

State of Florida



ORIGINAL

Public Service Commission

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COMMISSION
CLERK

-M-E-M-O-R-A-N-D-U-M-

DATE: April 3, 2006

TO: Blanca S. Bayó, Commission Clerk and Administrative Services Director

FROM: Lawrence D. Harris, Senior Attorney, Office of the General Counsel *L.D.H.*

RE: Docket Numbers 060172-EU and 060173-EU

Attached is an Agenda for the April 17, 2006, Staff Rule Development Workshop and proposed amendments to Rules 25-6.034, 25-6.064, 25-6.078, and 25-6.115, Florida Administrative Code. Please file the Agenda and Rules 25-6.034, 25-6.064, and 25-6.078 in both Dockets 060172-EU and 060173-EU. Please file the proposed rule amendments for 25-6.115 in Docket No. 060172-EU only.

In addition, please provide copies of the filings to the distribution list for all electric utilities (Investor Owned, Municipal, and Cooperative), as well as those persons who have requested to be copied with filings in the above two dockets. Please contact me at 413-6076 if you have any questions.

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FPSC-COMMISSION CLERK

Docket No. 060173-EU

Re: Proposed amendments to rules regarding overhead electric facilities to allow more stringent construction standards than required by National Electric Safety Code.

Docket No. 060172-EU

Re: Proposed rules governing placement of new electric distribution facilities underground and conversion of existing overhead distribution facilities to underground facilities, to address effects of extreme weather events.

At the February 27, 2006 Internal Affairs, the Commission directed staff to open rulemaking proceedings to:

- (1) Address requiring distribution facility standards higher than the National Electric Safety Code (NESC); and
- (2) Look at the cost and reliability of undergrounding electric facilities, with specific emphasis on identifying areas/circumstances where underground facilities may be appropriate.

Participants should be prepared to address the following topics at the April 17, 2006 staff rule development workshop.

AGENDA

April 17, 2006

Staff Rule Development Workshop

- A. Should the National Electric Safety Code be adopted as the minimum construction standard for all electric utility overhead and underground transmission and distribution facilities, including substations?
- B. Should existing transmission and distribution facilities continue to be governed by the edition of the NESC in effect at the time of initial construction? Should existing facilities be upgraded to the current NESC standards at the time of major expansions, maintenance/rebuild, or relocation?
- C. Should electric utilities be required to exceed the minimum requirements of the NESC to address known "hot spots" subject to repeated storm damage? If so, under what circumstances? What reporting and demonstration of prudence should be required? How should costs be recovered?
- D. Should all electric utilities be required to adhere to the extreme wind loading standards contained in the NESC in the design and construction of all transmission and distribution facilities, including substations?
- E. Should all electric utilities be required to establish construction standards for underground facilities capable of protecting such facilities from flooding and storm surges in areas designated

as Category 3 Surge Zones by the Department of Community Affairs, Division of Emergency Management?

F. How should the costs associated with meeting storm-hardened overhead and underground construction standards be reflected in Contribution-In-Aid-of-Construction (CIAC) calculations for (i) new construction, and (ii) conversion of existing overhead facilities to underground?

G. What are the costs, benefits, and rate impacts of implementing storm-hardened overhead construction standards?

H. What are the costs, benefits, and rate impacts of implementing storm-hardened underground construction standards?

I. Other issues.

J. Ongoing scheduling and procedural matters.

1 **PART III – GENERAL MANAGEMENT REQUIREMENTS**

2 **25-6.034 Standard of Construction.**

3 (1) Application and Scope. This rule is intended to define construction standards for
4 all overhead and underground electrical transmission and distribution facilities to ensure the
5 provision of adequate and reliable electric service for operational as well as emergency
6 purposes. The facilities of each the utility shall be constructed, installed, maintained and
7 operated in accordance with generally accepted engineering practices to assure, as far as is
8 reasonably possible, continuity of service and uniformity in the quality of service furnished.
9 This rule applies to all electric utilities, including municipal electric utilities and rural electric
10 cooperative utilities unless otherwise noted.

11 (2) The Commission adopts and incorporates by reference the 2002 edition of the
12 National Electric Safety Code (ANSI C-2), published August 1, 2001, as the minimum
13 construction standards for transmission and distribution facilities built by each electric utility.
14 Except as otherwise provided for in this rule, the standards shall be applicable to (a) new
15 construction and (b) the expansion, rebuild, or relocation of existing facilities for which a
16 work order number is assigned on or after the effective date of this rule. A copy of the 2002
17 NESC, ISBN number 0-7381-2778-7, may be obtained from the Institute of Electric and
18 Electronic Engineers, Inc.(IEEE)

19 (3) Distribution and transmission facilities constructed prior to the effective date of
20 this rule shall be governed by the applicable edition of the National Electric Safety Code in
21 effect at the time of the initial construction.

22 (4) In addition to the requirements of Sections (5) and (6) of this rule, an electric utility
23 may exceed the minimum requirements of the National Electric Safety Code (ANSI C-2) to
24 enhance reliability and reduce restoration costs and outage times associated with extreme
25 weather events. Each investor-owned electric utility electing to exceed minimum construction

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1 standards shall identify and report the effects on total system cost and reliability and shall
2 justify any resulting increase in rates charged to rate-payers.

3 (5) Notwithstanding the exception contained in Section 25.250.C., Extreme Wind
4 Loading, National Electric Safety Code, structures of 18 meters or less shall be designed to
5 withstand extreme wind speeds as specified by Figure 250-2(d) of the 2002 edition of the
6 National Electric Safety Code. The extreme wind loading standard shall be applicable to (a)
7 new structures, (b) the expansion, rebuild, or relocation of existing facilities for which a work
8 order is assigned on or after the effective date of this rule, and (c) targeted critical
9 infrastructure facilities and major thoroughfares taking into account political and geographical
10 boundaries and other applicable operational considerations.

11 (6) Each electric utility shall establish construction standards for underground
12 electrical facilities to enhance reliability and reduce restoration costs and outage times
13 associated with extreme weather events. Such construction standards shall assure, to the
14 extent practicable and cost-effective, that underground and supporting overhead electrical
15 facilities are protected from flooding and storm surges in areas designated as Category 3 Surge
16 Zones by the Department of Community Affairs, Division of Emergency Management. Such
17 construction standards shall be applicable to (a) new construction, (b) the expansion, rebuild,
18 or relocation of existing facilities for which a work order is issued on or after the effective date
19 of this rule, and (c) conversion of existing overhead facilities to underground.

20 (7) For initial installation, expansion, rebuild, or relocation of any investor-owned
21 electric utility facilities, utilities are required to use easements, public streets, roads and
22 highways which the utility has the legal right to occupy, and on public lands and private
23 property across which the rights of way and easements satisfactory to the utility have been
24 provided by the applicant by the time construction is required.

25 (8) For initial installation, expansion, rebuild, or relocation of any investor-owned

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1 electric utility facilities, including the conversions of existing overhead facilities to
2 underground facilities, all facilities shall be placed at the front edge of the property, unless the
3 utility demonstrates an operational need to use another location.

4 ~~(2) The Commission has reviewed the American National Standard Code for~~
5 ~~Electricity Metering, 6th edition, ANSI C-12, 1975, and the American National Standard~~
6 ~~requirements, Terminology and Test Code for Instrument Transformers, ANSI 57.13, and has~~
7 ~~found them to contain reasonable standards of good practice. A utility that is in compliance~~
8 ~~with the applicable provisions of these publications, and any variations approved by the~~
9 ~~Commission, shall be deemed by the Commission to have facilities constructed and installed~~
10 ~~in accordance with generally accepted engineering practices.~~

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1 PART IV – GENERAL SERVICE PROVISIONS

2 **25-6.064 ~~Extension of Facilities;~~ Contribution in Aid of Construction: Installation of New**
 3 **or Upgraded Facilities**

4 (1) ~~Purpose.~~ Application and scope: The purpose of this rule is to establish a uniform
 5 procedure by which investor-owned electric utilities ~~subject to this rule will~~ calculate amounts
 6 due as ~~contributions in aid of construction~~ contribution-in-aid-of-construction (CIAC) from
 7 customers who require new facilities, other than standard installations, or for upgrades to
 8 existing facilities resulting from changes in the customer’s demand on the system, extensions
 9 of distribution facilities in order to receive electric service, except as provided in Rule 25-
 10 6.078.

11 (2) ~~Applicability.~~ This rule applies to all investor owned electric utilities in Florida as
 12 defined in Section 366.02, F.S. Contributions in aid of construction Contribution-in-aid-of-
 13 construction shall be calculated as set forth below:

15		<u>Cost of</u>		<u>4 x nonfuel energy charge per</u>		<u>4 x expected annual</u>
16	<u>CIAC</u>	<u>=</u>	<u>installing the</u>	<u>=</u>	<u>kWh x expected incremental</u>	<u>demand charge revenues</u>
17			<u>facilities</u>		<u>annual kWh sales over the</u>	<u>from incremental sales over</u>
18					<u>new facilities</u>	<u>the new facilities</u>

19 (a) The cost of all new line extensions shall be the estimated work order job cost.

20 (b) There shall be no charge for the overhead transformer, service drop and meter for
 21 standard installations.

22 (c) The cost of new standard service underground laterals shall be the difference
 23 between the cost of a comparable overhead service drop and the cost of undergrounding the
 24 lateral.

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1 (d) The cost of upgrades to existing facilities shall be the estimated work order job
 2 cost including any costs of removal less any salvage.

3 (e) For customers in rate classes that pay only energy charges, demand charge
 4 revenues shall be zero.

5 (f) Expected demand charge revenues and energy sales shall be based on an annual
 6 period ending not more than five years after the extension is placed in service.

7 ~~(3) Definitions. Actual or estimated job cost means the actual cost of providing the~~
 8 ~~specified line extension facilities, calculated after the extension is completed, or the estimated~~
 9 ~~cost of providing the specified facilities before the extension is completed.~~

10 ~~(4) In developing the policy for extending overhead distribution facilities to customers,~~
 11 ~~the following formulas shall be used to determine the contribution in aid of construction owed~~
 12 ~~by the customer.~~

13 ~~(a) For customers in rate classes that pay only energy charges, i.e., those that do not~~
 14 ~~pay demand charges, the CIAC shall be calculated as follows:~~

15	CIAC _{oh} =	(Actual or estimated job cost for new poles and	(4 x nonfuel energy charge
16		conductors and appropriate fixtures require to	per KWH x expected annual
17		provide service, excluding transformers, service	KWH sales over the new line
18		drops, and meters)	facilities)

19
 20 ~~(b) For customers in rate classes that pay both energy charges and demand charges, the~~
 21 ~~CIAC shall be calculated as follows:~~

22	CIAC _{oh} =	(Actual or estimated job cost for	-	(4 x nonfuel	-	(4 x expected
23		new poles and conductors and	energy charge per	annual demand		
24		appropriate fixtures require to	KWH x expected	charge revenues		
25						

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1		provide service, excluding	annual KWH sales	from sales over
2		transformers, service drops, and	over the new line)	the new line)
3		meters)		

4

5 (e) Expected demand charge revenues and energy sales shall be based on an annual

6 period ending not more than five years after the extension is placed in service.

7 (5) In developing the policy for extending underground distribution facilities to

8 customers, the following formula shall be used to determine the contribution in aid of

9 construction.

10		(Estimated difference between the cost of providing the facilities		
11		distribution line extension, including not only the distribution		CIAC _{oh}
12	CIAC _{ug} =	line extension itself but also the transformer, the service drop,	-	(as
13		and other necessary fixtures, with underground facilities vs. the		above)
14		cost of providing service using overhead facilities)		

15

16 6) Nothing in this rule shall be construed as prohibiting a utility from collecting from a

17 customer the total difference in cost for providing underground service instead of overhead

18 service to that customer.

19 (7) In the event that amounts are collected for certain distribution facilities via the

20 URD differential tariff as permitted by Rule 25-6.078, F.A.C., that would also be collected

21 pursuant to this rule, the utility shall give an appropriate credit for such amounts collected via

22 the URD differential tariff when calculating the line extension CIAC due pursuant to this rule.

23 (4)(8) Each utility shall apply the above formulas in Paragraph (2) of this rule

24 uniformly to residential, commercial and industrial customers requiring requesting new or

25 upgraded facilitiesline extensions.

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1 (5) The costs applied to the formula in Paragraph (2) shall be based on the
2 requirements of Rule 25-6.034, Standards of Construction.

3 ~~(9) Each utility shall calculate an appropriate CIAC for line extensions constructed to~~
4 ~~serve customers who receive service at the primary distribution voltage level and the~~
5 ~~transmission voltage level consistent with paragraphs (4), (5), and (6) of this rule. This CIAC~~
6 ~~shall be based on the actual or estimated cost of providing the extension less an appropriate~~
7 ~~credit.~~

8 ~~(6)(10) Each~~ The utility shall use its best judgment in estimating the total amount of
9 revenues and sales which new or upgraded facilities each line extension is are expected to
10 produce in the a four-year time frame near future. In any dispute over the amount of the
11 estimated CIAC, the utility shall true-up the CIAC collected using actual costs and revenues
12 for a period not to exceed the four years used to develop the estimate.

13 ~~(7)(11)~~ The utility may elect to waive the ~~line extension~~ CIAC for customers, even
14 when a CIAC is found to be applicable owing. However, if the utility waives the CIAC, the
15 utility shall impute ~~Commission will reduce the utility's net plant in service by an equal~~
16 ~~amount for ratemaking purposes, as though the CIAC~~ as if it had been collected, except when
17 ~~the company's annual revenues from a customer are sufficient to offset the unpaid line~~
18 ~~extension CIAC under subsection (4) or (5).~~ Each utility shall maintain records of amounts
19 waived and any subsequent changes that served to offset the CIAC.

20 ~~(8)(12)~~ In cases where larger developments are expected to be served by the new or
21 upgraded facilities ~~line extensions~~, the utility shall ~~may~~ elect to prorate the total ~~line extension~~
22 costs and CIAC's owed over the largest number of customers expected to ~~connect to the new~~
23 line be served by the new or upgraded facilities in any four of the first five-year period the
24 facilities are in service.

25 ~~(9)(13)~~ A detailed statement of its standard facilities extension and upgrade policies

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1 shall be filed by each utility as part of its tariffs. ~~This policy~~ The tariffs shall have uniform
2 application and shall be nondiscriminatory.

3 ~~(10)(14)~~ If a utility and applicant are unable to agree ~~in regard to an extension on the~~
4 CIAC amount, either party may appeal to the Commission for a review.

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1 **PART V**
2 **RULES FOR RESIDENTIAL ELECTRIC UNDERGROUND EXTENSIONS**

3 **25-6.078 Schedule of Charges.**

4 (1) Each utility shall file with the Commission a written policy that shall become a part
5 of the utility's tariff rules and regulations on the installation of underground facilities in new
6 subdivisions. Such policy shall be subject to review and approval of the Commission and shall
7 include an Estimated Average Cost Differential, if any, and shall state the basis upon which
8 the utility will provide underground service and its method for recovering the difference in
9 cost of an underground system and an equivalent overhead system from the applicant at the
10 time service is extended. The charges to the applicant shall not be more than the estimated
11 difference in cost of an underground system and an equivalent overhead system.

12 (2) For the purposes of calculating the Estimated Average Cost Differential, costs
13 shall be estimated based on the requirements of Rule 25-6.034, Standards of Construction.

14 (3)~~(2)~~ On or before October 15th of each year each utility shall file with the
15 Commission's Division of Economic Regulation Form PSC/ECR 13-E, Schedule 1, using
16 current material and labor costs. If the cost differential as calculated in Schedule 1 varies from
17 the Commission-approved differential by plus or minus 10 percent or more, the utility shall
18 file a written policy and supporting data and analyses as prescribed in subsections (1), ~~(4)~~
19 and ~~(5)~~ of this rule on or before April 1 of the following year; however, each utility shall file
20 a written policy and supporting data and analyses at least once every three years.

21 (4)~~(3)~~ Differences in operating and maintenance costs between underground and
22 overhead systems, if any, shall ~~may~~ be taken into consideration in determining the overall
23 Estimated Average Cost Differential.

24 (5)~~(4)~~ Detailed supporting data and analyses used to determine the Estimated Average
25 Cost Differential for underground and overhead distribution systems shall be concurrently

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1 filed by the utility with the Commission and shall be updated using cost data developed from
2 the most recent 12-month period. The utility shall record these data and analyses on Form
3 PSC/ECR 13-E (10/97). Form PSC/ECR 13-E, entitled "Overhead/Underground Residential
4 Differential Cost Data" is incorporated by reference into this rule and may be obtained from
5 the Division of Economic Regulation, 2540 Shumard Oak Boulevard, Tallahassee, Florida
6 32399-0850, (850) 413-6900.

7 (6)~~(5)~~ Service for a new multiple-occupancy building shall be constructed underground
8 within the property to be served to the point of delivery at or near the building by the utility at
9 no charge to the applicant, provided the utility is free to construct its service extension or
10 extensions in the most economical manner.

11 (7)~~(6)~~ The recovery of the cost differential as filed by the utility and approved by the
12 Commission may not be waived or refunded unless it is mutually agreed by the applicant and
13 the utility that the applicant will perform certain work as defined in the utility's tariff, in which
14 case the applicant shall receive a credit. Provision for the credit shall be set forth in the
15 utility's tariff rules and regulations, and shall be no more in amount than the total charges
16 applicable.

17 (8)~~(7)~~ The difference in cost as determined by the utility in accordance with its tariff
18 shall be based on full use of the subdivision for building lots or multiple-occupancy buildings.
19 If any given subdivision is designed to include large open areas, the utility or the applicant
20 may refer the matter to the Commission for a special ruling as provided under Rule 25-6.083,
21 F.A.C.

22 (9)~~(8)~~ The utility shall not be obligated to install any facilities within a subdivision
23 until satisfactory arrangements for the construction of facilities and payment of applicable
24 charges, if any, have been completed between the applicant and the utility by written
25 agreement. A standard agreement form shall be filed with the company's tariff.

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1 (10)(9) Nothing herein contained shall be construed to prevent any utility from
2 assuming all cost differential of providing underground distribution systems, provided,
3 however, that such assumed cost differential shall not be chargeable to the general body of
4 rate payers, and any such policy adopted by a utility shall have uniform application throughout
5 its service area.

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1 **PART VII**
2 **UNDERGROUND ELECTRIC DISTRIBUTION FACILITY CHARGES**

3 **25-6.115 Facility Charges for Conversion of Existing Overhead ~~Providing Underground~~**
4 **~~Facilities of Public Distribution Facilities Excluding New Residential Subdivisions.~~**

5 (1) Each public utility shall file a tariff showing the non-refundable deposit amounts
6 for standard applications addressing ~~new construction~~ and the conversion of existing overhead
7 electric distribution facilities to underground facilities ~~excluding new residential subdivisions.~~

8 The tariff shall include the general provisions and terms under which the public utility and
9 applicant may enter into a contract for the purpose of ~~new construction or conversion of~~
10 existing overhead ~~electric~~ facilities to underground ~~electric~~ facilities. The non-refundable
11 deposit amounts shall ~~approximate~~ be consistent with the engineering costs for underground
12 facilities serving each of the following scenarios: urban commercial, urban residential, rural
13 residential, existing low-density single family home subdivision and existing high-density
14 single family home subdivision service areas.

15 (2) For the purpose of this rule, the applicant is the person or entity seeking the
16 undergrounding of existing overhead electric distribution facilities. In the instance when a
17 developer requests local government development approval, the local government shall not be
18 deemed the applicant for purposes of this rule.

19 (3) Nothing in the tariff shall prevent the applicant from constructing and installing all
20 or a portion of the underground distribution facilities provided:

- 21 (a) Such work meets the public utility's construction standards;
22 (b) The public utility will own and maintain the completed distribution facilities; and
23 (c) Such agreement is not expected to cause the general body of ratepayers to incur
24 greater costs.

25 (4) Nothing in the tariff shall prevent the applicant from requesting a non-binding cost

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1 estimate which shall be provided to the applicant free of any charge or fee.

2 (5) Upon an applicant's request and payment of the deposit amount, a public utility
3 shall provide a binding cost estimate for providing underground electric service.

4 (6) An applicant shall have at least 180 days from the date the estimate is received, to
5 enter into a contract with the public utility based on the binding cost estimate. The deposit
6 amount shall be used to reduce the charge as indicated in subsection (7) only when the
7 applicant enters into a contract with the public utility within 180 days from the date the
8 estimate is received by the applicant.

9 (7) The charge paid by the applicant shall be the charge for the proposed underground
10 facilities as indicated in subsection ~~(108)~~ minus the charge for overhead facilities as indicated
11 in subsection ~~(119)~~ minus the non-refundable deposit amount. The applicant shall not be
12 required to pay an additional amount which exceeds 10 percent of the binding cost estimate.

13 (8) For the purpose of this rule, the charge for the proposed underground facilities shall
14 include:

15 (a) The estimated cost of construction of the underground distribution facilities
16 including the construction cost of the underground service lateral(s) to the meter(s) of the
17 customer(s); and

18 ~~(b) For conversions, †~~The estimated remaining net book value of the existing facilities
19 to be removed less the estimated net salvage value of the facilities to be removed.

20 (9) For the purpose of this rule, the charge for overhead facilities shall be the estimated
21 construction cost to build new overhead facilities, including the service drop(s) to the meter(s)
22 of the customer(s). Estimated construction costs shall be based on the requirements of Rule
23 25-6.034, Standards of Construction.

24 (10) An applicant to a public utility for construction of underground distribution
25 facilities may petition the Commission pursuant to Rule 25-22.032, F.A.C.

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1 (11) Nothing in this rule shall be construed to grant any electric utility any right, title
2 or interest in real property owned by a local government.

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