

BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

DIRECT TESTIMONY OF TOM HARTMAN

FOR

FLORIDA POWER & LIGHT COMPANY

IN RE:

MODIFICATION TO DETERMINATION OF NEED

AND

APPROVAL OF PURCHASE POWER AGREEMENT

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Q. Please state your name and business address.

A. My name is Thomas L. Hartman. My business address is 700 Universe Boulevard, Juno Beach, Florida 33408.

Q. By whom are you employed and what is your position?

A. I am employed by Florida Power & Light Company ("FPL" or the "Company") as Director of Business Management in the Energy Marketing & Trading Department.

Q. Please describe your duties and responsibilities in that position.

A. My current responsibilities include: providing analyses to determine whether and on what terms to extend or replace expiring long term purchase power contracts; evaluating and negotiating amendments to existing long term power purchase agreements; negotiating new power purchase agreements; and assisting in the development of draft purchase power agreements for future generation capacity purchases.

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1 **Q. Please describe your educational background and professional experience.**

2 A. I received a Bachelor of Science Degree in Mechanical Engineering and Aerospace
3 Sciences in 1974, and a Master's Degree in Mechanical Engineering in 1975 from
4 Florida Technological University. I received a Masters of Business Administration
5 degree from Georgia State University in 1985. I have been employed by FPL since
6 July 2003. From 1994 until joining FPL, I was employed by FPL's unregulated
7 affiliate, FPL Energy, LLC and its predecessor company. Throughout my
8 employment at FPL Energy, I held a number of positions in Business Management,
9 where I had responsibility for various unregulated power projects, including
10 responsibility for negotiating, administering, and modifying power purchase
11 agreements. Prior to joining FPL Energy, I was employed by a number of
12 consulting firms, providing management and technical consulting, which related to
13 construction and management of various types of renewable and non-renewable
14 power plants.

15
16 **Q. What is the purpose of your testimony?**

17 A. My testimony has two purposes. First, to address how the Expanded Facility meets
18 the need criteria in Sections 403.519, Fla. Stat., and 377.709, Fla. Stat., and
19 therefore should be granted a determination of need. Second, to address why the
20 Commission should approve the SWA/FPL contract for cost recovery.

21

22 **Q. Please summarize your testimony.**

1 A. In accordance with established Commission preference and consistent with
2 Appendix A of the Petition, SWA and FPL are negotiating a purchase power
3 agreement for the output of SWA's Expanded Facility which will benefit both SWA
4 and FPL's customers. SWA's Expanded Facility and the contract satisfy the
5 requirements stated in Section 403.519, Fla. Stat., because they will positively
6 impact FPL's system reliability and integrity through: the addition of firm capacity
7 during a period when FPL's system will have a capacity requirement; increased
8 fuel diversity and fuel supply reliability; reduced reliance on fossil fuels in the
9 production of electricity, and the addition of renewable generation on FPL's
10 system. In addition, the contract to purchase power from the Expanded Facility is
11 cost effective for FPL's customers, and the Expanded Facility provides substantial
12 environmental benefits.

13
14 The capacity and energy payments under the contract satisfy the requirements
15 stated in Section 377.709, Fla. Stat., for pre-funding of a Waste to Energy facility.
16 The capacity payment is not more than the net present value of FPL's avoided
17 capacity; the capacity payment is less than the design costs of the electrical
18 components of the Expanded Facility; and the energy payments are no greater than
19 the hourly incremental energy rates on FPL's system or the energy costs associated
20 with the avoided unit.

21
22 In summary, the Commission should approve FPL and SWA entering into the
23 contract, and should approve recovery of the costs associated with the contract

1 from FPL's customers. FPL's customers will benefit from this contract. FPL's
2 payments under the proposed contract are lower than FPL's full avoided cost,
3 resulting in a cost savings to the customers compared to the avoided unit.

4 **I. STATUTORY NEED CRITERIA**

5 **Q. How would approval of the SWA/FPL contract and SWA's construction of the**
6 **Expanded Facility affect FPL's system reliability and integrity?**

7 A. Upon completion of construction which is currently anticipated in late 2015, SWA
8 would be under contract to provide the output of the Expanded Facility as firm
9 capacity and energy to FPL until 2032. SWA's contracted performance would
10 enhance system reliability and integrity. At present, FPL projects a need for
11 additional firm capacity sometime in the period between 2018 and 2025, and the
12 capacity under this contract would contribute to deferring some of that capacity
13 requirement. Most importantly, however, this is a renewable energy project, with
14 an indigenous fuel source (MSW), which the Florida Legislature has sought to
15 encourage with the enactment of Section 377.709, Fla. Stat., as well as other more
16 recent statutory provisions. As such, it increases the diversity of FPL's energy
17 supply and increases FPL's system reliability and integrity through reduced
18 dependence upon fossil resources.

19
20 In addition, because under Section 377.709(4), Fla. Stat., the Expanded Facility
21 will need to operate at a minimum seventy percent (70%) capacity billing factor on
22 a twelve (12) month rolling average in order to retain the full amount of the
23 advanced capacity payment, the operator of the Expanded Facility will be very

1 motivated to ensure that the facility operates reliably. This will contribute to FPL's
2 electrical system reliability and integrity.

3

4 **Q. What, if any, effect would approval of the SWA/FPL contract and SWA's**
5 **construction of the Expanded Facility have on FPL's ability to provide**
6 **adequate electricity at reasonable cost?**

7 A. It would have a beneficial effect. The price at which FPL will purchase SWA's
8 firm capacity and energy under the SWA/FPL contract is less than FPL's avoided
9 cost. Simply stated, FPL's total cost under the SWA/FPL contract over the life of
10 the contract in terms of cumulative present value of revenue requirements
11 ("CPVRR") is less than the system cost would be absent the addition. Therefore,
12 construction of this Expanded Facility and the purchase of its output pursuant to the
13 SWA/FPL contract would enhance FPL's ability to provide adequate electricity at a
14 reasonable cost consistent with the cost effectiveness standard stated in Section
15 377.709(3)(b), Fla. Stat.

16

17 **Q. What, if any, impact would construction of the Expanded Facility and FPL's**
18 **purchase of the output of the Expanded Facility under the terms of the**
19 **SWA/FPL contract have on FPL's fuel diversity?**

20 A. It would improve FPL's fuel diversity because it would add up to 90 MW of base
21 load generating capacity using renewable fuel. With an estimated annual output in
22 excess of 500,000 MWh, it would substantially increase the quantity of renewable

1 generation in FPL's portfolio thereby reducing the consumption of natural gas and
2 other fossil fuels.

3

4 **Q. What, if any, impact would the construction of the Expanded Facility and**
5 **FPL's purchase of the output of the Expanded Facility under the terms of the**
6 **SWA/FPL contract have on FPL's fuel supply reliability?**

7 A. The SWA/FPL contract and FPL's purchasing the output of the Expanded Facility
8 will increase FPL's fuel reliability. Not only is there a plentiful quantity of MSW
9 fuel for the Facility, disposal of which is the fundamental reason the Expanded
10 Facility is needed by the County, but the source of the MSW is local not requiring
11 interstate or international transportation. In addition, purchasing energy under this
12 contract will reduce FPL's consumption of fossil fuels, which improves overall fuel
13 supply reliability.

14

15 **Q. Is the construction of the Expanded Facility and FPL's purchase of the output**
16 **of the Expanded Facility under the terms of the contract a cost effective**
17 **alternative for FPL?**

18 A. Yes. As earlier discussed, the SWA/FPL contract results in system cost savings on
19 a CPVRR basis over the life of the contract, including the impact of displacing
20 higher cost generation in the earlier years and recognizing the capacity cost benefit
21 of offsetting/deferring a portion of the capacity needs of the next avoided unit.
22 Additionally, and not reflected in these calculations, is the fact that the Expanded

1 Facility provides economic and environmental benefits to the customers of SWA,
2 most of whom are also FPL customers.

3

4 **Q. Are there sufficient cost-effective demand side management or conservation**
5 **options reasonably available to FPL to avoid the Expanded Facility?**

6 A. No. All cost effective, reasonably achievable DSM measures consistent with the
7 Commission's orders in FPL's DSM goals were recognized in the analysis of
8 resource options available to FPL as part of the evaluation of the purchase of
9 electrical output from the Expanded Facility. Compliance with these DSM goals
10 was reflected in calculating projected system costs both with and without the
11 SWA/FPL contract. In addition, as stated in the preamble to Section 377.709, the
12 Florida Legislature has determined that waste to energy facilities are themselves
13 effective conservation efforts. The SWA/FPL contract, therefore, would increase
14 FPL's effective conservation efforts.

15

16 **Q. What conclusion have you drawn from your review and analyses of the**
17 **Expanded Facility in relation to the applicable need criteria?**

18 A. I conclude that there is a need for the Expanded Facility. As noted, the Expanded
19 Facility meets every applicable need criterion under Florida law, including the
20 Florida Electrical Power Plant Siting Act ("PPSA") and is needed for the SWA to
21 carry out its solid waste disposal mandate in an efficient, cost-effective, and
22 environmentally beneficial manner. Therefore, FPL urges the Commission to grant

1 SWA's requested modification to determination of need for an increase of site
2 capacity up to an aggregate total of 168 MW.

3 **II. COST RECOVERY**

4 **Q. The Petitioners have also requested authorization for FPL to recover the costs**
5 **associated with the SWA/FPL contract. Please explain what the Petitioners**
6 **seek.**

7 A. The Petitioners are asking for Commission approval of the proposed SWA/FPL
8 contract and for FPL to be authorized to recover all costs that it incurs incident to
9 the contract through one or more of the Commission's established adjustment
10 clauses. The SWA/FPL contract qualifies as an advance funding program under
11 Section 377.709(3), Fla. Stat. By the terms of the statute, such a contract requires
12 prior permission of the Commission.

13
14 Additionally, the SWA/FPL contract will require as a condition precedent two
15 specific findings by the Commission. The first required finding sought by the
16 Petitioners is that the SWA/FPL contract is "reasonable, prudent, and in the best
17 interests of FPL's customers" consistent with the requirements of Section 377.709,
18 Fla. Stat. The second required finding sought by the Petitioners is that FPL be
19 allowed to recover costs incident to the contract through the Commission's
20 established adjustment clauses.

21
22 There are two types of costs associated with the contract: payments to SWA for
23 capacity and energy pursuant to the contract, and costs of administering the contract.

1 The Petitioners seek Commission approval for both types of contract costs to be
2 recovered from FPL's customers. The prefunded capacity payments and
3 administrative costs, consistent with Section 377.709, should be recovered from
4 FPL's customers pursuant to the provisions of the Florida Energy Efficiency and
5 Conservation Act ("FEECA") through the energy conservation cost recovery
6 ("ECCR") clause. FPL recommends that the energy payments that FPL makes to
7 the SWA under the contract should be recovered through the fuel and purchased
8 power cost recovery clause consistent with Commission practice.

9

10 **Q. What factors do the Petitioners ask the Commission to consider in reviewing**
11 **the proposed SWA/FPL contract under Section 377.709, Fla. Stat.?**

12 A Section 377.709(3)(b), Fla. Stat., states that the Commission is required to consider
13 two specific items in reviewing the contract. The Commission is to specifically
14 consider "the cost-effectiveness of the unit." The Commission is also instructed to
15 specifically consider "the financial ability of the electric utility to provide the
16 funding."

17

18 The Commission is also instructed under this statute not to approve any agreement
19 which violates any of five specific provisions. As I will discuss later in my
20 testimony, the SWA/FPL contract does not violate any of these five specific
21 provisions.

22

1 **Q. The first specific requirement for the Commission to consider under Section**
2 **377.709(3)(b) is “the cost-effectiveness of the unit.” Please address the cost-**
3 **effectiveness of the unit.**

4 A. The cost-effectiveness of the unit can be considered from both the perspective of
5 SWA and FPL. As stated in the testimony of Mr. Bruner and Mr. Pellowitz, SWA
6 considers the Expanded Facility to be its most cost-effective means of disposing of
7 MSW.

8
9 I have previously addressed whether the proposed unit under the terms of the
10 SWA/FPL contract is cost-effective to FPL. Simply put, the contract is less costly
11 than FPL’s self-build fossil generation alternative. The fact that the contract cost is
12 lower than FPL’s avoided cost demonstrates a cost benefit to FPL’s customers,
13 even without giving consideration to the significant economic benefits that would
14 be enjoyed by the citizens of Palm Beach County, most of whom are also FPL
15 customers.

16
17 **Q. The second specific requirement for the Commission to consider under Section**
18 **377.709(3)(b) is “the financial ability of the electric utility to provide the**
19 **funding.” Please address the financial ability of FPL to provide the funding**
20 **required under the SWA/FPL contract.**

21 A. The funding required of FPL under the SWA/FPL contract is a lump sum advanced
22 capacity payment. Section 377.709(3)(b)4, Fla. Stat., states that a utility is entitled
23 to recover from its customers costs associated with providing advanced funding to

1 entities such as the SWA for its Expanded Facility under the provisions of FEECA.
2 Specifically, FPL is entitled to recover “the amount of financing, including all
3 carrying costs, plus reasonable and prudent administrative costs incurred by the
4 electric utility”. With Commission authorization for recovery of these costs, FPL
5 can provide the needed funding to SWA.
6

7 **Q. Are the advanced capacity payments to SWA during the construction the**
8 **lesser of (a) the net present value of avoided capacity cost for FPL calculated**
9 **over the period of time during which the SWA contracts to provide electrical**
10 **capacity to FPL or (b) an amount which is no more than the design costs of the**
11 **electrical component of the Expanded Facility?**

12 A. Yes. Allow me to explain the advanced capacity payment under the proposed
13 SWA/FPL contract in more detail. FPL is currently conducting its Ten Year Site
14 Plan analysis. As part of this analysis, FPL will determine in early 2011 when it
15 will next need to build or procure additional generating capacity to meet its
16 expected system demand for energy and capacity. At the present stage of this
17 analysis, FPL has determined that it will need a new generating facility sometime
18 between 2018 and 2025, depending upon a number of system planning assumptions
19 which have not yet been finalized. In all cases, the assumed system addition is a
20 three on one combined cycle facility. For each generating in-service date
21 addressed, FPL determines the value of deferral associated with that unit’s capacity
22 (on a \$/kW-Month basis) from the in-service date of the avoided unit until the end
23 of the proposed contract. This provides a table of annual capacity payments earned

1 by the Expanded Facility for deferring additional capacity needs of FPL's
2 customers. This table of capacity values is then discounted back to the date that the
3 advanced capacity payment will be made to determine the appropriate pre-funding
4 of capacity that is available. Analysis to date shows that the proposed advanced
5 capacity payments are below the estimated designed cost of the electrical
6 components of the solid waste facility, as provided by SWA.

7

8 **Q. Under the SWA/FPL contract, will the energy payments to SWA be equal to**
9 **or less than the lesser of (a) the hourly incremental energy rates of FPL as**
10 **provided in its approved tariffs over the life of the contract or (b) the energy**
11 **costs associated with the avoided capacity costs of FPL?**

12 A. Yes. In determining the energy pricing under the SWA/FPL contract, we explicitly
13 considered this statutory requirement in Section 377.709. From the date when the
14 Expanded Facility comes into service until the later of the expected in-service date
15 of FPL's avoided unit or December 31, 2016, energy payments to the SWA unit
16 will be at 99% of FPL's hourly incremental energy rates. From the later of the
17 expected in-service date of FPL's avoided unit or December 31, 2016, until the end
18 of the contract term, energy payments will be the lower of the hourly "as-available"
19 energy rate or the energy costs of the avoided unit. Thus the contract terms comply
20 with the Section 377.709 statutory requirements.

21

22

1 **Q. Is FPL currently providing electrical energy at retail within the geographic**
2 **area of Palm Beach County?**

3 A. Yes.

4

5 **Q. Do the Petitioners seek to recover the amount of financing, including all**
6 **carrying costs, plus reasonable and prudent administrative costs incurred by**
7 **FPL under the SWA/FPL contract from customers under FPL's ECCR**
8 **clause?**

9 A. Yes, for several reasons. First, there is a statutory requirement for cost recovery
10 from a utility's customers upon Commission approval of a MSW advance funding
11 program under Section 377.709(3)(b)4, Fla. Stat. Second, this advance funding is
12 explicitly contemplated by the Legislature, and the proposed funding under the
13 SWA/FPL contract and associated cost recovery implements the various statements
14 of legislative intent in Section 377.709(1), Fla. Stat. Third, both the Commission
15 and the Legislature have found MSW facilities to be effective conservation
16 measures, and the ECCR clause is intended to enable recovery of a utility's
17 Commission-approved conservation measures. Fourth, the costs of this contract are
18 appropriately borne by the customers who derive the benefit of the contract. FPL's
19 customers would incur costs that are below FPL's avoided cost, reducing their cost
20 of electricity, and thus are simply paying for the benefit that FPL is securing for
21 them by entering into the contract.

22

1 **Q. Would the funding of the Expanded Facility cause or contribute to the**
2 **uneconomic duplication of electric facilities?**

3 A No, the proposed funding would not result in the uneconomic duplication of
4 facilities at any time. As discussed previously, this contract is cost-effective for
5 FPL's customers over the life of the contract. The payments under the proposed
6 contract are actually lower than FPL's avoided cost. There is nothing
7 "uneconomic" about this capacity addition. Moreover, as the Expanded Facility is
8 adding non-fossil, MSW-fueled renewable energy generating capability to FPL's
9 system; there is nothing "duplicative" about the capacity addition.

10

11 **Q. How and why should the costs paid to the SWA pursuant to the contract be**
12 **recovered?**

13 A. The contract is consistent with the statutory and Commission-established criteria
14 for authorization for cost recovery. The firm capacity and energy from the
15 Expanded Facility can reasonably be expected to contribute to the deferral or
16 avoidance of FPL's next planned fossil generating unit and to provide physical fuel
17 diversity as well as fuel price stability to FPL and its customers.

18

19 FPL proposes to recover the return on the advanced capacity payment ("ACP") and
20 administrative costs pursuant to the FEECA statute through the ECCR clause. FPL
21 recommends recovery through the ECCR because that clause is presently used for
22 recovery of the costs of conservation efforts, and the Legislature has declared in
23 Section 377.709(1), Fla. Stat., that solid waste facilities represent an effective

1 conservation effort. The ACP would earn a return at the overall clause rate of
2 return, commencing at the point that the ACP is made by FPL to the SWA. The
3 return would be calculated using a pretax rate of return applied to the advanced
4 payment during the construction period. Upon commercial operation of the
5 Expanded Facility, FPL would begin to amortize the ACP through the ECCR
6 clause on a straight line basis over the remaining term of the SWA/ FPL contract.
7 The unamortized balance of the ACP would continue to earn a return at the overall
8 clause rate of return until it is fully amortized.

9
10 The proposed SWA/FPL contract provides that FPL will pay SWA for electric
11 energy at 99% of FPL's tariffed hourly incremental energy rates from the date
12 when the Expanded Facility comes into service until the later of the expected in-
13 service date of FPL's avoided unit or December 31, 2016, at which time FPL will
14 begin to pay SWA the lesser of FPL's tariffed hourly incremental energy rates and
15 the energy costs associated with FPL's avoided capacity costs. As such, FPL's
16 energy payments will be consistent with the requirements under Section
17 377.709(3)(b)2, Fla. Stat. As a result, the Commission should authorize recovery
18 for the energy payments under the proposed contract through the fuel and purchase
19 power clause, consistent with Commission practice for FPL's existing purchased
20 power agreements.

21
22 **Q. Does this conclude your direct testimony?**

23 **A. Yes.**