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May 25, 2012

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Pauline E. Robinson, Esq., Attorney Office of the General Counsel Florida Public Service Commission 2540 Shumard Oak Boulevard, Room 110 Tallahassee, FL 32399-0850

## Re: Docket No. 120072-EQ – Florida Power & Light Company's Petition for Approval of a Renewable Energy Tariff and Standard Offer Contract

Dear Ms. Robinson:

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In an e-mail dated Tuesday, May 22, 2012, you stated:

"In FPL's response to Staff's First Data Request, Question No. 7, the NPV of FPL's four capacity payment options are different. <u>The four values should remain the same under each payment type.</u> This may be a simple miscommunication." (emphasis added).

While FPL agrees in principle with the underlined statement above, under the formula in Commission Rule 25-17.0832, F.A.C., the underlined statement does not hold true when the formula in the rule is used for payment calculations for a standard offer contract based on a 2025 avoided unit, as requested in Commission Staff's First Data Request Question No. 7. FPL's response to Question No. 7 was calculated correctly using the formula prescribed by the Commission's rule.

It is easiest to explain these calculations with respect to the early and early levelized capacity payments. Additionally, two examples will be provided to illustrate.

Rule 25-17.0832(6)(c), F.A.C., provides the formula to be used for early and early levelized capacity payments:

 $P_L = F/12\{r/[1-(1+r)^{-t}]\}+O$ 

 $P_L$  = the monthly levelized capacity payments, starting on or prior to the in-service date of the avoided unit;

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- F = the cumulative present value, in the year that the contractual payments will begin, of the avoided capital cost component of the capacity payments which would have been made had the capacity payments not been levelized;
- r = the annual discount rate, defined as the utility's incremental after tax cost of capital; and
- t = the term, in years, of the contract for the purchase of firm capacity

This is a classic finance formula for payments of an ordinary annuity with fixed payments. An assumption implicit in the formula is that all of the payments are the same over the term of the annuity. If, however, some of the payments are zero, the formula normally would not apply, although they do apply under the Commission's rule at issue.

Consider the following Example 1 provided below: The contract term ("t") is 20 years. Normal capacity payments are zero in year 1, then \$10 per month for each year of the remaining term. The discount rate ("r") is 7.293%. The NPV over years 2 through 20 of the normal capacity payment is \$1,213.48 (this is "F" for the levelized capacity payment). Applying the formula in the Commission's rule, the levelized payment is \$9.76 per month for years 2 through 20. But the assumption was that the normal capacity payment was already level at \$10 per month. Because year 1 has no capacity payment, for either the normal or levelized payment streams, the formulas in the Commission's rule result in a lower payment to the renewable generator. As shown in the table below, the result is 2% lower payments on an NPV basis to the renewable generator over the life of the contract.

This difference in NPV can be addressed in two possible ways. First, if instead of using the full term of the contract, the duration of the fixed payment period is used, *i.e.*, 19 years rather than 20, the same NPV total results, and the payment is \$10 per month. Alternatively, if a payment of \$9.76 is inserted in year 1, again the NPV difference disappears. Similarly, the early levelized payment would not result in a difference in NPV since the payments are even throughout the term of the contract.

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|           | Normal     | Early Levelized | Levelized  |
|-----------|------------|-----------------|------------|
| r         | 7.293%     |                 |            |
| t         | 20         | 20              | 20         |
| F         |            | \$1,130.99      | \$1,213.48 |
|           |            |                 |            |
|           | Monthly    | Monthly         | Monthly    |
| Voor      | Boymont    | Baymont         | Baymont    |
| rear<br>1 | Payment    | Payment 0.10    | Fayment    |
| 1         | 10.00      | 9.10            | 0.76       |
| 2         | 10.00      | 9.10            | 9.70       |
| 3         | 10.00      | 9.10            | 9.70       |
| 4         | 10.00      | 9.10            | 9.70       |
| 5         | 10.00      | 9.10            | 9.70       |
| 7         | 10.00      | 9.10            | 9.70       |
|           | 10.00      | 9.10            | 9.70       |
| 0         | 10.00      | 9.10            | 9.70       |
| 10        | 10.00      | 9.10            | 9.70       |
| 10        | 10.00      | 9.10            | 9.70       |
| 10        | 10.00      | 9.10            | 9.70       |
| 12        | 10.00      | 9.10            | 9.76       |
| 13        | 10.00      | 9.10            | 9.70       |
| 14        | 10.00      | 9.10            | 9.76       |
| 15        | 10.00      | 9.10            | 9.70       |
| 10        | 10.00      | 9.10            | 9.70       |
| 17        | 10.00      | 9.10            | 9.76       |
| 18        | 10.00      | 9.10            | 9.76       |
| 19        | 10.00      | 9.10            | 9.76       |
| 20        | 10.00      | 9.10            | 9.76       |
| NPV       | \$1,130.99 | \$1,130.99      | \$1,104.28 |

## Example 1.

The spreadsheet below in Example 2 also contains an example where the normal capacity payment is a single year (year 10) payment of \$100 per month, and there are no other payments throughout the term of the contract. The levelized payment stream reduces payments for the renewable generator by 29% on an NPV basis. Even on an early levelized basis, payments are reduced by 24% on an NPV basis. In both instances, the reductions in payments to the renewable generator result from the formulas in the Commission's rule not taking into account that the fact that payments to the renewable generator are not level throughout the term of the contract.

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|        | Normal       | Early Levelized | Levelized  |
|--------|--------------|-----------------|------------|
| r<br>t | 7.293%<br>20 | 20              | 20         |
| F      |              | \$ 1,042.41     | \$1,118.43 |
|        | Monthly      | Monthly         | Monthly    |
| Year   | Lump Payment | Payment         | Payment    |
| 1      | -            | -               | -          |
| 2      | -            | -               | -          |
| 3      | -            | -               | -          |
| 4      | -            | -               | -          |
| 5      | -            | -               | -          |
| 6      | _            | -               | -          |
| 7      | -            | -               | -          |
| 8      | -            | -               | -          |
| 9      | -            | 8.39            | -          |
| 10     | 100.00       | 8.39            | 9.00       |
| 11     | -            | 8.39            | 9.00       |
| 12     | -            | 8.39            | 9.00       |
| 13     | .=           | 8.39            | 9.00       |
| 14     | -            | 8.39            | 9.00       |
| 15     | ÷            | 8.39            | 9.00       |
| 16     |              | 8.39            | 9.00       |
| 17     | -            | 8.39            | 9.00       |
| 18     |              | 8.39            | 9.00       |
| 19     | -            | 8.39            | 9.00       |
| 20     | -            | 8.39            | 9.00       |
| NPV    | \$593.56     | \$448.18        | \$423.55   |

## Example 2.

While FPL agrees with Commission Staff that, in principle, the NPVs should be uniform across all capacity payment options, the formulas incorporated in the Commission rule do not provide this result. FPL's submission in response to Question No. 7 was calculated according to the rule.

Thank you for your attention to this matter, and please let me know if you need any additional information.

Sincerely,

William P. Cox Senior Attorney Florida Bar No. 0093531

WPC/bag

cc: Ann Cole, Commission Clerk