

BEFORE THE
FLORIDA PUBLIC SERVICE COMMISSION

In the Matter of:

DOCKET NO. 120314-EQ

PETITION FOR APPROVAL OF
NEGOTIATED RENEWABLE ENERGY
CONTRACTS WITH U.S. ECOGEN
OKEECHOBEE, LLC, U.S. ECOGEN
CLAY, LLC, AND U.S. ECOGEN
MARTIN, LLC, BY FLORIDA POWER
& LIGHT COMPANY.

COMMISSION
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PROCEEDINGS: COMMISSION CONFERENCE
ITEM NO. 10

COMMISSIONERS
PARTICIPATING: CHAIRMAN RONALD A. BRISÉ
COMMISSIONER LISA POLAK EDGAR
COMMISSIONER ART GRAHAM
COMMISSIONER EDUARDO E. BALBIS

DATE: Tuesday, April 9, 2013

PLACE: Betty Easley Conference Center
Room 148
4075 Esplanade Way
Tallahassee, Florida

REPORTED BY: JANE FAUROT, RPR
Official FPSC Reporter
(850) 413-6732

1 **P R O C E E D I N G S**

2 **CHAIRMAN BRISÉ:** All right. Moving on to Item
3 Number 10.

4 **MR. ELLIS:** Good morning, Commissioners.
5 Phillip Ellis with Commission staff.

6 Item 10 is staff's recommendation on FPL's
7 request for approval of three biomass contracts with
8 subsidiaries of U.S. EcoGen LLC. Staff has reviewed
9 the contracts in terms of FPL's need for power, their
10 cost-effectiveness, and protections for ratepayers.
11 The contracts will improve FPL's fuel diversity, and
12 when combined with other contracts may defer or delay
13 some future capacity.

14 Using a value of deferral analysis based on a
15 2025 combined cycle, the contracts show a net present
16 value benefit of \$89 million with cumulative net
17 benefits beginning in year fourteen of the 30-year
18 term. Staff recommends that the contracts also include
19 sufficient protection in the form of performance
20 requirements and security for both early payments and
21 performance in the event of a default.

22 Overall, staff recommends the approval of
23 three power purchase agreements for purposes of
24 cost-recovery. Staff would like to note that
25 representatives from FPL and U.S. EcoGen LLC are here

1 today. Also FIPUG, which has intervened in this
2 docket, is also present. Staff is available for any
3 questions.

4 **CHAIRMAN BRISÉ:** Okay. So I guess we'll hear
5 from the company and then we will hear from FIPUG.

6 **MR. COX:** Chairman Brisé and Commissioners,
7 Will Cox here on behalf of Florida Power and Light.
8 With me is Tom Hartman from our energy marketing trading
9 group, as well as Ryan Tyler from our regulatory affairs
10 group.

11 We are pleased to support the staff
12 recommendation, and we're available for any questions
13 that you might have today.

14 **CHAIRMAN BRISÉ:** Okay.

15 Jon. Mr. Moyle, rather.

16 **MR. MOYLE:** Thank you, Mr. Chairman. Jon
17 Moyle on behalf of FIPUG, the Florida Industrial Power
18 Users Group.

19 And FIPUG intervened because we had questions
20 about this item, and we have asked questions. We are
21 here today, I think, to raise some questions and,
22 candidly, you know, some concerns. So if it's okay, I
23 would like to just go through a series of questions
24 that I think still remain that probably warrant some
25 further examination. And I would preface that by

1 saying my client is about having reasonably priced
2 energy, and the key being those adjectives are very
3 important. So to the extent that there are proposals
4 that are not cost-effective or are not needed, you
5 know, those are areas that we will bring up, and talk
6 about, and have some concerns about.

7 So, I have an exhibit, if I could pass out --

8 **CHAIRMAN BRISÉ:** Sure.

9 **MR. MOYLE:** -- to make the first point. And
10 the first question that I would ask, is there a need for
11 the project? And like I said, I will have a series of
12 questions.

13 (Pause.)

14 **CHAIRMAN BRISÉ:** Mr. Moyle, you can go ahead.

15 **MR. MOYLE:** Okay, thanks. So what I have
16 handed out is a three-page exhibit that I took from the
17 Ten-Year Site Plans that were filed last week by Florida
18 Power and Light.

19 Now, I acknowledge that the recommendation
20 has been put together with information that was in the
21 2012 site plans, but this information is the most
22 recent and is what FPL recently filed. And the first
23 page is entitled FPL generating resources by location,
24 and it totals up to a total number of 24,065. And I'm
25 assuming that that is megawatts. That's, I think, the

1 size of their system. And one percent of that number
2 is approximately 240 megawatts.

3 If you then flip over to another page out of
4 the Ten-Year Site Plan, this is what FPL looks like
5 they are going to need, their reserve margins starting
6 in '13/'14, and, you know, they are pretty heavy in
7 there; 30, 34 percent, 42 percent. The Commission has
8 a reserve margin of 20 percent, and the FRCC has a
9 reserve margin of 15 percent.

10 But I wanted to, you know, draw your
11 attention -- the first time that these units show up in
12 this document is in 2021, and it shows 180 megawatts
13 coming in. But if you also look over, they have a
14 21 percent reserve margin in 2021. So if you take
15 away -- if you take away the 180 from that number,
16 you're still good to go by meeting the 20 percent
17 reserve margin. You have 60 extra megawatts. So
18 because this deal has capacity payments and, you know,
19 hundreds of millions of dollars, we believe, associated
20 with a 30-year contract, the most recent information
21 raises the question to FIPUG's mind, you know, is this
22 really needed.

23 And then the related question is, you know,
24 should capacity payments begin in 2021 as proposed?
25 And we think, at least based on this information, that

1 the answer is no. I mean, capacity payments are only
2 available if there's a need. If you do the simple math
3 here, there doesn't appear to be a need in 2021. You
4 know, save the ratepayers some money and don't provide
5 capacity payments for stuff that's not needed.

6 Another question, will the project save
7 ratepayers money? I think the answer to that is it's
8 not clear. I will point out the staff has said on Page
9 4 of its recommendation -- there's a section in the
10 staff recommendation entitled cost-effectiveness. The
11 second paragraph, I think, is informative. And if I
12 could just quote that the first sentence says while a
13 system level CPVRR is a valid form of cost-effective
14 analysis, a value of deferral analysis based on the
15 utility's next avoidable unit allows for a better
16 comparison of smaller resource options. So I think
17 staff is saying, you know, we think there's a better
18 way of looking at whether this is cost-effective.

19 And then the last sentence in there, in that
20 paragraph, says a comparison of the payments to the
21 U.S. EcoGen facilities in the 2012 standard offer show
22 a net present value cost of \$12.4 million. So here
23 staff is saying, you know, based on their analysis it
24 looks like there's a \$12.4 million cost.

25 If you also flip over to the fifth page of

1 the staff recommendation, and this is in the third
2 paragraph just above the Table 2 chart. It says
3 staff's projecting a net present value savings of
4 89.4 million, with net savings projected to begin in
5 2032. And, you know, 2032 is a long time from today.
6 And for people who are my age or older than me, you
7 know, this may not be such a great deal. Maybe for
8 high school kids it would be a good deal. But the way
9 the project is proposed and the contract is
10 constructed, as I understand it, is it is front loaded.
11 There's a lot of money that's coming up front, and then
12 you don't start saving money until, you know,
13 approximately, you know, 19 or 20 years from now.

14 And I think these numbers are based on
15 forecasts and sensitivity analysis. And so if you go
16 to the chart there, you know, a base line number of 89
17 million is estimated, and then there is a high number,
18 but then there is also a low number. And the low
19 number, you know, is 60 million. So it could be a deal
20 and a proposition, if you assume the low number, that
21 there is a \$60 million loser for the ratepayers. And
22 that, you know, that is of concern.

23 One thing that was unclear in another
24 question is that it appears that an assumption of high
25 emission costs may have been used. And, you know,

1 that's tough to see what's going to happen with
2 emission costs. If you look on Page 4 of, you know,
3 the staff recommendation, the first paragraph, I think
4 this is talking about FPL's analysis. It's unclear
5 whether it's incorporated into those numbers, but it
6 says, quote, "A substantial portion of the savings
7 associated with this analysis are based on deferral of
8 generation assets beginning in 2034 and high emission
9 costs."

10 Well, you know, respectfully who knows what
11 the emission costs are going to be? I know people are
12 talking about that. Is Congress going to act? Is
13 Congress going to not act? But, you know, given the
14 long range nature of it, we think the answer to the
15 question is this cost-effective is unclear.

16 Another question is why three? There are
17 three projects proposed, each of them of 60 megawatts.
18 And in the petition itself it says that at present
19 there are no closed loop biomass projects in operation
20 in the United States. And that is on Page 5 of the
21 petition. So if I'm reading that correctly, there's
22 none of these that are working in this country, but
23 we're going to ask the ratepayers to step up and be
24 responsible for costs for 30 years for three plants.
25 That's a question. I mean, why not one, see if it

1 works, and then move forward assuming it works. But it
2 seems to me and to FIPUG that there is additional risk
3 associated with doing three as compared to a fewer
4 number.

5 Another cost, another question. Does this
6 comply with the avoided cost statutory requirements and
7 the avoided cost requirements that are in your rule?
8 And there has been a lot of discussion about avoided
9 cost. The legislature has looked at avoided costs.
10 And typically, you know, avoided costs are you don't
11 get more than what it would cost the utility. The way
12 this project is set forward and proposed is, as I said,
13 it's front loaded. There is for money that comes into
14 the project, you know, I think above avoided cost in
15 the beginning years until, I think, 14 years. There is
16 more money coming in, and then at the back end there is
17 less money. So I think their argument is, well, if you
18 look at it as a whole, it doesn't exceed, you know,
19 avoided cost. But that, candidly, is a pretty
20 significant policy issue. And if you can do it for
21 30 years, why not do it for 50 years? Why not load it
22 so that it's, you know, paying you money up front for
23 the first 25 and the last 25 is not. I mean, there's a
24 lot of play in there if you approve this and say, no,
25 we're okay on avoided costs being examined on an

1 overall contract basis.

2 And another thing that is in here that we
3 have a question about is there is something called an
4 energy performance bonus. And I'll refer you to Page 5
5 of the staff recommendation. This is in the second
6 paragraph, and it says, "Energy payments are increased
7 during the initial two-year commissioning period by an
8 amount referred to as an energy performance bonus
9 payments based on megawatts, you know, delivered.

10 Questions arise as to how an energy
11 performance bonus payment is reconciled with the
12 construct of avoided costs. And I did take a look at
13 the statute on avoided costs, 366.051, where the
14 legislature has said here is the policy for avoided
15 costs. And a couple of things I just wanted to bring
16 to the Commission's attention is it says, quote, "In
17 fixing rates for power purchased by public utilities
18 from cogenerators or small power producers, the
19 Commission shall authorize a rate equal to the
20 purchasing utility's full avoided cost.

21 And there's another sentence that I found
22 somewhat instructive. I think lawyers may be able to
23 argue about words in a statute, which is probably not a
24 surprise, but this sentence says if the cogenerator or
25 small power producer provides adequate security based

1 on its financial stability and no cost in excess -- and
2 no costs in excess of full avoided costs are likely to
3 be incurred by the electric utility over the term
4 during which the electricity is to be provided, the
5 Commission shall authorize the levelization of payments
6 and elimination of discounts due to risk factors in
7 determining the rates.

8 So here the legislature at least is using
9 language about cost in excess of full avoided cost, and
10 I think that has been sort of the walking around
11 construct that, you know, avoided cost acts as a pretty
12 tight bar. And if it is going to be something that is
13 exceeded, you know, for 14 or 15 years, then I guess
14 that's just a question that was raised.

15 I think I have made the point about seeing
16 beyond the horizon. A 30-year deal is a long -- you
17 know, a long deal. There was a little bit of a need in
18 2012, and, you know, the response is here we are going
19 to do a 30-year deal. I think some questions were
20 raised about that, particularly when you consider the
21 last page of the handout. And, again, this is from the
22 FPL site plan. But it's not like there's not,
23 apparently, some energy out there from other providers.

24 And I didn't get into all the contractual
25 details, but the purchases that are shown in this

1 exhibit, there are some coal purchases from Cedar Bay,
2 there's some purchases from solid waste facilities, the
3 Palm Beach County folks, some facilities in Broward,
4 nonfirm, the Okeelanta facilities, and some others. So
5 the point simply of this is it is not like there's not
6 options out there. And to come in and say, okay, we've
7 got a 30-year deal that I think is hundreds of millions
8 of dollars, when you guys act on this, you know, it's
9 there, and then it's just a matter of recovery, you
10 know, to refer to another clause. It becomes kind of
11 set in stone and off you go.

12 So FIPUG has raised questions. We think that
13 these are legitimate questions that should be asked and
14 answered before y'all move forward with a long-term
15 deal that commits ratepayers to, like I said, an
16 incredible amount of money.

17 **CHAIRMAN BRISÉ:** Thank you, Mr. Moyle.

18 I don't know if FPL wants to respond to some
19 of these questions before we come to the Commission and
20 staff, as well.

21 **MR. COX:** Chairman Brisé, I will do my best.
22 That was a long list of questions that Mr. Moyle posed.
23 I will start with the premise that, you know, it's our
24 position that these contracts that are proposed meet the
25 requirements of the rule as staff outlined. They are

1 cost-effective and there is a need.

2 We state clearly in our petition and also
3 stated clearly in the staff recommendation that there
4 is a need for power that is being offset by these
5 contracts. And, in fact, it's not just any energy;
6 it's renewable energy. This is going to increase our
7 renewable energy as a percentage of our load by
8 77 percent.

9 But let me go through some of the details
10 that he outlined. Again, in terms of the need for
11 power, it does offset from our last Ten-Year Site Plan
12 a 2021 purchase. But as staff points out, the more
13 clear need, or given the duration of this contract
14 would be the 2025 combined cycle unit, avoided unit
15 which is next in line after that. And just to note for
16 the record that with our new standard offer contract
17 filing, that contains a 2025 avoided unit. Very
18 similar to what the staff has in their analysis when
19 they analyzed the need here.

20 In terms of cost-effectiveness, again, we
21 have shown on a system-wide basis versus the EcoGen
22 contracts in our system or not in our system,
23 159.1 million. And as staff points out, really the
24 best comparison is looking at that 2025 unit as opposed
25 to our 2012 standard offer which, as you will recall,

1 was a 2021 one-year purchase. That is only one year of
2 capacity, whereas the 2025 has a great fair value of
3 capacity, and because these contract with EcoGen are
4 essentially a 28-year period after the initial two-year
5 commissioning period, you're talking about capacity of
6 that duration. So the best comparison really is the
7 EcoGen contracts to the 2025 unit. And when you look
8 at that we show that the contracts are clearly
9 cost-effective.

10 For the periods of time where the contracts
11 are above avoided cost, I would note that it's
12 Commission policy, it's in Commission rules. I was
13 just looking at the standard offer rule where it talks
14 about making early capacity payments so that renewable
15 providers like U.S. EcoGen can finance their projects,
16 that it provides for that as long as there is adequate
17 security. And FPL, Mr. Hartman here on my side, worked
18 at length with EcoGen on the security provisions as
19 well as the performance guarantee provisions of these
20 contracts to ensure that FPL's customers and FPL are
21 protected in the event there is a problem with EcoGen's
22 ability to perform at any time, including periods of
23 the contract where the costs are in excess of avoided
24 cost.

25 In terms of a front-loaded contract, these

1 are levelized capacity payments over the length of the
2 contract. The energy payments are lower such that over
3 the term of the contract the contract is
4 cost-effective. And I would note in the statute that
5 Mr. Moyle cited, 366.051, it clearly stated, and I
6 don't have it right in front of me, but it clearly
7 stated that basically if you have periods that are in
8 excess of avoided cost, as long as you have adequate
9 security to protect the customers, that's okay under
10 that law.

11 So, again, I don't see where any of his
12 points have any merit. These are small power
13 producers, qualifying facilities under Florida law,
14 renewable energy generators. We are required to
15 purchase from them. The purchase from them offsets our
16 need for future power needs and provides renewable
17 power, additional renewable power to our generation
18 resources. And I'm happy to answer any other
19 questions. I tried to hit as many of them as I could
20 there. Thank you.

21 **CHAIRMAN BRISÉ:** Thank you. Staff.

22 **MR. ELLIS:** The only thing I'd just like to
23 add, in terms of the energy performance bonus payments,
24 that is the terminology used in the contract. They are
25 already included in the cost-effectiveness analysis.

1 **CHAIRMAN BRISÉ:** Okay. Thank you.

2 Commissioner Balbis.

3 **COMMISSIONER BALBIS:** Thank you, Mr. Chairman.

4 And I appreciate this dialogue on these
5 issues because there is -- these are important
6 projects, and there's a lot of money associated with
7 them. But I just want to point out in response to the
8 comments I have heard here today. I mean, Florida
9 Statutes are very clear that the utility companies are
10 to continuously offer standard offer contracts to
11 encourage renewable energy facilities to come into the
12 system. And there is a very important protection and
13 that is that customers should not pay more than the
14 avoided cost.

15 And I want to just point out that the
16 difference between the purchased power agreement which
17 was initially used that showed a cost of \$12.4 million,
18 I think staff appropriately looked at the 2025 avoided
19 unit which the costs were reduced so that customers
20 saved money. This could have come in beforehand, and
21 they could have argued, the utility could have argued
22 and EcoGen could have argued the PPA portion of the
23 agreement where they would have received additional
24 energy and capacity payments. So I think that the
25 statute is very clear to encourage these types of

1 facilities to come in, so I discount some of the
2 comments that I heard here today.

3 As far as the need is concerned, you know, I
4 appreciate having a document that comes from something
5 that was submitted last week, and we go through a
6 thorough evaluation of that during the ten-year site
7 plan discussion. But a lot of those reserve margins,
8 in fact, all of those margins include interruptible
9 load or demand-side management margins. And this is
10 providing base load generation. The generation reserve
11 margin, I believe, is much more important than
12 including everything.

13 So I appreciate the discussion. I'm
14 comfortable with the fact that there is an \$89 million
15 savings to customers. We have three renewable energy
16 base load generation units providing 180 megawatts of
17 power. And not only that, we have these discussions,
18 but it's creating over 300 jobs in these three
19 counties, and that's something that -- that is
20 important. It increases the renewable energy portfolio
21 of the state, and, again, without raising costs to
22 customers.

23 The relationship with the utility companies
24 and these renewable energy providers working together
25 to bring these projects forward I think is a

1 synergistic relationship that we should encourage. So
2 I appreciate what staff has done; I appreciate what the
3 parties have done, and the discussion from the
4 intervenors. But this is something that we need to
5 support and applaud as something that is good for the
6 state.

7 **CHAIRMAN BRISÉ:** Thank you.

8 Commissioners, any further discussion on this
9 item?

10 Okay. So we're ready to entertain a motion.

11 **COMMISSIONER BALBIS:** Mr. Chairman, I move
12 staff's recommendation on all issues for this matter.

13 **CHAIRMAN BRISÉ:** Okay. It has been moved. Is
14 there a second?

15 **COMMISSIONER GRAHAM:** Second.

16 **CHAIRMAN BRISÉ:** It has been moved and
17 seconded. All in favor say aye.

18 (Vote taken.)

19 **CHAIRMAN BRISÉ:** All right. Thank you very
20 much. And let me go through my list again.

21 (Laughter.)

22 **MR. MOYLE:** Thank you.

23 **CHAIRMAN BRISÉ:** All right. Considering that
24 there are no other items before us today, now we stand
25 adjourned.

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STATE OF FLORIDA)

: CERTIFICATE OF REPORTER

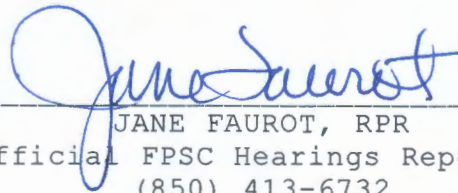
COUNTY OF LEON)

I, JANE FAUROT, RPR, Chief, Hearing Reporter Services Section, FPSC Division of Commission Clerk, do hereby certify that the foregoing proceeding was heard at the time and place herein stated.

IT IS FURTHER CERTIFIED that I stenographically reported the said proceedings; that the same has been transcribed under my direct supervision; and that this transcript constitutes a true transcription of my notes of said proceedings.

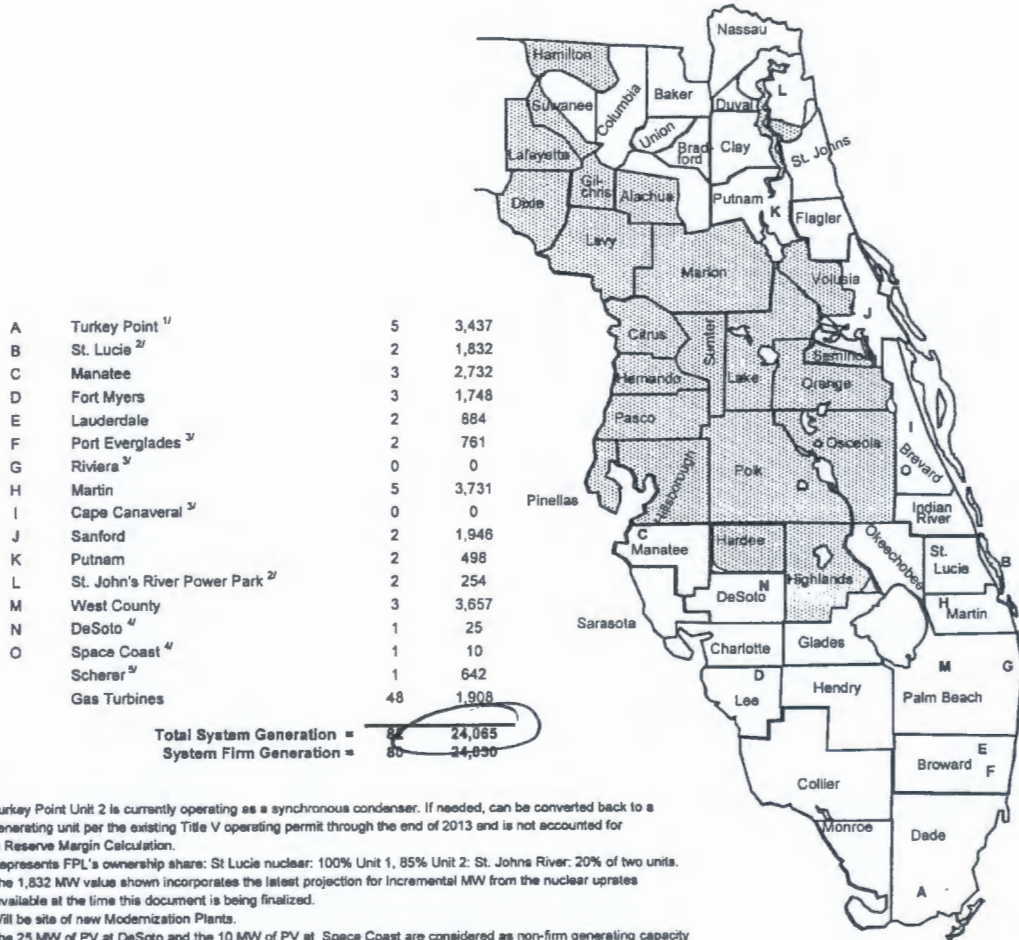
I FURTHER CERTIFY that I am not a relative, employee, attorney or counsel of any of the parties, nor am I a relative or employee of any of the parties' attorney or counsel connected with the action, nor am I financially interested in the action.

DATED THIS 17th day of April, ~~2011~~ ²⁰¹³ *JF*



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FPL Generating Resources by Location



1/ Turkey Point Unit 2 is currently operating as a synchronous condenser. If needed, can be converted back to a generating unit per the existing Title V operating permit through the end of 2013 and is not accounted for in Reserve Margin Calculation.
 2/ Represents FPL's ownership share: St. Lucie nuclear: 100% Unit 1, 85% Unit 2; St. Johns River: 20% of two units. The 1,832 MW value shown incorporates the latest projection for incremental MW from the nuclear uprates available at the time this document is being finalized.
 3/ Will be site of new Modernization Plants.
 4/ The 25 MW of PV at DeSoto and the 10 MW of PV at Space Coast are considered as non-firm generating capacity and the capacity from these units has been removed from the "System Firm Generation" row at the end of the table.
 5/ The Scherer unit is located in Georgia and is not shown on this map.

Non-FPL Territory

1/ of 24,065 is 240 MW

Figure I.A.1: Capacity Resources by Location (as of December 31, 2012)

Parties/Staff Handout
 Internal Affairs/Agenda
 on 4/9/13
 Item No. 10
 120314-EQ

Table ES-2: Projected Capacity Changes and Reserve Margins for FPL

Projected Capacity Changes and Reserve Margins for FPL ⁽¹⁾					
Year	Projected Capacity Changes	Net Capacity Changes (MW)		Reserve Margin (%) After Maintenance	
		Winter ⁽²⁾	Summer ⁽³⁾	Winter	Summer
2013	Changes to Existing Purchases ⁽⁴⁾	(545)	(425)		
	Port Everglades Units 3 & 4 retired for Modernization	(765)	(781)		
	Turkey Point Unit 2 operation changed to synchronous condenser	(394)	(392)		
	Sanford Unit 5 CT Upgrade	—	9		
	Turkey Point Unit 4 Uprate - Completed	—	115		
	Turkey Point Unit 4 Uprate - Outage ⁽⁵⁾	(717)	—		
	Sanford Unit 4 CT Upgrade	—	16		
	Manatee Unit 2	(3)	—		
	Scherer Unit 4	(28)	—		
	Cape Canaveral Next Generation Clean Energy Center ⁽⁶⁾	—	1,210		
	Manatee Unit 1 ESP - Outage ⁽⁷⁾	(822)	—		
Martin Unit 1 ESP - Outage ⁽⁷⁾	—	(826)	30.6%	28.0%	
2014	Sanford Unit 5 CT Upgrade	19	10		
	Cape Canaveral Next Generation Clean Energy Center ⁽⁶⁾	1,355	—		
	Changes to Existing Purchases ⁽⁴⁾	22	37		
	Manatee Unit 1 ESP - Outage ⁽⁷⁾	822	—		
	Sanford Unit 4 CT Upgrade	16	—		
	Vero Beach Combined Cycle ⁽⁸⁾	46	44		
	Martin Unit 1 ESP - Outage ⁽⁷⁾	(832)	826		
	Martin Unit 2 ESP - Outage ⁽⁷⁾	—	(826)		
	Manatee Unit 3 CT Upgrade	—	19		
	Turkey Point Unit 5 CT Upgrade	—	33		
	Turkey Point Unit 4 Uprate - Completed ⁽⁵⁾	115	—		
Riviera Beach Next Generation Clean Energy Center ⁽⁶⁾	—	1,212	34.1%	28.5%	
2015	Manatee Unit 3 CT Upgrade	39	20		
	Martin Unit 1 ESP - Outage ⁽⁷⁾	832	—		
	Martin Unit 2 ESP - Outage ⁽⁷⁾	—	826		
	Turkey Point Unit 5 CT Upgrade	33	—		
	Changes to Existing Purchases ⁽⁴⁾	70	70		
	Ft. Myers Unit 2 CT Upgrade	—	51		
Riviera Beach Next Generation Clean Energy Center ⁽⁶⁾	1,344	—	42.2%	31.2%	
2016	Changes to Existing Purchases ⁽⁴⁾	(858)	(928)		
	Ft. Myers Unit 2 CT Upgrade	51	—		
	Port Everglades Next Generation Clean Energy Center ⁽⁶⁾	—	1,277	36.5%	31.3%
2017	Turkey Point Unit 1 operation changed to synchronous condenser	(398)	(396)		
	Changes to Existing Purchases ⁽⁴⁾	(37)	(37)		
	Vero Beach Combined Cycle ⁽⁸⁾	(46)	(44)		
	Port Everglades Next Generation Clean Energy Center ⁽⁶⁾	1,429	—	40.0%	27.5%
2018	Changes to Existing Purchases ⁽⁴⁾	(388)	(381)	37.0%	24.3%
2019	—	—	36.0%	22.7%	
2020	—	—	34.9%	21.1%	
2021	Changes to Existing Purchases ⁽⁴⁾	180	180	34.5%	21.0%
2022	Turkey Point Nuclear Unit 6 ⁽⁸⁾	—	1,100	34.4%	23.5%

(1) Additional information about these resulting reserve margins and capacity changes are found on Schedules 7 & 8 respectively.
 (2) Winter values are forecasted values for January of the year shown.
 (3) Summer values are forecasted values for August of the year shown.
 (4) These are firm capacity and energy contracts with QF, utilities, and other entities. See Table I.B.1 and Table I.B.2 for more details.
 (5) Outages for uprate work.
 (6) All new unit additions are scheduled to be in-service in June of the year shown. All additions assumed to start in June are included in the Summer reserve margin calculation starting in that year and in the Winter reserve margin calculation starting with the next year.
 (7) Outages for ESP work.
 (8) This unit will be added as part of the agreement that FPL will serve Vero Beach's electric load starting January, 2014. This unit is expected to be retired within 3 years.

If 180 MW not there in 2021, still above the 20% reserve margin figure by 60 MW

Table 1.A.3: Purchase Power Resources by Contract (as of December 31, 2012)

Table 1.A.3: Purchase Power Resources by Contract (as of December 31, 2012)

	Location (City or County)	Fuel	Summer MW
<u>I. Purchases from QF's: Cogeneration/Small Power Production Facilities</u>			
Cedar Bay Generating Co.	Duval	Coal (Cogen)	250
Indiantown Cogen., LP	Martin	Coal (Cogen)	330
Broward South	Broward	Solid Waste	4
Broward North	Broward	Solid Waste	11
Palm Beach SWA - extension			40
		Total:	635
<u>II. Purchases from Utilities:</u>			
UPS from Southern Company	Various in Georgia	Coal	928
SJRPP	Jacksonville, FL	Coal	381
TECO	Tampa	Coal	125
		Total:	1,434
<u>III. Other Purchases:</u>			
DeSoto Unit 1	DeSoto	Natural Gas	150
DeSoto Unit 2	DeSoto	Natural Gas	155
			305
		Total Net Firm Generating Capability:	2,374

<u>Non-Firm Energy Purchases (MWH)</u>			
Project	County	Fuel	Energy (MWH) Delivered to FPL in 2012
Okeelanta (known as Florida Crystals and New Hope Power Partners) *	Palm Beach	Bagasse/Wood	141,594
Broward South *	Broward	Solid Waste	127,533
Broward North *	Broward	Solid Waste	119,168
Tomoka Farms *	Volusia	Landfill Gas	0
Waste Management - Renewable Energy *	Broward	Landfill Gas	45,371
Waste Management - Collier County Landfill *	Broward	Landfill Gas	29,303
Tropicana	Manatee	Natural Gas	22,935
Calnetix	Palm Beach	Natural Gas	0
Georgia Pacific	Putnam	Paper by-product	9,550
Rothenbach Park (known as MMA Bee Ridge)	Sarasota	PV	320
First Solar	Miami	PV	67
Customer - Owned PV & Wind	Various	PV/Wind	877
Palm Beach SWA	Palm Beach	Solid Waste	370,109
INEOS Bio *	Indian River	Wood	70

* These Non-Firm Energy Purchases are Renewable and are reflected on Schedule 11.1 row 9 column 6.