

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Petition of Progress Energy
Florida for approval of an increase
in its base rates and charges
effective January 1, 2006.

Docket No. 050078-EI

Submitted for filing:
August 5, 2005

**REBUTTAL TESTIMONY OF
ROBERT B. MATTHEWS**

On behalf of PROGRESS ENERGY FLORIDA

**R. Alexander Glenn
James A. McGee
Progress Energy Service Company, LLC
Post Office Box 14042 (33733)
100 Central Avenue (33701)
St. Petersburg, Florida
Telephone: 727-820-5184
Facsimile: 727-820-5519**

And

**Gary L. Sasso
James Michael Walls
John T. Burnett
Carlton Fields
Post Office Box 3239
4221 West Boy Scout Boulevard
Tampa, Florida 33607-5736**

**Attorneys for
PROGRESS ENERGY FLORIDA**

DOCUMENT NUMBER-DATE

07606 AUG-5 05

FPSC-COMMISSION CLERK

**REBUTTAL TESTIMONY OF
ROBERT B. MATTHEWS**

1 **Q. Please state your name and business address.**

2 A. My name is Robert B. Matthews. My business address is 2801 W. State Road
3 426, Oviedo, Florida 32765.

4
5 **Q. By whom are you employed and in what capacity?**

6 A. I am employed by Progress Energy Florida ("PEF" or the "Company") as a
7 Principal Engineer within the North Central Region.

8
9 **Q. What are the duties and responsibilities of your position?**

10 A. As a Principal Engineer, I am primarily responsible for the coordination of large
11 distribution projects, including both the engineering of such projects and the direct
12 oversight of construction activities in the field. Over the past several years, I have
13 been involved in the installation, removal and replacement of all types of company
14 distribution facilities. One recent example of my responsibilities would be
15 oversight and project management of the Company's separation and reintegration
16 work in Winter Park.

17
18 **Q. Please describe your educational background and professional experience.**

19 A. I am a graduate of The Georgia Institute of Technology, holding a B.S. degree in
20 Mechanical Engineering. I joined Florida Power Corporation in 1985 in the
21 Energy Services organization and transferred to the Distribution organization in
22 1988. Since then, I have held various positions, including Manager of Distribution
23 Standards and Manager of Operations and Maintenance Programs and Standards

1 from 1995 to 1997, where I had exposure to design and cost information
2 throughout the Company's entire service territory, including costs of equipment
3 removal.
4

5 **Q. What is the purpose of your testimony in this proceeding?**

6 A. My understanding is that the Company's projected costs of removal have been
7 challenged as being too high, and the Company's projected salvage values have
8 been challenged as being too low. The purpose of my testimony is to provide
9 some real-world insight into removal and salvage practices. While I cannot speak
10 to transmission, I have a significant amount of field experience in distribution and
11 a good understanding of the practical issues associated with removal and salvage.
12

13 **Q. Are salvage values and removal costs consistent across the Company's service
14 territory?**

15 A. Yes. Both the costs to remove equipment and salvage values are rather consistent
16 throughout the various regions in our service area. During my tenure as Manager
17 of Distribution Standards, I frequently analyzed engineering and cost data from
18 across the service territory and am comfortable that any differences from one
19 region to another would be relatively minor. The processes that we use to remove
20 the equipment are the same, and most of the issues that we would encounter are
21 also very similar. In terms of salvage, we use the same procedures throughout the
22 Company.
23

24 **Q. What trends are you seeing in the costs of removing equipment?**

1 A. Our costs are rising. The major cost component is labor, and we all know that the
2 cost of labor and associated benefits has been increasing. Given the long service
3 lives of these assets, it is a virtual certainty that the costs of removal will be much
4 higher than would be the case if we removed them all today. Just from 2002 to
5 2006 (forecast), the loaded labor rates for PEF employees have risen over 20%.
6 This increase is not only due to escalating per-hour rates, but also the increasing
7 cost of benefits.

8
9 **Q. What other factors impact your costs?**

10 A. One of the most significant factors is customer growth within our service territory
11 and urban sprawl. New construction is typically undertaken prior to heavy
12 development in a particular area and accomplished with relative ease. Over time,
13 the tendency is for more development and urbanization. This creates numerous
14 and costly issues when it comes time to remove equipment. For example, cable or
15 phone attachments become a time-consuming issue at removal. Not only do we
16 have to coordinate the logistics with other service providers, but far too frequently,
17 we are forced to make repeated visits to the job site to complete the work, for
18 example, if attachments have not been removed as scheduled. In addition, city,
19 county and state rules and restrictions have increasingly limited our flexibility and
20 increased our costs over time to operate in the public right-of-ways. Customers and
21 property owners will also install obstructions (fences, sheds, etc.) around our
22 facilities creating obstacles to PEF resources actually getting to facilities.

23
24 **Q. Have technological advances provided and opportunity to reduce the cost of**
25 **removing distribution equipment?**

1 A. While there have been some different types of equipment used more recently in
2 distribution construction, such as new rear-lot construction equipment, this
3 equipment is small scale and used in small areas, such as a back yards where
4 traditional bucket/line trucks can not get access. This type of equipment can aid in
5 getting new poles set and removed or padmount transformers set or removed.
6 Again, this equipment is used only in a small percentage of the cases and, in many
7 instances, pools, sheds, landscaping, etc. prevent even this type of equipment to be
8 used. If anything, improving technology has reduced the initial equipment cost
9 more than the cost of removal. This would tend to increase the cost of removal as
10 a percentage of initial cost, not lower it.

11
12 **Q. Have you been able to reduce your cost through improved processes?**

13 A. Again, not to any significant degree. The processes used to remove equipment
14 have not changed to any great degree over the years throughout the industry.
15 Similar to technological advances, there have been more opportunities to improve
16 processes in the initial installation of equipment than in the removal of equipment.
17 The installation of equipment lends itself to efficiency since there are fewer
18 logistical and coordination obstacles in one's way. Removal projects are
19 inherently inefficient due to the numerous obstacles and return trips back to the job
20 location. All else equal, this effect once again would indicate that our cost to
21 remove equipment is rising as a percentage of initial cost.

22
23 **Q. Are there any general comments that you'd like to make about salvage value**
24 **as it pertains to distribution equipment?**

1 A. Yes. We are able to reuse only a very small portion of the distribution equipment
2 that is removed. This is definitely the case for equipment that is removed at the
3 end of its useful life, but even in instances where I've removed equipment well
4 prior to the end of its accounting life, reuse has often not proven cost-effective due
5 to the degree of degradation or damage sustained during removal. As a general
6 rule, the only items that we do attempt to reuse, even at the end of its useful
7 accounting life, are transformers. These are sent to a company repair facility for
8 possible refurbishment or, if they don't meet the necessary criteria, for salvage.
9 Poles and insulators are typically discarded. Conductor is typically sold for the
10 scrap value of the metal content. The scrap value of this equipment is very low.
11 In total, PEF receives well under \$1 million per year for the scrap value of its
12 metal.

13
14 **Q. Let's discuss distribution poles, towers and fixtures. What is involved in the**
15 **removal and salvage of this equipment?**

16 A. In general, it takes no less effort to remove a pole than to install one. In fact, given
17 the additional logistical challenges that we may face in the field and the absence of
18 scale economies, it can often take significantly more effort. If you witnessed the
19 actual work in the field, you'd understand. Installation involves digging a hole and
20 placing the pole, typically for many units at a time within one trip to the project
21 sight. Removal typically involves just as much digging to release a pole that has
22 been stationary for 25 or 30 years, and often entails return trips that could
23 contribute to higher per-unit cost. To the extent that poles are difficult to access or
24 we run into other logistical challenges or restrictions, the cost is only higher. In
25 the vast majority of cases, there would be little or no salvage value; we simply

1 discard the poles. Even in cases where we remove a pole well before the end of its
2 useful life, we will usually not even attempt to reuse it due to "topping" of the pole
3 and other damage sustained in the process of removal. However, I would mention
4 that in instances where poles are damaged by third parties and removed (i.e.,
5 traffic accidents), PEF often receives money, usually from insurance proceeds, to
6 compensate PEF for the damaged pole.

7
8 **Q. Please discuss the removal and salvage of distribution substation**
9 **transformers.**

10 A. Understand that installing or removing a substation transformer is a very
11 significant undertaking. These are the largest pieces of equipment (large "gray
12 boxes") that you see behind the fence at a substation and can only be moved with
13 special equipment. This project will typically involve a crane and a crew of
14 perhaps 10 or 20 men, often for the better part of a day. Again, it would generally
15 involve no less, or perhaps only slightly less, overall time and effort to remove and
16 disconnect one of these transformers than to install one. At the end of its service
17 life, a distribution substation transformer would be scrapped for the value of its
18 metal content. The unit would not be rebuilt or used in another application.

19
20 **Q. Please discuss the removal and salvage of overhead conductor.**

21 A. Here again, the removal cost for overhead conductor is significant. In order to
22 take down the wire and ancillary devices, it is necessary to set-up at each pole and
23 remove the equipment. This is no different than the effort to install new
24 conductor, but as I've already mentioned, the conditions are usually less favorable.
25 For instance, when installing a new line, the system is not live and there are fewer

1 logistical issues to contend with. The only real savings relative to building a new
2 line, or constructing the new line in a relocation scenario, is in pulling in the new
3 conductor as opposed to cutting and dropping the conductor. For this reason, I
4 would estimate that the time and effort involved in removal is roughly 50 to 60
5 percent of a new installation. In terms of salvage value, our past experience has
6 shown that reuse of the conductor is not a cost-effective solution. Our practice is
7 to scrap end-of-life conductor for the value of the metal. All of the associated
8 insulators are typically thrown away while bolts and other ancillary metal
9 equipment are scrapped.

10
11 **Q. Please discuss the removal and salvage of underground conductor.**

12 A. The vast majority of underground conductor is abandoned in place. Most of the
13 early underground cable that we're removing from service today was direct-buried
14 as opposed to placed in conduit, and therefore it is not practical to remove and
15 replace. Our typical procedure involves digging below grade, and cutting off the
16 cable end. Feeder-level cable is an exception, where in perhaps one-half of the
17 cases, we do pull out old cable and replace it with new cable. In these cases, it
18 typically does take about as long to remove the old cable as it does to install new
19 cable. Given the amount of water, dirt and mud that may be present after many
20 years of sitting in place, removing the cable usually is not an efficient process even
21 where it can be justified. Difficulty of extraction due to hang-ups from this type of
22 debris add time and effort to the removal process. Where we do have extracted
23 cable to salvage, we almost always scrap the material for the value of the metal.

24
25 **Q. Please discuss the removal and salvage of distribution line transformers.**

1 A. When removing and replacing a transformer, it is typically necessary to schedule
2 a short-term interruption with the customer. We make a concerted effort to inform
3 our customers, frequently walking door to door to ensure that they are aware of the
4 impending outage. On transformers serving commercial customers an outage may
5 have to be set up at night or on the weekend thus requiring PEF to incur additional,
6 overtime labor cost. Where this adds a considerable amount of time to the removal,
7 this would not be the case when initially installing the equipment since the
8 customer is not yet drawing service. For the removal of both overhead and
9 underground transformers, the actual amount of time and effort expended would
10 be roughly the same as for installation of a similar new transformer. Adding the
11 additional hurdles and time-consuming activities I mentioned above, it actually
12 takes longer to remove a piece of equipment than install new. Transformers are
13 one of the few pieces of equipment that we attempt to reuse at the end of life. We
14 send these units to our repair shop where they are evaluated and either refurbished
15 or scrapped. In the case of overhead pole-mount transformers, we are able to
16 refurbish perhaps 25 to 30 percent of the units. Single phase underground pad-
17 mount units are only refurbished in about 10 to 15 percent of the cases due to
18 structural integrity issues. Three phase underground pad-mount transformers can
19 be refurbished in perhaps one-half of the cases due to their heavier construction.
20 Transformers that cannot be refurbished are sold for the scrap value of the metal.

21
22 **Q. Please discuss the removal and salvage of overhead services.**

23 A. The removal of an overhead service takes approximately the same level of time
24 and effort as a new installation. Again, when one considers the fact that
25 arrangements must be made with the customer and other issues related to

1 accessibility, the amount of time and effort can easily exceed that of a new
2 installation. The process involves scaling and disconnecting the service at the both
3 the pole and at the service mast to the house. Other than the fact that we're
4 disconnecting as opposed to connecting the conductor, the process is essentially
5 the same as installation. The process of connecting might take slightly longer than
6 disconnecting, but the difference is not significant. As with other conductor, we
7 would scrap the equipment for the value of the metal.

8
9 **Q. Please discuss the removal and salvage of underground services.**

10 A. As with the majority of underground cable discussed above, our common practice
11 is to abandon underground services in-place. The procedure involves digging
12 below grade and cutting off the cable end. In this case, the labor and effort to
13 abandon the old equipment would be less than that required to install a new
14 underground service. Salvage value would typically not apply. However, if an
15 underground service is moved pursuant to a request from a customer (i.e., for pool
16 construction), that customer does pay PEF for moving the service.

17
18 **Q. Please discuss the removal and salvage values of distribution street lighting.**

19 A. The labor involved in removing a street light is approximately the same as for
20 installation. Removing the street lighting is simply reverse of installation. The
21 procedure involves removing the leads and taking the unit off the pole. Old
22 streetlights are almost always discarded; there is no salvage value.

23
24 **Q. Does this conclude your direct testimony?**

25 A. Yes.