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NUCLEAR REGULATORY COMMISSION



IN THE MATTER OF:

CONSUMERS POWER COMPANY
(Midland Units 1 and 2)

Docket Nos. 50-329
50-330



Regulatory Docket File

Place - Chicago, Illinois

Date - Monday, 7 February 1977

Pages 3139 - 3344

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UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

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Room 2500
Everett M. Dirksen Building
219 South Dearborn Street
Chicago, Illinois

Monday, 7 February 1977

Hearing in the above-entitled matter was convened
pursuant to notice at 1:30 p.m.

BEFORE:

FREDERIC J. COUFAL, Esq., Chairman

DR. J. VENN LEEDS, Member

DR. EDMETH LUESKE, Member

APPEARANCES:

(As heretofore noted.)

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C O N T E N T S

<u>Witness</u>	<u>Direct</u>	<u>Cross</u>	<u>Redirect</u>	<u>Board</u>	<u>Cross on Board</u>
Mr. Bickel (Recalled)	--	--	3295	--	--
W. Jack Mosely	3218	3252	--	3330	3331

E X H I B I T S

<u>No.</u>	<u>Identified</u>	<u>Received</u>
Licensee's Exhibit No. 31 (Dow's responses to Mr. Cherry's interrogatories.)	3171	3171
Midland Intervenor's Exhibit No. 46 (<u>Detroit Free Press</u> article, 2/1/77, "Utility Seeks \$164 Million.")	3272	
Midland Intervenor's Exhibit No. 47 (Newspaper article.)	3274	

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HARD 2

P R O C E E D I N G S

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CHAIRMAN COUFAL: Good afternoon, ladies and gentlemen.

Let the record show that Mr. Cherry is here for Interveners other than Dow; Mr. Hoefling for the Staff; Mr. Rosso for the Licensee; Mr. Nute and Mr. Duran for Dow.

Dr Leads said Mr. Brenner is here also for the Staff.

MR. HOEFLING: Yes. Mr. Brenner is outside at the moment. He will be in in a minute.

MR. CHERRY: Mr. Coufal, I have a couple of preliminary matters that touch upon some of the testimony before I go into it.

Could I ask that the witnesses who have not yet testified be excluded?

CHAIRMAN COUFAL: Are there any people here, any person, who may testify, in the room?

(Show of hands.)

Would you step outside during this, please?

CHAIRMAN COUFAL: Are you through, Mr. Echols.

MR. ECHOLS: I thought so.

MR. CHERRY: Yes, he's through.

CHAIRMAN COUFAL: All right. Mr. Cherry?

MR. CHERRY: First of all, Mr. Chairman, I have delivered by messenger, or person, this morning just before

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1 noon copies of our direct testimony to be filed by Dr. Timm,
2 to be sworn by him this morning. I filed, as the Regulatory
3 Staff requested, nine additional copies for them and they
4 agreed to pay me for them. And I served a copy on Consumers
5 Power Company this morning by their messenger having picked
6 it up.

7 In connection with the testimony, there are just
8 a couple of things I want to mention. Number one, the pre-
9 sent testimony ends on page 82 and there is one final section
10 of the testimony which was completed yesterday but we found
11 some additional information and Dr. Timm wanted to do another
12 calculation. It involves the cost of the alternative that
13 we posit as a suggested alternative. The alternative is
14 identified in Section 5 of the testimony which is already
15 there. That will be about five pages long and it involves
16 one exhibit which is already prepared but the numbers may
17 change. When Dr. Timm looked at some of the numbers, he
18 thought the advantage to our alternative was even greater,
19 so he wanted to take a look at it.

20 I will be able to file all of that tomorrow, but
21 I just wanted to point out that 99 percent of the testimony
22 is already in the hands of the other parties.

23 Point number two, I also filed with the parties
24 and gave multiple copies to the Regulatory Staff certain
25 exhibits which had not heretofore been marked in the proceeding.

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1 They include Exhibits 31-A through 31-M, and then 32, 33, 34,
2 35, 36, 37, 38, 39, 40.

3 CHAIRMAN COUFAL: Are those the ones that are
4 attached to the testimony, Mr. Cherry?

5 MR. CHERRY: Well, they were submitted with the
6 testimony. They are not necessarily attached, but they were
7 served on everybody at the same time.

8 CHAIRMAN COUFAL: And those numbers are already
9 marked?

10 MR. CHERRY: All the exhibits are marked. They
11 haven't been officially marked by the reporter, but I have
12 premarked them.

13 CHAIRMAN COUFAL: All right.

14 MR. CHERRY: And the testimony is arranged so that
15 when there is reference to a particular document, it has
16 either been marked as an exhibit and then the exhibit accom-
17 panies the testimony, or it refers to an exhibit already
18 marked, or it refers to a work paper which is identified
19 that we know all the parties have and will be available here.
20 or it refers to a transcript reference. So for the benefit
21 of the parties analyzing the testimony, it is a self-contained
22 document analyzing the testimony. And everything that needs
23 to be looked at in order to understand and check the docu-
24 ment is in the document.

25 For example, when calculations are made, the

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1 footnote sets out all of the assumptions and variables. So
2 there are no "backup papers" to the testimony because all the
3 calculations are done within the testimony.

4 The assumptions are stated in each of the exhibits
5 and the values are set forth, so the only backup to an exhibit
6 would have been an untyped version in pencil, with data ex-
7 actly the same, and I did not obtain those.

8 The other point that I want to make about the
9 testimony in terms of cross-examination is that there is
10 nothing independently new that's in our testimony. In other
11 words, our testimony deals with Consumers Power Company's
12 documents and their testimony, primarily.

13 And to the extent the Regulatory Staff has re-
14 lied on Consumers' information, that includes a critique
15 of that, in addition.

16 So the analysis that was done in this testimony
17 by Dr. Timm relates solely to the information that Consumers
18 prepared. Well, there are statements as to what the Federal
19 Energy Administration believes are appropriate guidelines
20 and how Dr. Timm does forecasts for the State of Oregon and
21 the State of Michigan and others. That is only as a kind
22 of an example: Here is a good way to do it, and it is not
23 part of our substantive testimony.

24 I want to make it absolutely clear that anyone
25 who is familiar with Consumers Power testimony could read it

arb6

1 and understand our testimony in no more than two or three
 2 hours. That is a representation I am making and will make,
 3 and I just hope the Board will at least look at our testi-
 4 mony in that light, if there are major claims that there has
 5 to be a recess for cross-examination, because the testimony
 6 is long.

7 In fact, all of the exhibits that we have pre-
 8 pared by-and-large have taken Mr. Hains' and Mr. Keeley's
 9 exhibits and just put the correct numbers, or the case we
 10 believe to be correct, right next to them so that you can
 11 immediately see the impact of the difference based upon the
 12 assumption that is set below in graph. There is nothing
 13 now. We have just taken the cross-examination information
 14 and put it in a form that is more easily understandable.

15 Next, I would like to call the Board's attention
 16 to two cases which I think bear upon ultimately, the legal
 17 issues. I would just list, then the cases.

18 The case is the Elizabeth Downs opinion in
 19 Georgia Power Company, Dockets 54-24, 54-25 dated January
 20 11, 1975 in connection with the Georgia Power Vogtle Plant.

21 DR. LEEDS: '75?

22 MR. CHERRY: '77. I beg your pardon.

23 That case also refers to other ALAB decisions.
 24 And the impact of that case is wholly that if there is a
 25 sale of an undivided interest in a nuclear power plant, it

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1 requires a new licensing and the Regulatory Staff in that
2 case took the position that it required a reevaluation of
3 every issue in the proceeding and not just those which have
4 to be updated, et cetera.

5 And I just wanted to make the point that the Staff
6 is taking the position that the law -- I just wanted to make
7 the point that I am pretty sure that the law is clear that
8 a new license is required, and the Regulatory Staff's posi-
9 tion that everything has to be redone and not just updated
10 in the form of an amendment. You have to relicense, and
11 everything.

12 I wanted to call the Board's attention to this
13 because of the insistence of Consumer Power that they want
14 to make that sale.

15 The other case that I want to call to the Board's
16 attention is the Commission's decision in the Kansas Gas
17 and Electric Company and Kansas City Power and Light case,
18 Wolf Creek Unit number 1, Docket SKM-50-402, which is dated
19 January 12, 1977, and in particular page 20 of that opinion
20 which refers back to a test approved by the Appeal Board
21 in ALAB 331 and ALAB 321. And the essentially the issue in
22 that case was whether the Commission had jurisdiction from
23 a declaratory judgment standpoint to assess the environmental
24 impact of work wanted to be done by the Applicant before
25 awarding of a Limited Work Authorization.

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1 And the Appeal Board and the Licensing Board had
2 found in the affirmative on the -- well, agreed on the issue
3 and essentially agreed that the Licensing Board had the
4 jurisdiction to determine the question of whether it would
5 have a significant impact; that is, an off-site matter,
6 that would impact on the cost-benefit prior to a Limited
7 Work Authorization. It had to do with the railroad spur
8 line coming into the proposed site.

9 And then the Licensing Board found that there was
10 no impact of the nature that would prevent that from being
11 done prior to the Work Authorization, NEPA analysis.

12 When the case came before the Nuclear Regulatory
13 Commission, they affirmed the following standard of environ-
14 mental impact that was adopted by ALAB. And they said --
15 the question was:

16 "Whether the spur can be built with so
17 trivial an impact that it can be safely said that
18 no conceivable harm would have been done to any
19 of the interests sought to be protected by NEPA, ---
20 should the eventual outcome of this proceeding
21 be a denial of the Wolf Creek application."

22 And it seems to me that this test is controlling
23 in this suspension hearing and the reason I am bringing it
24 up now is for the Board to consider perhaps that the parties
25 at some later time should file a brief on this point.

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1 But just briefly, for the following reason: The
2 Commission's only authority to permit construction in the
3 absence of a Construction Permit is a Limited Work Authoriza-
4 tion. There is no other ability that the Commission has to
5 permit construction.

6 Now the question that we have right now is almost
7 the same issue. If you leave aside my legal belief that it
8 has to be shut down anyway, it is almost the same issue because
9 the question of the suspension hearing is whether it is
10 going to foreclose any alternative. And I think it is im-
11 portant to note that the Commission phrased it in such a way,
12 the test; that it had such a trivial impact, would foreclose
13 the interests protected by NEPA.

14 And this Board knows that the Regulatory Staff
15 has just had that testimony about the physical characteristics
16 won't affect anything, in effect saying that you can build
17 a plant without any adverse environmental impact.

18 And once you understand what the Commission means
19 by any of the interest sought to be protected by NEPA and
20 you apply that triviality test, I think that that is signi-
21 ficant in this case.

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23 End #1
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The next point that I would like to raise deals once again with the dishonesty of Consumers Power Company, and I say dishonesty because I know have a sworn statement by them in another proceeding which directly conflicts with a statement made in this proceeding, and I intend to submit that to the United States Attorney for procedure under willful and false statement under the Nuclear Regulatory Commission Rules and Regulations.

And I feel an obligation as a lawyer to inform the Licensing Board of the issue. It deals with the Heins' testimony that he has decided there is going to be a derating of Palisades.

The reason I bring it up now is because Consumers Power Company made one attempt to get information in the record through Mr. Noble and may make other attempts.

On Friday I called Mr. Keppler of the Regulatory Staff Enforcement Section in Region 3, to ask him to check on two things for me:

First whether or not the Regulatory Staff was reviewing either from a compliance or a licensing standpoint, steam generator tube problems in Palisades.

And second, whether Consumers Power Company had made any statements in connection with the Palisades proceeding dealing with need for power, et cetera.

I found out the following information:

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Late last year Consumers Power Company filed for amendment. I think it is Amendment No. 20 of the Palisades nuclear power plant, asking for an upgrading of the Palisades nuclear generating station from the current 686 megawatts, to 786 megawatts.

There was an original restriction because of the analysis of the Combustion Engineering ECOS components, and for other reasons, and they limited it to less than the rating power, and they are operating under a provisional license.

In Consumers' submission to go from 686 to 786 to upgrade the Palisades plant, they said that they needed this additional generating capacity, the 786 megawatts, because it was very economical and would help them in late '79, '80 and '81, and implied that they would like to have the Palisades operating at that level in the event Midland is delayed.

That is the implication of the full breadth of the amendment.

Now that statement is a direct contrary statement to what witnesses have testified under oath in this proceeding.

The second point I asked Mr. Keppler to determine is whether or not there was any mention of the derating in the Palisades Environmental Statement concerning the increase to 786, because one would assume that on the cost-benefit analysis of that increase, one would analyze whether or not

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it, in fact, would operate at that level.

There is no mention, I am told by Mr. Kappeler, who checked through one of the inspectors of Consumers' papers in Benton Harbor, Michigan, this morning, of the Palisades plant, that the Palisades ER analysis submitted in January of this year, does not raise this issue at all.

And the Regulatory Staff then filed an addendum to the Draft Environmental Impact Statement, recommended the increase to 786 and said -- and did not state that there was any problem with any of the steam generator tube failures.

The third question I asked Mr. Kappeler to find out was whether or not, if the problem was as severe as consumers states that they had to derate and all that, would compliance do something about it before 1980.

Mr. Kappeler told me on that issue as follows:

Number one, that the question of whether or not Palisades could operate from a safety standpoint was a question of a flow of water through the steam generators. And the less flow there was, the less power they could generate. There presently is an operating technical specification which has the relationship to how much power is generated by the amount of flow -- what is available past the generating tubes. And it is self-executing.

In other words, if there was less, more tubes plugged and less water flowing across the steam generators,

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In light of that technical specification, Consumers is asking for a power level of 786 which is their best estimate there will be no restriction of the flow across the steam generators to limit this power flow, ergo no steam generator problems.

Mr. Keppler specifically stated that at the last inspection when they closed up Palisades, the Regulatory Staff did not find anything that warranted a safety problem with respect to Palisades steam generator tubes, and that nothing they have seen so far -- and I referred them to the Heins' testimony and everything else, changes that view.

He then said to me finally, that if on the inspection of the fuel loading in September and October of this year, they find that Consumers is correct, that they would not let them wait until 1981 to correct the situation. So -- now that is not -- I want to be very clear that Mr. Keppler has not issued some kind of enforcement mechanism. But he told me that if the problem was serious in September, as suggested by the Heins' testimony, the compliance division would ask some very hard questions before they would permit that plant to operate until 1981 without making the repairs.

Now I hope I have reported faithfully what Mr. Keppler said. But the point I want to make is that while you gentlemen and I are sitting in this room listening to

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Mr. Renfrew told us that he still wants more witnesses to talk about the steam generator tube failures, contemporaneously Consumers Power Company is filing amendments in Palmdale which are flat out directly contrary to what I just say.

Somewhere or another you have got to simply begin to believe me that there is massive manipulation in the idea going on in this proceeding for the same reason that Consumers Power internal memoranda have noted. They aren't concerned about regulation by this Board. They think that this Board will not ask the hard questions, they don't believe you will ever suspend this license.

Mr. Raymond had a press conference at the Tri-Lake Airport a week ago and said there is no regulatory agency in hell that is going to shut it down. And because they don't believe you will take any action, they are not really putting in a car. That is wrong.

Now I am not saying this to build me up, I am saying this, this is the way that Consumers has treated this Board in this proceeding, and this is the way they are going to continue to treat this Board in this proceeding. And since there was a suggestion by Mr. Renfrew that there was going to be more witnesses on the steam generator tube problems, I thought it only fair to report what I discovered from the ER.

Now, if anything I have said is untrue, I will

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apologize in the middle of an open pit at high noon.

And I now ask Mr. Renfrow and Mr. Rosso, or whoever else has come over from that law firm today, that if what I said is incorrect about the Palisades environmental report, that it be rebutted promptly.

The final point that I want to make in connection with the testimony is this morning I telephoned Ms. Bartelman of Consumers Power Company, following up conversations I had over the weekend, to find out if there was any proposed new testimony, because I wanted to make sure that this proceeding isn't necessarily going to be slowed down.

I was told that the only revised testimony was revisions to the nuclear fuel costs, that Consumers is doing some revisions on that. Perhaps for a lot of the factors that they made a statement to the NRC in Michigan that they won't have any plutonium recycle. And we have relied on that.

And that statement was first told to me yesterday and confirmed last Friday and I prepared my testimony on reliance of the fact that the nuclear fuel costs were the only portions of the written testimony of Consumers Power that would be changed.

I am not suggesting that Consumers Power Company can't do whatever it wants. I am only suggesting that if there are changes beyond that, I would oppose them in the

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suspension hearing. Those ought to come at a later point.

Finally this morning, in discussing with Mr. Hoefling and Mr. Feld, when I went over to the extent of my ability, the outline of Dr. Timm's testimony when I submitted it, I asked them -- we had a conversation and Mr. Feld said at that conversation, "Oh, isn't that the load forecast that Mr. Ingersol. . ." and I may be wrong in the name ". . ." is preparing for this proceeding."

And I said, wait a minute. Are you telling me that you have done some kind of a forecast that has not yet been tendered for this proceeding?

Mr. Hoefling then stated to me it was not intended for whatever was being prepared to be submitted in the suspension proceeding. But they may offer it, in any event.

Now that is the first I heard that there was going to be some different need for power information by the Regulatory Staff. And I will, if that testimony is offered, oppose it being used in the suspension hearing. I don't know what it says, and I don't really care what it says. But at some point it seems to me we have got to begin to limit what it is we are going to look at before we decide.

DR. LUESKE: On what basis, Mr. Cherry, as being untimely?

MR. CHERRY: Yes, sir, as being untimely.

When the original testimony was filed, I said I

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had no direct testimony. Dr. Timm's testimony is in the nature of rebuttal testimony, and all it does is really pull together what is already in the transcript.

As a matter of fact, I could pull the cover off and change it and make it "Proposed Findings of Fact," and take out some opinions and it would serve the same purpose.

So that it is very clear that when the testimony of Dr. Timm is read, we are not making our own forecast.

There are two other short points:

At one point in the testimony, I asked Dr. Timm, after he has given his opinions on Consumers load forecasting, whether or not he has a better method for load forecasting.

He says yes, and he refers to three -- five reports which he has just completed which have been adopted by the State of Oregon in an econometric model. Those are referred to in the testimony as Midland Intervenor's Exhibits 41, 42, 43, 44 and 45.

41 is the report itself, and 42 through 45 are the underlying models. These reports have no substantive significance in this proceeding insofar as they are concerned. They are merely an example which would put some meat, really, on the oral testimony of Dr. Timm to show the kind of study that ought to be required of the utility. And in the remanded hearing, we would intend to use that model if we can raise the funds, and I am trying right now to actually make a forecast of

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Consumers' system, if we get the underlying information.

So at some point it will be substantive.

I did not tender those reports to the Regulatory Staff or the Board or the Parties because they were just printed up. This has gone through a series of revisions. They are being air expressed and will be here Wednesday morning, and then I will distribute copies to everybody. But, as I say, they have no substantive significance on the testimony.

There are, however, copies of 41, which is the summary report; 42 and 43 which are two of the backups, and I gave those this morning to the Regulatory Staff for review. That is about 90 percent of the information, so you can understand at least what the model does.

I told the Regulatory Staff that would they look at it this afternoon and then turn it over to Mr. Rosso so he could see it tomorrow, and by Wednesday I will have copies for everybody.

Lastly, I have arranged, based on my estimates of what will take place Monday, Tuesday and Wednesday, for Dr. Timm to take a midnight flight on Wednesday night, and arrive here at 6 o'clock in the morning. He has duties which prevent him from being here either Monday, Tuesday or Wednesday.

He was here on Sunday and has to go back. He is

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testifying before two state legislatures on matters -- he could not change, he tried -- both Tuesday and Wednesday, and he is taking a night flight out.

I will be prepared to put Dr. Timm on the stand at 9 o'clock Thursday morning, even though he gets in at 3 or shortly thereafter. Dr. Timm has agreed to be available Thursday, Friday, Saturday, Sunday and if necessary on Monday. That is five days for the cross-examination of Dr. Timm.

If the cross-examination extends much into next week, I will be forced to withdraw Dr. Timm's testimony because I cannot be here next week. I will have to wait and see if that is a real problem.

But the reason I talked about the testimony earlier is that I do not believe that the cross-examination of Dr. Timm by Consumers Power Company should really take more than half a day; and by the Regulatory Staff perhaps even less. And I have allowed for 100 percent leeway on that one day.

The reason for this, every single assumption is stated. There doesn't have to be a question, what do you mean by this sentence. It is all very carefully laid out.

And I will make one other offer, if there is anyone who has received Dr. Timm's testimony that believes a particular part of it or all of it is not sufficiently understandable

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in order for them to prepare for cross-examination, if they will let me know as soon as possible, I will get them an answer or put them in touch with Dr. Finn within one hour from whenever they call me, whether it is 10 o'clock at night or 10 o'clock in the morning.

That is all I have.

MR. ROEFLING: Mr. Chairman, a few points.

On the discussion we just had with Mr. Cherry, I take it what Mr. Cherry has basically done is related some of his thoughts for whatever stimulation they may provide to the Board, and should not be construed as anything other than that; certainly not testimony in this proceeding.

On the Palisades question, just one point I would like to make that might help put this in perspective.

It is true that a new ER has come in from Consumers regarding Palisades and the draft statement has gone which does reflect an increased power level for that facility. But that is totally independent of the question of what the steam generator tube capabilities are or what the safety technical specifications on those steam generator tubes are. The environmental assessment is being made at the design capabilities of the plant.

We have technical specifications on the steam generator tubes which may limit the operations of those tubes. In any event, associated with the Draft Environmental

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Statement which addresses the environmental concerns, will be a safety review of the full-term operating license which would address, and be the appropriate vehicle to address steam generator tubes. And to date the Staff has not issued any evaluation of the safety problems, safety issues associated with Palisades for application of the full-term operating license.

DR. LEEDS: Mr. Hoefling, does that DES discuss need for power?

MR. HOEFLING: Yes, it does. I am not familiar with the specific points that it raises, but it does discuss need for power, and basically reaches the conclusion that the additional operating of the plant, the additional electric megawattage is justified based on an examination of Consumers' system need for baseload capacity and the other traditional concerns that involve the need for power issue.

MR. CHERRY: I just handed Dr. Leeds my copy of the draft addendum to the Palisades requirement impact statement. There are no notes in it. There is some scribbling on the front cover which just identifies it and says, "Hold for the Midland hearing." And there are no notes in it.

You may look at it if you like, Dr. Leeds. At some point I would like it back.

DR. LUESKE: Mr. Hoefling, could I stay with this a

minutes?

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Application has been made. Has it been accepted or docketed by the Staff?

In other words, is it active?

MR. HOEFLING: For the operating?

DR. LUERKE: Yes.

MR. HOEFLING: Well, Consumers has come in for an operating of their license. This requires two examinations. There is an environmental examination, which at this point has been conducted and is reported in a Draft Environmental Supplement to their Final Environmental Statement.

There will also be a Supplement to the Safety Review, if you will, basically updating the original Safety Evaluation Report which supported the application for the power level that they are presently operating at.

That has -- the schedule for that is indefinite.

end 2

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MR. CHERRY: Mr. Chairman --

MR. HOEFLING: I'm not finished yet, Mr. Cherry.

MR. CHERRY: I will oppose rebuttal testimony.
It's not contemplated by the rules.

MR. BRENNER: Mr. Chairman, excuse me.

MR. HOEFLING: I don't think I've finished yet,
Mr. Chairman.

MR. BRENNER: I ask that counsel be admonished to
let other counsel finish and request permission from the
Board to speak as opposed to just jumping in.

It's not proper procedure in a court of the
United States, and it's not proper procedure in this hearing
for counsel to take upon himself to control the proceedings
as he sees fit.

The Board must recognize counsel, and for the
Board to sit back while this occurs is very bad for procedure
in this hearing. The Staff respectfully requests the Board
to admonish Mr. Cherry for that kind of conduct.

CHAIRMAN COUFAL: Go ahead, Mr. Hoefling.

MR. HOEFLING: On the question of the Timm testi-
mony, the Staff obtained that testimony this morning and
we're looking at it.

We share Mr. Cherry's view that this proceeding
should move forward and all efforts should be made to look
at that testimony and to be prepared to cross-examine Mr.

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Timm at the earliest possible moment.

The Staff is in no position now to indicate when it would be able to cross-examine Mr. Timm or how long that cross-examination will take. We're looking at it. We think that we'll be able to report to the Board tomorrow as to what time frame we would need to cross-examine and what the depth of that cross-examination would be.

CHAIRMAN COUFAL: Do you have any idea when you'd be able to cross-examine?

MR. HOEFLING: That's one of the questions that we'll get back to the Board on at the earliest possible time.

I have two other preliminary items which don't touch on the monologue which Mr. Cherry just delivered.

The Staff has prepared responses to the interrogatories which the Board ruled on last week. I've given copies to the parties. These will be formally served today out of Bethesda. I give copies now to the Board. There's a response and an attachment.

(Documents distributed.)

We have one defect in the interrogatories. Mr. Echols, who prepared one of the responses, has not been able to execute the affidavit since this work was done over the weekend. We would propose to serve Mr. Echols' sworn affidavit at the earliest time when we get back to Bethesda.

One final point concerns the sequestration order.

We began today's session by shooing the Staff's witnesses out of the hearing room. As the Staff has pointed out numerous times in the hearing, and also in its briefs to the Appeal Board, the Staff feels that it is continually being prejudiced by this ruling.

The Staff inquires of the Board as to the status of the Board's response to the Appeal Board as requested in recent ALAB on this question.

CHAIRMAN COUFAL: The Board has responded to the Appeal Board, and you'll be getting copies of our response.

MR. HOEFLING: Thank you, Mr. Chairman.

CHAIRMAN COUFAL: Are you through, Mr. Hoeftling?

MR. HOEFLING: Yes.

CHAIRMAN COUFAL: Mr. Rosso?

MR. ROSSO: One moment, Mr. Chairman.

(Pause.)

MR. BRENNER: Mr. Chairman, excuse me. While Mr. Rosso is taking a pause for a moment, is that response available today? We haven't gotten it.

CHAIRMAN COUFAL: We haven't gotten it here. The whole thing was done by the magic of electronics.

If you want to hear what was said before the mails get your copies, you can call my secretary at 492-7600 and she'll read it to you.

If you want someone from the Staff in Bethesda to

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go over and pick up a copy and get it to you by telefax or something, have at it.

MR. BRENNER: May I ask how many pages it is? We might be able to do that.

CHAIRMAN COUFAL: Well, I wrote it out long-hand. It was about four pages, jumping every other line, on letter-size paper. It's not very long.

MR. BRENNER: Thank you, sir.

CHAIRMAN COUFAL: Mr. Rosso?

MR. ROSSO: Yes, Mr. Chairman. I have several preliminary matters.

I don't propose to respond at this point to Mr. Cherry's statement, except to point out that, of course, it is not evidence and that there were some points in it which raise questions in my mind with regard to the accuracy of his reporting to Mr. Keppler of the telephone conversation of what has gone on here.

He did say that he discussed with Mr. Keppler the safety problems. Well, as I recall the Consumers' witnesses have testified that this is not a safety problem; it is not a question of tube failure. It is a question of tube degradation and of plugging tubes when a tube approaches the margin of safety required, so no safety problem is raised here.

I'm not at all surprised that Mr. Keppler has said

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the NRC Staff, when it went through the inspection process the last time around, found no safety problem; because, as we have said, there are none. We would have been very surprised if they found any.

I am not at this point familiar with the Environmental Report Supplement that was referred to by Mr. Cherry, but Mr. Noble in his testimony when he is put back on the stand will certainly address any of Mr. Cherry's questions.

With regard to Dr. Timm's testimony, I only know one thing: We were served somewhere around noon, I believe, today with an 82-page piece of testimony. I have not yet seen it. It went to the Xerox machine first, and the Xerox machine isn't even through copying it. I don't know how long it's going to take us to get ready to review, or rather to cross-examine Dr. Timm.

Whatever Mr. Cherry says about the basis for his numbers, the question will still remain what he did with the numbers, how he uses them. It will take some analysis by experts to determine what he did and how he did it and whether it was proper; consequently, it takes time in order to review this kind of material.

I don't know how long it's going to take. It may be that we'll be ready, you know, in a few days. It may be that we won't be for a substantially longer period of time. We just don't know.

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I ask the Board to bear in mind the fact that the people who would be reviewing Dr. Tamm's testimony for us are also the people who are testifying here in these proceedings. They'll be in court for part of the time, and they'll be working in preparation to testify for part of the time so that their time availability to review Dr. Tamm's testimony is somewhat limited.

With regard to new testimony, I don't know what Miss Bartleman said to Mr. Cherry. He phrased it two different ways in his remarks.

First he said that she told him there would be no new testimony except on nuclear fuel costs, and then later he said that she told him there would be no changes to the written testimony already submitted except with regard to nuclear fuel costs.

The second is true; the first is not. There will be some additional testimony with regard to points that have been raised during the course of this proceeding.

Consumers intends to answer some of the questions which this Board has posed and which have been posed by the other parties in cross-examination by submitting additional witnesses this week.

I have a few preliminary matters myself. First of all, I have copies of the Forecast 2 document which was marked as our Exhibit 30 available here. I'm prepared to

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present the three copies required to the Reporter and copies for the parties and for the Board.

CHAIRMAN COUFAL: What are they, Mr. Rosso?

MR. ROSSO: This is our Exhibit 30, which was marked last week.

CHAIRMAN COUFAL: The Bechtel forecast?

MR. ROSSO: That's correct, sir.

If I can just distribute those right now, it won't take but a minute.

(Documents distributed.)

MR. CHERRY: Mr. Rosso, there was also an Exhibit 28 that you owe us. Do you have that?

MR. ROSSO: I'll see.

MR. CHERRY: Mr. Chairman, while Mr. Rosso is doing that, may I ask at the conclusion of his remarks if you would ask him, either on your own behalf or for me, for the names of these additional witnesses plus the scope of their testimony?

I may take the position that such testimony is not necessary or barred from this proceeding, but I want to know now the scope of what Mr. Rosso was talking about for planning purposes. I would ask the Board to make that inquiry for me.

MR. ROSSO: I can give you that now.

We will have some redirect of Mr. Bickel. We'll

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have some direct testimony from Mr. Mosely with regard to the load forecasting process and the probability encoding analysis. We will have some redirect for Mr. Heins, Noble and some other gentlemen whose names I do not know -- Mr. Renfrow is working on this -- will be available to testify with regard to Palisades.

There is still some direct testimony of Mr. Keeley which remains to be put in, and there may be some additional cross-examination of him. I do not know. There will be some redirect.

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We are also planning at this time to present Mr. Borwis, the Financial Vice President of the Company, with regard to the financing of the project. And it is possible that we will present witnesses with regard to coal cost computations and what has been, I think, generally referred to as Table D-5.1, if that's correct, of the Environmental Report Supplement, which is Consumers' evaluation of the cost of the Dow alternative versus the Midland Nuclear Plant alternative. We may be addressing that, too. We haven't definitely made up our mind on that, but that would be all that we're planning to do now.

Secondly, I do have an original and four copies of our Exhibits 24 and 29 for the Reporter here, too.

I guess, Mr. Cherry, I do not have the additional copies of 23. I will be sure to provide them later this

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afternoon or tomorrow, as soon as I can.

We would also like to have marked as our Exhibit 31 and put into the record Dow's responses to Mr. Cherry's interrogatories. I believe Mr. Cherry had originally started to put these in at some point in the record -- I'm not sure of that -- but at any rate we do have those here, and we believe they should be part of the record.

I ask the Reporter to mark that as Consumers Power Company Exhibit 31.

CHAIRMAN COUFAL: It may be so marked.

(The document referred to was marked Licensee's Exhibit No. 31 for identification.)

CHAIRMAN COUFAL: Is there any objection to the receipt of 31?

MR. HOEFLING: No objection by the Staff.

CHAIRMAN COUFAL: There being no objection, Licensee's Exhibit 31 is received.

(The document previously marked Licensee's Exhibit No. 31 for identification was received in evidence.)

MR. ROSSO: Mr. Chairman, there has also been a question here with regard to some proprietary information. Consumers has moved for a protective order with regard to

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this information. It relates to fuel cost, nuclear fuel cost.

I have here copies of an affidavit of Charles E. Bayless of Consumers Power Company with regard to the proprietary nature of this material. Attached to the affidavit is the material for which a proprietary claim is made.

I am prepared to distribute this to the Board, naturally, for its review and would have no objection to distributing it to the parties at this time, provided that they accepted it pursuant to a proprietary order of this Board until -- or a proprietary agreement between the parties until the Board ruled on the proprietary nature of the documents.

CHAIRMAN COUFAL: Does anyone object to receiving it in that manner?

MR. CHERRY: Yes, I object strenuously.

I do not believe that the cost of nuclear fuel, which is a significant cost-benefit basis, ought to be proprietary. That prevents me from making telephone calls to a lot of people who might give me some information in connection with that information.

It's just absolutely incredible that the cost in the cost-benefit analysis is proprietary. I don't understand it, and I think that the Board should think very, very carefully before they approve the cost of nuclear fuel as a trade secret in this proceeding. I don't understand a claim of proprietary.

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For example, in Dr. Firm's testimony he refers to the proposed rate increase by Consumers Power Company as considered proprietary. We were told that the information was claimed proprietary by Consumers Power Company. I mean, that's just incredible.

MR. HOEFLING: Mr. Chairman, the Staff shares some of Mr. Cherry's concern in this area. Fuel costs are a fundamental issue in these proceedings and should be viewed in that regard.

But I think we ought to let the Board take a look at it and see what they have before them before we prejudge the matter.

DR. LEEDS: Excuse me, Mr. Hoefling. I'm not sure I understand you when you say you share some of his concerns.

Why don't you tell me what your concern is, and then I'll understand it.

MR. HOEFLING: Fuel costs, Dr. Leeds, are a fundamental component of the cost-benefit analysis, the determination of which is the preferred alternative.

The fuel costs of coal versus nuclear, for example, determine the issue, and to the extent that fuel costs -- exploration of the inputs that the Licensee used in performing his analysis would be limited through some type of a proprietary arrangement, to me that would be

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significant; however, it may well be that the material you have before you does not have any significant impact on making an inquiry into what the fuel costs are, whether fuel costs would be appropriate.

DR. LEEDS: Maybe I'm misunderstanding you. Are you saying to me that the material we have may or may not involve something that is fundamental to our concern, that we have to make that evaluation without having inputs from the parties? Is that what you're saying?

MR. HOEFLING: I think if you want inputs from the parties, that's certainly a way to do it.

I think what I'm saying is the issue of fuel cost is relevant, clearly, and is important, clearly; and inquiry into those issues is required.

I don't know exactly what the nature of the proprietary material is, but to the extent it bars any meaningful inquiry its proprietary nature has to be viewed with caution.

DR. LEEDS: Are you saying that fuel costs in general cannot be proprietary?

MR. HOEFLING: No. I'm saying I don't know what the nature of the information is. I don't know how that information impacts on the licensee's analysis.

To me it would depend on the impact of this particular piece of information -- inquiry into this particular piece of information would impact on the analysis

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would be the crucial factor.

DR. LUEBKE: Mr. Rosso, is it the case that this entire document, page by page, sentence by sentence, is viewed as proprietary, or maybe only one or two pages or one or two sentences?

MR. ROSSO: Dr. Luebke, let me ask Mr. Renfrow to answer that, because he's been more involved in this area.

MR. RENFROW: These are the documents which the Board has already reviewed and turned back over to us. They were marked as proprietary.

I believe we've removed all of the cover pages, and what you have there, Dr. Luebke, is entirely fuel cost and as such is all proprietary.

I would like to make two statements, and then perhaps the Board can review it.

One was the Wolf Trust case with the Kansas City Company as to the costs of uranium as they appear in the contract and whether or not they can be considered proprietary.

As the parties will note, that is not the data that we're turning over to you at this time. The data that you've ruled upon are Consumers Power Company's own internal estimates of what they believe the price of fuel will be, which to me is different than a contract price entered in between two parties upon which rates are based, et cetera,

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et cetera, which the Wolf Creek board addressed.

These are actual estimated costs of what Consumers expects to pay, and as such we have claimed them as proprietary. It's a simple problem. As is usual, Consumers buys its uranium feedstock on the open market. At the time a contract is entered into, certainly the rights set forth in Wolf Creek come into play, but prior to that time to release this information out to all the vendors with whom Consumers is going to bargain to get the lowest price of fuel that they can get would give them a tremendous advantage.

So the documents that we have claimed are not contract documents where price has been set between two parties. It is the estimates of what Consumers believes it will have to pay for the cost of fuel.

DR. LUEBKE: Mr. Renfrow, if this is reviewed and judged proprietary, then do you have to offer a non-proprietary information on fuel costs?

MR. RENFROW: I've looked at that, and indeed Mr. Lyle and I are still looking at whether or not we could provide that.

Once you look at that data, Dr. Luebke, you're going to find out that most of it is the same thing -- just at different points in time -- and has prices. So as to the extent that I could provide a non-proprietary version of that, I could certainly take off the prices and leave,

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for example, the years.

But the proprietary part, in which there's not a lot of writing in here -- they're basically data sheets, as you will see, with years and prices and megawatts per ton set out in those documents.

DR. LEEDS: Well, let me make one comment first, and then I have a question I want to ask.

When the Board reviewed this material last week on the claim of proprietary nature with respect to Consumers, we looked at it and said yes, it was a claim of proprietary nature. We did not rule at that time whether it was proprietary.

MR. RENTROW: If I gave that inference, I did not mean to.

DR. LEEDS: All we did was look at it and say yes, there was a claim, and we turned it back to you for getting the affidavits.

My second point is, why couldn't I, if I was clever, take the data that's in the open record, namely, in the Environmental Report and so forth, on fuel costs, which must be in there, and back calculate out what you've done here?

MR. RENTROW: Maybe, Dr. Leeds, if you were very, very bright you could, but I'm not really sure you can do that. I certainly couldn't do it.

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I'd have to ask Mr. Bayless if he could do it, because the price that's in, for example, the Environmental Report is a levelized price for fuel over a period of time.

DR. LEEDS: But you've told me the constants to get the levelized price. You've told me the megawatt ratings, and I can calculate the burnup. That's in the open record, presumably. Once I got that, I'd know how many metric tons per year and all that kind of thing, and I could back it off.

MR. RENNROW: I can't answer your question. As I said, I don't know whether you could or couldn't.

DR. LEEDS: Secondly, I'm missing a fact. Do you have a contract?

MR. RENNROW: Do we have a contract?

DR. LEEDS: For the fuel.

MR. RENNROW: We have a contract with B&W for fabrication, which I'm trying to get from B&W as to whether or not they're going to claim this is proprietary.

Mr. Cherry and I have exchanged letters on that. If they are not, and that is part of our contract, I'm going to turn that one over. I'm supposed to hear from that one by this afternoon.

If they say that that contract is proprietary, I'm going to ask them -- or they've told me, committed to me, that they will be out here and have the affidavits to me by this evening so I can get them to the parties and the

b1c 13

Board can rule.

Consumers Power Company will have no objection to turning over that contract. Now, that's the one contract that Consumers has that relates to fuel prices.

There's an NFS contract, which I've already given to the parties, along with some testimony which relates to this; and there are --

DR. LEEDS: What does NFS do to the fuel?

MR. RENFROW: It's an NFS contract which Mr. Cherry asked for.

Basically, NFS has reprocessed some fuel for Consumers at its facility. The fuel came out of the Big Rock Plant. There is currently a dispute going on about whether or not NFS owes Consumers a certain amount of like material by virtue of that reprocessing.

There are some other contracts, Dr. Leeds, and I would have to go back and see whether or not they are in effect or not in effect at this time.

DR. LEEDS: I'm still lost. Let me go back.

You've got a contract with some company that's going to manufacture the fuel. I presume there's an enrichment contract with ERDA sitting somewhere down the line, right?

MR. RENFROW: Yes, sir.

DR. LEEDS: ERDA delivers the fuel to this manufacturing firm, and they put it in the form of fuel rods,

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right?

MR. REMFROW: Right.

DR. LEEDS: Do you have a contract for the uranium yellow cake?

MR. REMFROW: That's what I was trying to answer.

The BAW contract is also a supply contract. In addition to fabrication it's a supply contract.

Without getting into all the details on that, there have been a number of amendments to that contract, which I don't really want to state that I know exactly, but basically uranium has been delivered and redelivered.

And there are some additional contracts beyond that BAW contract dealing with yellow cake. I don't have my notes here with me, but there are a number of contracts, all of which are in different stages, dealing with yellow cake.

The fabrication contract is the BAW contract. You asked me about the fuel contracts, and those are different ones. None of those are included in there.

DR. LEEDS: These numbers in here are what, now, with respect to all of the contracts?

MR. REMFROW: Those numbers in there are the numbers which Consumers expects to have to pay for uranium in the years to come.

DR. LEEDS: And what's the number in the

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Environmental Report that you issued?

MR. RENFROW: The number that's currently in the Environmental Report is based upon the estimates of Consumers after the first core for both Unit 1 and Unit 2.

The first core prices are, I believe, contract prices, but I can't tell you which contract it is, Dr. Leeds.

One of the things that we're going to change that we've told you about, which I'm trying to get Rexoxed across the street now so they can get them over here to the parties today, will be that first core number, which is now changed. But to the best of my understanding it's only the first core that's based on some of the contracts. After the first core -- in other words, all the reloads, all the way out, are based then on what Consumers estimates it will have to pay for yellow cake.

DR. LEEDS: That's first core for both plants?

MR. RENFROW: Yes, sir.

MR. CHERRY: If you're done, Mr. Renfrow, I have a comment.

DR. LEEDS: Thank you, sir. I appreciate your patience.

I'd like to return this to you unopened.

(Document handed to Mr. Cherry.)

MR. CHERRY: Sure.

DR. LEEDS: If we want it, I think we can just

ask the Staff for copies, and I'm sure they will provide it to us.

MR. CHERRY: Dr. Leads, I'd just like to point out this, that Mr. Sandrow is correct that I did ask for all of the contracts with anybody that deal with uranium fuel or the uranium fuel cycle.

I got a letter back saying some are proprietary, that if I will sign a proprietary order they'll give it to me; otherwise, they won't.

Now, that was some months ago, and I haven't heard from them. You know, this stuff is really incredible. If two companies sign a contract it's proprietary, and what's underlying.

The problem with proprietary is that the nuclear industry, and particularly Consumers, doesn't want a widespread examination of how quickly nuclear fuel costs are escalated. They don't want that. They don't want a reporter, for example, to get ahold of the fact that it's going to go way up.

But not permitting me to use that information, whether it was a contract or a fuel cost -- I mean, this isn't a patent or a secret technology. Consumers' negotiating position is certainly secondary to the public interest in having information.

Now, if I take that information and I discuss it

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with Dr. Timm and I tell him he can't talk to anybody about it, he can't talk to some other utilities and see what their fuel cost estimates are, he can't talk to any other vendors and so forth, then that material is essentially useless to me and I won't take it on that basis.

I will make a motion to strike Mr. Kealey's testimony on the grounds that in fact they have to put in a non-proprietary version that won't have any numbers in it, and then you deal with the impact of the cost-benefit analysis without numbers.

Lastly, Mr. Rendrow admitted to you, although he took a very circuitous position because he's a bright lawyer and he didn't want to answer you directly, that the only difference between the numbers they have claimed proprietary and the numbers in the Environmental Report are zero. In other words, you could back calculate and the basis is the same.

I don't see any need for this proprietary stuff. This is not a Westinghouse report that says it will take four generators to blow the emergency core cooling system. Westinghouse tried to keep that proprietary for a long time because they didn't want anyone to know how serious that system was.

You've got to bear in mind now that there are traditional rules with respect to proprietary which talk

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about certain things that are protected, but it's not an absolute privilege and it can be waived. To adopt the traditional rule of a claim of proprietary or any one of those privileges where you stop information from coming on the record is to decide the issue against the party claiming the privilege.

You know, you take the informant's case. If the FBI or the United States Government refuses to give you the name of the informant or the information, then they can't prosecute the criminal. Well, here Consumers Power Company is seeking the continuation of a privilege.

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1 CHAIRMAN COUFAL: Well, Mr. Renfrow or Mr. Rosso,
2 you say this data in these items are projections by Consumers
3 as to what the costs of uranium will be over a period of
4 time? I don't want you to go through them one-by-one, but
5 is that roughly it?

6 MR. RENFROW: Well, I don't want to limit to the
7 cost of uranium without actually going through here. Some
8 of them are actual fuel cycle costs which would take into
9 account increased costs in fabrication, increased costs for
10 enriching, et cetera, et cetera. Some of them are lumped
11 that way. Others of them have been broken out in somewhat
12 better form. But it all has to do with cost that Consumers
13 expects to pay in the future for its nuclear fuel cycle
14 costs. By that I mean, fabrication, yellowcake, et cetera.

15 CHAIRMAN COUFAL: Supposing your claim of
16 proprietary information is sustained; what is there around
17 that the parties can look at to try to arrive at how you got
18 where you got?

19 MR. RENFROW: The proprietary claim, Mr. Chairman,
20 the only thing the proprietary does is it allows you to give
21 it to the other parties, to the proceeding and to yourself
22 to reach a decision based on those numbers.

23 Mr. Cherry spoke about balancing and indeed
24 that is what you are required to do. You have to balance
25 whether or not that information should be released to the

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1 public as opposed to just the parties to the proceeding.
2 Proprietary information does not just mean that the Board
3 can keep it and Mr. Cherry can't look at it. It means that
4 you can't give it to Mr. Cherry and Dr. Timm -- and of
5 course, he's right, you cannot go out and look at it.

6 The balancing to be done is what you feel the
7 need is to release it to the public versus what would re-
8 sult to Consumers by having those estimates released, so
9 that when they went out to buy and to contract for these
10 services, they would be in essence locked into that position.

11 CHAIRMAN COUFAL: You are saying that it can't
12 be released to the public beyond -- it can't go beyond Mr.
13 Cherry.

14 Well, how about his claim that he needs to talk
15 to people that are involved in buying uranium to find out
16 what validity there is for the numbers.

17 MR. RENNIFROW: I guess, Mr. Coufal, that Mr.
18 Cherry claims that he needs to do that. I think that that
19 is what this Board needs to balance; whether or not indeed
20 that claim is viable. Dr. Leeds asked me a question --
21 there were prices, for example, in the press, on uranium.
22 Perhaps he does, but that is really what the Board has to
23 balance.

24 And that's what that proprietary arrangement
25 was set up to do, was to have the Board balance what he says

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1 he needs to do with it versus the reason why we requested that
2 it be proprietary and made that decision.

3 DR. LUEBKE: Mr. Renfrow, if we could find in
4 the Wall Street Journal or some other place the future price
5 on uranium, we could use that instead of this proprietary?

6 MR. RENFROW: I am sorry, Dr. Luebke.

7 DR. LUEBKE: You just said you could get a world
8 price or some such from some place. And if it were listed
9 in the commodities futures, in the pages of the Wall Street
10 Journal, if I could use it -- but you are saying if we as a
11 Board find some other price of uranium we like, we can use
12 it?

13 MR. RENFROW: I didn't say that at all.

14 DR. LUEBKE: You want us to use this one?

15 MR. RENFROW: I believe Mr. Cherry could use the
16 for his purposes of cross-examination as to whether or not
17 those numbers have any validity. It is those numbers that
18 want in.

19 And Mr. Cherry says in order to test those num-
20 bers, he needs to go out and talk to other people and see if
21 they have any validity.

22 DR. LUEBKE: It seems to me that he can do that.
23 If I understand it correctly, the numbers are in the ER, and
24 can you check out those numbers, Mr. Cherry, with other
25 suppliers?

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1 MR. CHERRY: Well, we haven't done the kind of
2 back calculation that is necessary, we think, to do a full
3 examination of nuclear fuel costs which probably would be
4 available in terms of that information. I have been asking
5 for the fuel cost information for, I would say, for eight
6 weeks now. First I got an index; then I asked for it; then I
7 got another index and then I got a Board ruling and then I
8 waited a week for this, and then they said, we are not
9 satisfied, et cetera.

10 So I have just gone ahead and assumed, because it
11 has taken so long to get Consumers' backup information, that
12 we would analyze the nuclear fuel cost question from a
13 qualitative standpoint as opposed to a quantitative. Every-
14 body knows they are going to go up and here are the factors
15 that are pressing on it.

16 DR. LUEBKE: Let me ask the Staff --

17 MR. CHERRY: At the remanded hearing, though, Dr.
18 Luebke, I do want to make a very detailed study of those
19 projections. And the kind of case that I am going to put on
20 in the remanded hearing is going to be drastically expanded
21 from what I am putting on at this suspension hearing, and I
22 am going to do an enormous investigation.

23 I may, for example, serve interrogatories on every
24 fuel supplier of uranium fuel and send them Consumers' prices
25 and say: What do you think of these?

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1 DR. LUEBKE: Let me ask the Staff: Do you have
2 an expert who knows uranium prices and then we don't have to
3 use these?

4 MR. HOFFLING: My expert is not in the room, but
5 I believe that the Staff has used -- has made independent
6 assessment of nuclear fuel costs and is prepared to speak to
7 that. I can check that in the near future.

8 DR. LUEBKE: I thought you probably might have
9 said --

10 MR. BENFORD: I would like to respond to one
11 thing, Dr. Luebke and Mr. Cherry. I did receive a request
12 from him and I answered that request and the Board has copies
13 of that. And I thought I answered his request fully and had
14 not heard from him since.

15 Any additional information that he wants, I would
16 be happy to turn it over.

17 MR. CHERRY: I would like all of the contracts
18 and I am not going to take them under proprietary order. It
19 is now your obligation to make that claim of privilege and
20 turn them over to the Board, as it was four weeks ago.

21 You told me if I would sign an order you would give
22 them to me. I am not going to sign an order with respect
23 to a contract, and I would now ask for you to take all of
24 your fuel contracts, submit them to the Board and explain why
25 you want to keep the contracts proprietary.

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1 CHAIRMAN COUFAL: Does any of you have any pre-
2 cedent with regard to Board rulings on these kinds of claims
3 to proprietary with regard only to fuel prices? I am not
4 going -- talking about --

5 MR. RENFROW: I think I would refer the Board, Mr.
6 Chairman, to the Wolf Creek Kansas City Gas and Electric
7 that came out; there is both a Licensing Board decision and
8 an Appeal Board remand and another Licensing Board decision,
9 and I do not know if the Appeal Board has ruled on that.
10 They have set out the arguments very well.

11 As I said, the case is somewhat different because
12 there it was a contract. But they set out the arguments very
13 well and there was a two-member majority and a one-member
14 dissent on releasing the documents and they have set it out
15 very well.

16 CHAIRMAN COUFAL: Do you have the citation for
17 that?

18 MR. RENFROW: Kansas City --

19 MR. BRENNER: Kansas City Gas and Electric.

20 MR. CHERRY: I think it is the same one on the
21 remand that I have cited here earlier in my argument.

22 CHAIRMAN COUFAL: That was a Commission decision.

23 DR. LEADS: Mr. Renfrow, realizing that this
24 is a federal proceeding, I still have a question with re-
25 spect to a public utility which is regulated by a state

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1 commission. Do you have to turn over the fuel prices to
2 them?

3 MR. RENTROW: I can't answer your question.
4 I know they turn over fuel prices, but some of them, Dr.
5 Leeds, I know for example they don't have the suppliers
6 with the contracts so that they can tell -- the contracts,
7 for example, on coal.

8 I do know they turn over their cost information
9 on some type of an agreement. I would rather not say, to
10 the best of my knowledge. I will go back and ask them as to
11 how they provide that to the Public Service Commission.

12 DR. LEEDS: If it is already out then it doesn't
13 matter.

14 MR. RENTROW: I have asked Mr. Bayless before
15 he signed this affidavit; we do not -- it could well be
16 we don't release it.

17 CHAIRMAN JOSEPH: Does anyone know if NRC decisions
18 are in the judges' libraries?

19 MR. RENTROW: Mr. Chairman, I am going to have to
20 go back with -- when the witnesses starts and we have some
21 documents to deliver. I have, I believe, right where I can
22 get my hands on it, a copy of that Appeal Board case and the
23 Licensing Board case and I will have them Xerox two copies
24 and bring it over with the other stuff.

25 Perhaps then we can move on.

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1 DR. LEEDS: I see a few hands being raised. If
2 you have got a fast Xerox machine, why don't you make enough
3 copies so that the other people can see it.

4 MR. BRENNER: Mr. Chairman, in the meantime, I
5 am not sure where we are at. It seems to me there has been
6 a lot of discussion which hasn't moved this proceeding
7 along over the past 45 minutes on this question.

8
9 Regardless of Mr. Cherry's reluctance ultimately
10 as to what the question should be, it is a normal practice
11 when a proprietary claim is made, that the Board and parties
12 be able to see a document on a temporary order from the
13 Board, that they not be disclosed because -- so the parties
14 at least can comment on them. We haven't been able to
15 meaningfully say much without seeing it.

16 I realize Mr. Cherry's concern. I don't know what
17 the Staff view would be; we would have to see it. But if
18 we don't at least have it distributed under temporary order --
19 without of course prejudging the ultimate decision as to
20 whether or not the order would remain in effect -- it is
21 impossible to say much of anything other than these vague
22 arguments.

23 So the Staff's view would be for the Board to
24 release these to the parties under protective order that they
25 not be disclosed pending ruling by the Board.

And we would attempt to give the Board our views

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1 on it orally, if they wish, at soon as possible; perhaps as
2 soon as tomorrow morning.

3 MR. RENFROW: I am perfectly happy to do that,
4 Mr. Chairman. I made that offer when we started.

5 CHAIRMAN COUFAL: I remember that.

6 Does Dow have any interest in this?

7 MR. NUTE: No, Mr. Chairman.

8 You don't want the papers.

9 You don't want them, Mr. Cherry, under any sort of
10 a temporary protective order?

11 MR. CHERRY: Well, the only way I can make a
12 meaningful analysis --

13 CHAIRMAN COUFAL: I ask you to think about it
14 because it might help us if you would look at that and tell
15 us what you think of it.

16 MR. CHERRY: The answer is no. But it isn't be-
17 cause I don't want to help you, but the only way that I can
18 make a meaningful analysis of those papers is to begin to
19 make some telephone calls. They would go beyond Dr. Timm.
20 I would call some people at the Union of Concerned Scientist;
21 I would call some people on the Senate Staff Economic Com-
22 mittee who are doing a report on fuel costs. And I am not
23 going to tell someone: Hey; you can't repeat what I am about
24 to say to you, because I can't give you the help you want.

25 CHAIRMAN COUFAL: I am not going to force it on you.

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1 MR. CHERRY: I can't do it for you. I want you
 2 to know that I would if I could. It is impossible for me
 3 to make that evaluation myself. And my evaluation is going
 4 to have to go beyond Dr. Egan for me to -- I think the
 5 question can be resolved on its merits without my viewing
 6 the documentation, because the claim of proprietary made by
 7 Consumers Power is not a claim of proprietary. It is a claim
 8 that it may affect their negotiation position. That is not
 9 proprietary as the law is defined.

10 Proprietary refers to a secret process or some-
 11 thing that is held back because it is unpatentable, like
 12 the Coca Cola or the number, the design of a fuel core or
 13 something like that. That is what proprietary is.

14 But it has been expanded in the claims of these
 15 proceedings and is just as improper. And I think if you look
 16 at that law -- I will help you with that law if you want --
 17 I think it clear, on the basis of what already has been
 18 described.

19 CHAIRMAN CONRAD: Any party that wants it, this
 20 material, to look at, it may have it. It is distributed
 21 under an order that you shall not reveal it or otherwise
 22 use it until you prepare some argument on whether it should
 23 be proprietary.

24 MR. BRENNER: Clarification, Mr. Chairman.

25 I take it we can reveal it to our expert witnesses

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1 within the Staff on this subject. I realize this isn't for
2 the purpose of full analysis, but I might ask them, just
3 as I think Mr. Cherry would be free to ask Dr. Tinn, whe-
4 ther they have seen these kinds of numbers in the libera-
5 ture before.

6 CHAIRMAN COUFAL: You identified your fuel expert
7 as being here with you, and --

8 MR. BRENNER: We have a witness here, Mr. Chairman.
9 I am not sure he would be the best person to talk to. I
10 would have to check, but it would be within the Staff, cer-
11 tainly, and the Staff commonly receives proprietary documents
12 from applicants and licensees under a claim of proprietary
13 treatment. We then review it and decide whether we will
14 grant or deny the claim.

15 It seems to me --

16 CHAIRMAN COUFAL: We are going to decide this by
17 tomorrow morning, so I don't think you have got time to do
18 all that.

19 MR. BRENNER: I could use the telephone, sir.
20 I sort of resent the implication that the Staff is not en-
21 titled to discuss --

22 CHAIRMAN COUFAL: No one has implied anything,
23 Mr. Brenner. You are sensitive.

24 MR. BRENNER: Time has proved me, if anything,
25 not sensitive enough in this proceeding.

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DR. LEEDS: Keep it.

MR. ROSSO: Keep it?

CHAIRMAN COUFAL: We will rule on that during the break, Mr. Rosso. Just sit down with it now. Let's go to the witness.

MR. ROSSO: I have a couple of other things I have to dispose of first.

CHAIRMAN COUFAL: What do you want?

MR. ROSSO: It won't take long.

The Board ordered us to turn over some written documents after reconsideration of our arguments with regard to privilege. I believe Mr. Cherry already has copies of them; is that correct?

MR. CHERRY: I received a package this morning of about 20 pieces of paper, maybe 30.

MR. ROSSO: These are Consumers' documents which have been declared by the Board to be nonprivileged.

MR. CHERRY: Mr. Rosso, the handwritten documents you gave me are as usual, unreadable. This is the fourth time that I have made this statement to you. The documents you have turned over to me are unreadable. And you haven't done anything about it. If you intend to use them, I am going to raise the issue at that point.

MR. ROSSO: I am not sure that that is fair that we haven't done anything about them. We you have returned

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1 documents to us, designated documents that are unreadable,
2 we have tried to get documents back to you which were read-
3 able.

4 MR. CHERRY: The ones you gave to me during the
5 hearing about last week, all of the handwritten notes on
6 those lined pages, all of them were unreadable.

7 I told Rex Renfrow about that.

8 MR. ROSSO: We are doing our best and so is our
9 Xerox machine. If we give you something that is unreadable,
10 please tell us and we will do our best to get you something
11 that is readable.

12 MR. CHERRY: I just told you that every handwritten
13 document you have given me last week and this week is un-
14 readable. There are no limitations; every document. So do
15 something about it.

16 MR. ROSSO: Okay.

17 The responses to -- we have had some questions
18 from the Staff addressed to Consumers Power Company regarding
19 the Environmental Report Supplement. And we do have the
20 responses to those questions here now.

21 And I hand the original to the Staff. The letter,
22 unfortunately, is not signed and we haven't been able to
23 get Mr. Howell to sign it. There is a copy for all of the
24 parties and I have copies for the Board, too.

25 (Distributing documents.)

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1 MR. ROSSO: Last, the interrogatories answers
2 that we are due to supply today are in typing and they should
3 be here later this afternoon while the hearing is in progress.
4 And we would intend to distribute them at that time.

5 I will say that just as in the case of the Staff,
6 not all of the affidavits which go along with them have
7 been signed. We will have to provide some of them later, but
8 that we do expect to have than;complete answers some time
9 this afternoon.

10 With that, I am prepared to proceed.

11 MR. CHERBY: They were supposed to be provided
12 at 9:00 this morning, Mr. Chairman. I didn't get any.

13 MR. ROSSO: We did our best.

14 MR. CHERBY: And I didn't get a telephone call.

15 MR. ROSSO: Dr. Tinn's testimony was also supposed
16 to be provided at 10:00 this morning.

17 MR. CHERBY: There was no order on Dr. Tinn's
18 testimony.

19 CHAIRMAN COUFAL: All right.

20 Let's go with the witness.

21 (Pause.)

22 MR. ROSSO: Mr. Chairman, I intend to have as
23 our one allowable witness at counsel table Mr. Mosely from
24 Consumers Power Company. I got a telephone call before coming
25 over here today and Mr. Phil Martinez who is standing in the

1 door is with Bechtel. And he asked me whether it would be
2 all right if he sat in on the hearings today. We don't
3 anticipate that Mr. Martinez would be a witness in any way
4 in this proceeding. I told him I would ask the Board.

5 CHAIRMAN COUFAL: If he is not going to be a
6 witness, he can sit in.

7 MR. CHERRY: Mr. Chairman, I have just two com-
8 ments to make. Number one, it is not clear that Bechtel
9 people will not be witnesses either in the suspension or the
10 remand proceeding. And I think the issue -- and I object to
11 Mr. Mosely being their observer. He is a prospective witness
12 here. And I thought Mr. Howell was going to do that.

13 But in any event, I do not believe that -- you
14 see, Mosely and Mr. Bickel are prospective witnesses. If
15 they are cross-examined, Mr. Mosely will hear the cross-ex-
16 amination of Mr. Bickel, and I think that's highly improper.

17 I think that is without the consideration of the
18 Board's order on exclusion.

19 I have no questions right now of Mr. Bickel. If
20 the only reason he is going back on the stand is for re-
21 direct, then presumably a lawyer has to understand the subject
22 sufficiently to ask those redirect questions. He doesn't
23 need any help in asking them.

24 I think it is totally unfair to have Mr. Mosely
25 in here, but I will not object if Mr. Mosely then will not

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1 testify.

2 MR. ROSSO: Mr. Mosely will testify. We expect
3 him to be our next witness after Mr. Bickel.

4 And -- but, we have always had the permission
5 of this Board to have an expert in the same area and this
6 area is load forecasting, at counsel table with us. And
7 Mr. Mosely is the man we would choose at this point in time
8 to help us with regard to Mr. Bickel's testimony. After
9 all, there may be some questions on cross-examination asked
10 of Mr. Bickel on recross and we would want Mr. Mosely with
11 us to help us on that.

12 DR. LEEDS: Mr. Rosso, it has been a long time
13 since we had this discussion earlier. But seems like I re-
14 member the request was made and you pointed out cases to
15 us that said that the company was allowed to have an employee,
16 correct me if I am wrong, as the representative.

17 Now I thought I understood that Mr. Mosely had
18 since retired.

19 MR. ROSSO: Mr. Mosely retired last week. Yes,
20 the company is entitled to have a designated representative.
21 I am not sure -- I have to tell you that I can't remember the
22 discussion or the law on the point very clearly, and I
23 won't represent that I do. I don't know whether it is re-
24 quired that he be an employee. I don't recall that, but
25 I won't go beyond that.

arbl6 1 MR. CHERRY: Dr. Laeds, I think that is an addi-
2 tional reason; that Mr. Mosely is now retired from Consumers,
3 he can only be an assistance in the sense of a third party
4 witness. I think that is irrelevant. I think if Mr.
5 Mosely is going to be the next witness, he should be barred
6 from this proceeding.

7 Remember the big hullaboo about Mr. Howell being
8 the expert. You see, that was done because they wanted to
9 have Mr. Howell around -- you see, they make a commitment
10 that they need a particular guy for the remainder of the
11 proceeding because it suits their purpose at that particular
12 time, because they want the witness to hear the testimony.

13 What has been going on here is they have been
14 violating the spirit of that exclusionary rule but without
15 any standard or criteria, selecting people.

16 The cross-examination of Mr. Bickel, if any, is
17 not going to be complicated. They don't need anybody here
18 and I object to Mr. Mosely, who is going to be the next
19 witness, for the grounds I have stated, plus the admission
20 now -- and I will oppose Mr. Mosely going on the stand, so
21 if you don't oppose Mr. Mosely, I would like you to decide
22 this issue of Mr. Mosely then going on the stand now,
23 because obviously it is prejudicial if he sits here.

24 MR. ROSSO: We are spending a lot of time over
25 this, but Mr. Howell is not designated as the person to sit

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1 at counsel table the last time that Mr. Bickel testified. As
2 a matter of fact, that was Mr. Heins who also is in the
3 load forecasting area.

4 We have indeed applied a consistent standard, or
5 least tried to, in our own light, in regard to who we have
6 at counsel table. And that standard is who can be helpful
7 to us on the subject. It would be pretty silly to have
8 somebody there who wouldn't be any use to us.

9 And consequently, at this point in time, we
10 believe that Mr. Mosely is the man who would be most helpful
11 to us.

12 Incidentally, I am told that Mr. Mosely is a paid
13 consultant to the company even though he is retired as an
14 employee.

15 MR. CHERRY: Do you realize that there is no
16 attorney client privilege in any of those conversations
17 that Mr. Mosely has with Mr. Rosso? And I just want Mr.
18 Rosso to go into this with full hands, that if he begins to
19 have conversations with Mr. Mosely, if you go ahead and per-
20 mit Mr. Mosely to be their expert, the very first question
21 I am going to ask Mr. Mosely is for him to tell me everything
22 he has discussed with his lawyer. I want everybody to be
23 aware of that.

24 MR. ROSSO: He can ask him if he wants. It
25 won't bother me.

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1 MR. CHERRY: I take it, then, there will be no
2 claim of privilege?

3 MR. BRENNER: Mr. Chairman --

4 MR. ROSSO: I see; it was whether we would claim
5 an attorney client privilege as to what his lawyer told him;
6 of course it would be claim of attorney client privilege.

7 MR. CHERRY: I don't think Mr. Mosely is your
8 client.

9 MR. BRENNER: I would like to add one brief point
10 of clarification on behalf of the Staff so that we don't mis-
11 lead anyone by silence. Our expert witness is also a pro-
12 spective witness in this proceeding. Mr. Feld would be here
13 to assist us during Mr. Bickel's testimony.

14 From the beginning of that sequestration order
15 way back in Midland, it was made very clear by the Staff
16 and -- at least, and Mr. Cherry said he agreed, that some of
17 our experts may very well be prospective witnesses. It was
18 part of the Staff's vehement objection of what we deemed to
19 be the irrationality of the order on the first instance, but
20 be that as it may, I want Mr. Cherry to understand --

21 MR. CHERRY: I have no problem with the Staff,
22 Mr. Brenner. Mr. Feld has been the consistent witness on
23 this issue.

24 Consumers moves around with witnesses. That's my
25 problem.

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MR. BRENNER: I don't --

MR. CHERRY: It is Consumers' dishonesty (have attacked, with the Regulatory Staff it is just their incompetence.

MR. BRENNER: I made my statement so as not to mislead anybody.

I would also ask the Board to admonish Mr. Cherry not to make those gratuitous comments.

Mr. Chairman, I don't mean to take up time with that sort of thing, but the pattern has been Mr. Cherry makes those gratuitous comments and then the Board either sits back and says nothing, with all due respect, or says: Mr. Cherry, don't do that.

Now if there are so many times we can get Mr. Cherry --

CHAIRMAN COUFAL: The only thing he has said so far, Mr. Brenner, is he has challenged the Staff's competency, and I don't know that there is anything wrong with challenging the Staff competency.

MR. BRENNER: There is a proper and an improper way to challenge the Staff's competence, and the improper way is for counsel to simply stand up and point a finger in the middle of a speech and say: You are incompetent, and that is not the proper way and we don't have to countenance that and it is wrong for the Board to countenance that.

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1 Now if he wants to challenge people's competency,
2 the way to do that is on the stand and through cross-examina-
3 tion and through his own testimony and through findings.

4 So I take strong objection to any implication that
5 it is proper for Mr. Cherry to stand up and say that. And I
6 wish you would reconsider that, Mr. Chairman.

7 CHAIRMAN COUFAL: All right.

8 We are going to overrule your motion with regard
9 to Mr. Mosely, Mr. Cherry and permit him to stay here. And
10 we will also permit him to testify when it comes time to do
11 that.

12 Now would you put your witness on, Mr. Rosso.

13 MR. ROSSO: I certainly will.

14 MR. CHERRY: Are you a prospective witness?

15 MR. MARTINEZ: No.

16 MR. ROSSO: That is Mr. Martinez that I mentioned
17 to the Board.

18 MR. CHERRY: I would object to the Bechtel ob-
19 server. They have always had a lawyer here. I had no objec-
20 tion to that, but Bechtel is going to be into this case pretty
21 knee deep when we get into the remanded hearing, and there
22 is no telling who from Bechtel is going to be a witness. And
23 I would object to Mr. Martinez being here.

24 CHAIRMAN COUFAL: Overruled.

25 MR. CHERRY: But I take it Mr. Martinez is here

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1 on express representation, that it's not contemplated that he
2 will be a prospective witness?

3 CHAIRMAN COUFAL: Mr. Rosso just indicated that
4 Mr. Martinez is not projected as a witness for the suspension
5 hearing.

6 MR. ROSSO: That's correct.

7 May I proceed with redirect of the witness, Mr.
8 Chairman?

9 CHAIRMAN COUFAL: Please do. But first:
10 Did the Staff have any cross-examination?

11 MR. HOEFLING: No, Mr. Chairman.

12 CHAIRMAN COUFAL: Mr. Duran, does Dow have any?
13 Were you finished with your cross?

14 MR. DURAN: Yes, we are.

15 Whereupon,

16 MR. BICKEL

17 was recalled as a witness on behalf of Consumers Power Com-
18 pany and, having been previously sworn, was examined and
19 testified further as follows:

20 REDIRECT EXAMINATION

21 BY MR. ROSSO:

22 Q Mr. Bickel, would you summarize for us the inputs
23 and the methodology which you utilized in performing your
24 load forecast?

25 A Yes, Mr. Rosso. In 1976, confirmatory study used

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what I call the traditional Consumers Power sale forecasting methodology --

MR. CHERRY: Excuse me. If the witness is reading from something, I would like a copy of it.

THE WITNESS: I am reading from an outline on --

MR. CHERRY: I would like to see it.

MR. ROSSO: Show it to him.

MR. CHERRY: You can't testify from a document unless it is produced. If he is using it to refresh his recollection, then he is testifying without the document; fine. If it -- he is just reading from something, I would like to see it.. I am entitled to it. Either take it away from him and ask the question or give me a copy of it.

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BY MR. ROSSO:

Q Mr. Bickel, are you using this document to refresh your recollection as you go through it in your testimony?

A Yes, I am planning on reading the title -- the first page, verbatim. After that I plan on using it simply to refresh my memory.

Q Is this an outline of your redirect?

Is that it?

A This is an outline of the methodology that we use at Consumers Power Company to forecast future electric sales.

MR. ROSSO: Mr. Chairman, we don't have another copy with us.

MR. CHERRY: Well, let me look at it and I --

MR. ROSSO: I have no objection to letting Mr. Cherry see it.

MR. CHERRY: Go on, I will look at it while he is testifying.

MR. ROSSO: No, no. You won't look at it while he is testifying. You will look at it and then return it to him and then he can continue with his testimony.

(Handing to Mr. Cherry.)

MR. CHERRY: Mr. Chairman, I would just like the Board to take a look at this, and I object strenuously to this information being in front of the witness while he is testifying.

(Handing document to the Board.)

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MR. BRENNER: Mr. Chairman, I guess the Staff would like a look so we know what we are talking about.

CHAIRMAN COUFAL: All right.

It appears, Mr. Cherry, to be a very detailed outline of apparently what the witness is going to testify to. Is that the point you want to make?

MR. CHERRY: Yes.

I mean, if it is written testimony then it is written testimony, and it should be filed, et cetera. But these are cribbing notes and he is going to read from them. And we don't need a witness to stand up here and tell us he can read.

And, if Mr. Bickel did the study he really knows what he is talking about. I know if I did a study and someone asked me to summarize the inputs and parameters, I could do it. I wouldn't have to sit down and have a 14-page note.

I want a copy of that. And the witness is not permitted -- you know, the rule on refreshing recollection is very simple. You ask a man if he has ever seen -- if he has ever been in a meeting, he says yes but I don't quite remember the minutes of the meeting, and then he is given the minutes of a document, he looks at it and then it goes away.

The purpose of it is, is that that triggers his memory. Not to read from because the testimony has to be from him.

If he says that he cannot refresh himself without

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looking at the document, then his testimony is qualified to the extent that it becomes testimony from the document and not from him.

And here we are at an administrative proceeding on redirect -- this is the most ungodly thing I have ever seen in my life.

MR. ROSSO: Mr. Chairman -- go ahead, Mr. Brenner.

MR. BRENNER: Stripped of Mr. Cherry's characterization, Mr. Chairman, the Staff clearly agrees. I think we are entitled to a copy of this.

I don't say that the existing of that writing precludes the witness from testifying if that was in the import --

MR. CHERRY: No, he just can't use it.

He testifies from his memory, or his admission that he needs to use written testimony, in which event it should be prepared.

MR. BRENNER: Excuse me, Mr. Cherry, I think I was still talking.

MR. CHERRY: I'm sorry, I thought you were talking to me.

MR. BRENNER: No, I don't address other counsel. I address the Board, as is proper.

I don't agree that the witness can't use it to testify from either, Mr. Chairman. However, other counsel are entitled to look at it. But it appears to be a document

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just prepared for purposes of testimony as distinguished from some background technical document, which is in existence for some other purpose.

And, if my characterization of that is correct, then I would ask Mr. Rosso or the witness to confirm that. Then Mr. Cherry and the Staff and Dow and the Board is clearly entitled to a copy of it, and it probably should be marked into evidence. Then the witness would be allowed to testify from it.

DR. LEEDS: Your position is that until we get that, no testimony?

MR. BRENNER: Well, Dr. Leeds, on behalf of the Staff I am willing to listen to the testimony and then determine if I need an opportunity to review it later.

However, if Mr. Cherry insists on an opportunity to have it in front of him before the testimony goes on, I think he is clearly correct.

DR. LEEDS: Thank you, sir.

I think I understand your position now.

MR. ROSSO: Okay, Mr. Chairman, this is an outline of what Mr. Eickel did, the inputs and the outputs, or whatever the methodology that he used in doing the load forecast.

I, naturally, told him that I was going to ask him --- I asked him to go back and review this. And I told him that I was going to ask him a question which would ask him to outline

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for the Board and the parties, precisely this material, how he went about doing it.

Now he apparently has put together an outline here, with regard to the procedure that he used, the inputs he obtained, how he obtained them, et cetera.

I have no objection to providing the other parties with copies of it. It is going to take us a little time to get down to a Xerox machine and get it copied if we want to do it before Mr. Bickel testifies.

I will agree to do it before any cross-examination of Mr. Bickel proceeds, recross, on the basis of this. I think it is a little bit of a waste of time to stop now, but I think Mr. Bickel is clearly entitled to rely on this or to use it to refresh his recollection as he goes through. This was a lengthy and very complicated process that he went through and he wants to be able to explain it to the Board in detail that the Board needs to understand what went on.

And there is just no reason why he shouldn't be able to use it. After all, we are here to get at the truth of it. We are here to judge the validity of the study, and this is the testimony which will enable the Board to do that.

DR. LEEDS: But if it is lengthy and detailed, shouldn't we have had it ahead of time to review, just like we have normal testimony ahead of time for the same reason?

MR. ROSSO: Well, sir, we put in the Heins testimony

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and questions with regard to the load forecasting were brought out in cross-examination. We didn't have a chance to prepare any written testimony. We just didn't have a chance to prepare it. Mr. Bickel prepared an outline of what he proposed to say.

We would have been delighted to try to get it for you in written form, but we just don't have time.

MR. CHERY: Mr. Chairman, I could have gotten that outline over the weekend when Dr. Timm was here and would have assisted me immeasurably to ask Dr. Timm some questions on that.

I now move that in light of that Mr. Bickel obviously didn't prepare it last night, Mr. Bickel be barred from testifying. The traditional rule requires some notice before written testimony.

What I am willing to do is let Mr. Mosely go on now, unless we are going to face the same thing. Let's have it Xeroxed and let's face this question later.

But I really ask that we now have Mr. Mosely testify, let's get a copy of it, I will look at it in detail and see whether I will make a motion under the rules that it is written testimony not timely filed. But, at this point I don't want any direct examination without my having a copy of that. At least to look at while the witness is reading from it.

I may ask for some additional time, although I doubt it. I don't think I will, but at the moment I want a copy of it before any further testimony of Bickel is concerned.

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Let's put Mosely on. He is the next witness.

MR. ROSSO: Well, the thing about it is that Mosely's testimony becomes much more understandable after Bickel's redirect; that Mr. Mosely testifies to what happens after Mr. Bickel performs his task.

So, in the logical sequence, it would be Mr. Bickel and then Mr. Mosely.

Now, if you want to stop for ten minutes and we will rush over and get copies of this, but I submit that this witness is prepared -- entitled to rely on this as he goes through this.

MR. CHERRY: I may very well want to look at this over the evening --

MR. ROSSO: Oh, now we are playing games, sir.

MR. CHERRY: Don't tell me we are playing games. I don't even know what is in it. The Appeal Board mentioned in a case that it was error for a Licensing Board not to give somebody overnight to look at something. I am not suggesting that I want the time, but I want enough time to determine whether I want to ask for it.

Let's put Mr. Mosely on. We are all smart people, we can deal with Mr. Mosely's testimony if it comes in before or after Mr. Bickel's testimony. It is their fault they can't follow their own desires and orders, not mine.

DR. LEEDS: What we are doing -- let me gather the

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facts of your question.

Mr. Rosso, do we have also a piece of paper from Mr. Mosely, which will present the same kind of problem?

MR. ROSSO: Do we have a piece of paper from you, Mr. Mosely?

No.

DR. LEEDS: So his is oral?

MR. ROSSO: Oral, that's correct.

DR. LEEDS: So we go, bingo with his right now.

MR. ROSSO: Why can't you go bingo with this one, what is the difference if it is oral or in that language the man has in front of him. I don't understand it, sir.

It just seems to me we are just involved in playing games at this point in time. It is okay to put one man on without having given written testimony because we didn't have time to prepare it, if he does it orally without an outline in front of him. But it is not all right to put another man on because he has got an outline of what he wants to say.

DR. LEEDS: I know what the Appeal Board said in the Hartsville case, and that is what is bothering me.

MR. BREMER: Dr. Leeds, I am a little familiar with that one, too. I would add that it was somewhat of a different character, in that it was a complete substitution of a cost-benefit analysis as distinguished from a piece of redirect testimony. Nevertheless, I agree with you that the spirit of

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the ruling is there.

DR. LEEDS: It is not a big step. I think maybe perhaps to --

MR. BRENNER: It was, if you look at the difference in the technical substance.

DR. LUEBKE: What was the gist of Hartsville?

DR. LEEDS: It was a table, substitution of a table.

DR. LUEBKE: What was the decision of the Appeal Board?

MR. BRENNER: Well the Appeal Board found it was not reversible error, but they also found it was error for the parties to have represented and updated a substituted table of costs and benefits, economic costs and benefits with only half a day's notice to the other parties to study it.

MR. CHERRY: Mr. Chairman, let me say what is critical about this.

On cross-examination I asked Mr. Bickel what these parameters and inputs were, and his question was, he didn't remember. So it seems to me that -- you know, we often go back and sit and make great outlines. You know, I mean Mr. Heins put together something, and whether he understood what he did or not is a judgment of the Board after his cross-examination.

But I am not here for Mr. Bickel to sit down and give me an outline. I want to really know if he knows what

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is going on. If he does, he doesn't need an outline; if it is written testimony, let it be written testimony.

Now I am not saying I want overnight or I want any more time, but I don't want this witness to testify until I have a copy and a little bit of time to look at it.

I suggest we not take any additional time and we go on with Mr. Mosely. That is my motion.

MR. ROSSO: You know what we are supposed to be looking at is the competence of the job that this man did and not whether -- you know when he was asked a specific question which related back to something he did sometime ago and which was a very complicated job he remembered exactly at that point in time. We are just playing games, sir.

(Board conferring.)

CHAIRMAN COUFAL: All right.

In view of the Hartsville decision we are going to require you to distribute that to counsel before Mr. Bickel testifies, Mr. Rosso. And I suggest you go ahead with Mr. Mosely, or whoever else you have available here to go with.

We are not, however, going to impose a five-day rule.

MR. CHERRY: I am not asking for a five-day rule.

DR. LEEDS: Tonight would be enough?

MR. CHERRY: More than enough. I am only asking for the courtesy of being told, because I asked him Thursday

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and Friday and over the weekend, do you have any more stuff that you are going to put in that I can look at, and I was continually told that it was only fuel costs. Now there is a 42-page outline.

CHAIRMAN COUFAL: Okay.

Mr. Mosely, do you want to come forward, if that is who counsel wants to call.

MR. ROSSO: Well, as I told the Board that means that the testimony will be out of sync.

CHAIRMAN COUFAL: That is a problem we will just have to face, Mr. Rosso. I don't know what to do about it.

DR. LEEDS: It will make the reading harder.

MR. ROSSO: That is right, sir.

(Witness temporarily excused.)

MR. ROSSO: We will put Mr. Mosely on then, and we will put Mr. Bickel on after Mr. Mosely.

Whereupon,

W. JACK MOSELY

was called as a witness on behalf of the Licensee, and having been first duly sworn, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. ROSSO:

Q Would you state your name for the record, please?

A W. Jack Mosely.

Q What is your address?

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A I live at 1734 Malverne Road, Jackson, Michigan.

Q Mr. Yosaly, could you give us an outline of your educational background?

A I received a degree of bachelor of science and electrical engineering at the University of Washington in 1936. That is the extent of my formal education.

Q And could you outline for us your work experience, professional background?

A In 1936 I was employed by Puget Sound Power and Light Company in Seattle, Washington, and I had various engineering assignments there and was assistant to the chief engineer for a while, and ended my career there as assistant of their division of power supply.

That was at the end of 1948.

In 1949 I was employed by Ebasco Services, an engineering consultant firm. I was stationed in Portland, Oregon at three principal assignments; the first of which was as one of a three-member group coordinating the operations of the Pacific Northwest Power Pool.

Later I was chairman of a group known as the Pacific Northwest Governors' Power Policy Committee, which was formed by the five Pacific Northwest States Governors, and the Premier of British Columbia.

I coordinated the collection of data and reports to the Governor that came from engineers of 23 entities.

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The last assignment in Portland with Ebasco was that of Ebasco's representative for sales. I also took on consulting assignments in California, the Pacific Northwest, British Columbia, Alaska and Honduras.

Following that work, I was employed by Consumers Power Company in Jackson, Michigan, in July of 1962.

I was with them until exactly one week ago today when I reached my retirement age, and I am no longer a regular employee of Consumers.

Q Would you describe for us any instances in your professional career prior to your employment by Consumers in which you participated in either the preparation or the review of long-term load forecasts for utilities?

A Well, I am not real precise as to when I got into this work with Puget Sound Power and Light Company, but I would say for about the last six years of that six-year term I was engaged in preparing exhibits, collecting data, and making presentations for the chief engineer who was in charge of that function.

And for those last six years, approximately, I was engaged in that function.

While I was coordinating engineer with the Northwest Power Pool, we were submitted load forecasts from each of the 11 utilities that were engaged in that operation. And it was our function to review those and point out consistencies

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and inconsistencies between the various forecasts.

In that function we did not have authority for actually making final changes.

In my activities with the Pacific Northwest Governors' Power Policy Committee, we were also submitted long-range forecasts which were used for planning. The objective there was to derive a new resource, new power plant development program that would alleviate or avoid any shortage in the supply. So we were very much concerned with and reviewed and recommended aspects for those long-range forecasts.

Since being with Consumers Power Company, I am not just precisely sure, but I think it was the year after I came with Consumers, that I started attending the Review Committee functions, attending not as a member of the executive group, but as an observer and a contributor.

That would have been in 1963. And that -- I was continuously in that capacity until 1969 when I became a vice president. And at that time I was named as a member of the Energy Forecast Executive Review Committee.

I remained in that particular capacity until July of 1976, last year, when I was named Chairman of the Energy Forecast Executive Review Committee, and I therefore had rather direct charge of making the latest forecasts that Consumers Power Company produced.

Q Could you describe for us the composition and

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responsibility of Consumers Power Company Energy Forecast Executive Review Committee?

A Well, it is composed of officials of the company. There has been some variation in this composition from time to time.

During the time that I was chairman, there were six members of the committee; three of those members were executive vice presidents; one of them is a senior vice president and two were just vice presidents.

Q Could you tell us what a long-term load forecast for an electric utility is?

A Well, it is an effort involving studies. But the purpose and the basic element of a forecast is to try to determine what the habits, the preferences, the needs will be for electric power in the future. And when I say habits, I am talking about the users. After all, it is the user who turns on the switch and turns it off, and puts in equipment to use it or not use it through conservation or other methods.

So basically it is an effort to determine just how much use there will be, how much demand there will be by the customers in the long-range future.

Well, there was another aspect that I wanted to mention about what is the purpose of a forecast.

There are two principal areas of purpose for making a forecast. One principal area is to get an idea as to the

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extent of the utility's responsibility for meeting loads. That is to say, regulated public utilities are required to provide whatever electric service is required in their franchise areas. And this is an effort, then, to anticipate, to be prepared and to build the resources that will meet that responsibility.

The other purpose from the utility's point of view, is to divide the load up, or either build up the forecast on the basis of individual parts of the load so that rates can be studied, anticipated revenues can be computed, and have the basic working assumptions for determining the future requirements and economic aspects of the operation.

Q Is there more than one approach to making a long-term load forecast?

A Well, yes, there certainly are a number of approaches:

I suppose that I have seen the work product of not less than 20 different utilities in my experience. It is true I haven't seen everything that went into each one of those, but they all are different; they all have a personality if you will. Not only are the demands on different systems, different, therefore requiring different approaches, the requirements as to the kind of analyses the utilities will make require different approaches. And there is different reliance placed on historical data versus projected data.

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So, I am sure there are no two forecasts made exactly the same. And, as a matter of fact, there is really a wide range of approaches.

Q Would it be fair to say that a long-term forecast is necessarily a projection of the future?

A Well, it certainly deals with the future.

I have some problems with the word "projection," because in some senses projection can mean just a straight extension of what you have.

I like to think of it more as an evaluation of the future leaning rather heavily on projected data. But there has to be the element and the considerations of what is going to change.

Q Could you explain to us the role of quantitative tools, such as regression analysis that you projected?

A Well projection analysis is to put it fairly simply, I guess, is a device for determining the correlation between variables. And the way it is used in load forecasting is that there is some element -- let's say for example, population. If you can find that if the population increases so much there is a concomitant increase in electric use, this would be determined through the process of this mathematics.

Now, this form of mathematics is used sometimes for trying to discover items that have a correlation. Whether or not there is an intuitive feeling that that correlation

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exists.

So it can be used in different ways. The basic way, though, is to find out some correlation where there is a real reason to expect that the correlation should exist.

Q Can quantitative tools like regression analysis that utilise historical data take into account conditions that were not experienced in the past, but which are likely to affect the future?

A Well, regression analysis as a mathematical tool has to have statistical background. That is to say there has to be experience data to collect in order to develop the coefficient.

I presume that someone might speculate as to what might have happened in the past and might have come up with some esoteric projections, but that would not really be truly a regression analysis.

Q Is your testimony then that quantitative tools which deal with purely historical data cannot take into account conditions that were not experienced in the past but which are likely to affect the future?

A Regression analysis has to have historical facts. There are other quantitative tools where, I think you can deal with the future. And so I am a little bit disturbed by the addition of regression analysis and quantitative tools.

There are different kinds of quantitative tools.

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Q Can you tell us then, something about the other quantitative tools that could be used in making a long-term load forecast?

A Well, there are such matters as -- there are techniques certainly such as probability analysis.

Again it is very helpful if there can be background, hard statistical data. But sometimes, a statistical tool such as probability, can be very useful.

Q Can one ever be certain that a long-term load forecast, no matter how it is derived, will accurately predict the total sales of an electric utility ten years or more into the future?

MR. CHERRY: I will object to the form of the question.

CHAIRMAN COUFAL: What is the objection to the form?

MR. CHERRY: Well, the question is improper in terms of its characterization.

It is also a leading question.

CHAIRMAN COUFAL: Overruled.

THE WITNESS: I am not sure that I remember precisely what the question was.

BY MR. ROSSO:

Q Let me restate it for you, then.

Can one ever be certain that a long-term load forecast, no matter how it is derived, will accurately predict

am20 total sales of an electric utility ten years or more into the future?

A No.

Again, you can get back to the point, well, what constitutes accuracy?

And I will say this, that no sales forecast will ever be precisely accurate; it won't be accurate. At least in my experience they have never been accurate within a half a percent on any ten-year or longer basis.

They can be reliable in a sense that some of them are too high, some of them are too low, and the range may be fairly narrow. But sales forecasts like anything else in the future, can never be precisely predicted.

Q Can you describe for us Consumer Power Company's process for arriving at a long-term load forecast prior to implementation of the Public Utilities Encoding Technique in 1976?

A Well, I would like to make a point here that I basically will be describing the same thing in both cases, because the process hasn't basically changed.

But the fundamental approach of Consumers Power Company has been to keep an ongoing study of how loads are growing, the different classes of loads, what the actual consumption is in the different areas.

This information is collected, of course, every month

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along with meter readings. But it has been brought up to date currently.

And so that is one of the major sources of what is actually happening in the company.

In addition to that, studies are made of what are the causes of the changes?

Is the population growing?

Are many homes being built?

Is industry moving in or out?

What is the level of the economy?

And this information is collected on a rather regular basis.

Some of us who have paid a lot of attention to this keep always abreast of what other utilities are doing in the way of rate structures that affect loads; what are the new inventions that may be coming along for new uses; even international affairs. I, in particular, I know, try to keep abreast of that because it has an impact on the economy and the availability of fuel.

We keep abreast of economic levels and read the publications of economists and economic groups.

So, in general, it is necessary that we keep -- maintain statistical data for ourselves, for others for the impacts that may be brought to bear in this area. And in preparation for the need to change or alter or review our

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forecast.

Now, with this kind of background it has been customary that at least once a year there would be a review of the total picture. There have been serious reviews and modifications of the forecast within that year span a number of times.

But we then ask the statistical people and people who are keeping track of what other people are doing, like Mr. Bickel's work, to present this information to the Executive Review Committee and we go through whatever conferences, we ask for additional data, additional analyses, if they seem to be called for.

And eventually the Executive Review Committee comes down with a forecast for the long-range which is recommended for adoption as the official future expectations of the company.

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Q How did the Energy Forecast Committee arrive at the long-term load projection?

A The arrival at a decision, as in all cases, has been in a conference where the backup material was being reviewed, possibly as a result of, say, a third meeting or even more in a series; but finally they arrived at a consensus type judgment by the committee.

Q Did the committee adopt an official long-term load forecast in 1975?

A Yes, it did.

Q What kinds of input studies were provided to members of the committee prior to adoption of that long-term load forecast?

A Well, we had the results of this data that I say was primarily collected and assembled and organized by Mr. Bickel, and that broke down the various classes of loads, such as space heating, residential, commercial, industrial, into their various classes.

It showed what the growth rates had been over a period of, I think it was 10 or 12 years shown in 1975, and then there were presentations by Mr. Bickel, and as I remember by Mr. Carter, as to the input data that they had collected and used in assembling these tables.

There was a report on the economic outlook for the future as presented by our company's economics expert.

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There was a discussion about the automobile industry and what its future might be, as I remember, presented by members of our energy consultant services.

And I guess those are the only items I remember at the moment that were specifically brought to the attention of the review committee in the course of those meetings.

Q Do you recall whether any independent studies, not performed by Consumers Power Company, were brought to the attention of the members of the committee?

MR. CHERRY: Object to the form of the question. "Brought to the attention" -- what does that mean? Were they used? Did they see them? Did they review them? Were they input? What are they?

CHAIRMAN COUFAL: Overruled.

Go ahead and expand on it when you get an answer, if you can, Mr. Rosso.

MR. ROSSO: All right.

THE WITNESS: Are we still talking about 1975?

BY MR. ROSSO:

Q Yes.

A In 1975 or late '74 there had been a study of load forecasting in the state of Michigan by -- under the aegis of the Michigan Public Service Commission. They particularly analyzed Consumers Power Company's long-range forecast and that of the Detroit Edison Company.

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There was some discussion of that report in the course -- I can't remember which one, what meeting, but it was generally discussed by the committee during the time, 1975, the official forecast was being formulated.

Q Would you describe that report as an input to the committee in making an ultimate judgment with regard to what the long-term load forecast should be for 1975?

MR. CHERRY: Objection. Leading.

CHAIRMAN COUFAL: No, I don't think so. Overruled.

THE WITNESS: It was certainly input in the sense that we were aware of it. I don't think you hear about load forecasts or about people doing things of that nature but what it becomes an input automatically. At least you have to assimilate all the information that you can.

Now, as to the direct impact of that particular study, I don't think it had any very great impact. As I remember, they said that our load forecasts were if anything a little high-- I believe that's what they said -- in the state, but it wasn't an amount or difference which I would consider to be a major difference -- probably within the area of good estimating.

I know that some of us were a little bit concerned about the way that had been done as we understood it. It was input, but I doubt it had a real impact on the outcome of our estimate.

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BY MR. ROSSO:

Q Did the committee adopt a new long-term load forecast in 1976?

A Yes, it did.

Q Were committee members provided with comprehensive new input studies prior to arriving at the new 1976 long-term load forecast?

MR. CHERRY: Mr. Chairman, the question should be phrased, "What was the committee provided?" I object to the form of that and other questions.

We don't need Mr. Rosso to read the questions he has and get a yes. Mr. Mosely is his expert. Let him tell us what it is.

Now we have the reverse of what went on, with Mr. Mosely being asked to answer a lot of questions yes based upon a long question by counsel. That isn't really helpful, so I would object to this particular question and I would ask that questions of a leading nature be -- well, I've made my point.

CHAIRMAN COUFAL: I think the vice, if any, is in the accumulation of this kind of questions. I think question by question, each standing along, it's all right; but I think perhaps counsel has a point there, Mr. Rosso.

MR. ROSSO: You know, I've asked him one question that he's answered yes, one -- the preceding one.

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CHAIRMAN COUFAL: I understand that. He's answered at great length to most of your questions. I agree with that.

MR. ROSSO: If he'll answer this one, you'll find out that the answer is no.

MR. BRENNER: I guess I have to object to that, Mr. Chairman, of counsel supplying the witness with an answer before the witness answers.

CHAIRMAN COUFAL: You just hoist yourself with that, Mr. Rosso. You'd better ask him a new question.

BY MR. ROSSO:

Q What were the committee members provided with with regard to their new long-term load forecast in 1976?

A We were provided a review statement of what had been put into the latest official forecast, which had been made in 1975.

Mr. Bickel, I think at my request--at any rate, he provided the whole committee with a 3- or 4- or 5-page review of the assumptions that had gone into the previous forecast.

We discussed that, as to whether we needed to overhaul all of the studies that had been made, and we did not have what I would call a full-blown re-do of all of the basic input data.

We had a report from, again, our economic advisor as to what the outlook would be. And in preparation

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for this, as another input to the group, I told the committee that I would like to employ the techniques of probability in coming to our decision this year.

I believe that was the nature of what was input.

Q. Were there any other independent studies, not performed by Consumers Power, which were available to the committee or considered by it?

A. Yes, there was another study made. Detroit Edison and Consumers Power and I believe all of the utilities in the state as to what the load, long-range load, growth was likely to be.

That was made by a group called the Governor's Advisory Committee on Electric Power Alternatives.

In connection with that work, I had actually functioned as a part-time representative of one of the members of that subcommittee that was looking into the load forecast, so I had considerable knowledge of it.

I explained what I did know of it to the Executive Review Committee. I had Mr. Bickel make some analyses and studies of the procedures that had been adopted, so we had general knowledge of it. I don't think we ever specifically said that was going to be an input, but, again, it's part of that general information that's valuable at times.

Q. How did the probability encoding approach affect the committee's procedure for arriving at a long-term load

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forecast?

MR. CHERRY: I would object to the question, unless the probability encoding approach is defined.

The question has now been asked, "How did the approach affect what the committee did?"

CHAIRMAN COUFAL: It assumes it did affect it.

MR. CHERRY: There's no definition of probability encoding. There's no foundation for the question.

CHAIRMAN COUFAL: I think that's a good objection, Mr. Rosso.

BY MR. ROSSO:

Q Could you describe for us what the probability encoding approach is?

A Well, that particular term can apply to any of a great many areas, but I will speak of it as it applies, or as we applied it, in the load forecasting area.

With respect to the consensus decision that the Executive Review Committee had been coming to over the years, and I think anyone who has had to chair a committee will know the problem, you have a number of people who are individuals. They view the same information differently. To get them to come up with a precise and real definitive answer is a difficult proposition.

We had had, and all of the members of this Executive Review Committee had had, some practice in applying

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probability to decision making during the year 1976 -- not on load forecasting, but in other matters. It seemed to be a good way to do two things:

One is to put some numbers, some quantifications, on some of the things that you don't know any other way to evaluate. So it looked like a good way for us to help get the consensus opinion and get some of the numerical values that would help in coming to a decision.

The other thing that it does, it gives you a feeling for the amount of uncertainty that revolves around certain of these matters.

Load forecasting will always be an uncertain, indefinite art.

So it was with this background that we decided to apply these probability techniques, which, as I say, we had had some expert practice on during the year 1976.

Now, all it means is that you have an argument -- in this case, what is the growth going to be of load -- and you threw out a series of questions in which you hoped you could avoid bias and in which you could avoid the thing called anchoring, that is, when someone thinks he's got an answer so he's going to make everything fit the answer. You try to ask your questions and find out what they really feel, what their judgment based on all the input that they have tells them the chances are for having a certain level of load

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growth.

You can start out and say, "Well, what's the most extreme, the biggest load growth you could have?" First of all, you have to get into the condition, the atmosphere of what could cause that and then say, "Well, there's a certain chance it could be that high."

Using the reverse, you look at the thing, look at the other end, what are all the things that could cause the load to drop off, not have any load growth, have a very low load growth. While you're thinking of that, ask some questions and find out the minimum of the scale, such as the load growth may be only 1 percent. What are the chances? And be sure that the subject has every opportunity to think and explore. You may say, "Well, it's only a 5 percent chance it could be that low."

Now, having gotten these two, what I'll call the end points or extreme points, you then begin talking about the middle. Do you think it's more likely to be above the middle point or below the middle point? And try to find the reasons that the men feel it should be that.

Going through this, you finally come out with a curve that says in effect there is a certain percent chance that the load growth will be this high or less, and it goes all the way up the scale to, say, a 95 percent chance that it will be up as high as, say, 8 percent or lower,

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and only 10 percent or 5 percent chance it will be higher.

So that's what is meant by probability encoding.

It's a word that threw a lot of us. I'm not real happy with it yet. But, at any rate, it's an effort to make a numerical --- a quantitative assessment of a man's judgment, provided he's got the background and the qualifications for making that judgment.

So that's the process we went through this year as a part of the coming to a consensus decision.

There were six of us on the committee. There was no one available to encode me. I encoded myself first, and then I encoded the other five men in individual interviews.

Now, I will tell you some of the background for this, because if the background isn't right the process isn't right.

It was in July that I first suggested to these men that "Let's use this practice." In August I sent a request to them to each send me separately a list of items that they thought could cause extremely high load growth, and I asked each of them to send me a list of the items that they thought could cause extremely low load growth. These were items, forces, conditions, factors, war, anything.

I got responses from each of them. I then went over this list and found that several of them were duplicative -- in a little different words but really had the same kind of

blt 11

meaning. I then made up a list of all of the items that they had sent in that could contribute to high load growth and a list of all the items they had sent in that could contribute to low load growth.

I then sent those lists back to each of these men. The reason I sent a combined list was -- two reasons. One, I wanted to be sure their ideas were there, and I wanted to be sure that each man saw everybody else's ideas, because at this point you want the widest possible exposure to situations that may be affected.

Having done that, after they had had these for about a week, I then went into this encoding process, and I encoded them separately so that they would not be influenced by personalities and popularity contests.

Once the encoding had been done separately, I took the six curves and added all of the ordinates for each percentage point divided by six to come up with a composite curve that represented a weighted -- not a weighted, but a mean curve for the whole group.

I then put each man's curve on a sheet of paper and this composite and sent these back to each of the men, and we then went into a meeting.

So as far as I know these men never saw what the other men came up with in his encoding, but he did see how his curve fit with the composite curve.

blt12

Having gone through that process, I think it was the second meeting after that, after the men had reviewed their curves and the composite curve, we as a group adopted the composite curve as being the recommendation to our top management as our load forecast.

Now, that composite curve when interpreted as to what is the most likely load growth to have comes out at 5.2 percent per year compounded, and that's how the final number was derived.

Now, there were a lot of other things. We had the inputs from these other studies and our previous studies. I'm sure that what influenced us some to finally adopt this number was that it wasn't at great variance with any of the other studies. It was a little lower, as I remember, some fraction of a percent lower than our 1975 study. It was somewhat lower than the Public Service Commission study, and it was somewhat lower than the Governor's Advisory Commission's study; but we were satisfied with it.

I can't say we were a thousand percent satisfied with it, because there were some of the men who still felt it was too high or too low, but we agreed to it on a consensus basis.

Q Mr. Mosely, could you tell me a little bit about the use of probability encoding as a technique in business generally?

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MR. CHERRY: Mr. Chairman, I will object to the form of that question.

He's explained to us what probability encoding is. There's no foundation for this question about the application of whatever they did to business generally.

Mr. Mosely hasn't testified to that. He's not an expert. I don't know, maybe the president of G.M. encodes himself, but we'll have to ask him.

CHAIRMAN COUFAL: Ask your foundational question, Mr. Rosso.

BY MR. ROSSO:

Q Are you familiar with the use of probability encoding in other processes other than long-term load forecasting?

A Yes, I am.

Q Would you tell us a little bit about the areas with which you're familiar where probability encoding is used?

MR. CHERRY: I still have the same objection. Is he familiar with it in some areas -- that's not a sufficient foundation. He's got to tell us what those areas are and what experience he has without the substantive testimony in order to determine whether or not he can testify about it.

This question does not satisfy the foundation.

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CHAIRMAN COUFAL: I agree with that.

I don't care whether you do it now, Mr. Rosso, or whether you do it as the thing develops, but you're going to have to bring that out.

MR. CHERRY: Mr. Chairman, I care now, because that is an objection to any substantive testimony on the opinion.

CHAIRMAN COUFAL: I agree with you.

MR. CHERRY: You've sustained the objection?

CHAIRMAN COUFAL: I agree with you, but I have every confidence he's going to link it up.

MR. CHERRY: I don't have that confidence.

CHAIRMAN COUFAL: I'll overrule the objection.

MR. CHERRY: There's no foundation for the testimony that's coming in now. That's unfair.

CHAIRMAN COUFAL: Go ahead, Mr. Rosso.

MR. BRENNER: There's a question pending, I believe.

CHAIRMAN COUFAL: Do you remember what it is, Mr. Mosely?

THE WITNESS: I believe he asked me if I knew about the application of probability encoding in other business activities other than load forecasting.

BY MR. ROSSO:

Q That's correct, sir.

A Yes, I do know something of it.

blt 15

CHAIRMAN COUFAL: Wait, now.

I think you'd better get into it, Mr. Rosso.

BY MR. ROSSO:

Q What areas are you familiar with -- strike that.

In what areas do you know that probability encoding analysis has been used other than long-term load forecasting?

MR. CHERRY: I object to that question, because this witness has to tell us what his experience is in other areas.

There can be questions that can ask that without soliciting the merits. If he now tells us what these areas are, it's presumed that he's an expert in whatever those techniques were.

I object to this question as having no foundation.

MR. ROSSO: Mr. Chairman, I don't think that is correct at all.

MR. CHERRY: Do you want me to answer the questions? I will. Do you want me to qualify as a witness?

CHAIRMAN COUFAL: Mr. Cherry, let Mr. Rosso speak.

MR. ROSSO: I don't think that's correct at all, sir. The point here is that probability encoding is something that the company used on the basis of its knowledge with regard to its application in other fields.

CHAIRMAN COUFAL: All right. Ask him what experience he's had with other fields, and then he can answer if he

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has some experience.

MR. CHERRY: Mr. Chairznan, since there's a prerequisite for an expert opinion on probability encoding, may I inquire on voir dire as to this subject of the witness?

CHAIRMAN COUFAL: We'll let counsel lay his own foundation.

MR. CHERRY: All right. But I'm now asking the Chair for an opportunity to ask questions about the expertise before the merits are reached.

CHAIRMAN COUFAL: I agree, Mr. Cherry. Let him lay whatever foundation he can. You can then inquire on voir dire.

BY MR. POSSO:

Q How did you first become aware of probability encoding as a technique?

A The first in-depth or beginning of a clear understanding of it began in, I think it was October of 1975, when a consultant from a group called Management Analysis Company came to Consumers Power Company and offered their services in our development of energy planning techniques.

Q Did he suggest to you the possibility of using probability encoding?

MR. CHERRY: Objection. That calls for, it seems to me, the grossest form of hearsay. Even though hearsay is admissible in administrative proceedings, I don't

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think that's a proper wording to get that person's opinion in, because that person, noted as a consultant, is also "an expert" and is being offered here.

I think we've got to know an awful lot about it before you throw those words around.

CHAIRMAN COUFAL: That question requires a yes or no answer, and then we'll go on to the next one, Mr. Cherry.

MR. CHERRY: But then we have now the opinion of a "consultant," unidentified. We don't know if the man is a janitor or not.

CHAIRMAN COUFAL: Overruled.

THE WITNESS: Yes, he did propose it.

BY MR. ROSSO:

Q Who was the consultant?

A His name was Mr. Howard Cook. He is a principal partner of an association doing business as Management Analysis Company.

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(Pause.)

MR. ROSSO: No further questions.

CHAIRMAN COUFAL: Mr. Hoefling, do you have any further questions -- any questions?

MR. HOEFLING: No.

CHAIRMAN COUFAL: Mr. Cherry?

MR. CHERRY: I have a few. Can we take a short break?

CHAIRMAN COUFAL: Let's take 15 minutes.

(Recess.)

CHAIRMAN COUFAL: As I understand it, there is a controversy between Mr. Rosso and Mr. Cherry as to whether the copy of the material of Mr. Bickel's tender to Mr. Cherry was adequate.

MR. CHERRY: All I want is a copy -- I want to read the handwritten notes and see the parts that Mr. Bickel thought were most important by covering them in yellow. I have asked to see a copy of the original and I was told that now Mr. Bickel will only use the Xerox copy so he won't be able to see the yellow notes.

That is not satisfactory. I want to see the original. If they want to give me a copy plus the original, I will make my own handwritten notes, but I want to see the original.

CHAIRMAN COUFAL: Let's see your original,

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1 Mr. Bickel.

2 (Handing document to Board.)

3 CHAIRMAN COUFAL: I guess the purpose of the yel-
4 low is the same as though you had underlined; is that the
5 idea, Mr. Bickel?

6 MR. BICKEL: Yes; that's correct. I didn't want
7 to go through everything that's in that outline before this
8 Board. I just wanted to summarize. The assisted in sum-
9 marizing.

10 CHAIRMAN COUFAL: Can you take this and take one
11 of those Xeroxed copies and write in your handwritten notes
12 and then take a pen and underline that which you put in
13 yellow here?

14 MR. BICKEL: I think I can highlight it.

15 CHAIRMAN COUFAL: Would you do that, please?

16 MR. BICKEL: Yes.

17 MR. CHERRY: Thank you, Mr. Bickel.

18 CHAIRMAN COUFAL: Thank you, Mr. Rosso.

19 (Handing document to counsel.)

20 MR. ROSSO: You are welcome.

21 CHAIRMAN COUFAL: Now with regard to the pro-
22 prietary matter, I urge the parties that can; take it and
23 look at it and -- under protective order, as we have mentioned
24 take it back and show it to the people on your staff, who -
25 ever knows about such things, and Dow, if you want it, if

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1 you have got anybody to talk about fuel costs with, and Mr.
2 Cherry, I urge you to --

3 MR. CHERRY: The people that I want to talk to
4 include persons other than --

5 CHAIRMAN COUFAL: I understand that.

6 MR. CHERRY: If I can talk to them, I will take it;
7 okay? I will take it, if I have no limitation on who I
8 talk to, except that I will do it only in connection with
9 preparation for this case; I will take it.

10 CHAIRMAN COUFAL: No. We won't make it that way.

11 MR. CHERRY: Then I don't want it.

12 CHAIRMAN COUFAL: Anyway, until we rule finally
13 on it, you are not to divulge the contents of the documents
14 to anybody except that people that we mentioned.

15 MR. ROSSO: Does anybody want them?

16 MR. BRENNER: The Staff would take one copy.

17 MR. CHERRY: May I proceed now?

18 CHAIRMAN COUFAL: Yes, sir.

19 MR. HOEFLING: Mr. Chairman, may I --

20 CHAIRMAN COUFAL: Wait one moment, please.

21 MR. HOEFLING: I would like to discuss one matter.

22 CHAIRMAN COUFAL: Can you talk fast?

23 MR. HOEFLING: Yes. Very quickly; earlier today
24 we had some monologue by Mr. Cherry concerning a conversa-
25 tion that he had with Mr. Keppler out at the Office of

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1 Inspection and Enforcement.

2 I think that it's clear that Mr. Cherry has the
3 right to talk to NRC personnel, Staff personnel, on any
4 matter that troubles him. I think it is also clear, however,
5 that Mr. Cherry would not have the right to talk to NRC
6 prospective witnesses.

7 It appears that in discussing issues with Mr.
8 Keppler, Mr. Cherry made a request for certain information
9 from Mr. Keppler that deals with the issues in this proceed-
10 ing. I haven't gotten the details of that request yet. I
11 will inform the Board of them when I do, but I would like an
12 instruction from the Board to Mr. Cherry that if he is going
13 to pursue discovery in this proceeding, it should be pursued
14 through counsel for the NRC Staff and not independently
15 through NRC Staff personnel.

16 MR. CHERRY: Mr. Chairman, there is something called
17 the Freedom of Information Act which is a supplement to
18 Mr. Hoefling's kindly assistance. There is also such a
19 thing called the Public Document Room which is another supple-
20 ment to Mr. Hoefling's kind assistance. And there is also
21 such a thing as an attorney-client privilege in a large
22 organization which goes to those persons who are actively
23 involved. ..

24 Mr. Keppler is not actively involved. I hope
25 very much that you don't order me not to talk to Mr. Keppler

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1 because that one I will not obey. I do not believe that I
2 am to be prohibited now from talking to the whole bloody
3 NRC --

4 CHAIRMAN COUFAL: No one is talking about you not
5 talking to anybody, as far as I have heard, Mr. Cherry.

6 MR. CHERRY: Okay.

7 CHAIRMAN COUFAL: I do think there are rules,
8 though, of discover documents with regard to what you can
9 discover from the Staff.

10 MR. CHERRY: I am not talking about the Staff.
11 This is the Compliance Division which is entirely separate.

12 CHAIRMAN COUFAL: I think the Staff is part of
13 the NRC. Now I suspect if you are going to get documents
14 from the NRC, then you are going to have to follow those
15 rules.

16 MR. CHERRY: But there is also the Freedom of
17 Information Act.

18 CHAIRMAN COUFAL: Then follow the Freedom of
19 Information Act.

20 MR. CHERRY: How do you know I didn't?

21 CHAIRMAN COUFAL: I don't.

22 MR. BRENNER: Let's not go on.

23 As Mr. Cherry well knows, and we will be glad to
24 supply the details tomorrow morning as soon as we get some
25 of the details. This is not just a request for existing

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1 documents. It was a specific request for Mr. Keppler to
2 put something together to respond to something in the nature
3 of an interrogatory with respect to issues before this
4 proceeding.

5 We do ask this Board to instruct Mr. Cherry not
6 to go to any NRC Staff with discovery requests in this pro-
7 ceeding. It just so happens that Mr. Keppler and the Staff
8 have assisted us by way of general background throughout
9 this proceeding because of their knowledge of the Midland
10 case.

11 CHAIRMAN COUFAL: I don't know that you aren't
12 putting the shoe on the wrong foot. It seems to me that
13 Staff has some responsibility for what the people in the
14 Nuclear Regulatory Commission do.

15 MR. BRENNER: He hasn't done anything --

16 CHAIRMAN COUFAL: Number one, what Mr. Brenner
17 said has no resemblance to the truth. I did not ask Mr.
18 Keppler to prepare anything that was in the nature of an
19 interrogatory. That is not true.

20 MR. BRENNER: Why don't you just tell me what you
21 asked him?

22 MR. CHERRY: Mr. Brenner, bring Mr. Keppler down
23 here and have him testify.

24 CHAIRMAN COUFAL: Anyway, as far as this Board
25 is concerned the only way you can get documents or preparation

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1 of matter from the NRC is the discovery process and the
2 Freedom of Information Act, Mr. Cherry.

3 MR. CHERRY: You are not ordering me not to talk
4 to anyone?

5 CHAIRMAN COUFAL: I am not ordering you not to
6 talk to anyone.

7 MR. CHERRY: Can I go on?

8 MR. ROSSO: No.

9 Excuse me.

10 Mr. Chairman, I just want to put it on the record
11 that I have distributed copies of the Bayless affidavit and
12 material which we have claimed as proprietary to both the
13 Staff and the Dow Chemical Company, pursuant to your order
14 that it be treated as proprietary until the Board rules on
15 whether or not it is proprietary.

16 CHAIRMAN COUFAL: And the reason we particularly
17 want to distribute it is we can get a little help from the
18 Staff and who ever else is interested, as to the signifi-
19 cance of these documents.

20 CROSS-EXAMINATION

21 BY MR. CHERRY:

22 Q Mr. Mosely, are you testifying here today as
23 a paid consultant for Consumers Power Company?

24 A Yes, sir.

25 Q What is the rate of compensation you are getting

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1 as a paid consultant?

2 A Well, I have an arrangement whereby for a period
3 of up to three months, until my successor is in his seat and
4 is on the way -- and he won't be on the job until the
5 March the 1st -- that I will be paid \$1000 a month and for
6 all days that I am employed more than four days in a month,
7 I will get \$350. So today I am getting \$223; something like
8 that.

9 Q Your \$1000 a month presumes that the company can
10 call upon you for four days a month?

11 A Yes.

12 Q And if it's beyond that, they pay you an additional
13 rate of \$350 a day?

14 A That's correct.

15 Q Plus expenses?

16 A Yes.

17 Q When did you first discuss with Mr. Renfrow or
18 Mr. Rosso the possibility of your testifying here?

19 A I don't know that I ever discussed it with them.
20 The way the thing came to me is that Mr. Judd Bacon of
21 Consumers Power Company said that he thought that he would
22 like to have me testify.

23 Q When did that conversation occur?

24 A I believe that specific conversation was on
25 January 28th.

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1 Q What did he say to you ,specifically?

2 A Jack, we think we would like to have you testify
3 about load forecasting for the Midland hearing and we will
4 be in touch with you.

5 Q Did he say why he wanted you to testify?

6 MR. ROSSO: Mr. Chairman, I think now that we are
7 really getting into the attorney-client privilege. As you
8 know, Mr. Bacon is counsel for Consumers Power Company. I
9 had no objection to his asking him who asked him to testify
10 and when that occurred.

11 But now we are getting into questions with regard
12 what Mr. Bacon said to him, and I think that is objection-
13 able on the basis of privilege.

14 MR. CHERRY: He is no longer a client. He is a
15 paid consultant. You can discover anything through a paid
16 consultant.

17 MR. ROSSO: I believe Mr. Mosely was still em-
18 ployed by the company on January 28th, if I am not mistaken.

19 THE WITNESS: That's correct.

20 MR. CHERRY: That's irrelevant to the question.
21 There is no more privilege.

22 MR. ROSSO: A attorney client privilege once
23 claimed is not waived by a man's leaving the employ of the
24 company. In that event, anyone who ever switched jobs would
25 then waive all the attorney client privileges with regard to

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1 anything that he had -- had ever happened while he was em-
2 ployed by the corporation.

3 I submit that is simply not the law.

4 CHAIRMAN COUFAL: The objection is sustained.

5 BY MR. CHERRY:

6 Q When did you terminate your employment with
7 Consumer's?

8 A As of 5:00 January 31st.

9 Q Now have you any conversations subsequent to that
10 date with any of Consumers' attorneys?

11 A Not respecting this matter.

12 Q I didn't get into the matter yet, I said with
13 Consumers', -- with attorneys.

14 A I have talked to some of the attorneys; yes. I
15 have said hello to several of them.

16 Q Now have you discussed the Midland hearing on
17 the subject matter of your testimony with anybody since the
18 date of your termination?

19 A Yes, I have talked with some of the attorneys
20 present here.

21 Q Who?

22 A Mr. Rosso, Mr. -- I am not sure -- well, I think
23 there was some general conversation with the other two gentle-
24 men here.

25 Q When did the first such conversation take place?

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1 MR. ROSSO: Mr, Chairman, so far he hasn't in-
2 quired what was said in those conversations --

3 MR. CHERRY: I intend to.

4 MR. ROSSO: I want you to realize that I intend
5 to object on the basis of the attorney client privilege at
6 that point in time.

7 CHAIRMAN COUFAL: I suspected you might.

8 MR. CHERRY: If you say you will sustain --

9 CHAIRMAN COUFAL: I didn't say I would sustain
10 anything. I said I suspected he would object and I will
11 sustain objections on attorney-client privilege when it comes
12 to the discussions that he had with Mr. Rosso with regard
13 to what he what he was going to testify about.

14 MR. CHERRY: Even after January 31st?

15 CHAIRMAN COUFAL: Even after January 31st.

16 MR. CHERRY: On the basis of that statement, I
17 will not inquire into those meetings, but I do regard that
18 ruling as erroneous, but on the basis of that, I will abide
19 by it.

20 And the reason that you won't let me get into
21 that, after he has already terminated, is the attorney
22 client privilege, also?

23 CHAIRMAN COUFAL: Yes.

24 BY MR. CHERRY:

25 Q Mr. Mosely --

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1 CHAIRMAN COUFAL: After the terminated employment;
2 you mean by that after January 31st?

3 MR. CHERRY: Yes.

4 BY MR. CHERRY:

5 Q Mr. Mosely --

6 A I reflected on dates. I think I may have given
7 you a wrong date. It may be that Mr. Bacon made this contact
8 with me on the 22nd or the week before the 23th. I am a
9 little confused right now as to just what date it was.

10 Q That's all right, Mr. Mosely.

11 Anything else?

12 A No.

13 Q Mr. Mosely, would you list for me based upon
14 your experience, all of the factors which you believe in the
15 next seven or eight years will have a tendency to reduce
16 consumption or demand of electricity?

17 A I would like to be sure I understand your ques-
18 tion as to whether you want me to list points which I think
19 will, or could.

20 Q Which could. What I want to get from you ulti-
21 mately is a list of all of the factors which you believe
22 have a tendency to reduce the demand, and all of the factors
23 which you believe have a tendency to increase demand. I
24 will get into whether or not they will or they won't on a
25 specific basis a little bit later.

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1 First, give me the ones that you believe will
2 have a tendency to reduce demand.

3 MR. ROSSO: During what period, Mr. Cherry?

4 MR. CHERRY: Between now and 1984.

5 BY MR. CHERRY:

6 Q Let me phrase the question another way: Give
7 me the factors that you believe traditionally have a tend-
8 ency to reduce demand.

9 A Is that equivalent to historically?

10 Q Let me rephrase the question again, then, Mr.
11 Mosely: Do you know what factors whose effect probably will
12 be to reduce demand on the electrical usage, at any time --

13 A I know some things.

14 Q Tell me what those are.

15 A Shortage of fuel, very effective conservation
16 program, extreme application and extent of environmental
17 constraints.

18 Q Extreme application and extent of what?

19 A Environmental restraints.

20 Any regulations or applications that are detri-
21 mental -- I don't really mean detrimental, but constrain the
22 use of automobiles, possibly within that period of time, a
23 this would have one effect at one time or another; ano-
24 ther would be extreme inflation, a serious and extended
25 general economic depression, possibly war, extreme prices

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1 for what ever reasons, either through cost or tax or some
2 other reason for electricity energy.

3 Q Extreme prices for what?

4 A Extremely high prices for electricity due to
5 what ever cause, whether cost, tax, or fuel shortage.

6 I guess that is about all that come to mind at
7 this moment.

8 Q How about building practices?

9 A You mean insulation or conservation?

10 Q No, I don't mean conservation. I just mean
11 building practices. That is, making houses retain more heat.

12 A That's to me conservation.

13 Q Why don't you then list for me what you believe
14 is included in the term conservation, as you have used it?

15 A Conservation can come about from a number of
16 effects and causes. It can be voluntary, in which people
17 just lead more austere lives.

18 More austere lives can also be imposed by govern-
19 mental or some forecful edict.

20 It can be achieved through better building prac-
21 tices, better insulation.

22 It can be achieved by changing our habits as to
23 when we do things.

24 I can even be changed by more people moving
25 to more warmer climates.

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1 In my view I guess I would generalize and say
2 that conservation is a reduced use from the past general
3 customs.

4 Q Would you put within the term conservation more
5 efficient appliances which use energy?

6 A Yes, sir.

7 Q Would you regard -- you said that voluntary con-
8 servation meant that people have to live more austere lives.
9 Is that what you meant by voluntary conservation?

10 A I don't think I said they had to.

11 Q You said that's what it was, if they wanted to.

12 A I meant to imply they might choose to.

13 Q So that is the only kind of voluntary conservation
14 you know of, is people choosing to live more austere lives?

15 A Well, I think there are some people who without
16 thinking maybe, and some maybe thinking, have wasted energy
17 in the past, and I think that reasonable people become
18 aware of the situation, as they become aware, that they will
19 do both. They will cut down on waste and in many cases,
20 be more austere.

21 Q But does your definition of voluntary conserva-
22 tion always include leading a more austere life? Are there
23 any other kinds of voluntary conservation methods you can
24 think of that don't involve leading an austere life, a more
25 austere life?

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1 A I guess from my personal point of view and apply-
2 ing it to me; yes.

3 Now other people may look at it quite differently
4 and I think that they could legitimately do so.

5 Q Well, what about if all of the appliance manu-
6 facturers got together at a trade meeting and determined to
7 make more efficient air conditioners and that was all vol-
8 untary and that conserved electricity. Would you regard
9 that as an austere voluntary conservation?

10 A Before I could really judge that, I would have to
11 know all that went into it.

12 Q All right.

13 A If they can make appliances just as cheap and
14 don't use other resources that are scarce and so on, as long
15 as they don't make some sacrifice, why then I think it is
16 voluntary.

17 Q But if they have to make a sacrifice by paying
18 more money for a product, for example, that is more effi-
19 cient energy use; would you regard that as an austere charac-
20 teristic?

21 A I want to -- I would want to know where the
22 money was spent. It might have spent for electricity to
23 build the instrument.

24 Q I see.

25 So that in analyzing conservation methods, you

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1 really have to know a good deal about the method, where the
2 money is going to go and a pretty broad range analysis of
3 how it fits into, say, a forecast; is that right?

4 A I don't think you can do things, these things, in
5 a vacuum. I think you need to look as much -- at as much of
6 the total picture as you can.

7 Q Do you know how much energy is wasted in the
8 United States?

9 A No, sir.

10 Q You do not.

11 You have no idea?

12 A No, sir.

13 Q How long have you worked for Consumers Power
14 Company?

15 A Since 1962.

16 Q Has Consumers Power Company ever initiated to
17 your knowledge, a study to determine how much energy is
18 wasted and to figure out ways to stop that waste?

19 A The answer, I think, is no and yes.

20 Q They have never done a study but they have thought
21 about figuring out ways to stop waste?

22 A That's true; to the best of my knowledge.

23 Q What is the state of that study or program, if
24 you know?

25 A I don't know.

barbl3

1 Q You don't know.

2 Was that taken into consideration by the energy
3 review executive committee in 1976 in November when you did
4 your forecast that has been presented in this proceeding?

5 A I don't know whether any of the other men did or
6 not. I was aware of it and gave it some thought.

7 Q Well, what thought did you give it?

8 A I thought this was a fine thing that we ought to
9 find out if there ways of conserving energy. I knew that
10 there were studies being developed for looking at off-peak
11 power and for various changes of load shape.

12 I thought they were good. I think they will be
13 effective over the long run.

14 Q What specific value or input did you give them
15 when you encoded yourself to the possibility of this having
16 an impact over the next eight to 10 years?

17 A I didn't give it any specific value.

18 Q Do you know anybody else who gave it a specific
19 value?

20 A I don't know whether they did or not.

21 Q Did you give energy conservation over the next
22 10 years in your coding any specific value?

23 A If you are talking about a number, no.

24 Q Well, what things do you -- did you believe
25 would occur over the next 10 years by way of conservation of

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1 energy which if it happened, required you when you encoded
2 yourself to reduce the level of demand you thought would
3 occur?

4 A I think there will be more insulation,, better
5 insulation, and therefore, there will be less heat input to
6 housing per unit.

7 Q How much?

8 A I think that it will be reduced probably 10 per-
9 cent.

10 Q What is that based on?

11 A My judgment of all the studies I have seen.

12 Q Which ones?

13 A All the ones that are being done by Michigan
14 Consolidated and Michigan Public Service Commission. They
15 say in their opinion it may go as high as 25 percent. I
16 think those are very optimistic, to go that high.

17 Q What other studies?

18 A Well, those two, I guess, are the definite ones
19 I can refer to.

20 Q What are those studies based upon? Do you regard
21 those as sound studies?

22 A I think that they are better than --

23 Q They are better than nothing.

24 A Yes.

25 Q Can you tell me what their assumptions and

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1 parameters were when they determined whether it is going to
2 be this 10 to 25 percent reduction?

3 A Yes, I can tell you some of them.

4 They assumed that there would be a damper type
5 item that will go in gas furnaces and that that would cut
6 down -- that they would put a smaller orifice, in some
7 of the gas situations, some of the gas burners. They will
8 reduce the ratio of gas to air, I believe it is, in the com-
9 bustion chamber.

10 They assumed that insulation would be installed
11 in essentially all homes in the State of Michigan, I guess,
12 and they assumed -- which they have just changed in the last
13 few days -- they recently assumed that these corrective de-
14 vices for the gas -- and I don't know about the electric
15 homes -- they originally assumed that they could be installed
16 for \$35 a home and yesterday they changed that to not less
17 than \$100 and probably \$200. Those are some of the assump-
18 tions that I am aware of.

19 Q And you relied in part on those assumptions when
20 you factored into your own private encoding?

21 A Yes.

22 Q So that all of the assumptions have -- of conserva-
23 tion you factored in suggested quite a bit of conservation?

24 A Well, they suggested -- what do you mean by quite
25 a bit?

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1 Q More than has been going on in the last 10 years.

2 A I don't know if there has been very much conserva-
3 tion going on, if you take the average of the 10 years --
4 last 10 years.

5 Now there has been quite a lot, I think, and
6 possibly in '73 and '74, or maybe I should say '74 and '75.
7 But I don't think there was much going on before that.

8 Q So you think there will be quite a bit going on in
9 the next 10 years; is that correct?

10 A It is my judgment that it will continue to go on.
11 It will take on a different character. I really think that
12 when it first -- when the energy situation first hit the
13 public cognizance, that there was a step function. That is
14 a way of saying that there was a big splurg toward conserva-
15 tion, reduction of some unnecessary uses.

16 It is my judgment we will not see many of those
17 in the future.

18 Q Why is that, Mr. Mosely?

19 A It is easy to do it the first time and it is my
20 appraisal that there is a certain patriotism and get-together-
21 ness that doesn't last long over a great many years.

22 Q Can utilities do anything to keep this patriotism
23 going over a longer period of time?

24 A I am sure that is not precisely the way a utility
25 would look at it. I was talking about my own appraisal.

barb 22¹

Q How would a utility look at it?

2

A I don't know.

3

Q Well, when you were chairman of the committee

4

of this encoding committee, how did Consumers Power look at it, you were then a utility executive.

5

6

A We looked at it as an objective that should be fostered and achieved to advance the cause of wise use of all energy.

7

8

9

Q What specific steps did you contemplate taking that you factored into your coding?

10

11

A Well, I will start over. We contemplated making rate studies to see if there were certain ways, different rate forms, that would be equitable and still encourage the wise use of electricity. We helped finance the installation of ceiling insulation in homes. We did some dissemination of information about turning down of reostats to conserve energy.

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We in our own company lowered our heating levels and reducing our lighting levels and encouraged others to do that. These are some of the steps that our company had first-hand experience in.

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Q But what I am talking about, Mr. Mosely, is a plan, a carefully thought out plan that costs them money, that is based upon some steps that Consumers Power is going to take in the first quarter of this year, in the next quarter of this year, and some specific reaction to those specific steps to determine what impact that will have on energy demand.

I am talking about an aggressive program.

You are not suggesting that Consumers Power is embarking on that kind of program to reduce --

A Well, I don't know what is impressive.

Q Aggressive, I said, not impressive.

A I thought you said impressive.

I think it was in the last two weeks that our company went to the Public Service Commission, and these numbers this may be off a little --and said, howabout Consumers Power Company spending \$2 million over the next three years to determine if the rate forms and reduction of peak demand is economic for our customers.

Now, I don't know whether you call that aggressive. I do. But that was a step precisely taken within, I believe, the last two weeks.

Q Yes, but that was just because you are trying to stave off the inverted rates in Michigan, so you throw the Public Service Commission a sop by saying you will spend \$2 million in a study, isn't that true?

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MR. ROSSO: Objection.

Argumentative.

CHAIRMAN COUFAL: Overruled.

MR. ROSSO: Also characterizations which should not be allowed.

CHAIRMAN COUFAL: Overruled.

BY MR. CHERRY:

Q Isn't that correct?

A I don't know.

Q Does increased price have a tendency to decrease electrical energy consumption?

A Well, my intuition tells me it does. But I don't have a great deal of reliable information to prove that.

Q Didn't the 1975 budget forecast done by Consumers Power prove that price had a downward effect on demand?

A I'm not sure that it proved that at all. There was a study, I know, in that nature, but I am not all that convinced of what it proved.

Q Did you take that into account in your encoding?

A Yes, plus or minus.

Q Well, if you weren't sure what they proved, how did you factor it into the encoding?

A Well, it is just one of those things that, yes, this may be an effect, but I am sure that it didn't change my views one way or another by a small percentage.

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Q So that it would be fair to say that in your encoding, price did not have a significant impact at all?

A Well, I believe -- you are saying price elasticity?

Q Price increase.

A Price increase.

Price increase has an effect, if I know how it is moving with other prices. But just to say a price increase, and if everything else is inflated, there may be no effect.

Q Did you make a study to determine at what price levels over a period of time, what the price of electricity from an elastic standpoint would be sensitive to in terms of other commodities?

A I did not make such a study.

Q Do you know anybody else who did in connection with the forecast?

On the committee now I am talking about, people who made the judgmental decisions on the encoding committee.

A I don't know whether any of them did or not.

Q So is it really fair to state, Mr. Mosely, that insofar as your own encoding is concerned and the rest of them, you don't know whether price -- that is increased elastic price, increased price of electricity whether in relationship to prices of other commodities or not, you don't know whether that had any impact at all on the forecast?

A That's correct.

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Q Now you said -- would it be fair to say, Mr. Mosely, that inverted rate structures, as opposed to the ones that are applicable in Michigan right now, that is charging more -- do you know what I mean by an inverted rate structure?

A I believe I do.

Q Would you just tell me for the record?

A Well, it is as amount of use per unit time goes up, the price rate per unit goes up.

Q Do you think that inverted rate structures will decrease energy consumption?

A Yes, I believe they will.

Q I take it then your company in pursuing the national goal towards energy conservation is in favor of inverted rate structure?

A I don't know whether my company is or not.

I can say this, that we do have something of an inverted rate structure already.

Q Didn't your company go to the Public Service Commission just last week asking for a \$164 million rate increase, and asking the Public Service Commission to "scrap" its plans for inverted rate structure?

A I was not aware of that last phrase.

MR. CHERRY: Can I have this marked, please, as Midland Intervenor's Exhibit 46.

CHAIRMAN COURAL: You may mark it.

MM8

(Whereupon, the document referred to was marked Midland Intervenor's Exhibit No. 46 for identification.)

MR. ROSSO: This, apparently, is a copy of a newspaper article.

On the basis of the Board's prior rulings with regard to hearsay evidence on this matter, I put the Board on notice now that I will object to the introduction of newspaper articles into evidence.

CHAIRMAN COUFAL: What was the Board's prior ruling on newspaper articles?

MR. ROSSO: Pardon?

CHAIRMAN COUFAL: What was the Board's prior ruling on newspaper articles.

I don't remember any -- I don't recall that this Board, as long as I have been on it, ever ruled on newspaper articles.

MR. ROSSO: No, sir, on hearsay, I said.

Newspaper articles are hearsay.

CHAIRMAN COUFAL: All right, go ahead.

BY MR. CHERRY:

Q Mr. Mosely, I will identify to you Midland Intervenor's Exhibit No. 46, which is a Xeroxed copy of an article on the February 1st, 1977 issue, edition of the Detroit Free Press, written by Allen Sloan, Free Press.

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business writer, titled "Utility Seeks \$164 Million," and I will show it to you.

Based upon my assuming that what is in there that is true, I am going to ask you a question.

MR. ROSSO: Mr. Chairman, I object to the witness being questioned on the basis of a piece of hearsay.

CHAIRMAN COUFAL: Overruled.

I think he has got a right to cross-examine the witness with regard to what a company's position is from a newspaper account of a publicly stated -- if that is what it is -- position.

MR. CHERRY: Well, I will show it to the Board.

(Handing to Board.)

MR. ROSSO: I take exception to the Board's ruling; this is clearly hearsay. There is law from here to China on the question of whether newspaper articles are hearsay or not.

MR. CHERRY: Well, Mr. Rosso --

CHAIRMAN COUFAL: I have already overruled the objection.

MR. CHEPRY: If Mr. Rosso wants to represent the company is in favor of inverted rate structures I will withdraw the question.

MR. ROSSO: That isn't the point.

The point is that we are being held to some pretty strict standards of proving. I would like to see them applied

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across the board.

BY MR. CHERRY:

Q Mr. Mosely, would you take a look at what has been marked as Midland Intervenor's Exhibit 46.

(Handing document to witness.)

(Witness reading document.)

MR. CHERRY: I would like to have this marked as Midland Intervenor's Exhibit 47.

(Whereupon, the document referred to was marked Midland Intervenor's Exhibit 47 for identification.)

BY MR. CHERRY:

Q Let me know when you have read that, Mr. Mosely.

A I have now read it.

Q Now, in your encoding analysis that you did when you encoded yourself, did you assume that there would be inverted or flat rate structures in the state of Michigan over the period of your forecast?

A Basically I assumed that they would remain as they were at that time.

Q Remain as they were?

A yes.

Q And you agree that if inverted rate structures were in effect, it would severely decrease your forecast?

A No.

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Q You don't think it would have any effect?

A That wasn't your question.

Q What, in fact, did it have?

A I think it would be minor.

Q And what do you base that on?

A Well, simply because the inverted rate experience we have had to date -- and I have read about in the trade organizations -- has not indicated severe changes as you put it in your question.

Q Well, does it take a bit for inverted rate structures to have effect?

I mean, would you assume it might take a couple of years before people begin to make the necessary changes to accommodate inverted rate structure; both industry and residential users, for example?

A No.

Q Do you think you do it overnight?

A No.

Q How long would it take?

A Well, it would be a gradual thing, over some period. But I am not sure of the period.

Q What states do you know that have an inverted rate structure?

A Well, I am quite sure that some of the utilities in Wisconsin have them. I am not sure that all of them do.

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And, of course, there is a matter of different inverted rates for different classes of service. When you say inverted rates we are not talking about all classes being inverted rates. I am pretty sure that there are some inverted rates in New York.

Q Can you describe for me the inverted rate structure in New York?

A No, I can't.

Q Can you describe for me the inverted rate structure in Wisconsin?

A No, sir.

Q Do you have any idea what the impact of those inverted rate structures have been?

A I have read in the -- some of the press releases, that they haven't been as severe as had been projected.

Q Press releases by whom? Utilities?

A No, sir.

Q Well, who issued the press releases?

A Well, they were newspaper reports by the likes of Mr. Sloan --

Q The likes of Mr. Sloan.

What do you mean by that?

A Well, who report on utility activities.

Q I see.

And you rely upon those in the course of your

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dealings?

A They make an impression on me.

Q I see.

Do you believe that Mr. Sloan was correct when he reported that Consumers asked the PSC to scrap its system of inverted rates?

A I don't know.

Q You don't know.

Now, if Consumers Power Company decided to launch a program in the State of Michigan to prevent the inverted rate structures and succeeded, do you think that would have a tendency to increase demand or decrease demand?

A If Consumers did?

Q Consumers went out and decided that's it, that's the last straw, we ain't gonna to have inverted rates, and they were successful, however they did it. No inverted rates.

Would that have a tendency to increase consumption or decrease consumption?

A Well, if we can divorce how it is done, whether by Consumers or someone else, I think that inverted rates will not increase consumption.

Now I say it tathat way because I just don't know what the effect will be, how much it will be. But it won't be --- it won't have an impact to increase consumption.

Q In order to build generating capacity, you told me

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you have to look at the economics of it.

A I don't recall telling you that.

Q Well, didn't you tell me that economics are important in the load forecast?

A I think I told you that they were important in determining how much capacity would be required in order to meet the load.

I think I also told you that load forecasts are made for another purpose which was to allow studies of rate structures and their impacts.

That is the way I remember my testimony, Mr. Cherry.

Q Well, should a load forecaster consider whether the company is capable of meeting load forecasts as desirable.

A Strictly as a load forecaster, no.

Q Well, how about as an executive?

A Well, he may have other functions. But as a load forecaster, he ought to divorce himself from whether or not the company can meet the load.

Q Do you that in finally deciding on a forecast that the company adopts, the cost of meeting that load is an important inquiry?

A I don't think it is for the load forecaster.

Q No, no. In finally deciding what to do.

In other words to go out on the -- if you decide to pick a particular load forecast and implement it, is the

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cost of implementing that load forecast a relevant inquiry?

A Well, sure.

The cost of any implementation is relevant.

Q I see.

Now who was on the probability encoding team?

A Jack Mosely, only.

Q Just you?

A I did all the encoding.

Q Well I thought that the encoding was done by this kind of conversation in a group with all of these executive people.

A Well, maybe I should explain what my concept of encoding means.

Q Well don't tell me what your concept is.

I want to know -- I am really only interested in what happened.

Now, is it your testimony that this group, each of the people in this group met separately with you and you questioned them?

A That's correct.

Q I see.

How come you didn't ask them whether they considered price elasticity?

A I'm not sure I didn't ask them.

Q But you told me you don't know what input price

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elasticity had on any member's views. I asked you that before.

So I assume if you don't know you didn't ask them.

A Well, okay, there is a difference between asking them and suggesting that they think about it.

Q I see.

Well, did you get a response from them?

A I don't recall any specific responses.

Q Well, how do you know they thought about it?

A Because I suggested it.

Q They always do what you say?

A No.

Q Well, how do you know they did it?

A I don't.

Q What is the error band you would put on your encoding studies?

A What do you mean by error band?

Q I mean would you have an error band -- I mean, like if I thought I could walk from here to the other side of the room in ten minutes, I would put an error band on there of zero, because clearly I could walk 30 feet in ten minutes. We start getting into seconds of milliseconds, you know -- what I am talking about is every probability has an error band, doesn't it?

A Well, every probability has an uncertainty.

Q Well, okay, an error band, plus or minus, et cetera.

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A Yes, but it is not a band.

Q I see.

Well, what I was talking about was a range on either side of the projection.

Do you understand what I mean, Mr. Mosely?

A No, sir.

Q You don't?

Wasn't there a probability factor used in the encoding analysis?

A I really don't know.

I don't know the significance of a term, "probability factor."

Q Well, didn't the Executive Review Committee conclude that there was only a 2000 percent chance that they would be right at one end of their projection?

A A 2000 percent chance?

Q Yes, one chance in 2000?

A I don't recall any such evaluation as that.

Q Who else -- who did you encode, Mr. Mosely?

A I encoded Mr. Sheppard.

Q Who is he?

A He is vice president of region operations.

Q What is his background?

A Well, he is -- the first I know him, which was four or five years ago, he was a division manager in Bay City,

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I think it was.

Q In Bay City?

A Yes.

Q What did he do as a division manager?

A He managed the division.

Q Did he do any forecasting studies as the division manager?

A Well part of the forecasting input comes directly from the division. Each year they make a close survey of -- a personal survey of all of the large and industrial commercial users and review what is going on in the residential areas.

So of course -- I don't know first-hand just what he did, but he would have responsibilities and I am sure he did a lot of that work in the division.

Q You sure?

A I'm almost positive.

Q But you never asked him?

A No, I never did ask him.

Q And you never made an inquiry as to what he did?

A Yes, I made an inquiry.

Q Of whom?

A I asked -- I can't remember, one of the men that worked with him if he had been in this and he said yes, he had been in it.

Q What impact did Mr. Sheppard think inverted rate

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structures would have on the demand over the next ten years?

A I don't know.

Q Didn't ask him?

A I can't be sure that I asked him. I don't remember specifically what I asked each man, so I will be unable to identify which ones I asked which questions.

Q You are unable to remember which questions you asked which man?

A That's right.

Q You told me earlier that it is important in a probability encoding--or you told your counsel--in a probability encoding system, to understand why a person believed what he did believe.

Isn't that what you said, that that was an important parameter?

A Well, I don't know whether I said it exactly that way.

I will tell you what -- it is important that the man understand what he is talking about.

Q Okay.

A That he have a feel for it. It is up to the encoder, the man who is trying to get these numbers out to broaden his view and be sure that he is seeing about the whole picture and that he is concentrating on it and therefore it is important for him to know what he is talking about.

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Q Well where do you do this, in a quiet room with a little light, a lot of light?

Does any of that matter, the external surrounding circumstances of --

MR. ROSSO: Objection.

Irrelevant.

CHAIRMAN COUFAL: Where are you going with that, Mr. Cherry?

MR. CHERRY: Well I am just trying to get a feel for the encoding analysis. You know, just the circumstances he sits in. He says you have to concentrate. I want to know, do you go away, do you do it in an office, do you answer telephone calls?

CHAIRMAN COUFAL: All right.

Go ahead.

BY MR. CHERRY:

Q Why don't you describe for me --

CHAIRMAN COUFAL: Mr. Rosso --

MR. ROSSO: All right, I apologize.

CHAIRMAN COUFAL: What is really bugging you is the hearsay, and I want to go back and I want to explain that to you one time.

The newspaper account is not evidence of anything.

MR. ROSSO: Yes, sir.

CHAIRMAN COUFAL: It is obviously hearsay.

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The man has the right, however, in my opinion, to pick up items from wherever, and cross-examine the witness on it. The test is credibility.

That doesn't mean that the item -- the question he asks is proof of anything.

MR. ROSSO: Very well.

That is not what is bothering me. What is bothering me is the fact that the objection to my last question was overruled, sir, because I think that what we are doing is playing games and asking questions like -- you know, how much light was in the room, or how much light wasn't in the room. It is kind of the games you play before a jury in a personal injury case, and I really don't think they have any place in an administrative hearing on questions of the depth that we are dealing with here.

Now I apologize to the Board. I was overruled. I sort of tossed my paper down here and I apologize. I don't do things like that generally and I won't do it again. But that is what is bothering me, since you asked.

MR. CHERRY: Mr. Chairman, I don't know whether Mr. Rosso is right or wrong, I have never tried a personal injury case, and I never intend to do so.

MR. ROSSO: I didn't say that you do, sir.

MR. CHERRY: You must be drawing on your own experience.

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MR. BRENNER: Mr. Chairman, these exchanges between counsel have got to stop. Both Mr. Rosso and Mr. Cherry persist in that and it seems to me wasting the Board's time and everybody else's time.

MR. ROSSO: I agree, sir.

I apologize for that, too, sir.

BY MR. CHERRY:

Q Mr. Mosely, what I am getting at --

MR. BRENNER: I ask the Board to admonish both of them.

MR. CHERRY: This is ridiculous, admonishing.

CHAIRMAN COUFAL: Go ahead and ask your question, Mr. Cherry.

BY MR. CHERRY:

Q Mr. Mosely, would you describe to me how you had this session with Mr. Sheppard, for example?

I mean, did you arrange it in advance?

What did you tell him to do, where did you meet, et cetera?

Can you recollect and describe that for me?

A Yes, I can.

Q Go ahead and do it.

A Well, I called Mr. Sheppard on the phone -- we will say one day because I don't remember which day it was -- and said, Lowell, are you going to be in tomorrow? I would like

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to come in and we will have this encoding of your probabilities on the electric load forecast.

And he said, yes, I will be in, and I think it was around 10 o'clock, full daylight. A real brilliantly lighted office.

I can't remember whether he closed the door to his outer office or not. I don't think we did.

And so I said, Lowell, I have got here a copy of this list of the items that all you fellows sent in about high load forecast influences and low load forecast influences. And I would like for you to take your copy and let's get on with this.

I am going to draw a curve Lowell as we go along with this thing, and I am going to mark some points on it, and draw it, and then tell you what it is all about.

Then after we get finished, I am going to explain it, what I think you said, in more detail. And it has got to be what you want, or I don't want it. But I also want you to know what it is all about.

So we then took the list and I said we want to get into thinking about what are all the factors, what really might happen that would just cause our load to grow like it used to, or even more, that would really make it bound. And I want you to read the whole list.

And I waited a few minutes while he read it.

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And then I said, okay, Lowell, mark on there if you will, the three or four items that you think could cause the greatest impact.

And he marked three or four. I don't remember exactly.

And I said, are there any other items that aren't on this list that come to your mind that have been overlooked?

Well, no, I don't think he had anything to add.

And I said, okay, Lowell. Now, let's think about that. And if all of these most effective things should happen, what do you think the chances are of its happening are, and how high would the load growth be?

And I am going to give you numbers, which I don't know whether these are Lowell's numbers or not, but they are typical.

Q You are giving me numbers for the process of helping -- assist me in your answer, but you are not representing that they are in fact the true numbers used, is that correct?

A That is correct.

Q Go ahead.

A So, Lowell might have said, well, I think there is a 5 percent chance that the load could grow as high as 8 percent per year. That means a 95 percent chance, Lowell, then that it will be that or lower.

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Okay. And at that point I marked a cross mark on the curve that I had that represented that.

Q But did you ask him why he thought that there was a 5 percent chance that that would happen?

A No. No. I don't believe I did.

I had asked him to consider all of the impacts and then place his value on it.

Q But all he gave you were the factors he thought were important and what impact they may have had on the load, isn't that correct?

A And then he assessed the probability of it happening.

Q Right.

But did you ever ask him why he thought it would happen, or why he thought those were significant factors?

A I don't think I asked him that at that point.

I think if I had, that I would be influencing his judgment and I didn't want to do that.

Q Well how do you know that he -- and I am not being facetious -- how do you know he wasn't joking with you?

A You don't know Lowell.

(Laughter.)

Q Sure, and I don't know Santa Claus.

But what I am trying to find out is, if you can't tell me what Lowell's background is in forecasting, except that he was division manager, you think he made surveys, et

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cetera, and you are absolutely sure that he is really nice and -- how do we know that Lowell is not an idiot.

I mean, if you don't ask the man what he based it on, of what worth is his opinion? Can you answer that question?

A I have just gone through 15 minutes with him going over these high elements, discussing them with him. And if that isn't what he based it on, I don't know what he did.

Q But you never asked him.

Maybe he was just trying to impress you, give you a going away present.

MR. ROSSO: Objection.

Argumentative.

CHAIRMAN COUFAL: Sustained.

BY MR. CHERRY:

Q Who is the next man -- by the way, how long did this encoding session last?

A Well, I should tell you we did electric and gas both in the same session, so as best I remember, an hour and a half, something like that.

Q Did both gas and electric in an hour and a half?

A That's right.

Q And the next session with Lowell, how long did that take?

A I didn't have a next session with Lowell on encoding.

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Q I see. That was it with Lowell. For an hour and a half you did gas and electric the same day.

Now, who was the next person you encoded?

A As I say, I am not giving you these men in order.

Q Okay.

Tell me the next member of the team that comes to mind?

A John Kluberg.

Q Kluberg?

A Yes.

Q What is Mr. Kluberg?

A He is senior vice president and controller, and at that time I believe he was in charge of rates.

Q Rates.

What does Mr. Kluberg think of inverted rates? Does he like them?

A I don't know.

Q Did you ask him?

A No.

Q Did you ask Mr. Kluberg what impact he thought inverted rates might have over the next ten years?

A I'm sure that I didn't ask him that specific question.

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Q Did you ask him whether he thought inverted rates would obtain in Michigan in the next ten years?

A I didn't ask him that exact question.

Q Here you had a guy with a rate background, who was a financial guy. You had a real good chance of getting his viewpoints of whether or not this occurrence would occur. Why didn't you ask him?

A We had talked about it in other meetings. I had talked about it many times. But we're talking about encoding sessions, and I don't remember asking him that question.

Q Since you had talked about it many times you can tell me what Mr. Kluberg's viewpoint is. Is he in favor of inverted rates?

A I don't know if he's in favor of it. You're asking about a personal opinion, and I don't know what his personal opinion is.

MR. ROSSO: Excuse me. Might I ask the witness to delay a fraction before he starts answering the question? I had an objection to that one, and he started answering before I could get it out.

THE WITNESS: I'll try to.

BY MR. CHERRY:

Q Based upon your conversations with Mr. Kluberg, do you know whether he's in favor of inverted rate structures or not?

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A I don't know whether he is or not.

Q What does Mr. Kluberg think the price is going to be of electricity compared to other commodities over the next five years?

A I don't know what he thinks of it.

Q You don't know.

Did Mr. Kluberg project an increase in electrical growth?

A Yes.

Q What was his number?

A I don't know.

Q You don't know.

A It's in the record somewhere, but I don't remember.

Q How long did Kluberg's encoding analysis take?

A I can't be very precise. They were generally -- I think possibly the shortest one of the whole group might have been an hour and fifteen minutes. I think the longest one might have been two hours. I really don't remember just how much time was spent with each of these individuals.

Q But when you were talking about Lowell and I asked you some questions about whether you asked him for his basis for these things and you said no, I assumed that was true throughout the encoding analysis. You didn't ask the people to give you the basis for why a particular factor is significant or why they think it's going to be 5 percent or 10

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percent probability of occurring, is that correct?

A No, sir. It's one of the cardinal rules that someone who is encoding do not influence the man's judgment.

Q So you did not ask those questions, correct?

A That's right.

Q Of anyone?

A I didn't ask those specific questions.

Q Of anyone?

A That I recall.

Q Who else did you encode?

A Mr. John Simpson.

Q Simpson.

What does he do?

A He's the Executive Vice President of Distribution and General Services. I think that generally covers it.

Q By the way, had Mr. Kluberg ever done a forecast, an econometric forecast? Do you know if he's ever done one?

MR. ROSSO: Objection. I don't know what an econometric forecast is. The question is vague.

CHAIRMAN COUFAL: Ask the witness if he can identify what an econometric forecast is.

BY MR. CHERRY:

Q Can you tell me what an econometric model is for a load forecast?

A It's a little different. I know what econometric

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models are.

Q What are they?

A They're models that are usually placed on a computer that purport to represent the interaction of certain economic factors, indicating certain outcomes based on certain assumptions.

Q Do you think that's a good way to do forecasting?

A I think it's useful for some purposes, yes.

Q Consumers, I assume, has econometric models they use in load forecasting?

A Consumers, I don't think, has its own econometric model. It has consulted several university econometric models.

Q But not in connection with the 1976 November forecast?

A Well, I'm quite sure that Mr. Denton, who is our economist, gained considerable of his input and the summary of information he gained from us was based in part on the proceeds from econometric models.

Q Which one?

A The Wharton School is one of the ones I remember, and also the University of Michigan. It seems to me there is another one, the name of which I don't recall at this moment.

Q If I just call up the Wharton School and say,

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"I'd like you to give me access to the Wharton econometric model that Mr. Denton of Consumers Power saw," I'd be able to find out?

A. I don't know.

Q. You don't know.

Does it have any more specific name to it?

A. I'm sure it does. I'm not familiar with it.

Q. What did Mr. Denton do with whatever he got from Wharton, the University of Michigan, and somebody else?

A. I think he incorporated --

Q. No, no. Do you know?

A. No, I do not know.

Q. Denton was one of the people that you encoded?

A. No, sir.

Q. He wasn't.

Do you know what Mr. Denton's views are on the prospect of increased industry in Michigan over the next ten years?

A. Not specifically.

Q. Did you ask him in connection with the Executive Review Forecast Committee?

A. I did not ask him.

Q. Do you know if anyone did?

A. I don't know whether anyone asked him or not.

Q. Did the Executive Review Forecast Committee consult

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the load forecasting study that was prepared by the Rate Department of Consumers Power?

A I would like you to be a little more specific as to what study you have in mind.

Q Well, you tell me if any load management survey prepared by the Consumers Rate Department was used by the Executive Review Committee.

MR. ROSSO: I'm sorry. Initially you asked for a forecasting study, and now you're asking for a load management survey. Which one are you after?

MR. CHERRY: I always ask my last question.

THE WITNESS: I can only speak for myself. I did not see a formal report.

I do know that they were making such a study, and I do know that it was part of the input that finally came about this request to make the total big study that I referred to earlier; but I did not see a specific study.

BY MR. CHERRY:

Q What impact will load management techniques have in the future in connection with the consumption of electricity? Do you know, over the next ten years in your service area?

A Well, I know what some of the possible effects are, but that's one of the big problems. These things up to this point are largely theoretical.

They may work with great efficiency, and they may

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not; but the general desired result of load management is to divert or transfer certain loads from one time of day or one time of the month to another time, when it can be supplied at less cost and possibly with less waste or losses, and therefore make more efficient use of whatever energy supplies there are.

I think that there will be some benefits to come out of this practice.

Q You didn't include those specifically in your encoding yourself?

A There are no specific answers to include. They certainly entered my considerations as I formed my judgment.

Q Don't you think that your forecast that you've just described on direct and cross-examination would have significantly improved in terms of its accuracy if you had done it pursuant to some statistical analysis or econometric model?

A I don't believe I have said it was not done pursuant to those things. As far as I'm concerned, I think our forecast is excellent.

Q Excellent.

How many people are on the encoding committee?

A I did all of the encoding.

Q How many people did you encode?

A Five, other than myself.

Q How long was your encoding session, yourself?

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A I think I took about, oh, probably about three hours.

Q Would it be fair to say that an average of your encoding sessions with the other people was approximately three hours?

A No, the average would be much shorter.

Q Two hours?

A I would say an hour and forty-five minutes.

Q Let's say two hours.

So in thirteen hours you and these other five men sat around and you figured out what electricity would do over the next ten years, but you never asked them what the basis of their decision was. Is that about right?

MR. ROSSO: Objection. Argumentative.

CHAIRMAN COUFAL: Overruled.

You may explain your answer, Mr. Mosely.

THE WITNESS: I did not ask them the specific question as to what they based their answer on, because there's no end to this thing. I would then have been influencing what they might have said.

I tried to create the best atmosphere and the best ground I could and the broadest ground so that they would indeed exercise their independent and full judgment, but I did not ask them how or why did they come up with their answer.

BY MR. CHERRY:

Q It was all done in thirteen hours, total?

A I think so, but, Mr. Cherry, that is really a lot longer time than we usually take in coming to those judgments.

Q So you usually do a forecast in a lot less than thirteen hours?

MR. ROSSO: I object to this. This is very misleading, "you do a forecast in a lot less time."

He knows darn well the witness is talking about the deliberations of the committee which reviews all of the inputs of the company. This is just a misleading line of questioning, and I object to it.

MR. CHERRY: If he didn't ask somebody what his input was, how could he review it?

BY MR. CHERRY:

Q What did you mean, Mr. Mosely, when you --

MR. ROSSO: I move that that be stricken.

CHAIRMAN COUFAL: I didn't hear it, but I'll strike it.

MR. CHERRY: It was pretty good.

CHAIRMAN COUFAL: Go ahead and ask him a question.

MR. CHERRY: Will you strike Mr. Rosso's remarks before that, because mine were in response to his. They were gratuitous, too. And I want you to admonish him.

(Laughter.)

CHAIRMAN COUFAL: You're admonished, Mr. Rosso.

MR. CHERRY: Will you strike his remarks, too?

I never asked you to do a strike before, never.

CHAIRMAN COUFAL: I'm so upset by your asking me the first time that I just don't know how to react, so I'll not strike them.

BY MR. CHERRY:

Q Mr. Mosely, did you ever hear these words:

"The first attempt to quantify relative degrees of certainty for future energy sales has been interesting and informative. We have more to do respecting market analysis and perfecting our techniques, but we believe these procedures will prove to be very useful for forecasting purposes."

Have you ever heard those words?

A Yes, sir.

Q Whose are they?

A Mine.

Q What were you describing?

A The application of probability to decisions on load forecasts.

Q And you were saying that was the first attempt Consumers made at it.

A It was the first -- I guess maybe I said attempt. It was the first time we had attempted to apply it to load forecasting in Consumers Power Company.

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Q You described it as interesting and informative.

A Yes, sir.

Q You said you had more to do respecting market analysis and perfecting your techniques.

A That is correct.

Q So you agree that the techniques that were used were not perfect.

A There's nothing perfect.

Q Well, what do you think has to be done to perfect the techniques, then?

A Well, there are a number of things.

Q What are they?

A Well, first of all, there has to be another encoder next year since I will not be there.

Q That's just an alternative to you. Is that what you meant by that, perfect the technique?

A That isn't all I meant.

Q But you meant in perfecting techniques --

CHAIRMAN COUFAL: Let him finish, Mr. Cherry.

MR. CHERRY: Oh, I'm sorry.

THE WITNESS: I meant that you need a very accomplished encoder to do this right. He has to be sure, if he can, that he is avoiding such things as anchoring, where a fellow has preconceived positions that he wants to defend. You have to try to avoid such matters as prejudice:

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Does it mean something to his boss for him to come up with a certain answer?

You need to get a person in the frame of mind where he is thinking and concentrating on what he is doing. There are techniques for the kinds of questions that should be answered, and that sort of thing should be worked on. It shouldn't be done by someone who knows nothing about it.

So that's the kind of improvement of techniques that I hope will be developed.

BY MR. CHERRY:

Q Do you regard yourself as an accomplished encoder, Mr. Mesely?

A I consider myself much above average, but I'm certainly not what I would call a real expert.

Q How many times have you encoded people?

A Oh, individuals, probably twenty.

Q Twenty individuals.

In connection with how many subject matters? Because you did five in connection with this load forecast.

MR. ROSSO: Mr. Chairman, I'm going to object to this line of questioning. It's getting pretty far out on the fringes, I think.

CHAIRMAN COUFAL: I think the validity of the study has to do with how well the study was performed, and I think these questions go to the experience of the encoder.

1:13

Overruled.

BY MR. CHERRY:

Q Mr. Mosely, how many other projects were involved in the encoding of the other fifteen people?

A Well, in the course of the work that we've been doing in the company where we have been applying this technique to some other subjects, such as -- in most cases we haven't used it for definitive answers. We're training ourselves. We have two or three other men who are now being trained, so part of this is a training process.

But we do it on such things as the probability of a rate increase, the probability that a rate increase will come through on time, the probabilities that a bond market will be good at a certain time or that it will be bad, and the probability of certain construction plans as to whether they will underrun or overrun.

There's a whole scope of applications in which we are doing this. We've been at this development process since February 1976. It is on this load forecasting is the first time we have used it for a definitive result for the company.

Q So the first time that the company in this development process has decided to rely in effect on the results of the probability encoding study is this particular forecast?

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A. That is correct.

Q. How long were each of the other fifteen encoding sessions that you had, these practice sessions?

MR. ROSSO: Objection. Irrelevant.

CHAIRMAN COUFAL: Overruled.

THE WITNESS: I don't remember. They were certainly varying lengths of time. Some of them may have been as short as fifteen minutes, depending on the subject. Some of them may have been an hour, hour and a half.

BY MR. CHERRY:

Q. Who is the next member of the group that you encoded for the forecast?

We have Lowell now. We have Kluberg. Who is another guy?

I don't mean in order; I just want to know the name.

A. Well, you said next.

I mentioned Simpson.

Q. Simpson was the Vice President of Distribution or something or the other?

A. He's the Executive Vice President of Distribution and General Services.

Q. What experience has Mr. Simpson had in forecasting?

MR. ROSSO: Excuse me. We already went through Mr. Simpson.

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MR. CHERRY: I don't think we did.

THE WITNESS: No.

MR. ROSSO: I'm sorry. I thought we had.

MR. CHERRY: Pay attention.

BY MR. CHERRY:

Q Mr. Mosely, what experience has Mr. Simpson had in preparing forecasting studies?

A Well, he hasn't had all that much direct experience in the electric business, but he has a very long background in gas.

Q He's your gas man?

A That's right.

I don't know whether he's just been one or two years on the Executive Review Committee for electric, but he has been on the Executive Review Committee for gas I guess ever since Day 1, at least as far as I know, at Consumers Power Company.

Q Did he think it was going to go up, too?

A What was going to go up?

Q Electric consumption.

A He thinks it will increase.

Q By how much?

A We've got a curve. It's the different probabilities of different amounts.

Q He thought it would be around 2 percent, didn't

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he?

A. As I remember his curve -- and I ought to refresh it -- I think that he said it was going to be between 2 and 5 percent.

Q. So he wasn't part of the consensus of 5 percent. He thought it was going -- he thought it had a range of 2 to 5 percent.

A. Well, basically he was part of the consensus in the sense that he really thought that the 5.2 was too high.

On the other hand, there were some gentlemen who felt that 5.2 was too low. To the best of my remembrance, he was the only one that thought the 5.2 was too high. That's the way I remember it.

Q. Would it be fair to say that the consensus of the Energy Executive Review Committee was that electrical energy will increase over the period of the forecast of not less than 2 percent and not greater than 5.2 percent?

A. No, that's not true.

Q. That's not true.

That it's going to be 5.2 percent?

A. No, that's not right.

Q. Well, how would you state it's going to be?

A. Well, I would say that the most likely -- the greatest expectation for any growth rate is that it will be at 5.2 percent, but there is some probability, some likelihood,

17
that the growth rate could be higher and there is some probability, some likelihood, that the growth rate will be lower.

DR. LEEDS: Mr. Cherry, I hate to interrupt you, but I'd like to ask him a question because I'm confused about a point. May I?

MR. CHERRY: Sure.

DR. LEEDS: Mr. Mosely, I think earlier I thought I heard you say that 5.2 was most probable or something like that, and now you're saying most expected.

THE WITNESS: I've used those terms interchangeably, most expected and most probable; and there's another term that is used, the highest expectation.

DR. LEEDS: Okay. Would you tell me what you mean by those terms?

THE WITNESS: I will try to.

There is a probability distribution. It may be that you're familiar with the bell-shaped curve that is the density function for flipping a coin or something of that sort.

The greatest probability, if you go through a large number of flips, if you're going to say, "Well, do I have more heads or more tails," the greatest probability is that it will be balanced. It will be just about equal.

There is some probability that 90 percent of

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your flips would come up tails. There's a 90 percent probability that 90 percent of your flips would come up heads, but those are very rare events -- wait a minute. I said that wrong.

There's a 10 percent probability that you'll have 90 percent heads. There's a 10 percent probability or something like that that you'll have 90 percent tails. Those are very remote probabilities, but there's a very strong probability that you'll have just about equal heads and tails out of a large number of flips.

So it's the same with this. You get the probability of a load growing at 1 percent, probability of it growing 2 percent, probability of it growing 3, and you'll find that due to the shape of the curve that it indicates the greatest probability is for it to be very near 5.2 percent.

There is some probability that it will be all other values.

End 9

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1 DR. LEEDS: Are you plotting probability density
2 functions?

3 THE WITNESS: We are really plotting cumulative
4 probability and from that we can plot the density function,
5 but the density function has its peak where the cumulative
6 probability has the greatest slope.

7 So we look at the -- in this case, I did both.
8 I plotted the cumulative probability and then plotted the
9 density function and the density function peaks at 5.2 per-
10 cent.

11 DR. LEEDS: What is the most expected?

12 THE WITNESS: That's the same thing.

13 DR. LEEDS: Thank you.

14 Excuse me, Mr. Cherry. I apologize for inter-
15 rupting.

16 MR. CHERRY: No; you don't have to apologize.

17 BY MR. CHERRY:

18 Q Did the -- didn't the probability encoding team
19 put down a probability of occurrence for different growth
20 rates?

21 A Mr. Cherry, I have trouble when you are talking
22 about the encoding team; one person did the encoding. The
23 others were the committee who were being asked for their
24 information.

25 Q Who were the same people who were encoded?

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1 A That's correct.

2 Q I refer to that whole group as the encoding team.
3 That's my definition, meaning the six people; you and the
4 other five; okay?

5 A (No response.)

6 Q Did the encoding team eventually arrive at a
7 list of probabilities for different growth levels?

8 A Yes, sir.

9 Q Your answer is yes?

10 A Yes.

11 Q And is it not true that by looking at those
12 numbers, the majority of those six people believed that there
13 is a 50 percent probability that the annual growth rate will
14 be less than 5 percent?

15 A I don't know that. I haven't looked for that
16 number, and I can't tell you that without looking.

17 Q If a majority of the team believed, these six
18 people, that there was a 50 percent probability that the
19 growth rate would be less than 5 percent, if that were
20 true, how would that impact the 5.2 percent level selected?
21 Would it have a tendency to decrease it or increase it?

22 A I can't tell without analyzing the entire width
23 and breadth of all of the curves as to what that impact
24 would be.

25 Q Well, let me ask you this question:

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1 Would it be possible for a group of people to
2 arrive at a consensus of 5.2 percent growth if they believed
3 there was a 50 percent chance that it would be less than
4 5 percent growth?

5 A That's possible.

6 Q Would it be -- would that possibility be remote?

7 A I really don't know. The thing of it is, that
8 these curves don't all have the same shape. Some of them
9 think there is a strong possibility that actual growth cannot
10 be outside a certain bound. And when they take a position
11 like that, why it makes a certain flat place on the curve.
12 They then think that the possibilities of it being in another
13 range do range widely. And so a curve can start out flat
14 and take a very severe jump and it depends on where those
15 changes of their evaluations take place, as to what the
16 eventual effect will be on the consensus.

17 Q Now in your letter summarizing the results of
18 the encoding, you said they had a perfect -- to perfect
19 techniques, you said that more market analysis or research
20 had to be done; do you remember saying that?

21 A Yes, sir; I do.

22 Q What did you mean by that?

23 A Well, there is in this new era of uncertainty,
24 about codes there are new elements that have to be considered
25 in a depth and with a precision that did not seem to be

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1 necessary in the past. And we are particularly concerned
2 about switches from one fuel to another.

3 And also, just what end use our customers and
4 other users of energy make of energy they get.

5 So with that knowledge or that impression that we
6 need a lot more fundamental information as to what our cust-
7 omers may do as they exercise a new set of options, it has
8 been recommended that -- and our management has decided to
9 start a very extensive end-use survey.

10 Q End what?

11 A End-use survey.

12 Q What is that?

13 A What?

14 Q What does the end-use refer to?

15 A The end-use of the energy, what do our customers
16 do with the energy they have.

17 Q Do you think that's relevant?

18 A I do.

19 Q You really do? Why?

20 A Because we are in the energy business and if they
21 developed new uses, or if they have options to change, if
22 there are other competitors coming in that will affect the
23 electrical load growth.

24 Q You would agree with the statement that the
25 end-use of energy is an important factor in analyzing whether

1 a particular demand will be necessary?

2 MR. ROSSO: I object to that question. It is
3 very vague. It will be necessary: I don't understand that
4 that means?

5 MR. CHERRY: That the end-use of electricity ought
6 to be analyzed and -- in determining what capacity is necessary
7 for -- or what peak demands may obtain.

8 BY MR. CHERRY:

9 Q Would you agree with that?

10 A I agree with that, but I also must add that the
11 end-use of other energy forms is also equally important. And
12 that is what we propose to go into; both other energy forms
13 as well as electric.

14 Q I agree with you.

15 Now you told me earlier that one of the things
16 that might decrease demand would be an application of en-
17 vironmental regulation?

18 A Yes.

19 Q Now would it therefore be also important to take
20 a look at the environmental effect of these different energy
21 end-uses?

22 MR. ROSSO: Objection. This is way beyond the
23 scope of the testimony of this witness. Mr. Cherry is trying
24 to make a legal argument which he already lost before the
25 Commission and did not appeal to the Court of Appeals

parb6

1 and is not one of the remanded issues in this case. He
2 is taking the words end-use as used by this witness and now
3 twisting them to his meaning of it.

4 CHAIRMAN COUFAL: I think that there is a point
5 that that objection is going to be good. But I don't think
6 it is necessarily good on this question.

7 MR. ROSSO: May I have the question read back?

8 (Whereupon, the reporter read the pending question
9 as requested.)

10 MR. ROSSO: I object on the basis that this is
11 a question that is beyond the scope of the witness -- of the
12 expertise of this witness. He hasn't been here to testify
13 about environmental uses, environmental effects.

14 CHAIRMAN COUFAL: Overruled.

15 BY MR. CHERRY:

16 Q Mr. Mosely?

17 A I think that all relevant pertaining to end-use
18 should be considered.

19 Q So you would agree with me?

20 A I will have to hear your specific question to say
21 that I can agree with every word of it.

22 Q I thought you would listen to it when it was read
23 back? You told me that taking a look at the end-use of
24 electricity is important in determining demand and capacity.

25 What I want to know now also is: Do you agree,

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1 because of your earlier testimony, that environmental regula-
2 tion may have a tendency to demand -- dampen demand, and
3 if you agree that we ought to look at the environmental impact
4 of that end-use of electricity in making this analysis?

5 MR. ROSSO: Objection, same objection.

6 CHAIRMAN COUFAL: Overruled.

7 THE WITNESS: I don't think that Consumers Power
8 Company necessarily needs to do that.

9 BY MR. CHERRY:

10 Q Do you think it is relevant to the inquiry?

11 MR. ROSSO: Objection; vague. Which inquiry?

12 CHAIRMAN COUFAL: Can you clean it up, Mr. Rosso?

13 BY MR. CHERRY:

14 Q We are talking about determining capacity and
15 demand, as you forecast, and we started out that one of the
16 things is environmental regulation. And we go into this
17 end-use and then environmental impact.

18 Do you think that analyzing the environmental im-
19 pact in connection with energy and -- end-use is important
20 to the overall inquiry of forecasting demand and capacity?

21 MR. ROSSO: Objection.

22 CHAIRMAN COUFAL: Overruled.

23 MR. ROSSO: Continuing objection.

24 THE WITNESS: I think it has a place in it, but
25 when you say it is -- is it important to it, well, the main

barb8 1 thrust of this inquiry should be is what is going to be the
2 electric load growth.

3 Now there are 100 things that can impact on that.
4 And to just stick your head in the sand about any of them
5 wouldn't be appropriate.

6 BY MR. CHERRY:

7 Q I appreciate that; to stick your head in the sand
8 about any particular output or input would be inappropriate.
9 I agree with that. I will use it in my brief.

10 Now what I want to know, Mr. Mossely, is simply
11 this:

12 You believe, do you not, that if a particular
13 end-use has an environmental impact which society believes
14 is disadvantageous, that would have a tendency to increase
15 regulation which might then dampen demand; do you agree with
16 that as a possibility?

17 MR. ROSSO: Objection.

18 CHAIRMAN COUFAL: Overruled.

19 THE WITNESS: The point of it is that we are not
20 so much concerned with how these things interact as we are
21 with the -- what the customer is going to do about it.

22 The customer is the guy that turns on the switches
23 and turns them off. And we are more concerned about what he
24 is going to do as long as we are concentrating on what our
25 load is going to be and that is what we are concentrating on

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1 here.

2 BY MR. CHERRY:

3 Q Mr. Mosely, is it a better thing, all other things
4 being equal, to over-estimate or under-estimate in a fore-
5 cast?

6 A That depends on where you are, when you are, and
7 so forth. It is always best to forecast precisely, which is
8 an impossibility.

9 Q What is second best; over-estimating or under-
10 estimating?

11 A Well, that has two answers in my experience. Sev-
12 eral years ago it was better to under-estimate. And the
13 reason it was better to under-estimate was that with respect
14 to the resources, you could build a new plant to carry the
15 load in about two years, two or three years. You could put
16 in a turbine place in two or three years and carry the load.

17 That option is no longer open. So you can't
18 afford to run that risk without jeopardizing your utility
19 responsibility to meet the load.

20 So there is a much greater burden on having a good
21 and accurate forecast now than there used to be. It hurts
22 the company as well as the customers if you overestimate.

23 Q How is that?

24 A Well, it is because the company has idle
25 resources that it doesn't make a return on, and the customer

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1 probably has to pay somewhat higher rates as a result of it.

2 So there are two strong arguments for not having
3 too much capacity.

4 Q Now, Mr. Mosely, who else did you encode?

5 A Mr. Youngdahl.

6 Q Oh, Youngdahl. Ah, gee; what does Mr. Youngdahl
7 do?

8 A He is executive vice-president of energy supply.

9 Q Did you know that Mr. Youngdahl does not believe
10 that there should be any social or welfare purpose to be
11 accomplished by rate structures; did you know that was Mr.
12 Youngdahl's opinion when you encoded him?

13 A No.

14 Q Do you think that Mr. Youngdahl, if -- holding
15 that opinion, would have a bias that would not be a good
16 thing to have in this encoding analysis?

17 A I don't know.

18 Q Well, if someone deep in their heart with all their
19 might believed that they don't want to see inverted rate
20 structures and they just screamed bloody mad about that,
21 that -- and you knew about that, would you select that
22 person as an appropriate example to encode?

23 A No, sir.

24 Q You wouldn't. Youngdahl thought it would go up,
25 didn't he?

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MR. ROSSO: Objection; vague.

2

BY MR. CHERRY:

3

Q Wasn't Youngdahl's highest?

4

A I don't recall that.

5

Q If you left out Mr. Youngdahl's view, what would

6

the percentage be?

7

A I don't know.

8

Q Would it be higher or lower?

9

A I don't know.

10

Q Where is Youngdahl's curve, his particular curve?

11

A Well, I had it in a file.

12

Q It is in a pile?

13

A A file.

14

Q A file.

15

You might take a look at it because he wrote Mr.

16

Temple about a year ago and said it was a scandal to think

17

of inverted rate structures because they ought not have any

18

social or welfare purpose.

19

And you told me that would be suspicious advice

20

so you wouldn't encode him. He did say that. If you like

21

when the hearing is over, I will show you the letter he

22

wrote so you might take a look at what the forecast might be

23

without him, you know, because I am pretty sure he is on the

24

high side.

25

MR ROSSO: I move that that be stricken as counsel's

arbl2

1 testimony.

2 CHAIRMAN COUFAL: If you want to get into that by
3 asking questions, it is all right, but you have made kind of
4 a speech.

5 MR. CHERRY: I have already asked the underlying
6 questions and the answers are in the record.

7 BY MR. CHERRY:

8 Q Mr. Mosely, isn't it true, that when a utility
9 decides on what a forecast is going to be, it has a tendency
10 to overforecast because the way a utility makes money is from
11 rates and you get rates for construction permit?

12 A Not in my experience.

13 Q If Consumers Power Company service area stayed at
14 no growth for the next 20 years, for examples, wouldn't the
15 profits of Consumers Power Company decline?

16 MR. ROSSO: I am sorry. Could I have the ques-
17 tion read, please?

18 BY MR. CHERRY:

19 Q I said if Consumers Power Company's service area
20 stayed at a zero growth increase, in other words, leveloff
21 in 20 years, wouldn't the profits of Consumers Power Company
22 decline?

23 A I can think of pluses and minuses. I don't which
24 way it would balance.

25 Q But do you believe that -- by the way, did you

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1 encode yourself on energy per unit of output from the trans-
2 portation sector?

3 A No, sir.

4 Q You didn't? Isn't GM one of your customers?

5 A Yes, sir.

6 Q Didn't you encode yourself on whether or not
7 GM was going to be more or less intensive a company in terms
8 of energy use per unit of output?

9 A I guess they are still having a problem with the
10 encode work, which I regret. I had General Motors very much
11 in my mind and so forth, but I didn't say: What are the
12 probabilities over this whole range? That is what encoding
13 is all about. I can ask myself that kind of a question.

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Q Oh, so that you didn't really encode yourself.
You thought about it.

A I was perfectly aware thinking about it when I came
up with my answer, it was one of the important elements.

Q Okay.

Did you think about General Motors when you made
your contribution?

A I certainly did.

Q Okay.

Did you assume that the energy used per unit of the
transportation sector in Michigan would increase or decrease
over the next ten years?

A Now are you talking about manufacture or are you
talking about road mileage or what?

Q No, no. I am talking about a manufacturer. How
much energy it takes to --

A Build an automobile?

Q Right.

Did you think that per unit of output was going to
go up or down?

A I basically think it is going to stay essentially
the same.

GM is making a tremendous effort to cut back on the
amount of energy that they put into automobile manufacturing,
but at the same time I have a feeling that they are going to

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be pushing some of their other gas and oil -- are going to switch some of that over to electric. So I wouldn't be surprised that an automobile, nine years from now, the same size will have just about as much electricity in it as it does today.

Q But you wouldn't project any increase in energy use?

You figure all of the factors would have a tendency to stay the same?

A I tend in this case to say yes, it will increase a little, but not a great deal.

Q Now if cars which are less energy intensive than trucks -- if more cars are built ten years from today than less cars than today, you would think that the use by GM would further go down in connection with the mix?

A Well, if they build more cars that don't use electricity than they do cars that use a lot of electricity, then it will go down.

Q What is the probability or what was your thinking about the size and power over the next ten years?

Did you factor that in in your analysis?

A Yes I did.

Q Did you think they were going to get bigger or smaller, or what?

A Well, at the time that that forecast -- that thing was done, which was in September, I was pretty disillusioned

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because I had been one that thought cars ought to get smaller, and I drive a small car myself. And I had been all in favor of that trend.

They were talking about the market where big cars were stealing all the market and little cars were a glut. And so I had tempered the growth of little cars quite a lot in my thinking.

I might come back a little bit the other way if I was going to write today, because I feel that the experiences of energy shortage this winter and some of the steps that the new administration is talking about, may, indeed, push us towards smaller cars.

Q And what would that do to the 5.2 percent figure arrived at in November? Decrease it?

A It wouldn't have a significant effect in itself on that total number. But I guess if my position prevailed, it would have the effect of a very minute decrease.

Q Did you listen to President Carter the other night on television?

A Unfortunately I only heard about the last ten minutes.

Q Did you read his speech in either the Times or the Wall Street Journal?

A No, I read reports of it but not the entire speech.

Q Are you aware that he placed energy conservation

mm4

as the number one priority of the federal government?

A I was aware that he placed it very high.

Q And he considered it both mandatory and voluntary.

He said we would like you to do it on your own, but if you don't, Mr. Schlessinger may help you out.

Is that how you understand our governmental policy today?

A Well, not quite that -- well, to that effect.

Q Okay.

Now, did you consider that government policy, i.e. that there will be voluntary conservation, but if it doesn't work, mandatory conservation, during November 1976 when you did your probability encoding?

A I thought that was a possibility.

Q What impact did you get?

A Well, it was just one of the things that let me come up with my particular distribution.

I didn't put a specific number on that item.

Q You didn't have a probability?

A Not of that specific item, no.

Q I see.

What did you think of the Federal Energy Administration Guidelines on conservation?

Did you input that?

A I really don't know which guidelines you are talking

man5

about, or what date.

Q How about the Energy Conservation Act?

A I am not very familiar with the provisions of the Energy Conservation Act.

Q So you couldn't have used that as an input?

A It didn't have a major impact.

Q It may not have had any?

A May not.

Q Pardon me?

A It may not.

Q You don't know what it is, right?

A I know it exists.

Q right.

A And I know what its objectives are. I don't remember the points of implementation, and that sort of thing.

Q What are the factors that tend to increase demand?

A Well, I guess a major one is through whatever process, we have an abounding, rigorous, climate over several years. These rapid ups and downs are not that important, but long, continued economic health and expansion have generally been associated with large increases in the use of electric energy.

Certain regulations by regulatory and governmental bodies could make electric energy more readily available and cheaper, and therefore could cause some growth.

mm6

I think I mentioned a while ago, rampant inflation, which I think can be a two-edged sword. I think it can cause short-range increases. And if they happen at a time when resources are otherwise depleted, why it can trigger very serious shortages by causing rapid growth.

There is a matter of the abundance of fuel or the shortage thereof, but abundance of fuels would tend to increase certain activities, and might have the effect of increasing electric use. Although there is the concept that it being competitive with electric energy, might keep it down.

But in general it would contribute to, say, manufacture of automobiles and certain economic growth that I think on balance would expand the use of electric energy.

At the moment, I guess that is about all I remember. I am sure there are other items that I have listed, but I don't recall them at this moment.

Q Now the ones you did list --

MR. ROSSO: Mr. Chairman, excuse me.

It is almost 6:25. The witness has been on the stand now for three hours.

CHAIRMAN COUFAL: How much more do you have now, Mr. Cherry?

MR. CHERRY: Probably 6:26. I am almost done.

CHAIRMAN COUFAL: Do you think you can stand it for a few more minutes?

mm7

THE WITNESS: Yes, for a few.

CHAIRMAN COUFAL: All right.

BY MR. CHERRY:

Q You listed three factors that you thought might have a tendency to increase growth; abundance of fuels, regulatory bodies take steps to make electricity cheaper, and a high, intense economic growth over a relatively long period of time.

A Yes, sir.

Q Do we have, or do you foresee over the next ten years, an abundance of fuel?

A No, sir.

Q Do we have, or do you foresee over the next ten years, the regulatory agencies making electricity cheaper?

A I do foresee some better climate in the regulatory area, yes.

Q When you say a better climate in the regulatory area, I am talking about regulatory agencies doing things to make energy cheaper.

A Well, if I said cheaper, I'm sorry I said that. Relatively less costly, I should say.

Q Relatively less costly to the consumer?

A Yes, than other energy sources.

Q So you think that there is a chance that regulatory agencies might do that?

mm8

1 A yes.

2 Q And do you foresee a high, intense economic growth
3 over the next period, several years?

4 A I see a good probability of that, yes.

5 Q If you were wrong on the last two, would you
6 change your 5.2 growth rate?

7 A If someone told me there is absolutely no chance
8 of those things occurring --

9 Q Well, a small chance.

10 A Well, an insignificant chance, then I would change
11 my forecast.

12 Q Now you said if you were making your encoding
13 today, you would make some changes in it. You mentioned that
14 because of the energy crisis you would have a tendency to
15 give more impact to the future of smaller cars, right?

16 A I think, to quote me correctly, I said there would
17 be an infinitesimal change.

18 Q Are there any other things that you would like to
19 tell us about that might change if you were making your
20 encoding today?

21 A No, sir.

22 Q Nothing else.

23 MR. CHERRY: Well, have a nice three months,
24 Mr. -- what happens at the end of three months.

25 MR. ROSSO: Do that off the record.

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THE WITNESS: Thank you, sir.

CHAIRMAN COUFAL: Are you through, Mr. Cherry?

MR. CHERRY: I am finished, yes.

EXAMINATION BY THE BOARD

BY CHAIRMAN COUFAL:

Q Mr. Mosely, before I lose track of this, I am not sure that I understood what you meant when you said, when you were discussing the three factors that you just discussed with Mr. Cherry, what did you say about the probability of regulatory agencies reducing the price of energy?

A Well the points that I have in mind, the points were not brought out. But the kind of reasoning that I have in mind is that if rate increases can be allowed more promptly -- and in that context I am not talking about them being larger, I am just talking about the process working more rapidly --

Q You are not predicting that the price of electrical energy across the board is going to go down?

A No, sir. I tried to make that distinction. But just slow up its rise is really the essence of the point.

Q Okay. Thank you.

I didn't understand the import of what you said.

CHAIRMAN COUFAL: Do you have some redirect,

Mr. Rosso?

MR. ROSSO: Well, I don't know whether we will have any. I would rather do it tomorrow.

mm10

But just one followup question on yours, if I might.

CROSS EXAMINATION

BY MR. ROSSO:

Q Mr. McSely, on this question with regard to regulatory agencies and their effect on the cost of energy, are you talking about strictly the effect on the cost of electricity, or are you talking about the cost of other sources of energy?

A Well, in the context that I was speaking, I was talking about the cost of the electricity relative to the cost of other energy.

Q For example?

A Well, for example anything that can help to slow down the rise in electric power while oil is continuing to go up at a very fast rate, will then help the growth of electric load.

Q And will the same be true of natural gas?

A The same will be true if they have -- let me call it favorable. Maybe I ought to call it a fail or something else, but if they have some adjudication or some processes that make their costs rise less than they otherwise would, then it favors it.

Q Well, I guess what I am trying to get is, exactly what you meant here.

How would deregulation of natural gas, for example,

mm11
affect usage of electricity in your analysis?

MR. CHERRY: Objection.

No foundation. The witness hasn't been asked any questions about whether he knows anything about regulation of gas or deregulation, or whether he is an economist, or whatever.

MR. ROSSO: He has been talking, sir, about the fact that one of the items that he looked at was the comparative --

CHAIRMAN COUFAL: You may answer, Mr. Mosaly.

THE WITNESS: Well, it is my view if pricing on gas were deregulated, then its market price would rise and that would tend to increase the usage of electric energy.

MR. ROSSO: Thank you.

That is all I have. I just wanted to clarify that.

MR. CHERRY: Mr. Chairman, before we close tonight I would like to get the interrogatories. It is now 6:30 and I am a little miffed that I don't have the interrogatories.

MR. ROSSO: Mr. Chairman, if you will give us a half a second, he will have them.

MR. CHERRY: And number two, I would like a copy of the Bickel tome with the yellow and the handwriting on it.

MR. ROSSO: You will have it.

MR. RENFROW: And we have more documents, if we can hang on, which we will give out, that have been requested, and

mm12

everybody will have them over the evening, and I can respond to Dr. Leeds' question that he asked me today that I promised him an answer on, about the MPSC.

DR. LEEDS: How about the cases, you were going to get copies?

MR. RENFROW: Got copies of them and we will just distribute them to everybody when it is time.

I think Mr. Bacon can take this.

(Mr. Renfrow and Mr. Bacon distributing documents.)

CHAIRMAN COUFAL: Mr. Mosely, there is no point in your sitting there.

Will you be back tomorrow?

MR. ROSSO: Do you want him back tomorrow? I am not sure.

Does the Staff have any questions of Mr. Mosely?

MR. HOEFLING: No.

DR. LEEDS: I do.

MR. ROSSO: Do you?

All right, fine. He will be back tomorrow.

MR. BRENNER: Mr. Rosso, I don't think we will answer that. We will want to look at the transcript.

MR. ROSSO: Okay. He will be back anyway.
Dr. Leeds has some questions of him.

CHAIRMAN COUFAL: That is pretty good, Mr. Mosely, there is another day.

THE WITNESS: Are we on the record?

CHAIRMAN COUPAL: Yes, we are on the record.

(Witness temporarily excused.)

MR. RENFROW: Mr. Chairman, Mr. Bacon is going to pass out the answers to the interrogatories, and I am going to give the parties and the Board copies of the Kansas Gas and Electric Case.

(Documents being distributed.)

CHAIRMAN COUPAL: What time do you want to come in in the morning?

MR. ROSSO: Well, not before 9:30, I would hope. 9:30 would be all right with me, but before 9:30 places an awful strain.

MR. HOEFLING: 9:30 is the latest, I would think. Possibly 9:00, if it wouldn't inconvenience anybody.

CHAIRMAN COUPAL: Well, 9:30, but we will run late.

MR. ROSSO: We have been, haven't we?

CHAIRMAN COUPAL: Yes, and it may get worse before it gets better.

MR. CHERRY: Mr. Chairman, do I understand that when we are finished with Mr. Mosely and Mr. Bickel, that we are going to move forward with other witnesses, and they are not spread out all over the country?

MR. ROSSO: We will have them here and ready to go.

MR. RENFROW: We have a great number of witnesses.

mm14 :

MR. CHERRY: Where is your Keeley testimony on fuel?

Can I get that in advance?

MR. RENFROW: If you will give me a chance, you have asked me for 40 tons of paper, we will give them out.

Next, Mr. Chairman, there is a request for the trend reports. I am having them copied and I am going to start giving them to you as I get them.

This is the July 14, '76 trend report.

(Documents being handed to parties and Board.)

CHAIRMAN COUFAL: Do you really want all this on the record, Mr. Renfrow?

MR. RENFROW: These were requests that were made. Some of these I can, others I can't -- trend reports, Mr. Chairman, I can pass out and then put on the record later.

CHAIRMAN COUFAL: Well, go ahead, put it on. As long as you are here you might as well.

MR. RENFROW: This is the October 13, '75 trend reports.

(Documents being handed to parties and Board.)

MR. RENFROW: This is the October 18, '76 trend report.

(Documents being handed to parties and Board.)

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MR. RENFROW: Here's the April 1976 trends.

(Documents distributed.)

Mr. Chairman?

CHAIRMAN CONFAL: Yes.

MR. RENFROW: I have copies of the revised testimony. I want to be sure that I get it correct. What I'm going to do is to get you the page changes that will go into the other testimony and be very sure that we have them corrected.

This is Mr. Hains' Exhibit 14 which has been revised to reflect the new numbers that we've been discussing.

(Documents distributed.)

And for the Reporter's use, I will give her thirty copies of it, too.

DR. LEEDS: That's it, just one sheet?

MR. RENFROW: That's all for Mr. Hains. That's all the changes in his testimony.

Next is Mr. Keeley, Section III of his testimony.

(Documents distributed.)

And the Exhibit 16 that goes with Section III.

(Documents distributed.)

Next, Mr. Chairman, is changes to Section IV of Mr. Keeley's testimony.

(Documents distributed.)

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MR. BRENNER: The changes aren't marked on this, are they?

MR. RENFROW: I'll tell you in a moment.

Finally, Mr. Chairman, the Exhibits 17 through 23 that have changed. The only non-change is Exhibit 18. We have not provided you a new copy of that since it has not changed.

(Documents distributed.)

CHAIRMAN COUFAL: This is still Mr. Keeley?

MR. RENFROW: Yes, Sir. These exhibits go with Section IV of his testimony.

Now, if the Board wishes I can give you the page numbers and the lines in which the changes have occurred so everybody will not have to go through and find them.

I will be glad to do that if you so wish.

DR. LEEDS: Do you have them typed or something? Or would it be orally?

MR. RENFROW: It would have to be orally. I have one copy which I have. There are not that many changes except for numbers.

CHAIRMAN COUFAL: Go ahead and read it in the transcript, why don't you, and everybody will get a copy of that.

MR. RENFROW: All right.

Before I do that, I assume that you want to be

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here when I do that?

CHAIRMAN COUFAL: I don't want to be here when you do that.

MR. RENFROW: Why don't you do that, then, afterwards. Let me reply to Dr. Leeds' question of today.

The MPSC, Dr. Leeds, does not ask for contracts. They have -- Consumers has never submitted in a hearing proceeding proprietary contracts to the Michigan Public Service Commission.

What they do is they give them their book value. There have been documents that have been given to the MPSC under an agreement of confidentiality whereby the MPSC can look at them, and they will then give Consumers advance notice that they are going to make them public. They do not rely on findings for them; they uphold the claim.

Second of all, you asked about the contracts. I will arrange to have the fuel contracts down here, I believe by tomorrow morning. The only proprietary claim that we may have is the B&W contract. The rest of them I will not submit a claim to. We will just turn them over to you.

DR. LEEDS: This is fuel contracts, so I can get the core, right, all of them?

MR. RENFROW: That's the last thing I want to say to you. DR.

You asked me today whether the numbers in the

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FES were based upon contract prices, and I could not tell you. The numbers in the FES are based on contract prices.

These numbers will change as the result of what's been going on in the last month at Consumers, which I told the Board about; but I do not believe, although I would rather not state this with certainty, that you could use those contracts, because I believe, because of other circumstances, Consumers is estimating the cost of the first core and second core rather than using the contracts.

I would rather have the witness explain to you himself about the surrounding circumstances, but I'm going to give you the contracts, anyway.

DR. LEEDS: Did you misspeak? You meant ER rather than FES, because you prepare the ER.

MR. RENFROW: Excuse me. It is the ER, yes.

I believe that answers your questions and makes my presentation complete to you.

I will read these into the record.

CHAIRMAN COUFAL: All right.

We'll be adjourned until 9:30.

(Whereupon at 6:45 p.m. the hearing in the above-entitled matter was recessed, to reconvene on Tuesday, 8 February 1977 at 9:30 a.m.)

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MR. RENFROW: This is Section III, page III-3, starting the fourth line from the bottom. The number 142,100,000 is a new number.

The third line from the bottom, the number 11,935,000 is a new number.

The second line from the bottom, the number 131,900,000 is a new number.

On page III-4, the second line, the number 335,935,000 is a new number.

The third line, the number 245,975,000 is a new number.

The fourth line, the number 19,756,000 is a new number.

The sixth line, the number 313,100,000 is a new number.

The seventh line, the number 578,831,000 is a new number.

Paragraph 3. of the previous testimony has been deleted.

On page III-6, number 6. should be renumbered 5.

On page III-7, old subparagraph (4) has been deleted. Old paragraphs 7. and 8. have been renumbered 6. and 7.

In the Exhibit 15, under B&W Process Steam Evaporators, in the second column, a new number 15,500 has

been included.

The same number has also been included in the fourth column.

Under Consumer Power Company, Miscellaneous Work Orders, in the second column, a new number has been inserted, 18,600. The same new number has been inserted in column 4.

Under the line Total Plant Cost, the second column, the new number of 1,812,000 has been inserted. In column 3, a new number 142,100 has been inserted. In column 4, a new number 1,915,000 has been inserted. In column 5, the new number 245,975 has been inserted.

Under Nuclear Fuel Cost, the first column, a new number has been inserted; and new numbers have also been inserted in the remaining four columns.

The line Replacement Power and/or Differential Power Cost, the numbers have been changed or added in columns 2, 3, 4 and 5.

In the line Total Delay Costs, new numbers have been inserted in all five columns.

Section IV, page IV-3, paragraph 6., the fourth line from the bottom, the words "present-day costs" have been inserted after "1976." In the last line, 7 percent has been changed to read 7 1/4 percent.

Page IV-4, there is an insert for clarification in paragraph 9., after the first sentence.



blt 4

Exhibit 20, under Midland to-go Capital Cost, columns 3 and 5 have been changed.

Under Taxes, columns 3 and 5 have been changed.

Under Fuel, numbers in all five columns have been changed.

Under Total Generation Cost, the numbers in all five columns have changed.

The Alternative portion of that exhibit, under Nuclear Fuel Cost, the numbers in all five columns have changed; and the numbers under the line Total Generation Cost have also changed.

Exhibit 21, under Midland Plant, Midland to-go Capital Cost, the numbers in columns 3 and 5 have changed.

Taxes, the numbers under column 3 and 5 have changed.

Under Fuel, the numbers have changed in all five columns.

And in the Total Generation Cost, all five numbers have changed.

In the Alternative, Fuel, changes have been made to the numbers in all five columns.

Under the line Nuclear Fuel Cost, changes have been made in all five columns.

In the line Total Generation Cost, changes have been made in all five columns.

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Exhibit 22, the denominator and the numerator as well as the ratio numbers have changed in each instance.

Exhibit 23, the denominator and the numerator as well as the ratios have changed in each instance.

End