652

1 BEFORE THE

FLORIDA PUBLIC SERVICE COMMISSION

2

3 DOCKET NO. 070098-EI

4 In the Matter of:

5 PETITION FOR DETERMINATION OF NEED

FOR GLADES POWER PARK UNITS 1 AND 2

6 ELECTRICAL POWER PLANTS IN GLADES

COUNTY, BY FLORIDA POWER & LIGHT

7 COMPANY.

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VOLUME 5

13

Pages 652 through 740

14

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PROCEEDINGS: HEARING

16

BEFORE: CHAIRMAN LISA POLAK EDGAR

17 COMMISSIONER MATTHEW M. CARTER, II

COMMISSIONER KATRINA J. McMURRIAN

18

DATE: Tuesday, April 17, 2007

19

TIME: Commenced at 9:30 a.m.

20 Recessed at 5:52 p.m.

21 PLACE: Betty Easley Conference Center

Room 148

22 4075 Esplanade Way

Tallahassee, Florida

23

REPORTED BY: MARY ALLEN NEEL, RPR, FPR

24

APPEARANCES: (As heretofore noted.)

25

653

1 I N D E X

2 WITNESSES

3 NAME PAGE

4 C. DENNIS BRANDT

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EXHIBITS

2

NUMBER ID. ADMTD.

3

4 23, 24 DB-2 and DB-2 736

5 130, 131 DB-3 and DB-4 736

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

2 (Transcript follows in sequence from

3 Volume 4.)

4 CHAIRMAN EDGAR: Okay. We are going to get

5 started again. Thank you all for your patience.

6 Ms. Smith, your witness.

7 MS. SMITH: FPL calls Mr. Dennis Brandt, and

8 he has not been sworn.

9 Thereupon,

10 C. DENNIS BRANDT

11 was called as a witness on behalf of Florida Power &

12 Light Company, and having been duly sworn, testified as

13 follows:

14 DIRECT EXAMINATION

15 BY MS. SMITH:

16 Q. Would you please state your name and business

17 address.

18 A. My name is Dennis Brandt. My business address

19 is 9250 West Flagler Street, Miami, Florida.

20 Q. By whom are you employed and in what capacity?

21 A. I work for Florida Power & Light. I'm the

22 Director of Product Development and Management.

23 Q. Have you prepared and caused to be filed 25

24 pages of prefiled direct testimony in this proceeding?

25 A. Yes, I have.

656

1 Q. Do you have any changes or revisions to your

2 prefiled direct testimony?

3 A. No, I do not.

4 Q. If I asked you the same questions contained in

5 your prefiled direct testimony today, would your answers

6 be the same?

7 A. Yes, they would.

8 MS. SMITH: I ask that Mr. Brandt's prefiled

9 direct testimony be inserted into the record as though

10 read.

11 CHAIRMAN EDGAR: The prefiled direct testimony

12 will be entered into the record as though read.

13 BY MS. SMITH:

14 Q. Are you also sponsoring any exhibits to your

15 direct testimony?

16 A. Yes, I am.

17 Q. And do those exhibits consist of documents

18 DB-1 and DB-2?

19 A. Yes, they do.

20 MS. SMITH: Madam Chairman, these exhibits

21 have been premarked as 23 and 24.

22 CHAIRMAN EDGAR: Thank you.

23 BY MS. SMITH:

24 Q. Mr. Brandt, have you also prepared and caused

25 to be filed 19 pages of prefiled rebuttal testimony in

657

1 this proceeding?

2 A. Yes, I have.

3 Q. Do you have any changes or revisions to your

4 prefiled rebuttal testimony?

5 A. No, I do not.

6 Q. If I asked you the same questions contained in

7 your rebuttal testimony today, would your answers be the

8 same?

9 A. Yes, they would.

10 MS. SMITH: I ask that Mr. Brandt's prefiled

11 rebuttal testimony be inserted into the record as though

12 read.

13 CHAIRMAN EDGAR: The prefiled rebuttal

14 testimony will be entered into the record as though

15 read.

16 BY MS. SMITH:

17 Q. Are you also sponsoring any exhibits to your

18 rebuttal testimony?

19 A. Yes, I am.

20 Q. And do those exhibits consist of documents

21 DB-3 and DB-4?

22 A. Yes, they are.

23 MS. SMITH: And, Madam Chairman, those have

24 been premarked for identification as 130 and 131.

25 CHAIRMAN EDGAR: Thank you.

702

1 BY MS. SMITH:

2 Q. Mr. Brandt, have you prepared a summary of

3 your direct testimony?

4 A. Yes, I have.

5 Q. Would you please provide that summary to the

6 Commission?

7 A. Good afternoon, Chairman Edgar and

8 Commissioners. My testimony addresses FPL's demand-side

9 management efforts and whether sufficient additional DSM

10 is available to cost-effectively reduce customer usage

11 to eliminate FPL's 2013-2014 capacity needs.

12 FPL has been very successful in

13 cost-effectively avoiding new power plants using DSM.

14 In fact, based on the latest data for the Department of

15 Energy, FPL is ranked number one nationally in

16 conservation achievement and number four in load

17 management.

18 FPL continually investigates additional

19 cost-effective DSM opportunities and requests Commission

20 approval of revisions to our DSM plan as appropriate.

21 FPL recently completed a comprehensive review of all of

22 our programs to determine whether additional savings

23 were available. This review resulted in Commission

24 approval of extensive modifications that added another

25 564 megawatts of summer demand reduction impact to FPL's

703

1 Commission-approved DSM goals of 802 megawatts for 2006

2 through 2014.

3 FPL's accomplishments and future commitments

4 to DSM are significant. Through year-end 2005, FPL has

5 implemented 3,519 megawatts for the equivalent of 10

6 medium sized power plants. By 2015, FPL will have

7 avoided three times the equivalent of the FGPP power

8 plants.

9 FPL's analysis has already captured all

10 cost-effective demand-side management potential

11 available on the FPL system. Even if there were some

12 modest potential for additional DSM, regardless of the

13 cost-effectiveness test used, it is unrealistic to

14 conclude that FPL could add significant incremental

15 quantities in time to mitigate the 2013-2014 capacity

16 need. Therefore, despite FPL's outstanding

17 accomplishments in the area of DSM, there is still not

18 additional cost-effective DSM to avoid the need for the

19 proposed units.

20 This concludes my summary.

21 Q. Mr. Brandt, have you also prepared a summary

22 of your rebuttal testimony?

23 A. Yes, I have.

24 Q. Would you please provide that summary to the

25 Commission?

704

1 A. Sure. My rebuttal testimony counters Mr. John

2 J. Plunkett's argument that more demand-side management

3 is reasonably achievable by FPL and could defer the need

4 for the proposed FPL Glades Power Park. Mr. Plunkett's

5 analysis of the potential DSM of FPL is lacking in

6 detail, unsubstantiated, and not Florida-specific. He

7 apparently did not take any time to understand FPL's DSM

8 plan, its current DSM programs, and the unique

9 characteristics of FPL's service area.

10 Mr. Plunkett discusses two estimates of DSM

11 potential for FPL, neither of which provides a

12 reasonable basis for accepting his recommendation that

13 the need for the FGPP units can be deferred through

14 incremental DSM. The first is his simplistic benchmark

15 analysis comparing FPL to utilities in Massachusetts and

16 Pacific Gas & Electric. As an initial matter, projected

17 DSM savings for FPL cannot be looked at DSM spending in

18 other areas. The utility's specific approach of looking

19 at cost-effective DSM potential followed by this

20 Commission and FPL is far superior.

21 Further, Mr. Plunkett bases his comparison on

22 dollars spent per kWh saved, but you cannot conclude

23 that units can be deferred by only looking at kWh

24 savings. To determine whether new generation can be

25 deferred, the critical consideration is cost per kW of

705

1 peak reduction. Based on Department of Energy

2 information, the amount FPL spends per kW on achieving

3 savings is as much as one-third less than the amount

4 spent by PG&E for comparable savings. Even if you look

5 at the annual kWh dollar savings spent as Mr. Plunkett

6 did, Massachusetts was the least effective of the

7 Northeast states that Mr. Plunkett identified.

8 Mr. Plunkett also discussed FPL's DSM

9 potential based on a recently released ACEEE report on

10 Florida. As I discussed in my testimony, Mr. Plunkett's

11 -- I'm sorry, ACEEE's findings regarding achievable

12 conservation and renewable potential in Florida are

13 substantially overstated, and the author of the report

14 has acknowledged that there are errors in this report.

15 Even assuming the ACEEE report's findings are correct,

16 Mr. Plunkett concludes that FPL's planned DSM savings

17 exceeds it share of the statewide energy efficiency

18 included in the report.

19 Despite FPL's industry-leading conservation

20 efforts, which were acknowledged by Mr. Plunkett, there

21 are not sufficient cost-effective, reasonably achievable

22 DSM potential in FPL's system to avoid the need for the

23 FGPP units.

24 This concludes my summary.

25 MS. SMITH: Thank you, Madam Chairman.

706

1 Mr. Brandt is available for cross-examination.

2 CHAIRMAN EDGAR: Thank you. Ms. Perdue, any

3 questions?

4 MS. PERDUE: No questions.

5 CHAIRMAN EDGAR: No questions. Mr. Beck, I

6 know you said no questions.

7 Mr. Gross. No questions.

8 Mr. Krasowski.

9 MR. KRASOWSKI: I have questions, yes. Thank

10 you, Madam Chair.

11 CROSS-EXAMINATION

12 BY MR. KRASOWSKI:

13 Q. Good evening, Mr. Brandt.

14 A. Good afternoon.

15 Q. Good afternoon, good evening. It's two after

16 5:00.

17 A. Okay.

18 Q. I have a strong interest in your work and much

19 of your testimony, not just to pick it apart or

20 criticize it. But I think it's really a valuable

21 effort, so if you would help me understand it and what

22 the implications are for increasing the effect of your

23 work, I would appreciate it.

24 So I would like to start off with, on page 5,

25 line 14 of your testimony, you state that FP&L has been

707

1 able to avoid penalizing nonparticipating customers by

2 offering only DSM programs that reduce electric rates

3 for all customers, DSM participants and nonparticipants

4 alike. So my question is, why does FP&L take this

5 viewpoint, or why do you do things this way? Doesn't

6 this put the participants in the efficiencies at a

7 disadvantage because you have to spread the benefit over

8 everyone? What do you mean by that?

9 A. Well, first of all, it doesn't put anybody at

10 a disadvantage, and that's kind of the beauty of how we

11 try to implement DSM. You know, we use something called

12 the rate impact measure test to determine

13 cost-effectiveness, and the rate impact measure test's

14 goal is to make sure that everybody benefits through the

15 lowest rates possible. So even if you don't participate

16 in a DSM program, your rates that you pay for

17 electricity are as low as possible considering the

18 alternatives.

19 Now, the second test we look at is something

20 called a participant test. And the participant test

21 ensures that it makes economic sense for a customer who

22 elects to participate in one of our DSM programs to

23 realize benefits.

24 So by using these two tests, the rate impact

25 measure test and the participant test, both participants

708

1 in the programs benefit through lower rates and through

2 reducing their consumption through the program, and

3 nonparticipants benefit through having as a low a rate

4 as possible.

5 Q. Okay. Let me relate this to the first program

6 you list under the residential DSM programs, and that is

7 residential conservation services. That's where you go

8 to someone's home and you do an energy audit, and you

9 explain to them how they can make their home more

10 efficient through the installation of conservation

11 measures and practices.

12 Let's get specific and say it's through

13 increasing insulation to save energy. Now, how does

14 what you just explained to me relate -- how does that

15 person's insulation of their home save the cost of

16 energy for everyone involved in the system?

17 A. Well, first of all, I think -- let me clarify.

18 The residential conservation service program that you

19 talked about is really our energy audit program, and

20 that's where customers have the option of either us

21 going to their home, doing it on the phone, or through

22 the Internet. They actually do a survey of the

23 customer's home to identify ways to increase the

24 efficiency of their home.

25 An outcome of that would be recommendations

709

1 for some of our other programs, such as our duct

2 program, our building envelope program, or our HVAC

3 program, or there's others. Those programs, if the

4 customer who has the audit qualifies, they'll typically

5 get a certificate that they can redeem for part of the

6 cost to install that conservation measure.

7 For instance, we go to your house and we find

8 that you don't have adequate ceiling insulation, we will

9 determine how much you have and a recommendation of

10 where you ought to be as far as the level of ceiling

11 insulation, and we would write something called a watt

12 saver, which is basically a certificate that you can

13 redeem with a participating contractor to get your

14 ceiling insulation brought up to our recommended level.

15 Once you've done that, now that program, the building

16 envelope program, if you do that as a participant, will

17 help reduce the demand for electricity on our system,

18 and it will also reduce our peak demand, which will help

19 avoid building power plants.

20 Q. And that's how a general savings is

21 experienced? I see this. I'm just -- the individual

22 saves by putting in the insulation, and the system saves

23 because you don't have to build a new power plant?

24 A. I think you've got it right, yes, sir.

25 Q. Okay. Good. So am I right in connecting what

710

1 you just told me to the amount of 5,800 megawatts of

2 savings, which represents 20 percent of the energy

3 either generated or saved? When you put those together,

4 it's 20 percent of your total energy picture over the

5 years. Through your savings, you've been able to put

6 that must have aside or avoid that much.

7 A. Well, we haven't got there yet. I think the

8 5,800 number that was discussed by a prior witness, I

9 believe Mr. Green, was actually what we intend to have

10 done through 2014. We've done about 3,519 megawatts

11 through 2005. And you are correct in stating that the

12 way you get those megawatts is through getting customers

13 to participate in these programs.

14 Q. Since you generate less energy now than you

15 will in 2005, would the percentage, the 3,519, would

16 that -- what percentage is that then? That's where

17 you're at. In 2005 you're at 3,500. Do you understand

18 my question? How does that relate to the 20 percent

19 projected to be 5,800?

20 A. I'm not sure I understand your question, sir.

21 Q. Okay. If in 2014 you're estimating that

22 you'll be at 5,800 megawatts of savings, which then will

23 represent 20 percent, is the 3,519 number of 2005

24 20 percent as well?

25 A. I don't know for sure.

711

1 Q. Okay. We'll have to do the math. You don't

2 know the math for sure. Okay.

3 How many of your customers -- what percentage

4 of your customer base -- do you know how many customers

5 you have? I can't recall. I've read it.

6 A. We have about 3.8 million residential

7 customers and about 500,000 business customers.

8 Q. How many of your residential customers have

9 taken advantage of the residential customer service

10 energy audit? Do you have a percentage for me?

11 A. I have the absolute number if that would help.

12 Q. That would do.

13 A. We've had -- 2,192,000 customers have had a

14 home energy survey.

15 Q. Okay. Because this program is sort of like a

16 feeder program into the other opportunities that you

17 help people take advantage of, do you have a breakdown

18 of the residential building envelope program? That's

19 more specific, isn't it, in that you help people with

20 insulation, putting stuff around windows, and that type

21 of thing? Do you have a number on that, what percentage

22 of people you've -- this is all voluntary; right?

23 A. Yes, sir, it is voluntary. Once again, I

24 don't have a percentage, but I have the absolute number

25 if that would help.

712

1 Q. That helps.

2 A. There's been 730,000, approximately, customers

3 that have received rebates and processed them for the

4 residential building envelope program.

5 Q. That's great. Duct system testing and repair,

6 sir?

7 A. Duct system testing and repair, about 405,000

8 customers.

9 Q. Residential air conditioning? And I'm going

10 down the list here of the programs you offer people,

11 opportunities.

12 A. The residential air conditioning program is 1

13 million -- approximately 1,100,000 customers have

14 participated.

15 Q. That's out of how many customers?

16 MS. KRASOWSKI: 3.8 million.

17 MR. KRASOWSKI: 3.8 million. Okay. Nice.

18 BY MR. KRASOWSKI:

19 Q. Residential load management?

20 A. Our residential load management program has

21 742,000 customers in it today.

22 Q. And that's unique, in that it's a program that

23 offers load control to major appliances in the household

24 and household equipment to customers in exchange for a

25 monthly electric bill credit, so that goes specifically

713

1 -- say if my swimming pool heater is an electric one, I

2 sign up with you, and you're allowed to shut that down

3 if you're in a -- instead of a brownout or something

4 like that, if you need to?

5 A. You're pretty close, sir. We don't control

6 swimming pool heaters, but we do control swimming pool

7 pumps, along with water heaters and air conditioners and

8 space heating, you know, home heating.

9 Q. Okay. But not the swimming pool heaters?

10 A. That's correct.

11 Q. Is there a reason for that?

12 A. Well, the program typically gets used in

13 summer. You know, typically we build power plants to

14 meet load in summer, and there aren't too many swimming

15 pool heaters, I think, that would be on during the

16 summer.

17 Q. Okay. Thank you.

18 A. So we wouldn't get very much benefit.

19 Q. Right. That makes sense.

20 Did I ask about the residential air

21 conditioner, how many people participate in it? I did.

22 Okay. I have that.

23 How about residential load management? Did

24 you give me a number on that?

25 A. Yes, sir.

714

1 Q. You did. Okay. I'm sorry.

2 So now we're to the new construction

3 BuildSmart program.

4 A. BuildSmart -- I'm sorry.

5 Q. That's all right.

6 A. BuildSmart has about 15,000 participants.

7 Q. 15,000. Is that -- do you do that in concert

8 with the Florida Solar Energy Center? Do you work with

9 them at all on that?

10 A. This actually was a project that we --

11 actually, we worked with the Florida Solar Energy Center

12 when we initially developed the program. They provided

13 quite a bit -- actually, they did the research for us,

14 and they actually helped certify our representatives

15 that go work with builders on these programs.

16 Q. Great program. Are you familiar with the

17 Florida Solar Energy Center's project where they built

18 three different homes, one in southern, one central, one

19 northern Florida, 2,000 square foot homes, and then they

20 put a control home right next to it? And they maximized

21 all efficiencies in the test home and compared the

22 energy usage to the control home, which had kind of

23 standard appliances and design and insulation, so one

24 home maximized all of those things, not just solar. Are

25 you familiar with that program?

715

1 A. I am familiar with the summary of the

2 research, yes, sir.

3 Q. Okay. I'm trying to remember. I thought I

4 remembered that there was a 70 percent differential

5 between the control home and the maximized efficiency

6 home. It might be less than that, so I don't want to

7 misrepresent it and hurt the credibility of our

8 conversation, or my credibility. But do you remember

9 what efficiencies there were when you maxed out,

10 maximized every aspect of what you're doing here as far

11 as your voluntary programs?

12 A. I'm not sure I understand your question, sir.

13 Q. Do you understand the Florida Solar Energy

14 research project, the three homes?

15 A. Yes, I do.

16 Q. Okay. Do you remember the differential

17 between the energy use, like what percentage of energy

18 was saved in the experimental home?

19 A. I don't remember the exact numbers, but I

20 think your numbers of 70 percent are in the ballpark.

21 Q. Okay. I'll have to check that. And then we

22 talked about new construction, residential low --

23 residential low weatherization, low income

24 weatherization. I think we've kind of touched on that

25 already. Do you have a number of people that have

716

1 accessed that?

2 A. Actually, sir, no, I don't.

3 Q. And these numbers, are they since the

4 beginning of the program, or are they annual numbers?

5 A. They are since the program was implemented.

6 Q. And I noticed some information here that you

7 have some programs that have started and stopped. Some

8 have been redesigned and adjusted. So when did this

9 program -- when did these programs start, if you can

10 even answer that based on what I just said?

11 A. Well, it varies by program. I don't remember

12 exactly when all of them started. BuildSmart, for

13 instance, probably started about five or six years ago.

14 Our residential building envelope program has

15 been around for quite a number of years.

16 Our residential HVAC program, we had it for a

17 while, and then changes to the energy code basically

18 made the program obsolete, because the building code

19 minimum efficiency was basically what we were incenting

20 customers to do, so we weren't really -- you know, you

21 weren't getting any benefit from that. And over time,

22 new technology was developed that actually allowed us to

23 start the program up again. So that has been on and

24 off.

25 Our duct program is probably about 10 years

717

1 old. And that --

2 Q. Okay.

3 A. I'm sorry.

4 Q. That's okay. The one program where -- I think

5 it was the air conditioning program where the regulatory

6 requirements came up to the point where you were trying

7 incentivize people to go.

8 A. Yes, sir.

9 Q. Do you recall what SEER rate is the new

10 excellence target to hit? Is it something like a SEER

11 of 14 or 16? What's the best?

12 A. Well, the minimum based on the code is now a

13 SEER of 13. So we obviously don't want to incent

14 customers to put in SEER 13s, so we strive to incent

15 customers starting at 14 and above. You know, there's

16 SEER 19 equipment out there, and to the extent -- you

17 know, we make our incentives that we give customers,

18 structure it so that we try to move them to the higher

19 SEERs.

20 Q. All right. You also address your business

21 energy evaluation program?

22 A. Yes, sir.

23 Q. Where you encourage energy efficiencies in

24 business. Would I be correct in saying that that would

25 include air conditioning and -- well, any kind of

718

1 electrical -- what is included in that, if I may?

2 A. Our business energy evaluation, you can think

3 of it similar to what we do with a residential home

4 energy audit, but we did it for business customers. We

5 go into business customers' facilities and do a couple

6 of things. Number one, we try to qualify them for our

7 other DSM programs, for instance, lighting or air

8 conditioning or building envelope. And we also give

9 them practical things they can do that are low cost or

10 no cost that they can implement on their own without

11 making a financial investment, things like -- you know,

12 as simple as when you shut down your business at the end

13 of the day, make sure you're turning out the lights, and

14 make sure you're raising your thermostat if that's

15 appropriate, those types of things.

16 Q. Are smart thermostats part of your -- are

17 those -- are you involved in encouraging people in

18 residences -- I'm going back to that. Are you

19 encouraging as part of your program people to use smart

20 thermostats in either your individual home visits or

21 your visits to builders?

22 A. Yes, we are. When we do a home energy survey,

23 one of the recommendations to customers would be

24 programmable thermostats. Also, in our new home

25 construction program, which is BuildSmart, that's one of

719

1 the technologies that we encourage builders to put in

2 for our customers.

3 Q. Okay. And then -- okay. I see right here the

4 next one, business heating, ventilation, and air

5 conditioning. What percentage of your business -- how

6 many business customers do you have?

7 A. We have about 500,000 customers.

8 Q. And what number or percentage of those people

9 have taken advantage of what you offer?

10 A. It's much more difficult on the business side

11 to track that information, only because we tend to --

12 there's so much variation in a business customer. You

13 could go from a small business all the way to a large,

14 multi-campus type of facility. So we don't really track

15 participants. We try to focus on how many kW we get out

16 of them, so I really couldn't tell you exactly the

17 number of participants.

18 Q. But if you have a large warehouse with

19 lighting and they ask to you come in and help them

20 assess their energy options, you'll go in and help them

21 with that?

22 A. Oh, absolutely.

23 Q. Okay. Sounds good.

24 Next is business custom incentive, encourages

25 businesses to implement unique energy conservation

720

1 measures or projects not covered by other FP&L programs.

2 That's pretty open.

3 And then we have a different category,

4 commercial/industrial load control. Oh, that was ended

5 in 2000. Okay.

6 But was it picked up again, commercial demand

7 reduction, in 2002? And that's a program which, similar

8 to the previous one, it reduces peak demand by

9 controlling customer loads of 2,000 kilowatt or greater

10 during periods of extreme demand or capacity -- so

11 that's kind of the load control on the business side

12 that you have in the residential.

13 A. That's correct.

14 Q. And then business building envelope, a program

15 you offer there as well.

16 A. Yes, sir.

17 Q. So we have a 20 percent kind range, maybe a

18 little less, in that range, of energy need displacement

19 as a result of your efforts here, and it was identified

20 in some of the documents as 10 400-megawatt plants, or

21 it would be two 2,000-megawatt plants. And the

22 percentage of participants that you have represents

23 quite a few people. But in general, what percentage did

24 you come up with again?

25 Okay. Well, they're all different for all the

721

1 different categories, but it's like a fifth, an eighth,

2 or a third. The greatest is a third.

3 Okay. Are you familiar with a program that

4 Lakeland Electric has implemented? It's a couple of

5 years old now, where they themselves provide customers

6 with a solar hot water heater, and then they maintain

7 that. They install it. They own it. It's sort of like

8 what Microsoft does with the operating systems on

9 computers, where we get to use these things, but we

10 never own the operating system; right? So they put in

11 that appliance, continue to own it and maintain it, but

12 they have a meter that is right next to the regular

13 electric meter, so they charge for the electricity --

14 they have a special way of doing it, but they can tell

15 what power benefit there is in doing this for the

16 customer, and the customer pays for the solar heating of

17 their water. But the utility profits from this. So

18 it's a very clever way of arranging things. I haven't

19 heard of many quite like this. But are you aware of

20 that program?

21 A. I'm somewhat aware of that program, yes, sir.

22 That program actually began in 1997, and as of today,

23 there's about 60 customers for the City of Lakeland that

24 are participating in it. And typically what they do is,

25 they install solar water heating panels on a customer's

722

1 facility, and it has Btu meters that measure the amount

2 of hot water that a customer uses, and they charge the

3 customer based on hot water usage, and then they also

4 charge them for their electric usage for their non-hot

5 water needs.

6 Q. So it's a clever way of keeping the utility

7 serving the energy need, but transferring from

8 electricity to -- and there's a benefit towards using

9 this type of -- being in this type of situation, right,

10 because the electricity that that defers, there's also a

11 savings in -- the electricity lost in the transmission

12 over the lines is also a factor of efficiency. We've

13 been talking about that. That's been a point.

14 When Mr. Olivera was here, he said you folks

15 were looking at something like that as well, that you

16 were kind of the main man, so I wanted to --

17 A. Right. FPL is currently looking at trying to

18 offer a solar water heating program to our customers.

19 We're finishing the analysis and trying to make sure

20 that program will be cost-effective, and if it is, we

21 would potentially come to the Commission and ask for

22 their approval to offer that to our customers.

23 Q. Okay. I want to catch myself here, because I

24 don't want to be beating around the bush and maybe it

25 would be suggested that I was starting to be like a

723

1 professional witness, or maybe even a professional

2 attorney, you know, so let me stay grassroots here.

3 Okay. So with all this good work you're

4 doing, I'm wondering why, or we're wondering why, if

5 next legislative session, when the Governor has said

6 he's going to pull out all stops and get the best minds

7 in his State of the State address -- I don't know if you

8 saw that, but he said he's going to bring in -- do his

9 best, you know, bring from the best minds and work with

10 everybody to find the best solution or to make an effort

11 towards a solution on climate change. And, of course,

12 coal power is a big part of that.

13 So if the Legislature, which now has the

14 Environmental and Conservation Committee in the House

15 and the Senate, and Senator Saunders, and then also has

16 appointed the Century Commission, which identified

17 climate change as the number one issue for Florida to

18 look at for future planning, and also there's a new --

19 I'm sure you're familiar with this. There's a new

20 Energy Commission that's supposed to come up with an

21 energy plan, and then the Governor. So if of all these

22 efforts, which oftentimes generate great ideas, because

23 it's in the open environment, political and social and

24 all that, scientific --

25 MS. SMITH: Madam Chairman, I just have to

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1 interpose an objection. I think that Mr. Krasowski is

2 getting into the area of unsworn testimony at this

3 point, so perhaps if he can just ask a question.

4 CHAIRMAN EDGAR: I'm going to have to ask you

5 to bring it into a question.

6 MR. KRASOWSKI: Okay. I'm sorry. I'll do

7 that. So where was I?

8 BY MR. KRASOWSKI:

9 Q. Could you agree -- my question is, if we

10 double -- this is a voluntary program. You have a small

11 but very impressive percentage of participants,

12 participation from the various -- from your customers.

13 Would you agree that we would be able, if many of these

14 things were standardized into policy and procedure, to

15 double, to double the efficiencies that we realize just

16 in these programs alone if they were spread across the

17 board, everybody -- these became the new standards, like

18 the air conditioner standards, these standards become

19 the new standard, and they're new standards?

20 A. Well, first of all, I wouldn't characterize

21 what we've done as small. I think if you look at the

22 data, we've probably done -- we have done more

23 conservation that anybody in the country.

24 Q. Undeniable.

25 A. Okay. So if you're asking me is a better way

725

1 to accomplish this through code changes, I think

2 Dr. Green gave an excellent example on the impact of

3 code changes on customers' usage. I believe he

4 mentioned that the Energy Policy Act of 2005, when he

5 looked at the impact of that, that was about

6 1,200 megawatts through 2014 that he was able to reduce

7 his forecast.

8 Obviously, as things come into code that

9 utilities are incenting, the utility's goal is to look

10 at those changes and figure out, you know, how to react

11 to them. And you can react to them a couple of ways.

12 Number one, you could stop incenting customers to do

13 something because they're going to do it by code anyway,

14 so it's not the kind of -- you know, you're not really

15 getting any benefit from that, or you can redesign your

16 programs.

17 And FPL has taken both tacks at different

18 times. Just recently, we filed revisions to our

19 residential air conditioning program that looks to

20 address those code changes that you're talking about.

21 So there are ways that efficiencies can be

22 achieved through code, and there's ways efficiencies can

23 be achieved through DSM programs by utilities. I have

24 no idea if doubling it -- making it a code would double

25 what we're doing.

726

1 Q. Fair enough. Would you agree, though, that if

2 we were to increase by 10 percent the success, overall

3 10 percent, like by 50 percent, the amount that you've

4 accomplished here, that we would be able to replace the

5 1,960 megawatts requirement need that is identified at

6 this time under these standards, under these conditions,

7 so we do not have to put this power plant on the edge of

8 the Everglades, at the headwaters of Lake Okeechobee?

9 A. No, sir, I don't agree. And I guess it's

10 based on -- as we've gone through this process, one of

11 our goals was to identify all the cost-effective DSM

12 that we could do in this time frame. And to that

13 extent, the plan for FGPP already includes all the

14 achievable cost-effective DSM in the plan. So I don't

15 think we could cost-effectively come up with enough

16 incremental DSM to avoid those units.

17 Q. So obviously, we disagree. Well, okay.

18 I would like to ask you, what does

19 cost-effective mean when it's used so much throughout

20 these documents?

21 A. I think it's very similar to, as I answered

22 one of your prior questions, you know, we look at the

23 impact on potentially a DSM program versus the option of

24 meeting the need through purchased power or building

25 another power plant, the different options. And to the

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1 extent that the conservation or DSM program is a more

2 cost-effective solution than those alternatives, then

3 the DSM program gets implemented or proposed. If it's

4 not more cost-effective, then we would have to build one

5 of the alternatives to it.

6 Q. And how does the RIM standards come into this?

7 I'm not clear on that.

8 A. The RIM test is basically the test that we

9 use, one of the two tests to look at the

10 cost-effectiveness of our DSM programs. And the goal of

11 the RIM test is to make sure that the DSM program that

12 is being proposed has the effect of minimizing rate

13 impacts to all customers.

14 Q. And there are some programs that don't -- that

15 are energy efficient, but don't qualify because they

16 don't meet RIM standards, because FP&L loses money if

17 they implement the program? That's a question. Do you

18 have an answer? If you don't, that's fine.

19 A. No. We, first of all, don't lose money. I

20 mean, that's not the objective. The whole idea of --

21 you know, there are measures out there that don't pass

22 the RIM test, and typically what you'll find is, those

23 types of conservation measures are ones that don't have

24 a significant impact on demand, which means if we

25 implemented them, we still wouldn't be able to realize

728

1 the benefits of avoiding power plants, because they

2 don't defer capacity typically, or a minimal capacity

3 deferral.

4 Q. Could I have a second?

5 I think that's coming -- I thought that was my

6 phone. It's not my phone. It's a computer.

7 I think that just about covers it, but if I

8 can return to two main points, the Florida Solar Energy

9 Research Center, on their standards for housing. If we

10 were to live up to those standards, we could reduce the

11 new home energy uses by an enormous amount. Therefore,

12 the projection of need for this power plant into the

13 future, that need would be altered, or we would have to

14 refigure that. Would you agree with that or not?

15 A. To the extent that the work of the Florida

16 Solar Energy Center was cost-effective, I would agree.

17 However, I don't believe that would truly be

18 cost-effective, both for participants and for a customer

19 to do. I mean, those types of things have extremely

20 long paybacks.

21 Q. Okay. But are you -- can I ask you economic

22 questions about that? Are you the representative of the

23 economic -- I suppose you are if you're the DSM man.

24 These paybacks, if these programs are standardized and

25 implemented in all new housing, then the payback goes

729

1 with the house; right? I mean, there's no -- and

2 there's also programs to mitigate the increased cost

3 with assistance through government policies, which are

4 all coming up in the next legislative session and are

5 being analyzed by the entities I mentioned before. So

6 I'm confident that many questions regarding that could

7 be answered by those very bright, talented,

8 knowledgeable, like yourself, people on the issue.

9 Okay. And then the other issue is that

10 program that you might be coming out with your version

11 of, the one in Lakeland. It saved 7 percent energy per

12 household. If we put them on all the houses, along with

13 other programs, what would -- how much of a benefit

14 could you see, an increase over the 20 percent we're

15 achieving now?

16 A. I guess to put the Lakeland program in

17 perspective, they have approximately 100,000 customers,

18 and they have 60 participants. If you apply that to

19 FPL's customers, we would have about 2,600 participants,

20 which would be about one megawatt of impact, so very,

21 very small. Our goal is to be more successful than

22 them, in the sense that even a -- I guess a -- well, FPL

23 had a program like this several years ago, and over

24 probably about a 10-year period, we were able to get

25 about 40,000 participants in the program, and that

730

1 results in about 16 megawatts of summer peak demand

2 reduction. So you need a lot of people participating in

3 solar water heating to defer these types of power plants

4 that we're here talking about today.

5 MR. KRASOWSKI: Correct. So if it was one

6 megawatt, that would leave us 1,959 megawatts to handle

7 with other programs, but not to make a big joke of it.

8 Thank you very much. I really appreciate the

9 conversation, and although I don't agree with you, I

10 really respect and appreciate your answers.

11 I'm done with the questions. Thank you very

12 much, Madam Chair.

13 CHAIRMAN EDGAR: Thank you, Mr. Krasowski.

14 Are there questions from staff?

15 MS. BRUBAKER: Staff has none.

16 CHAIRMAN EDGAR: No questions. Commissioners?

17 Commissioner Carter.

18 COMMISSIONER CARTER: I was looking at my

19 little pad here, and next time I go on break, I'm going

20 to turn it down. I think Mr. Krasowski was looking at

21 my notes here. I think he got an answer to all of the

22 questions I had here.

23 CHAIRMAN EDGAR: That was a joke.

24 COMMISSIONER CARTER: But I do think that --

25 Mr. Brandt, I want to say to you, I know that sometimes

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1 when you work in an environment where the goal is to

2 sell more electricity and you're the DSM guy, you may

3 not be the most popular guy in the company. But I think

4 you're doing a great job with two national leadership

5 awards. Keep on keeping on, and I think that as long as

6 we keep DSM in the forefront of what we're doing and

7 keep on, you know, maintaining your national standards,

8 we're going to do -- we're going to get there. And I

9 just want to say I appreciate it.

10 Thank you, Madam Chair.

11 THE WITNESS: Thank you.

12 CHAIRMAN EDGAR: Commissioner McMurrian.

13 COMMISSIONER McMURRIAN: I'm going to try a

14 couple. Bear with me.

15 Mr. Brandt, can you give me an idea of the

16 percentage of reserves that are currently supplied by

17 DSM, or is that something that's better to ask of --

18 THE WITNESS: Actually, that would probably be

19 best answered by Dr. Sim.

20 COMMISSIONER McMURRIAN: Okay. Okay. Then no

21 questions. Thank you.

22 CHAIRMAN EDGAR: Ms. Smith, any questions on

23 redirect?

24 MS. SMITH: I just have a few. Thank you.

25 REDIRECT EXAMINATION

732

1 BY MS. SMITH:

2 Q. Mr. Brandt, you and Mr. Krasowski discussed

3 cost-effectiveness of DSM a great deal. Do you recall

4 that discussion?

5 A. Yes, I do.

6 Q. When you say DSM is cost-effective, what do

7 you mean?

8 A. What I mean by cost-effective is, when you

9 compare the DSM alternative to other options for meeting

10 peak demand, DSM results in lower rates for our

11 customers.

12 Q. And you said that there is not enough

13 cost-effective DSM to avoid or defer the need for the

14 FGPP units; correct?

15 A. That's correct.

16 Q. If FPL used a different cost-effectiveness

17 test for DSM measures, do you think the need for FGPP

18 could be avoided or deferred?

19 A. No, I do not. Typically, as I talked briefly

20 about, most of the other cost-effectiveness tests and

21 measures that would pass them don't necessarily

22 guarantee significant peak demand reduction, which you

23 really need to defer a power plant.

24 Q. And you may have already clarified this, but

25 Mr. Krasowski said in one question if FPL doesn't

733

1 implement a DSM measure, that's because FPL loses money

2 if they implement these programs. Is that what the RIM

3 test determines, whether FPL loses money?

4 A. No, it does not. It looks at the rate impact

5 on our customers.

6 Q. And Mr. Krasowski discussed the new

7 construction, residential new construction BuildSmart

8 program with you. Is that a partnership of sorts with

9 developers and builders in FPL's service area?

10 A. Oh, absolutely. For this to work, you have to

11 work with developers. And FPL has actually teamed up

12 with some of the larger builders in Florida such as

13 Pulte, Mercedes Homes, Lennar, and we work with them to

14 help sell energy efficient homes at the beginning.

15 Obviously, it's a lot more cost-effective to build an

16 energy efficient home than it is to retrofit one. So to

17 the extent that we can work with customers up front, we

18 kind of avoid this whole retrofit process, and it makes

19 us more effective.

20 Q. And have you made any changes to the

21 BuildSmart program to try to increase customer

22 participation in that program?

23 A. Yes, we have. We actually changed the program

24 last year, and there was a lot more focus on working

25 with developers that build multiple family units and

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1 trying to get, you know, the kind of mass market type of

2 homes involved in the program.

3 Q. And you discussed participation in other DSM

4 programs with Mr. Krasowski; correct?

5 A. Yes, I did.

6 Q. All else equal, does the price of electricity

7 in FPL's service area affect participation rates?

8 A. Sure it does. To the extent that you have

9 lower rates, you know, part of the reason a customer

10 participates is, you know, you have a first cost to

11 install the measure, then you have the utility's rebate

12 or incentive, and then the third part of the equation is

13 how much the customer saves on his bill. So obviously,

14 your rates impact how much they save on their every

15 month from the reduced energy usage.

16 Q. And if a utility has higher priced electricity

17 than FPL, how would you expect that to change

18 participation rates in DSM programs, again, all else

19 equal?

20 A. All things being equal, obviously, the higher

21 your rates, the more the customer would save each month,

22 and the more attractive, in a sense, the DSM measure

23 might look to that customer. They would have a shorter

24 payback.

25 Q. And you and Mr. Krasowski discussed the

735

1 Lakeland Electric water heating program. Do you recall

2 that?

3 A. Yes, I do.

4 Q. And you said approximately 60 customers have

5 participated in that program. That was implemented in

6 what year?

7 A. 1997.

8 Q. And how many megawatts have been saved under

9 the Lakeland Electric program since its inception?

10 A. It might be easier to talk in kilowatts. It's

11 been 24 kilowatts.

12 Q. And how many megawatts? Not even one?

13 A. Divide that by a thousand, .024.

14 Q. We were just discussing the participation

15 rates in DSM measures where the price of electricity is

16 higher. How do FPL's rates compare to the rates of

17 utilities in Massachusetts and PG&E in northern

18 California?

19 A. FPL's rates, to kind of put it in perspective,

20 a thousand kilowatt-hour bill for an FPL customer is

21 maybe around $110 a month, and out in PG&E, a thousand

22 kilowatt-hour bill is about $195.

23 MS. SMITH: I just have two more, Madam

24 Chairman.

25

736

1 BY MS. SMITH:

2 Q. Mr. Brandt, Mr. Krasowski discussed FSEC's

3 policies and standards with you. Do you recall that

4 discussion?

5 A. Yes, I do.

6 Q. If FPL were to implement FSEC's policies and

7 standards, do you think that that would avoid or defer

8 the need for FGPP?

9 A. No, I do not.

10 Q. And you're familiar with the work of the

11 Florida Energy Commission that Mr. Krasowski discussed

12 with you, are you not?

13 A. Yes, I am.

14 Q. Are you a aware of any policies being

15 considered by the Florida Legislature, the

16 implementation of which could avoid or defer the need

17 for FGPP through conservation?

18 A. Not that I'm aware of.

19 MS. SMITH: I have no further redirect.

20 CHAIRMAN EDGAR: Okay. We have exhibits. I

21 have 23 and 24, 130 and 131. Seeing no objection, we

22 will enter those into the record.

23 (Exhibits 23, 24, 130, and 131 admitted into

24 the record.)

25 CHAIRMAN EDGAR: Thank you, Mr. Brandt. You

737

1 are excused.

2 THE WITNESS: Thank you.

3 CHAIRMAN EDGAR: Okay. We are going to

4 conclude for the day. I do appreciate everybody's

5 cooperation these past two days.

6 As we discussed earlier, we will come back on

7 Wednesday of next week, which is the 25th. We have the

8 26th available to go into if indeed we need to. I would

9 ask in the interim that all of the parties obviously

10 work with your witnesses, and then please get with staff

11 and work up a proposed schedule that accommodates

12 scheduling needs. I will do everything I can to

13 accommodate and to show latitude, again with always my

14 caution that we will also try to proceed in a manner

15 that is orderly and helps lay out the record and the

16 case in a manner that makes sense to us up here as well.

17 MS. SMITH: Excuse me, Madam Chairman.

18 CHAIRMAN EDGAR: Yes, Ms. Smith.

19 MS. SMITH: Was Mr. Brandt dismissed?

20 CHAIRMAN EDGAR: I said that he was.

21 MS. SMITH: Okay. Great. Thank you.

22 CHAIRMAN EDGAR: And he's gone.

23 MS. SMITH: Thank you.

24 CHAIRMAN EDGAR: That's okay. Yes, yes, he

25 is. And I know that we did do his direct and rebuttal,

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1 so he is excused excused.

2 Okay. Ms. Brubaker, any other matters?

3 MS. BRUBAKER: No. I would also ask the

4 parties -- perhaps it would be better to address any

5 subsequent commensurate changes in the briefing

6 schedule, take that up as a matter when the hearing is

7 continued, but I could ask the parties to think about

8 any particular concerns they have. My suggestion would

9 be to look at maybe offsetting the briefs by about a

10 week, but we can talk about it further during the week

11 if you would like.

12 CHAIRMAN EDGAR: Yes. And that is -- thank

13 you for bringing that up, and I meant to raise that. I

14 would ask the same thing, that you look at your

15 schedules and work with our staff. And what I would

16 like to do is have a requested/proposed schedule both

17 for the continuation and finishing of the proceeding

18 next Wednesday and Thursday, and then also looking at

19 dates from that point forward for briefing and for our

20 staff rec as well so that we can have it before us, and

21 when we are all together, we can make some decisions.

22 Does that work?

23 MS. BRUBAKER: Absolutely. And also, this is

24 perhaps just an aspirational goal, but to the extent

25 also we can look to stipulating further witnesses, staff

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1 is happy to discuss that also.

2 CHAIRMAN EDGAR: And when we're talking about

3 the schedule, I would also ask, if it makes sense to go

4 ahead and take up direct and rebuttal at the same time,

5 then I am open to doing that as well.

6 Are there other matters while we are gathered

7 here together?

8 MS. PERDUE: Madam Chair, do we have a --

9 CHAIRMAN EDGAR: Yes, ma'am.

10 MS. PERDUE: Do we have a time for next

11 Wednesday?

12 CHAIRMAN EDGAR: 9:30 works for me. Is there

13 anybody that has a problem with 9:30 on Wednesday?

14 Okay. 9:30 on Wednesday it is. All right.

15 Then the hearing is continued, and we are adjourned for

16 the day.

17 (Proceedings recessed at 5:52 p.m.)

18 (Transcript continues in sequence in

19 Volume 6.)

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1 CERTIFICATE OF REPORTER

2

3 STATE OF FLORIDA:

4 COUNTY OF LEON:

5 I, MARY ALLEN NEEL, Registered Professional

6 Reporter, do hereby certify that the foregoing

7 proceedings were taken before me at the time and place

8 therein designated; that my shorthand notes were

9 thereafter translated under my supervision; and the

10 foregoing pages numbered 652 through 739 are a true and

11 correct record of the aforesaid proceedings.

12 I FURTHER CERTIFY that I am not a relative,

13 employee, attorney or counsel of any of the parties, nor

14 relative or employee of such attorney or counsel, or

15 financially interested in the foregoing action.

16 DATED THIS 18th day of April, 2007.

17

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19 MARY ALLEN NEEL, RPR, FPR

2894-A Remington Green Lane

20 Tallahassee, Florida 32308

(850) 878-2221

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