Clay Electric Cooperative, Inc.

February 21, 2017

Penny Buys
Florida Public Service Commission
2540 Shumard Oak Boulevard
Tallahassee, Florida 32399-0850
pbuys@psc.state.fl.us

Re: Standards of Construction Report pursuant to Rule 25-6.0343, F.A.C.

Dear Ms. Buys:

Enclosed is Clay Electric Cooperative, Inc.'s, report to the Florida Public Service Commission as required by Rule 25-6.065 F.A.C. for the calendar year 2016.

Also enclosed is Clay Electric Cooperative, Inc.'s reliability data for the calendar year 2016. This is a voluntary filing Clay agreed to provide using readily available data. As Clay has state before we do not have sufficient data to calculate MAIFIe therefore this indices is not furnished.

Should you have any questions, about these filings please do not hesitate to contact me.

Sincerely,

Frank R Holmes

Frank R. Holmes, P.E.
Director of Engineering

FH/ra

Clay Electric Cooperative, Inc.
Outage Data for 2016

1. Table of Outage Events by Cause

CauseCode	Number
Unknown Cause	1640
Tree/Limb-Green	1379
Tree/Limb-Dead	671
Animal	669
Defective Equipment	657
Consumer Problem	415
Bad Transformer	366
Tree/Limb Sec./Service	308
Damaged By Man	219
Car Hit Pole	93
Bad Primary URD	71
Wire Down	71
Overloaded Equipment	41
Bad Secondary	40
Bad R/W	18
Consumer Caused	7

2. Tables of Actual and Adjusted Outage Indices

The tables do not include the MAIFIe indice because Clay does not collect momentary data on its over 1,900 down line reclosures.

a.) Adjusted Outage Indices

Category	2016 Adjusted
SAIDI (Minutes)	230.91
CAIDI (Minutes)	81.26
SAIFI (Events)	2.84
L_Bar (Minutes/Outage)	111.27
CEMI5 (Cust>5 Events)	16,982

b.) Actual Outage Indices

Category	2016 Actual
SAIDI(Min)	1506.47
CAIDI(Min)	250.45
SAIFI	6.01
L_Bar (Minutes)	403.02
CEMI5 (Cust>5 Events)	47,222

Clay Electric Cooperative, Inc.
Report to the Florida Public Service Commission
Pursuant to Rule 25-6.0343, F.A.C.
Calendar Year 2016

1. Introduction

Utility: Clay Electric Cooperative, Inc.
PO Box 308
Keystone Heights, FL 32656

Contact: Frank Holmes, Director of Engineering
Phone: (352) 473-8000 ext. 8319
Fax: (352) 473-1319
Email: fholmes@clayelectric.com

2. Number of meters served:

Approximately 178,000

3. Standards of Construction:

a.) National Electric Safety Code Compliance

Clay's construction standards, policies, guidelines, practices, and procedures comply with the National Electrical Safety Code (ANSI C-2) [NESC]. Electrical facilities constructed on or after February 1, 2007 will be in compliance with the 2007 NESC. Electrical facilities constructed prior to February 1, 2007 are governed by the edition of the NESC in effect at the time of the facility's initial construction.

b.) Extreme Wind Loading Standards

Clay's construction standards, policies, guidelines, practices, and procedures for transmission facilities are guided by the extreme wind loading standards specified by Figure 250-2(d) of the 2007 edition of the NESC for transmission lines built after adoption of the 2007 NESC. Any transmission lines rebuilt or relocated since adoption of 2007 NESC has also been designed to the extreme wind loading standards.

Clay's construction standards, policies, guidelines, practices, and procedures for distribution facilities are not designed to be guided by the extreme wind loading standards specified by Figure 250-2(d) except as required by rule 250-C. Clay's experiences in the 2004 hurricanes did not indicate a need to go to the extreme wind loading standards. However, Clay is participating in the Public Utility Research Center's (PURC) granular wind research study through the Florida Electric Cooperative Association (FECA). Clay did attend the organized workshop held in Tampa on September 29, 2016. The

PURC report dated 2017 is attached for reference purposes. Though Clay intends to continue to self-audit and evaluate our system to determine any immediate needs for system upgrades and hardening in isolated areas, Clay will consider the results of the PURC research before making any final commitments. At this time Clay does not have sufficient evidence or data to support the cost and effort required to increase our design standards to comply with the extreme wind loading.

c.) Flooding and Storm Surges

Clay is a non-coastal utility; therefore, storm surge is not an issue. Clay does experience minor localized flooding on underground and supporting overhead facilities. Clay continuously evaluates these flood prone areas for possible solutions. Clay is participating through the FECA in the PURC studies on the conversion of overhead electric facilities to underground and the effectiveness of underground facilities in preventing flood damage and outages. Clay will consider the results of this study before making final commitments on system hardening for flooding.

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

Clay's practice since the 1970's has been to construct our underground and overhead facilities in subdivisions along lot lines adjacent to public/private roadways to facilitate safe and efficient access for installation, operation, and maintenance. In other locations Clay's policies, guidelines, practices, and procedures provide for placement of new and replacement facilities along roadways or areas readily accessible by our crews and vehicles to ensure efficient and safe operation and maintenance.

e.) Attachments by Others:

The pole attachment agreements between Clay and third-party pole attachment companies include language which specifies that the attached, not the cooperative, has the burden of assessing pole strength and safety before they attach to the pole. Clay periodically performs follow-up audits of attachments to ensure the attachment is properly installed. In 2015 Clay performed a complete attachment inspection and count. This inspection and count did not assess pole strength and safety, only attachment quantities. As of 12/31/2016, twelve (12) distinct utilities have over 114,000 attachments on Clay poles.

4. Facility Inspections:

Transmission

a.) Clay currently owns and maintains (1889) transmission structures consisting of (2636) total poles broken down as follows: (1697) wood, (925) concrete and (14) steel. Wood transmission poles that are deemed as needing to be replaced are evaluated and considered for upgrade to concrete.

Clay prior to 2007 was on a ten (10) year ground line pole inspection cycle for all wooden transmission poles. The inspection method used involves the sound and bore technique including excavation at the ground line per RUS guidelines. In 2016, Clay reviewed the ground line transmission pole inspection program and decided to continue the ten (10) year inspection cycle in the future. A complete ground line inspection was completed in 2016.

In keeping with the 2007 internal review of its ground visual patrol, climbing inspection and helicopter inspections, Clay initiated a complete climbing inspection of every transmission structure in 2008. This climbing inspection will continue on a four (4) year cycle. Offset from the four (4) year climbing inspection cycle will be a two (2) year ground patrol visual inspection cycle. Should a complete ground patrol scheduled inspection coincide with a complete climbing inspection, the ground patrol inspection will be forgone in favor of the complete climbing inspection. A climbing inspection was performed in 2016. A ground patrol inspection was performed in 2015.

b.) Clay performed a ground line transmission pole inspection in 2016 that consisted of 1697 wood poles resulting in two (2) rejects and 263 maintenance items.

c.) Clay performed a complete ground patrol inspection in 2016 and its next ground patrol inspection will be done in 2018 since a complete climbing inspection was performed in 2016.

During the 2013 review of its ground visual patrol, climbing inspection and helicopter inspections, Clay deemed it necessary to perform helicopter inspections of every structure one time a year. Helicopter inspections are typically performed in June.

d.) Clay performed one (1) complete helicopter inspection in 2016. The helicopter inspection was performed in April. A total of 1,889 structures were inspected consisting of 2,636 poles. Attached is a copy of the maintenance logs for the inspections.

e.) The 2016 inspections found 263 of the total poles inspected required some form of maintenance. Seven (7) poles of the 2,636 total system poles were replaced of height-class as follows: (1) 50-1, (3) 55-1 and (3) 60-1. Attached is a copy of the Maintenance Work Summary 2016. All maintenance will be completed by end of second quarter in 2017.

f.) The inspections identified thirty-two (32) locations where trees endangered the lines. These have been corrected.

Distribution

a.) Clay owns and maintains approximately 214,000 distribution poles on it system.

Clay prior to 2007 was on a ten year ground line inspection cycle for all wooden distribution poles. The inspection program consists of excavation and sound and bore at the ground line according to RUS guidelines as well as a visual inspection of the of the pole for other maintenance items. This inspection cycle covered all distribution poles regardless of treatment type.

In 2008 Clay revised the inspection cycle to eight (8) years. This revised cycle uses a phased-in approach that resulted in a few years with cycle times of ten (10) years until the transition to the eight (8) year inspection cycle was completed in 2013.

In 2016 Clay evaluated its overall pole inspection and maintenance program and revised it to consist of two separate pole inspection programs. The first inspection program will be the groundline inspection program as described in the first paragraph of section (a) above. The second inspection program, the System Feeder Inspection, is to consist of a total inspection of all distribution poles, excluding the groundline. The objective of this inspection is to address a variety of pole related issues such as pole and pole top maintenance, pole loading, NESC code and joint use violations and include service related issues such as arresters, transformers and other pole mounted equipment.

Each of the two pole inspection programs will be performed on a ten (10) year cycle with the one offsetting the other by five (5) years. The result is all distribution poles being inspected every five (5) years.

The overall program objective is to focus on system improvement and maintenance associated with the distribution feeders scheduled for the particular cycle year with the expectation that this will generate a balanced workload across the system.

b.) In 2016, the System Feeder Inspection and the Groundline Pole Inspections were performed. The total number of distribution poles inspected in 2016 was 36,175.

c.) Clay inspected 36,175 distribution poles in 2016. A summary of the rejects and reason for failure is listed below. In addition a summary of pole maintenance items by type has been included.

2016 Pole Inspection				
Summary of Reject Poles by Cause				
Description	Quantity of Rejects	% of Total Poles Inspected	Remediation	Completed Quantity
DANGER	4	0.01%	Replacement	4
Ground Rot	8	0.02%	Replacement	2
Holes High	41	0.11%	Replacement	30
Int Rot	26	0.07%	Replacement	7
Split Top	417	1.15%	Replacement	360
Storm Damage	1	0.00%	Replacement	1
SysImprove	2	0.01%	Replacement	2
Top Decay	547	1.51%	Replacement	196
Totals:	**1046**	**2.89%**	Replacement	**602**

2016 Pole Inspection			
Summary of Maintenance Items by Type			
Description	Quantity	% of Total Maintenance Items	Completed Quantity
2Way Feed	1	0.00%	2
Arrestor	63	0.17%	37
Bear Wrap	2	0.01%	3
Bent/Bow	54	0.15%	36
Bond Wire	196	0.54%	133
Bonding	563	1.56%	554
Bondwire Repair	23	0.06%	159
Bondwire Replace	73	0.20%	106
Brace	23	0.06%	7
Broken Guy	30	0.08%	18
Clearance	53	0.15%	28
Climb/Insp	2717	7.51%	926

CrossArm	73	0.20%	18
Frayed Neu	0	0.00%	0
Frayed Prim	0	0.00%	0
Guy Guard	49	0.14%	77
Holes/High	318	0.88%	122
Insulator	1	0.00%	2
Leaking Tx	4	0.01%	1
Leaning	285	0.79%	126
Line Down	6	0.02%	2
Line Low	97	0.27%	37
Loose Guy	51	0.14%	62
Loose Hrd	44	0.12%	37
Pole Loading	0	0.00%	0
R/W	241	0.67%	123
Rusted Tx	128	0.35%	59
S/L Day Burner	0	0.00%	0
S/L Globe	14	0.04%	13
S/L Ground	1	0.00%	46
Split Top	1685	4.66%	541
Srvc Hrd	48	0.13%	268
Srvc Loop	87	0.24%	64
St Light	29	0.08%	12
Stub Pole	159	0.44%	95
Top Decay	150	0.41%	16
U-Guard	63	0.17%	13
UnAuth Attach	16	0.04%	115
Totals:	**7347**	**20.31%**	**3858**

d.) On the attached CD or email the complete inspection report for each rejection and maintenance items is included. All rejections will be replaced by end of 2nd quarter of. All maintenance items will be completed by the end of the 2nd quarter of. Summary groupings by height and class are as follows:

2016 Pole Inspection					
Summary of Reject Poles by Height and Class					
Height	Class	Quantity of Rejects	% of Total Poles Inspected	Remediation	Completed Quantity
20	6	0	0.00%	Replacement	0
25	6	9	0.02%	Replacement	2

25	7	0	0.00%	Replacement	0
30	4	1	0.00%	Replacement	2
30	5	0	0.00%	Replacement	2
30	6	265	0.73%	Replacement	131
30	7	0	0.00%	Replacement	1
35	3	0	0.00%	Replacement	0
35	4	15	0.04%	Replacement	7
35	5	17	0.05%	Replacement	5
35	6	452	1.25%	Replacement	239
35	7	0	0.00%	Replacement	1
40	3	1	0.00%	Replacement	0
40	4	66	0.18%	Replacement	32
40	5	99	0.27%	Replacement	64
40	6	114	0.32%	Replacement	92
45	2	1	0.00%	Replacement	0
45	3	0	0.00%	Replacement	2
45	4	4	0.01%	Replacement	17
45	5	0	0.00%	Replacement	1
45	6	0	0.00%	Replacement	1
50	2	0	0.00%	Replacement	1
50	3	2	0.01%	Replacement	1
50	4	0	0.00%	Replacement	0
55	1	0	0.00%	Replacement	0
55	3	0	0.00%	Replacement	1
Total		**1046**	**2.89%**		**602**

2016 Pole Inspection					
Summary of Poles by Height and Class with Maintenance Items					
Height	Class	Quantity of Maintenance	% of Total Poles Inspected	Remediation	Completed Quantity
20	5	0	0.00%	Maintenance	0
20	6	7	0.02%	Maintenance	0
20	7	0	0.00%	Maintenance	0
25	6	59	0.16%	Maintenance	13
30	4	1	0.00%	Maintenance	3
30	5	5	0.01%	Maintenance	11
30	6	1718	4.75%	Maintenance	882
30	7	1	0.00%	Maintenance	2
35	2	0	0.00%	Maintenance	1
35	3	0	0.00%	Maintenance	1
35	4	60	0.17%	Maintenance	44
35	5	54	0.15%	Maintenance	30
35	6	2017	5.58%	Maintenance	1015

35	7	0	0.00%	Maintenance	1
40	2	5	0.01%	Maintenance	5
40	3	1	0.00%	Maintenance	0
40	4	580	1.60%	Maintenance	239
40	5	1202	3.32%	Maintenance	616
40	6	902	2.49%	Maintenance	521
45	2	14	0.04%	Maintenance	7
45	3	9	0.02%	Maintenance	15
45	4	198	0.55%	Maintenance	131
45	5	3	0.01%	Maintenance	2
45	6	0	0.00%	Maintenance	2
50	1	8	0.02%	Maintenance	5
50	2	3	0.01%	Maintenance	5
50	3	42	0.12%	Maintenance	27
50	4	6	0.02%	Maintenance	0
55	1	4	0.01%	Maintenance	6
55	2	0	0.00%	Maintenance	1
55	3	1	0.00%	Maintenance	1
55	4	17	0.05%	Maintenance	0
60	1	0	0.00%	Maintenance	1
65	3	1	0.00%	Maintenance	0
65	6	1	0.00%	Maintenance	0
Total		**6919**	**19.13%**		**3587**

5. Vegetation Management

Transmission

a.) Clay's vegetation management program for the transmission rights-of-way consists of mowing, herbicide spraying, and systematic recutting. Clay performs all three methods on its entire transmission system. While Clay is doing systematic recutting on our transmission corridor, they attempt to remove any danger trees off right-of-way.

Clay's vegetation program has been very effective in keeping Clay's transmission system safe and reliable. During the hurricanes of 2004, Clay sustained no damage to its transmission system from vegetation.

Clay's systematic program for mowing and spraying is on a 3 year cycle while Clay's systematic recutting program is on a 3, 4, or 5 year cycle as needed.

A pdf file attachment of the complete transmission systematic mowing, spraying and recutting schedule is listed under "ROW 2016 Work Schedule."

b.) In 2016, Clay met or exceeded its scheduled mowing, spraying and systematic recutting on the transmission system. Clay mowed 51.97 miles of transmission right-of-way in 2016. Clay exceeded its goal by spraying 56.44 of 46.04 miles miles of transmission right of way in 2016. In 2016 Clay exceeded its goal by recutting 44.38 of 44.1 miles of transmission right-of-way. Attached are files of Clay's mowing, spraying, and recutting program for 2016.

Distribution

a.) Clay owns and operates over 7,800 miles of overhead primary distribution lines. All of our primary lines are under our vegetation management program.

Clay's vegetation management program has been developed taking into account the widely different service areas Clay serves. Presently Clay's vegetation management program consists of a three-year cycle (city), a four-year cycle (urban) and a five-year cycle (rural) for all its distribution primary circuits. The average time for the three cycles is 4.6 years. The reason for the difference in cycle times is simply the difference between re-growth speed and trimming clearance. In the city areas Clay often cannot get the full 10' – 12' clearance Clay desires, plus these areas often have more water and fertilizers due to residential sprinkling and fertilizing. At the other extreme in rural areas Clay can often get the full 10' – 12' clearance plus much of the trees in these areas get only rain and not fertilizer. Every distribution primary feeder Clay has is assigned to one of these cycles and a schedule is developed to ensure completion of the cycle. On the attached CD or email is the complete right-of-way systematic recut plan. Annually after a feeder is recut, Clay's arborist evaluates the clearance obtained and the expected re-growth speed to establish the cycle for the next recut. The

next recut could be 3, 4, or 5 years. Therefore, each year Clay's arborist evaluates a feeder's cycle and adjusts the cycle as needed to ensure safe and reliable operation of Clay's feeders.

Clay's Vegetation Management Program is a clear cut right-of-way maintenance program combined with mowing and spraying to provide a safe and reliable distribution system. Clay has approximately 1% of its feeder miles under a three-year cycle, 33% under a four-year cycle, and the remaining 66% is under a five-year cycle.

Clay has a Pre-Cycle Vegetation Maintenance Program consisting of annual inspections of all the distribution feeders for areas that may have the potential to cause an outage before the next cycle year. If Clay finds areas that need to be trimmed to carry the feeder to the next year, these areas will be trimmed on the Pre-Cycle Maintenance Program.
Clay's Dead/Danger Tree Removal Program is with annual inspections of the Pre-Cycle Maintenance Program. Clay also receives requests from members throughout the year for removal of dangerous trees. All of these are field inspected by Clay and action taken as required.

Before Clay begins recutting a feeder, Clay places a bill insert announcing the beginning of recutting in those accounts affected. A copy of the insert is attached.

Clay has a vegetation management webpage on its' web site at www.clayelectric.com that explains Clay's Vegetation management Program in detail for consumers.

Clay also has several publications it produces to educate the public on Clay's right-of-way clearing program. These consist of a Tree Maintenance Notification door hanger as well as a brochure titled "Keeping the Lines Clear". These are given to members when ever a member asks or when Clay needs to cut danger trees or vegetation that is not on an easement of Clay's. Both publications are available on the vegetation management web page. A copy of each is attached.

Clay also produces a guide titled "Landscape Planning" which describes ways to landscape within or near the right-of-way that would be compatible with the right-of-way but yet still provide a safe and beautiful landscape. A copy of the guide is attached.

Clay also has a systematic vegetation mowing and herbicide spraying program of three year cycles each.

Clay's Vegetation Management Program addresses all areas of vegetation from landscape planting to danger tree removal. Clay has been following this program diligently for many years now. While tree limbs are still one of Clay's largest outage causes, Clay is confident its vegetation management program is an effective way to provide for a safe and reliable distribution system. Clay strongly feels the 3, 4, or 5 year cycle they have developed and follow is a realistic

program to implement. Reducing the cycle times in Clay's opinion without regard to clearance and re-growth would not result in a significantly safer or reliable distribution system.

b.) In 2016 Clay met its goal by mowing 2336.33 miles of its distribution circuits. Clay's vegetation spraying program covered 2,420.95 miles of its distribution circuits which exceeded Clay's goal by 5%. Clay's systematic vegetation recut program met its goal of covering 2006.13 miles of its distribution circuits. There was no carryover from 2016 into 2017. Clay's systematic vegetation recut, mowing, and spraying programs for 2016 is recorded in detail on the attached pdf files.

6.) **Storm Hardening Research**

Attached is the "Report on Collaborative Research for Hurricane Hardening" provided by the University of Florida's Public Utility Research Center (PURC) February 2017 updating activities on Storm Hardening Research.

W:/Engineering/OSERV/DOC/Report to Florida PSC 2016

Report on Collaborative Research for Hurricane Hardening

Provided by

The Public Utility Research Center
University of Florida

To the

Utility Sponsor Steering Committee

February 2017

I. Introduction

The Florida Public Service Commission (FPSC) issued Order No. PSC-06-00351-PAA-EI on April 25, 2006 (Order 06-0351) directing each investor-owned electric utility (IOU) to establish a plan that increases collaborative research to further the development of storm resilient electric utility infrastructure and technologies that reduce storm restoration costs and outages to customers. This order directed IOUs to solicit participation from municipal electric utilities and rural electric cooperatives in addition to available educational and research organizations. As a means of accomplishing this task, the IOUs joined with the municipal electric utilities and rural electric cooperatives in the state (collectively referred to as the Project Sponsors) to form a Steering Committee of representatives from each utility and entered into a Memorandum of Understanding (MOU) with the University of Florida's Public Utility Research Center (PURC). The third extension of this MOU was approved last year by the Research Collaboration Partners and now extends through December 31, 2018.

PURC manages the work flow and communications, develops work plans, serves as a subject matter expert, conducts research, facilitates the hiring of experts, coordinates with research vendors, advises the Project Sponsors, and provides reports for Project activities. The collaborative research has focused on undergrounding, vegetation management, hurricane-wind speeds at granular levels, and improved materials for distribution facilities.

This report provides an update on the activities of the Steering Committee since the previous report dated February 2016.

II. Steering Committee Workshop

On September 29, the Steering Committee organized a workshop for 26 participants from the Project Sponsors at TECO Plaza in Tampa. The workshop was held to orient new members on the work that the cooperative has accomplished, and to serve as a forum for new ideas in the field of storm preparedness and outage response.

The opening speaker was Matt Corey from Weatherflow, Inc. who discussed their wind monitoring network "HurrNet." The network consists of approximately 90 wind monitoring stations, 44 in Florida, and 21 on utility property. This data is available at no charge to the Project Sponsors. He also outlined Weatherflow's new capabilities, specifically their StormTrack/StormPrint model (on which he displayed, ironically, Hurricane Matthew) and their new line of Smart Weather weather stations for domestic to commercial users.

Next was Ted Kury from PURC with an update on the undergrounding model developed by the Project Sponsors. The current capabilities, which include both probabilistic and deterministic modeling, were reviewed.

The next item on the agenda was a roundtable on vegetation management. Participants discussed current procedures and best practices. All noted that utilities continue to face challenges regarding access to facilities that need to be managed, particularly within municipal boundaries due primarily to municipal codes. Some noted that municipalities may not be aware of the impact that their codes may have on system reliability, and that education is critical in these areas. Each utility then outlined their current trim cycle and approach. Finally, the participants discussed the evolution of customer expectations regarding communications with their utilities.

Next on the agenda was a discussion on the collection and usage of forensic storm damage data. Participants reviewed the existing platform and data framework.

Finally, the participants engaged in a roundtable discussion of topics that might be explored further in future workshops, and discussed the importance and the form of follow-up efforts.

Overall, the participants left the workshop with a greater appreciation and understanding of the work conducted at the various transmission and distribution segments of the Florida utilities.

III. Undergrounding

The collaborative research on undergrounding has been focused on understanding the existing research on the economics and effects of hardening strategies, including undergrounding, so that informed decisions can be made about undergrounding policies and specific undergrounding projects.

The collaborative has refined the computer model developed by Quanta Technologies and there has been a collective effort to learn more about the function and functionality of the computer code. PURC and the Project Sponsors have worked to fill information gaps for model inputs and significant efforts have been invested in the area of forensics data collection. Since the state has

not been affected by any hurricanes since the database software was completed, there is currently no data. Therefore, future efforts to refine the undergrounding model will occur when such data becomes available.

In addition, PURC has worked with doctoral and master's candidates in the University of Florida Department of Civil and Coastal Engineering to assess some of the inter-relationships between wind speed and other environmental factors on utility equipment damage. PURC has also been contacted by engineering researchers at the University of Wisconsin and North Carolina State University with an interest in the model, though no additional relationships have been established. In addition to universities, PURC was again contacted by researchers at the Argonne National Laboratory who expressed interest in modeling the effects of storm damage. The researchers developed a deterministic model, rather than a probabilistic one, but did use many of the factors that the Collaborative have attempted to quantify. They are currently working to incorporate stochastic elements into their model and have consulted PURC for guidance. Every researcher that contacts PURC cites the model as the only non-proprietary model of its kind.

The research discussed in previous years' reports on the relationship between wind speed and rainfall is still under review by the engineering press. Further results of this and related research can likely be used to further refine the model.

IV. Wind Data Collection

The Project Sponsors entered into a wind monitoring agreement with WeatherFlow, Inc., in 2007. Under the agreement, Florida Sponsors agreed to provide WeatherFlow with access to their properties and to allow WeatherFlow to install, maintain and operate portions of their wind monitoring network facilities on utility-owned properties under certain conditions in exchange for access to wind monitoring data generated by WeatherFlow's wind monitoring network in Florida. WeatherFlow's Florida wind monitoring network includes 50 permanent wind monitoring stations around the coast of Florida, including one or more stations located on utility-owned property. The wind monitoring agreement expired in early 2012; however, the wind, temperature, and barometric pressure data being collected at these stations is being made available to the Project Sponsors on a complimentary basis.

V. Public Outreach

In last year's report we discussed the impact of increasingly severe storms on greater interest in storm preparedness. PURC researchers continue to discuss the collaborative effort in Florida with the engineering departments of the state regulators in Connecticut, New York, and New Jersey, Pennsylvania, and regulators in Jamaica, Grenada, Curacao, Samoa, and the Philippines. While all of the regulators and policymakers showed great interest in the genesis of the collaborative effort, and the results of that effort, they have not, at this point, shown further interest in participating in the research effort.

VI. Conclusion

In response to the FPSC's Order 06-0351, IOUs, municipal electric utilities, and rural electric cooperatives joined together and retained PURC to coordinate research on electric infrastructure hardening. The steering committee has taken steps to extend the research collaboration MOU so that the industry will be in a position to focus its research efforts on undergrounding research, granular wind research and vegetation management when significant storm activity affects the state.