22/2018	2/13/2018	5.01	2.08		2.93	1.27
22	3-21	Orlando	1/17/2018	2/10/2018	5.10	3.52		1.58	
23	2-11, 2-34	Orlando	12/23/2017	1/6/18	1.67	1.36		0.31	0.02
24	1-13	Orlando	12/23/2017	2/10/2018	6.64	5.21		1.43	
25	2-31	Orlando	12/23/2017	Open	11.76	9.53		2.23	
26	14-24	Orlando	1/9/2018	2/2/2018	0.31	0.31			1.23
27	9-11	Orlando	1/9/2018	2/5/2018	9.23	7.12		2.11	1.11
28	29-223	St. Cloud	12/11/2017	12/16/2017	20.68	17.09		3.59	0.12
29	35-22	Orlando	No Work	No Work	0.00				0.50
30	2-41	Orlando	1/9/2018	1/20/2018	8.82	6.94		1.88	0.02
31	21-12	Orlando	1/9/2018	1/20/2018	1.39	1.03		0.36	
32	1-34	Orlando	1/15/2018	1/15/2018	8.04	6.65		1.39	0.22
33	2-13	Orlando	1/15/2018	Open	8.89	4.26		4.63	1.00
34	35-11, 35-21	Orlando	1/17/2018	1/27/2018	1.97	0.94		1.03	
37	9-32	Orlando	1/22/2018	Open	7.26	6.21		1.05	
Quarterly Total Mileage					104.16	77.62	0.00	26.54	9.86
Yr. 2 Third Quarter - April / June 2018									
35	1-14	Orlando			6.79	3.07		3.72	
36	11-24, 11-32	Orlando	02/05/18	Open	1.92	1.33	0.08	0.51	
38	10-42	Orlando	02/05/18	02/10/18	1.42	1.33		0.09	
39	35-32	Orlando			6.73	2.40		4.33	
40	1-43	Orlando	02/05/18	Open	2.90	2.57		0.33	
42	2-12	Orlando			6.38	1.94		4.44	0.83
43	27-214, 27-221, 27-231	St. Cloud			14.01	12.16		1.85	0.10
44	9-23	Orlando	02/05/18	Open	6.59	6.10		0.49	0.51
45	5-22	Orlando			5.26	0.52		4.74	1.26
46	21-14	Orlando			0.04	0.04			
48	35-33	Orlando			12.30	7.90		4.40	
49	11-21, 11-32, 11-42	Orlando	02/10/18	Open	12.15	9.68		2.47	
50	2-24	Orlando	02/12/18	Open	11.93	7.49		4.44	
52	16-22	Orlando			9.89	3.94		5.95	0.59
Quarterly Total Mileage					98.31	60.47	0.08	37.76	3.29
Yr. 2 Forth Quarter - July / September 2018									
41	12-22	Orlando			3.20	2.52		0.68	
51	30-22	Orlando			1.35	0.16		1.19	
53	14-16	Orlando			0.96	0.74		0.22	0.12
54	19-14, 32-11	Orlando			12.61	6.05		6.56	
55	27-221, 27-233	St. Cloud			17.65	14.89		2.76	
56	11-41	Orlando			8.99	7.42		1.57	0.41
57	5-24	Orlando			0.67	0.67			
58	4-23, 14-11, 14-22	Orlando			8.81	6.86		1.95	
59	21-24	Orlando			1.35	1.35			
60	3-24	Orlando			8.14	4.64		3.50	
61	14-34	Orlando			1.49	1.19		0.30	0.84
62	11-43	Orlando			7.11	5.91		1.20	0.45
63	28-214, 28-222, 32-222	St. Cloud			37.35	30.31		7.04	0.00
64	30-22, 30-36	Orlando			1.68	0.79		0.89	0.51
Quarterly Total Mileage					111.36	83.50	0.00	27.86	2.33
Annual Total Miles					421.21	292.35	0.08	128.78	27.76

2017 OUC Transmission Schedule - Urban (Annual Cycle) & Rural (3-Year Cycle) Completed Work

Annual Maintenance Schedule June 1, 2017 - May 30, 2018											
Treatment Cycle Year Two											
Urban ROW Corridors 1 - 19 TREATMENT ON AN ANNUAL CYCLE											
ROW Corridor Segment (Map)	OUC Line	Description	Structure Number Begin	Structure Number End	Miles Urban	Anticipated Date of Treatment	Date Assigned	Date Completed	Contractor Inventory Segment O/C Inspection	O/C Date Inspected OUC	
1	5-0212	Pine Hills to Country Club	1	48	3.2	01/08/18	06/01/17				
2	7-02FPC	Pine Hills to FPC at Dolores W/O Emeraldalda	1	27	1.1	01/08/18	06/01/17	2/10/18			
3	5-0214	Pine Hills to Turkey Lake	428	365	3.0	01/15/18	06/01/17	02/09/18			
4	5-1424	Turkey Lake to Southwood	362	343	1.8	01/15/18	06/01/17	02/09/18			
5	5-2405	South Term Sub 24 to	341	303	1.7	01/15/18	06/01/17	02/08/18			
6	5-0508 A	Southwood to Martin	260	201	2.8	No work	No Work	No Work			
	7-05FPC	Southwood to Windemere				No work	No Work	No Work			
7	5-0508 B	Southwood to Martin	1	14	1.8	01/22/18	06/01/17	01/20/18	REMOVED		
8	5-08-30	Martin to Counvention Center	14	16	0.4	01/22/18	06/01/17	01/20/18	REMOVED		
9	5-0405	Holden to Southwood	506	586	3.6	01/22/18	06/01/17	02/08/18			
10	5-0409	Holden to Michigan	2	78	3.2	01/22/18	06/01/17				
11	5-0910	Michigan to America (On Division)	56	132	3.7	01/22/18	06/01/17	02/07/18			
12	5-1013	America to Kaley	1	26	1.4	01/22/18	06/01/17	02/06/18			
13	5-1618	Michigan and Gowen to Bumby and Jersey	1	5	0.2	01/22/18	06/01/17	02/06/18			
14	5-0916	Michigan to Grant	1	52	2.3	01/22/18	06/01/17	02/05/18			
15	5-0609	Michigan to Pershing (Follows Raeford Rd)	2	93	5.5	01/29/18	06/01/17	02/03/18			
16	5-0616	Grant to Pershing	1	27	2.1	02/05/18	06/01/17				
17	7-622	Pershing to Sub 22 Term Site	135	157	3.4	02/05/18	06/01/17	01/31/18			
18	5-0306 A & B	Azalea to Pershing A & B	143	182	4.1	02/05/18	06/01/17	01/31/18			
19	4-27KISS	Shared W/ KUA	2	64	2.6	02/05/18	06/01/17	01/22/18			
Total Urban Annual Treatment Miles					48.1						
Rural ROW Corridors 22-27 TREATMENT ON A THREE YEAR CYCLE											
ROW Corridor Segment (Map)	OUC Line	Description	Structure Number Begin	Structure Number End	Miles Rural	Anticipated Date of Treatment	Date Assigned	Date Completed	Contractor Inventory Segment O/C Inspection	O/C Date Inspected OUC	
22	5-3025	Convention Ctr to Orangewood North Term	17	29	2.5	9/18/17	06/01/17	1/19/2018			
23	7-2615	Orangewood South Term to Taft	34	66	6.1	9/18/17	06/01/17				
24	7-15 / Cane Island	1/4 of the Lakeland Line Shared W/ KUA	258	220	6.4	9/7/17	06/01/17	1/18/2018			
25	Island / Osceola	1/4 of the Lake Land Line Shared W/ KUA	196	220	4.7	9/2/17	06/01/17	9/6/2017			
26	7-Osceola - Agnes	1/4 of the Lakeland Line Shared W/ TECO	196	66	21.5	7/21/17	06/01/17	02/03/18			
27	Agnes- McIntosh	1/4 of the LakeLand Line Shared W/ TECO	65	1	9.7	7/1/17	06/01/17	07/15/17			
Total Proposed Annual Treatment Miles					50.9						
Total Urban + Rural ROW Miles					99.0						

2018 OUC Transmission Schedule – Urban (Annual Cycle) & Rural (3-Year Cycle) Work Plan

Annual Maintenance Schedule June 1, 2018 - May 30, 2019											
Treatment Cycle Year Three											
Urban ROW Corridors 1 - 19 TREATMENT ON AN ANNUAL CYCLE											
ROW Corridor Segment (Map)	OUC Line	Description	Structure Number Begin	Structure Number End	Miles Urban	Anticipated Date of Treatment (Past Treatment)	Date Assigned	Date Completed	Contractor Inventory Segment O/C Inspection	O/C Date Inspected OUC	
1	5-0212	Pine Hills to Country Club	1	48	3.2	1/7/15	06/01/18				
2	7-02FPC	Pine Hills to FPC at Dolores W/O Emeraldal	1	27	1.1	1/7/15	06/01/18				
3	5-0214	Pine Hills to Turkey Lake	428	365	3.0	1/7/15	06/01/18				
4	5-1424	Turkey Lake to Southwood	362	343	1.8	1/7/15	06/01/18				
5	5-2405	Southwood Sub 5	341	303	1.7	1/7/15	06/01/18				
6	5-0508 A (KingsPointe) East Line	Southwood to Windemere	260	201	2.8	1/7/15	06/01/18				
	7-05FPC	Southwood to Windemere				1/7/15	06/01/18				
7	5-0508 B	Southwood to Martin	1	14	1.8	REMOVED	06/01/18				
8	5-08-30	Martin to Couvention Center	14	16	0.4	REMOVED	06/01/18				
9	5-0405	Holden to Southwood	506	586	3.6	1/7/15	06/01/18				
10	5-0409	Holden to Michigan	2	78	3.2	1/7/15	06/01/18				
11	5-0910	Michigan to America (On Division)	56	132	3.7	1/7/15	06/01/18				
12	5-1013	America to Kaley	1	26	1.4	1/7/15	06/01/18				
13	5-1618	Michigan and Gowen to Bumby and Jersey	1	5	0.2	1/7/15	06/01/18				
14	5-0916	Michigan to Grant	1	52	2.3	1/7/15	06/01/18				
15	5-0609	Michigan to Pershing (Follows Raeford Rd)	2	93	5.5	1/7/15	06/01/18				
16	5-0616	Grant to Pershing	1	27	2.1	1/7/15	06/01/18				
17	7-622	Pershing to Sub 22 Term Site	135	157	3.4	1/7/15	06/01/18				
18	5-0306 A & B	Azalea to Pershing A & B	143	182	4.1	1/7/15	06/01/18				
19	4-27KISS	Shared W/ KUA	2	64	2.6	12/30/14	06/01/18				
Total Urban Annual Treatment Miles					48.1						
1/3 of Rural ROW Corridors (28 thru 33) - THREE YEAR CYCLE											
ROW Corridor Segment (Map)	OUC Line	Description	Structure Number Begin	Structure Number End	Miles Rural	Anticipated Date of Treatment (Past Treatment)	Date Assigned	Date Completed	Contractor Inventory Segment O/C Inspection	O/C Date Inspected OUC	
28	7-1517	Sub 15 to Sub 17	67	180	23.9		06/01/18				
	7-SEC-1	Stanton Unit 1 Generator									
	7-SEC-2	Stanton unit 2 Generator									
	7-17RAT2	SEC Reserve Aux Trans 2									
	7-17RAT1	SEC Reserve Aux Trans 1									
	7-1731	Sub 17 to SEC A									
	7-1736	Sub 17 to SEC B	TBD	TBD	TBD						
	7-15 19	Taft to Airport Industrial Park	1A	14							
	7-2332	Sub 32 to Sub 23 South Term Site	102A	109							
29	4-2728	Central to North	1	120	8.6	03/28/15	06/01/18				
30	4-2829				7.6	06/04/15	06/01/18				
31	7-29FPC	North to Holopaw	1	69	8.1	03/26/15	06/01/18				
32	5-2933	Sub 29 to Sub 33			10.8	06/01/12	06/01/18				
33	5-3327	Termination			4.7	06/01/12	06/01/18				
Total Proposed Annual Treatment Miles					39.8						
Total Urban + Rural ROW Miles					87.9						

6. Storm Hardening Research

Orlando Utilities Commission is a member of the Florida Municipal Electric Association (FMEA), which is participating with all of Florida's electric utilities in storm hardening research through the Public Utility Research Center at the University of Florida. Under separate cover, FMEA is providing the FPSC with a report of research activities. For further information, contact Amy Zubaly, Executive Director, FMEA, 850-224-3314, ext.7, or azubaly@publicpower.com.