

Jacksonville, Florida / JEA
Report to the Florida Public Service Commission Pursuant to
Rule 25-6.0343, F.A.C.
Calendar Year 2023

1) Introduction

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2. Number of meters served in calendar year 2023

JEA served approximately 522,469 electric meters in 2023.

2) Standards of Construction

a) National Electric Safety Code Compliance

JEA's construction standards, policies, guidelines, practices and procedures comply with the National Electrical Safety Code (ANSI C-2) [NESC]. For electrical facilities constructed on or after January 1, 2022, the 2023 NESC applies. Electrical facilities constructed prior to January 1, 2022, are governed by the respective edition of the NESC in effect at the time of the facility's initial construction.

b) Extreme Wind Loading Standards

JEA's construction standards, policies, guidelines, practices, and procedures are guided by the extreme wind loading standards specified by Figure 250-2(d) of the 2023 edition of the NESC for 1) new construction; 2) major planned work, including expansion, rebuild, or relocation of existing facilities; and 3) targeted critical infrastructure facilities and major thoroughfares. These standards primarily affect electric transmission structures 60 feet and taller, and require those structures to withstand winds up to 120 mph for JEA's service territory.

JEA has also participated in the Public Utility Research Center's (PURC) granular wind research study through the Florida Municipal Electric Association (FMEA).

c) Flooding and Storm Surges

JEA historically has experienced very little flooding of our distribution or substation facilities, even during storms and consequently has not developed specific policies or guidelines addressing the effects of flooding and storm surges on our underground distribution or supporting overhead facilities. JEA does have a written Storm Policy and associated procedures that address shutting down specific generating plants when a Category 3 storm or greater causes flooding or storm surges that threaten the safe operation of the plants.

JEA has also participated 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 FMEA.

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

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

During the design process, traffic patterns, trees, lot lines, environmental hazards and future customer needs in undeveloped areas are taken into consideration when determining the best location for poles and equipment. Consideration is also taken when designing circuits to ensure that line crews and troubleshooters will have a suitable means of approach in order to reach the facilities and equipment for the purpose of operation and maintenance. JEA's standard construction of vertical framing at the right-of-way line reinforces this by preventing overhang into private property and allowing bucket truck access to equipment on the back of the pole due to phase separation requirements. JEA has very few facilities requiring rear property line entrance and has not constructed any rear-entrance facilities in over 30 years.

e) Attachments by Others

JEA requires permits for all attachments by others to our poles. This permit requires the entity requesting to attach to a JEA pole to provide the design calculations to insure the addition of their attachment does not violate the requirements of the NESC in effect at the time of the request. In addition, attachments are generally limited to 7% of the total wind load capacity of the structure.

3. Facility Inspections

a) Describe the utility's policies, guidelines, practices, and procedures for inspecting transmission and distribution lines, poles, and structures including, but not limited to, pole inspection cycles and pole selection process.

Distribution - JEA continues to perform a visual inspection on an 8 year cycle on all poles and associated equipment such as conductor, insulators, arrestors, cross arms, transformers etc. Ground resistance (ohms) is measured on equipment ground rods. JEA uses the NESC standards for wood decay and reject status for the wood poles. Guided by

more than 10 years of accumulated data and experience, wooden poles older than 20 years are inspected at and below ground level with an IML Resistograph micro drill. This process detects unseen decay below ground without damaging the pole or disturbing the soil. Corrective maintenance is initiated as required on any device or pole found defective.

Transmission - JEA owns and maintains 240KV, 138KV and 69KV transmission circuits. Every transmission circuit is inspected on a 5-year cycle with the exception of “critical” N-1, 240KV circuits which are inspected on a 2-year cycle. JEA inspects on average approximately 20 transmission circuits per year. JEA’s transmission circuit inspections are performed in accordance with the JEA “Transmission Circuit Inspection Practices and Procedures” manual. JEA utilized a contractor to perform transmission circuit inspections prior to February 2013. In February 2013 JEA created, equipped, and staffed a five (5) man, one (1) foreman, “Transmission Crew” and self-performed transmission circuit inspections until October 2016 when JEA began utilizing a contractor to perform circuit inspections again.

b) Describe the number and percentage of transmission and distribution inspections planned and completed for 2023.

Distribution - During calendar year 2023, JEA planned to inspect 19,200 poles, approximately 12.8% of the nearly 150,000 distribution poles. JEA inspected 18,705 (~12.5%) poles.

Transmission - JEA is currently using a 5 year transmission circuit inspection cycle except for three (3) critical N-1 circuits. JEA completed 20 (1353 structures) circuit inspections in calendar year 2023. Of the 30 circuits inspected, 0 were critical N-1 circuits.

c) Describe the number and percentage of transmission poles and structures and distribution poles failing inspection in 2023 and the reason for the failure.

Distribution - Based on 2023 inspections JEA identified 2,222 defective distribution poles for replacement, a defect rate of 11.9%. Approximately 13.7% of the failures have ground decay, 91% of the failures have pole top decay or damage and .7% have middle decay or other damage such as damage caused by wildlife. Some poles have a combination of these defects.

Transmission - Based on the 2023 inspections, 27 poles were identified requiring replacement. 27- 69kV (wood) poles need replacement, 12- 69 kV (wood) poles needed repairs due to crossarm degradation, 1-69kV (wood) pole needed leg brace repairs and 1- 69 kV (wood) pole needed repairs due to gunshot damage.

d) Describe the 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 in 2023, including a description of the remediation taken.

Distribution – Based on 2023 Inspections: There were no poles listed as emergency poles to be replaced immediately. Two poles were categorized as “priority 2” poles (as soon as possible). All remaining poles found in 2023 were defined as priority 3 poles to be repaired or replaced “as time permits”. In 2023, 1766 poles were replaced.

Transmission – Based on previous circuit inspections: JEA replaced 29 poles (approximately .005% of all transmission poles-29/6074), 6 being 69 KV (wood) transmission poles and 23 being 138 KV (wood) poles and 0 being 230 KV (wood) poles in 2023. 27 poles were identified for future replacement based inspections performed in 2023. 0 poles were replaced in 2023 due to 2023 inspections as none were of immediate concern.

4. Vegetation Management

a) Describe the 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.

Transmission - JEA maintains transmission line clearances and reporting in accordance with the NERC Reliability Standard FAC-003 requirements. JEA Transmission and Forestry staff personnel review, make recommendations, and approve or deny landscape plans submitted on transmission easements. Hazard trees (dead, dying, severely leaning) outside of the defined easement area are removed or cut back to mitigate the potential risk of an impact to the electrical system. Property owners are notified in advance if the threat is not imminent, and if the tree(s) are in an urban maintained area. These practices ensure system reliability, and promotes customer satisfaction by not infringing on private property rights.

Distribution - JEA has maintained a 2.5-year trim cycle on feeder and lateral circuits until

since October 2006. In addition, mowing, hand-cutting, and herbicides are used where appropriate in order to manage fast growing, tall woody vegetation. JEA staff is actively involved with local, state, and national tree care professional organizations and advocacy groups for training as well, as informing, educating, and supporting customers and citizens.

b) Describe the quantity, level, and scope of vegetation management planned and completed for transmission and distribution facilities in 2023.

Transmission- All transmission corridor were inspected in order to create a work plan for vegetation maintenance such as mowing, pruning and removal of incompatible vegetation. All corridors that are compatible for mowing were mowed in 2023.

Distribution- JEA pruned 1097 circuit miles in 2023.

6. Storm Hardening Research

JEA 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 will provide the FPSC with a report of research activities. For further information, contact Amy Zubaly, Executive Director, FMEA, 850-224-3314, ext.1, or azubaly@flpublicpower.com.