BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Petition for approval of revised underground residential distribution tariffs, by Progress Energy Florida, Inc.	DOCKET NO. 080186-EI ORDER NO. PSC-08-0786-TRF-EI ISSUED: December 2, 2008

The following Commissioners participated in the disposition of this matter:

MATTHEW M. CARTER II, Chairman
LISA POLAK EDGAR
KATRINA J. McMURRIAN
NANCY ARGENZIANO
NATHAN A. SKOP

ORDER APPROVING REVISED UNDERGROUND DISTRIBUTION TARIFFS

BY THE COMMISSION:

BACKGROUND

Rule 25-6.078, Florida Administrative Code (F.A.C.), defines investor-owned utilities' (IOU) responsibilities for filing updated underground residential distribution (URD) tariffs. The URD tariffs provide standard charges for underground service in new residential subdivisions, and represent the additional costs the utility incurs to provide underground service in place of overhead service. The rule requires IOUs to file updated URD charges for our approval at least every three years, or sooner, if a utility's underground cost differential for the standard low-density subdivision varies from the last approved charge by 10 percent or more. Subsection (3) of the rule requires IOUs to file on or before October 15 of each year a schedule showing the increase or decrease in the differential for the standard low-density subdivision using current material and labor costs.

On October 12, 2007, Progress Energy Florida (PEF) notified us that its underground cost differential for the standard low-density subdivision varied from the last approved differential by 42 percent. To comply with the 10 percent filing requirement of Rule 25-6.078(3), F.A.C., PEF filed a petition for approval of revised underground residential distribution tariffs on April 1, 2008.

In Docket No. 060172-EU, we amended Rule 25-6.078, F.A.C., to require that the differences in net present value (NPV) of operational costs between underground and overhead systems, including average historical storm restoration costs over the life of the facilities, be taken into consideration in determining the URD differential.[1] Prior to the rule revision, URD charges were based on initial installation costs only and did not include the costs of maintenance

[1] See Order No. PSC-07-0043-FOF-EU, issued January 16, 2007, Docket No. 060172-EU, In 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.

or storm restoration activities over time. PEF's current URD tariffs were approved in 2006 and were calculated based on the prior rule. PEF's petition incorporates the requirements of amended Rule 25-6.078, F.A.C., for the first time, and includes the differences in operational and storm restoration costs between underground and overhead facilities.

We suspended PEF's proposed tariff by Order No. PSC-08-0333-PCO-EI, issued May 27, 2008. On August 25, 2008, PEF filed revisions to its proposed tariffs and workpapers that included certain corrections. We have jurisdiction over this matter pursuant to Sections 366.03, 366.04, 366.05, and 366.06, Florida Statutes.

DECISION

The URD charges represent the additional costs PEF incurs to provide underground distribution service in place of overhead service, and they are calculated as differentials between the cost of underground and overhead service. The cost of standard overhead construction is recovered through base rates of all ratepayers. In lieu of overhead construction, customers may request underground service. Costs for underground service have historically been higher than for standard overhead construction, and the additional cost is paid by the customer as a contribution-in-aid-of-construction (CIAC). Typically the URD customer is the developer of the subdivision. The URD tariffs provide standard charges for certain types of underground service, and they apply to new residential developments such as subdivisions and townhouses.

PEF developed URD charges based on three model subdivisions: (1) a 210-lot low-density subdivision with a density of one or more, but less than six, dwelling units per acre; (2) a 176-lot high-density subdivision with a density of six or more dwelling units per acre; and (3) a 176-lot high density subdivision with a density of six or more dwelling units per acre taking service at grouped meter pedestals. Examples of this last subdivision type include mobile home parks and R. V. parks. The four largest investor-owned electric utilities use the same standardized model subdivisions to develop their URD charges. While actual subdivision construction may differ from the model subdivisions, the model subdivisions are designed to reflect average overhead and underground subdivisions.

The following table shows PEF's current and proposed URD differentials. The charges shown are per-lot charges.

Table 1

	Current URD differential per lot	Proposed URD differential per lot	Percent Change
210-lot low density	$428	$524	+22%
176-lot high density	$256	$465	+82%
176-lot ganged meters	$165	$245	+48%

To calculate the proposed URD charges, PEF first revised the charges to reflect 2007 labor and material costs. This is how the traditional installed cost of the underground project has been calculated. In addition to the initial installation costs, PEF's proposed URD charges now incorporate the requirements of Rule 25-6.078(4), F.A.C., which requires differences in net present value of operational costs between underground and overhead systems, including average historical storm restoration costs over the life of the facilities, to be taken into consideration in determining the difference in the cost of an underground system and an equivalent overhead system. The rule revision was intended to capture longer term costs and benefits of undergrounding.

The effect of each of the calculations on the URD differential is shown in Table 2, and addressed separately below.

Table 2

Line		210-lot low density subdivision	176-lot high density subdivision	176-lot ganged meters subdivision
A.	Current URD differential per lot	$428	$256	$165
B,	Impact of updated material and labor costs	$89	$108	($46)
C.	Impact of operational costs differential	$144	$169	$190
D.	Impact of storm restoration costs differential	($137)	($67)	($64)
E.	Proposed URD charge per lot (A+B+C+D)	$524	$465	$245

Updated labor and material costs

Subsection (1) of Rule 25-6.078, F.A.C., prescribes that the URD differential is developed by estimating the cost difference between building an underground system and an equivalent overhead system based on the utility's standard engineering and design practices. The installation costs of both underground and overhead service include the material and labor costs to provide primary, secondary, and service distribution lines, and transformers. The cost to provide overhead service also includes poles. The cost to provide underground service includes the cost of trenching and backfilling. The utilities are required to use current cost data.

Labor and material costs increased in 2007. PEF states that the contract labor rates increased by 3.5 percent for overhead, and increased by 7 percent for underground in 2007. PEF

further states that overhead materials increased an average of 15 percent in 2007, while underground materials increased 18 percent in 2007. The cost of transformers increased due to rising costs of steel and copper commodities. Specifically, PEF states that underground transformer costs increased by 41 percent from 2006 to 2008, while overhead transformer costs increased by 31% for the same time period. The larger percentage increase in underground labor and material costs compared to overhead labor and material costs, results in a net increase in the URD charge.

PEF proposes to separately distinguish costs associated with the use of underground conduit, which reduces the URD differential. PEF's current URD differential calculation assumes a 25 percent conduit usage, which is designed to represent the average conduit usage in underground installations. The conduit shields cables buried in the ground and allows PEF to install cable in congested areas and under pavement, where repairs would not be possible. However, actual use of conduit in any particular situation may vary from the 25 percent included in the current URD charge. PEF therefore proposed to remove all conduit costs from the URD calculation, and proposed specific per foot conduit charges if conduit is required. While the removal of the conduit costs currently embedded in the URD calculation lowers the URD charge (since it reduces the costs of underground installations while overhead costs remain the same), it has the greatest impact on the 176-lot ganged meter subdivision model. In the 176-lot ganged meter subdivision, services (line from transformer to the meter) are customer-owned and therefore not part of the underground cost. Services are typically not put in conduit.

Calculation of (non-storm) operational cost difference

Subsection (4) of Rule 25-6.078, F.A.C., prescribes that the differences in NPV of operational costs, over the life of the facilities, between underground and overhead systems, be included in the URD charge. Operational costs include operations & maintenance (O&M) costs and capital costs. PEF's analysis of its historical operational costs shows that the underground facilities are more expensive to operate and maintain than the equivalent overhead facilities.

PEF used its actual, historical capital and O&M expenses for the period 2002 through 2006 to calculate the non-storm operational difference for underground and overhead facilities. PEF states that both the company's management accounting system and the Federal Energy Regulatory Commission accounts include distinctions for overhead versus underground facilities. In the instances where an account does not distinguish between overhead vs. underground work, PEF relied on the materials' component of the costs and allocated labor proportionally. Materials are typically overhead or underground-specific.

In order to calculate operational costs per circuit mile, i.e., unit costs, PEF divided the annual total operational costs for the years 2002 through 2006 for underground and overhead facilities by the number of miles of underground and overhead distribution lines in PEF's service territory. In 2006, PEF had 25,238 miles of overhead lines, and 18,488 miles of underground facilities. While the length of PEF's overhead distribution system remained fairly unchanged from 2002 through 2006, PEF's underground system showed an increase of 30 percent. Finally, PEF calculated a 5-year average of the underground and overhead operational costs per circuit

mile for the years 2002 through 2006. The resulting 5-year average operational costs per circuit mile for overhead is $4,030, and $4,902 for underground.

To calculate the NPV of the overhead and underground operational unit costs, PEF escalated the unit cost at 2.5 percent to adjust for inflation over a period of 38 years. PEF states that 38 years represents the average service life in the company's most recent depreciation study.[2] The 38-year cash flows are then discounted back to arrive at the NPV for overhead operational costs per circuit mile of $63,258, and $76,946 for underground, resulting in a NPV differential of $13,688 per circuit mile. The numbers stated above are shown in the column labeled "Excluding Storm" in Attachment A.

PEF's analysis assumed an 8.1 percent discount rate for the calculation of the NPV. This after-tax weighted average cost of capital is based on a capital structure consisting of 55 percent equity at a cost rate of 11.75 percent and 45 percent debt at a cost rate of 5.87 percent. PEF utilized similar financial assumptions for the company's need determination filing for the Levy Units 1 and 2 nuclear power plant project that we recently approved.[3] Based on this review, we find that the financial assumptions used for this evaluation are reasonable.

The impact of the NPV of the operational costs varies between the subdivisions as shown in Line C of Table 2 because of the difference in miles of line and number of lots in each subdivision. The calculation provided by PEF is shown in Attachment A.

PEF provides several explanations for why the operational costs are higher for underground than overhead facilities. The materials for underground repairs are more expensive than their overhead counterparts. The repair of underground equipment is a more lengthy process than overhead. Underground failures are mostly permanent faults that require repairs, while overhead repairs are more easily indentified visually, and the repairs are generally less time consuming.

Calculation of storm restoration costs

As shown in line D of Table 2, the inclusion of the storm restoration costs in the URD differential lowers the differential, since an underground distribution system incurs less damage than an overhead system as a result of a storm, and thus incurs less restoration costs when compared to an overhead system. In Docket No. 050078-EI, PEF's most recent rate case, PEF calculated an expected annual storm damage cost of $21.4 million. Based on actual experience for the 2004 and 2005 storm seasons, PEF allocated 80 percent of the $21.4 million to distribution ($17.2 million). Since residential subdivisions, which are at issue in this docket, are served by distribution lines only, it is appropriate to only consider storm damage costs associated with distribution lines. The remaining 20 percent was damage to PEF's transmission system.

[2] See Order No. PSC-05-0945-S-EI, issued September 28, 2005, in Docket No. 050078-EI, In re: Petition for rate increase by Progress Energy Florida, Inc.

[3] See Order No. PSC-08-0518-FOF-EI, issued August 12, 2008, in Docket No. 080148-EI, In re: Petition for determination of need for Levy Units 1 and 2 nuclear power plants, by Progress Energy Florida, Inc.

The 2004/2005 hurricane season further indicated that 83 percent of the storm damage was done to overhead distribution systems, while the remaining 17 percent of storm damage was done to underground.

To isolate the impact of the storm restoration costs, PEF performed a NPV analysis as described above with and without the storm restoration costs. Line D of Table 2 on page 4 shows the impact of the NPV of the storm restoration differential on the three subdivision models. The calculation is shown in Attachment A.

Inclusion of Lost Pole Rental Revenues in the non-storm O&M Expenses

In Docket Nos. 070231-EI and 080244-EI, Florida Power & Light Company (FPL) proposed the inclusion of lost pole rental revenues in the non-storm operational expenses of its URD calculations. Pole rental revenues are revenues paid to an IOU such as FPL or PEF for use of the utility's poles by third-party attachers, such as cable and telephone companies. FPL is adding in a 30-year NPV of the lost pole rental revenues into the calculation of its non-storm operational costs. The lost pole rental revenues have the effect of increasing the non-storm operational costs, thus raising the per lot URD differential paid by the customer.

Revenues from pole attachments are included as Other Operating Revenues (OOR) in a utility rate case. OOR increases the utility's current revenues and decreases the amount of any increase in rates, thereby reducing rates to all ratepayers. For subdivisions which have all underground facilities, there is no opportunity to generate these beneficial non-rate revenues. This represents lost potential revenues to the utilities, which could benefit all ratepayers. If the differential is reduced to recognize savings to the general body of ratepayers from potential avoided storm restoration costs, then these lost revenues from potential pole attachments are appropriate to be included as operational costs of undergrounding.

PEF has not included lost pole rental revenues in its proposed NPV calculation. We find that PEF shall refile its URD tariff by April 1, 2009, to include consideration of lost pole rental revenues. Pursuant to Rule 25-6.078(3), F.A.C., URD filings are typically due on or before April 1.

Conclusion

In February 2007, Rule 25-6.078, F.A.C., was amended to include the net present value of operational costs in determining the CIAC to be paid by applicants for underground facilities in new residential subdivisions to gain a more accurate cost comparison between overhead and underground installations. PEF has proposed tariffs that implement that rule requirement, and we find that PEF's analysis is reasonable. Because the proposed tariffs require assumptions concerning costs and savings that may change over time, PEF's calculation should be fine-tuned in future filings as more information on the costs and benefits of underground facilities become available. As stated above, PEF shall refile its URD tariff by April 1, 2009, and include lost pole rental revenues in the calculation of the non-storm operational cost differential.

Based on the foregoing, it is

ORDERED by the Florida Public Service Commission that the Petition for approval of revised underground residential distribution tariffs, by Progress Energy Florida, Inc., is approved, effective November 13, 2008. It is further

ORDERED If a protest is filed within 21 days of the issuance of this order, this tariff shall remain in effect, with any revenues held subject to refund, pending resolution of the protest.

ORDERED that this docket shall be closed upon issuance of a Consummating Order unless a person whose substantial interests are affected by our decision files a protest within 21 days of the issuance of this order.

By ORDER of the Florida Public Service Commission this 2nd day of December, 2008.

ANN COLE
Commission Clerk

(S E A L)

MCB

NOTICE OF FURTHER PROCEEDINGS

The Florida Public Service Commission is required by Section 120.569(1), Florida Statutes, to notify parties of any administrative hearing or judicial review of Commission orders that is available under Sections 120.57 or 120.68, Florida Statutes, as well as the procedures and time limits that apply. This notice should not be construed to mean all requests for an administrative hearing or judicial review will be granted or result in the relief sought.

Mediation may be available on a case-by-case basis. If mediation is conducted, it does not affect a substantially interested person's right to a hearing.

The Commission's decision on this tariff is interim in nature and will become final, unless a person whose substantial interests are affected by the proposed action files a petition for a formal proceeding, in the form provided by Rule 28-106.201, Florida Administrative Code. This petition must be received by the Office of Commission Clerk, 2540 Shumard Oak Boulevard, Tallahassee, Florida 32399-0850, by the close of business on December 23, 2008.

In the absence of such a petition, this Order shall become final and effective upon the issuance of a Consummating Order.

Any objection or protest filed in this docket before the issuance date of this order is considered abandoned unless it satisfies the foregoing conditions and is renewed within the specified protest period.

Attachment A

Progress Energy Florida
Actuals for 5 Year Period of 2002-2006
Summary of NPV Life Cycle Costs per mile for Overhead and Underground Distribution
Revised 8/22/08

	Including Storm	Excluding Storm	Storm
5 year average OH Unit Costs in 2007 Dollars - Annual	$4,692	$4,030	$662
5 year average UG Unit Costs in 2007 Dollars - Annual	$5,072	$4,902	$170
Differential in 2007 Dollars - OH more (less) than UG	-$380	-$872	$492
NPV of 38 Year Life Cycle			
Overhead	$73,648	$63,258	$10,390
Underground	$79,616	$76,946	$2,670
Differential - OH more (less) than UG	**-$5,968**	**-$13,688**	**$7,720**

NPV Life Cycle Costs - Per Lot Differentials

	OHD	UG			
Low Density-210 lot					
Feet of Line	19,272	17,920			
Miles of Line	3.65	3.4			
Number of Lots	210	210			
Per Lot - OHD			$1,280 *	$1,099	$181
Per Lot - UG			$1,287 **	$1,244	$43
Per Lot - Differential			$7	$144	-$137
High Density-176 lot					
Feet of Line	8,290	8,850			
Miles of Line	1.57	1.7			
Number of Lots	176	176			
Per Lot - OHD			$657	$564	$93
Per Lot - UG			$758	$733	$25
Per Lot - Differential			$101	$169	-$67
High Density-176 lot ganged meters					
Feet of Line	7,973	8,850			
Miles of Line	1.51	1.7			
Number of Lots	176	176			
Per Lot - OHD			$632	$543	$89
Per Lot - UG			$758	$733	$25
Per Lot - Differential			$126	$190	-$64

* $1,280 is calculated as follows: $73,648* 3.65 miles of line / 210 lots
** $1,287 is calculated as follows: $79,616 * 3.4 miles of line / 210 lots