

**Homestead Energy Services  
Homestead, Florida  
Storm Hardening Report to the Florida Public Service  
Commission Pursuant to Rule 25-6.0343, F.A.C.  
Calendar Year 2013**

**1) Introduction**

- a) *Homestead Energy Services, Homestead, Florida*
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**2) Number of customers served in calendar year 2013**

*22,317*

**3) Standards of Construction**

a) National Electric Safety Code Compliance

*Construction standards, policies, guidelines, practices, and procedures at Homestead Energy Services comply with the National Electrical Safety Code (ANSI C-2) [NESC]. For electrical facilities constructed on or after February 1, 2007, the 2007 NESC applies. 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

*Construction standards, policies, guidelines, practices, and procedures at Homestead Energy Services 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.*

*Homestead Energy Services is also participating in the Public Utility Research Center's (PURC) granular wind research study through the Florida Municipal Electric Association.*

c) Flooding and Storm Surges

*Electrical construction standards, policies, guidelines, practices, and procedures at Homestead Energy Services address the effects of flooding and storm surges on underground distribution facilities and supporting overhead facilities.*

*Homestead Energy Services is also participating in the Public Utility Research Center's (PURC) study on the conversion of overhead electric facilities to underground and the effectiveness of undergrounding facilities in preventing storm damage and outages through the Florida Municipal Electric Association*

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

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

*All new residential services are in the front lot and are underground.*

e) Attachments by Others

*Electrical construction standards, policies, guidelines, practices, and procedures at Homestead Energy Services include written safety, pole reliability, pole loading capacity, and engineering standards and procedures for attachments by others to the utility's electric transmission and distribution poles. All of these items are part of the Pole Attachment Agreements that Homestead Energy Services enters into with each attaching party.*

**4. Facility Inspections**

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

*All transmission poles are concrete.*

*Wooden distribution poles are inspected in accordance with standard industry guidelines including sound and bore and loading evaluations. HES employs a contractor to perform pole inspections on an eight-year cycle. All new wooden poles are CCA as are the majority of the poles currently installed in the system. Class II poles are used for new construction or for any Class IV poles that are found to be in need of replacement.*

*Annually, a thermographic inspection is performed on all of the feeder circuits and any problems noted are repaired. This inspection was completed in September, 2013.*

- b) Number and percentage of transmission and distribution inspections planned and completed for 2013.

*The entire transmission system was inspected in 2005. All transmission structures are concrete. These facilities are scheduled to be re-inspected in 2014*

*During the 2013/2014 pole inspection cycle, seven hundred and forty-one (741) wooden distribution poles were inspected. With this inspection, all of the poles in the system have been inspected at least once since, 2008, and some of them twice.*

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

*No transmission poles failed inspection in 2005. (Reference 4b)*

*Of the 741 distribution poles inspected, 120 failed the inspection or 16.9%. Of these, 60 poles are restorable and 60 are scheduled for replacement. The cause of the failures included shell rot, internal decay, and decayed/split tops. Above ground rejects accounted for 56 of the rejected poles, and grade level and below rejects numbered 64 poles.*

- d) Number and percentage of transmission poles and 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.

*Transmission Poles: None*

*Distribution Poles:*

- *Removed five (5) Class III poles that failed the inspection, but were no longer needed in the system*
- *Replaced thirty-nine (39) decayed Class III 40' poles with Class II poles*
- *Cut tops and lowered facilities on sixteen (16) Class III 40' poles*

## 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.

*Homestead Energy Services employs a contractor for tree trimming services. Homestead's geographic area is small and it is estimated that the entire system is trimmed on a two-year cycle. The City of Homestead recently enacted Code changes that require property owners to keep vegetation on private property trimmed to maintain six feet of clearance from HES facilities. There are no issues with vegetation management for transmission facilities.*

- b) Quantity, level, and scope of vegetation management planned and completed for transmission and distribution facilities.

*See 5a.*

## **6. Storm Hardening Research**

*Homestead Energy Services 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 Barry Moline, Executive Director, FMEA, 850-224-3314, ext. 1, or [bmoline@publicpower.com](mailto:bmoline@publicpower.com)*