

BEFORE THE
FLORIDA PUBLIC SERVICE COMMISSION

In the matter of: : DOCKET NO. 981042-EM

Joint petition for :
determination of need for an :
electrical power plant in :
Volusia County by the :
Utilities Commission, City of :
New Smyrna Beach, Florida, and :
Duke Energy New Smyrna Beach :
Power Company Ltd., L.L.P. :

VOLUME 7

Pages 862 through 1015

PROCEEDINGS: HEARING

BEFORE: CHAIRMAN JULIA L. JOHNSON
COMMISSIONER J. TERRY DEASON
COMMISSIONER SUSAN F. CLARK
COMMISSIONER JOE GARCIA
COMMISSIONER E. LEON JACOBS, JR.

DATE: Friday, December 4, 1998

TIME: Recommended at 8:40 a.m.

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

REPORTED BY: MARY ALLEN NEEL, RPR

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1 APPEARANCES: As heretofore stated.
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9 I N D E X

10 WITNESSES - VOLUME 7

11 NAME	PAGE
12 DALE M. NESBITT, Ph.D.	
13 Continued Cross Examination by Ms. Jaye	865
13 Redirect Examination by Mr. McGlothlin	914
14 MARTHA O. HESSE	
15 Direct Examination by Mr. Wiggins	962
15 Prefiled Direct Testimony Inserted	964
16 Cross Examination by Mr. Moyle	990
16 Cross Examination by Mr. Guyton	1003
17	
18	
19	
20	
21	
22	
23	
24	
25	

EXHIBITS - VOLUME 7

1			
2	NUMBER	I.D.	EVD.
3	18		960
4	19		961
5	20		961
6	21		914
7			
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P R O C E E D I N G S

(Hearing reconvened at 8:40 a.m.)

(Transcript continues in sequence from
Volume 6.)

COMMISSIONER DEASON: Call the hearing to order. Staff, I believe you were inquiring or about to inquire.

MS. JAYE: Yes, Commissioner. Staff had begun to ask a question yesterday evening when we adjourned, and it's a question based on what has been marked as Exhibit 19 and entered into the record. This is Mr. Nesbitt's composite, the need for and viability of the Duke New Smyrna Beach project, and the question I have comes from page number 10.

DALE M. NESBITT, Ph.D.
continues his testimony under oath from Volume 6:

CONTINUED CROSS EXAMINATION

BY MS. JAYE:

Q Mr. Nesbitt, if you could turn to page 10, please, sir.

COMMISSIONER GARCIA: Did you hand it out?

MS. JAYE: No, the handout that was handed out earlier pursuant to other questions.

A Yes, I'm on page 10, the supply stack.

Q Yes, sir. Looking at this now, could you

1 help me understand if the production price that you
2 have assumed for the total 514 megawatts of the
3 proposed project is the price that will be actually
4 paid for the 30 megawatts which has been actually
5 contracted to UCNSB?

6 A No. The item on this chart, to clarify, is
7 simply the assumed heat rate for the project, 6832,
8 times the gas price assumed, plus the assumed O&M of
9 \$2.30. So it's, in my language, the go-forward cost
10 of each and every one of the 500 megawatts that
11 comprise the project. So the answer to your question
12 is yes, the 30 megawatts plus the remaining 470.

13 And I should point out it's not a price.
14 It's a cost.

15 Q All right. Now, if you would, please read
16 from your transcript of your deposition that was taken
17 at the instance of Commission Staff.

18 A Yes.

19 Q At page 42, lines 15 through 18, beginning
20 with "wet," and ending with the word "need."

21 A Would you like me to read that?

22 Q Yes, please, into the record.

23 A Line 15, Answer: "That's an important
24 component of need. Let me articulate what I think
25 need is, if that's the question. I need to replace

1 expensive stuff with cheap stuff. That's the
2 quintessential definition of need. If it costs too
3 much, I don't want it."

4 Q That's fine, Dr. Nesbitt. I just had a
5 question about the lines that you read.

6 In your view, is need market driven?

7 A In significant measure, but not completely,
8 yes, need is market driven. There are other
9 components of need, but --

10 Q What would those --

11 A -- need is heavily --

12 Q I'm sorry. I didn't mean to interrupt you.
13 I was going to ask you what the other components of
14 need were.

15 A The other components, the market driven
16 element of need, which is alluded to here. There's
17 environmental need. This project provides
18 environmental benefits. There is risk mitigation
19 need. Same cost, less risk, in the investment world,
20 just as in the power world, the latter option is
21 better. There is need to create GDP for Florida,
22 wealth creation. That's a need. If I live in this
23 state, I need wealth.

24 So those are elements of need as well.
25 Some derive from the market, and some don't.

1 Q How are those different types of need
2 weighted in your model?

3 A In the North American Regional Electric
4 Model, in the operating model, those are strictly
5 economic models, so those models quantify what you've
6 characterized, I believe, or what I've characterized
7 as market based need.

8 Q Do you view reliability as being market
9 driven? Is that one of the different market
10 components that you just spoke of?

11 A Yes and no. Reliability to me has a very
12 strong market driven element in it, more so than most
13 people realize at the beginning of the process of
14 reregulation, i.e., the market takes care of a lot of
15 reliability. But there are some reliability issues
16 that are sometimes external to the market that people
17 have to worry about externally. So reliability is in
18 large measure market driven, but certainly not
19 completely, in my view.

20 COMMISSIONER GARCIA: But you would agree
21 that this Commission should have some say in terms of
22 reliability?

23 WITNESS NESBITT: Absolutely.

24 COMMISSIONER GARCIA: So if this plant
25 weren't located in the right place, we should be able

1 to say no. In other words, if just up the road FPC
2 had a plant just like yours, exactly like yours, if we
3 just didn't need your plant where your plant was for
4 reliability in the state, I would assume you would
5 agree that -- obviously, I know that we have the power
6 to do it, but in terms of maintaining reliability in
7 the system, we should be able to say to you "no."

8 WITNESS NESBITT: Commissioner, I would
9 agree with that if the plants were absolutely
10 identical, had absolutely the identical economic and
11 all other consequences, then, sure, use reliability to
12 break the tie.

13 What I would worry about in that particular
14 situation is the common observation that it's
15 redundancy that buys you reliability, more is better
16 for reliability.

17 COMMISSIONER GARCIA: But there may be some
18 constraints for the Commission to say, well, we need
19 it on the other side of the state, in Fort Myers or
20 the Keys.

21 WITNESS NESBITT: Yes, absolutely. And I
22 think to the extent your question reflects, hey, we
23 want the biggest reliability pop for the dollar, for
24 the investment, yes, I do think that that's a role
25 that is logically external from the market, and you

1 should be concerned with that, absolutely.

2 COMMISSIONER GARCIA: Thank you, Ms. Jaye.

3 BY MS. JAYE:

4 Q Dr. Nesbitt, could you please provide a
5 brief overview of the assumptions upon which you based
6 your model?

7 A Yes. How brief would you like? No, I'm
8 joking a little bit. It's a fairly large model. Let
9 me start with supply, fuel supply.

10 The gas supply projections have come out of
11 our North American Regional Gas Model, which is
12 articulated in detail in DMN-16. The data for that is
13 supplied by the U.S. Geological Survey, a number of
14 Altos clients, public filings of pipeline tariffs, the
15 Gas Research Institute, the National Energy Board of
16 Canada, and the Canadian Geologic Survey. That's the
17 gas side.

18 On the coal side, the price projections
19 come from subjective estimates by and large of forward
20 markets for coal.

21 The oil estimates come from observed
22 futures markets at the time we did the analysis. We
23 just looked forward at gas oil and at diesel oil.

24 That should take care of the fuel side.

25 On the transmission side, we looked at the

1 EIA transmission database and the RDI transmission
2 database for first contingency capabilities, and we
3 made external assessments of the tariffs.

4 On the generation side, we accessed pretty
5 much every database we could, the EIA large plant
6 statistics, the ES&D, the RDI, personal consultations
7 with various people. And we basically -- and the FERC
8 Form 1s. We basically assembled from the bottom up a
9 database with originally 16,000 and now 24,000
10 generation units in North America, including
11 utility-owned, including non-utility-owned, including
12 phantom. That was quite an effort.

13 On the demand side, my Altos colleagues
14 took the FERC 714s hour by hour for the last four
15 years, downloaded those, made an hour-by-hour
16 histogram by month to figure out what the monthly and
17 daily and hourly load shapes were. Then they
18 extrapolated those forward in time in the way that we
19 alluded to yesterday over the 20-year simulation
20 period of the model, so that the demand side of the
21 model has a careful calibration to the historical load
22 shape projected forward through time.

23 The other assumptions we've articulated
24 yesterday. It is a microeconomic model, a theory of
25 the firm type model, as I characterized it yesterday,

1 with price taking, profit maximizing producers,
2 chasing profits, cost minimizing, shop around,
3 consumers seeking the best possible price.

4 I may have missed a few, but that's a
5 pretty good overview.

6 Q Thank you. In your opinion, are fuel
7 price forecasts adequate to determine the viability of
8 the proposed project?

9 MR. MCGLOTHLIN: Would you repeat the
10 question? I just didn't hear it.

11 MS. JAYE: Certainly.

12 BY MS. JAYE:

13 Q Dr. Nesbitt, in your opinion, are fuel
14 price forecasts adequate to determine the viability of
15 the proposed project?

16 COMMISSIONER GARCIA: I'm sorry, Ms. Jaye.
17 Could you ask the question again? Just ask it. I
18 didn't hear it.

19 MS. JAYE: Certainly.

20 BY MS. JAYE:

21 Q Dr. Nesbitt, in your opinion, are fuel
22 price forecasts adequate to determine the viability of
23 the proposed project?

24 MR. MCGLOTHLIN: For clarification, are you
25 referring to the fuel price forecasts that Dr. Nesbitt

1 employed?

2 MS. JAYE: Historical fuel price forecasts,
3 or fuel price forecasts which are based purely upon
4 historical data, such as 423 forms, et cetera.

5 A Thank you for the clarification. I think
6 as we talked about together in my deposition, the
7 reliability of extrapolating historical fuel prices to
8 the future has been very poor. And the question I
9 always ask myself is would I buy stocks based on
10 extrapolation of past stock prices. No, I wouldn't.
11 I would lose.

12 A much better way to deal with fuel price
13 forecasts, as I testified in my deposition, I believe
14 is to build yourself a fundamental model and
15 extrapolate those fuel prices forward based on
16 fundamentals. Historical prices have been deplorably
17 bad in the past, historical prices as a guide to the
18 future.

19 And as I mentioned in my deposition, I
20 would commend you to papers by Mr. Michael Lynch of
21 MIT, which is a ringing, stinging indictment of using
22 historical fuel prices and simplistic models based
23 thereon to extrapolate future prices. So I would not
24 use -- I would not extrapolate history. I would not
25 want to rely on those particularly. I would say I

1 definitely would not want to rely on those solely.

2 Q Dr. Nesbitt, in your opinion, should
3 embedded costs for long-term fuel contracts be ignored
4 when evaluating need?

5 A My view of fuel is much like my view of
6 electricity. The answer is yes, they should be
7 ignored in the following sense.

8 I think you should mark the fuels to
9 market. To me a fuel is not different than
10 conceptually a corporate bond. A corporate bond is
11 marked to market every day no matter what the coupon
12 rate says that you're going to get for it. And you're
13 strongly urged, if you will, to value that corporate
14 bond at the marked to market rate, not at the rate
15 that's printed on the bond face. I feel exactly the
16 same way about fuels. You should mark all your fuels
17 to market.

18 Q Dr. Nesbitt, in your opinion, should fuel
19 price forecasts of all sorts be ignored in evaluating
20 need?

21 A No. No, they shouldn't. Fundamentally
22 based fuel price forecasts should not be ignored, in
23 my view, but should be considered.

24 Q Could you then explain to me the nexus
25 between considering a fuel price forecast and allowing

1 an open market, if you will, on, say, a spot market
2 basis for trading fuel between willing buyers and
3 willing sellers at any given moment?

4 A Could you repeat the question? I'm not
5 sure I understand it, please.

6 Q Certainly. What I'm trying to understand
7 here, Dr. Nesbitt, is if there is some reliability
8 upon a fuel price forecast in making a buy decision or
9 a sell decision with fuel in running a project such as
10 the proposed project than there is some reliance on an
11 extramarket input. And as I understand your
12 definition of need, need means people meeting in an
13 open market to trade willingly based upon what the
14 market bears at that moment. And to me it seems that
15 would not allow for any use of historical data or
16 projected data as to fuel price. Could you please
17 clarify my understanding?

18 A Yes, let me give it a try, and perhaps that
19 will help shape the question a little more to one that
20 I understand.

21 I'm not here to state, nor do I believe,
22 that projections into the future are a poor way to do
23 it. Quite to the contrary, you have to project into
24 the future.

25 I'm simply stating that I'm not one that

1 likes to extrapolate historical prices into the
2 future. To caricature it, I'm not one who wants to
3 plot historical fuel prices on semilog paper and draw
4 a line through it that goes into the future, which is
5 what historical price projections do. That has proven
6 empirically to be a very poor way, a very unreliable
7 way to get forward fuel prices. I'm simply suggesting
8 that extrapolating the past to the future has been
9 poor.

10 What I'm suggesting that -- what I want to
11 extrapolate to the future is supply curves, pipeline
12 capacities, demand curves, the grist from which
13 fundamental models are made, and I want to project
14 those into the future and find where those cross each
15 other. And whenever I've done that personally, I've
16 had a far better track record at actually anticipating
17 what those future fuel prices really are.

18 So I'm not suggesting that you don't
19 extrapolate. What I'm suggesting is, you don't do it
20 by looking at historicals and going forward. The
21 track record is poor.

22 Q Maybe that will help me frame the question.
23 If it is your testimony -- and correct me if I have
24 misinterpreted your testimony, but if it is your
25 testimony that need is to a large degree market

1 driven, why then do we need a fuel forecast?

2 A Okay. I think I can better answer that
3 question now. Thank you.

4 Need is market driven. If we look at the
5 need for the Duke New Smyrna Beach project, market
6 driven means the difference between the price of
7 electricity and the price of natural gas at the plant
8 site. So you need to understand the price of
9 electricity forward in time. You need to understand
10 the price of gas forward in time, and you need to
11 understand the correlations or anticorrelations
12 between the two.

13 The way we've chosen to do it is to project
14 the price of gas forward in time, calculate the clip
15 market price of electricity, given the price of gas
16 and other fuels forward through time. The price of
17 electricity is a strong function of the price of gas
18 forward in time.

19 So when I say it's market based, the
20 benefits of the project, the GDP contributions it
21 brings to Florida, and all the things we talked about
22 depend critically on the price differential across the
23 project, the forward price of gas and the forward
24 price of electricity. You need to project both of
25 those, gas and electricity, as well as all the other

1 fuels, and you need to project those consistently.
2 And all I've stated is Nesbitt's Maxim No. 14: Do not
3 extrapolate history. You will get the wrong answer,
4 with high probability. It's an empirical statement.
5 Do it fundamentally, gas and electricity.

6 Again, I just want to emphasize, market
7 based need is the price differential across the asset
8 or the project that you're looking at. So it's two
9 prices, not just one.

10 Q Does that view of a fuel price forecast, if
11 you will, over the life of the project take into
12 consideration market spikes such as were seen in
13 California and the Midwest over this past summer?

14 A The particular forecasts we used here do
15 not. They look at an average or a nominal month.

16 I might point out too, on the issue of
17 particularly natural gas price forecasts, this project
18 is not very sensitive to the natural gas price
19 forecast we use. That's the information you really
20 need. Raise it a little bit, all it does is favor the
21 project. Drop it little bit, all it does is disfavor
22 the project. But across the reasonable range of
23 uncertainty of gas prices, the project is still a big
24 winner.

25 That's what I want to know, not exactly to

1 four decimal places of accuracy what my extrapolated
2 forward price is, but does it matter, is gas price the
3 critical issue. The answer is no, it's not.

4 Q Would electric price as sold from the
5 project in a situation such as occurred in the Midwest
6 or California in this past summer result in a price
7 impact upon consumers whose utilities bought power
8 from the project?

9 A My understanding of what happened this
10 summer is no. And the reason is, where is Florida
11 connected to the rest of North America? It's
12 conducted through Southern, what we've called Southern
13 in the model. Did we see price spikes in Southern?
14 No. So there's no connection as we sit here today
15 looking backward to last summer between the Florida
16 market and the price spiked markets. So in terms of
17 physical participation in those markets, no. There
18 was no possibility last summer that a Florida producer
19 was going to, quote, unquote, get rich by those price
20 spikes.

21 But if Florida continues to rely on
22 transmission from Southern, it's going to be more and
23 more as growth happens liable to those price spikes.
24 So the status quo makes Florida more and more exposed
25 to continental price spikes. It didn't happen last

1 summer because Southern's price didn't spike.

2 Q Thank you, Dr. Nesbitt. You did answer my
3 question. I have another for you, however. Would you
4 please define market clearing price?

5 A Let me do that in the context of my
6 supplement on page number 6 that shows the
7 supply-demand curve crossing.

8 Q I have that page, sir.

9 A Okay. We have a supply curve on that page.
10 That supply curve is the composite -- let's take
11 Florida as an example -- of all the producing assets
12 in Florida arrayed in ascending order of production
13 costs, arrayed from left to right in ascending order
14 of production costs, just like the supply stack we
15 saw.

16 And the demand curve is the same. It
17 arrays the consumers in descending order of
18 willingness to pay. The people who need electricity
19 to run a heart-lung machine would be way, way off on
20 the upper left. They're going to pay whatever it
21 takes. And the people who want to shave an extra time
22 each day are way out on the right on the demand curve.

23 Okay. The market clearing price, the
24 concept is simply when we look at that construct,
25 there's one price at which the amount sold equals the

1 amount consumed. It's direct equality. If the price
2 was just a tiny bit higher than that, you would have
3 more people willing to sell than there were willing to
4 buy, so the markets don't clear. The notion of
5 clearing means there's nothing left after the market
6 transactions are done. And if the price is a little
7 bit lower, there's not enough sellers and too many
8 buyers.

9 So the idea of a market clearing price is
10 that the price is set to balance or equilibrate the
11 interests of consumers and producers, exactly balance.

12 COMMISSIONER GARCIA: Can I jump in for a
13 second? Yesterday you sort of equated this to
14 electricity sort of being a commodity.

15 WITNESS NESBITT: Yes, I did.

16 COMMISSIONER GARCIA: And it brought up
17 something that my aide always says, which is, "To say
18 that electricity is just another commodity is to say
19 that oxygen is just another gas." I mean, clearly,
20 government has stepped in to regulate fuels because
21 they are essential and central. The fact that this
22 Commission exists here is because we can't live
23 without electricity.

24 Probably the part of the state where I live
25 in, Miami probably wouldn't exist to the size and

1 scope if we didn't have air conditioning. So we
2 depend on electricity in Florida. And I'm sure you've
3 looked at Florida usage, and Florida ratepayers are
4 huge consumers of electricity as a residential
5 customer.

6 So you do understand the nervousness of
7 letting the market determine the need of the state's
8 growth. How do we justify that, sort of just letting
9 the market decide these types of things?

10 WITNESS NESBITT: Commissioner Garcia,
11 that's a great question, and I wrestle with that, as
12 you do, all the time in my own mind. And the way I
13 wrestle with that one in my own mind is the
14 following:

15 Electricity, the way it has been set up,
16 and the real reason, as I understand it, regulation
17 started was because when we first had an electric
18 business, it was a natural monopoly. That's why
19 you're here. We wanted to take advantage of the
20 economies of scale in the business, particularly in
21 transmission and distribution. And we didn't want, if
22 you'll excuse the expression, the capitalist rotters
23 to rip off the customers. It is a natural monopoly on
24 the T&D side.

25 It was probably a natural monopoly, most

1 economists think, in generation. When we started this
2 business, every plant was field fabricated. Every
3 plant was a special island unto itself. We've come a
4 ways since then, Commissioner. Now plants are bought
5 off a train car. Plants have become commoditized.

6 So what people have begun to think is, the
7 natural monopoly piece that was really there all the
8 time hasn't really changed that much. T&D is a
9 natural monopoly, most people think. Most people
10 think you don't want to have four different lines into
11 every house in Florida, because that would be
12 senseless duplication of a natural monopoly facility.

13 But when you look upstream at fundamental
14 supply or fundamental generation, it's very debatable
15 whether that's true. I believe it's not true. Entry
16 is easy. Plants come in bite size pieces. There's
17 more money than just about anything in North America
18 now. You can build as many plants as you want,
19 conceptually. The thought is that the cut between the
20 natural monopoly and the competitive sector of the
21 market is the generation bus bar. So I think what a
22 lot of people, myself included, think is that the
23 generation piece of it is no longer a natural
24 monopoly.

25 Consider the analogy -- let me make one

1 more point, if I might. I think it helps.

2 Consider the analogy of a gas distribution
3 company. When FERC Order 36 was promulgated, I saw a
4 photo in the newspaper of an elderly person in
5 Minnesota who had frozen to death. They didn't show
6 the elderly person. They showed the toilet, and they
7 showed the block of ice in the toilet. The gas LDC
8 had turned off -- I think it was an elderly female.
9 They turned off the gas because she didn't pay the
10 bill. What was the emotion? The frozen block of ice
11 that comprised her toilet.

12 Gas is just as essential to human health as
13 electricity. Oil is just as essential to human health
14 and well-being. Jet transportation is.

15 COMMISSIONER GARCIA: Let me give you
16 another hypothetical. And I know Commissioner Deason
17 probably has something to follow up. But how about if
18 we do start running tight? You know, FPC calls us and
19 says, "Commissioner, it looks really tight here," and
20 we need to you generate. Do we have the power to
21 force you to generate? I mean, we can sort of order
22 them to do all sorts of stuff in the interests of
23 Florida ratepayers. I don't even know how much stuff
24 we can do, but we can do an awful lot.

25 WITNESS NESBITT: Oh, absolutely.

1 COMMISSIONER GARCIA: We don't have that
2 same control over you. And yet you may have been part
3 of the mix that someone relied upon for us to -- in
4 Florida I guess it's to keep the toilet from boiling
5 in certain places.

6 So that being the case, can you see sort of
7 the danger that we have? I mean, for the people in
8 New Smyrna, say, you know, you just don't want to
9 provide the power at what they can afford, or there's
10 some constraint to the system, or some plants that FPC
11 has go down for an unknown reason, and all of a sudden
12 we're facing one of those summer days where it's
13 really tough here.

14 WITNESS NESBITT: I can see the concern,
15 but I think, Commissioner Garcia, if you use the
16 market judiciously, it doesn't hurt you. It helps
17 you. You ultimately do have control about how much
18 entry that you let in.

19 And my view is, if you let in, and I
20 recommend that you do, a substantial granular, small
21 chunks, diverse merchant fringe, they're going to help
22 you do your job. They're going to benchmark what the
23 real cost is, not by a subsidized player. And that's
24 not to denigrate subsidies. Subsidies are good
25 sometimes. Not by a subsidized player who's an

1 incumbent, and every dollar they spend, they get
2 return of and return on, but by a player who has to
3 come in and withstand the market test.

4 So if you have a small but fiercely
5 competitive merchant fringe, you get a freebie. You
6 get reduced prices. They're very easy to justify.
7 You still have control of the system. You have clear
8 and careful benchmarking. And now you've got another
9 horse in the race that the incumbent has to keep up
10 with. It's manna from heaven. You get the
11 information. You get the price reduction. You get
12 more participation in the state. You get discipline.
13 And you still don't lose control.

14 COMMISSIONER GARCIA: Well, what control do
15 I have over you?

16 WITNESS NESBITT: Over me?

17 COMMISSIONER GARCIA: Yes, Duke.

18 WITNESS NESBITT: I'm glad you clarified
19 it.

20 COMMISSIONER GARCIA: I guess I found out
21 that it takes 45,000 to have control over you.

22 WITNESS NESBITT: That's a good start.
23 That's a good start.

24 COMMISSIONER GARCIA: So over Duke. What
25 control do I have over Duke to protect Florida rate --

1 to protect the ratepayers? Forget about price. To
2 protect ratepayers from the dangers that not having
3 electricity, just like not having gas caused that
4 woman to go. In Florida, not having electricity when
5 we have a heat wave -- I mean, our people are a little
6 bit more used to it, but when we have a heat wave in
7 skyscrapers in Florida, you can boil in there.

8 WITNESS NESBITT: It kills people,
9 prospectively. It did in Texas last summer. It
10 killed 120 people. Absolutely. It's not a joke.

11 COMMISSIONER GARCIA: Right. So what
12 control do I have over you? I know I've got control
13 over these guys, because they're part of this whole
14 system. So if they do something stupid, but it's
15 meant to save a Floridian, we'll probably let it into
16 the rate base, because that's my interest. I want to
17 keep Floridians alive. That isn't the central
18 interest here, but clearly this Commission is
19 established to sort of protect its citizens, or to
20 balance the scales. What do I have with you?

21 MR. McGLOTHLIN: Commissioner, I'm happy
22 for Dr. Nesbitt to answer that question, with one
23 caveat, that he's talking now as to policy
24 recommendations and not legalistically. With that one
25 clarification.

1 COMMISSIONER GARCIA: Right. But we're
2 talking about the market, and we're talking about why
3 a Commission even exists. And some of the points that
4 Dr. Nesbitt has made I think are very strong. I mean,
5 he almost makes it a point for this Commission to have
6 a very limited role in what we do about reliability
7 and things. There may not even be a need for some of
8 this process that we have.

9 So my question now is the other side,
10 what's left for me, which is public health, safety,
11 and welfare.

12 WITNESS NESBITT: Let me answer that this
13 way. You have mighty strong control over the
14 incumbents. Even if the incumbents lost their entire
15 generation business -- and you control the natural
16 monopoly; you control the reserve margin in the state
17 -- what you can do is, you can mandate that they buy a
18 certain amount of capacity. And that pretty much
19 dictates how much capacity will be in this state to a
20 significant degree, because they have to go buy it if
21 you tell them to go buy it.

22 And as soon as they have to go buy it, you
23 can have a merchant free-for-all, or you can have
24 incumbents building plants. There's all means and
25 manners by which you'll get the capacity to enter the

1 state to meet that kind of mandate.

2 So you don't have to have the iron fist, if
3 you will, on the generation gearshift in order to
4 control generation. You control the customers, and
5 you control the natural monopoly, and that's where the
6 control is and belongs. Okay?

7 But I would ask you the other question.
8 The other thing that you control is, you control how
9 much and when. You can drag your feet and you can
10 slow it down, or you can throw open the gates and
11 speed it up.

12 COMMISSIONER GARCIA: Is that what we've
13 done to some degree? Your model finds that we have a
14 need for about 4,000 -- I'm sorry, 5,400 megawatts.
15 Is that -- we've been slowing the process, perhaps?
16 We haven't been pushing our companies to build more?

17 WITNESS NESBITT: My view is -- my personal
18 view is, you're too slow. My personal view is, 5,400
19 megawatts of -- let me call it high tech, low cost
20 capacity could enter the state, and the producers,
21 based on that capacity, could make money.

22 And it's not just you. It's all the
23 incumbents in the state. The utilities have not
24 wanted to build in any state. They've low-balled
25 their estimate. You know the stories. They're

1 legend. Okay?

2 The process is too slow. Your ratepayers
3 are being hurt. Your reserve margins in my view are
4 thinner than they need to be. Okay? You're putting
5 too much grunk in the air, because you're generating
6 with inefficient capacity. You've got too much market
7 power still sitting in the system. My view is, the
8 process in Florida is too slow, and you're hurting
9 people. The costs are too high, and the reliability
10 is too low.

11 Now, do you want to enable 5,400 megawatts
12 of merchant? I wouldn't say that. But I would say
13 you want to speed up -- this is my personal
14 recommendation now. You want to speed up entry, and
15 you want to speed up entry with the lowest and best
16 cost technology, which no one has really debated is
17 this technology that Duke New Smyrna Beach is
18 proposing to build.

19 The other thing that has been a problem
20 traditionally in Florida is the concern about natural
21 gas pipeline capacity entering the state, and
22 basically let everybody spit the hook. We haven't had
23 the gas pipeline capacity into the state that makes
24 people comfortable in siting a lot of new generation
25 capacity, but it's coming.

1 COMMISSIONER GARCIA: But, Doctor, you sort
2 of haven't addressed the central issue again, safety.

3 Let's say you've got -- you know, we have
4 some kind of fiasco, some kind of crisis, and the
5 people of New Smyrna need energy. Say they need 40 or
6 50 or 100 megawatts, but you're getting a much better
7 price in Georgia. And obviously, they have their own
8 regulatory commission, so this is a real hypothetical.

9 I know that in Florida, I know that our
10 companies have to sell first to our Floridians. I
11 know that my people are going to be taken care of
12 first before the people of Georgia. There's nothing
13 wrong with the people in Georgia. They have their
14 Commission, and they have their ways of fixing it.
15 How do I protect our people?

16 WITNESS NESBITT: Commissioner Garcia,
17 think of it this way. When that plant is located
18 physically in or near New Smyrna Beach, where does the
19 energy enter the grid? New Smyrna Beach. I don't
20 think it's appropriate to think about the contractual
21 paths. That's not what you have to worry about.

22 The physical situation is, the valuable
23 commodity enters the system in or near New Smyrna
24 Beach and drives the price down when it does. The
25 whole system responds when it does. The physical

1 delivery is in Florida. That means the physical
2 electrons are going to be used in Florida. To the
3 extent you displace electrons around all over SERC,
4 TVA, whatever, the fact of the matter is, if the plant
5 is physically located in Florida, it drives down the
6 price in Florida.

7 When I talk about why did you model the
8 market as marking your power to market everywhere,
9 that's why I did it. It's the physical entry of power
10 into Florida that matters. It is here. Its best
11 markets are here. It doesn't have to pay a
12 transmission load to get out of here.

13 So I won't speak for Duke. I'll speak for
14 Dale Nesbitt. If I own this plant, I'm not going to
15 go looking for customers in Georgia, except maybe if
16 there's some unusual tranchant circumstance. But for
17 many, many, many thousands of hours during the year,
18 I'm going to be selling right here in Florida, because
19 my physical deliverability is here. I can avoid a lot
20 of costs, and I want to make money. That's just the
21 kind of guy I am if I put \$160 million on the ground.

22 Physical delivery goes into the market in
23 Florida. That's where I monetize my asset. You have
24 no control over that, but I as an owner of that plant
25 am almost always going to see that as the best

1 option.

2 COMMISSIONER DEASON: Dr. Nesbitt, you
3 indicated that if there has been a failing -- and I'm
4 sure you don't mean it in that negative of a sense,
5 but if there has been a failing of regulation, it's
6 that we've not had enough generation. And maybe it's
7 not just regulation. Perhaps it's just the law that
8 we're dealing with and the economics and the change of
9 those economics.

10 But if we want to characterize that as a
11 failing, I want you to contrast that with what was
12 perceived to be the role of regulation years ago, and
13 that was to keep utilities from overbuilding and
14 increasing their rate base to the extent to where it
15 was not needed and customers were required to pay a
16 return on unneeded assets, to what you see our role
17 now as, to try to get cost-effective generation,
18 regardless of what the reserve margins are. Contrast
19 that to me, and give me your viewpoint as to what has
20 caused that change and why we need to rethink what
21 we're doing.

22 WITNESS NESBITT: Yes. It's very
23 important. I mean, you allude, Commissioner Deason,
24 to what was called the Averch-Johnson effect, and that
25 is, if you pay people to build, they'll build. And if

1 they have a natural monopoly, they'll build even if
2 you don't pay them to, because they make so darn much
3 money doing it that they just go ahead and do it.

4 In the glory days of the industry -- and
5 this is true of the natural gas pipeline industry, the
6 electric generation industry. Okay? We instituted
7 this system because we were afraid there was a natural
8 monopoly out there. And I believe there was a natural
9 monopoly out there vertically integrated through the
10 entire system. It was thought there was a natural
11 monopoly in, God help us, natural gas production at
12 the wellhead, electric generation at the bus bar, oil
13 production at the wellhead, transmission through the
14 system, et cetera, et cetera.

15 What we've found out over the years is,
16 the natural monopoly piece is the downstream piece,
17 it's not the upstream piece. We discovered that oil
18 and gas production were not a natural monopoly, but in
19 fact should have been deregulated long, in my view,
20 before they ever were. We just didn't know it. So
21 when we started out, we thought natural gas production
22 was a natural monopoly because there were just a few
23 participants. Indeed, it probably was, but now it's
24 not.

25 Electric generation was a natural monopoly

1 for a number of reasons, in my view, in the old days,
2 because it look a huge player to get in. The plants
3 were --

4 COMMISSIONER DEASON: You indicate now that
5 has become commoditized.

6 WITNESS NESBITT: The plant itself is
7 commoditized, in my view, yes.

8 COMMISSIONER DEASON: And when you gave
9 that characterization, I think in describing that you
10 indicated that entry is easy. Entry is easy, I
11 assume, from an engineering standpoint. But I'm sure
12 you would agree that what we've been involved in for
13 the last two days is really not an easy thing.

14 WITNESS NESBITT: Not easy.

15 COMMISSIONER DEASON: And this is what we
16 have to go through with our current law before you can
17 build your power plant; is that correct?

18 WITNESS NESBITT: That's my understanding,
19 Commissioner Deason, yes.

20 COMMISSIONER DEASON: And if someone else
21 comes in after you, they've got to go through the same
22 process. So entry is easy in the sense that you can
23 basically buy that unit off the railroad car, so to
24 speak. It may not be that easy. But to the extent
25 that it has become commoditized, it's easy, but the

1 framework in which you have to get authorization is
2 not easy.

3 WITNESS NESBITT: No, it's not.

4 COMMISSIONER DEASON: And I guess my
5 concern is, if we are to adopt your definition of
6 need, do we even need this need process? We can rely
7 on the market?

8 WITNESS NESBITT: Need in an economic
9 sense? In a legal sense, my perception is that you do
10 need it. In an economic sense, with regard to
11 generation, strictly generation, I think you should
12 oversee it for a while. I think you do need to
13 oversee it. For example, I don't think you would do
14 it, but I don't think you would want to do it, throw
15 5,500 megawatts of incremental entry to one player.
16 You don't want to have market power spring up where it
17 shouldn't have. You've got to oversee that.

18 Commissioner Garcia mentioned that there
19 may be reliability concerns that happen from a given
20 development plan relative to another one. I think you
21 want to oversee that so that you get as much
22 reliability augmentation as you can, subject to
23 whatever kind of entry strategy that you have.

24 I don't think you want to preclude any
25 given entrant. If one of the incumbents wants to

1 enter, they should neither be precluded nor favored.
2 I think you want to oversee that, because incumbents
3 have a special position politically and economically
4 in the state. It's not viable to cut them out.

5 So I do think there are some -- yes, some
6 very substantial roles.

7 There's also the question that I call the
8 Ricardian rent question. It's the siting question.
9 There's only so much land, and there's only so many
10 places that the people of Florida are going to count,
11 and it's the power plant. How are you going to
12 allocate that scarce resource? Are you going to put
13 that out to auction, et cetera, et cetera? There's a
14 lot of concerns that you have some implicit say over
15 the need to be thought through, the location, the
16 siting.

17 And then I think finally, the other one you
18 have to think about is the structural mechanism. Am I
19 going to build plants here, and am I going to ex ante
20 impose all the costs of that plant over its life on my
21 ratepayers by putting it in rate base and thereby
22 elevate the costs because I create incentive for
23 people to load costs into that kind of a system, or am
24 I going to have a least sum degree of competitive
25 merchant fringe to help me out, to run as a benchmark,

1 to make darn sure that the prices drop?

2 So I think making that balance, I would
3 love to do that. I'll bet you would love to. That's
4 a fun job, figuring out what that balance is. And the
5 nice part about it is, it's a win-win job. You get
6 the benchmark. And this project is going to give you
7 a heck of a thing to benchmark off of and help you
8 out. It doesn't let the horse out of the barn. You
9 don't have to throw away the entire regulatory fabric,
10 and I don't think you should.

11 CHAIRMAN JOHNSON: You listed and I was
12 writing down the factors that you think we should
13 consider or the involvement that we should have with
14 merchant plants. Your model demonstrates the 5,400
15 megawatts of need, and in your handouts it says
16 immediate need.

17 Understanding that one of the elements that
18 you believe that we should look at is the incremental
19 entry and not have a concentration of market power
20 with Duke building and satisfying that complete need,
21 do you think -- and I also know that you said even
22 though we have a 55,000 (verbatim) megawatt need, that
23 we shouldn't go through a bidding process, that would
24 be the wrong way to go.

25 But do you -- is there another process?

1 Because if there is, if your model is correct and if
2 there is that kind of need, should there be some more
3 comprehensive process to let individuals know, other
4 merchant plants, "Look, we have a huge need. Come in
5 and tell us how you could all satisfy it"? Should we
6 have some more open process that we could have more of
7 an influence or be a part of the determinations as to
8 where these things should be located? Do we do that
9 all at once, or do we do it incrementally as they come
10 in? Because if we determine there's a need, Duke
11 builds this, then Duke comes back and says, "We want
12 to build another one somewhere else," how do we tell
13 them no when we've decided another one is needed
14 somewhere else?

15 WITNESS NESBITT: There's a couple of
16 answers to that question, Madam Chairman.

17 With regard to letting them build another
18 and another and another, sooner or later you can say,
19 "Look, I just don't want that amount of market
20 concentration."

21 My guess is, my strong suspicion is that if
22 this project goes ahead -- and I think it's a darn
23 good idea to have it go ahead -- you're going to have
24 quite a few people knocking at the door saying, "Me
25 too, me too." Remember the old "Let's Make a Deal"

1 show? "Pick me, Monty, pick me."

2 You'll have no shortage of alternatives
3 that are created for you. You'll be in a position,
4 Madam Chairman, to pick and choose and to use the
5 market to deliver you the information that you need to
6 make better decisions. That's what I love about the
7 incremental strategy. The market brings you and this
8 Commission the information that you need. They bring
9 the creativity of the sites, the gas pipelines, dot,
10 dot, dot, to you. This is manna from heaven. You
11 don't have to buy it. It comes to you as part of the
12 application. And then you and your colleagues who go
13 through these kinds of processes, you're going to get
14 more efficient and better at it. You're going to have
15 many alternatives to choose from.

16 And if indeed I'm right that there are
17 5,400 megawatts of capacity out there, you'll see
18 applications from incumbents and nonincumbents
19 materialize fairly quickly that you can pick and
20 choose among. Clearly, there will be a distribution
21 of quality of those applicants ranging from, "Are you
22 kidding me?" to, "Yes, that's a great option, and we
23 should think about that." And that's quite different.

24 I would urge you not to think about
25 generating all the alternatives yourself or having the

1 incumbents generate all the alternatives themselves,
2 because they tend to be biased. Let the market bring
3 you the alternatives. You're still in control.

4 CHAIRMAN JOHNSON: But you do like the
5 incremental strategy?

6 WITNESS NESBITT: I love the incremental
7 strategy. You get a benchmark each time somebody goes
8 through a process like this.

9 Look at the fair market value of the
10 information that you've gotten over the last three
11 days. You couldn't afford to buy this politically,
12 but the people who are endeavoring to serve your
13 citizens are giving it to you. That's manna from
14 heaven alone. They're helping you understand your
15 job. Not that you don't, but they're helping you
16 understand your job.

17 So the incremental process has a huge
18 informational, a huge didactic benefit. That's why I
19 like it.

20 You can always stop. Each incremental
21 applicant or each incremental person who knocks on the
22 door has got to go through the same process.

23 To use the lingo I used to use when I was
24 growing up, you're going to get smarter and smarter
25 each time. You're going to get more and more informed

1 about your own system. You're going to have a better
2 and better benchmark against what the incumbents are
3 telling you. It's much more reason to process,
4 because a huge slug of information comes with it.

5 I love the incremental process. I think
6 it's the way to do it.

7 CHAIRMAN JOHNSON: Thank you.

8 COMMISSIONER JACOBS: So you disfavor the
9 bidding for incumbents as well?

10 WITNESS NESBITT: Excuse me?

11 COMMISSIONER JACOBS: You disfavor bidding
12 for incumbents as well?

13 WITNESS NESBITT: I disfavor bidding in the
14 classical way that it has been done. The reason I
15 don't like bidding is that bidding gives the ability
16 to pass the costs through to your customers. They're
17 not bidding to build the plant. They're bidding for
18 the right to impose costs with your sanction on your
19 customers. That's the part I don't like.

20 Let them enter with absolutely no guarantee
21 that they can impose one dime of costs on your
22 customers. Bidding is politically a very nice way to
23 do it, but let's think about the economics. You're
24 imposing costs on people. And the only guarantee you
25 have that they're the lowest cost is, that's the way

1 it got bid.

2 COMMISSIONER JACOBS: So let's look at a
3 recent example. Mr. L'Engle spoke about the Cane
4 Island project. They had -- I believe it was the City
5 of Kissimmee had a new project, a major development
6 there that imposed upon them a significant demand, and
7 so they went about seeking to have that demand met in
8 a fairly expeditious manner. They bid that out and
9 could not come up with someone who could provide it,
10 and they decided to build. Why would we not want them
11 to go through that process?

12 WITNESS NESBITT: The reason you would not
13 want them to go through that process is the following.

14 If you believe, as I do, that these plant
15 configurations are -- they're off the shelf. They're
16 commoditized. You read about them in the catalog, you
17 order them, they come on a train car. Why bid for a
18 commodity? Do you bid for gold? Do you bid for
19 silver? Do you bid for oil? No, you don't. And the
20 reason you don't is, you go to the Wall Street
21 Journal, and you know what the price is. Why spend
22 the time and money?

23 My view of these plants is that they've
24 gotten to the point now where they're commodities.
25 People don't bid for commodities.

1 COMMISSIONER JACOBS: I thought I
2 understood his testimony that one of the main reasons,
3 one of the main factors that drove them to the build
4 decision was that they could not find a commodity that
5 could show up in time.

6 WITNESS NESBITT: I think that may be right
7 in the current regulatory framework. Look at what
8 Duke New Smyrna Beach is faced with. No incumbent has
9 any incentive to sign any deal with them. In fact,
10 they have a disincentive to do that, because they want
11 to keep them out.

12 The process is very biased right now. So
13 you're coming into the state. You can't sign a
14 natural gas contract because you don't have a plant to
15 burn it in, and you can't sign a power contract
16 because you don't have a plant to generate it with.
17 You would just be speculating if you did. Okay?

18 So if you take those kinds of incentives
19 that are in a quasi-regulated fabric and put it to
20 people who would project a bid, they're not going to
21 bid. But if you throw it open and you say, "You can
22 monetize the price differential between gas and power,
23 period. All we're going to do is look at siting the
24 plant and look at reliability, but once you're in,
25 it's yours." When you get the price differential,

1 you'll find bids, lots of them.

2 COMMISSIONER JACOBS: My trouble with that
3 is that, as I understood it, here were two contracts
4 sitting on the table, one from the City of Kissimmee
5 and one from FMPA. And it was my understanding -- and
6 I can't recall the exact load, but I think it was over
7 100 megawatts, and two potential buyers couldn't find
8 a commodity that would meet their needs in a
9 sufficient amount of time.

10 And this is a characteristic that I would
11 expect would continue in Florida, where you have a
12 major new development that's going to impose that
13 demand in a fairly short time line. If we see that
14 trend develop, if indeed your theory is correct, then
15 I think we would probably be right. But my trouble is
16 that here I see a recent example that doesn't seem to
17 bear that out.

18 WITNESS NESBITT: Commissioner Jacobs, the
19 bidder has no access to the price. Let me give you a
20 counter-example. And I don't mean to debate. I just
21 mean to give you a counter-example. In California we
22 have about a 50,000 megawatt system, and at the moment
23 there are six and growing. It may be 8,000 megawatts
24 of new capacity entrance before the Cal Energy
25 Commission. NEPOOL is what, 25,000, 29,000 megawatt

1 peak? They have 33,000 megawatts of new proposals on
2 the books.

3 As soon as people have access to the price
4 differential between power and gas, they bid, big
5 time. The Duke, the Calpines, the PG&E, everybody is
6 in. They want a piece of that. And the reason for it
7 is -- you saw it in the 5,400 megawatts -- is that
8 there's profitable business to be done in these
9 various big attractive states like Florida if you let
10 people monetize the difference between the price of
11 power and the price of gas.

12 The problem with the bidding in a
13 regulatory framework is, you're not letting people
14 monetize that difference. That's the problem. It's
15 institutionally set up that people who bid want the
16 full, complete, total guarantee of return of and
17 return on, or they won't bid. Their incentive is to
18 pad their cost and throw it into the bid.

19 COMMISSIONER JACOBS: Okay. Let me bring
20 on a line of questioning Commissioner Garcia had. As
21 I understand it, Duke is or will be a member of FRCC.
22 Is that correct?

23 WITNESS NESBITT: I don't know if they -- I
24 don't know that.

25 COMMISSIONER JACOBS: Okay. Let's assume

1 that they are. And one of the important functions
2 that the council serves is reliability on the grid,
3 and safety. If some plant, some provider is trying to
4 ship power to its customer and they overload a line,
5 FRCC can come in and ask that plant to shut down or
6 redispatch. Would a merchant plant be willing to
7 subject itself to those kind of conditions and
8 restrictions?

9 WITNESS NESBITT: Well, I won't speak about
10 this specific one, because I don't know. But those
11 are externalities. Those are public safety
12 externalities. I think in most states and most
13 commodities, those are reserved for regulators. There
14 are emergency situations that allow such preemption.

15 So my thought is, at the conceptual or
16 generic level, sure, they have to. The specific case
17 here, I don't know.

18 COMMISSIONER JACOBS: And then finally --
19 and this kind of bridges off your point about
20 monetizing the gas difference. One of the great
21 issues we have in Florida is the supply of gas.

22 WITNESS NESBITT: Yes.

23 COMMISSIONER JACOBS: If we were going to
24 move in this direction, should we have more concern
25 about that, about the singular line that we have

1 coming into the state? Should we make sure that our
2 dependence is not as limited?

3 WITNESS NESBITT: Commissioner Jacobs,
4 that's a great question. And as you know, that single
5 line is already expanding itself with a Phase 4
6 expansion. I worked recently on a couple of
7 prospective expansions that look like they're going to
8 come here. And I think the way to ensure that is to
9 make sure the gas pipeline industry can monetize the
10 basis differential between Florida and Henry Hub, or
11 wherever they start out, in the Gulf of Mexico, Mobile
12 Bay.

13 Florida is a very attractive target for
14 pipeline expansion right now with the kind of basis
15 differential that we see between the Gulf of Mexico
16 and Florida. A lot of people have their eye on
17 Florida.

18 But I think -- put yourself in the position
19 of the CEO of a prospective entrant into the gas
20 pipeline business here. You're going to want to see
21 generators that are viable and running here, because
22 you're going to want to be sure that you can sell the
23 volumes that are contracted and that you don't have
24 price risks.

25 To me, it's an integrated question. If you

1 saw 5,400 megawatts coming into this state, you would
2 see gas pipeline companies literally tripping over
3 themselves to build the new pipeline capacity into the
4 state.

5 One interesting issue about gas pipelines,
6 Commissioner Jacobs, that may put your mind at ease,
7 one of the important concerns that was voiced before
8 FERC Order 436 in 1984 was, "That's it. You'll never
9 see another gas pipeline. The incentives are gone.
10 There's no return of and return on."

11 Quite the opposite has happened. Gas
12 pipelines -- I mean, Louisiana is made out of steel
13 now. You can't find a place to dig that you don't hit
14 a pipeline. California has three pipelines coming
15 in. You only need two. And yet the consumers have
16 benefited huge time.

17 People would have argued in this kind of
18 arena, "Oh, we have costly duplication of pipeline
19 service." Quite the contrary. What has happened is,
20 the old guys have had to discount to stay in business
21 or go out of business. The new guys have had the
22 loads. The price of natural gas is half of what it
23 was.

24 Gas pipelines -- I give speeches around the
25 country, and I call them Nesbitt's maxim. Keep this

1 one in mind: Pipe is cheap compared to gas. That's
2 Nesbitt's Maxim No. 1. If anything is going to
3 overbuild, it's going to be the pipe. Pipe is cheap
4 compared to gas. You can build a lot of pipe for not
5 much money.

6 I wouldn't worry, personally, about natural
7 gas pipeline capacity coming into Florida. If the
8 economic incentive is here for people to actually
9 monetize the price differential between Henry and
10 Florida, it's going to happen.

11 COMMISSIONER JACOBS: Should we be
12 concerned about who's reserving capacity on the pipe?

13 WITNESS NESBITT: No, because I think it's
14 fungible. It's physical. What I would be concerned
15 about, Commissioner Jacobs, is, do you have the
16 physical aggregate capacity coming in. It doesn't
17 make sense for people to buy something they don't use.
18 They're just going to remarket it. I wouldn't worry
19 about who has the entitlements. I would worry about
20 the aggregate capacity, contracted plus uncontracted.

21 COMMISSIONER JACOBS: But I would think a
22 merchant plant would be particularly concerned about
23 that. I mean, if the incumbents can get significant
24 reservation of capacity, that's going to have a large
25 impact on your operations.

1 WITNESS NESBITT: It is. But part of your
2 job is to make sure that if the incumbents buy up all
3 that capacity that it's used and useful. If it just
4 sits there, you're going to throw it back.

5 And I think it's very risky for a merchant
6 to just buy up and become a monopsony buyer of all the
7 capacity coming into the state and use that as a
8 barrier to entry. I think that's a risky strategy.

9 And what you're seeing around the country
10 with gas pipelines is that people are getting rid of
11 their firm transmission contracts, and they're fully
12 commoditizing the tariffs, which is a good thing.

13 I developed a power plant recently where
14 there's no firm transportation at all. The physical
15 capacity is big enough; just go naked.

16 COMMISSIONER JACOBS: Thank you.

17 BY MS. JAYE:

18 Q Dr. Nesbitt, you spoke earlier about plants
19 entering into the market in granular size. Is it your
20 opinion that a 514-megawatt plant is a granular size?

21 A It is my opinion in the Florida market,
22 which is 35,000 plus megawatts, yeah, that's a pretty
23 small grain on the beach.

24 Q Does your model ignore environmental issues
25 associated with adding the 5,400 megawatts of new

1 wholesale capacity in Florida?

2 A Yes. As I alluded to earlier, my model is
3 strictly looking at the economic issues and not the
4 environmental issues. However, I would add that when
5 you take the output of the model runs, you'll note
6 that the total fuel consumption drops substantially.
7 It's pretty easy to impute some environmental benefit
8 to that off line.

9 Q I had one more thing I wanted to ask you
10 about this morning. If you could take your deposition
11 transcript and turn to page 21.

12 A Yes, ma'am.

13 Q If you would read into the record, please,
14 lines 6 through 22.

15 A Line 6, "Question: Then, Dr. Nesbitt,
16 would market price on a forward-going basis be like a
17 spot market price as far as your projections?"

18 "Answer: Let me clarify what a market
19 clearing price is. It's the price at which, the cash
20 price at which buyers and sellers voluntarily trade
21 coal. So in that sense it's a cash spot price."

22 "Mr. Hall: I'm sorry. I didn't hear.
23 It's a cash?"

24 "Answer: Cash spot price. However, the
25 cash spot price and the futures prices equilibrate in

1 a merchant market, so there is really no difference,
2 okay, between some sort of terming and some sort of
3 spot price when you are looking forward in time and
4 projecting market clearing prices. This is basically
5 the price of a BTU of coal in the Florida SPP," that
6 should read instead of SBP, "West Central, et cetera,
7 markets as they are laid out up and down the side of
8 the table that you referred to."

9 Q The table has not been entered into the
10 record, as I understand it. We were looking at coal
11 prices.

12 In your opinion, would this analysis that
13 you went through on this page that you just read into
14 the record be the same for gas?

15 A Yes, it would, and let me amplify. What
16 really is at work here is that there's no possibility
17 for arbitrage between contracts and these what I've
18 characterized as cash spot prices. That's an
19 assumption that I've made, and that's the incarnation
20 of the assumption that I'm marking my contracts to
21 market.

22 So, yes, it would be the same for oil,
23 coal, and gas, in my analysis. I've made a common
24 assumption for all.

25 MS. JAYE: Thank you, Dr. Nesbitt.

1 Madam Chairman, I would move Exhibit 21
2 into the record.

3 CHAIRMAN JOHNSON: Show it admitted without
4 objection.

5 (Exhibit 21 was received in evidence.)

6 MS. JAYE: Thank you.

7 CHAIRMAN JOHNSON: I think we had 18 and 19
8 for Duke.

9 MR. McGLOTHLIN: They are in the record.

10 CHAIRMAN JOHNSON: Okay. Redirect? I'm
11 sorry.

12 REDIRECT EXAMINATION

13 BY MR. McGLOTHLIN:

14 Q Dr. Nesbitt, at an early point during your
15 testimony, in response to a question, you described
16 the displacement effect that the Duke New Smyrna
17 project would have on the marginal units on the supply
18 stack. In your mind, is there -- do you equate the
19 concept of this economic displacement with retirement
20 per se?

21 A Let me amplify that a bit. Displacement
22 means in general that the plant would be running fewer
23 hours. It doesn't necessarily mean that it would be
24 running zero hours. It simply means that it would be
25 running fewer hours. So if before Duke New Smyrna

1 Beach a plant were running, say, 800 hours a year, it
2 may only be running 600 hours or 400 hours a year once
3 the project enters. So displacement doesn't mean
4 decommissioning. It simply means less usage.

5 Q And with respect to the simulation you
6 performed with your model, did you observe complete
7 shutdowns of the marginal units, or were they simply
8 used less than they would have otherwise run?

9 A No, in fact, we didn't. We saw that they
10 were used less than they would otherwise run. And in
11 fact, what happens increasingly over time is less
12 reliance on Southern, who in turn is having less
13 reliance on its upstream suppliers. So the marginal
14 source, the shut-down source, in the very long run is
15 some coal plant or gas plant out in the hinterlands of
16 Ohio.

17 Q In response to another question, you
18 observed, based upon the modeling you performed, that
19 over time, power does not go from Florida to
20 Southern. What specific factors account for that?

21 A The primary reason that Florida power
22 doesn't go to Southern in an economic sense is this.
23 Southern is one stop closer to the centroid of all the
24 generation on the continent save Florida.

25 What does that tell you? That tells you

1 that when you look at wheeled power, Southern has got
2 an advantage. It also tells you that the price
3 differential between Southern and Florida is likely to
4 be Southern lower than Florida for some significant
5 period of time. There may be short-term transients
6 from time to time, but the economic forces drive
7 Georgia prices systematically below or equal to
8 Florida prices.

9 No one wants to transmit power, if he or
10 she is rational, from a high price region to a low
11 price region, or from a same price region to a same
12 price region. Why pay the transportation freight?
13 So the reason is economic.

14 And I don't think this Commission need
15 worry about exports of power systematically from
16 Florida to Georgia. Florida is kind of out on the end
17 of the line, as it were. And our model runs suggest
18 that Florida's best economic strategy is to become
19 self-sufficient, much more so than they are now.

20 Q Now, unlike Florida, is it true that the
21 Southern Company System is interconnected to other
22 areas of the country?

23 A Yes. The Southern System is connected to
24 VCAR, Virginia and the Carolinas, and ultimately to
25 ECAR, Ohio. It's connected to SPP Southeast, now

1 called Entergy, TVA, et cetera. So the Southern
2 System is well connected. And the Southern System is
3 better positioned to avail itself of, particularly off
4 peak, marginal coal production in other regions.
5 That's going to beat Florida.

6 So systematically, you'll see lower prices
7 in Southern because of its interconnections to these
8 other regions, and you will not see an economic
9 propensity to export power from Florida into Southern.

10 Q Would allowing merchants to enter the
11 Florida generation wholesale market preclude regulated
12 utilities from bidding for the supply needed to meet
13 their reliability criteria?

14 A Could I get you to repeat the question? I
15 missed the first part.

16 Q Yes. It's in response to some questions
17 concerning the relationship between allowing merchant
18 entry on the one hand and the role of the incumbents
19 on the other.

20 Would allowing merchants to enter the
21 wholesale generation market in Florida preclude
22 regulated utilities from putting out to bid the supply
23 requirements they need for their own reliability
24 criteria?

25 A No, I don't see why it would. I don't see

1 why merchant entry would affect the regulated
2 utilities. I thought Commissioner Garcia's question
3 two days ago to Mr. Sasso was right on the mark.
4 "What do you care? You know, I'm going to keep you
5 whole." I mean, I'm paraphrasing a little bit, and if
6 I miss, Commissioner Garcia, please correct me. "I'm
7 keeping you whole. You've got your return of, and
8 you've got your return on. You got your costs passed
9 through. Your shareholders are just fine, thank you.
10 And in the merchant world, conceptually, I can
11 distinguish in my own mind from those issues." I
12 totally agree with that.

13 Q One question posed to you yesterday
14 hypothesized that the Commission might allow Duke New
15 Smyrna in and then determine that on a need basis, no
16 others should be admitted in, and reason that in that
17 situation, Duke would have control over the wholesale
18 market and be able to gouge on price. Is that a valid
19 hypothetical in your mind?

20 A I don't think that's a valid hypothetical
21 at all. Suppose that scenario were to come to pass or
22 come close to passing, where the Commission decided to
23 open the door, put one plant in, say one merchant
24 plant in, and then shut the door. To the extent
25 reserve margins got thin, to the extent economic

1 incentives for new investment became evident, they
2 would become mighty evident in the wholesale market.
3 You people would see that very early on. People would
4 be applying for new capacity, either incumbent or
5 merchant, at a pretty high rate.

6 The flurry of activity is going to be a
7 mighty good, I would think, harbinger that you want to
8 open the door again, not necessarily to a merchant,
9 but you don't want to, in effect, subsidize a merchant
10 by allowing only one in and then barring entry. And I
11 think that would apply to eight or ten or 12. You're
12 going to know by the flurry in the market when enough
13 is enough, and you're going to know by observation of
14 reliability and other concerns when enough is enough.

15 Q In response to a question, you observed
16 that a merchant plant has more incentive to operate on
17 peak than others. Would you explain why that's the
18 case?

19 A Absolutely. That's the most critical thing
20 that you need to understand about a merchant.

21 How does a merchant make money? Answer:
22 Selling energy. When does a merchant make the most
23 money? Answer: Selling energy at the highest price
24 hours of the year.

25 Now, if you were going to put your personal

1 dollars into a merchant plant, what would you tell the
2 CEO of that company? You would say, "By gosh and by
3 golly, you better be around on peak. If you're not
4 around on peak, I'm going to find somebody who is."
5 You have profound incentive to be available on peak
6 when prices are high.

7 Now, if I take the perspective of the
8 Florida ratepayer, that's exactly when I want these
9 guys available, because they have the maximum price
10 depressive effect on peak.

11 Going back to the other case, off peak, if
12 you're the CEO of the merchant, do you really care if
13 you're available off peak? Not really. That's the
14 time to do your maintenance. You're going to be
15 mighty, mighty, mighty careful how you do it. You
16 have no market power that comes from shutting down a
17 unit and leaving it off the market when you might see
18 some peaks, and, oh, by the way, make a lot of money
19 off it. You're a merchant. You're a price taker.
20 The only dollars you make are margins that you get out
21 of the market. Okay?

22 And this is classic in industry, the mining
23 business, the semiconductor business. All they care
24 about is throughput on peak. An airline, if that seat
25 leaves Dulles Airport for Los Angeles at 5:30 p.m. on

1 Friday afternoon and it's empty, United Air Lines
2 loses \$1,500 of margin forever. That flight is never
3 late. That's, by the way, the highest profit flight
4 in their system. And they are available on peak with
5 that flight. Why? Because that's where they make
6 their money.

7 It's very important to think about this.
8 The merchants act the way that the Commission and the
9 citizens would want them to act: Highly available on
10 peak, exactly the time you need them; no market power,
11 because if they shut down, they get nothing; and
12 unavailable off peak when you don't need them.

13 Q In your answers, you've used the term
14 "price fly-up" sometimes. Would you explain what you
15 mean price fly-up?

16 A You've never seen one, but -- no. What
17 happens is, when you have the \$7,400 scenario that we
18 saw last summer, wouldn't it have been nice to have
19 500 megawatts to shield you from that? There's a lot
20 of bankrupt trading companies that really wanted the
21 500 megawatts to shield them from that. They were
22 closing a position at \$40 and buying it at \$7,400.
23 They sure would have liked to buy it at \$18.

24 This capacity that you're talking about,
25 this 500 megawatts here and this 500 megawatts there,

1 is a profound buffer against very near-term price
2 fly-ups. And the reason is, the merchants, when they
3 see that, they're on. They're putting their power
4 into a physical market that's local, that's displacing
5 other power, that's displacing other power, that's
6 displacing other power, and you're getting price
7 moderation everywhere. Capacity is what moderates
8 price fly-ups.

9 Q Counsel for FPL directed you to DMN-15 and
10 asked a series of questions about the electric model.
11 And you were asked whether the model you used is
12 intended to model a future deregulated environment or
13 the existing wholesale market, and you said there are
14 elements common to both. Would you elaborate on what
15 you meant by that?

16 A Yes. The situation that you find yourself
17 in right now in this industry is kind of a hybrid of
18 regulation and deregulation. Under the FERC rules,
19 interstate or long distance transmission is de facto
20 deregulated. It's unbundled.

21 So we wanted to make sure in our model that
22 we represent it that way. Anybody can have it up to
23 its first contingency capability at a posted price.
24 So that's a -- we attempted to represent that very
25 simply as price seeking, profit maximizing

1 transmission system owners, but who were constrained
2 to charge a certain price.

3 We wanted to represent the world of
4 generation, which is pretty common in a regulated and
5 unregulated world. A regulated world will dispatch
6 generation in ascending order of cost, and an
7 unregulated world will dispatch generation in
8 ascending order of cost. So we wanted our generation
9 simulation approach to be identical, and we did that.

10 The biggest difference between a regulated
11 and an unregulated world is simply the cost structure
12 that you ascribe to the various generation assets. In
13 an unregulated world, generation assets have to
14 repatriate not just pure variable costs, but also all
15 the fixed costs out of the market. Otherwise, they
16 shut down and leave. So the only difference really
17 significant between a regulated and an unregulated
18 world is how you ascribe the cost structure of the
19 various generation units.

20 Now, fortunately, the supply stack that you
21 saw in the package that I handed out, that's just pure
22 variable costs. But when you put fixed costs in and
23 amortize over run time, it still has pretty much the
24 same merit order, the same order of plants. It's just
25 that they get a lot higher costs faster as you move

1 further to the right, the same kind of supply curve.
2 So those elements are common between a regulated and
3 an unregulated world.

4 Customers, to the extent they can choose in
5 a regulated versus an unregulated world -- and
6 regulatory bodies help them choose. A regulatory body
7 buys de facto from the lowest cost source, or helps
8 people to do that.

9 The biggest difference between a regulated
10 and an unregulated world is whether or not the fixed
11 costs are passed through in the form of rate base and
12 therefore ascribed to the market, or whether they're
13 not, whether people just have to recoup those by
14 monetizing the difference between price and cost.

15 So as I step back and look at the model run
16 that we have, I think it's a good representation of
17 the world that we have, which is quasi-regulated and
18 quasi-deregulated. I would not agree with an
19 assertion, "Oh, you're a market guy, you're a merchant
20 guy. That's the world that's ten years out, but it's
21 not now." I would dispute that.

22 Q You referred to the simulation of the
23 generation system as dispatching on ascending order of
24 cost. Would you explain what you mean by that?

25 A Yes. If you take all the generation assets

1 in the state, say, in Florida, and you say, okay, what
2 is my -- I'm going to use the term "forward cost to
3 market." If the market asks me to run, what do they
4 have to pay me minimum to get me to do it?

5 And the answer is, it's my fuel cost plus
6 my variable operating cost. So if I ascribe a fuel
7 cost plus a variable operating cost to each of my
8 plants at full load and I lay them out in ascending
9 order of cost, if demand passes through that stack
10 that I've laid out conceptually at any given point,
11 in an unregulated world, the last plant through whose
12 cost the demand curve passes sets the price to
13 everybody.

14 We talked about yesterday in the regulated
15 world, not everybody gets that. But in an unregulated
16 world, everybody gets that price. People get
17 different margins all the way back through the supply
18 stack. But in a regulated or an unregulated world,
19 that is what we term the least cost dispatch
20 solution. There's no way to run your plants that
21 gives you a lower cost of operation than simply
22 marching backward and forward up that stack.

23 That's all I meant. It's a fairly common
24 view in the utility industry.

25 Q Dr. Nesbitt, you were asked some questions

1 about the assumptions and the methodology you employed
2 that are more typical of a completely competitive
3 environment than the existing regulated environment.
4 Was your choice of assumptions influenced by the
5 specific task you were undertaking, by what it was you
6 were evaluating?

7 A Yes, it was. The particular mix of
8 assumptions -- and I think I alluded to this yesterday
9 -- were designed to be conservative, but reasonably
10 conservative. I don't want to be out of the money,
11 but I don't want to be overly ambitious in the model
12 runs and the results that I put forth.

13 Why? It's a pretty serious investment.
14 People are talking about laying out 150, \$160
15 million. They don't want a model run that says, "Hey,
16 don't worry about it. Your spark spread, your gas
17 price is \$2, and your electric price is \$50 a
18 megawatt-hour. Hey, take that one to the bank."
19 That's not what they want. What they want are
20 assumptions that render that spark spread what I say
21 is reasonably conservative. It's in the range of
22 uncertainty. It's on the conservative side. It's
23 shaded towards the conservative side, but reasonable.

24 Q For example, you said that you assumed no
25 shortage or supply as opposed to what perhaps in the

1 real world would be a condition of one or the other.
2 Is that an example of one of those conservative
3 assumptions?

4 A Yes. If you assume that, for example, all
5 the generators can run at 100% capability whenever
6 they're called upon, that's a conservative assumption.
7 It's not unreasonable. On peak, indeed, people want
8 to be available. Off peak, you don't care very much.

9 So, yes, that's a conservative assumption.
10 It's designed to put more aggressive competition into
11 the market and simulate that.

12 Q Similarly, you testified that in your model
13 you assumed -- that you instructed the model to build
14 all the capacity as soon as it was profitable and
15 viable as opposed to instructing the model to simply
16 include any units that are planned by or appear in the
17 utility's plans. Is that an example of a conservative
18 assumption?

19 A Yes, that's a conservative assumption, in
20 the sense that I don't want to assume that what
21 utilities announce gets built, because they might be
22 wrong. What I want to do is let the model build the
23 most cost-effective strategy and overdo the
24 competition. It's still competitive, but I want to
25 overdo the competition so I can scrunch down those

1 price differentials that dictate the value of the
2 project that I'm looking at to the lower end of the
3 reasonable range.

4 COMMISSIONER GARCIA: Let me ask you a
5 follow-up on that. Say FPC comes in next month and
6 asks to build a generation plant. Should we -- what
7 should we do if they say, "Well, we want a
8 determination of need"? You said that the RFP process
9 -- when I asked the question earlier, and it sort of
10 troubled me last night, you said that the bid process
11 is not -- does not produce efficiencies.

12 WITNESS NESBITT: That's right.

13 COMMISSIONER GARCIA: And I think that FPC
14 has asked this Commission in their original filing --
15 I think they pulled it, but they may file it again --
16 not to require them to put it to bid. So if FPC comes
17 in here to build a plant and there is no cost to
18 ratepayers, we shouldn't care? We should say, "Go
19 ahead"?

20 WITNESS NESBITT: Yes, with one caveat. I
21 would like to see it, if I were you, in a separate
22 company.

23 COMMISSIONER GARCIA: Right.

24 WITNESS NESBITT: And I would like --

25 COMMISSIONER GARCIA: We discussed that to

1 some degree.

2 WITNESS NESBITT: Completely Balkanized. I
3 would worry that the holding company has market power
4 if it was me.

5 COMMISSIONER GARCIA: Right. You're right.
6 We did discuss it yesterday.

7 BY MR. MCGLOTHLIN:

8 Q Dr. Nesbitt, I'm going to give you one more
9 example of the assumptions typical of a competitive
10 environment. You testified that where there was a
11 contract involved, you assumed that the contract was
12 for a market price instead of the actual contract
13 price. Is that an example of a conservative
14 assumption?

15 A Yes, that's a very conservative assumption,
16 in the sense that if I mark all my contracts to
17 market, in some sense, I'm assuming nobody has to hold
18 any uneconomic assets, and they direct their decisions
19 based on economic rather than uneconomic assets.
20 That's a pretty aggressively competitive assumption.

21 Q Are there any other areas where you were
22 consciously, deliberately conservative by making an
23 assumption that was based on a competitive view?

24 A Yes, there's a couple, and I'll go through
25 those fairly quickly. One is the fuel price

1 assumptions. We wanted to assume the lower end of the
2 range for fuel price assumptions. The lower your fuel
3 prices, the less propensity for entry. Why? Because
4 your old plants work better.

5 Think of it this way. If fuel prices were
6 zero, the plants you've got look pretty good, don't
7 they? The problem is, fuel prices aren't zero.

8 Immediate and easy and unplanned entry,
9 that's an aggressively competitive assumption. If
10 it's profitable, they will come, and they will come
11 quickly. I wanted to have that in this case, because
12 I want the price differentials to reflect quick and
13 flexible entry. I want to mark to market every
14 transaction, every physical sale that's made
15 everywhere. I don't want to Balkanize one transaction
16 out of one market and thereby allow somebody to make a
17 noneconomic transaction, even though in the real world
18 many people think they can point to those. That's an
19 aggressively competitive assumption.

20 If you want to generate power in Georgia
21 and sell it to Florida, you've got to first compete in
22 the Georgia market, and then you've got to compete in
23 the Florida market. That's more aggressively
24 competitive and designed to be conservative than one
25 which you generate in Georgia and just poured it into

1 Florida, and, oh, hey, well, you got a good deal.

2 Q Would these deliberately conservative
3 assumptions have the effect of understating or
4 overstating the amount of capacity needed on an
5 economic basis?

6 A They understate the amount of economic
7 capacity that's needed. And the reason they
8 understate it is that they understate the price
9 differential between gas and power.

10 Q Would they tend to understate or overstate
11 the indicated viability of the Duke New Smyrna
12 project?

13 A They would understate the profitability and
14 the viability of the Duke New Smyrna project.

15 Q You were asked whether the electric model
16 has ever been presented to a regulatory proceeding,
17 and you said no. How has the model been used?

18 A What the model has been used for since its
19 inception in 1973 by and large is to direct investment
20 decisions. Private companies use it for that, to
21 value their resources, to decide what power plants
22 they're going to buy and what ones they're not going
23 to buy, to help them with trading decisions, to help
24 them to measure risk. We haven't done that here, but
25 you can look at probablistic issues related to price

1 risk.

2 It has been used to set transfer prices, if
3 you will, in vertically integrated companies. How do
4 you sell to yourself if you're selling gas to yourself
5 to generate, and how do you sell to yourself if you're
6 selling power to yourself to distribute? You're a
7 vertically integrated producer. What's the right way
8 to allocate your assets if you're doing that?

9 It has done mergers and acquisitions. It
10 has done divestitures. It has done international
11 development projects. I would say that 99% of the use
12 has been in the private sector helping people make
13 better decisions.

14 Q For this next question, Dr. Nesbitt, please
15 refer to page 10 of the handout which is the FRCC 1998
16 supply stack.

17 During questioning yesterday, you were
18 given one hypothetical that suggested a situation in
19 which the last entrant allowed on a merchant basis was
20 not cost-effective because its price was as high as or
21 higher than the marginal unit on the existing stack.

22 Now, at page number 10, this supply stack
23 is based on information taken from your model, is it
24 not?

25 A It's information that's taken from the

1 database that enters the model.

2 Q All right. Thank you, sir. Just looking
3 at it very quickly, according to that information in
4 your database, how many megawatts of more expensive
5 capacity, more expensive than the proposed project,
6 exists in today's supply stack?

7 A If you take a quick look at --

8 COMMISSIONER GARCIA: Before you
9 answer -- I'm sorry. I got on the phone. I didn't
10 hear your question. I'm sure it makes a very good
11 point, so --

12 MR. MCGLOTHLIN: Yes, sir. This is in
13 response to yesterday's hypothetical situation in
14 which the last entrant was as expensive as or more
15 expensive than the marginal existing unit.

16 BY MR. MCGLOTHLIN:

17 Q And my question is, by reference to page
18 number 10, how many more megawatts -- how many
19 megawatts of more expensive capacity exists on the
20 supply stack, more expensive than the proposed
21 project?

22 A You can see that approximately, if you look
23 at the Duke New Smyrna project, it sits at about the
24 14,000th megawatt. And on this supply stack, you get
25 up to about 35,000, so there's roughly 20,000

1 megawatts, a few more, that are more expensive on a
2 forward incremental cost basis than Duke New Smyrna,
3 meaning it's going to be inframarginal virtually all
4 the time, which is why you saw such high run rates.
5 And inframarginal simply means further to the left in
6 the supply stack and always dispatched.

7 Q Is it safe to say then that the facts in
8 front of the Commission are far different from that
9 particular hypothetical in the question?

10 A I think so, yes.

11 Q If there's something like 20,000 megawatts
12 of more expensive capacity, and if your simulations
13 suggest or indicate that the project would operate at
14 capacity factors of 85% and above, what would you
15 infer about the viability of the project from that
16 information?

17 A That alone is enough to tell you that the
18 project is viable and will be viable for a mighty long
19 time. You don't need to fool around with demand. You
20 don't really care where demand is. It's almost always
21 to the right of Duke New Smyrna, so the price is
22 almost always to the point where it's going to run and
23 make money running. You just don't have to worry
24 about that scenario that I heard yesterday or the day
25 before, "Well, what if it just sat there?"

1 Commissioners, it's not going to just sit
2 there. Look at where it is in the supply stack. It's
3 going to run all the time. The Duke people and the
4 New Smyrna Beach people are going to run at Christmas,
5 New Year's, the Fourth of July, and all the time,
6 because they always make money running it, and as they
7 make money running it, your prices drop.

8 Those are just not credible scenarios to
9 me. All you really need to understand the viability
10 of this project is this supply stack.

11 Q Yesterday I think it was Commissioner Clark
12 who asked a question relating to a situation in which
13 a merchant plant makes a wholesale sale that a
14 regulated utility would otherwise have made, meaning
15 that the customers of the utility do not receive the
16 flow back or the profits of the sale. Would the
17 impact on those customers be any different if, rather
18 than the merchant plant meeting that transaction,
19 another regulated utility made the sale?

20 A No, they wouldn't be different. And let me
21 amplify that one a little bit, because that's an
22 important issue. If a new entrant comes in and
23 displaces a sale that an old entrant would otherwise
24 make, doesn't that hurt the customers, the old
25 entrant? The answer is no, it doesn't. It helps

1 them.

2 Why? Keep in mind, displacement comes in
3 two colors here. When you displace a plant, the
4 primary color that happens is, you don't spend
5 discretionary high O&M that you would have otherwise
6 had to spend on the plant that gets displaced. That's
7 the leading term, not embedded cost, not with these
8 old plants. The embedded cost is pretty much gone, I
9 would bet. These are real, bona fide ratepayer cost
10 savings.

11 So this notion that somehow there's going
12 to be some stranded embedded cost that's going to have
13 to be amortized over fewer customers is just plain
14 wrong. That's more than offset by these very large
15 fixed O&Ms that are going to be saved when you don't
16 have to run these old plants.

17 The '72 Vega probably costs you 7 or 8
18 thousand bucks a year just to keep the car running. As
19 soon as you get rid of the car, you get rid of the
20 \$8,000 a year headache. That's a real cost savings,
21 and when you get rid of the car or ramp it back, you
22 don't have to pay it.

23 So I would allege that not only is there --
24 there's a stranded cost-benefit on not running a lot
25 of this old capacity. I haven't looked at it, but

1 that's a very strong conjecture. I've seen it in
2 other venues.

3 COMMISSIONER JACOBS: What about the value
4 of doing the repowerings?

5 WITNESS NESBITT: Commissioner Jacobs,
6 would you repower a 1972 Chevy Vega? I'm fairly
7 negative on repowerings, and I'll tell you why:
8 Because you've still got the same old plant, the same
9 old site, the same old field-fabricated junk sitting
10 out there. And I don't mean it in any specific
11 context. And you can dress it up pretty and put
12 perfume on it, but it's still expensive to keep. You
13 do not get the bang for the buck on repowering a '72
14 Chevy Vega that you do on a new plant.

15 COMMISSIONER GARCIA: But you get the bang
16 for the buck within the context of the real world,
17 maybe not in the abstract world, but in the real
18 world, because the land is there, the environmental
19 requirements are met, and there's a whole series of
20 things that present efficiencies which I doubt even
21 Duke would be able to compete with.

22 I know that in the most -- in a perfect
23 world, it's better just to scrap it and build a new
24 plant. But in the real world of siting a plant, of
25 environmental things -- I mean, it's quite a process

1 that your client has had to go through just to get
2 this far.

3 WITNESS NESBITT: It's true, Commissioner
4 Garcia. That's true. But there's a cost that's
5 imposed on Florida ratepayers, and there's a loss in
6 Florida wealth because you repower.

7 Think about what repowering is. Just think
8 about that 1972 Chevrolet Vega with the aluminum block
9 engine. It was a terrible automobile. Would you --
10 is it better to repower? "Oh, let's tear out the
11 engine and transmission and put in a new one. Heck,
12 the car is great. We don't have to go down and shop.
13 We don't have to go through the hassle, and we'll save
14 a lot of money."

15 The fact is, it's still a '72 Chevy Vega.
16 The fact is, it still has a goodly fraction of the
17 high cost that it had before you ever repowered it.

18 I agree with you, Commissioner Garcia, it's
19 better than not doing it from the perspective of O&M.
20 But I've worked on a lot of repowerings, and I've not
21 seen one that's economic from the perspective of the
22 investor unless somebody hands the cost of repowering
23 through to ratepayers. You've got to have that, or
24 repowerings don't look very good.

25 COMMISSIONER GARCIA: That's including

1 environmental, siting, all the other costs associated
2 with building a plant?

3 WITNESS NESBITT: No, I won't say that.
4 Just economic. On a straight economic basis, I
5 wouldn't do it.

6 COMMISSIONER GARCIA: Right, on a straight
7 -- but that in the real world is different. You know,
8 it's like, you know, if we didn't have to pay for
9 zoning costs, housing would be much cheaper. If we
10 didn't have to pay for utility costs to hook up, if we
11 didn't have to pay impact fees, obviously, the cost
12 of a house would go down 15 to 20%. But the real
13 world is, you've got to pay them no matter where you
14 go. So in the case of repowering, somebody is going
15 to have to pay that. And you would obviously put it
16 on the rates. FPL or FPC has already paid for that.
17 There's no way we're going to pay for that again.

18 WITNESS NESBITT: I think those are good
19 points. I would simply say, though, when you look at
20 just the economics of it, you need a subsidy to do it.
21 I agree with you. But when I need a subsidy, when I
22 need to have my capital costs of repowering put in
23 rate base, that's a danger signal to me as an
24 investor. It's something I wouldn't do in a market
25 that with regulatory approval I get to do. That's a

1 danger signal. I'm not saying it's bad. I'm saying
2 I've never seen one that's great.

3 BY MR. MCGLOTHLIN:

4 Q Dr. Nesbitt, I just have a few more
5 questions. Staff asked you about the role of fuel
6 forecasts in your exercise.

7 First of all, what is the relationship
8 between fuel price and the model's indication of the
9 need for capacity? If the price is higher, what
10 happens to the indicated need for capacity?

11 A The general rule of thumb is this for gas.
12 If you raise the forecasted price of gas in Florida
13 and throughout the United States to a higher level, it
14 will generally differentially favor the more efficient
15 new technology like the Duke New Smyrna Beach
16 technology. So if we use the higher gas price
17 forecasts, we're going to provide more relative
18 benefit for this entrant. I used a low price forecast
19 to be conservative.

20 Q Now, Staff marked as an exhibit their
21 deposition of you. During that deposition, you were
22 asked whether the Commission should be concerned over
23 the fact that your findings are based upon your fuel
24 prices rather than something that they've seen before
25 in other contexts. And you had the occasion in

1 response to a Staff request to compare your coal
2 prices with those recorded on 4/23; is that correct?

3 A Yes, we did.

4 Q And what was the comparison that you
5 observed?

6 A I believe our coal prices are lower than
7 the 4/23 prices.

8 Q Now, since the time of the deposition, have
9 you had occasion to look at the fuel forecast that was
10 the subject of the Cane Island proceeding?

11 A I believe I did, yes.

12 Q And that included some forecasts of gas
13 prices?

14 A Yes, it did.

15 Q And how did your assumptions compare with
16 that particular forecast?

17 MR. GUYTON: Objection. This goes beyond
18 the scope of this witness's direct testimony. This is
19 something he has studied supplemental to the filing of
20 it. We were not made aware of it. It wasn't raised
21 and wasn't asked in the deposition that he was using
22 to lay the predicate for it.

23 MR. MCGLOTHLIN: Well, during the
24 deposition, which has been offered as an exhibit to
25 save time in lieu of cross examination, I think I have

1 an opportunity to redirect based upon those
2 questions. Staff asked if the Commission should be
3 concerned about the fact that Dr. Nesbitt is basing
4 some recommendations on fuel forecasts that the
5 Commission has not seen and differs from the ones that
6 you looked on favorably before. You have seen and
7 looked on favorably the fuel forecast that was used in
8 the Cane Island proceeding. I think it's fair to ask
9 Dr. Nesbitt to make an observation generally about how
10 his stacks up against that one.

11 CHAIRMAN JOHNSON: Could you restate your
12 question?

13 MR. MCGLOTHLIN: Yes.

14 BY MR. MCGLOTHLIN:

15 Q Dr. Nesbitt, with respect to the gas
16 prices, are your projected gas prices higher or lower
17 in general than the ones you saw in the forecast in
18 the Cane Island proceedings?

19 CHAIRMAN JOHNSON: I'll allow the
20 question.

21 A Our gas prices appear to be a bit lower
22 than that. And the reason I say appear, I'm not sure
23 what their inflation assumptions were, but they're
24 lower. Ours are lower, so ours are going to be more
25 conservative vis-a-vis entry of new capacity and

1 vis-a-vis the benefits of the Duke New Smyrna Beach
2 project.

3 Q One of the assumptions you used was the
4 assumption that the merchant project would make
5 short-term energy sales only, is that correct, in your
6 modeling?

7 A Yes. And let me amplify that a little bit.
8 What we assume in market clearing prices in our model
9 is that it's an energy-only price. We've said that.
10 But what that means really is all energy costs and all
11 capacity costs are bundled together in one common
12 bundled price. So we really do have the fair market
13 value of capacity and the fair market value of energy
14 bundled into one whole.

15 The statements before that, "Oh, you just
16 have an energy price," aren't really right. We've
17 bundled the fair market value of energy and capacity
18 in our projections.

19 Q In response to one of Mr. Sasso's
20 questions, you said that a merchant plant, merchant
21 operator might decide to, in your words, go naked, by
22 which I think you meant to say make only short-term
23 transactions?

24 A That's right.

25 Q With respect to the alternative of a

1 contract-based arrangement of some duration, in your
2 opinion, would it be in the interests of a merchant
3 operator to operate completely in that mode?

4 A No, and I think in the world that we live
5 in, merchant operators don't operate in that mode.
6 When they have a chance to sign a contract at market
7 rates, their senior management feels much, much more
8 comfortable when they have a contract. Their senior
9 managements have grown out of this industry where
10 contracts are the byword.

11 So my own personal view, and I certainly
12 can't speak for Duke senior management, is that the
13 minute they get a contract at market, they're going to
14 sign it, they're going to take it back to their senior
15 management, and they're going to ask for a promotion.
16 I'm kidding a little bit, but not much. That contract
17 is a signal of success in the organization.

18 My view is when the market contracts come
19 and they get out of the disadvantaged contracting
20 situation they're in right now, they'll sign so
21 quickly it will make your head swim. That's just the
22 way people in this industry to it. They don't want
23 the risk.

24 Q Generally speaking, Dr. Nesbitt, in your
25 opinion, is there more profit to be made by a

1 contractual arrangement as opposed to a sheer
2 short-term basis?

3 A At the moment I believe there is. There's
4 more profit to be made by contracting.

5 Q Is that why when you assumed energy-only
6 transactions, you were making a deliberately
7 conservative assumption?

8 A Indeed, yes.

9 Q I just have a final question. At various
10 points during your appearance here, some of the
11 Commissioners have solicited your thoughts on various
12 hypotheticals and scenarios. Would you summarize for
13 them your recommendations with respect to the process
14 and the role of merchant plants in that process?

15 A Yes. Let me resummairize that.

16 I think the Commissioners have both a
17 difficult but a mighty interesting job here. The time
18 has come, I believe, to let the market bring the
19 information and let the market bring the capacity in a
20 limited, gauged, rationed, metered kind of way. I
21 think just the informational value that the Duke New
22 Smyrna Beach plant is going to give you is going to be
23 worth a lot of money. I think it disciplines the
24 incumbents, not to say that they need discipline, but
25 it disciplines them. It provides you a careful

1 benchmark, gives you experience at figuring out how to
2 regulate a merchant, gives you experience at knowing
3 whether all these reliability concerns are really
4 valid concerns or they're just chaff.

5 You know for sure that you're going to have
6 lower prices in Florida than you would otherwise
7 have. Not by a lot, because the plant is not that big
8 in the grand scheme of things, but you will have lower
9 prices.

10 You will have more reliability, because you
11 have more redundancy than you have right now.
12 Granted, it's only 500 megawatts worth, but it's
13 more. You should be pretty confident, I believe, that
14 the plant is always going to be there and it's always
15 going to run, because no sane plant owner is going to
16 sit there and turn it off when prices are high.
17 Absolutely the opposite. They're going to run this
18 thing as hard as they can run it.

19 You can be confident that when they get a
20 contract at market, they're going to sign it. That's
21 my own personal view. I don't represent Duke, but
22 they'll sign it. Believe me, they'll sign it.
23 Wouldn't you?

24 COMMISSIONER GARCIA: I don't know. Why
25 would I? Why would I? If you've shown that this

1 state needs 5,400 megawatts, I would just sit there on
2 the margin. You say that it's needed. You say you're
3 going to be the lowest in -- you're going to be lower
4 than a lot of people in the stack. The other plants
5 aren't being built. You know, this Commission and
6 this process takes a while. If I were Duke, I would
7 sit there and play the game. You know, maybe there's
8 a point where FPC, because they can't rely on the
9 contract with you, starts building, and FPL starts
10 building. Then they may have to tie themselves up.
11 But I think the market offers them a greater
12 opportunity than just a standard price.

13 WITNESS NESBITT: Commissioner Garcia, I
14 just developed a plant for this organization about two
15 years ago that was -- it was in another state. It was
16 so profitable, it printed money, and they hedged it
17 with a contract. And the reason they did that is
18 because their management structure, like you, isn't
19 that certain. This is a tough world that they live
20 in.

21 Put yourself in the position of the senior
22 management at Duke. Okay. That previous asset was a
23 phenomenally good asset, but they hedged it because
24 they wanted to be able to predict, they wanted to be
25 able to understand how they were going to operate it.

1 They have to bring people to run these plants that
2 live in the old world, not the Nesbitt new world. So
3 the realities of the situation are, they, like you,
4 need the same kind of stability, the same kind of --
5 not a C changed in their perspective. They don't want
6 their marketing and trading company, for gosh sakes,
7 to dictate their entire corporate future. That's too
8 scary. Everybody saw what happened last summer.

9 My view is, the way that American
10 corporations like Duke -- they're no different from
11 the incumbents, their structure. If they can sign a
12 contract at market rates, that's a big win for them
13 organizationally. Do they leave money on the table?
14 Absolutely, in my view. But they will do it for the
15 security and for the start. That's my view.

16 And furthermore, I would make one other
17 point. If this project is so great --

18 COMMISSIONER GARCIA: This project should
19 be able to print money. If it were in the Nesbitt
20 world, this should be a big one for you guys.

21 WITNESS NESBITT: For a while.

22 COMMISSIONER GARCIA: Exactly.

23 WITNESS NESBITT: For a while.

24 COMMISSIONER GARCIA: For a while, and then
25 the market is going to come in.

1 WITNESS NESBITT: Absolutely. Now, if it
2 is a big one for a while, you ought to see that in the
3 contract terms. In other words, if I were to sell you
4 a corporate bond that paid 25% compound annual
5 interest and the face value is 10 grand, you would pay
6 me a lot more than 10 grand than what you paid me up
7 front. You probably will be able to see that in
8 whatever contract is signed with Duke New Smyrna
9 Beach, so you'll be able to see cold what the market
10 thinks the value of this contract is, and I presume
11 you'll be able to pass some judgment on that. And if
12 it's too high --

13 COMMISSIONER GARCIA: But would FPC want to
14 buy the contract? I mean, would FPC say, "Well, the
15 market, according to" -- they may go out, and they may
16 buy your model, and they may run it themselves after
17 the \$45,000 investment, and they say, "Hey, this thing
18 is good." So FPC won't buy from you. They'll say,
19 "I don't want that, because if I build one and I just
20 throw it out there, if I build one, I copy Duke, I can
21 make a ton a money. I can make a killing."

22 WITNESS NESBITT: Commissioner Garcia,
23 that's absolutely right, and that's what disciplines
24 the price. If I'm Duke, I'm not going to be able to
25 sell at more than the long-run incremental entry cost

1 of the next entrant, and he or she is not going to be
2 able to sell at more than my long-run entry cost
3 unless somebody has handed the money through in
4 rates.

5 So in the purely merchant world, that's
6 precisely -- you've just put your finger on it -- what
7 disciplines the profitability of these units, and
8 that's entry. That's commonality of technology, and
9 that's market entry, without the subsidy of base
10 rates. Subsidy is not necessarily bad, but without
11 the subsidy of base rates, you get all the discipline
12 you want and then some. That's the key right there,
13 absolutely.

14 COMMISSIONER DEASON: But is there an
15 incentive for Florida Power to do that if they put
16 that plant into rate base and they basically have a
17 rate of return, and they don't have the opportunity
18 for the upside benefits?

19 WITNESS NESBITT: Commissioner Deason, yes,
20 but that's a tradeoff as a business person. Suppose
21 you were the CEO of Florida Power & Light, and you
22 said, "Okay. I've got a choice. I'm going to build a
23 500 megawatt unit. Now, am I going to go down to
24 Tallahassee and ask them to put it in rate base, or am
25 I going to go naked and go try to sign market

1 contracts?"

2 It's just like buying mutual funds. You
3 can either buy an income fund or you can buy a growth
4 fund. If you buy an income fund, you're guaranteed
5 the income, but it's not as high. If it's a growth
6 fund, you get the upside, but you also get the
7 downside.

8 Commissioner Deason, those to me are
9 business decisions that I'm delighted for Florida
10 Power & Light senior executives to have to make.
11 That's exactly the set of decisions you want to have
12 them making, how do they want to structure their
13 generation business, and come to you with a cogent
14 proposal, just like Duke has, as to why their proposal
15 makes sense, and then allow you to pass judgment on
16 it. I want them making those decisions if I'm you.

17 COMMISSIONER DEASON: But if the need that
18 is to be met is the potential for sales at a wholesale
19 level and not the need for their retail customer,
20 their only option is to do it naked, as you say,
21 perhaps create their own subsidiary, because I think
22 that this Commission probably would be reluctant to
23 put the burden on their retail customers to guarantee
24 a return on a plant that may sell at wholesale.

25 WITNESS NESBITT: That's right. That's

1 right. I would wager that that's what you would
2 ultimately end up doing, is forcing a very, very
3 significant Balkanization in their business so that
4 they don't mix their regulated and deregulated
5 businesses.

6 COMMISSIONER GARCIA: However, Mr. Nesbitt,
7 also with your scenario, you know, you were talking
8 about letting in a new world. It would be I guess in
9 your mind difficult for this Commission to justify any
10 plant being built that the ratepayer is on the hook
11 for, at this point.

12 WITNESS NESBITT: In my view, this --

13 COMMISSIONER GARCIA: In other words, if
14 FPC came in tomorrow and said, "I've got a brand new
15 -- the same plant Duke is going to build, I've got it
16 for you, and it's only going to cost the ratepayers X
17 dollars."

18 WITNESS NESBITT: Yes. At this point in
19 time, this is a commodity. My own personal view is,
20 why rate-base a commodity where there's strong
21 question whether it's a natural monopoly?

22 COMMISSIONER GARCIA: What if they came in
23 and they said they could give \$18.50 to the ratepayers
24 similar to what Duke did with New Smyrna? If they
25 come in a killer price, with a gift horse price to the

1 ratepayers of Florida, in that case should we take
2 it?

3 WITNESS NESBITT: I would think pretty
4 strongly about that. But the next question I would
5 ask is, "Where does the capital cost go? Which
6 account are you going to stick it on? Where is it on
7 your balance sheet? Show me the capital costs. Show
8 me the corporate structure that segregates it from the
9 rest of your business." If they could and would --

10 COMMISSIONER GARCIA: No, no. They don't
11 segregate it. They're going to put it into rate
12 base. They come in here and say, "We're going to put
13 it into rate base, and here's what it's going to cost
14 us, 18.50," just like the administrator from New
15 Smyrna said. You know, you really don't question a
16 price like that.

17 WITNESS NESBITT: I wouldn't do it. To me,
18 there's too much -- what we talked about earlier,
19 Averch-Johnson incentive. The Averch-Johnson
20 incentive is, if I put something in rate base, I'm
21 letting you earn on it. That gives you far more
22 incentive if you're a regulated incumbent.

23 COMMISSIONER GARCIA: So then you don't
24 think the decision --

25 WITNESS NESBITT: I don't think --

1 COMMISSIONER GARCIA: -- that New Smyrna
2 made was a good one? Why doesn't New Smyrna just -- I
3 mean, if this brave new world is coming, why does New
4 Smyrna sign an 18.50 contract for 30 megawatts? Why
5 not stay out there and play the market, which you are
6 about to make profitable for them?

7 WITNESS NESBITT: Okay. Let me answer the
8 first question again. Maybe I gave the wrong answer
9 there, or I mischaracterized what I feel. I believe a
10 regulated entity has a systematically higher cost
11 structure than an unregulated entity. So all else
12 equal, if you're comparing a regulated incumbent with
13 an unregulated merchant, both purporting to build the
14 same capacity, I submit to you they're not the same
15 capacity, and it's not the same market structure under
16 which they're proposing to build it. That was the
17 first point.

18 The second point is, anybody, New Smyrna
19 Beach or anybody else, they've got to make an
20 assessment based on the energy price and the capacity
21 price that's offered to them, whether that's a market
22 transaction in which they want to engage. It's a very
23 thin market now, so it's risky to make that assessment
24 relative to a highly liquid market where those prices
25 are posted all the time.

1 To me, that's a market transaction between
2 New Smyrna Beach and the plant. But it's a market
3 transaction. There's no guarantee when the plant is
4 built that they're going to be able to flow their
5 costs through except at the posted price of the
6 capacity and the energy, the 18.50 that we talked
7 about. It's a killer price.

8 If you can do the same thing with a
9 regulated entity, you're doing something that no one
10 else has ever been able to do. You don't have the
11 discipline of the market driving down the capital and
12 operating costs of that unit.

13 COMMISSIONER GARCIA: Well, I've got you.

14 WITNESS NESBITT: I want the --

15 COMMISSIONER GARCIA: I've got you,
16 though. I've got you sitting out there. So FPC is
17 saying, "Well, the only way I'm going to get this --
18 we've got super efficient Duke out there, and the only
19 way I'm going to get this into rate base and sort of
20 protect myself and my ratepayers, which I have a duty"
21 -- because we've discussed this scenario with -- or
22 I've discussed this scenario with Staff. And they
23 come in to Mr. Jenkins in our Electric Division and
24 say, "All right. Well, you know, 18.50 is just
25 impossible. We all know that the only ones that are

1 going to get that are New Smyrna, because that was
2 their window into this operation." But FPC comes in
3 here and says, "Twenty bucks, 20 bucks, that's it,
4 that's all the ratepayers -- and it's part of rate
5 base, but that's all we're going to recover." You've
6 given us that opportunity. That isn't that bad.

7 WITNESS NESBITT: That sounds pretty good.
8 And I would submit to you, Commissioner Garcia, the
9 reason you're seeing that is because Duke is sitting
10 in that seat offering it.

11 COMMISSIONER GARCIA: Oh, absolutely.

12 WITNESS NESBITT: And that's the benefit of
13 having a merchant fringe. You need to control the
14 size of it. I don't dispute that. And that's a hard
15 problem. I'm glad you've got it and not me. It's a
16 very difficult problem, but it's not an insoluble
17 problem, because the market keeps bringing you
18 information.

19 My view is, you should approve this right
20 now and get on with the business of letting Duke bring
21 you its information so that you can discipline the
22 incumbents and any other entrants that might come to
23 the state. You're laboring right now under
24 conceptions that have imperfect information in them.
25 Why not get the information? It doesn't cost you a

1 darn thing to get it, and everybody benefits when you
2 get it. You still have control. You don't have to
3 throw out the old regulatory fabric.

4 COMMISSIONER CLARK: Dr. Nesbitt, along
5 those lines, let me ask you if you're familiar with
6 our broker system.

7 WITNESS NESBITT: I'm sorry. With your
8 what?

9 COMMISSIONER CLARK: With Florida's broker
10 system.

11 WITNESS NESBITT: I'm not familiar with the
12 specific institution, no.

13 COMMISSIONER CLARK: Well, we've had
14 wholesale competition for a long time, since the late
15 '70s, but it's done on a cost basis as opposed to a
16 price basis. We require utilities to bid in their
17 prices for electricity on an hour-by-hour basis, and
18 then we match up high and low bidders. And then they
19 split the savings between them, and then they have to
20 -- and then the shareholders get to keep some of that
21 savings, and the ratepayers get some of it. So we
22 thought we gave them the right incentives to
23 participate in that market.

24 Do we have to change that if we are going
25 to have merchant plants?

1 WITNESS NESBITT: It will probably change
2 itself. But I don't know the answer to your question,
3 because I don't know the brokerage system. But let me
4 tell you, when you -- I'm going to caricature this.
5 When you put a socialist between two capitalists --
6 and that's a caricature, two willing parties who want
7 to do business, but you put a framework between them
8 and you siphon off part of the benefits that would
9 otherwise go to the market, somebody is not going to
10 play as aggressively as they would if you didn't do
11 that.

12 Suppose you did that on Wall Street.
13 Suppose we said, "Hey, Dr. Nesbitt, you know what
14 we're going to do? We're going to regulate Wall
15 Street, and we're going to have a high-low bid on 3M
16 stock, and then what we're going to do is, we're going
17 to average it up, and Nesbitt, you get half of it."
18 You know, I would say, "Oh, man, I'm going to 3M. I'm
19 just going to buy the stock directly."

20 So my guess is you will have to change it
21 sometime, but I don't think Duke New Smyrna is going
22 to make you change it. It's too small.

23 COMMISSIONER CLARK: But is it appropriate
24 to have some players in the market having to bid in
25 their cost, their I guess regulated cost, as opposed

1 to bidding in their price, and is it reasonable to
2 make a distinction on how they play in that market,
3 depending on whether the particular plant is in rate
4 base or is not in rate base?

5 WITNESS NESBITT: Well, those are difficult
6 questions that I'm not prepared to answer in detail
7 now. But let me tell you some of the experience that
8 you've seen in places like the California PX. And the
9 market is a little bit too thin, it's a little bit
10 imperfect, there's too many rules, and it doesn't work
11 very well. I think it works poorly. It's only 24
12 hours out. You need to be 168 hours out. There's
13 private sector exchanges that will take you 168 hours
14 out right now, but they're being precluded from entry.

15 That's an interesting indication. If you
16 set up an administrative type solution like that,
17 usually what you find is that when you have a more
18 liquid, a deeper, a more aggressive and more complete
19 market, it tends to evolve towards nonparticipation by
20 the administrator who set it up. That's just an
21 empirical observation.

22 COMMISSIONER CLARK: You mean the more
23 competition you have, the less you need to intervene?

24 WITNESS NESBITT: That has been the
25 empirical experience, yes. Margins go paper thin.

1 COMMISSIONER CLARK: Okay.

2 MR. MCGLOTHLIN: I have no further
3 questions.

4 Madam Chairman, I believe the prefiled
5 exhibits were identified as 18, and there was some
6 confusion on that, and I would like to confirm that's
7 the case. I move Dr. Nesbitt's prefiled direct
8 exhibits, which I believe are identified as 18.

9 CHAIRMAN JOHNSON: Show those admitted
10 without objection.

11 (Exhibit 18 was received in evidence.)

12 MR. MCGLOTHLIN: Also, Chairman Johnson --

13 MR. GUYTON: Madam Chairman, I don't want
14 to waive the objection that I raised yesterday as to
15 DMN-7. I want to preserve that. I don't want to
16 reargue it again. I just want to make sure that the
17 record reflects that that objection has been made, and
18 we haven't waived.

19 Now that I understand Exhibit 19 is
20 Dr. Nesbitt's handout, I include in that motion an
21 exclusion of page 13, which is a discussion of DMN-7.

22 CHAIRMAN JOHNSON: Okay. Show those noted
23 for the record and overruled.

24 MR. MCGLOTHLIN: In addition, Chairman
25 Johnson, the handout was originally intended as simply

1 kind of a visual aid, but many references have been
2 made to it, and I think it would be appropriate to
3 mark that as an exhibit also.

4 CHAIRMAN JOHNSON: We did, 19.

5 MR. MCGLOTHLIN: I beg your pardon. Then I
6 move Exhibit 19.

7 CHAIRMAN JOHNSON: Okay. Show that
8 admitted over the objection.

9 (Exhibit 19 was received in evidence.)

10 MR. GUYTON: Move Exhibit 20.

11 CHAIRMAN JOHNSON: Show Exhibit 20 admitted
12 without objection.

13 (Exhibit 20 was received in evidence.)

14 CHAIRMAN JOHNSON: Anything else?

15 Thank you, sir. We're going to take a
16 ten-minute break.

17 (Short recess.)

18 CHAIRMAN JOHNSON: Let's go back on the
19 record. Mr. Wiggins?

20 MR. WIGGINS: I call to the stand Martha
21 Hesse.

22 - - - - -

23 MARTHA O. HESSE

24 assumed the stand as a witness on behalf of Utilities
25 Commission, City of New Smyrna Beach, Florida, and

1 Duke Energy New Smyrna Beach Power Company, Ltd.,
2 L.L.P. and, having been previously sworn, testified as
3 follows:

4 DIRECT EXAMINATION

5 BY MR. WIGGINS:

6 Q State your name and address, please.

7 A Martha Hesse, 6524 San Felipe, Houston,
8 Texas 77057.

9 Q And by whom are you employed, and in what
10 position?

11 A I'm the president of Hesse Gas Company.

12 Q And you're appearing on behalf of the joint
13 petitioners this morning?

14 A That's correct.

15 Q Did you cause to be prepared and filed in
16 this docket 23 pages of direct testimony?

17 A Yes.

18 Q Do you have any changes to make to that
19 testimony?

20 A Yes, I do. I have one change to request on
21 page 18.

22 Q Which line?

23 A Line 12, to replace the words "a realistic"
24 with the word "one."

25 Q So it would now read, "In one scenario"?

1 A That's correct.

2 Q Do you have any other changes?

3 A No.

4 Q If I were to ask you the questions
5 contained in this written testimony today, would your
6 answers be the same as written?

7 A Yes.

8 MR. WIGGINS: Madam Chairman, I move that
9 her prefiled written testimony as edited be inserted
10 into the record as though read.

11 CHAIRMAN JOHNSON: It will be so inserted.

12 MR. WIGGINS: Thank you.

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**IN RE: JOINT PETITION FOR DETERMINATION OF NEED
BY THE UTILITIES COMMISSION OF NEW SMYRNA BEACH
AND DUKE ENERGY NEW SMYRNA BEACH POWER COMPANY,
FPSC DOCKET NO. 981042-EM**

DIRECT TESTIMONY OF MARTHA O. HESSE

1 **Q: Please state your name and business address.**

2 A: My name is Martha O. Hesse, and my business address is 6524
3 San Felipe, No. 129, Houston, Texas 77057.

4 **Q: By whom are you employed and in what position?**

5 A: I am president of Hesse Gas Company. I am also currently on
6 the boards of directors of several companies in the energy,
7 public utility, life insurance, health care, and
8 transportation industries, including Arizona Public Service
9 Company, Pinnacle West Capital Corporation, Laidlaw Inc.,
10 Mutual Trust Life Insurance Company, and Air & Water
11 Technologies Corporation. I am a member of The Beacon
12 Council and the CIGNA Utilities Advisory Board.

13 **QUALIFICATIONS AND EXPERIENCE**

14 **Q: Please summarize your educational background and experience.**

15 A: I attended the University of Iowa and Northwestern
16 University. I received a Master of Business Administration
17 degree from the University of Chicago in 1979.

18 **Q: Please summarize your employment history and work**
19 **experience.**

DIRECT TESTIMONY OF MARTHA O. HESSE

1 A: My first job was as a research analyst for the National
2 Blue Shield Association from 1964 to 1966. In 1966, I
3 became Director of Data Management for the American
4 Hospital Association. I was the co-founder in 1969 of
5 SEI Information Technology ("SEI"), a data processing
6 consulting company that we built into a multi-million
7 dollar operation. I was the chief operating officer and
8 a director of SEI from 1969 until 1981.

9 In 1981, I was appointed Associate Deputy Secretary of
10 the Department of Commerce by President Ronald Reagan. In
11 1982, I was named Executive Director of the President's Task
12 Force on Management Reform and led the review of all major
13 federal government management systems that resulted in
14 "Reform '88," the Reagan administration's initiative to
15 improve management of the federal government.

16 In November 1982, the President nominated and the
17 Senate confirmed me the Assistant Secretary for Management
18 and Administration for the U.S. Department of Energy (the
19 "DOE"). In that position, I was the department's principal
20 business officer and was responsible for the DOE's annual
21 budget, departmental financial activities including the
22 department's \$23 billion annual cash flow, the department's
23 17,000 employees and 115,000 contractor employees, its 3
24 million acres of land and 94 million square feet of
25 facilities valued at more than \$33 billion, and the DOE's

DIRECT TESTIMONY OF MARTHA O. HESSE

1 nearly \$10 billion of personal property including the
2 department's computer and telecommunications systems which
3 utilized the first satellite communications system for such
4 an agency. I was also the line manager responsible for
5 project management of the DOE's 460 active projects as well
6 as all DOE procurement, contracting and construction.

7 In 1986, I was nominated and confirmed as Chairman of
8 the Federal Energy Regulatory Commission ("FERC"), an
9 independent commission responsible for regulating interstate
10 natural gas, electric, hydropower, and oil pipeline
11 business. I was Chairman when the FERC initiated broad
12 reforms designed to move the natural gas and electric
13 industries from a strictly regulated environment to one much
14 more market-driven and market-responsive. I was reappointed
15 Chairman by President Bush and remained as Chairman through
16 1989.

17 In 1990, I joined First Chicago Corporation as a senior
18 vice-president. I was responsible for designing and
19 implementing communications strategies relating to
20 advertising, investor relations, and media and public
21 relations. Also in late 1990, I formed Hesse Gas Company to
22 engage in the natural gas marketing business.

23 **Q: Have you previously testified before regulatory authorities**
24 **or courts?**

DIRECT TESTIMONY OF MARTHA O. HESSE

1 A: While I was a member of the Reagan and Bush administrations,
2 I testified frequently before the United States Congress on
3 a variety of energy policy issues. Since leaving
4 Washington, I have testified in one regulatory legal
5 proceeding, a natural gas "take or pay" case on behalf of
6 Texaco before an administrative panel.

SUMMARY AND PURPOSE OF TESTIMONY

7
8 **Q: What is the purpose of your testimony?**

9 A: I am testifying on behalf of the Utilities Commission, City
10 of New Smyrna Beach, Florida ("UCNSB"), and Duke Energy New
11 Smyrna Beach Power Company Ltd., LLP ("Duke New Smyrna"),
12 the joint applicants for the Florida Public Service
13 Commission's determination of need for the New Smyrna Beach
14 Power Project ("the Project").

15 My testimony addresses the policy issues relating to
16 the Project and merchant power plants generally, including
17 their consistency with economic efficiency, with federal
18 energy policy, and with the fundamental purposes of utility
19 regulation, as well as with the current structure of the
20 electric utility industry in the United States.

21 **Q: Please summarize your testimony.**

22 A: The New Smyrna Beach Power Project, as a power supply
23 project for the Utilities Commission of New Smyrna Beach and

DIRECT TESTIMONY OF MARTHA O. HESSE

1 as a merchant power plant to be constructed in Peninsular
2 Florida, is fully consistent with federal energy policy,
3 economic efficiency, and the basic purposes of utility
4 regulation, i.e., to promote competitive and efficient
5 resource allocations. The Project also fits perfectly into
6 the current electric utility industry and will serve as well
7 in any future electric industry structure. It would be
8 inconsistent with sound energy policy and economic
9 efficiency to exclude merchant plants, such as the New
10 Smyrna Beach Power Project, from participating in the
11 Florida wholesale power market. To deny the benefits of
12 merchant plants to the citizens of Florida would be unwise,
13 unfair, and certainly inconsistent with the regulatory goal
14 of protecting and promoting the public interest.

15 **BACKGROUND - MERCHANT POWER PLANTS AND THE**
16 **NEW SMYRNA BEACH POWER PROJECT**

17 **Q: Please summarize your understanding of the New Smyrna Beach**
18 **Power Project.**

19 **A:** I am informed by the UCNSB and Duke New Smyrna that the New
20 Smyrna Beach Power Project is to be a 500 MW-class gas-fired
21 combined cycle power plant located in New Smyrna Beach,
22 Volusia County, Florida. The Project will be owned by Duke
23 Energy New Smyrna Beach Power Company Ltd., L.L.P., which is
24 an affiliate of Duke Energy Power Services, LLC, and a
25 subsidiary of Duke Energy Corporation. Additionally, 30 MW

DIRECT TESTIMONY OF MARTHA O. HESSE

1 of the Project's output capacity will be provided to the
2 Utilities Commission of New Smyrna Beach ("UCNSB") as
3 "entitlement" capacity pursuant to a Participation Agreement
4 between Duke New Smyrna and the UCNSB. The balance of the
5 Project's capacity will be made available, for wholesale
6 sales at market-based rates, to other wholesale purchasers,
7 primarily other utilities in Peninsular Florida.

8 **Q: What is a merchant power plant, and what function do**
9 **merchant power plants provide in the U.S. energy supply and**
10 **distribution system?**

11 A: While the term "merchant power plant" may be used to
12 describe several different arrangements, I would define the
13 term to mean an electric generating facility that sells
14 power at wholesale on a market basis, i.e., at market-based
15 rates, and for which the plant's owners or builders take all
16 capital, investment, operating, and market risk. A merchant
17 power plant is not included in any regulated utility's rate
18 base and, accordingly, is not subject to traditional
19 regulatory treatment, including the opportunity to earn a
20 specified rate of return on investment and the opportunity
21 to require "captive" customers to pay for investment in
22 generating plants, regardless of subsequent changes in
23 market conditions.

24 Merchant power plants function as competitive

DIRECT TESTIMONY OF MARTHA O. HESSE

1 generators and wholesale suppliers of bulk electric power,
2 selling power to other utilities which in turn resell that
3 power to their retail customers. Merchant plants are
4 "public utilities" subject to the jurisdiction of the FERC;
5 as such, these wholesale public utilities will, like Duke
6 New Smyrna, have on file a market-based rate tariff and will
7 file all of their power sales contracts with the FERC.
8 Merchant plants are normally Exempt Wholesale Generators,
9 and thus they and their parent corporations are exempt from
10 regulation by the U.S. Securities Exchange Commission under
11 the Public Utility Holding Company Act of 1935.

12 **Q: Please summarize the status of wholesale competition in**
13 **other states and in other countries.**

14 **A:** Many of the characteristics that led to the decisions sixty
15 years ago to regulate the electric industry as a "natural
16 monopoly" have changed significantly over the past twenty
17 years. As a result, economic forces have effectively made
18 the power generation sector of the industry competitive
19 today, and there is every reason to expect that competition
20 will continue to characterize the generation sector in the
21 future.

22 Wholesale competition is robust and flourishing in
23 nearly every state in the United States, as well as in
24 Canada and Europe. Great Britain has completely reorganized

DIRECT TESTIMONY OF MARTHA O. HESSE

1 its electric industry, and in doing so has provided for a
2 fully competitive wholesale sector of its power industry.
3 Countries as diverse as Thailand and the Philippines have
4 also begun to use competitive mechanisms to acquire new
5 power supplies.

6 For the past twenty years, the vast majority of new
7 generation in this country has been provided by non-
8 traditional competitive sources. Indeed, passage of the
9 Public Utility Regulatory Policies Act in 1978 effectively
10 declared that electric generation was no longer a natural
11 monopoly. The Nation's experience with PURPA has
12 demonstrated investors' willingness to put their capital to
13 work building power generation facilities -- even without
14 the protections of cost-plus regulation and a service
15 franchise. Wholesale merchant generators, be they FERC-
16 regulated wholesale public utilities, including both EWGs
17 and non-EWG public utilities, or Qualifying Facilities
18 ("QFs"), are willing to take risks in return for uncertain
19 rewards by expanding the field of power supply "players" and
20 providing a more symmetrical distribution of risk between
21 power producers and ratepayers.

22 Pursuant to the Energy Policy Act of 1992, competition
23 in wholesale power generation is one of the express goals of
24 national energy policy, and it is thus effectively the law
25 of the land.

DIRECT TESTIMONY OF MARTHA O. HESSE

1 **Q: Where are merchant plants currently operating in the U.S.?**

2 A: Merchant plants are currently operating in California,
3 Colorado, Connecticut, Maine, Massachusetts, Texas, and
4 Wisconsin. Merchant plants are either planned or under
5 construction in many other states. Additionally, many
6 existing retail-serving utilities have announced plans to
7 sell or have already sold some or all of their power plants
8 to entities that will operate them as merchant plants.
9 Several existing retail-serving utilities, such as Pacific
10 Gas & Electric, have established subsidiaries to purchase
11 and operate as merchant plants the facilities of other
12 regulated utilities.

13 **Q: Where are merchant plants currently under construction in**
14 **the U.S.?**

15 A: Merchant power plants are currently under construction in
16 Connecticut, Massachusetts, Texas and Nevada. Plans for
17 additional merchant power plants have been announced for
18 California, Maine, Massachusetts, Mississippi, Missouri, New
19 Hampshire, North Carolina, Oregon, Pennsylvania, Rhode
20 Island, Texas, and Virginia.

21 **Q: Would any special accommodations be required to permit**
22 **merchant plants to operate in the Florida wholesale market?**

23 A: No. The FERC-regulated public utilities that operate

DIRECT TESTIMONY OF MARTHA O. HESSE

1 merchant plants would operate just like any other utility
2 with power to sell in wholesale markets, and would offer
3 power for sale pursuant to contracts similar to those that
4 already exist between purchasing utilities and other
5 utilities selling at wholesale.

6 **Q: Would a state or a relevant market have to have an**
7 **Independent System Operator to accommodate merchant plant**
8 **transactions in the wholesale bulk power market?**

9 A: No. Merchant plants owned and operated by a FERC-regulated
10 public utility fit into the current wholesale power market
11 the same as any other power plant or utility with power to
12 sell at wholesale.

13 **Q: What, if any, relationship does wholesale competition have**
14 **to the issues of deregulation, retail restructuring, or**
15 **retail competition?**

16 A: Basically, none. Wholesale competition in power supply
17 markets can and does exist with or without retail
18 competition. To protect captive ratepayers and promote the
19 public interest, wholesale competition can and should be
20 allowed -- and encouraged -- to function freely in markets,
21 such as Florida's, where the current retail market is
22 characterized by traditional rate regulation, as well as in
23 other markets where various degrees of retail competition

DIRECT TESTIMONY OF MARTHA O. HESSE

1 may exist.

2 Wholesale competition already exists -- and flourishes
3 -- in power markets throughout the U.S. and Canada. Indeed,
4 there is already some wholesale competition in Florida among
5 vertically integrated public utilities and municipal
6 utilities, wholesale public utilities, and QFs that have
7 extra capacity to sell at various times. Robust competition
8 exists where barriers to entering the wholesale market are
9 minimal or non-existent; where potential suppliers' access
10 to the wholesale power market is limited or restricted in
11 any way, competition cannot be said to be robust.

12 In summary, merchant plants can and do exist in current
13 wholesale markets, completely independent of the existence
14 or non-existence of retail competition.

**CONSISTENCY OF THE NEW SMYRNA BEACH POWER PROJECT
WITH FEDERAL ENERGY POLICY**

15 **Q: Please summarize the key elements of federal energy policy**
16 **that are relevant to merchant power plants.**

17 **A:** At least since the passage of the Public Utility Regulatory
18 Policies Act of 1978, the Congress and the FERC have favored
19 competition in the supply of bulk electricity in the United
20 States. This policy objective was carried forward and
21 expanded in the Energy Policy Act of 1992, wherein Congress
22 further acted to promote competition in wholesale power
23 supply by creating a new regulatory category of suppliers,
24
25

DIRECT TESTIMONY OF MARTHA O. HESSE

1 "Exempt Wholesale Generators," which are power plants that
2 may be owned by utilities without subjecting those utilities
3 to regulation under the Public Utility Holding Company Act
4 of 1935. (It is this exemption from holding company
5 regulation that the term "exempt" refers to.)

6 In the Energy Policy Act, Congress also acted to assure
7 access of all wholesale power suppliers to transmission
8 facilities, for the purpose of promoting more robust and
9 free competition in power supply. FERC implemented this
10 policy directive by its Order No. 888, and continues to
11 extend and refine these policies by imposing pro-competition
12 requirements at every opportunity.

13 In summary, it is clear that for the past 20 years,
14 federal energy policy has favored and encouraged competition
15 in the wholesale generation and supply of electricity in the
16 United States.

17 **Q: Is the presence or existence of merchant power plants, such**
18 **as the New Smyrna Beach Power Project, consistent with**
19 **federal energy policy? Please explain.**

20 **A:** Absolutely. The existence of merchant power plants, such as
21 the Project, promotes competition among power sources with
22 the effects of lowering costs to consumers, shifting risks
23 from ratepayers to investors, and encouraging a rational,
24 symmetrical risk-reward balance.

DIRECT TESTIMONY OF MARTHA O. HESSE

1 **Q: Would limiting the ability of merchant plant developers to**
2 **construct plants to sell power in wholesale markets make any**
3 **sense in light of the federal policies and policy goals**
4 **established by the Energy Policy Act of 1992?**

5 **A: Absolutely not. Excluding merchant power plants from**
6 **participating in the Florida wholesale market, or, for that**
7 **matter, in any other wholesale market, would be inconsistent**
8 **with and contrary to federal energy policy. Additionally,**
9 **even limiting or restricting the participation of merchant**
10 **power plants in the Florida wholesale market, e.g., by**
11 **requiring merchant plant developers to enter into contracts**
12 **with existing retail utilities as a condition of building a**
13 **power plant in Florida, would also be inconsistent with and**
14 **contrary to federal energy policy.**

CONSISTENCY WITH ECONOMIC EFFICIENCY

15
16 **Q: Please explain what is meant by "economic efficiency."**

17 **A: Economic efficiency exists where resources are allocated in**
18 **such a way that no further increases in production of one**
19 **commodity or good can be obtained from reallocating**
20 **resources without sacrificing production of something else.**
21 **As a general proposition, a competitive market result will**
22 **be economically efficient. In competitive markets, there**
23 **are no barriers to entry preventing willing and able**
24 **competitors from entering a market, and no monopoly power or**

DIRECT TESTIMONY OF MARTHA O. HESSE

1 other constraints resulting in higher prices and lower
2 output quantities than a competitive market would achieve.
3 Also, competitive markets provide correct price signals
4 between and among buyers and sellers, i.e., price signals
5 that lead to an efficient or "optimal" allocation of
6 resources and products. It is for these reasons that
7 competitive markets, and competitive market results or
8 outcomes, are considered to be "good" and highly desirable.

9 **Q: Please summarize the benefits of wholesale competition in**
10 **electricity production.**

11 **A:** Competition in the wholesale supply of electricity results
12 in lower costs and lower prices than would exist in
13 monopolistic or less competitive market structures.

14 For example, under many scenarios, existing monopoly
15 utilities may conduct some form of bidding process for new
16 or incremental capacity and energy requirements. As a
17 general principle, the more bidders that participate in such
18 processes, the lower the final cost to the purchasing
19 utility and, presumably, its customers, will be. In a
20 bidding regime, the competition provided by existing
21 merchant plants suppresses prices toward levels very close
22 to, and in some cases possibly below, long run marginal
23 cost.

24 This effect is especially important in Peninsular

DIRECT TESTIMONY OF MARTHA O. HESSE

1 Florida because of its relative electrical "isolation" due
2 to its limited power import capabilities, which directly
3 limits the benefits that can be realized from competition.

4 Merchant plants also transfer risk from those who
5 normally bear it in the current regulatory regime, i.e.,
6 captive utility ratepayers, to the merchant plant owner-
7 operators. The risks thus transferred include the risks of
8 cost overruns and operating risks from existing utilities
9 and their captive ratepayers to merchant plant owner-
10 operators.

11 **Q: Is bidding for new power supply resources sufficient to**
12 **assure the full realization of the benefits of wholesale**
13 **competition?**

14 **A:** Generally, no. While bidding for new power supplies will
15 provide some competitive benefits, if access to the supply
16 side of the wholesale power market is restricted to only
17 those who win bidding processes, it is virtually certain
18 that ratepayers will not be as well off as with unrestricted
19 access to development of wholesale merchant power plants.
20 As I discussed above, the presence of existing, i.e.,
21 already built and operating, merchant plants provides
22 additional competitive downward pressure on power costs and
23 prices that does not exist if the population of potential
24 competing suppliers consisted solely of to-be-constructed

DIRECT TESTIMONY OF MARTHA O. HESSE

1 power plants. Moreover, the realization of benefits that
2 should derive from bidding depends, integrally, on the
3 existence of a bidding system that requires bidding for all
4 new resources; this is not always the case.

5 Bidding does not necessarily transfer the financial
6 risk from the captive ratepayers to suppliers, nor does it
7 guarantee accurate price signals between buyer and seller.

8 **Q: Are any "dis-benefits" or "externality" costs likely to**
9 **result from allowing wholesale competition?**

10 A: No, enhanced wholesale competition does not cause any
11 significant dis-benefits or increased "externality" costs.

12 In some circumstances not applicable in Florida,
13 unfettered wholesale competition in power supply might
14 result in additional environmental pollution as prices are
15 driven down toward marginal generating cost, if those prices
16 do not accurately reflect the cost of environmental
17 externalities associated with power generation. (Of course,
18 health, safety, and environmental impacts will continue to
19 be regulated.) In the case of Florida, where it appears
20 that the vast majority of new generating units planned by
21 merchant developers and existing utilities alike are to be
22 highly efficient gas-fired combined cycle units, it appears
23 that the enhanced competition should be expected to reduce
24 environmental externalities (pollution).

DIRECT TESTIMONY OF MARTHA O. HESSE

1 Q: What, if any, economic benefits is the New Smyrna Beach
2 Project likely to provide to the State of Florida and to
3 Florida electric customers?

4 A: In general terms, the New Smyrna Beach Project will provide
5 direct economic benefits in the form of lower-cost
6 electricity to Florida utilities, who would be expected to
7 pass those lower power supply costs on to their electric
8 customers in the form of lower rates (through fuel
9 adjustment charges or purchased power cost recovery
10 charges). In this regard, it is important to remember that
11 no utility, and no electric customers, are obliged to
12 purchase either capacity or energy from the New Smyrna Beach
13 Project; other utilities will only buy from the Project when
14 such purchases represent lower cost power supply options
15 than the cost of other resources. In addition, under
16 reasonable assumptions, the existence of the Project will
17 provide direct (although perhaps more difficult to quantify)
18 economic benefits in the form of an additional competitive
19 check on the amount that a monopoly utility can charge for
20 capacity or energy from a utility-built power plant. More
21 generally, lower overall power costs can also be expected to
22 have a positive effect on the State's economy.

23 The Project can also reasonably be expected to provide
24 indirect benefits in the form of a "social welfare gain" by
25 producing electricity at a lower marginal cost than other

DIRECT TESTIMONY OF MARTHA O. HESSE

1 resources (when it runs, of course), and in the form of
2 reduced environmental costs, i.e., reduced externalities due
3 to pollution, realized when the Project's generation
4 displaces oil-fired or coal-fired generation, and even when
5 it displaces less-efficient gas fired generation.

6 **Q: What if merchant plant developers were to build more**
7 **generation capacity in Florida than was strictly needed to**
8 **maintain minimum reliability criteria?**

9 A: The merchant plants would bear the full economic risk,
10 unlike the current situation where the captive ratepayers
11 bear virtually all of the risk.

12 In ^{One} ~~a realistic~~ scenario, addressing the possibility of
13 several merchant plant developers in Florida building, over
14 the next five to ten years, more gas-fired combined cycle
15 capacity than is necessary to meet minimum reliability
16 criteria, the result would be suppression of the market
17 price of power in the Florida wholesale market, and the
18 attendant benefits would accrue to retail electric
19 ratepayers. Economically rational merchant plant owner-
20 operators would bid prices to sell power at some level above
21 their true marginal operating cost; the presence of numerous
22 such plants would tend to cause the bid prices, at least
23 much of the time, to be closer to that marginal operating
24 cost than if there were fewer plants.

DIRECT TESTIMONY OF MARTHA O. HESSE

1 Thus, the net effect would be, at a minimum, reduced
2 wholesale power supply costs to utilities buying the power
3 for resale to their retail customers (making the reasonable
4 assumption that -- under the existing regulatory regime --
5 those retail-serving utilities would pass the lower power
6 supply costs through to their retail customers in the form
7 of lower rates). Thus, retail customers would benefit
8 directly.

9 Economic efficiency would be served as long as the
10 standard assumptions of competitive markets were met. The
11 chief of these in this case is that externalities must be
12 appropriately valued and incorporated into the price of
13 electricity. Whether that would be the case with a fleet of
14 gas-fired combined cycle plants would be an empirical
15 exercise beyond the scope of this testimony, but to the
16 extent that those units would displace generation from oil-
17 fired and less efficient gas-fired capacity, there would at
18 a minimum be a reduction in environmental externalities from
19 electricity generation in Florida. Thus, while we cannot
20 conclude that an "optimal" outcome would be attained, we can
21 conclude that electricity would be generated at a lower
22 cost, and almost certainly with less environmental
23 pollution, than without this hypothetical fleet. I believe
24 that any legitimate analysis of the situation would have to
25 conclude that this would be a "superior" outcome.

DIRECT TESTIMONY OF MARTHA O. HESSE

1 Also, the presence of additional merchant capacity
2 would provide additional protection for service reliability
3 -- e.g., additional protection against outages due to
4 extreme weather conditions or due to unexpected outages of
5 generation facilities, at no incremental cost to electric
6 customers unless their retail-serving utilities decide to
7 use the merchant power resources. Additionally, the
8 certainty of available supply from the Project will provide
9 protection against the reliability uncertainties associated
10 with demand-side management, i.e., against the contingencies
11 that DSM measures will not realize their projected demand
12 reductions and that dissatisfied customers will terminate
13 their participation in load management programs. This is
14 particularly important in Florida, where load management and
15 interruptible service are relied on as the majority of
16 projected reserve margins.

17 CONSISTENCY WITH PURPOSES OF UTILITY REGULATION

18 **Q: Please summarize the basic purpose or purposes of utility**
19 **regulation.**

20 **A:** The basic purposes of utility regulation are to protect the
21 public interest and to promote an economically efficient,
22 competitive result in the allocation of resources to
23 electricity production and to prevent the exercise of
24 monopoly power. Stated differently, utility regulation is

DIRECT TESTIMONY OF MARTHA O. HESSE

1 intended to serve as a surrogate for competition.

2 **Q: Are merchant plants consistent with these basic purposes of**
3 **utility regulation?**

4 A: Yes. The basic purpose of utility regulation is to attempt
5 to come as close as possible, in a constrained or
6 structurally imperfect market, to the outcome that would be
7 achieved in a competitive market. Truly competitive markets
8 are characterized by numerous sellers and numerous buyers
9 (enough that no one buyer or seller can influence the market
10 price). Merchant power plants fit perfectly into this
11 paradigm by increasing the number of sellers of electricity
12 in a given market, here the market for wholesale power in
13 Florida. They therefore promote a competitive and
14 economically efficient result, and are therefore consistent
15 with the basic purposes of regulation.

16 Moreover, merchant plants pose no risk to, and impose
17 no obligation on, electric customers. As in other
18 competitive markets, merchant plant investors take the risks
19 without any expectation of being able to, and without any
20 opportunity to, require any purchasers to cover their costs.

21 **Q: Does the "obligation to serve" -- i.e., to provide retail**
22 **electric service to any eligible customer requesting same in**
23 **a retail-serving utility's service area -- have anything to**

DIRECT TESTIMONY OF MARTHA O. HESSE

1 do with who should provide the bulk power, or with who
2 should be eligible to build power plants to provide it?

3 A: No. It is a separate concept. Many electric utilities that
4 provide retail service, both in Florida and elsewhere, own
5 no power plants at all. Rather, these utilities rely
6 exclusively on power purchased from other utilities, i.e.,
7 power merchants. The argument that the "obligation to
8 serve" vests control over access to the wholesale market in
9 existing retail-serving utilities is a red herring.
10 Utilities gave up this argument when they started buying and
11 selling power between and among themselves: it makes no
12 difference whether the seller of power is another utility
13 that serves at retail and wholesale or a utility that sells
14 at wholesale only. Consider, for example, the Tennessee
15 Valley Authority, the Bonneville Power Administration, the
16 Southeast Power Administration, generation and transmission
17 cooperatives, wholesale joint power projects, and other
18 entities that provide bulk power to retail-serving utilities
19 in the present wholesale power markets. FERC-regulated
20 public utilities operating merchant plants are fundamentally
21 and functionally no different than these other, existing
22 entities that provide bulk wholesale power to retail-serving
23 utilities.

DIRECT TESTIMONY OF MARTHA O. HESSE

1 Q: Would wholesale competition hurt retail customers under any
2 realistic scenario?

3 A: Absolutely not. The opposite is true -- customers benefit
4 from wholesale competition.

5 Q: Does this conclude your direct testimony?

6 A: Yes, it does.

1 BY MR. WIGGINS:

2 Q Ms. Hesse, did you prepare a brief oral
3 summary this morning of your written testimony?

4 A Yes.

5 Q Would you please give it?

6 A Well, good morning, Madam Chairman and
7 Commissioners. It's a privilege to participate in
8 this proceeding. And although, as you know, my
9 regulatory experience is at the federal level, I have
10 always appreciated the difficult and vital role that
11 state utility commissioners play in serving the public
12 interest. And it is, of course, at the state level
13 that so much of the critical work is done in
14 implementing both federal and state policies. And
15 certainly the Florida Public Service Commission enjoys
16 a reputation for doing this difficult work with
17 distinction.

18 The 1992 Energy Policy Act was passed by
19 Congress to, among other things, promote additional
20 competition in wholesale electric power markets in
21 order to improve the performance, or I should say the
22 efficiency of the electric utility industry and to
23 secure the lowest possible costs for consumers.

24 A merchant power plant is not included in
25 any utility's rate base, and accordingly, is not

1 subject to traditional regulatory treatment, including
2 the opportunity to earn a specified rate of return and
3 the opportunity to require captive customers to pay
4 for investment in generating plants, regardless of
5 subsequent changes in market conditions.

6 Wholesale competition in power supply can
7 and does exist with or without retail competition.
8 Dale Nesbitt referred to it as the coming merchant
9 world. And today, most states have active wholesale
10 markets. They are actively -- there are active
11 regional power pools in which the IOUs vigorously
12 participate. The municipals and the co-ops that don't
13 have generation of their own have long participated in
14 the market.

15 And there are a lot of varying kind of
16 state examples that range from Nevada, which for more
17 than five years has purchased more than 50% of its
18 power on the open market, to, say, San Diego, the
19 former San Diego Gas and Electric, where the former
20 chairman, Tom Paige, in the 1980s announced that he
21 would never again build a plant, and he didn't, and
22 has been successful at that to the point that his
23 company did purchase the largest natural gas
24 distributor in the country, Southern California Gas,
25 and that corporation is now known as Sempra. And

1 then, of course, we can go to the whole state of
2 California, where the investor-owned utilities have in
3 fact divested generation. And Florida Power & Light
4 has in fact participated in that and has agreed to
5 purchase a number of the plants being sold by Pacific
6 Gas & Electric.

7 So I do hope that my testimony here today
8 will be of some use to you in this proceeding. And
9 although it's clearly your decision as to whether the
10 joint petition is granted, I believe that as a matter
11 of public policy, the proposed plant meets the test
12 for being in the public interest as intended by
13 Congress in the Energy Policy Act. And more
14 specifically, it complies with federal policy, it
15 promotes competition among power sources, with the
16 effect of lowering costs to consumers, shifting risks
17 from ratepayers to investors, and encouraging a
18 rational, balanced risk-reward relationship. And
19 finally, it provides the citizens of Florida with the
20 opportunity to have access to a reliable,
21 environmentally sound power supply, low cost power
22 supply without investment and operational risk.

23 Now, I recognize that you have before you
24 the difficult issue of how to implement your existing
25 state statutes and regulations within the context of

1 federal energy policy. And it's certainly not my
2 role, nor would I be so presumptive to tell you how to
3 interpret your law and regulations. But I would say
4 that I do believe that the citizens of Florida would
5 be well served to have the opportunity to reap the
6 benefits of merchant plants such as the one before
7 you.

8 Q And that concludes your summary?

9 A It does.

10 MR. WIGGINS: The witness is available for
11 cross examination.

12 CHAIRMAN JOHNSON: Thank you. Mr. Moyle?

13 MR. MOYLE: Thank you, Madam Chairman.

14 CROSS EXAMINATION

15 BY MR. MOYLE:

16 Q I just want to get something clear. You
17 are -- and I read your direct testimony. You have a
18 tremendous amount of experience as a regulator; isn't
19 that correct?

20 A Well, as a federal regulator, yes.

21 Q And at FERC, you were chair or a member of
22 FERC?

23 A I was the chairman of FERC, yes.

24 Q For how many years?

25 A About three to four, in the mid to late

1 '80s.

2 Q And you're providing us with your opinion
3 as an expert today; isn't that correct?

4 A (Nodding head affirmatively.) I'm
5 providing my opinion, and as a resource for federal
6 energy policy.

7 Q I wanted to ask you some questions with
8 respect to page 5 of your direct testimony. You talk
9 about merchant plants. You provided a summary, but I
10 want to home in, if I could, on a couple of points
11 that you make on page 5 and ask you to expand a little
12 bit upon them.

13 On page 5, line 7, you make a statement
14 that it would be inconsistent with sound energy policy
15 to exclude merchant plants from participating in the
16 Florida wholesale market. Why would that be?

17 A Well, it would be inconsistent with federal
18 energy policy, and I guess for the sake of argument,
19 we'll call that sound, but with existing federal
20 energy policy enunciated by Congress in the Energy
21 Policy Act that was intended to promote additional
22 competition in the wholesale power market in order to
23 improve efficiency and to lower costs. So clearly, a
24 merchant plant falls within that framework.

25 Q So improve efficiency and lower costs. Is

1 there anything that you're aware of that would not
2 apply to the Florida regulatory market with respect to
3 merchant plants improving efficiency and lowering
4 costs?

5 A Well, I know of nothing generally that
6 would prevent the implementation of that policy or the
7 soundness of that policy.

8 Q Maybe it was asked poorly, but in fact,
9 merchant plants in Florida, as far as you know, based
10 on listening to the testimony and your expertise, they
11 would have a tendency to lower costs in Florida; isn't
12 that correct?

13 A I believe that, given that they would
14 certainly give the opportunity to the citizens of
15 Florida to realize lower costs.

16 Q There was another comment you made on page
17 5. You said, and I'm quoting now from line 11, "To
18 deny the benefits of merchant plants to the citizens
19 of Florida would be unwise, unfair, and certainly
20 inconsistent with the regulatory goal of protecting
21 and promoting the public interest." What is the basis
22 for that comment?

23 A Well, in my view, promoting the public
24 interest is in fact one of the purposes of
25 regulation. And in the utility industry, that is

1 translated into providing adequate supplies at
2 reasonable cost, reasonable being lower or lowest
3 cost. And clearly, this kind of plant falls within
4 the range of opportunities of providing that kind of
5 opportunity.

6 Q I wanted to ask you questions -- when you
7 were chair of FERC, did you have occasion to implement
8 laws passed by Congress?

9 A Yes, not only when I was the chairman of
10 FERC, but also when I was with the Department of
11 Energy and the entire ten years that I spent in the
12 executive branch.

13 Q And indeed, isn't that the role of a
14 regulatory body, is to implement laws passed by the
15 legislative body?

16 A That's right. Regulators must deal with
17 the hand that the legislative body gives them, or
18 deals them, I should say.

19 Q In your role at FERC and otherwise, when
20 you would implement legislative enactments, would that
21 on occasion require you to interpret a statute?

22 A Frequently.

23 Q And when you interpreted a statute, would
24 you look to legislative history if there was
25 uncertainty or to divine the intent of Congress?

1 A Well, we would always look at the
2 legislative intent, whether we were certain or
3 uncertain, just to verify what the intent of Congress
4 was.

5 Q If there was a question about the intent,
6 wouldn't you go about and try to implement the law
7 consistent with what you viewed as the best policy for
8 the country?

9 A Yes, and especially the best policy would
10 be enunciated by the sense of the Congress, what
11 Congress intended.

12 Q But if there was a situation where it may
13 not have been crystal clear, you wouldn't just stop
14 and throw up your hands and say, "We can't do that,"
15 would you?

16 A No, we didn't do that. And in fact, it was
17 my experience in Washington that Congress didn't want
18 us to do that, that Congress in general, not only for
19 FERC, but for other agencies, wanted those agencies to
20 do as much work as they could before coming back for a
21 legislative change.

22 Q And isn't it true that oftentimes when
23 Congress would pass a bill, they would provide the
24 guidance and leave it to the implementing agency to
25 fill in some details and to set some policy in that

1 area?

2 A Yes. The implementing regulations, yes.

3 Q And you're not aware of any reason why that
4 would be different on a state level, are you?

5 A Well, you know, I can't comment on the
6 state level, because I'm not here as an expert in
7 either Florida law or Florida regulation, but it would
8 certainly be my hope that that was possible.

9 COMMISSIONER GARCIA: Just out of
10 curiosity, what would you do if the chairman of the
11 Senate committee which has oversight over you called
12 you and made a suggestion, or wrote you and made a
13 suggestion?

14 WITNESS HESSE: Well, that --

15 COMMISSIONER GARCIA: Which I'm sure
16 happened to you every once in a while.

17 WITNESS HESSE: Yes, yes, yes. And --

18 COMMISSIONER GARCIA: Especially with a
19 Democratic Congress, so I'm sure that you were at
20 contravening purposes at points.

21 WITNESS HESSE: Well, I think that if you
22 -- we had a sense of where Congress was and what
23 Congress intended and wanted and could follow and
24 learn to work within those parameters. Now, clearly,
25 receiving letters from members of the Legislature is

1 always an attention producing event. But --

2 COMMISSIONER JACOBS: Well put.

3 WITNESS HESSE: My experience was that, you
4 know, we learned to work within that. To some extent,
5 you've got to do what's right, what you think is
6 right, and not against the law.

7 BY MR. MOYLE:

8 Q You probably had occasion, I would suspect,
9 on an issue where -- there was an issue that had some
10 attention to it where you would receive letters from
11 members of Congress that were on both sides of an
12 issue; isn't that correct?

13 A Hourly.

14 Q And in that case, you would do what you
15 thought would be best in implementing the law; isn't
16 that correct?

17 A Well, you have to balance opposing
18 viewpoints, but always with an eye toward the intent
19 of your enabling legislation, and certainly the intent
20 as the environment dictated at the moment, because,
21 you know, times change, and Congress really expects
22 you to keep up with that change to some extent, not to
23 go outside the law, but to work within it.

24 Q I'm going to ask you a question from a
25 broad sense and ask you if this would be a fair

1 statement. In my reading of your testimony and kind
2 of summarizing it in my mind, I read it to say that
3 you believe a merchant plant in Florida is good
4 regulatory policy, is good for wholesale competition,
5 is good for the environment, and is good for the
6 ratepayers. Would that be a fair statement?

7 A And I would broaden that to say that I
8 believe that that would be true essentially in any
9 state.

10 Q And do you see anything significantly wrong
11 with the merchant plant concept?

12 A No.

13 MR. MOYLE: Thank you.

14 COMMISSIONER GARCIA: While we're on those
15 issues -- maybe I'm jumping ahead, but you heard the
16 questions -- I'm sure you were here when I was
17 questioning Mr. Nesbitt about safety issues. And
18 clearly that's not a central issue to FERC, but FERC
19 does have a reliability responsibility.

20 And you probably heard some of those
21 questions, my fear of, you know, how much as a state
22 regulator I can affect precisely what FPL does or
23 precisely what FPC does. I mean, obviously, those are
24 crisis situation where -- and most probably they can
25 handle them much better than we ever could, because

1 that's their business, and ours is only watching over
2 them. But I do have controls where I can -- I have
3 the power to do things.

4 With your client, I don't have those kind
5 of powers, and so I pose the question to you, do you
6 see any danger there in my ability to carry out my job
7 to protect the people of Florida or Florida as a
8 whole?

9 WITNESS HESSE: Well, I don't think -- I
10 don't see any problem or any danger, in that the
11 utility, the purchasing utility still has the
12 obligation to serve. Not necessarily the obligation
13 to generate. In general, not the obligation to
14 generate, but the obligation to serve. And it's up to
15 the utility --

16 COMMISSIONER GARCIA: Well, they have the
17 obligation to -- they have the obligation to serve,
18 and that obligation to serve means I'm going to have
19 to approve it if they come in here and show that
20 there's still a need out there.

21 WITNESS HESSE: Well, they have the
22 obligation to secure a reliable power supply, so much
23 of the burden shifts to the purchasing utility to make
24 certain that they do have a reliable source of supply,
25 and that's one of the issues that in fact they face

1 now with their own plants, you know, are they going to
2 be up and running, and is there going to be supply
3 available from other sources.

4 And in terms of this particular plant, you
5 know, in a commercial world, these people are not
6 going to have any revenue or any profit if they don't
7 have a reasonable or an adequate supply, a reliable
8 supply of their product. You know, that's the
9 business that they're in, so they have every economic
10 reason to make certain that they do have available
11 reliable supplies. But the real burden shifts to the
12 purchaser, which in this case is the utility.

13 COMMISSIONER CLARK: Let me follow up on
14 that line of questioning. Your experience, the bulk
15 of your experience is really in the gas market.

16 WITNESS HESSE: You mean at FERC? We also
17 did a lot of work in the electric area. There were
18 some infamous --

19 COMMISSIONER CLARK: Let me say that
20 differently. There was a lot of deregulation going on
21 in the gas industry while you were there as opposed to
22 the electric industry.

23 WITNESS HESSE: Well, that's true, because
24 you can only do so much at one time. But on the other
25 hand, we applied many of the same principles that we

1 were implementing on the gas side on the electric
2 side, and that comes into the area of open access.
3 One of the cases that we did, of course, was Utah
4 Power and Light, which was a merger case when Pacific
5 Corp. wanted to buy them, and required that they
6 provide open access.

7 COMMISSIONER CLARK: I really want to know
8 the results of, you know, what happened in the gas
9 industry. And one of the things that people who
10 advocate a more competitive market have to say about
11 reliability concerns is reliability with respect to
12 adequacy of supplies. Dr. Nesbitt has said they have
13 the incentive to be there when it's needed, that they
14 have very strong incentives, because that's when
15 they'll make their money, and with respect to
16 operating security, you know, having it there, that
17 the lines are adequate to deliver it, that they have a
18 strong incentive likewise to preserve that, because
19 without it, there's no market for their product.

20 WITNESS HESSE: That's right.

21 COMMISSIONER CLARK: Has that -- what has
22 happened in the gas market? Has the supply been there
23 to meet the reliability concerns?

24 WITNESS HESSE: (Nodding head
25 affirmatively.)

1 COMMISSIONER CLARK: Have there been any
2 concerns with respect to the delivery of it? Have
3 there been bottlenecks? Has it not been there on a
4 real-time basis when it needed to be there?

5 WITNESS HESSE: Commissioner, that's a
6 multipart question, so if I miss one of the parts,
7 remind me.

8 But I think in general, although there --
9 particularly at the beginning, there were a lot of
10 concerns about bottlenecks -- line pack would be what
11 we would call it on the gas side, as you know -- and
12 also whether or not the supply would be there. But to
13 my knowledge, there has never been an issue of an
14 industry-wide or delivery-point-wide instance where
15 deliverability was a problem because of lack of
16 regulation.

17 Now, if the wells freeze in South Texas or
18 something, or there's a storm in the Gulf, the supply
19 has to be rerouted. You have to displace it. But
20 there have never been any outages. And in fact, the
21 market has learned to work very well in the gas
22 industry. There is more and more call for natural
23 gas, more and more expansions of pipelines to bring
24 natural gas to new places and to expand supply. I
25 think it's working very well. I don't think you would

1 find anyone who doesn't believe that.

2 COMMISSIONER CLARK: Thank you.

3 COMMISSIONER JACOBS: There's a --
4 arguably, the impacts -- let me ask you this way.
5 What do you perceive to have been the impact of those
6 developments on the operation of the gas retail
7 market?

8 WITNESS HESSE: Well, I think we'll have to
9 separate the gas retail market into residential retail
10 and then maybe wholesale retail. But on the whole,
11 gas prices have gone down, and gas utilization has
12 gone up. So there has been that occurrence.

13 Residential retail access to differing gas
14 sources is only something that's beginning to happen
15 in the states. The implementation of retail gas sales
16 is part of the state regulatory responsibility.
17 FERC's jurisdiction goes to city gate, not to the
18 burner tip. However, even without having the option
19 of the availability of retail, residential retail
20 sales and choice, gas prices have gone down and
21 utilization up.

22 COMMISSIONER JACOBS: It has been
23 interesting to me just in my brief exposure, I
24 expected to see, particularly in the conservation
25 areas, to see in Florida more use of gas. And I agree

1 that it is emerging. But given the length of time --
2 this is the interesting thing for me -- the length of
3 time that the market has been allowed to operate in a
4 fairly competitive manner, the impacts of that seem to
5 have worked their way to the retail customer fairly
6 slowly. Is that something you would agree with?

7 WITNESS HESSE: Well, I think in a given
8 industry, when you begin the first round of lessening
9 regulation and introducing markets, it always takes
10 longer than subsequent introductions. There is an
11 initial getting used to the whole idea and working
12 with less regulated markets. I mean, it has taken a
13 long time, because, yes, you're right, it has not yet
14 reached -- choice has not yet reached the residential
15 retail gas consumer. However, I think because
16 utilization is up and prices are down, a lot of the
17 benefits of more competitive markets have flown to the
18 retail user.

19 COMMISSIONER JACOBS: Thank you.

20 MR. MOYLE: I have nothing further.

21 CHAIRMAN JOHNSON: Mr. Guyton?

22 MR. GUYTON: Thank you, Madam Chairman.

23 CROSS EXAMINATION

24 BY MR. GUYTON:

25 Q Good day, Ms. Hesse.

1 A Hello.

2 Q I want to follow up on a couple of
3 questions from the bench on your observations about a
4 utility's obligation to serve and to secure a reliable
5 power supply. You did state that that was the
6 utility's obligation, didn't you?

7 A Yes, currently, as I understand it, in the
8 State of Florida.

9 Q Now, utilities, to assure a reliable power
10 supply, would they go out and buy the capacity they
11 needed on the spot market to do that?

12 A Is your question would they?

13 Q Yes.

14 A Well, I think that the utilities have a
15 broad range of power supply options. Going out on the
16 open market has several levels of availability. You
17 can sign long-term contracts. You can sign short-term
18 contracts. Within that, you can have firm, and you
19 can have interruptable. You have many options. You
20 can buy spot. You know, I only need peaking power for
21 a couple of hours, and I need it maybe today or
22 tomorrow. The utility has a great range of options.

23 Q And if it were going to go out on that
24 market to exercise its options to meet its obligation
25 to serve, it would need to contract for the power

1 supply, would it not?

2 A Well, I think that -- yes, but let me
3 explain. There are many ways for the utility to
4 contract that doesn't involve necessarily long-term
5 contracts. I mean, a contract can be something that's
6 a verbal order, as well as a 15- or 20-year supply
7 contract.

8 Q Are you suggesting that for the long-term
9 reliability of the states, somebody ought to go out
10 and make a verbal order for some capacity on the spot
11 market?

12 A No, that's not what I said. I said that
13 the utility has a range of options, and I think the
14 utilities today pursue that range of options.

15 Q Now, I've read your testimony actually
16 several times. I didn't see a mention in it of the
17 Florida Electrical Power Plant Siting Act. Did I
18 overlook that?

19 A No.

20 Q Have you read any of the Commission's
21 decisions regarding or interpreting the Power Plant
22 Siting Act?

23 A No.

24 Q Have you read any of the Florida Supreme
25 Court decisions that implement the Power Plant Siting

1 Act?

2 A No.

3 Q What do you understand the purpose of this
4 particular proceeding to be?

5 A Well, I understand the purpose of this
6 proceeding to be that the joint petitioners wish to
7 build a merchant plant in the State of Florida.

8 Q And how does their desire to build a
9 merchant plant in the State of Florida relate at all
10 to this proceeding?

11 A Well, they want to build a merchant plant,
12 and under the Energy Policy Act, merchant plants were
13 encouraged. The states, however, were to retain
14 siting and environmental issues, and so that's, in my
15 view, why they're here.

16 Q So this proceeding, as you understand it,
17 is a state power plant siting proceeding within the
18 Energy Policy Act?

19 A Yes.

20 Q Now, the siting of power plants other than
21 hydro units and nuclear units traditionally has been a
22 state function, hasn't it?

23 A Yes.

24 Q And it hasn't be a function of the FERC to
25 license power plants other than hydro units, has it?

1 A Not unless it's solely for wholesale
2 purposes.

3 Q Is it reasonable to say that other than for
4 hydro or nuclear facilities that the national energy
5 policy has been largely to leave power plant siting
6 and environmental licensing up to the states?

7 A That's correct.

8 Q And that hasn't changed --

9 COMMISSIONER DEASON: Excuse me. I need to
10 go back to your previous answer. I believe you
11 answered unless the plant is 100% wholesale.

12 WITNESS HESSE: Yes.

13 COMMISSIONER DEASON: FERC does not license
14 plants other than hydro.

15 WITNESS HESSE: Right. It regulates them.
16 It does not license them; that's correct.

17 COMMISSIONER DEASON: Are you saying then
18 that Duke New Smyrna could have gone to FERC to get a
19 license to build this plant in Florida because it's
20 100% wholesale?

21 WITNESS HESSE: No, they would still have
22 to go through -- no, because under the Energy Policy
23 Act, it's my understanding of it that merchant plants
24 still -- the siting and the environmental decisions
25 are left to the states. So, yes, they would have to

1 come to the state.

2 COMMISSIONER DEASON: So what authority do
3 they have to get from FERC? Just file a tariff and
4 have that tariff approved, and if they qualify for
5 market-based rates to get that approval?

6 WITNESS HESSE: Yes.

7 BY MR. GUYTON:

8 Q Now, you speak at several points in your
9 testimony at pages 10 through 13 of national energy
10 policy, and in that passage you make reference to
11 three sources, the Public Utility Regulatory Policies
12 Act of 1978, the Energy Policy Act of 1992, and Order
13 888; correct?

14 A Yes.

15 Q And you say that since Congress passed
16 PURPA, or you say since PURPA, Congress and FERC have
17 favored competition in the supply of bulk electricity;
18 correct?

19 A Correct.

20 Q Now, in PURPA, Congress created an
21 obligation on utilities to purchase power from
22 qualifying facilities, didn't it?

23 A Yes.

24 Q Is it your testimony that creating a
25 mandatory purchase obligation favors competition?

1 A Not necessarily. I do think, if I may add,
2 that one of the results of PURPA was to demonstrate
3 that -- or it demonstrated that there were in fact
4 investors who were willing to put up their own capital
5 to build plants to participate in a competitive market
6 without the guarantee of a return. That was clearly
7 not one of the intended -- I think that was one of the
8 results, one of the pleasant results, if I may say, as
9 opposed to one of the stated intents.

10 Q So you don't really believe that under
11 PURPA, with the mandate to purchase, that that was
12 designed to increase wholesale competition, do you?

13 A I think it was a result. PURPA was passed
14 in 1978, and in 1998 and 1988 the result of the effect
15 of PURPA was apparent.

16 Q Well, let's look at some of the results of
17 PURPA. You talk about the nation's experience with
18 PURPA at page 8. After Congress created that
19 mandatory purchase obligation, the Federal Energy
20 Regulatory Commission then adopted rules requiring
21 utilities to purchase QF power, didn't it?

22 A Yes. But it left the implementation to the
23 states, and so each state's implementation could, and
24 in many cases did, vary dramatically.

25 Q And as a result of those federally mandated

1 purchase requirements, utilities entered into a host
2 of long-term contracts with the qualifying facilities
3 in the 1980s, didn't they?

4 A Yes, they did, in conformance with state
5 regulation.

6 Q State regulation which was mandated by
7 Congress and the FERC; correct?

8 A The implementing regulations, yes.

9 Q Now, is it fair to say that generation unit
10 costs declined considerably, or have declined
11 considerably since the 1980s?

12 A That would be my opinion.

13 Q And as a result of those lower generating
14 unit costs, many of the PURPA contracts that were
15 entered into in the 1980s have turned out to be fairly
16 high sources of power to utilities, haven't they?

17 A That's correct.

18 Q Indeed, on some utility systems, those
19 PURPA contracts are among the utilities' highest cost
20 of power, aren't they?

21 A That's correct.

22 Q Do you know if the PURPA contracts are
23 among Florida utilities' highest cost of power?

24 A No, not specifically.

25 Q How did the financial rating agencies

1 respond to the utilities' significant long-term PURPA
2 contract obligations?

3 A Well, I think at the time of
4 implementation, they were very favorable to that.
5 That would be my general recollection. I cannot
6 comment on Wall Street's specific reaction to Florida
7 IOUs.

8 Q And I wouldn't ask you to. But rating
9 agencies at some point starting assessing a utility's
10 riskiness with PURPA contract obligations, did they
11 not?

12 A Yes.

13 Q And they treated those long-term
14 obligations as debt. From their perspective, the
15 greater the debt, the greater the risk to the equity
16 investment?

17 A That's generally the way the equation
18 works.

19 Q So the greater the risk to the equity of
20 the investor, the greater the cost of capital to the
21 utility?

22 A Yes.

23 Q Now, many of those utilities that have
24 found themselves with those high cost PURPA contracts
25 have begun to try to buy them out, haven't they?

1 A Yes.

2 Q Why do you suppose they've done that?

3 A Well, because the contracts are no longer
4 economic. There is certainly something to be said for
5 constructing contracts based on market price so that
6 it can in fact fluctuate, or to have a market out
7 provision.

8 Q But that wasn't the mandate that Congress
9 gave, was it?

10 A That's correct.

11 Q And it wasn't the mandate that the Federal
12 Energy Regulatory Commission gave, was it?

13 A That's correct.

14 Q Do you know the impact of PURPA contracts
15 on Florida utilities' credit ratings at all?

16 A I do not.

17 Q Do you know the volume of PURPA contracts
18 in Florida?

19 A I do not.

20 Q Do you know how many PURPA contracts in
21 Florida have been bought out by Florida utilities?

22 A I do not.

23 Q You helped implement PURPA, didn't you?

24 A No. That was before my time. But, yes,
25 we --

1 Q When you were on the --

2 A But, yes, we reviewed cases that concerned
3 PURPA.

4 Q So indeed, you did help implement PURPA
5 while you were on the Federal Energy Regulatory
6 Commission?

7 A Yes, based on your definition.

8 Q And you're testifying here about the impact
9 of PURPA in Florida, but you don't have any idea what
10 the impact of PURPA in Florida has been; correct?

11 MR. WIGGINS: Objection.

12 MR. GUYTON: I'll withdraw it.

13 MR. WIGGINS: Thank you.

14 BY MR. GUYTON:

15 Q You don't really know the fruits of
16 national energy policy in Florida due to PURPA, do
17 you?

18 A That's correct.

19 Q Now, in 1992, Congress started with another
20 experiment, the Energy Policy Act; correct?

21 A Correct.

22 Q And you consider the Energy Policy Act to
23 be an expression of federal energy policy?

24 A Correct.

25 Q And would that include Section 731 of the

1 Energy Policy Act?

2 A Is Section 731 the section that reserves
3 the right for siting and environment?

4 Q Yes.

5 A Then, yes, I would.

6 COMMISSIONER CLARK: Is there any part of
7 that act that isn't federal policy?

8 WITNESS HESSE: Not that I'm aware of.

9 BY MR. GUYTON:

10 Q Does the Energy Policy Act at any point use
11 the term "merchant plant"?

12 A I don't think so. I think it uses the word
13 "exempt wholesale generator." But I would have to
14 have an opportunity to review that before I could say
15 definitively yes or no. I wouldn't want to misstate.

16 Q When was the last time you thoroughly read
17 the Energy Policy Act?

18 A Line by line?

19 Q Yes, ma'am.

20 A Probably several months ago.

21 Q Would that also be true of Order 888?

22 A No. My line-by-line reading of Order 888
23 would have been a long time ago.

24 Q You didn't even read Order 888 in
25 anticipation or in preparation for this hearing?

1 A I read some of the general introductory
2 language to refresh my memory.

3 Q Have you had occasion to thoroughly read
4 PURPA?

5 CHAIRMAN JOHNSON: Mr. Guyton, how much
6 more do you have?

7 MR. GUYTON: Maybe ten minutes.

8 CHAIRMAN JOHNSON: Mr. Sasso, you're going
9 to have questions too, I presume.

10 MR. SASSO: Yes, ma'am, but not very much.

11 CHAIRMAN JOHNSON: We're going to need to
12 break, and we will reconvene at 1:00.

13 (Thereupon, the hearing was adjourned at
14 12:00 p.m., to reconvene at 1:00.)

15 (Transcript continues in sequence in
16 Volume 8.)

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<p style="text-align: center;">1</p> <p>1:00 [2] 1015:12,14 10 [1] 1008:9 100% [2] 1007:11,20 11 [1] 992:17 12:00 [1] 1015:14 13 [1] 1008:9 15 [1] 1005:6 1978 [2] 1008:12 1009:14 1980s [4] 988:20 1010:3,11,15 1988 [1] 1009:14 1992 [3] 987:18 1008:12 1013:19 1998 [1] 1009:14</p> <hr/> <p style="text-align: center;">2</p> <p>20-year [1] 1005:6</p> <hr/> <p style="text-align: center;">5</p> <p>5 [4] 991:8,11,13 992:17 50% [1] 988:17</p> <hr/> <p style="text-align: center;">7</p> <p>7 [1] 991:13 731 [2] 1013:25 1014:2</p> <hr/> <p style="text-align: center;">8</p> <p>8 [2] 1009:18 1015:16 80s [1] 991:1 888 [4] 1008:13 1014:21,22,24</p> <hr/> <p style="text-align: center;">A</p> <p>ability [1] 998:6 access [4] 989:20 1000:2,6 1002:13 accordingly [1] 987:25 Act [17] 987:18 989:13 991:21 1005:17,22 1006:1,12,18 1007:23 1008:12,12 1013:20,22 1014:1,7,10,17 active [2] 988:9,10 actively [1] 988:10 actually [1] 1005:15 add [1] 1009:1 additional [2] 987:19 991:21 adequacy [1] 1000:12 adequate [3] 993:1 999:7 1000:17 adjourned [1] 1015:13 adopted [1] 1009:20 advocate [1] 1000:10 affect [1] 997:22 affirmatively [2] 991:4 1000:25 agencies [4] 994:19,19 1010:25 1011:9 agency [1] 994:24 ago [2] 1014:20,23 agree [2] 1002:25 1003:6 agreed [1] 989:4 ahead [1] 997:15 allowed [1] 1003:3 although [3] 987:8 989:9 1001:8 among [4] 987:19 989:15 1010:19,23 amount [1] 990:18 announced [1] 988:20 another [2] 992:16 1013:19</p>	<p>answer [1] 1007:10 answered [1] 1007:11 anticipation [1] 1014:25 apparent [1] 1009:15 applied [1] 999:25 apply [1] 992:2 appreciated [1] 987:10 approval [1] 1008:5 approve [1] 998:19 approved [1] 1008:4 area [3] 995:1 999:17 1000:2 areas [1] 1002:25 aren't [1] 1010:20 arguably [1] 1002:4 argument [1] 991:18 assessing [1] 1011:9 assure [1] 1004:9 attention [2] 996:1,10 authority [1] 1008:2 availability [2] 1002:19 1004:16 available [3] 990:10 999:3,10 aware [3] 992:1 995:3 1014:8</p> <hr/> <p style="text-align: center;">B</p> <p>back [2] 994:20 1007:10 balance [1] 996:17 balanced [1] 989:18 base [1] 987:25 based [3] 992:9 1012:5 1013:7 basis [2] 992:21 1001:4 begin [1] 1003:8 beginning [2] 1001:9 1002:14 begun [1] 1011:25 believe [8] 989:10 990:4 992:13 997:3,8 1002:1 1007:10 1009:10 bench [1] 1004:3 benefits [3] 990:6 992:18 1003:17 best [3] 994:7,9 996:15 better [1] 997:25 bill [1] 994:23 bit [1] 991:12 body [3] 993:14,15,17 both [2] 987:14 996:11 bottlenecks [2] 1001:3,10 bought [1] 1012:21 branch [1] 993:12 break [1] 1015:12 brief [2] 987:2 1002:23 bring [1] 1001:23 broad [2] 996:25 1004:15 broaden [1] 997:7 build [6] 988:21 1006:7,8,11 1007:19 1009:5 bulk [2] 999:14 1008:17 burden [2] 998:23 999:11 burner [1] 1002:18 business [2] 998:1 999:9 buy [4] 1000:5 1004:10,20 1011:25</p> <hr/> <p style="text-align: center;">C</p> <p>California [2] 988:24 989:2 call [3] 991:19 1001:11,22 called [1] 995:11</p>	<p>cannot [1] 1011:5 capacity [2] 1004:10 1005:10 capital [2] 1009:4 1011:20 captive [1] 988:3 carry [1] 998:6 case [3] 996:14 999:12 1000:4 cases [3] 1000:3 1009:24 1013:2 central [1] 997:18 certain [3] 994:2 998:24 999:10 certainly [7] 987:15 990:1 992:14,19 995:8 996:19 1012:4 chair [2] 990:21 993:7 Chairman [12] 987:6 988:20 990:12,13,23 993:9 995:10 1003:21,22 1015:5,8,11 change [3] 994:21 996:21,22 changed [1] 1007:8 changes [1] 988:5 choice [2] 1002:20 1003:14 citizens [4] 989:19 990:4 992:14,18 city [1] 1002:17 CLARK [7] 999:13,19 1000:7,21 1001:1 1002:2 1014:6 clear [2] 990:16 994:13 clearly [6] 989:9 991:23 993:3 995:24 997:18 1009:6 client [1] 998:4 co-ops [1] 988:12 come [2] 998:19 1008:1 comes [1] 1000:2 coming [2] 988:8 994:20 comment [4] 992:16,22 995:5 1011:6 commercial [1] 999:5 Commission [4] 987:15 1009:20 1012:12 1013:6 Commission's [1] 1005:20 COMMISSIONER [21] 995:9,15,18 996:2 997:14 998:16 999:13,19 1000:7,21 1001:1,5 1002:2,3,22 1003:19 1007:9,13,17 1008:2 1014:6 Commissioners [2] 987:7,11 committee [1] 995:11 company [1] 988:23 competition [9] 987:20 988:6,7 989:15 991:22 997:4 1008:17,25 1009:12 competitive [4] 1000:10 1003:4,17 1009:5 complies [1] 989:14 concept [1] 997:11 concerned [1] 1013:2 concerns [4] 1000:11,23 1001:2,10 concludes [1] 990:8 conditions [1] 988:5 conformance [1] 1010:4 Congress [23] 987:19 989:13 991:20 993:8,25 994:3,10,11,17,18,23 995:19,22,23 996:11,21 1008:15,16,20 1009:18 1010:7 1012:8 1013:19 conservation [1] 1002:24 consider [1] 1013:22</p>	<p>considerably [2] 1010:10,11 consistent [1] 994:7 constructing [1] 1012:5 consumer [1] 1003:15 consumers [2] 987:23 989:16 context [1] 989:25 continues [1] 1015:15 contract [6] 1004:25 1005:4,5,7 1011:2,10 contracts [13] 1004:17,18 1005:5 1010:2,14,19,22 1011:24 1012:3,5,14,17,20 contravening [1] 995:20 controls [1] 998:2 Corp [1] 1000:5 corporation [1] 988:25 correct [20] 990:19 991:3 992:12 996:12,16 1007:7,16 1008:13,18,19 1010:7,17,21 1012:10,13 1013:10,18,20,21,24 cost [7] 989:21 993:2,3 1010:19,23 1011:20,24 costs [9] 987:23 989:16 991:23,25 992:4,11,15 1010:10,14 country [2] 988:24 994:8 couple [3] 991:10 1004:2,21 course [3] 987:12 989:1 1000:3 Court [1] 1005:25 created [2] 1008:20 1009:18 creating [1] 1008:24 credit [1] 1012:15 crisis [1] 997:24 critical [1] 987:13 cross [3] 990:11,14 1003:23 crystal [1] 994:13 curiosity [1] 995:10 currently [1] 1004:7 customer [1] 1003:5 customers [1] 988:3</p> <hr/> <p style="text-align: center;">D</p> <p>Dale [1] 988:8 danger [2] 998:6,10 day [1] 1003:25 deal [1] 993:16 deals [1] 993:18 DEASON [4] 1007:9,13,17 1008:2 debt [2] 1011:14,15 decision [1] 989:9 decisions [3] 1005:21,25 1007:24 declined [2] 1010:10,10 definition [1] 1013:7 definitively [1] 1014:15 deliver [1] 1000:17 deliverability [1] 1001:15 delivery [1] 1001:2 delivery-point-wide [1] 1001:14 Democratic [1] 995:19 demonstrate [1] 1009:2 demonstrated [1] 1009:3 deny [1] 992:18 Department [1] 993:10 deregulation [1] 999:20 designed [1] 1009:12</p>
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<p>desire [1] 1006:8 details [1] 994:25 developments [1] 1002:6 dictated [1] 996:20 Diego [2] 988:18,19 different [1] 995:4 differently [1] 999:20 differing [1] 1002:13 difficult [3] 987:10,16 989:24 direct [2] 990:17 991:8 displace [1] 1001:19 distinction [1] 987:17 distributor [1] 988:24 divested [1] 989:3 divine [1] 993:25 doing [1] 987:16 done [2] 987:13 1012:2 down [3] 1002:11,20 1003:16 dramatically [1] 1009:24 due [1] 1013:16 Duke [1] 1007:18</p>	<p>exist [1] 988:7 existing [2] 989:24 991:19 expand [2] 991:11 1001:24 expansions [1] 1001:23 expected [1] 1002:24 expects [1] 996:21 experience [7] 987:9 990:18 994:17 996:3 999:14,15 1009: 17 experiment [1] 1013:20 expert [2] 991:3 995:6 expertise [1] 992:10 explain [1] 1005:3 exposure [1] 1002:23 expression [1] 1013:23 extent [2] 996:4,22 eye [1] 996:18</p>	<p>function [2] 1006:22,24 further [1] 1003:20</p> <p style="text-align: center;">G</p> <p>GARCIA [5] 995:9,15,18 997:14 998:16 Gas [22] 988:19,23,24 989:6 999: 15,21 1000:1,8,22 1001:11,21, 23,24 1002:6,9,11,11,13,15,20,25 1003:15 gate [1] 1002:17 gave [2] 1012:9,12 general [5] 994:18 998:13 1001: 8 1011:5 1015:1 generally [2] 992:5 1011:17 generate [2] 998:13,14 generating [2] 988:4 1010:13 generation [3] 988:13 989:3 1010:9 generator [1] 1014:13 getting [1] 1003:11 give [2] 987:5 992:14 given [3] 992:13 1003:1,7 gives [1] 993:17 goal [1] 992:20 got [1] 996:5 granted [1] 989:10 great [1] 1004:22 greater [4] 1011:15,15,19,20 guarantee [1] 1009:6 guess [1] 991:18 guidance [1] 994:24 Gulf [1] 1001:18 Guyton [9] 1003:21,22,24 1008: 7 1013:12,14 1014:9 1015:5,7</p>	<p>impacts [2] 1002:4 1003:4 implement [8] 989:24 993:7,14, 20 994:6 1005:25 1012:23 1013:4 implementation [5] 992:6 1002:15 1009:22,23 1011:4 implementing [6] 987:14 994: 24 995:2 996:15 1000:1 1010:8 improve [3] 987:21 991:23,25 improving [1] 992:3 incentive [2] 1000:13,18 incentives [1] 1000:14 include [1] 1013:25 included [1] 987:24 including [1] 988:1 inconsistent [3] 991:14,17 992: 20 increase [1] 1009:12 indeed [3] 993:13 1010:18 1013:4 industry [7] 987:22 992:25 999: 21,22 1000:9 1001:22 1003:8 industry-wide [1] 1001:14 infamous [1] 999:18 initial [1] 1003:11 instance [1] 1001:14 intended [5] 989:12 991:21 994: 11 995:23 1009:7 intent [6] 993:25 994:2,3,5 996: 18,19 intents [1] 1009:9 interest [4] 987:12 989:12 992: 21,24 interesting [2] 1002:23 1003:2 interpret [2] 990:3 993:21 interpreted [1] 993:23 interpreting [1] 1005:21 interruptable [1] 1004:19 introducing [1] 1003:9 introductions [1] 1003:10 introductory [1] 1015:1 investment [3] 988:4 989:22 1011:16 investor [1] 1011:20 investor-owned [1] 989:2 investors [2] 989:17 1009:4 involve [1] 1005:4 IOUs [2] 988:11 1011:7 isn't [6] 990:18 991:3 992:11 993:13 994:22 996:12,15 1014: 7 issue [6] 989:24 996:9,9,12 997: 18 1001:13 issues [4] 997:15,17 998:25 1006:14</p>
<p style="text-align: center;">E</p> <p>each [1] 1009:23 earn [1] 988:2 economic [2] 999:9 1012:4 effect [2] 989:16 1009:14 efficiency [4] 987:22 991:23,25 992:3 either [1] 995:7 electric [7] 987:20,22 988:19 989:6 999:17,22 1000:1 Electrical [1] 1005:17 electricity [1] 1008:17 emerging [1] 1003:1 enabling [1] 996:19 enactments [1] 993:20 encouraged [1] 1006:13 encouraging [1] 989:17 Energy [25] 987:18 989:13 990: 1 991:6,14,18,20,20 993:11 1006:12,18 1007:4,22 1008:9, 12 1009:19 1012:12 1013:5,16, 20,22,23 1014:1,10,17 enjoys [1] 987:15 entered [2] 1010:1,15 entire [1] 993:11 enunciated [2] 991:20 994:10 environment [3] 996:20 997:5 1014:3 environmental [3] 1006:14 1007:6,24 environmentally [1] 989:21 equation [1] 1011:17 equity [2] 1011:15,19 especially [2] 994:9 995:18 essentially [1] 997:8 even [2] 1002:18 1014:24 event [1] 996:1 examination [3] 990:11,14 1003:23 examples [1] 988:16 exclude [1] 991:15 Excuse [1] 1007:9 executive [1] 993:12 exempt [1] 1014:13 exercise [1] 1004:24</p>	<p style="text-align: center;">F</p> <p>face [1] 998:25 facilities [3] 1007:4 1008:22 1010:2 fact [9] 989:3,4 992:8,24 994:16 998:25 1001:20 1009:3 1012:6 fair [3] 996:25 997:6 1010:9 fairly [3] 1003:4,5 1010:15 falls [2] 991:24 993:3 far [1] 992:9 favorable [1] 1011:4 favored [1] 1008:17 favors [1] 1008:25 fear [1] 997:21 federal [13] 987:9,14 989:14 990:1,20 991:5,17,19 1009:19 1012:11 1013:5,23 1014:7 federally [1] 1009:25 FERC [16] 990:21,22,23 993:7,10, 19 994:19 997:18,18 999:16 1006:24 1007:13,18 1008:3,16 1010:7 FERC's [1] 1002:17 file [1] 1008:3 fill [1] 994:25 finally [1] 989:19 financial [1] 1010:25 find [1] 1002:1 firm [1] 1004:18 first [1] 1003:8 five [1] 988:17 Florida [31] 987:15 989:3,19 990:4 991:16 992:2,9,11,15,19 995:7,7 997:3 998:7,7 1002:25 1004:8 1005:17,24 1006:7,9 1007:19 1010:23 1011:6 1012: 15,18,21,21 1013:9,10,16 flown [1] 1003:17 fluctuate [1] 1012:6 follow [3] 995:23 999:13 1004:2 former [2] 988:19,19 found [1] 1011:24 four [1] 990:25 FPC [1] 997:23 FPL [1] 997:22 framework [1] 991:24 freeze [1] 1001:17 Frequently [1] 993:22 fruits [1] 1013:15</p>	<p style="text-align: center;">H</p> <p>hand [2] 993:17 999:25 handle [1] 997:25 hands [1] 994:14 happen [1] 1002:14 happened [3] 995:16 1000:8,22 head [2] 991:4 1000:24 heard [2] 997:15,20 hearing [2] 1014:25 1015:13 Hello [1] 1004:1 help [1] 1013:4 helped [1] 1012:23 Hesse [20] 987:2 995:14,17,21 996:3 998:9,21 999:16,23 1000: 20,24 1001:5 1002:8 1003:7,25 1007:12,15,21 1008:6 1014:8 high [2] 1010:16 1011:24 highest [2] 1010:19,23 history [1] 993:24 home [1] 991:10 hope [2] 989:7 995:8 host [1] 1010:1 Hourly [1] 996:13 hours [1] 1004:21 However [3] 1002:18 1003:15 1006:13 hydro [4] 1006:21,25 1007:4,14</p> <p style="text-align: center;">I</p> <p>idea [2] 1003:11 1013:9 impact [4] 1002:5 1012:14 1013:8,10</p>	<p style="text-align: center;">J</p> <p>JACOBS [4] 996:2 1002:3,22 1003:19 job [1] 998:6 JOHNSON [5] 990:12 1003:21 1015:5,8,11 joint [2] 989:10 1006:6 jumping [1] 997:15 jurisdiction [1] 1002:17</p> <p style="text-align: center;">K</p>

<p>keep ⁽¹⁾ 996:22 kind ⁽⁵⁾ 988:15 993:3,4 997:1 998:4 knowledge ⁽¹⁾ 1001:13 known ⁽¹⁾ 988:25</p> <hr/> <p style="text-align: center;">L</p> <p>lack ⁽¹⁾ 1001:15 language ⁽¹⁾ 1015:2 largely ⁽¹⁾ 1007:5 largest ⁽¹⁾ 988:23 last ⁽¹⁾ 1014:16 late ⁽¹⁾ 990:25 law ⁽⁶⁾ 990:3 994:6 995:7 996:6, 15,23 laws ⁽²⁾ 993:8,14 learn ⁽¹⁾ 995:24 learned ⁽²⁾ 996:4 1001:21 leave ⁽²⁾ 994:24 1007:5 left ⁽²⁾ 1007:25 1009:22 legislation ⁽¹⁾ 996:19 legislative ⁽⁶⁾ 993:15,17,20,24 994:2,21 Legislature ⁽¹⁾ 995:25 length ⁽²⁾ 1003:1,2 less ⁽¹⁾ 1003:12 lessening ⁽¹⁾ 1003:8 letters ⁽²⁾ 995:25 996:10 level ⁽⁴⁾ 987:9,12 995:4,6 levels ⁽¹⁾ 1004:16 license ⁽⁴⁾ 1006:25 1007:13,16, 19 licensing ⁽¹⁾ 1007:6 Light ⁽²⁾ 989:3 1000:4 likewise ⁽¹⁾ 1000:18 line ⁽⁶⁾ 991:13 992:17 999:14 1001:10 1014:18,18 line-by-line ⁽¹⁾ 1014:22 lines ⁽¹⁾ 1000:17 listening ⁽¹⁾ 992:10 little ⁽¹⁾ 991:11 long ⁽³⁾ 988:13 1003:13 1014: 23 long-term ⁽⁶⁾ 1004:17 1005:4,8 1010:2 1011:1,13 longer ⁽²⁾ 1003:10 1012:3 look ⁽³⁾ 993:24 994:1 1009:16 lot ⁽⁵⁾ 988:15 999:17,20 1001:9 1003:16 low ⁽¹⁾ 989:21 lower ⁽⁶⁾ 991:23,25 992:11,15 993:2 1010:13 lowering ⁽²⁾ 989:16 992:3 lowest ⁽²⁾ 987:23 993:2</p>	<p>1011:23 1012:20 market ⁽²¹⁾ 988:5,14,18 991:16, 22 992:2 999:15 1000:10,19,22 1001:21 1002:7,9 1003:3 1004: 11,16,24 1005:11 1009:5 1012: 5,6 market-based ⁽¹⁾ 1008:5 markets ⁽⁵⁾ 987:20 988:10 1003:9,12,17 matter ⁽¹⁾ 989:10 mean ⁽⁴⁾ 997:23 999:16 1003: 12 1005:5 means ⁽¹⁾ 998:18 meet ⁽²⁾ 1000:23 1004:24 meets ⁽¹⁾ 989:11 member ⁽¹⁾ 990:21 members ⁽²⁾ 995:25 996:11 memory ⁽¹⁾ 1015:2 mention ⁽¹⁾ 1005:16 merchant ⁽¹⁷⁾ 987:24 988:8 990:6 991:9,15,24 992:3,9,18 997:3,11 1006:7,9,11,12 1007: 23 1014:11 merger ⁽¹⁾ 1000:4 mid ⁽¹⁾ 990:25 mind ⁽¹⁾ 997:2 minutes ⁽¹⁾ 1015:7 miss ⁽¹⁾ 1001:6 misstate ⁽¹⁾ 1014:15 moment ⁽¹⁾ 996:20 money ⁽¹⁾ 1000:15 months ⁽¹⁾ 1014:20 morning ⁽²⁾ 987:3,6 most ⁽²⁾ 988:9 997:24 Moyle ⁽⁶⁾ 990:12,13,15 996:7 997:13 1003:20 Ms ⁽²⁾ 987:2 1003:25 much ⁽⁶⁾ 987:13 994:20 997:21, 25 998:22 999:24 1015:5,10 multipart ⁽¹⁾ 1001:6 municipals ⁽¹⁾ 988:12 must ⁽¹⁾ 993:16</p>	<p>obligation ⁽¹⁴⁾ 998:12,12,13,14, 17,17,18,22 1004:4,6,24 1008: 21,25 1009:19 obligations ⁽³⁾ 1011:2,10,14 observations ⁽¹⁾ 1004:3 obviously ⁽¹⁾ 997:23 occasion ⁽⁴⁾ 993:7,21 996:8 1015:3 occurrence ⁽¹⁾ 1002:12 oftentimes ⁽¹⁾ 994:22 once ⁽¹⁾ 995:16 one ⁽¹²⁾ 990:6 992:24 998:25 999:24 1000:3,9 1001:6 1009:2, 7,7,8,9 only ⁽⁶⁾ 993:9 994:18 998:1 999: 24 1002:14 1004:20 open ⁽⁴⁾ 988:18 1000:2,6 1004: 16 operate ⁽¹⁾ 1003:3 operating ⁽¹⁾ 1000:16 operation ⁽¹⁾ 1002:6 operational ⁽¹⁾ 989:22 opinion ⁽³⁾ 991:2,5 1010:12 opportunities ⁽¹⁾ 993:4 opportunity ⁽⁷⁾ 988:2,3 989:20 990:5 992:14 993:5 1014:14 opposed ⁽²⁾ 999:21 1009:9 opposing ⁽¹⁾ 996:17 option ⁽¹⁾ 1002:18 options ⁽⁶⁾ 1004:15,19,22,24 1005:13,14 oral ⁽¹⁾ 987:2 order ⁽⁸⁾ 987:21 991:22 1005:6, 10 1008:12 1014:21,22,24 other ⁽⁸⁾ 987:19 994:19 999:3, 24 1006:20,25 1007:3,14 otherwise ⁽¹⁾ 993:19 ought ⁽¹⁾ 1005:9 out ⁽¹¹⁾ 995:9 998:6,20 1004:10, 15,23 1005:9 1010:15 1011:25 1012:6,21 outages ⁽¹⁾ 1001:20 outside ⁽¹⁾ 996:23 over ⁽²⁾ 995:11 998:1 overlook ⁽¹⁾ 1005:18 oversight ⁽¹⁾ 995:11 own ⁽³⁾ 988:13 999:1 1009:4</p>	<p>passed ⁽⁵⁾ 987:18 993:8,14 1008:15 1009:13 pay ⁽¹⁾ 988:3 peaking ⁽¹⁾ 1004:20 people ⁽³⁾ 998:7 999:5 1000:9 perceive ⁽¹⁾ 1002:5 performance ⁽¹⁾ 987:21 perspective ⁽¹⁾ 1011:14 petition ⁽¹⁾ 989:10 petitioners ⁽¹⁾ 1006:6 pipelines ⁽¹⁾ 1001:23 places ⁽¹⁾ 1001:24 plant ⁽¹⁹⁾ 987:24 988:21 989:11 991:24 993:3 997:3,11 999:4 1005:17,21,25 1006:7,9,11,17 1007:5,11,19 1014:11 plants ⁽⁵⁾ 988:4 989:5 990:6 991:9,15 992:3,9,18 999:1 1006:12,20,25 1007:14,23 1009: 5 play ⁽¹⁾ 987:11 pleasant ⁽¹⁾ 1009:8 please ⁽¹⁾ 987:5 point ⁽³⁾ 988:22 1011:9 1014:10 points ⁽³⁾ 991:10 995:20 1008: 8 policies ⁽²⁾ 987:14 1008:11 Policy ⁽³⁰⁾ 987:18 989:11,13,14 990:1 991:6,14,18,20,21 992:6,7 994:7,9,25 997:4 1006:12,18 1007:5,22 1008:10,12 1013:16, 20,22,23 1014:1,7,10,17 pools ⁽¹⁾ 988:11 poorly ⁽¹⁾ 992:8 pose ⁽¹⁾ 998:5 possible ⁽²⁾ 987:23 995:8 power ⁽³⁰⁾ 987:20,24 988:6,11, 18 989:3,15,21,21 991:22 998:3, 22 1000:4 1004:5,9,15,20,25 1005:17,21,25 1006:17,20,25 1007:5 1008:21 1009:21 1010: 16,20,23 powers ⁽¹⁾ 998:5 precisely ⁽²⁾ 997:22,23 preparation ⁽¹⁾ 1014:25 prepare ⁽¹⁾ 987:2 preserve ⁽¹⁾ 1000:18 presume ⁽¹⁾ 1015:9 presumptive ⁽¹⁾ 990:2 prevent ⁽¹⁾ 992:6 previous ⁽¹⁾ 1007:10 price ⁽¹⁾ 1012:5 prices ⁽³⁾ 1002:11,20 1003:16 principles ⁽¹⁾ 999:25 privilege ⁽¹⁾ 987:7 probably ⁽⁴⁾ 996:8 997:20,24 1014:20 problem ⁽²⁾ 998:10 1001:15 proceeding ⁽⁷⁾ 987:8 989:8 1006:4,6,10,16,17 producing ⁽¹⁾ 996:1 product ⁽²⁾ 999:8 1000:19 profit ⁽¹⁾ 999:6 promote ⁽²⁾ 987:19 991:21 promotes ⁽¹⁾ 989:15 promoting ⁽²⁾ 992:21,23 proposed ⁽¹⁾ 989:11</p>
<p style="text-align: center;">M</p> <p>ma'am ⁽²⁾ 1014:19 1015:10 Madam ⁽³⁾ 987:6 990:13 1003: 22 made ⁽³⁾ 992:16 995:12,12 mandate ⁽³⁾ 1009:11 1012:8,11 mandated ⁽²⁾ 1009:25 1010:6 mandatory ⁽²⁾ 1008:25 1009: 19 manner ⁽¹⁾ 1003:4 many ⁽⁸⁾ 990:24 999:25 1004: 19 1005:3 1009:24 1010:14</p>	<p style="text-align: center;">N</p> <p>nation's ⁽¹⁾ 1009:17 national ⁽³⁾ 1007:4 1008:9 1013:16 natural ⁽³⁾ 988:23 1001:22,24 necessarily ⁽³⁾ 998:12 1005:4 1009:1 need ⁽⁶⁾ 998:20 1004:20,21,25 1007:9 1015:11 needed ⁽³⁾ 1000:13 1001:4 1004:11 Nesbitt ⁽³⁾ 988:8 997:17 1000: 12 Nevada ⁽¹⁾ 988:16 never ⁽³⁾ 988:21 1001:13,20 new ⁽²⁾ 1001:24 1007:18 Nodding ⁽²⁾ 991:4 1000:24 nor ⁽¹⁾ 990:2 nothing ⁽²⁾ 992:5 1003:20 nuclear ⁽²⁾ 1006:21 1007:4 number ⁽¹⁾ 989:5</p> <p style="text-align: center;">O</p> <p>Objection ⁽¹⁾ 1013:11</p>	<p style="text-align: center;">P</p> <p>p.m ⁽¹⁾ 1015:14 Pacific ⁽²⁾ 989:5 1000:4 pack ⁽¹⁾ 1001:10 page ⁽⁵⁾ 991:8,11,13 992:16 1009:18 pages ⁽¹⁾ 1008:9 Paige ⁽¹⁾ 988:20 parameters ⁽¹⁾ 995:24 part ⁽²⁾ 1002:16 1014:6 participate ⁽³⁾ 987:7 988:12 1009:5 participated ⁽²⁾ 988:13 989:4 participating ⁽¹⁾ 991:15 particular ⁽²⁾ 999:4 1006:4 particularly ⁽²⁾ 1001:9 1002:24 parts ⁽¹⁾ 1001:6 pass ⁽¹⁾ 994:23 passage ⁽¹⁾ 1008:10</p>	

protect ⁽¹⁾ 998:7
 protecting ⁽¹⁾ 992:20
 provide ⁽²⁾ 994:23 1000:6
 provided ⁽¹⁾ 991:9
 provides ⁽¹⁾ 989:19
 providing ⁽⁴⁾ 991:2,5 993:1,4
 provision ⁽¹⁾ 1012:7
 public ⁽⁷⁾ 987:11,15 989:11,12
 992:21,23 1008:11
 purchase ⁽⁸⁾ 988:23 989:5
 1008:21,25 1009:11,19,21 1010:
 1
 purchased ⁽¹⁾ 988:17
 purchaser ⁽¹⁾ 999:12
 purchasing ⁽²⁾ 998:11,23
 PURPA ⁽²⁵⁾ 1008:16,16,20 1009:
 2,11,13,15,17,18 1010:14,19,22
 1011:1,10,24 1012:14,17,20,23
 1013:3,4,9,10,16 1015:4
 purpose ⁽²⁾ 1006:3,5
 purposes ⁽³⁾ 992:24 995:20
 1007:2
 pursue ⁽¹⁾ 1005:14
 put ⁽²⁾ 996:2 1009:4

Q

QF ⁽¹⁾ 1009:21
 qualify ⁽¹⁾ 1008:4
 qualifying ⁽²⁾ 1008:22 1010:2
 question ⁽⁵⁾ 994:5 996:24 998:
 5 1001:6 1004:12
 questioning ⁽²⁾ 997:17 999:14
 questions ⁽⁶⁾ 991:7 993:6 997:
 16,21 1004:3 1015:9
 quoting ⁽¹⁾ 992:17

R

range ⁽⁶⁾ 988:16 993:4 1004:15,
 22 1005:13,14
 rate ⁽²⁾ 987:25 988:2
 ratepayers ⁽²⁾ 989:17 997:6
 rates ⁽¹⁾ 1008:5
 rating ⁽²⁾ 1010:25 1011:8
 ratings ⁽¹⁾ 1012:15
 rational ⁽¹⁾ 989:18
 reached ⁽²⁾ 1003:14,14
 reaction ⁽¹⁾ 1011:6
 read ⁽⁹⁾ 990:17 997:2 1005:15,
 20,24 1014:16,24 1015:1,3
 reading ⁽²⁾ 997:1 1014:22
 real ⁽¹⁾ 999:11
 real-time ⁽¹⁾ 1001:4
 realize ⁽¹⁾ 992:15
 really ⁽⁵⁾ 996:21 999:15 1000:7
 1009:10 1013:15
 reap ⁽¹⁾ 990:5
 reason ⁽²⁾ 995:3 999:10
 reasonable ⁽⁴⁾ 993:2,2 999:7
 1007:3
 receive ⁽¹⁾ 996:10
 receiving ⁽¹⁾ 995:25
 recognize ⁽¹⁾ 989:23
 recollection ⁽¹⁾ 1011:5
 reconvene ⁽²⁾ 1015:12,14
 reference ⁽¹⁾ 1008:10
 referred ⁽¹⁾ 988:8
 refresh ⁽¹⁾ 1015:2

regarding ⁽¹⁾ 1005:21
 regardless ⁽¹⁾ 988:4
 regional ⁽¹⁾ 988:11
 regulated ⁽¹⁾ 1003:12
 regulates ⁽¹⁾ 1007:15
 regulation ⁽⁶⁾ 992:25 995:7
 1001:16 1003:9 1010:5,6
 regulations ⁽⁴⁾ 989:25 990:3
 995:2 1010:8
 regulator ⁽³⁾ 990:18,20 997:22
 Regulators ⁽¹⁾ 993:16
 regulatory ⁽¹⁾ 987:9 988:1
 992:2,20 993:14 997:4 1002:16
 1008:11 1009:20 1012:12 1013:
 5
 relate ⁽¹⁾ 1006:9
 relationship ⁽¹⁾ 989:18
 reliability ⁽⁵⁾ 997:19 1000:11,
 11,23 1005:9
 reliable ⁽⁷⁾ 989:20 998:22,24
 999:7,11 1004:4,9
 remind ⁽¹⁾ 1001:7
 reputation ⁽¹⁾ 987:16
 require ⁽²⁾ 988:3 993:21
 required ⁽¹⁾ 1000:5
 requirements ⁽¹⁾ 1010:1
 requiring ⁽¹⁾ 1009:20
 rerouted ⁽¹⁾ 1001:19
 reserves ⁽¹⁾ 1014:2
 residential ⁽⁴⁾ 1002:9,13,19
 1003:14
 resource ⁽¹⁾ 991:5
 respect ⁽⁵⁾ 991:8 992:2 1000:
 11,15 1001:2
 respond ⁽¹⁾ 1011:1
 responsibility ⁽²⁾ 997:19 1002:
 16
 result ⁽⁴⁾ 1009:13,14,25 1010:13
 results ⁽⁵⁾ 1000:8 1009:2,8,8,16
 retail ⁽¹²⁾ 988:7 1002:6,9,9,10,13,
 15,19,19 1003:5,15,18
 retain ⁽¹⁾ 1006:13
 return ⁽²⁾ 988:2 1009:6
 revenue ⁽¹⁾ 999:6
 review ⁽¹⁾ 1014:14
 reviewed ⁽¹⁾ 1013:2
 risk ⁽³⁾ 989:22 1011:15,19
 risk-reward ⁽¹⁾ 989:18
 riskiness ⁽¹⁾ 1011:10
 risks ⁽¹⁾ 989:16
 role ⁽⁴⁾ 987:10 990:2 993:13,19
 round ⁽¹⁾ 1003:8
 rules ⁽¹⁾ 1009:20
 running ⁽¹⁾ 999:2

S

safety ⁽¹⁾ 997:17
 sake ⁽¹⁾ 991:18
 sales ⁽²⁾ 1002:15,20
 same ⁽¹⁾ 999:25
 San ⁽²⁾ 988:18,19
 Sasso ⁽²⁾ 1015:8,10
 saying ⁽¹⁾ 1007:17
 Section ⁽³⁾ 1013:25 1014:2,2
 secure ⁽³⁾ 987:23 998:22 1004:
 4
 security ⁽¹⁾ 1000:16

see ⁽⁶⁾ 997:10 998:6,10 1002:24,
 25 1005:16
 seem ⁽¹⁾ 1003:4
 Sempra ⁽¹⁾ 988:25
 Senate ⁽¹⁾ 995:11
 sense ⁽³⁾ 994:10 995:22 996:25
 separate ⁽¹⁾ 1002:9
 sequence ⁽¹⁾ 1015:15
 serve ⁽⁶⁾ 998:12,14,17,18 1004:
 4,25
 served ⁽¹⁾ 990:5
 Service ⁽¹⁾ 987:15
 serving ⁽¹⁾ 987:11
 set ⁽¹⁾ 994:25
 several ⁽⁴⁾ 1004:16 1005:16
 1008:8 1014:20
 shifting ⁽¹⁾ 989:16
 shifts ⁽²⁾ 998:23 999:11
 short-term ⁽¹⁾ 1004:17
 show ⁽¹⁾ 998:19
 side ⁽³⁾ 1000:1,2 1001:11
 sides ⁽¹⁾ 996:11
 sign ⁽²⁾ 1004:17,17
 significant ⁽¹⁾ 1011:1
 significantly ⁽¹⁾ 997:10
 since ⁽³⁾ 1008:15,16 1010:11
 Siting ⁽⁹⁾ 1005:17,22,25 1006:
 14,17,20 1007:5,24 1014:3
 situation ⁽²⁾ 994:12 997:24
 slowly ⁽¹⁾ 1003:6
 Smyrna ⁽¹⁾ 1007:18
 sold ⁽¹⁾ 989:5
 solely ⁽¹⁾ 1007:1
 somebody ⁽¹⁾ 1005:9
 sound ⁽³⁾ 989:21 991:14,19
 soundness ⁽¹⁾ 992:7
 source ⁽¹⁾ 998:24
 sources ⁽⁵⁾ 989:15 999:3 1002:
 14 1008:11 1010:16
 South ⁽¹⁾ 1001:17
 Southern ⁽¹⁾ 988:24
 specific ⁽¹⁾ 1011:6
 specifically ⁽²⁾ 989:14 1010:24
 specified ⁽¹⁾ 988:2
 spent ⁽¹⁾ 993:11
 spot ⁽³⁾ 1004:11,20 1005:10
 started ⁽¹⁾ 1013:19
 starting ⁽¹⁾ 1011:9
 state ⁽²⁰⁾ 987:11,12,14 988:16
 989:1,25 995:4,6 997:9,21
 1002:16 1004:5,8 1006:7,9,17,
 22 1008:1 1010:4,6
 state's ⁽¹⁾ 1009:23
 stated ⁽¹⁾ 1009:9
 statement ⁽³⁾ 991:13 997:1,6
 states ⁽⁷⁾ 988:9 1002:15 1005:9
 1006:13 1007:6,25 1009:23
 statute ⁽²⁾ 993:21,23
 statutes ⁽¹⁾ 989:25
 still ⁽⁴⁾ 998:11,20 1007:21,24
 stop ⁽¹⁾ 994:13
 storm ⁽¹⁾ 1001:18
 Street's ⁽¹⁾ 1011:6
 strong ⁽²⁾ 1000:14,18
 subject ⁽¹⁾ 988:1
 subsequent ⁽²⁾ 988:5 1003:10
 successful ⁽¹⁾ 988:22

suggesting ⁽¹⁾ 1005:8
 suggestion ⁽²⁾ 995:12,13
 summarizing ⁽¹⁾ 997:2
 summary ⁽³⁾ 987:3 990:8 991:
 9
 supplies ⁽³⁾ 993:1 999:11 1000:
 12
 supply ⁽¹⁸⁾ 988:6 989:21,22
 998:22,24 999:2,7,8 1000:22
 1001:12,18,24 1004:5,10,15
 1005:1,6 1008:17
 suppose ⁽¹⁾ 1012:2
 Supreme ⁽¹⁾ 1005:24
 suspect ⁽¹⁾ 996:8
 systems ⁽¹⁾ 1010:18

T

tariff ⁽²⁾ 1008:3,4
 ten ⁽²⁾ 993:11 1015:7
 tendency ⁽¹⁾ 992:11
 term ⁽⁷⁾ 1014:11
 terms ⁽¹⁾ 999:4
 test ⁽¹⁾ 989:11
 testifying ⁽¹⁾ 1013:8
 testimony ⁽⁹⁾ 987:3 989:7 990:
 17 991:8 992:10 997:1 1005:15
 1008:9,24
 Texas ⁽¹⁾ 1001:17
 themselves ⁽¹⁾ 1011:24
 there's ⁽⁴⁾ 998:20 1000:19
 1001:18 1002:3
 Thereupon ⁽¹⁾ 1015:13
 they'll ⁽¹⁾ 1000:15
 they've ⁽¹⁾ 1012:2
 thoroughly ⁽²⁾ 1014:16 1015:3
 three ⁽²⁾ 990:25 1008:11
 throw ⁽¹⁾ 994:14
 tip ⁽¹⁾ 1002:18
 today ⁽⁵⁾ 988:9 989:7 991:3
 1004:21 1005:14
 Tom ⁽¹⁾ 988:20
 tomorrow ⁽¹⁾ 1004:22
 toward ⁽¹⁾ 996:18
 traditional ⁽¹⁾ 988:1
 traditionally ⁽¹⁾ 1006:21
 Transcript ⁽¹⁾ 1015:15
 translated ⁽¹⁾ 993:1
 treated ⁽¹⁾ 1011:13
 treatment ⁽¹⁾ 988:1
 tremendous ⁽¹⁾ 990:18
 true ⁽⁴⁾ 994:22 997:8 999:23
 1014:21
 try ⁽²⁾ 994:6 1011:25
 turned ⁽¹⁾ 1010:15

U

uncertain ⁽¹⁾ 994:3
 uncertainty ⁽¹⁾ 993:25
 under ⁽³⁾ 1006:12 1007:22
 1009:10
 understand ⁽⁴⁾ 1004:7 1006:3,
 5,16
 understanding ⁽¹⁾ 1007:23
 unfair ⁽¹⁾ 992:19
 unit ⁽²⁾ 1010:9,14
 units ⁽³⁾ 1006:21,21,25
 unless ⁽²⁾ 1007:1,11

<p>unwise ^[1] 992:19 up ^[11] 994:14 996:22 998:14 999:2,13 1002:12,21 1003:16 1004:2 1007:6 1009:4 user ^[1] 1003:18 uses ^[1] 1014:12 Utah ^[1] 1000:3 utilities ^[10] 989:2 1004:9,14 1005:14 1008:21 1009:21 1010: 1,16 1011:23 1012:21 utilities' ^[4] 1010:19,23 1011:1 1012:15 utility ^[14] 987:11,22 992:25 998: 11,11,15,23 999:12 1004:22 1005:3,13 1008:11 1010:18 1011:21 utility's ^[4] 987:25 1004:4,6 1011:9 utilization ^[3] 1002:11,21 1003: 16</p> <hr/> <p style="text-align: center;">V</p> <p>vary ^[1] 1009:24 varying ^[1] 988:15 verbal ^[2] 1005:6,10 verify ^[1] 994:3 view ^[2] 992:23 1006:15 viewed ^[1] 994:7 viewpoints ^[1] 996:18 vigorously ^[1] 988:11 vital ^[1] 987:10 volume ^[2] 1012:17 1015:16</p> <hr/> <p style="text-align: center;">W</p> <p>Wall ^[1] 1011:6 wanted ^[5] 991:7 993:6 994:19 995:23 1000:5 Washington ^[1] 994:17 watching ^[1] 998:1 way ^[3] 1002:4 1003:5 1011:17 ways ^[1] 1005:3 wells ^[1] 1001:17 whether ^[3] 989:9 994:2 1001: 12 whole ^[4] 989:1 998:8 1002:10 1003:11 wholesale ^[12] 987:20 988:6,9 991:16,22 997:4 1002:10 1007: 1,11,20 1009:12 1014:13 WIGGINS ^[4] 987:1 990:10 1013:11,13 will ^[2] 989:8 1015:12 willing ^[1] 1009:4 wish ^[1] 1006:6 withdraw ^[1] 1013:12 within ^[8] 989:25 991:24 993:3 995:24 996:4,23 1004:18 1006: 17 without ^[5] 988:7 989:22 1000: 19 1002:18 1009:6 witness ^[19] 990:10 995:14,17, 21 996:3 998:9,21 999:16,23 1000:20,24 1001:5 1002:8 1003:7 1007:12,15,21 1008:6 1014:8 word ^[1] 1014:12 work ^[8] 987:13,16 994:20 995:</p>	<p>24 996:4,23 999:17 1001:21 worked ^[1] 1003:5 working ^[2] 1001:25 1003:11 works ^[1] 1011:18 world ^[2] 988:9 999:5 written ^[1] 987:3 wrote ^[1] 995:12</p> <hr/> <p style="text-align: center;">Y</p> <hr/> <p>years ^[3] 988:17 990:24 993:11</p>
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