

REDACTED

Florida Power & Light Company
Docket No. 080203-E1
Staff's First Set of Interrogatories
Interrogatory No. 41
Page 1 of 2

Q.

Pages 79 and 80 of Exhibit SRS-7 contains a description of FPL's activities relating to wind and solar projects. Specifically, FPL expects to install up to 350 MW of solar capacity by 2012. FPL expects to start construction on three solar projects totaling 80 MW during 2008 with completion by 2009/2010.

- a) Has FPL begun construction of these projects? If not, when does FPL expect construction will start and what will be the in-service date of each facility?
- b) What is the projected annual energy production from these facilities and has the projected energy production from these facilities been included in FPL's need filing in this Docket?
- c) What are the annual and cumulative revenue requirements associated with each solar project described in exhibit SRS-7?

A.

- a. FPL has not begun construction of the projects described in Exhibit SRS-7. The first solar project will utilize solar thermal technology and will be similar to FPL Energy's SEGS facility at Kramer Junction, CA. FPL is targeting to start construction December 2008 with a planned in-service date near the end of 2010. This facility is projected to have an installed capacity of up to 75 MW and is projected to produce approximately 155,000 MWh of electricity annually.

The second solar facility would be built utilizing Solar Photovoltaic (PV) technology. Construction of this project could begin as early as December 2008 with a planned in-service date during the 2nd quarter of 2010. This facility is projected to have 25 MW of capacity and is projected to produce approximately 42,000 MWh of electricity annually.

The third solar project will also be constructed utilizing solar PV technology. This project is planned to have 10 MW of installed capacity, producing approximately 16,000 MWh of electricity annually. Construction of this project could begin as early as December 2008 with a planned in-service date during the 4th quarter of 2009.

- b. The annual energy production from these facilities is projected to be 213,000 MWh. FPL did not assume a contribution from these specific facilities in its analyses that support this determination of need filing because it is not certain when these units will be placed in service, and unclear whether these specific facilities will ultimately provide firm capacity and energy, or non-firm energy only, to FPL's system. However, FPL's analyses did assume 126 MW of firm capacity with high availability as a placeholder for both firm

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and non-firm future capacity and energy from a variety of potential renewable energy sources.

- c. The cumulative revenue requirements based on current cost projections is attached. There are uncertainties with respect to the costs of the projects that will continue to be addressed during project development. FPL will have more information with respect to these uncertainties and their potential effects on cost, either positively or negatively, at the time that FPL makes its ECRC filings with respect to the projects. In addition, all of the projects are subject to pricing changes, to the benefit or otherwise, due to global volatility of key commodities such as steel, copper, concrete and silicone. Additionally, fluctuations in the value of the U.S. dollar could impact, either positively or negatively, final project pricing since many key components are currently manufactured overseas. Designing and implementing new technology is less certain from a cost and technical perspective than designing and implementing projects using well established technology, such as gas-fired combined cycle plants. FPL is using thorough due diligence, careful contract negotiation and other appropriate measures to manage risks.

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- 1 Florida Power & Light Company
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A 7 FPL Solar Projects- preliminary revenue requirements and rate impact analysis

| | | B C D 8 System Annual Revenue Requirements 9 \$millions | | | E F G System Annual Revenue Requirements NPV 2008 \$millions | | | H I J System Cumulative Annual Revenue Requirements NPV 2008 \$millions | | |
|----|------|---|--------------------|--------------------|--|--------------------|--------------------|--|--------------------|--------------------|
| | | NASA PV 10 MW | DeSoto PV 25 MW | Martin ST 75 MW | NASA PV 10 MW | DeSoto PV 25 MW | Martin ST 75 MW | NASA PV 10 MW | DeSoto PV 25 MW | Martin ST 75 MW |
| 12 | 2008 | | | | | | | | | |
| 13 | 2009 | | | | | | | | | |
| 14 | 2010 | | | | | | | | | |
| 15 | 2011 | | | | | | | | | |
| 16 | 2012 | | | | | | | | | |
| 17 | 2013 | | | | | | | | | |
| 18 | 2014 | | | | | | | | | |
| 19 | 2015 | | | | | | | | | |
| 20 | 2016 | | | | | | | | | |
| 21 | 2017 | | | | | | | | | |
| 22 | 2018 | | | | | | | | | |
| 23 | 2019 | | | | | | | | | |
| 24 | 2020 | | | | | | | | | |
| 25 | 2021 | | | | | | | | | |
| 26 | 2022 | | | | | | | | | |
| 27 | 2023 | | | | | | | | | |
| 28 | 2024 | | | | | | | | | |
| 29 | 2025 | | | | | | | | | |
| 30 | 2026 | | | | | | | | | |
| 31 | 2027 | | | | | | | | | |
| 32 | 2028 | | | | | | | | | |
| 33 | 2029 | | | | | | | | | |
| 34 | 2030 | | | | | | | | | |
| 35 | 2031 | | | | | | | | | |
| 36 | 2032 | | | | | | | | | |
| 37 | 2033 | | | | | | | | | |
| 38 | 2034 | | | | | | | | | |
| 39 | 2035 | | | | | | | | | |
| 40 | 2036 | | | | | | | | | |
| 41 | 2037 | | | | | | | | | |
| 42 | 2038 | | | | | | | | | |
| 43 | 2039 | | | | | | | | | |
| 44 | 2040 | | | | | | | | | |

6 Q.
7 Please list any future purchased power agreements that FPL has under consideration. Please
8 list the entity with which you are negotiating and the amount of capacity being discussed.

9 A.
10 The following purchase power agreements are under negotiation:

11 Current Negotiations:

12 [REDACTED]
13 [REDACTED]

14 Expected future negotiations:

15 [REDACTED]
16 [REDACTED]

17 [REDACTED]
18 [REDACTED]

Possible Future Proposals:

FPL is awaiting proposals due on June 9 in response to its April 10, 2008 Request For Proposal for renewable resources.

At the present time, FPL does not have any other specific purchase power opportunities under consideration. However, FPL continually evaluates all potential purchase power opportunities as they become available.

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6 Q.
7 Please provide any information on FPL's current and planned solar projects. Include the
8 description, MW size, kWh output, installation dates, and square footage required for each
9 project. Also, please provide the costs (capital, operating and maintenance) of such projects.

10 A.

11 The first solar project will utilize solar thermal technology and will be similar to FPL
12 Energy's SEGS facility at Kramer Junction, CA. Construction of this project could begin as
13 early as December 2008. The first solar generation is expected to come on-line in the fourth
14 quarter of 2009 with construction completed by the end of 2010. This facility is projected to
15 have an installed capacity of up to 75 MW and will produce approximately 155,000 MWh of
16 electricity annually. The site for this project would require approximately 600 acres of land.
17 The second solar facility will be built utilizing Solar Photovoltaic (PV) technology.
18 Construction of this project could begin as early as December 2008 with an in-service date of
19 the completed project during the second quarter of 2010. This facility is projected to have 25
20 MW of capacity and is projected to produce approximately 42,000 MWh of electricity
21 annually. This project could require up to 180 acres of land. The third solar project will also
22 be constructed utilizing solar PV technology. This project is planned to have 10 MW of
23 installed capacity, producing approximately 16,000 MWh of electricity annually.
24 Construction of this project could begin as early as December 2008 with construction
25 completed during the fourth quarter 2009. This project would require approximately 60
26 acres of land. The average estimated installed capital cost for these solar projects is
27 [REDACTED] excluding interest during construction, with an estimated annual O&M cost of
28 [REDACTED]. These values are based on preliminary information at this time and are likely to
change as development of these projects continues. FPL is providing the best available
information with respect to the cost of the project at this stage of development. However, all
the projects are subject to pricing changes, to the benefit of otherwise, due to the global
volatility of key commodities such as steel, copper, concrete and silicone. Additionally,
fluctuations in the value of the U.S. dollar could impact, either positively or negatively, final
project pricing since many key components are currently manufactured overseas.

6 Q.
7 Please discuss and explain what unacceptable level of risks exist as discussed by witness Sim
8 on page 7, line 12-13 of his testimony.

9 A.
10 FPL has marked the following response confidential because of confidentiality commitments.

11 The risk aspect of FPL's analysis was addressed in FPL's Non-Economic Evaluation. The
12 results of this evaluation are summarized on Exhibit SRS-15 of FPL witness Sim's
13 testimony. As shown on that exhibit, there were three categories of risk: environmental,
14 technical, and project execution. Each proposal, as submitted to FPL, was evaluated in these
15 three categories.

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In summary, the Non-Economic Evaluation found that the proposals, as submitted to FPL, carried with them an unacceptable level of risk in multiple areas. This does not mean that the proposals were eliminated from consideration because the possibility existed for FPL and the Bidders to meet and resolve FPL's concerns in these areas. However, based on the results of the Economic Evaluation presented in this filing that none of the proposals were economically competitive, FPL determined, consistent with its RFP process, that resolving these risk-related issues would not change the outcome and, therefore, was unnecessary.

6 a.
7 Please respond to the following questions regarding the water usage of WCEC unit 3:

- 8 A. What is the amount of water (gal/day) that will be required for operation?
9 B. What will be the resource for the water required?
10 C. How reliable is the water resource identified?
11 D. What will be the water supply system?
12 E. Will any construction project be required for the water supply system?
13 F. If the answer to question 68F is yes, what will be the pertinent capital costs and where
14 are the cost estimates included in FPL's filing?
15 E. What will be the O&M costs for the water supply system and where are the cost
16 estimates included in FPL's filing?

17 A.
18 The redacted dollar amount in the response to this interrogatory is confidential, and will be
19 made available by FPL for inspection and review at FPL's offices at 215 South Monroe
20 Street, Suite 810, Tallahassee, Florida, during regular business hours, 8:00 a.m. to 5:00 p.m.,
21 Monday through Friday, upon reasonable notice to FPL's counsel.

22 Reclaimed water will be the primary cooling and process water source for WCEC Unit 3 with
23 makeup to these systems requiring an annual average of approximately 7.34 million gallons
24 per day. Palm Beach County Water Utilities will provide reclaimed water to the WCEC site
25 from the East Coast Regional (ECR) Water Reclamation Facility. This facility is a very
26 reliable source as it processes approximately 40 million gallons of water per day. In the event
27 that reclaimed water is unavailable, FPL will utilize an emergency water source allocation
28 (from the Upper Floridan Aquifer) from the South Florida Water Management District.

29 A pipeline will be installed to supply reclaimed water to the WCEC site and additional
30 treatment and pumping facilities will be installed at the ECR Water Reclamation Facility.
31 The pipeline and new facilities will be owned and operated by Palm Beach County and the
32 ECR Reclamation Facility. The capital and O&M costs associated with construction,
33 operation, and maintenance of the treatment facility and pipeline will be included in the Palm
34 Beach County monthly water charge to FPL. Costs associated with the monthly water fee
35 (estimated at [REDACTED] per thousand gallons) are included in the NPGU annual O&M costs
36 (fixed and variable) presented in the filing.

6 a.
7 Provide detailed information on the solar thermal and/or photovoltaic facilities FPL is
8 evaluating, including technology type, location, in-service date, summer and winter capacity,
9 estimated capacity factor, acreage required for each project, installed cost, operating and
10 maintenance costs. In this evaluation, is FPL evaluating customer-sited solar thermal and/or
11 photovoltaic installations?

12 a.
13 FPL is currently planning three commercial scale solar projects. The first solar project,
14 Martin Next Generation Solar Energy Center, will utilize solar thermal technology similar to
15 FPL Energy's SEGS facility at Kramer Junction, CA and will be constructed at FPL's Martin
16 facility. Construction is planned to commence by the end of 2008, with the first solar
17 generation expected to come on-line as early as the end of 2009. Full build out of the facility
18 is expected to be completed by the end of 2010. This facility is projected to have an installed
19 capacity of approximately 75 MW, and with an anticipated capacity factor of about 23.6%.
20 will produce approximately 155,000 MWh of electricity annually. This project would require
21 approximately 600 acres of land. FPL is still reviewing the installed cost and operation and
22 maintenance costs for the proposed Martin solar facility and at this time is assuming an
23 installed capital cost of approximately [REDACTED] excluding interest during construction,
24 and an O&M cost of approximately [REDACTED]

25 The second solar facility would be built utilizing solar photovoltaic (PV) technology on
26 property owned by FPL in DeSoto County. Construction of the Desoto Next Generation
27 Solar Energy Center is planned to commence as early as December 2008 with an in-service
28 date of the completed project during the second quarter of 2010. This facility is projected to
29 have 25 MW of installed capacity, and at an approximately 19.4% capacity factor, is
30 projected to produce approximately 42,000 MWh of electricity annually. This project would
31 require approximately 180 acres of land. FPL is still reviewing the installed cost and
32 operation and maintenance costs for the DeSoto facility and at this time is assuming an
33 installed capital cost of approximately [REDACTED] excluding interest during construction,
34 and an O&M cost of approximately [REDACTED]

35 The third solar project, Space Coast Next Generation Energy Center, will utilize solar PV
36 technology and is anticipated to be constructed at NASA's Kennedy Space Center in Brevard
37 County. This project is planned to have up to 10 MW of installed capacity, and with an
38 estimated 18% capacity factor, will produce approximately 16,000 MWh of electricity
39 annually. Construction of the project is expected to begin as early as December of 2008 with
40 construction completed during the fourth quarter 2009. This project would require
41 approximately 60 acres of land. FPL is still reviewing the installed cost and operation and
42 maintenance costs for the NASA facility and at this time is assuming an installed capital cost
43 of approximately [REDACTED] excluding interest during construction, and an O&M cost of

| approximately [REDACTED]

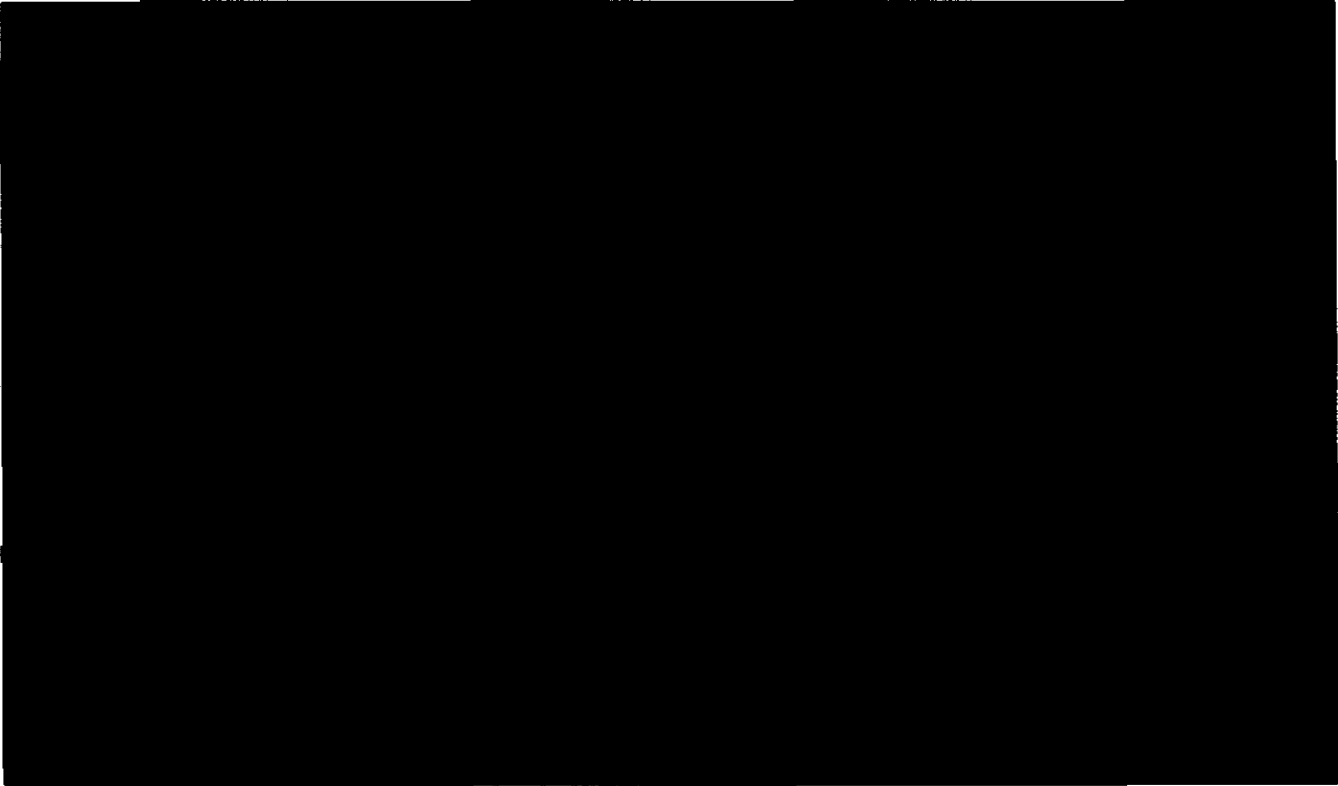
FPL is not certain whether these specific facilities will ultimately provide firm capacity and energy, or non-firm energy only, to FPL's system. The three solar facilities will not have a summer and winter capacity like a fossil fuel based facility due to their dependence on solar radiation. For the solar projects mentioned above FPL is only evaluating centralized power generation and is not evaluating customer-sited solar thermal and/or photovoltaic installations.

1 Florida Power & Light Company
2 Docket No. 080203-EI
3 Staff's Fourth Set of Interrogatories
4 Interrogatory No. 76
5 Attachment No. 1
6 Page 1 of 1

7 Table Staff-76

8 Summary of Five Responses to FPL's 2007 Renewable Energy RFP

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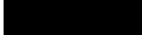

6 Q.
7 Please provide any information on FPL's current and planned wind projects, including the
8 project description, MW size, kWh output, installation dates and square footage required for
9 each project. Also, please provide the costs (capital, operating and maintenance of such
10 projects).

11 A.
12 FPL is working on constructing up to six wind turbine generators ("WTGs") on FPL's
13 property located on Hutchinson Island in St. Lucie County ("St. Lucie Wind Project").
14 Should FPL obtain all the necessary local, state and federal permits and approvals by the Fall
15 of 2008, ground breaking may occur as early as the end of the year, with an expected
16 in-service date in 2010. The projected annual energy production from the St. Lucie Wind
17 Project is expected to be up to 13.8 MW or nearly 22,000 MWh of electricity annually. The
18 St. Lucie Wind Project will utilize approximately 20 acres of FPL's property. The capital
19 cost of the St. Lucie Wind Project is currently estimated at \$3,300/kW, pending further
20 review and revision as additional cost information becomes available. Additional benefits of
21 this project includes savings associated from fuel and environmental offsets. The benefits of
22 the \$2.5M Florida Renewable Energy Technologies Grants Program, which the St. Lucie
23 Wind project was awarded in late February 2008, have also not been included in the current
24 cost estimates. The annual operations and maintenance ("O&M") cost of the St. Lucie Wind
25 Project is approximately [REDACTED] per WTG over the life of the project including spare parts.
In addition, FPL continues with its due diligence efforts to further identify possible locations
for future wind development project(s) in the State of Florida.

6 Q.
7 Please clarify the response to interrogatory No. 7. What numerical figure does the term
8 "Base" refer to? Are the figures for each category incremental addition, multiples, or
9 percentage increases?

10 A.
11 The redacted dollar amounts in the response to this interrogatory are confidential, and will be
12 made available by FPL for inspection and review at FPL's offices at 215 South Monroe
13 Street, Suite 810, Tallahassee, Florida, during regular business hours, 8:00 a.m. to 5:00 p.m.,
14 Monday through Friday, upon reasonable notice to FPL's counsel.

15 For the WCEC 3, 2011 column, "Base" represents the following numerical figures
16 (Estimated costs of construction in 2007 dollars):

17 Equipment 
18 Materials 
19 Labor 

The figures for the WCEC 3 2012 option and the Greenfield 2013 option are incremental additions to the "Base" values. They are not multiples or percentage increases.