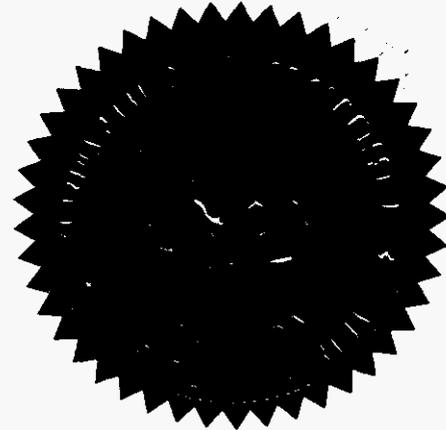


BEFORE THE FLORIDA PUBLIC SERVICE COMMISSION

In re: Application by Southern) Docket No. 950495-WS
 States Utilities Inc. for rate)
 increase and increase in service)
 availability charges for Orange-)
 Osceola Utilities, Inc. in)
 Osceola County, and in Bradford,)
 Brevard, Charlotte, Citrus,)
 Clay, Collier, Duval, Hernando,)
 Highlands, Hillsborough, Lake,)
 Lee, Marion, Martin, Nassau,)
 Orange, Osceola, Pasco, Polk,)
 Putnam, Seminole, St. Johns,)
 St. Lucie, Volusia and)
 Washington Counties.)



FOURTH DAY - LATE AFTERNOON SESSION

VOLUME 17

PAGES 1807 through 1879

PROCEEDINGS: HEARING

BEFORE: CHAIRMAN SUSAN F. CLARK
 COMMISSIONER J. TERRY DEASON
 COMMISSIONER JULIA L. JOHNSON
 COMMISSIONER DIANE K. KIESLING
 COMMISSIONER JOE GARCIA

DATE: Friday, May 3rd, 1996

TIME: Commenced at 2:45 p.m.

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

REPORTED BY: LISA GIROD JONES, RPR, RMR

APPEARANCES:

(As heretofore noted.)

DOCUMENT NUMBER-DATE

05064 MAY-6 8

FPSC-RECORDS/REPORTING

I N D E X - VOLUME 17

WITNESSES

3	NAME	PAGE NO.
4	JOHN WHITCOMB	
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PROCEEDINGS

1
2 (Transcript continues in sequence from
3 Volume 16.)

JOHN WHITCOMB

4
5 resumed as a witness on behalf of Southern States
6 Utilities, Inc., and having been duly sworn, testified
7 as follows:

CONTINUED CROSS EXAMINATION

BY MR. McLEAN:

8
9
10 Q Dr. Whitcomb, let's look on Page 10.
11 Actually, on Page 9 of your rebuttal testimony, then up
12 on Page 10. I'm going to read to you. "The senior
13 economist at SWFWMD, Jay Yingling, is satisfied that the
14 price elasticity results passed peer review." Are those
15 your words?

16 A Those are.

17 Q Do you know whether Jay Yingling thinks that
18 the exhibits which I furnished show rejection or
19 acceptance? Does it show a passing of a peer review or
20 failure of a peer review?

21 A It was not accepted.

22 Q Does that mean pass or fail in walking-around
23 terms, or in the terms that you used at Line 2?

24 A It was not accepted.

25 Q With respect to Pages 2, 3, 4 and 5, those are

1 the pages which you identify as the peer review comments
2 to the first -- I'm sorry, the second submission; is
3 that right?

4 CHAIRMAN CLARK: Mr. McLean, what pages are
5 you talking about?

6 MR. McLEAN: I'm sorry, Pages 2 --

7 CHAIRMAN CLARK: No, in what document? Is it
8 the exhibits or the testimony?

9 MR. McLEAN: My exhibit, yes, I'm sorry.
10 Pages 2, 3, 4, 5.

11 Q (By Mr. McLean) Those are the things that the
12 Water Resources sent you to indicate that the article
13 had been rejected on the second occasion; is that right?

14 A Correct.

15 Q Do you happen to know what the discipline of
16 those persons who did the reviews are?

17 A No.

18 Q What is the discipline of Dr. Hornberger; do
19 you know?

20 A No.

21 Q Dr. Hornberger is the editor of the Water
22 Resources Journal; is that correct?

23 A Correct.

24 Q With respect to your qualifications, you have
25 an undergraduate degree in economics, do you?

1 A Yes.

2 Q Do you have any advanced degree in economics?

3 A I have a doctorate in geography and
4 environmental engineering.

5 Q Was that a no or a yes?

6 A And part of that degree required a lot -- a
7 lot of courses in econometrics and statistical analyses,
8 including my dissertation which had to do with water use
9 modeling, which is directly applicable here.

10 Q Do you have a master's in economics?

11 A No.

12 Q Are you a registered professional engineer in
13 any state?

14 A No.

15 Q You set out a rebut Dr. Dismukes; is that
16 correct?

17 A Repeat.

18 Q I said, you've set out to rebut Dr. Dismukes.
19 That's one of your functions here, isn't it?

20 A I provided rebuttal to Dr. Dismukes' direct
21 testimony.

22 Q You say that he casts stones without doing his
23 homework?

24 A Yes.

25 Q The peer review comments show that you engage

1 in what one of the reviewers regards as a fatal flaw; is
2 that correct?

3 A Correct.

4 Q Would you look to my exhibit on Page 4,
5 please, sir? In your testimony you say that
6 Dr. Dismukes shows a lack of knowledge of water demand
7 research literature. Do you recall that?

8 A Yes.

9 Q With respect to the letter -- I'm sorry.
10 Page 4 of the exhibit, look down to the paragraph
11 immediately above "References." Is the author of that
12 paragraph not suggesting that you become more familiar
13 with water demand research literature?

14 A He is describing an article that came out
15 after I submitted the -- a second round publication.

16 Q With which you should become familiar?

17 A That's a suggestion.

18 Q You say in your testimony, Page 1, Line 21,
19 that Dr. Dismukes shows a lack of knowledge of water
20 demand modeling?

21 A Please locate that again.

22 Q Page 1, Line 21, you say Dr. Dismukes shows a
23 lack of knowledge --

24 MR. HOFFMAN: Excuse me, are you on his
25 rebuttal?

1 MR. McLEAN: Sorry?

2 MR. HOFFMAN: Are you on his rebuttal
3 testimony?

4 MR. McLEAN: Yes.

5 WITNESS WHITCOMB: Page?

6 Q (By Mr. McLean) You see that, sir?

7 A What page?

8 Q Page 1, Line 21. "Dr. Dismukes' assertions
9 show a lack of knowledge of water demand modeling." Do
10 you have that?

11 A Yes.

12 Q Page 4 of my exhibit, I read you from the last
13 paragraph, "I suggest that you use a linear or log-log
14 model and abandon your strange model." What does that
15 mean?

16 A I've got to get your exhibit. You'll have to
17 mention the page again.

18 Q Page 4, first full paragraph up from the
19 bottom. I'll read you the words, "I suggest that you
20 use a linear or log-log model and abandon your strange
21 model."

22 You say Dr. Dismukes doesn't understand
23 modeling. What does this letter say about your
24 understanding?

25 A This suggests that I go back and use the

1 conventional functional form of the demand curve.

2 Q Is your model characterized there as a strange
3 model?

4 A Yes.

5 Q Look on Page 2, Line 29 of your rebuttal
6 testimony -- Page 2, Line 9, I'm sorry. That's where
7 you say, "The reader should know this is not simply two
8 experts with differences of opinion." And then you go
9 on to say, "Dr. Dismukes has made gross misstatements
10 and errors." I gather that you're pulling back from the
11 conflict and just appraising the nature of the
12 disagreement for the Commission; is that right?

13 A Repeat.

14 Q Is that the case?

15 A Repeat the question.

16 Q Sure. I see that -- it seems to me that
17 you're pulling back from the disagreement and appraising
18 the nature of that disagreement for the Commission, and
19 it's suggesting that one of the participants to that
20 disagreement is not even a worthy adversary. Is that
21 the import of that paragraph?

22 A Yes.

23 Q That sentence?

24 A Yes.

25 Q Do you have still hold to that?

1 A Yes.

2 Q Do you regard yourself as an expert?

3 A Yes.

4 Q Do the editors of Water Resources regard you
5 as an expert?

6 A I don't know.

7 Q What do you think -- what do the letters seem
8 to say?

9 A The letter said that the paper was not
10 rejected, that -- they didn't say that I wasn't an
11 expert.

12 Q The letter that -- the second article that was
13 rejected was the improved version of the article; wasn't
14 it?

15 A That's correct, using improved demand
16 specification.

17 Q Why were you submitting the article to that
18 journal?

19 A We wanted to share our results with other
20 researchers in the field.

21 Q Was it to enhance your credibility as a
22 scholar?

23 A That could be one motivation, yes.

24 Q If it was rejected, that doesn't suggest
25 anything to you about the view of that journal as your

1 scholarly work?

2 A It is my opinion that we got two peer
3 reviewers, one who liked the model and one who didn't.
4 The one who didn't gave us a reason which we didn't
5 agree with, and I think I can clearly explain, you know,
6 talking about extrapolating -- just because of the
7 demand curve, when you extrapolate past the region of
8 experience, doesn't mean it's not an excellent demand
9 curve for describing the range of prices that we
10 actually looked at.

11 Q The one who liked it said it was good?

12 A Correct.

13 Q That's a resounding endorsement in your view?

14 MR. HOFFMAN: Objection, argumentative.

15 CHAIRMAN CLARK: Sustained.

16 Q (By Mr. McLean) Look up to my Page 3, Page 3
17 on the exhibit, please, sir, that you've been handed.
18 Do you have that page, sir?

19 A Yes.

20 Q All the way down at the bottom, this is the
21 one who says it's good; is that right?

22 A Correct.

23 Q The second full paragraph says, "The paper is
24 technically more sound than the first version. While
25 specification of the demand equation remains ad hoc..."

1 Would you explain the significance of the
2 characterization "ad hoc"?

3 A Yes. What -- we presented an innovative
4 technique that hadn't been used. There was no
5 established technique that was fitting for the situation
6 that could explain how price varies over such a large
7 price range as we had in the SWFWMD study. So that we
8 tried different nonlinear specifications, these kind of
9 flexible forms, to fit this data. And the point is, is
10 that there's an infinite number of types of flexible
11 forms that can fit these 42,257 data points. And we
12 selected one that we believed was flexible and an
13 accurate representation of the data. Now there could be
14 other flexible forms that could fit this data. And in
15 that sense, since there's an infinite number of these
16 flexible forms, it was described as ad hoc.

17 Q Does ad hoc mean that it has no application to
18 situations dissimilar from the one that you studied?

19 A Repeat the question.

20 Q Does ad hoc imply that it has no application
21 to situations dissimilar from the one you studied?

22 A No.

23 Q You developed the elasticity, which you're
24 advocating before the Commission, based upon SWFWMD
25 studies, correct?

1 A In part.

2 Q Where is SWFWMD in the state of Florida,
3 geographic location?

4 A It is near -- it's one of the major water
5 districts in the state. It's near Tampa.

6 Q Southern States has systems outside Tampa --
7 outside SWFWMD, sir?

8 A Correct.

9 Q How far? Do you know?

10 A I know that 80 percent of the SSU's systems
11 are in -- either in the St. Johns Water Management
12 District or SWFWMD, and that the majority of the others
13 are in the northern portion of the South Florida Water
14 Management District, all located in Central Florida.

15 Q Did you study St. Johns? Did you do your
16 studies --

17 A The ten utilities participating in the study
18 all were residing inside of SWFWMD.

19 Q So you didn't look at all the utilities in
20 SWFWMD, and you didn't look at any of the utilities in
21 St. Johns; is that correct?

22 A Correct.

23 Q Did you look at any of the utilities in Nassau
24 County?

25 A Only SWFWMD.

1 Q How about Washington County?

2 A No.

3 Q Does elasticity vary with weather?

4 A Unknown.

5 Q Sorry?

6 A Unknown.

7 Q You don't know; is that correct?

8 A That's correct.

9 Q Does elasticity vary with income?

10 A I believe there are some minor effects that
11 income can be a factor affecting price elasticity.

12 It's -- I think the major factor affecting price
13 elasticity is price level.

14 Q I'm sorry, is what? I didn't hear the word.

15 A Is price level.

16 Q Price level. Income is not a significant
17 factor?

18 A No, it is. It's -- I think the primary factor
19 affecting price elasticity is price level. Is it \$1 per
20 thousand gallons or is it \$5 per thousand gallons? And
21 I think a secondary effect affecting price elasticity is
22 wealth.

23 Q Is the wealth possessed by persons in the ten
24 utilities you studied in SWFWMD typical of the wealth
25 possessed by people in the service area of SSU?

1 A The income levels, or actually the property
2 value levels, which were used in the model for the ten
3 selected utilities in the SWFWMD study, were
4 representative of the property levels inside of SWFWMD
5 as a whole. I have not done calculations to determine
6 what the property values are in each one of SWFWMD's
7 systems because I didn't have the data to do so.

8 Q Do you know whether the price elasticities of
9 demand for those persons living in the ten systems that
10 you studied are similar to the people living in
11 Washington County?

12 A No.

13 Q But your recommendation, if accepted by the
14 Commission, will apply to those people in Washington
15 County, won't it?

16 A Yes.

17 Q In Nassau County as well?

18 A Yes.

19 Q How far is Nassau County from SWFWMD? Do you
20 have any idea?

21 A No.

22 Q Do you know whether it's at a substantially
23 different latitude?

24 A No.

25 Q Is latitude a determinant of weather, all else

1 equal, or climate?

2 A Well, what I know is, in looking at the
3 weather data, I did look at the weather data of SSU and
4 I compared that with the weather data of the ten
5 participating SWFWMD studies. The weather variation --
6 and in SSU I looked at 14 different weather stations
7 comprising 96.6 percent of their water consumption. So
8 in looking at these 14 stations, I looked at the weather
9 variations and detailed statistics based on
10 precipitation and on evapotranspiration and found the
11 variation among the two to be very similar.

12 I would describe the climates in -- of SSU's
13 plants are all described by the National Oceanic and
14 Atmospheric Administration as being subtropical.

15 Q Being what, sir?

16 A Subtropical.

17 Q I still didn't hear, I'm sorry.

18 A Subtropical.

19 Q How wide a graduation is subtropical? Does
20 that include everything from Marco Island to Amelia
21 Island?

22 A I believe so.

23 Q Is the weather the same in Marco Island as it
24 is in Amelia Island?

25 MR. HOFFMAN: Objection, ambiguous.

1 Q (By Mr. McLean) Is the climate the same?

2 A I didn't look at -- I can't recall the
3 specific weather at one of the -- at each of the 14
4 stations that I looked at. The point, though, is that
5 weather is different between one plant -- one system and
6 another -- actually one station and another station, but
7 that the variation among the stations is very similar.

8 Q Look to Page 3 of your rebuttal testimony,
9 Line 16. You say if Dr. Dismukes had read on to Page 28
10 of the exhibit.

11 A Sorry, I'm not there yet.

12 Q Sorry.

13 A What page is that?

14 Q Page 3.

15 A Okay.

16 Q Page 16.

17 A Page 16 or Page 3?

18 Q I'm sorry, Line 16. Page 3, Line 16.

19 A Yes.

20 Q You say if Dr. Dismukes had read on to Page 28
21 of your exhibit. Do you know whether Dr. Dismukes read
22 on to Page 28 of your exhibit?

23 A Here's -- Dr. Dismukes laid out a number of
24 criticisms of the SWFWMD study. One of them is that he
25 said that the rate structure -- the applicability of the

1 SWFWMD study to SSU -- well, that's the issue in
2 question. And he said that one of the reasons -- well
3 actually his reason why it's not applicable is because
4 there's a difference in -- there's different rate
5 structures in each of -- in SSU and in SWFWMD, and
6 hence, because there's different rate structures, you
7 can't validly apply the results.

8 Now, what economists look at when you have
9 different rate structures, that they can have different
10 income effects. That's a term economists will use. And
11 let me give you -- let me give you a quick example so
12 you understand what an income effect is. Let's say you
13 have two identical -- you have two rate structures.
14 Both have the identical gallonage charge, but one has a
15 base facility charge at \$5 per month and the other one
16 has a base facility charge at \$10 per month.

17 The one that has -- say we have two identical
18 customers. The one facing the \$5 base facility charge,
19 the lower one, at the end of the month, they're going to
20 have a little bit more disposable income than the other
21 one. With this disposable income, they buy more of
22 their goods, more of their basket of goods. Water is
23 among that baskets of goods. And because of that, if
24 they have a higher income, all else being equal, the one
25 at the \$5 base facility charge will buy a little bit

1 more water. It's a really small amount, but that's the
2 economic theory behind the income amount.

3 In the SWFWMD report, which Dr. Dismukes
4 quotes directly in his direct testimony, he says -- what
5 he says is that there are differences and here's one of
6 the differences. And then he accuses us of not doing
7 something that we actually did. And my point here is in
8 the paragraph after the one he quotes, the problem
9 statement, is the solution. We did this. And he missed
10 that and did not fully read the report, or that section
11 of it, or didn't understand it.

12 MR. McLEAN: Madam Chairman, I would like
13 to move to strike the answer from the record as being
14 unresponsive to my question, which was: Do you know
15 whether Dr. Dismukes read on to Page 28 of the exhibit?
16 I think the fair answer is yes or no, and I don't think
17 it requires much explanation.

18 CHAIRMAN CLARK: I had heard -- Mr. Hoffman.

19 MR. HOFFMAN: I think the way that we practice
20 here, Madam Chairman, is we allow the witness to give a
21 yes or no answer and then provide an explanation. I
22 think what we had here was Dr. Whitcomb bypassed the yes
23 or no part and then gave his explanation.

24 MR. McLEAN: I would like to respond to that.
25 This witness represents to this Commission in this

1 document that Dr. Dismukes did not go on. I asked him
2 whether he knows whether Dr. Dismukes went on. Doesn't
3 go to the substance of his testimony. It doesn't need
4 an explanation and it ought to be stricken.

5 MR. HOFFMAN: May I respond, Madam Chairman?

6 CHAIRMAN CLARK: No. I'm going to overrule
7 the request. I find that his explanation was the basis
8 on which he concluded that he did not read on. We're
9 going to take a ten-minute break, and at that time we'll
10 resume cross-examination.

11 (Recess at 3:10 p.m. until 3:25 p.m.)

12 CHAIRMAN CLARK: We'll reconvene the hearing.
13 I would like to make a couple of announcements.

14 I would like to indicate to those of you that
15 are here that you may find Commissioner Johnson is out
16 from time to time because of conference calls on federal
17 telecommunications matters. She serves on a joint board
18 and they have a lot of work that they have to do in a
19 short period of time. So I can assure you, it's not
20 that she's anywhere resting. She is doing other work
21 that also has a time limit on it. And she will be
22 listening to the tapes or reading the transcript for
23 those parts of the hearings that she is not here for.

24 COMMISSIONER JOHNSON: And let me also --
25 thank you, Chairman Clark. And let me also note that

1 they have been trying to accommodate my schedule given
2 the fact that we've been working from 9 until 8, but
3 there will be two conference calls on Monday. They're
4 limiting them to half an hour. So therefore for the
5 testimony I miss, I'll just listen to the transcripts.
6 In fact, we have one of the commissioners on the phone
7 now. We're still scheduling the calls.

8 CHAIRMAN CLARK: The other thing is, we will
9 work tomorrow. We will start at 9:30 and probably go to
10 somewhere between 3 and 4:00. Please feel free to wear
11 something more casual. I intend to wear slacks and a
12 shirt, or maybe a denim skirt, but I can assure I'm not
13 coming in heels.

14 And today, I think we are likely to conclude
15 some time shortly before 5:00.

16 MR. FEIL: Chairman Clark, if I may, with one
17 additional scheduling type matter, we did contact
18 Mr. Harvey on his schedule and are informed that he will
19 be available or can make himself available up through
20 the 8th, but he is going to have to leave on the 8th at
21 about 4 p.m. to catch a flight. So if you wanted to
22 schedule him for the 8th in the morning or anytime
23 before the 8th, we should be able to make him available
24 then.

25 CHAIRMAN CLARK: Okay. And tomorrow I think

1 that we had previously talked about taking up
2 Ms. Dismukes, Kimberly Dismukes. And let me see, let me
3 get the prehearing order in front of me so we can get
4 some estimate of what we intend to accomplish.

5 Well, I think we can continue on with SSU
6 testimony. Will Ms. Lock be here?

7 MR. FEIL: Yes, ma'am, she is here today.

8 CHAIRMAN CLARK: And Mr. Gangnon?

9 MR. FEIL: Yes, he is here today also.

10 CHAIRMAN CLARK: And Kowalsky?

11 MR. FEIL: Yes, ma'am.

12 CHAIRMAN CLARK: Gower?

13 MR. FEIL: He should be arriving tomorrow
14 afternoon.

15 CHAIRMAN CLARK: And then should we get
16 through those and have time left over, then we could
17 begin with Ms. Dismukes; is that correct?

18 MR. HOFFMAN: That's fine with us.

19 CHAIRMAN CLARK: Because I think up until that
20 point, they are not available on Saturday.

21 Okay, Mr. McLean.

22 Q (By Mr. McLean) Dr. Whitcomb, refer to your
23 rebuttal testimony, Page 9, Line 14, please, sir?

24 A Yes.

25 Q That's the point where you say, "Dr. Dismukes

1 has just dismissed over 90 percent of all research of
2 any kind of any discipline;" is that right?

3 A Correct.

4 Q Sorry? Those are your words?

5 A Yes.

6 Q And that's because Dr. Dismukes has parroted
7 something; is that right?

8 A No. The reason I come to that conclusion is
9 that if you hold -- if you use as a criteria that any
10 curve you fit to a set of data, if you extrapolate it
11 beyond the range that you're looking at, if you go off
12 in any linear curve and you do that, you're going to go
13 into some infeasible region. It has to happen by
14 definition. And if you hold me to the same standard
15 that if you extrapolate my demand curve outside my
16 region where there are no data points, that that's
17 reasonable, it's a faulty inference. It has nothing to
18 do with the ability of that demand curve to fit that
19 particular data set.

20 Q Look to Line 18, same page. Do you have it,
21 sir?

22 A Yes.

23 Q Do you see the word "parroting" there?

24 A I see the word.

25 Q Is that the word you chose to use?

1 A That is the word I used.

2 Q What does it mean?

3 A In this case what I believe Dr. Dismukes did
4 is he got the second round of peer review comments from
5 the Water Resources research. He then took that
6 comment, the fatal flaw comment, and he applied it here
7 without looking at the circumstances or looking at our
8 explanation of why it is -- of why that happened. And
9 because there is such a consistency among the -- between
10 the two on the point, I called it parroting.

11 Q Does parroting have any particular connotation
12 for you other than repeating?

13 A I don't know.

14 Q But the choice of the word is yours; is it
15 not?

16 A Yes.

17 Q When Dr. Dismukes parroted that peer review
18 comment, did he get it right? Did he say the same thing
19 the peer review commenter said?

20 A He essentially came up with the same argument
21 that was in the second round of peer review on that
22 fatal flaw.

23 Q So the peer review dismisses 90 percent of all
24 research of any kind of any discipline; is that correct?

25 A That's correct.

1 Q And the graph that you're complaining about,
2 or that you say is incorrect, or the graph of the
3 phenomena, the graph of the analysis, which is you say
4 is fallacious, is shown on Page 5 of the exhibit,
5 correct? Of the exhibit which I handed you or which you
6 were handed.

7 A Yes.

8 Q Now, I return to this issue with some
9 trepidation, but what I would like to know is, the fatal
10 flaw, which is described there in your testimony, which
11 is mentioned there in your testimony, Page 9, Line 22.
12 I apologize, but I'm still unclear as to whether that
13 fatal flaw is part and parcel of your theory or your
14 findings with respect to elasticity, which you now tell
15 the Commission is the one which they should follow.

16 A I think looking at the graph is going to help
17 us come to grips with this issue.

18 Let's -- if you look at this graph, what you
19 need to do is at about \$7 -- here we have price on the
20 horizontal axis, and we have quantity -- we have water
21 use is on the vertical axis here. What is appropriate,
22 and what I've done, is I've estimated the demand curve
23 from out to 40 cents all the way out to about \$7.05.
24 What you need to do is you draw a vertical line at \$7.05
25 and go right on up. Now, that's a demand curve.

1 Everything to the left is the demand curve. It shows
2 the relationship between the price and quantity of water
3 used.

4 This is the data set -- this is the range of
5 experience of prices that we looked at in our study.
6 This is what was used here and this is the crux of it
7 all. Now, what happens is, if you go ahead and
8 extrapolate out to prices of 15, 16, \$17, using this
9 nonlinear function that we did, you come up with some
10 bizarre, unrealistic results. Now you have what -- the
11 demand curve is increasing with price. And of course
12 everyone agrees that that's wrong. But the point to be
13 made here is that the demand curve to the left of that
14 vertical line that I drew, is valid. It is negatively
15 sloped. It has all the common properties you would
16 expect of a demand curve. That's what we used. And
17 everything to the left of that is a faulty inference
18 that our curve can be extrapolated past the range of
19 experience and be -- and that's the whole crux of the
20 argument. So my point is that the demand curve is
21 appropriate. It's the inference is faulty.

22 Q Dr. Whitcomb, think about that answer you just
23 gave me for a minute. Keep it around. If I ask you
24 what's wrong with the fatal flaw criticism of your work,
25 wouldn't that be your answer, the one you just gave?

1 A I just described -- I just described the
2 faulty inference that is -- that corresponds to what
3 that one reviewer said was a fatal flaw.

4 Q Right. You told the Commission, essentially,
5 how you would answer the fatal flaw criticism; isn't
6 that right?

7 A Yes.

8 Q Okay, we've got that settled. Now I want to
9 ask you another question. Is the fatal flaw analysis
10 which you just criticized embodied in the data which
11 supports the conclusions which support your theories of
12 elasticity which is before this Commission?

13 A Absolutely not.

14 Q Tell us why.

15 A Because WATERATE 2.1 -- the algorithm that
16 looks at -- it goes all the way up to 7.5 and then it
17 stops. That's it. The only information we used was
18 this part of the demand curve, because we knew that
19 that's the only valid inference that could be drawn.
20 And everything else out to the right of it is not
21 valid. We didn't use it, we never did, in either
22 version 2.1 or 2.2. Version 2.1 in that demand curve,
23 it doesn't have this fatal flaw, the actual one that's
24 used here. However, we still don't believe we can use
25 our particular demand curves to forecast what is going

1 on above this price level.

2 Q Why didn't you say that in your rebuttal
3 testimony?

4 MR. HOFFMAN: Madam Chairman, I'm going to
5 object to the relevancy of the question. I think the
6 witness has the right to draft his rebuttal testimony as
7 he sees fit. I don't know what the relevance is of that
8 question.

9 MR. McLEAN: I think the relevance is pretty
10 much self-obvious. I just got an answer that the fatal
11 flaw analysis is not in what is before the Commission.
12 Wouldn't it have been an elegant rebuttal to
13 Dr. Dismukes' adoption parroting of that theory to say,
14 it's not even in the data which I laid before the
15 Commission? But Dr. Whitcomb didn't say that. The
16 relevance is it should cast a very great deal of doubt
17 on the answer the witness just gave to the Commission.
18 It was a convenient answer and one very easily offered
19 up.

20 CHAIRMAN CLARK: Mr. Hoffman.

21 MR. HOFFMAN: Madam Chairman, if that was an
22 issue, you know, that they wanted to have an answer to,
23 they could have included that interrogatory among the
24 hundreds and hundreds of interrogatories that they
25 served on this company and to which we have responded.

1 CHAIRMAN CLARK: Just a minute. I'm going to
2 allow the question and the answer, but I would point out
3 to you, Mr. McLean, I think we have covered this issue
4 several times.

5 MR. McLEAN: We have covered it maybe five
6 times without an answer.

7 WITNESS WHITCOMB: Can I answer your last
8 question?

9 CHAIRMAN CLARK: I have indicated that you
10 will be -- you can answer the last question.

11 WITNESS WHITCOMB: Okay. In my rebuttal I did
12 address this issue. I used a linear curve. It's on
13 Page 8 of my rebuttal. We -- I talk about -- something
14 that's more appropriate and quickly understood is I took
15 a linear demand model, or a linear curve, which is on
16 Page 20 of my exhibit. Let me turn to that. Let me
17 walk through this. I'm on Page 20 of JB-3 -- JBW-3.

18 CHAIRMAN CLARK: What page was that?

19 WITNESS WHITCOMB: That was Page 20 of JBW-3.

20 CHAIRMAN CLARK: Okay.

21 WITNESS WHITCOMB: What we have there is a
22 linear demand curve. And what we have there is on the
23 vertical axis we have water use. Actually, on the --
24 excuse me, on the vertical axis we have price, and on
25 the horizontal axis we have water consumption. And what

1 I did, this is just a rough linear curve fit to ten data
2 points in the SWFWMD study. It shows, by a kind of
3 averaging over the whole utility, what is the price and
4 what is the water consumption.

5 The point I'm making, and the point I made in
6 my rebuttal is that now if you go ahead and take that
7 linear line you see there, and let's say you go up to a
8 price of about 7, \$8 per thousand gallons, if you go up
9 that high, can you see how that curve will go over and
10 intersect the vertical axis? If you keep on extending
11 it past the range of experience, which is the whole
12 issue here, that this linear curve goes over and
13 actually becomes -- represents negative water use.

14 This is a -- I think everyone here has fit a
15 linear curve to some data points. And what it really
16 says is that this curve is representative of that data
17 set within this range. Now if you extrapolate beyond
18 that range, you can get an unrealistic result. And that
19 happens with any linear demand curve you ever use. So
20 the standard I'm being set with, or part of this
21 so-called fatal flaw, is that if you take my particular
22 demand curve and you extrapolate it past the prices,
23 that it goes into an infeasible range. And my point is
24 that's a faulty inference of the use of my model, but
25 the curve is an accurate representation of the data at

1 hand.

2 And it was by necessity that we had to come up
3 with something new in this study. The conventional
4 techniques were inappropriate. And so that's why we got
5 into this -- these new analytical techniques and what
6 we're describing right now.

7 Q (By Mr. McLean) Those new analytical
8 techniques were rejected by Water Resources, were they
9 not?

10 A Yes, in that particular form, the -- the
11 demand curve was -- the second demand curve that went
12 and took unrealistic values above the prices of \$8.34
13 was not accepted.

14 Q Would you look to Page 8 of your rebuttal
15 testimony, please, sir.

16 A Yes.

17 Q Look to Line 13.

18 A Yes.

19 Q Do you have it?

20 A Yes.

21 Q "Anyone reading this testimony likely has
22 fitted a linear curve to data at some point."

23 A Yes.

24 Q Do you believe that's true?

25 A I think it should be -- say -- perhaps not. I

1 should have rephrased it in a more general way.

2 Q Would you look to Page 13, Line 24 of your
3 testimony.

4 A Page -- of my testimony?

5 Q I'm sorry, your rebuttal testimony, Page 13
6 and Line 24. The gist of the question there is to ask
7 you about your commercial results.

8 A Okay.

9 Q And you are asked, essentially, whether your
10 commercial results have value; is that fair to say?

11 A Well, the accurate -- the statement is that
12 the commercial models lack statistically powerful
13 results.

14 Q Yes, sir. And then you ask yourself, does
15 that mean the results have no value, correct?

16 A Correct.

17 Q The answer you give, I believe, is detailed,
18 but down to Page 14, Line 20, you say, "While the
19 commercial elasticity results may not be conclusive,
20 they do show strong evidence that commercial customers
21 are modestly sensitive to price." Correct?

22 A Yes.

23 Q Isn't that intuitively the case,
24 Dr. Whitcomb?

25 A I would think that as you increase price

1 you're going to get a repression in demand, yes.

2 Q And the question that you were asked is
3 whether your results have value, and if it is simply
4 intuitively the case, if all your conclusions are
5 intuitively the case, what value does your study have in
6 that regard?

7 A The -- I got to put it at -- the answer is
8 that it adds a specific value to our intuition. Looking
9 at commercial customers, it's much -- it's more
10 difficult to quantify what their price elasticity is.
11 Mainly it's because they're such a heterogenous group.
12 You have car washes, you have restaurants, and even in
13 the restaurant group, there's lots of different types of
14 restaurants. And it's a difficult study to actually
15 quantify what the commercial price elasticities are.

16 In fact, if you look at the research on the
17 subject, you find that the estimates vary widely. A
18 number of them are -- say, actually, that price is
19 elastic, it's more than negative one. That means that a
20 10 percent increase in price will lead to more than a 10
21 percent reduction in water consumption. So I think in
22 general -- I think it's a fair assessment to say that in
23 the commercial sector, the researchers haven't spent
24 nearly as much time as they have with the single-family
25 homes.

1 Q What does your data add to the conclusion that
2 you just mentioned?

3 A We believe that the commercial users were
4 slightly more inelastic than the research predicted, and
5 hence we gave a lower price elasticity adjustment than
6 based on just other studies. Our empirical research
7 from the SWFWMD indicated that the price elasticity was
8 lower, although we know we didn't spend the time and
9 resources investigating each commercial class to make a
10 definitive answer -- put a definitive answer on the
11 question.

12 Q Turn to Page 15 of your rebuttal testimony,
13 please, sir, and Line 12. Do you have it, sir?

14 A Yes.

15 Q I read to you: "The recommendation of no
16 price elasticity adjustment be allowed ignores all
17 theory, evidence and logic." Did I read correctly?

18 A Yes.

19 Q Do you believe that Dr. Dismukes believes that
20 there should -- strike that. Do you believe
21 Dr. Dismukes' testimony is an assessment of the case you
22 made for elasticity, on the one hand, or is it a
23 statement that water demand does not vary with changes
24 in price?

25 A It was his recommendation -- primary

1 recommendation of his direct testimony that no price
2 elasticity estimate be allowed in this study. I think
3 that his basic argument -- I think he believes that
4 there is a price elasticity adjustment. And then I
5 think his argument is since you don't know for
6 certainty -- he said, looking at this evidence, you
7 don't know for certainty what price elasticity is. I
8 mean there could be some doubt, some epsilon around
9 price elasticity, that it should be thrown out from the
10 study.

11 But my point here is if you look at all
12 economic theory, if you look at all the data, over 100
13 empirical studies done on the subject, 120 studies done
14 on the subject, it all concludes that for residential
15 customers, price elasticity is probably in the 0 to
16 negative 1 range. In this case, a general
17 characterization is that price elasticity is about
18 negative .5. It's higher -- it's higher around the
19 price of \$3 per thousand gallons and it's lower at the
20 lower and higher prices.

21 So that's my answer.

22 Q My question was, was Dr. Dismukes criticizing
23 the quality of your case, or was he saying that water
24 demand does not change with changes in price?

25 A I can only infer from his primary

1 recommendation.

2 Q You called his primary recommendation
3 ludicrous, didn't you?

4 A Yes, I believe that's true.

5 Q Does that depend on your analysis that he
6 criticizes your case, or that he concludes that water
7 demand does not change with the changes in price?

8 A I base that conclusion on all evidence, all
9 theory, and the SWFWMD study.

10 Q Whose obligation is it to bring credible
11 evidence before this Commission to persuade them to
12 permit an elasticity adjustment?

13 MR. HOFFMAN: Madam Chairman, I'm going to
14 object to the extent Mr. McLean is asking for a legal
15 conclusion.

16 MR. McLEAN: I think it's a walking-around
17 conclusion. We have had endless answers to simple
18 questions. I think there ought to be time to permit at
19 least one on my side.

20 CHAIRMAN CLARK: I'll sustain the objection.
21 Go on, Mr. McLean.

22 Q (By Mr. McLean) Do you think that
23 Dr. Dismukes disagrees with Kimberly Dismukes when she
24 says that there may be a change in consumption based
25 upon changes of price?

1 A Well, of course I don't know the answer to
2 that. My -- all I have to look at is their direct
3 testimony, and because his primary recommendation says
4 that you should not allow a price elastic response,
5 that -- then that's what I infer from his statement
6 there. I actually believe Dr. Dismukes knows there's a
7 price elasticity adjustment, although that's just my
8 subjective opinion.

9 Q It's almost intuitively the case, isn't it?

10 A Well, I know Dr. Dismukes has some background
11 in economics, although not in water price elasticity
12 studies, but all economics and all their microeconomics
13 point to that fact.

14 Q So that it's an intuitive case to all of us?

15 MR. HOFFMAN: Objection, asked and answered.

16 MR. McLEAN: Not so. I asked it and he
17 answered with respect to Dr. Dismukes, not to the rest
18 of us.

19 CHAIRMAN CLARK: Mr. McLean, will you give me
20 your question again, please?

21 MR. McLEAN: Yes, ma'am.

22 Q (By Mr. McLean) Is it not the case that it is
23 intuitively obvious to most of us that water does have
24 some elasticity?

25 A That's my assessment.

1 Q Yes, that's mine too.

2 Now, let me ask you, first of all, by the use
3 of the term "wife" on Page 15, Line 21, is there any
4 relevance to your choice, or to your talking about the
5 relationship between Kimberly Dismukes and David
6 Dismukes?

7 A Repeat the question.

8 Q Yes, sir. Is there any relevance to that term
9 that's used there, "wife"? What's the point of that?

10 A I was told that that describes Kimberly
11 Dismukes, that they were married.

12 Q That she's someone's wife?

13 A I think the point here is -- why I used wife
14 is the question?

15 Q Yes, sir.

16 A Is that it really shows the inconsistency
17 among the two parties. Here they are, they're married,
18 and yet Kimberly Dismukes is saying that the base
19 facility charge should be lowered from 40 percent down
20 to 25 percent to improve conservation, and on the other
21 hand, they have their husband saying, Dr. Dismukes
22 saying that there should be no price elasticity
23 adjustment. It shows a direct inconsistency.

24 Q Did Dr. Dismukes say that because you didn't
25 make your case or because he thinks that water is not

1 elastic?

2 A I don't know what Dr. Dismukes --

3 Q If he concluded that you hadn't made your
4 case, sir, would it be inconsistent for him to believe
5 that there was -- that elasticity should not be
6 permitted in this case and that if it were the case,
7 that she thought it should, is that an inconsistency?

8 A I think Dr. Dismukes would then have to look
9 at all the evidence and come up with a reasonable,
10 rational explanation and find the best information --
11 better information than my study.

12 Q But he should look to the credible evidence,
13 shouldn't he, sir?

14 A Look at the what?

15 Q Credible evidence.

16 A Credible evidence?

17 Q Credible evidence, yes.

18 A That's correct.

19 Q Perhaps evidence that was not rejected by a
20 scholarly publication? Perhaps that sort of evidence?

21 A He should look at all the evidence.

22 Q What did you mean when you said perhaps more
23 men should listen to their wives? What's the point of
24 that?

25 A It was showing the inconsistency between the

1 direct testimony of the two witnesses.

2 Q What inconsistency is involved in that
3 specific quote? Why was it chosen?

4 A I just described it, but I'll do it again if
5 you want me to.

6 Q Please do.

7 A The inconsistency is Kimberly Dismukes went
8 from -- is suggesting a base facility charge going from
9 40 percent down to 25 percent. And she makes it on the
10 grounds of that will provide a stronger water conserving
11 rate structure signal.

12 And on the other hand, you have Dr. Dismukes,
13 which is saying that it's appropriate to have a zero
14 price elasticity in this case. That's ludicrous.

15 Q Is it ludicrous to think you didn't make your
16 case for it?

17 A I believe there's a credible case here.

18 Q And that's because it's your testimony as one
19 of the leading experts in the country, according to you?

20 A It's not only that. You've got to look at
21 the -- look at SWFWMD. Here they are, they spent a lot
22 of resources, a lot of time on this study. They
23 developed the most extensive data base on price
24 elasticity ever amassed. And from their judgment they
25 believe that it is good, accurate valid evidence to use

1 in Florida, and hence they've been promoting WATERATE as
2 a tool to be used by their customers. There's over 50
3 registered users that modeled that. So they support it,
4 they've seen all the peer review comments, they've seen
5 all the work I've done and they've been satisfied with
6 it.

7 Q When you said that perhaps more men ought to
8 listen to their wives, what did you want the Commission
9 to do? What does that persuade them to do?

10 A I think it's -- in showing the inconsistency
11 with Dr. Dismukes' primary recommendation, that they
12 would see that their price elasticity adjustment is
13 warranted in this case.

14 CHAIRMAN CLARK: Mr. McLean, I would point out
15 to you that I don't think this line of questioning is
16 getting us anywhere. I think you have made your point,
17 that you believe it's intuitive that as price goes up
18 demand goes down. I think you have also illustrated
19 through your questions where the debate may be. If we
20 want to debate whether more men should listen to their
21 wives, that may be a debate you don't want to get into
22 with the chairman. So I would suggest we move on.

23 MR. McLEAN: I'll take my chances. I want to
24 suggest that it was offered for the vituperative effect
25 it has, and that it's the work of a nonprofessional.

1 CHAIRMAN CLARK: I think it was a gratuitous
2 statement, as there have been gratuitous statements on
3 the part of many attorneys in this case. And I would
4 ask you not to do it. I will take the testimony in that
5 instance as being a gratuitous statement and let us move
6 on. It's getting late.

7 MR. McLEAN: The subjects of the comment
8 didn't take it that way.

9 Q (By Mr. McLean) On Page 16, Line 11,
10 Dr. Whitcomb, you say Dr. Dismukes was hired to
11 discredit this study.

12 A Yes.

13 Q Do you say that under oath, sir?

14 A Yes.

15 Q How do you know it to be the case?

16 A Well, that was -- it seems it was his position
17 to look at this -- the credibility of this study and to
18 try to show that it was not credible.

19 Q Which in your view completely deprives
20 Dr. Dismukes of the opportunity to enter an objective
21 weighing of your study, doesn't it?

22 A That -- it is my opinion, yes.

23 Q Do you know it to be the case?

24 A It is my opinion that through the comments of
25 Dr. Dismukes, as laid out in my rebuttal, that I don't

1 believe he's provided an unbiased event. I think he's
2 made a lot of -- not use the word unbiased, but to say
3 he's made a lot of faulty assertions in his direct
4 testimony.

5 Q If the phrase said, "Dr. Dismukes was
6 apparently hired to discredit the study," would that be
7 more accurate?

8 A Yes.

9 Q Page 18, Line 9. Do you have it, sir?

10 A Yes.

11 Q His recommendation of a 50 percent adjustment
12 is arbitrary. Do you have that line?

13 A Yes.

14 Q Is it fair to say that that is an effort by
15 Dr. Dismukes to suggest a remedy to this commission if
16 they find your case inadequate?

17 MR. HOFFMAN: Counselor, could you repeat that
18 question? I wasn't following.

19 MR. McLEAN: I'll give it a try.

20 Q (By Mr. McLean) Is it fair to take that
21 recommendation by Dr. Dismukes as a suggested remedy for
22 this commission should they find your case to be
23 inadequate on the issue of repression?

24 A No. My answer is no. And the reason I say no
25 is because he pulled a number out of a hat. He has no

1 evidence that, you know, you split the difference
2 between zero and the number that I came up with.
3 There's no evidence, as I state right there in that
4 sentence -- in that paragraph.

5 Q And if the Commission concludes that your case
6 is inadequate, do you think it should be zero? Given
7 that you don't think they should conclude that, but if
8 they conclude that, do you think they should simply say
9 there is no elasticity?

10 A No.

11 Q What's wrong with 50 percent?

12 A It's arbitrary.

13 Q Would you prefer zero to arbitrariness?

14 A The Commission can do what it wants in their
15 decisions. I presented my case on what I believed to be
16 an unbiased and the most accurate information that's out
17 there. And SWFWMD has put a lot of effort and resources
18 into this study. Here you have it. It's right in SSU's
19 back yard. It's available right now. It's being
20 promoted by them. They used the results through the
21 software program WATERATE, and SSU -- from SSU's
22 standpoint that was the most logical course to go.

23 Q Well Dr. Whitcomb, if the Commission finds
24 that your case falls short of the burden which they
25 require, do you now bind the Company to taking zero as

1 opposed to 50 percent? Would that be the better course
2 in your opinion?

3 A It's not my decision.

4 Q But it ought to be your answer, sir. What is
5 your answer? What is your recommendation?

6 MR. HOFFMAN: Objection. Dr. Whitcomb has no
7 authority to bind the Company.

8 MR. McLEAN: He speaks for the Company in this
9 case and on this issue.

10 CHAIRMAN CLARK: The objection is sustained.

11 Q (By Mr. McLean) With respect to the split
12 between BFC and gallonage charge, are you familiar with
13 that issue?

14 A Yes.

15 Q What is the current split between the two?

16 A In the last rate case it was set at 33 percent
17 base facility charge and 67 percent gallonage charge.

18 Q What is the mix that SSU seeks at this point?

19 A They are requesting a 40 percent base facility
20 charge and a 60 percent base facility charge.

21 Q With respect to those two splits and all else
22 held equal, which of those two splits gives the customer
23 the stronger incentive to conserve?

24 A I would say the base facility charge at 33
25 percent. I would like to add to that, that the -- as I

1 described in my introduction, that there is significant
2 price signals being sent even at the 40 percent level.
3 There's going to be a 76 percent increase, looking at
4 just the gallonage charge going from \$1.23 to the
5 proposed 2.16. That is a significant price signal being
6 sent, and as I quantify it, it will be about 11 percent.

7 Q Turn to Page 26, Line 2, please, sir. And
8 Line 4 at the top, if you will. It's an incomplete
9 paragraph. The thought which you express there is that
10 the gallonage charge is being substantially increased in
11 this rate case; is that correct?

12 A Yes.

13 Q Is that what you say? How do you know that to
14 be the case?

15 A Can you repeat the question again?

16 Q How do you know that to be the case?

17 A The previous question.

18 Q That the gallonage charge is being
19 substantially increased in this rate case.

20 A I know that from calculating the price
21 elasticity adjustment through the WATERATE model.

22 Q Does that statement necessarily hold to the
23 notion that the Commission will, in fact, approve a rate
24 increase for this company on gallonage charges?

25 A My estimates, as described in the E schedules,

1 are based on the assumption -- on the assumption that
2 the price increase will go from \$1.23 to the 2.16
3 level. It was based on that data.

4 Q And Ms. Dismukes, you say on the immediate
5 previous page down at the bottom, failed to take that
6 into account; is that correct?

7 A It appears so. You know, she's just really
8 concentrating on the split, what is -- what's the
9 percentage split between the two, without looking at the
10 bigger picture and what's happening to the gallonage
11 charge.

12 Q Do you know whether Ms. Dismukes joined you in
13 the assumption that this would be a successful rate
14 case?

15 A I do not know.

16 Q Do you know whether Ms. Dismukes in fact
17 recommended a revenue decrease for this company?

18 A I don't know. I believe she did.

19 Q In the instance where one recommends a rate
20 decrease, or perhaps one's wife recommended a rate
21 decrease, do you still find it ludicrous to believe in
22 the instance of a rate decrease that one not recommend a
23 repression adjustment?

24 A If there would be a rate decrease, I think
25 that all other factors held constant, water use would

1 increase.

2 Q So repression adjustment wouldn't make much
3 sense, would it?

4 A Well, actually, I believe you wouldn't call
5 it -- I would say a price elastic adjustment would be
6 appropriate.

7 Q But we would call it stimulation in that
8 instance, wouldn't we?

9 A Some people call it that.

10 Q What do you call it, sir?

11 A I call it a price elastic adjustment.

12 Q Do you relate the notion of the split, the
13 33 -- I think it's 33/67 split versus 40/60 split. Is
14 that notion in your mind related to the magnitude of any
15 rate increase or decrease ordered by the Commission?

16 A Repeat the question.

17 Q With respect to the split, 33/67 and 40/60 on
18 the other hand, Ms. Dismukes errs because she does not
19 take account of the magnitude, or that there will be a
20 very substantial rate increase in this case, according
21 to you. Now that seems to me to relate the notion of
22 the appropriate split, on the one hand, to the magnitude
23 of any rate increase or decrease on the other. Do you
24 believe that that is a nexus which is valid?

25 A Hard to say. The level of the -- in looking

1 at this -- from the Commissioners' viewpoint, you have
2 to look at the base facility charge and what percent --
3 you've got competing objectives. You have water
4 conservation on one side and you've got financial risk
5 on the other side. And you can't get more without the
6 other, that is unless you adopt the WNC. But the point
7 is is that there's no perfect point that you can set
8 this at, but you have to use your judgment in weighting
9 all the objectives of the case.

10 Q With respect to the WNC, do you know whether
11 any -- you say -- as I understand what you just said,
12 revenue stability comes at the -- or instability, comes
13 at the expense of financial risk. Did you say that?

14 A Yeah. The financial risk to both the
15 customers and SSU.

16 Q What is the financial risk to the customers of
17 financial instability, or revenue instability?

18 A I think that the rate practitioners have a
19 good way of describing this. And the best way to do it
20 is look at two extreme cases. Let's say that the base
21 facility charge is set at 100 percent of revenues.
22 Everything is -- and the gallonage charge is zero.
23 Under that case, the customer's water bill is known with
24 certainty. The SSU's revenues are known with
25 certainty.

1 Now as you know go down the line, let's go
2 look at the opposite and put all your revenues into the
3 gallonage charge, and base facility is at zero, then at
4 that point your revenues are at the extreme with regard
5 to financial risk. If you go through hot, dry weather,
6 the water bills are going to become much higher relative
7 than to the other option. If it is a wet, cool winter,
8 the water bills will be much lower than under the
9 certainty scenario. Hence, there's a lot more risk to
10 both customers and SSU from moving the base facility
11 charge percentage to become a lower estimate.

12 Q With respect to that greater risk to the
13 customers, what premium do they pay? How does it cost
14 them?

15 A It costs them because now -- there's a greater
16 risk in knowing what their water bills are going to be.
17 On an annual basis they may end up spending, you know,
18 \$600 for water instead of \$400. So that's going to
19 fluctuate -- their total amount of money spent on the
20 water bill is going to increase, the financial risk is
21 going to increase.

22 Q In the second half of your example where it
23 was primarily loaded into the gallonage charge, the
24 customers would have almost complete control over what
25 that bill would be, wouldn't they?

1 A Yes.

2 Q Is that a greater risk or a lesser risk?

3 A It's a greater risk because now, if --
4 assuming -- no one is going to -- if they have hot dry
5 weather, taking that example, and people decide to
6 increase -- and they have a lawn and they have a large
7 lawn, they're going to need increase their water
8 consumption. It's not like you go and let your lawn dry
9 out and dry during the drought, because it's expensive
10 to replace. So to that extent, I think it adds a
11 tremendous -- I think the extreme financial risk
12 position is to go with a base facility charge of zero.

13 Q So you said. But in the instance where the
14 entire load is -- the entire revenue load is in the
15 gallonage charge, the customers have the opportunity to
16 forego the lawn watering to reduce their bill, don't
17 they?

18 A Yes.

19 Q That's not the case where it's all in the base
20 facility charge, is it?

21 A That's right.

22 Q Go ahead.

23 A I would just like to add that of course the
24 conservation signal under the base facility charge, the
25 alternative of being a zero, is the water conservation

1 signal is much stronger.

2 Q Sure. All else equal, the extent to which you
3 leave the base facility charge, depart from the base
4 facility charge, the stronger the conservation signal
5 and opportunity is; isn't that correct?

6 A The conservation signal and the opportunity,
7 but the financial risk is at the extreme level.

8 Q Would you define -- what financial risk are
9 you talking about?

10 A I am talking about the -- well, in my
11 report -- I did a report for SSU called Financial Risk
12 in Water Conserving Rate Structures. And what the
13 report finds out is that the weather in SSU's area is
14 the most variable with respect -- with respect to
15 weather. The weather in Florida is hot, it's humid,
16 it's wet, and it's, most importantly, variable.
17 Actually it's much more variable here than in California
18 where I'm from. So you have these -- weather can force,
19 as I quantity, changes in water consumption that can
20 vary plus or minus 10 percent, year to year. So you do
21 have these outside fluctuations in weather, which can
22 swing one way or the other. And to the extent that the
23 water bill is dependent on weather, then it increases
24 their financial risk.

25 Q I see. So the magnitude of the variation of

1 the bill through the year is, in your mind, a financial
2 risk faced by customers?

3 A Yes.

4 Q Now, where the gallonage charge is loaded more
5 heavily, the more they move in that direction, don't
6 they have greater opportunity to control that risk?

7 A They have greater control of determining their
8 total bill, but their risk is increased.

9 Q The risk that they can't predict it; is that
10 what you're talking about?

11 A That's correct.

12 Q Now, suppose they were willing to take on that
13 risk in exchange for control. Did you ascertain whether
14 customers were generally willing to do that, in your
15 study?

16 A No. I did not address that issue in the
17 study.

18 Q Now with respect to another thing that
19 regulators sometimes call financial risk, you're not
20 dealing with revenue instability, or revenue volatility,
21 as it is occasionally identified, as one of the factors
22 involved in the price for money, which the utility uses;
23 is that correct?

24 A Yes.

25 Q You're not venturing any opinion as to any of

1 those considerations, are you?

2 A Can you reframe your question?

3 Q There is a witness before the Commission who I
4 believe -- you may accept it hypothetically -- believes
5 that the weather normalization charge would decrease the
6 cost of money to this utility. Now, are you addressing
7 that issue at all?

8 A I'm not the expert on that subject.

9 Q Thank you, sir. Take one quick --

10 CHAIRMAN CLARK: Mr. Hoffman, do I note
11 correctly that this witness is not available after
12 today, or after tomorrow?

13 MR. HOFFMAN: Madam Chairman, I think he's
14 available tomorrow.

15 CHAIRMAN CLARK: Good.

16 Q (By Mr. McLean) On Page 27 of your rebuttal
17 testimony, there is the general criticism of
18 Ms. Dismukes because she apparently -- this is my
19 interpretation, you can criticize if you will please --
20 because she apparently attaches too much significance to
21 rainfall and its relation to the volatility of
22 customers' bills and perhaps to the Company's revenue as
23 well; is that correct?

24 A I wouldn't quite characterize it that way.

25 Q What is your --

1 A I would characterize it that it's not that
2 she's not putting enough emphasis on precipitation, but
3 she's just not looking at the whole picture. You got to
4 look at not only what precipitation is doing, but you
5 have to look at what evapotranspiration is doing, what
6 temperature is doing. Weather is not just
7 precipitation. It's two factors. And if you look at --
8 you got to look at them combined to figure out -- if
9 you're the user, you're sitting there at your home, you
10 want to know how much water do I have to apply to my
11 lawn for outdoor irrigation. And that's a factor of
12 both the rainfall and evapotranspiration.

13 Q Do you know who Mark Farrell is?

14 A Yes, but I don't know him personally.

15 Q He is the Director of Southwest Florida Water
16 Management District; isn't he?

17 A To my knowledge, that's true.

18 Q He is offered as a witness in this case?

19 A Yes.

20 Q Do you know whether he takes any account of ET
21 in his discussion of rainfall?

22 A Well, in the SWFWMD study, they compiled the
23 weather information for me, because they have special
24 stations in their service district which actually
25 compiles ET. I made use of that information in my

1 study, the SWFWMD study directly. So I believe that
2 inside of SWFWMD, in my talking with Jay Yingling, who
3 is a senior economist at SWFWMD, that they're trying to
4 get everyone to think more in terms of this net
5 irrigation requirement, this total picture, rather than
6 just to focus on rainfall. Because it can lead to
7 really mistaken conclusions if you don't look at the
8 whole picture.

9 Q If Mr. Farrell offers testimony to this
10 commission which doesn't take account of ET, is he
11 mistaken?

12 A I have not read his testimony.

13 Q Well, he would have to take account of ET if
14 he dealt with rainfall, wouldn't he, in the context
15 we've been discussing it?

16 A I believe the complete picture would look at
17 ET and precipitation.

18 Q So if he neglected to take ET, can his
19 testimony be reliable?

20 A I would have to look at it to make that
21 judgment.

22 MR. McLEAN: Thanks a lot. No further
23 questions.

24 CHAIRMAN CLARK: Mr. Twomey.

25 MR. TWOMEY: Would you consider a short break

1 before I start?

2 CHAIRMAN CLARK: Here's my problem. We're
3 going to go home before 5:00. And for that reason --
4 are you trying to consolidate your questions and see
5 what you can eliminate? If you're not doing that, we're
6 going to go ahead, Mr. Twomey.

7 MR. TWOMEY: Fine. That's okay. I got a
8 bladder with the best of them. I've prided myself that
9 for years.

10 CROSS EXAMINATION

11 Q (By Mr. Twomey) Let me ask you, did your
12 residential -- your current residential elasticity
13 factor is negative 11.7; is that correct? Let me ask
14 you this: Did the elasticity factor change with the
15 elimination from this case of the systems in the
16 nonjurisdictional counties?

17 A I don't recall that fact.

18 Q Pardon me?

19 A I don't recall.

20 Q Well, let me ask you this. Should they --
21 should the elasticity factors have changed with the
22 inclusion or exclusion of a given system here or there,
23 given that --

24 A The elasticity estimates won't change, but the
25 price elasticity adjustment will change.

1 Q With the inclusion or exclusion of a system?

2 A Correct.

3 Q Why?

4 A Well, the price elasticity estimates which
5 were derived in the SWFWMD study are set, and it says,
6 at different price levels and different income levels.
7 That's what sets price elasticity. They are set. If I
8 understand your question, you're asking me now if you
9 apply that to different sets of systems, will the price
10 elasticity adjustment, in this case, change. The answer
11 is yes.

12 Q Could you tell me why it went from negative
13 7.30 percent to negative 11.70 percent?

14 A You'll have to direct me to where these
15 numbers are.

16 Q Okay, sir, I will. The -- in Volume 5-A, Book
17 1 of 1, Page 105 --

18 A I don't have those exhibits.

19 Q Were you responsible for calculating the price
20 elasticity adjustments? Or who did that?

21 A I calculated the price elasticity adjustments,
22 correct.

23 Q When Mr. Hoffman gives that to you, doctor,
24 look at Column 8 for each of the -- Mr. Hoffman, they're
25 separate -- they're two different documents.

1 A All right, which one are we on?

2 Q Column 8.

3 A Which document?

4 Q Doesn't matter. Look at one, you'll find a
5 negative 11 -- what is it, 11.7, correct? For
6 residential? Do you see Column 8?

7 A Yes.

8 Q If you look down Column 8, do you see either a
9 negative 7.30 or a negative 11.7?

10 A No. I see a negative point -- negative 7.3
11 and a negative 3.9.

12 Q I'm sorry, look at the other document. You
13 should see negative 7.3, doctor, in one of the documents
14 in Column 8, and in the other you should see a negative
15 11.7. Okay?

16 A Okay.

17 Q Did you find them?

18 A Yes.

19 Q Aren't they for -- aren't they described for
20 the same systems? For each respective document, isn't
21 the document the same except for the case that it
22 describes, that is a case without the jurisdictional
23 counties and a case with?

24 A I have to say that I didn't create these
25 columns, and although the price elasticity estimates I

1 calculated, how they're all stated here in the spread
2 sheets is something I would have to study.

3 Q Let me ask you one more question, and I'll
4 stop on that. Did you calculate the 7.30, the negative
5 7.30 and the negative 11.7, or were those numbers
6 derived from something you calculated in turn?

7 A I don't recall at this time.

8 Q Let me make sure I understand you. You are
9 the one that -- you are the witness for this company
10 that is sponsoring the price elasticity adjustments; is
11 that correct?

12 A Correct.

13 Q And your testimony is that you don't recall if
14 those are the numbers you're sponsoring?

15 A The price elasticity adjustments, there were
16 numerous price -- I mean there was a number of different
17 situations where the price elasticity changed. Here I'm
18 given a document with -- with 15 different columns which
19 I've never seen before and I'm supposed to describe how
20 it's functioning. I'm telling you, I'm not capable of
21 doing that right now. I need to study it.

22 Q Okay, fine. I know the hour is late, doctor,
23 and we'll probably have to have you back tomorrow, but
24 to the greatest extent possible you may want to try and
25 just listen to my questions closely, and if a yes or no

1 answer will suffice, leave it there if you want to. If
2 you feel an explanation is required, then do so.

3 At Page 5, Line 15 of your prefiled direct
4 testimony, you state --

5 A Please hold.

6 Q Sorry.

7 A Okay.

8 Q Okay. You state that Florida has a unique mix
9 of factors affecting price elasticity, correct?

10 A That's correct.

11 Q Now, is it your testimony that those factors
12 you indicate, or list, such as weather, types of soil,
13 irrigation wells, vegetation and tourism, are uniquely
14 the same at each of SSU's systems throughout the state?

15 A No. My point here is that there's a mix of
16 factors which may -- that tend to -- which could lead --
17 the price elasticity estimates done in a different part
18 of the country could be different than the ones seen in
19 Florida.

20 Q Yes, sir, but likewise, isn't it true that the
21 mix of those factors from one system of SSU's in the
22 state of Florida to another, could be just as dramatic
23 as the SWFWMD factors from other places in the country;
24 isn't that true?

25 MR. HOFFMAN: Objection. I think the question

1 was ambiguous. I would just ask that it be rephrased.

2 MR. TWOMEY: Sure. You mean you didn't
3 understand it?

4 MR. HOFFMAN: It didn't make sense to me.

5 MR. TWOMEY: Okay.

6 Q (By Mr. Twomey) You're suggesting that the --
7 that Florida's unique mix of factors is sufficiently
8 different than other places in the United States that
9 you couldn't reasonably rely upon price elasticity
10 results generated elsewhere in the United States,
11 correct?

12 A That's somewhat true. I think that it may be
13 more generalized to certain regions of the country. If
14 you look at the price elasticity estimates in the
15 literature that have been done, the Gibbs study of homes
16 in Miami came up with elasticity of negative .5 for a
17 long run price elasticity of negative .5. A study done
18 in Raleigh, North Carolina showed the price elasticity
19 was about negative .5, and that the Howe & Lineweaver
20 study of a cross-section of east coast homes was also
21 about a negative .5.

22 Q Didn't you say, doctor, starting at Line 16,
23 "For that reason, price elasticity results generated
24 from other parts of the country cannot be validly
25 applied to Florida"? That's your testimony, correct?

1 A Yes. I think it should be "may not be validly
2 applied to Florida."

3 Q Okay. And my question to you, that
4 Mr. Hoffman didn't understand, is that couldn't one
5 argue that conditions -- Florida is a long state, is it
6 not?

7 A Correct.

8 Q Couldn't one possibly argue that conditions
9 within Florida -- that is from the extreme most SSU
10 system in Florida to the south most -- could be
11 sufficiently variable that they all couldn't validly be
12 encompassed within one price elasticity study?

13 A It is possible, but the evidence -- if you
14 look at the evidence, I come to a different conclusion.
15 If you look at the geographic proximity of SSU's systems
16 relative to SWFWMD, they are very close. If you look at
17 the climatic variations among the different systems,
18 they're very close. And if you look at the results
19 derived from this study and compare it to the other
20 studies done in Miami, the only other price elasticity
21 study that I would compare it with is the one in Miami,
22 and that came up with a price elasticity of about
23 negative .5. So I don't have any evidence to know if
24 price elasticity is different in one end or the other.
25 But the evidence suggests that there is a consistency.

1 Q Let me ask you this. If you know, doctor,
2 which SSU system is closer to Tampa? The system at
3 Marco Island?

4 A No.

5 Q Or Sunny Hills?

6 A Well, those are both far from Tampa. Sunny
7 Hills is an outlier in the sense that it's only one of
8 the 97 or so uniform systems. It has much less than
9 1 percent of the consumption. So when you're looking at
10 the core of SSU systems, they are in Central Florida.
11 80 percent of them are in SWFWMD or in St. Johns Water
12 Management District.

13 Q So you concede, do you know not, that some of
14 the systems are not in SSU's -- or SWFWMD's back yard,
15 right, or neighborhood; is that correct?

16 A I guess that with the -- no, I won't.

17 Q You won't concede that the outlying systems
18 may not have applicability to this price elasticity
19 study that SWFWMD --

20 A There's no evidence to make a judgment either
21 way, other than that the Miami, the Raleigh, North
22 Carolina and the SWFWMD study all come up with
23 comparable price elasticity estimates.

24 Q Okay, you have to let me stop talking, doctor,
25 before you start talking so the chairman won't criticize

1 either of us, and it's to help the court reporter.

2 Do you know where Nassau County is?

3 A No.

4 Q Do you know where Washington County is?

5 A I can't recall.

6 Q Do you know if -- never mind. So you don't

7 know where Sunny Hills is, do you, doctor?

8 A It's my recollection that it may be near

9 Tallahassee.

10 Q On Page 6, Line 13 of your testimony, Page 6,
11 Line 13, you say --

12 A Was that Page 5?

13 Q 6. You indicate that -- beginning at Line
14 11 -- "Specifically, Southern States provided data
15 relating to the Company's facilities and customers in
16 the Spring Hill service area in Hernando County." Is
17 that correct?

18 A Yes.

19 Q Do you know whether or not Hernando County is
20 still included in this rate case?

21 A I believe they're not.

22 Q Sir?

23 A I believe they're not. I'm not -- I don't
24 know for certain. I know Spring Hill is not in the rate
25 case.

1 Q On Page 9 of your direct filed testimony,
2 you're supporting SSU's proposal to have 40 percent of
3 revenue requirements in the base facility charge for all
4 systems in this case rather than the 33 percent approved
5 by the Commission in Docket 920199; is that correct?

6 A That's correct. I don't know about the docket
7 number.

8 Q The docket is the Uniform Rate Case that
9 involved 127 systems.

10 I think Mr. McLean touched on this, but the --
11 that shift in revenue responsibility from the base
12 facility charge -- I'm sorry, from the gallonage charge
13 to the base facility charge, automatically ensures that
14 the Company receives more revenue per month at a given
15 level of customers; isn't that correct?

16 A No. You said it automatically means they're
17 going to get more revenues from -- and that's not the
18 case, no. In case there was -- let me -- can you
19 restate the question and make sure I understood it?

20 Q Yes, sir. You are, I understand, at Page 9 --

21 A Right, I understand that part.

22 Q -- saying that you support the Company's
23 request to have -- to recover from the base -- isn't
24 this it: The Company has 33 percent of revenue
25 responsibility currently in its old uniform rates

1 recovered through the base facility charge, right?

2 Right?

3 A That's my understanding based on the last rate
4 case.

5 Q And you have to say yes or no because the
6 court reporter can't --

7 A Yes.

8 Q And isn't it true, doctor, that every customer
9 that is a current customer will pay the base facility
10 charge, whatever it is, irrespective of -- irrespective
11 of whether they use water or not?

12 A Yes.

13 Q The Company's proposal in this case, and one
14 which you support, as I understand your testimony, is to
15 increase the revenue responsibility assigned to the base
16 facility charge from 33 percent to 40 percent; isn't
17 that correct?

18 A Correct.

19 Q Now, doesn't it follow that if that is done,
20 that the Company will automatically receive more revenue
21 each month -- assuming the same number of customers?

22 A It will mean they'll receive more base
23 facility revenues is what it means.

24 Q Yes, thank you.

25 A Not necessarily total revenues.

1 Q Right. You're right, I should have phrased
2 that differently.

3 Doctor, if you know, isn't it true that the
4 per customer water consumption of the many systems SSU
5 has included in this case vary greatly from system to
6 system? That is, the average per customer water
7 consumption on a system-by-system basis, doesn't it vary
8 greatly?

9 A I know it varies. I don't know how to -- I
10 don't have a statistical characterization of that
11 variation.

12 Q Okay, but it varies, right?

13 A Correct.

14 Q Ideally, shouldn't the base facility charge,
15 gallonage charge, be set on a system-by-system or
16 facility-by-facility basis?

17 A I don't know.

18 Q Wouldn't the -- wouldn't the objectives of
19 conservation and the other objectives intended from a
20 base facility charge or a rate structure be better
21 served if each system had its own rate structure?

22 MR. HOFFMAN: Madam Chairman, I'm going to
23 object. I think that is a rate design issue that's
24 outside the scope of his testimony.

25 MR. TWOMEY: I don't think it is, Madam

1 Chair. He's here testifying that he supports the change
2 from 33 to 40 percent. It's right there, Page 9. And
3 he goes on later, which I intend to ask him more
4 questions about, and touts the advantages of this rate
5 structure as a conservation rate structure.

6 CHAIRMAN CLARK: Mr. Twomey, can I hear your
7 question again? That's not meant as a trick.

8 MR. HOFFMAN: Madam Chairman, I think that
9 Mr. Twomey's question went to whether or not an
10 individual base facility charge and gallonage charge
11 should be applied for each system, as opposed to the
12 utility as a whole. Was that -- is that correct?

13 MR. TWOMEY: He's right.

14 CHAIRMAN CLARK: I'll allow him to answer the
15 question.

16 WITNESS WHITCOMB: And the answer is that I
17 don't know. I don't have the information to make that
18 judgment and I haven't reviewed it.

19 Q (By Mr. Twomey) You didn't include the -- you
20 did not include the necessary information in your
21 appendices, your exhibits, doctor?

22 MR. HOFFMAN: Objection. Object to the form
23 of the question by the use of the word "necessary
24 information." Necessary for what?

25 MR. TWOMEY: Necessary to make that

1 determination. But that's okay, Mr. Hoffman. I will go
2 on. We'll get to that in a minute.

3 Q (By Mr. Twomey) Are you supporting -- are you
4 here by your testimony to support a uniform rate
5 structure versus a -- any other type of rate structure?

6 A No.

7 Q You just say, do you not, at Page 8, that the
8 Company's uniform rate structure approved in Docket
9 920199 meets the criteria for water conserving rate
10 structure as identified in the SWFWMD studies, right?

11 A That is correct. That's part of what I said.

12 Q Now, my question to you is, you reach that
13 conclusion, don't you, solely because the uniform rate
14 approved in the last rate case has a base facility
15 charge and a gallonage charge; isn't that correct?

16 A I know that it has a base facility charge and
17 a gallonage charge, yes.

18 Q That wasn't my question, doctor.

19 A I made my -- in regard to the last rate case,
20 moving from a 55/45 split between the BFC and the
21 gallonage charge to the 33/67 split, I quantified what
22 the change -- the price elastic adjustment would be from
23 doing that -- making that -- undertaking that change.

24 Q That still wasn't my question. Let me refer
25 you back to Page -- do you have Page 8 of your

1 testimony?

2 A Yes.

3 Q Read the question beginning at Line 7.

4 A "Did the uniform rate structure approved in
5 Docket No. 920199-WS meet the criteria for a water
6 conserving rate structure identified in the SWFWMD
7 studies?"

8 Q And your answer is yes, right?

9 A Yes.

10 Q And my question to you is, is your conclusion
11 that it meets the criteria for a conserving rate
12 structure have anything to do at all with the fact that
13 it is a uniform rate structure?

14 A To the extent that the prices in the systems
15 that I looked at were uniform, then the answer would be
16 yes.

17 Q Why? How does that have any bearing on
18 whether or not it meets the criteria for water
19 conserving rate structure identified in the SWFWMD
20 studies?

21 A The SWFWMD study, the criteria, one of the
22 criteria, has to do with a split between the base
23 facility and the gallonage charge.

24 Q Yes, sir.

25 A I compared the -- this particular rate

1 structure and it passed the criteria set forth there.

2 Q Yes, sir. And are you telling me that it had
3 anything to do with the fact that it was a uniform rate
4 structure? And before you answer, let me make it
5 clear. That is, do you understand that the rate
6 structure approved by this Commission in this Company's
7 last rate case charged every system involved, for water,
8 the same base facility charge and the same gallonage
9 charge? Do you understand that?

10 A I know -- no, I don't know that. I know that
11 a majority of the systems face the uniform rates. I
12 thought -- it was my understanding that there was other
13 utilities -- whether they've picked them up since
14 then -- that SSU has, which do not have uniform rates.

15 Q And that's true. But what I'm saying to you
16 is, I want you to accept for the purposes of my question
17 that in the last rate case, which involved 127 water and
18 wastewater systems, that the Commission approved rates
19 which they call -- we call, uniform rates, which means
20 that every water customer of this utility in those 127
21 systems paid the same base facility charge and the same
22 gallonage charge. Do you follow?

23 A Yes.

24 Q That's the uniform task?

25 A Yes.

1 Q And my question to you is, are you suggesting
2 that the uniformity aspect of it has anything to do with
3 it being a conservation rate structure?

4 A No. I'm basing my decision on the percentage
5 allocated between the base facility charge and the
6 gallonage charge, and if you didn't have uniform rates,
7 you could have different prices in each of them, but
8 still have that allocation, and it would still meet the
9 water conserving rate structure criteria.

10 Q Precisely. You could have standalone rates
11 for all the water systems involved in this case, and so
12 long as they had a base facility charge and a gallonage
13 charge they would meet the criteria for being
14 conservation rate structures pursuant to SWFWMD studies,
15 right?

16 A Right.

17 Q Good.

18 CHAIRMAN CLARK: Mr. Twomey, have you hit a
19 breaking point?

20 MR. TWOMEY: I was breaking when I asked you
21 for -- I can stop anytime you want to.

22 CHAIRMAN CLARK: I take it your questioning
23 will take us beyond 5:00?

24 MR. TWOMEY: Yes, ma'am, it will.

25 CHAIRMAN CLARK: In that case we are going to

1 adjourn the hearing at this point. We will begin again
2 at 9:30 tomorrow morning and continue with the
3 cross-examination of Mr. Whitcomb, and then we will go
4 to Ms. Lock and continue on with the order in the
5 prehearing order.

6 MR. TWOMEY: Thank you.

7 (Thereupon, the hearing adjourned at
8 4:45 p.m., to reconvene at 9:30 a.m., Saturday, May 4,
9 1996, at the same location.)

10 (Transcript continues in sequence in
11 Volume 18.)

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