

VOLUME 3
NEW JERSEY DEPARTMENT OF ENERGY
BOARD OF PUBLIC UTILITIES

NEWARK, NEW JERSEY

FRIDAY, AUGUST 22, 1980

In the Matter of the Petition of)	
Jersey Central Power & Light Com-)	OAL DOCKET NO.
pany for approval of an increase)	PUC 3518-80
in rates for electric service)	
and for amendment to the Levelized))	BPU DOCKET NO.
Energy Adjustment Clause and fac-)	804-285
tor for such service.)	807-488
-----)	

BEFORE: STEPHEN G. MARSHALL, ESQ.,
Administrative Law Judge

A P P E A R A N C E S :

For the Petitioner, Jersey Central Power
& Light Company, appears:

KIRSTEN, FRIEDMAN & CHERIN, ESQS.,
BY: JACK B. KIRSTEN, ESQ., and
DOLORES DELABAR, ESQ.,
17 Academy Street
Newark, New Jersey

and

WILLIAM F. HYLAND, ESQ., of Counsel
JAMES B. LIBERMAN, ESQ., of Counsel

For Department of Public Advocate,
Division of Rate Counsel, appears:

ALFRED L. NARDELLI, ESQ.,
Deputy Director
RAYMOND MAKUL, ESQ.,
Deputy Public Advocate
10 Commerce Court
Newark, New Jersey

THIS DOCUMENT CONTAINS
POOR QUALITY PAGES

J. H. BUEHRER &
24 Commerce Stra
Newark, New Jerse
(201) 623-1974

8009030162

PENGAD CO., BAYONNE, N.J. 07002 FORM 2048

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

A P P E A R A N C E S: (Continued)

For the Staff of the Board of Public Utilities, appears:

CARLA VIVIAN BELLO, ESQ.,
Deputy Attorney General

I. PAUL SLEVIN,
Supervising Rate Analyst

For the Board of Chosen Freeholders of Ocean County, appear:

BERRY, SUMMERILL, PISCAL, KACAN &
PRIVETERA, ESQS..

BY: JOHN C. SAHRADNIK, ESQ.,
34 Washington Street
Toms River, New Jersey

1 JUDGE MARSHALL: Good morning, ladies
2 and gentlemen. This is a continued hearing
3 in the matter of the Petition of Jersey Central
4 Power & Light Company, OAL Docket No. PUC
5 3518-80, with the Board Docket Nos. 804-285
6 and 804-488.

7 My name is Stephen Marshall. I am the
8 Presiding Administrative Law Judge.

9 May I have the appearances of the
10 parties.

11 MR. KIRSTEN: Jack B. Kirsten and
12 Dolores Delabar, Kirsten, Friedman & Cherin,
13 attorneys for the Petitioner, Jersey Central
14 Power and Light Company, Mr. James B. Lieberman
15 and William F. Hyland, of Counsel.

16 MS. BELLO: Carla Vivian Bello, Deputy
17 Attorney General, for the Board of Public
18 Utilities.

19 MR. MAKUL: Raymond Makul and Alfred
20 Nardelli, with the Department of Public
21 Advocate.

22 MR. SAHRADNIK: John C. Sahradnik, of
23 the firm of Berry, Summerill, Fiscal, Kagan &
24 Privitera, for the County of Ocean.
25

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

JUDGE MARSHALL: Before we proceed to the witnesses, are there any housekeeping matters the parties want to bring up?

(No response.)

JUDGE MARSHALL: I would like to make a mention of the fact I believe one of the parties told me at last night's hearing I made a reference to the upcoming Sparta hearing which is scheduled for Monday evening.

I believe I may have made a mistake in stating the time during one of my statements, that I may have said that it was Tuesday rather than Monday.

I will note for the record that it's scheduled for Monday evening at 7:30. Okay. Shall we then proceed with the presentation of Mr. Kirsten's witnesses?

MR. KIRSTEN: Thank you, sir. I just wanted to interrupt the examination of Mr. Steger for a moment. I thought it would be appropriate at the beginning of the day today.

Mr. Gentieu has some updated information which he'd like to refer to. Mr. Gentieu is previously sworn.

PENGAD CO., BAYONNE, N.J. 07002 FORM 2044

1 L A W R E N C E P . G E N T I E U, previously sworn
2 on behalf of the Petitioner, resumes the
3 stand.

4 DIRECT EXAMINATION (CONTINUED)

5 BY MR. KIRSTEN:

6 Q Mr. Genticieu, would you proceed.

7 A Yes. My purpose in leading off this morning
8 is to enable Mr. Steger to be finished with his testimony
9 and cross-examination today, and in order to do that we need
10 to start off by discussing the background of two signifi-
11 cant adjustments that we made to the filing, adjustments
12 that at a discovery meeting held at GPU, we were asked to
13 have confirmed by runs of GPU's production cost program
14 which is a computer dispatch program that essentially bot-
15 tles not only Jersey Central's generation as well as GPU's,
16 but the generation of the entire PJM interconnection with
17 which GPU is interconnected.

18 Because this is on the computer, that makes
19 it feasible to deal with this many units. The two adjust-
20 ments involved were the sales adjustment, and if you'll
21 refer first to Exhibit JCA, Page 3, this page summarizes
22 not just the sales but all adjustments we made to the
23 budgeted energy costs that formed the basis of the LEAC
24 filing, but the one that we're interested in appears in the
25 second column of Page 3, an adjustment to reduce our budgeted

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

sales by 468 gigawatt hours.

Mr. Raber would be testifying as to the details of that adjustment, why it was made and the assumptions that underly the amount. What was then done, given that sales adjustment, that leads to obviously a reduction in our energy costs because with the lower sales it will be a lower generation, lower interchange, and so forth, and you see the effect on LEAC. Energy costs of the sales adjustment in Column 6 where we estimated that adjustment would lead to a 22.2 million reduction in LEAC period energy costs.

1 A (Continuing) In response to a data request
2 of us asking for the derivation of that adjustment, we
3 supplied Exhibit A-5, and if we can turn to that for just
4 a moment, I think the exhibit is basically self-explanatory,
5 but I think in a few sentences it may not hurt to recap the
6 method we employed to make the sales adjustment.

7 The first thing to note with respect
8 to sales is that short-term changes in sales do not affect
9 base load generation, and by base load generation in Jersey
10 Central's case, we mean Keystone, Oyster Creek and TMI when
11 it would return to service. Those units will run regardless
12 of the level of sales.

13 The only factor that affects their
14 operations are scheduled maintenance outages or unforeseen
15 forced outages.

16 JUDGE MARSHALL: Excuse me. Off the
17 record.

18 (Whereupon, there was an off the
19 record discussion.)

20 JUDGE MARSHALL: Back on the record.
21 Please continue.

22 THE WITNESS: Once you exclude base
23 generation on the basis that it simply is
24 not affected by sales in the short run,
25 obviously, 20 years from now when the sales

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

would, for example, continue to grow, we would at that point have more base load generation because they're a long-range consideration.

Right now short actual swings in sales won't affect base generation. That means in the intermediate peaking and purchase power are the sources that are affected in the short term by sales, and for purposes of making our adjustment, we assume that all of the sales change would affect Jersey Central's interchange and purchase power.

If you turn to page 2 of A-5, that shows a sample calculation illustrating the method and I think a reading of that page will explain the method in detail.

The end result is for the month of July.

The sales adjustment that we assumed was first converted to equivalent net system requirement. The sales adjustment was 49 gigawatt hours. The equivalent energy required to be produced or associated with that amount of sales is 55 gigawatt hours. That then was assumed in this case; it was a reduction, and we assume that that reduction in energy requirements would lead to reduce PJM and GPU inter-

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

change purchases, reduce over energy purchases, that is, the non-PJM purchases like Jamastown, AEP and so forth, and finally, the reduced sales would lead to increased sales of interchange all in the same ratios and at the same rates as were forecasted before the adjustment.

Very simply, that assumption, if you take the weighted average cost of those three components and apply it to the gigawatt hour reduction, very simply yields the adjustment of that, in this case, the 55 gigawatt hours of NSR times the weighted rate of purchases and sales of 37 mils yields the sales reduction of 2.0 mils and that's the figure appearing on this page 3 of JC-A.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

THE WITNESS: (Continued.) The next page, Page 3, two pages, 3 and 4, simply repeats that calculation in an abbreviated form for the remaining months of the LEAC period, the end result to the 12 months of August, you see the last figure on the pages 22.2 million. That effectively prices or is the result of having priced the NSR reduction equivalent to the sales at 43.5 mils.

At the discovery meeting at GPU, we were asked to confirm the reasonableness of this method by running a computer study using the production cost program or the PCP that I mentioned earlier, and that was done very simply by using the 3 plus 9 budget, which was the basic budget for the filing at the budgeted level of sales running the program for the LEAC period 12 months August. Normally the program runs on a calendar year, or let me more precisely, it also runs on a calendar year so we had to do a little bit of manipulation to get this non-calendar year period but nevertheless that was done, so it was run for the 12 months August at the budgeted level of sales and then run a second time at a level of NSR, actually

PENGAD CO., BAYONNE, N.J. 07002 - FORM 2046

1 about 500 gigawatt hours lower, and the two
2 runs were just simply compared, the end result
3 of that was the production cost program yield
4 and energy cost reduction of 26.4 mills as com-
5 pared to the 22.2 mills that we estimated
6 manually and that if there would be further
7 questions as to the mechanics of the PUP run,
8 Bob Steger would address those.

9 That is, I think, all we need to say
10 on the sales adjustment.

11 The next adjustment, not really an ad-
12 justment, but an assumption that we made as
13 to the sensitivity of Jersey Central's energy
14 cost to changes in oil cost.

15 If you recall, again if you refer back
16 to JCA, Page 14, we did in the initial filing
17 as part of the basic exhibits that summarized
18 our forecasted energy cost, namely, JCA, we
19 included a description of some major variables
20 that could substantially affect the forecast.
21 They are described on Pages 14 and 15 of JCA.

22 Under the section denoted oil prices
23 appears this statement: "It is estimated that
24 for each \$1 per barrel change in oil prices
25 Jersey Central's LEAC period energy cost would

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16
- 17
- 18
- 19
- 20
- 21
- 22
- 23
- 24
- 25

change by about 6 mils. This estimate is preliminary and is significantly affected by the assumed level of Jersey Central's power purchases outside PJM which are largely coal-fired in sort."

1 THE WITNESS: (Continuing.) We were
2 asked at one of our discovery meetings to con-
3 firm the 6 million per year estimate with a
4 similar production cost program study and that
5 was done.

6 Before we go to the results of that,
7 however, I want to review how we arrived at
8 the admittedly simple and with a manual esti-
9 mate of the 6 million which we did denote was
10 preliminary, and to do that, if we could refer
11 to Page 8 of JCA, that particular page simply
12 summarizes for the LEAC period the 12-month
13 totals of the various sources of energy,
14 nuclear, coal, oil and gas interchange, other
15 purchased power and so forth, and it's useful
16 as a reference to very commonsensically look
17 down the list and see what is affected by oil
18 and what is not, and obviously nuclear is un-
19 affected.

20 Oyster Creek and TMI-1, there is a small
21 amount of incidental oil that is burned at
22 those stations, but for all practical purposes
23 that's insignificant.

24 Keystone, the same is true there. There
25 is start-off oil used at Keystone, similar to

1 more oil there than at the nuclear stations,
2 but nevertheless Keystone, obviously being a
3 coal unit, is not terribly affected by in-
4 creases in oil prices.

5 The next section, oil and gas, is
6 Jersey Central's intermediate and peaking
7 capacity, most of which was oil-fired.

8 The costs shown on this sheet, however,
9 on the summary, do not break down the gas and
10 the oil but a later exhibit does.

11 The pump storage obviously is not in-
12 volved. Then we go to interchange and pur-
13 chased power. There we assume that all of
14 the PJM purchases would be oil-fired and
15 source.

16 We assumed none of the GPU purchases
17 would be oil fired, and I think that the
18 reasonableness of that -- although it's prob-
19 ably not 100 percent true -- is borne out by
20 the differential rates.

21 If you see -- I'll refer to the sheet --
22 the PJM interchange is at 66 mils. The GPU
23 is at 29.

24 With respect to the interchange sales,
25 we assumed that the sales to PJM -- for a

1 reason I'll explain in a moment -- were two-
2 thirds oil and one-third coal. IPU sales we
3 assumed to be all coal.

4 Under other energy purchases, obviously
5 APS is all coal. AEP and West we assume to
6 be all coal, as we did for Jamestown and
7 Ontario Hydro. PF&L obviously is all oil,
8 as is Central Hudson.

9 The Salem purchase, as was discussed
10 yesterday, although we are buying energy
11 equivalent to the Salem output, which Salem
12 is a nuclear unit, the energy is priced at
13 95 percent of the running rate.

14 The running rate in turn reflects to a
15 large degree the cost of oil-fired sources,
16 not all but predominantly as seen by the rate,
17 at least, we have assumed in the budget. There
18 is a heavy oil component there because this is
19 base load generation; however, the characteris-
20 tic of that is that it's produced 24 hours a
21 day, seven days a week, for as many weeks as
22 the unit is able to run before encountering
23 either a forced or maintenance outage.

24 So, this clearly is an average running
25 rate that we're talking about as opposed to,

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16
- 17
- 18
- 19
- 20
- 21
- 22
- 23
- 24
- 25

say, on-peak rate, and there we simply assumed again that there would be a weighting of coal and oil involved here, and the weighting we simply used was one-third coal, two-thirds oil, and how we got that again was very simple.

1 THE WITNESS: (Continuing.) If you
2 assume that you're largely buying coal in the
3 off-peak hours at night and on the weekends,
4 you'll find that about 40 percent of your
5 energy would come from coal under that simple
6 assumption, but coal has a significantly lower
7 price than oil, so the cost would not neces-
8 sarily be 40 percent.

9 Recognizing that, we just simply used
10 a third as the coal component.

11 I hope this has not been an unneces-
12 sarily complicated or detailed explanation,
13 but in view of the potential significance of
14 the oil pricing in this proceeding, I think
15 it is well that we examine the impact of the
16 oil assumptions on the total energy cost
17 picture, and that's why I'm going through this
18 in detail.

19 So, with that as background, I can re-
20 view now how we got to the 6 million.

21 JUDGE MARSHALL: Excuse me. Off the
22 record a moment.

23 (A discussion was held off the record.)

24 JUDGE MARSHALL: Back on the record.

25 THE WITNESS: I would defer to Bob Steger

1 on the explanation of the PCP. I think he's
2 better qualified than me.

3 MR. MAKUL: Okay.

4 THE WITNESS: Then returning to the
5 oil sensitivity analysis, if you'll turn to
6 Exhibit A-3, this exhibit simply shows for
7 the LEAC period a rather detailed breakdown
8 of the oil costs and quantities that were
9 budgeted for the LEAC period, that's the top
10 half of the page, and the second half of the
11 page, I'm on Page 2, incidentally, 8.3, the
12 second half of the page reflects the oil costs
13 after we made our gas adjustments.

14 We did make a significant adjustment
15 on the assumption of increased availability
16 of natural gas which would replace oil. The
17 effects of that are also shown on the sheet.

18 In making our 6 million estimate, how-
19 ever, we used -- if you'll look at the next-
20 to-the-last column, the top half of the page --
21 the total cost of oil, this is Jersey Central
22 internal generation, now, for the LEAC period
23 was budgeted to be \$130 million.

24 If you'll recall, just to try to tie
25 all these schedules together, JCA, Page 2, we

1 show for total oil and gas 145 million. The
2 difference between that and the 130 million
3 is just simply that A.3 is oil only, JCA sum-
4 mary page is oil and gas, just to avoid con-
5 fusion.

6 So, in making our 6 million estimate,
7 the first thing we did was to say clearly the
8 cost of internal -- the oil cost of internal
9 generation would be very simply increased or
10 decreased, depending on the price of oil assumed.

11 The unadjusted oil cost per barrel that
12 we assume in the LEAC filing was \$37.50. That
13 shows on this sheet as well as 37.54.

14 A \$1 per barrel increase in that cost
15 or going to 38.50 is a 2.7 percent increase.

16 We then -- I might point out right now,
17 in error -- applied the 2.7 increase to the
18 130 million of budgeted oil cost, yielding an
19 increase of 3.5 million.

20 I say that was done in error because
21 it should have been applied to the lower set
22 of figures reflecting the gas adjustment which
23 you'll see in the same column of figures is
24 \$80 million, on Exhibit A.3. I will return
25 to that in a moment.

1 THE WITNESS: (Continuing) In any
2 event, we neglected to -- looking at our
3 internal oil -- we neglected to reflect the
4 gas reduction.

5 So, for internal oil we came up with
6 an increase of 3.5 million that should have
7 been 2.2 million, namely, 2.7 percent of 80
8 million rather than 2.7 percent of 130 million.

9 The next thing we did, if you can re-
10 turn to JCA, page 8, the cost of the PP&L
11 purchase, Martin's Creek, I'm looking at 12
12 months ended August, it's the third column
13 from the end on page 8 of JCA, the PP&L cost
14 to the PP&L, which obviously is all oil, is
15 17 million.

16 The Central Hudson is 14 million. The
17 total of those two is 31 million and 2.7 per-
18 cent of that is .8 million.

19 The PJM purchases, again on the same
20 page, are 23 million, 22,650,000. 2.7 percent
21 of 23 million is .6 million.

22 The PJM sales, I mentioned we assumed
23 were two-thirds oil, one-third coal. Largely
24 we're assuming, as Mr. Steger testified to
25 yesterday, that they're largely as a result

1 of reselling the Salem energy.

2 Under that assumption, an increase there
3 leads to an increase in revenue, if you will,
4 of .8 million.

5 That's an offset. That's simply 44
6 million of sales times two-thirds, times .027
7 is an increase in receipts of .8 million.

8 In other words, as oil costs go up we
9 make more money on interchange sales.

10 The last element was the Salem purchase,
11 133 million. Again, we assumed that the under-
12 lying sources that gave rise to that cost were
13 a mixture of coal and oil and their ratio is
14 two-thirds oil, one-third coal, and again using
15 the 2.7 increase, due to the one dollar per
16 barrel change, and reflecting the 95 percent
17 running rate adjustment that the contract
18 calls for, the Salem costs would be increased
19 by 2.3 million for a dollar per barrel increase
20 in oil.

21 Adding those up, those figures I just
22 recited, yields a total of 6.4 million, and we
23 rounded that to be conservative to 6 million.
24 However, I mentioned that in calculating our
25 interest oil component we did that before

1 reflecting the gas adjustment in error.

2 If you correct that error, namely, apply
3 our 2.7 increase factor to 80 million of in-
4 ternal oil rather than 130, the 6.4 should be
5 reduced by 1.3, and after correction then would
6 become 5.1.

7 So, the manual procedure with its
8 associated simplistic assumptions that I just
9 discussed after correction would indicate that
10 Jersey Central's energy costs are effected
11 on an annual basis to the tune of \$5 million
12 for each dollar per barrel change in the cost
13 of oil.

14 With that elaborate background, we're
15 now in a position to go to the PCP study to
16 see what it showed, given the same question,
17 namely, for the LEAC period, if you increase,
18 decrease, the same would be true, the oil
19 price assumption by a dollar per barrel,
20 what is the effect of that.

21 I will, just as I did with respect to
22 the sales adjustment, I will simply give the
23 end result and then depend on Mr. Steger
24 for detailed support.

25 That study showed a 3.9 million or

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

let's call it 4 million sensitivity compared to the 5 million that we estimated manually, the 5 million being the corrected manual estimate that corresponds to the 6 million that we originally indicated in the filing material.

PENGAD CO., BAYONNE, N.J. 07002 - FORM 2048

1 THE WITNESS: (Continuing.) I might
2 point out before Mr. Steger comes back up, in
3 both cases the PCP estimates used only data
4 as budget. It did not in any way try to
5 mirror the rest of the adjustments that we
6 made to the forecast for the LEAC filing
7 purposes, most significantly the gas which
8 also yielded about a 20-plus million reduc-
9 tion. That adjustment was not reflected in
10 the PCP runs and, for example, one would ex-
11 pect that if it had been, the 26.4 million
12 sales adjustment would presumably have been
13 something other than that and probably lower.

14 The similar consideration would apply
15 to the oil estimate. All of those things are
16 inter-related.

17 I mention the gas adjustment simply
18 because that is one that we made in the filing
19 but to the extent that you would assume other
20 adjustments beyond the gas, i.e. differing
21 Oyster Creek availability, when you do that
22 there is a definite impact on all of the other
23 sources, purchase power, short-term power
24 purchases.

25 If you made further sales adjustment,

1 they certainly have an inter-related effect;
2 so just to be careful on that point, you can-
3 not look at a single adjustment in isolation
4 in that they're all inter-related and the
5 estimates that the PCP came up with should be
6 kept in mind just based on our original budget
7 assumptions.

8 I think, then, with that necessary
9 background, unless there are questions of me,
10 we could have Bob resume the stand to pick up
11 where he left off yesterday, and then review
12 the PCP runs that were made to yield the ad-
13 justments I just referred to.

14 JUDGE MARSHALL: We have not been on
15 the record for a full hour yet. If the
16 parties want to take a break --

17 MR. MAKUL: That might be appropriate
18 because with the numbers it might be neces-
19 sary to have a pcw-wow and I would like to
20 have some numbers read back to me and it could
21 be off the record.

22 JUDGE MARSHALL: We will go off the
23 record for ten minutes now, or longer, if the
24 parties need it.

25 (Whereupon, a recess was taken.)

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

JUDGE MARSHALL: Back on the record.

Mr. Kirsten, do you wish to present the next witness?

MR. KIRSTEN: Mr. Steger has resumed the stand and he's been previously sworn.

JUDGE MARSHALL: Okay.

R O B E R T S T E G E R, previously sworn on behalf of Petitioner, resumes the stand.

DIRECT EXAMINATION
BY MR. KIRSTEN:

Q Mr. Steger, during the testimony of Mr. Gentieu this morning referring to the PCP program, he suggested you would be in a better position to explain how that works. Could you do that now?

A Yes. A brief explanation of the PCP or production cost program which is used to make several of the studies used in this and other cases is the program is developed by PJM and essentially a model of the PJM system.

It includes each of the units on PJM and their associated costs and also their associated forced and planned outages.

It also includes a load model for PJM and GPU and the program essentially on an hourly basis matches the load for the hour with the required generation, dispatching the cheapest generation first.

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16
- 17
- 18
- 19
- 20
- 21
- 22
- 23
- 24
- 25

Then it calculates the interchange between companies and prices the sales of the long company and the purchases of the short company.

1 A (Continuing) And printouts as a monthly or
2 annual total. Also, in doing this calculation it calculates
3 the running rate and also prints that out as either a monthly
4 or annual total so it is essentially what is a program
5 that can go through and model the PJM system as it would be
6 dispatched in actual practice subject to the assumptions
7 made on the input of the program.

8 Q Now, one other item, Mr. Steger. You were
9 asked if you could produce a 1978 estimate of the 1979 PJM
10 running rate?

11 A That's right. I was asked that yesterday and
12 I checked with my staff last evening. The 1979 budget
13 running rate which was requested was made in late 1978.
14 Those back-up documents have since been destroyed and we do
15 not have them.

16 Q Mr. Steger, you've prepared a document, and
17 I apologize for the fact that it has not been typed up but
18 in our efforts to do it quickly, we made copies of the hand-
19 written document. It is labeled Response to Public Advo-
20 cate's Data Request made at Hearing on August 21, 1981.
21 The response to the request was "What is the effect on the
22 Jersey Central LEAC of basing the pricing of the PE Salem
23 purchase on the PJM estimated running rate rather than the
24 GPU estimated running rate?" Did you prepare that response?

25 A I prepared it, yes.

1 Q Obtained in this exhibit?

2 A Yes, I did.

3 MR. KIRSTEN: May I have this exhibit
4 marked for identification, sir, as Exhibit
5 JC-H.1?

6 JUDGE MARSHALL: If there are no objec-
7 tions, it will be so marked.

8 MR. KIRSTEN: There are three pages for
9 identification. Thank you, sir.

10 (Whereupon, a three page document, a
11 Response to Public Advocate's Data Request
12 made at hearing on August 21, 1980 was marked
13 JC-H.1 for identification.)

14 MR. KIRSTEN: Mr. Steger is available
15 for cross-examination.

16 JUDGE MARSHALL: Off the record.

17 (Whereupon, there was an off the record
18 discussion.)

19 JUDGE MARSHALL: Back on the record.

20 CONTINUED CROSS EXAMINATION

21 BY MR. MAKUL:

22 Q Good morning, Mr. Steger.

23 A Good morning.

24 Q With regard to the running of the PJM program,
25 this model produced costs of all the units in PJM?

1 A That's right.

2 Q And I imagine one of the inputs, assumptions
3 that has to be made is what the cost of fuel will be at those
4 units, each of those units?

5 A Yes, that's correct.

6 Q In the PJM system, there are companies that
7 are located, I believe, in Pennsylvania, New Jersey, Mary-
8 land, Delaware, District of Columbia and portions of northern
9 Virginia?

10 A That's correct.

11 Q Did I miss any of them?

12 A I believe that's all.

13 Q I wonder if you can tell me about those
14 units, the oil-fired units, what is the sulfur limitation
15 on a state by state or area by area basis on the oil that
16 is being burned?

17 A I know that the sulfur limitations differ
18 from state to state. I don't know what they are in any
19 particular place.
20
21
22
23
24
25

1 Q How would you agree that based on your ex-
2 perience that the price of high sulphur oil is many times,
3 in fact almost at all times different than the price of low
4 sulphur oil?

5 A It has been my experience that that price
6 differential exists.

7 Q How do you know then if you don't know what
8 the sulphur limitations are, where do you get the input
9 data from to ascertain the fuel price at each oil-fired
10 unit?

11 A Each of the PJM units has its base data input
12 by the Company in that it owns it. If a company owns a
13 unit that company puts in all of the base data, including
14 the current cost of oil on that unit; so I do not need to
15 know the type of oil it burns. I only need to know that
16 the Company that owns it gave me a price for what they are
17 paying for the oil.

18 Q Part of the PCP run that was made with re-
19 spect to the effect of conservation and other reductions
20 in sales and the effect on fuel costs, assumptions had to
21 be made as to what time of day or time of week conservation
22 occurred, and I wonder if you could briefly outline what
23 assumptions were made in reducing the level of sales from
24 the forecast?

25 A Since we did not know when the sales reductions

1 would take place, we made a broad assumption, it was re-
2 duced equally in each hour of the year.

3 Q By equally, do you mean the same number of
4 megawatts per hour or that the sales were reduced by the
5 same percentage?

6 A By the same percentage each hour.

7 Q Mr. Steger, if the PJM running rates were
8 lower than what you used in running the PCP program as an
9 input assumption --

10 A First of all, we do not input the running
11 rate. The running rate is an output from the program.

12 Q If the fuel cost of the various units which
13 control the running rates were lower than what you use for
14 purposes of running the PCP program, I see that Central
15 Hudson, at least in the 1981 period, gets dispatched in and
16 out of the system. In other words, it is not coming in all
17 the time and I believe you said yesterday that was an economic
18 dispatch reason why the level of sales was increasing; is
19 that correct?

20 A That's correct.

21

22

23

24

25

1 Q You assumed that the prices of fuels were
2 lower at the PJM generators. What would that do in terms
3 of the amount of the gigawatt hours that would have to be
4 provided from Central Hudson?

5 A It would depend on how the assumption was made.
6 If we get back to the assumptions for just a moment, we as-
7 sume that each Company's current oil cost of their unit is
8 a fixed number and this includes the current cost of Central
9 Hudson as a fixed number.

10 The variation could be made in changing the
11 escalation rate from current to future or the variation
12 could be made in changing somebody else's current numbers.

13 We would not change somebody else's current
14 numbers. We may or may not change escalation rates. Assum-
15 ing we do not change current numbers and changed only escala-
16 tion rates, then Central Hudson would remain at the same
17 relative position regardless of escalation rates and would
18 most probably be dispatched the same amount.

19 Q So, you're saying that you're playing off
20 Central Hudson against the PJM sources and if the price of
21 fuel were to go up for PJM or the assumptions were changed
22 for the price of fuel for PJM, that it would be necessary
23 to change the assumption price of fuel for Central Hudson
24 by the same amount, and as a result the balance wouldn't
25 change appreciably, if at all.

1 A That's correct.

2 MR. MAKUL: Can we go off the record a
3 second?

4 JUDGE MARSHALL: Sure.

5 (A discussion was held off the record.)

6 JUDGE MARSHALL: Back on the record.

7 Q Mr. Steger, with respect to the way the con-
8 servation effect or sales reduction was spread among the
9 hours, I take it you did not take it upon yourself to do this
10 but this is what the sales people -- this is the way they
11 told you to treat this reduction in running the PCP program.

12 A The reduction was not involved essentially with
13 the sales people. I had a request to run the program with
14 500 gigawatt hours less than system requirements, with no
15 mention as to how to reduce it.

16 The easiest way -- the program was very limited
17 on how you could do it. To do it quickly, and I mean quickly,
18 less than a month or two, the only way to do it is to do each
19 hour by the same percentage. That is an easy way to do the
20 program. Anything beyond that would take months and it could
21 not have been gotten for this case.

22 So, I had no choice but to do it this way due
23 to the limitation of the program.

24 Q So, you did it this way --

25 A It was the only way I could do it.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

Q It doesn't reflect any -- no assumption on my part that that was the correct way to do it. It was a limitation of the program that on a short time span it's the only way the programmer could do it.

Q I understand.

MR. MAKUL: We have no more questions for Mr. Steger.

JUDGE MARSHALL: Does the Deputy Attorney General have any questions?

MS. BELLO: We have no questions.

JUDGE MARSHALL: Okay.

Mr. Sahradnik?

MR. SAHRADNIK: No questions.

JUDGE MARSHALL: Does the Petitioner have any questions on redirect?

MR. KIRSTEN: We're just talking about that. Can we go off the record a moment, your Honor?

JUDGE MARSHALL: Yes.

(A discussion was held off the record.)

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

JUDGE MARSHALL: We'll go back on the record now.

Mr. Kirsten?

REDIRECT EXAMINATION

BY MR. KIRSTEN:

Q Mr. Steger, I direct your attention to Exhibit A.2, Page 4 of 9. Would you tell us or explain, if you will, the difference between the column which shows actual average of PJM running rate with the average past projected averages and if you can, explain why there are differences in the most recent months of those two averages?

A Yes. This was brought up yesterday on the difference between these columns and I thought an explanation was deserved.

The earlier months were slightly below the predicted average but not significantly. The last three months, April, May and June, are significantly less than the projected average, but on the three months the PJM system, which was on what is called a split running rate, due to transmission limitations between the western and eastern portions of PJM, the system could not be dispatched economically during these months, and the eastern units were running at a higher running rate, considerably higher than the numbers shown on these sheets.

The western units were showing an artificially

PENGAD CO., BAYONNE, N.J. 07002 - FORM 2048

1 low running rate because the power could not be transmitted
2 out.

3 Due to the PJM rules, it is the western or low
4 running rate which is shown on all reports. This gives the
5 false impression that the system is running cheaper than had
6 been predicted.

7 This split running rate was due in large part
8 to the unavailability of the major eastern units, namely,
9 Oyster Creek, Salem, and to some extent Peach Bottom and
10 Hudson during this period.

11 With Oyster Creek now back and Salem-2 expected
12 on it shortly, we do expect that the split running rate
13 problem will occur less often and that the actual running
14 rate that is recorded will more nearly approach the running
15 rate that is predicted.

16 Q Thank you, sir.

17 JUDGE MARSHALL: Any further questions?

18 MR. KIRSTEN: No.

19 MR. MAKUL: I'd like to ask a question.

20 JUDGE MARSHALL: Yes.

21 RECROSS-EXAMINATION

22 BY MR. MAKUL:

23 Q The split running rate, was there a trans-
24 mission line out of service or --

25 A It wasn't a transmission line out of service.

1 It's the fact that there is a limited transmission from west
2 to east and with the major eastern units out of service, the
3 required transmission for a completely economic dispatch on
4 PJM was higher than the system had been designed to carry,
5 and it was a temporary condition caused by many of the major
6 eastern units being out of service at one time.

7 Q I see. It's not a condition which, I believe
8 you said, which is expected to occur with any degree of
9 regularity?

10 A The condition always occurs at odd hours when
11 conditions are bad. It occurred very regularly during these
12 months and is not expected to occur this regularly in the
13 future. It will always occur to some extent.

14 Q I take it that the projections then that are
15 made by PJM do not take this possibility of a split running
16 rate into account?

17 A That's right. The PJM, PCP program which makes
18 this projection does not recognize transmission lines and
19 assumes an infinite transmission system.

20 So, it does not recognize the split running
21 rate.

22 MR. MAKUL: Okay, that's all.

23 JUDGE MARSHALL: Anything further on
24 redirect or any further questions?

25 MR. KIRSTEN: Nothing.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

MR. SLEVIN: No.

MR. SAHRADNIK: I have a question.

CROSS-EXAMINATION

BY MR. SAHRADNIK:

Q You had made, Mr. Steger, reference about the last three months. If I'm correct from reading Page 4 of 9, JCA.2, the actual average had been below the forecasted average since July of 1979 on a month-to-month basis, has it not?

1 A (Continuing) The difference I made was that
2 the earlier months to a great extent were small differences,
3 one or two mils.

4 Q If we can go back to July of 1979, you had an
5 average forecast for 40.2 mils and the actual average was 32
6 mils. That is an 8.2 mil difference.

7 A July was a different problem. July of last
8 year if my memory serves me right, was an extremely cold
9 month and the cold weather will drive the running rate down.
10 That was a different problem than the more recent months.

11 Q Now, August of 1979 you had a 3.4 differen-
12 tial.

13 A Three .4 is within the accuracy of what this
14 program can predict.

15 Q From July 1979 to at least, you have the actual
16 for June of 1980 down here, the actual average has been
17 below the forecast?

18 A Yes, it has been somewhat below and last
19 summer considerably below due to the cold weather. If you
20 look at the last three months, it was down nearly 10 mils
21 a month which was more than the accuracy that the program
22 should have and I thought it deserved a separate explanation.

23 MR. SARRADNIK: That's all. Thank

24 you.

25 JUDGE MARSHALL: Thank you again.

1 M A R V I N R A B E R, sworn on behalf of Petitioner and
2 testifies as follows:

3 DIRECT EXAMINATION
4 BY MR. KIRSTEN:

5 Q Mr. Raber, have you prepared a testimony for
6 purposes of this proceeding?

7 A Yes, I have.

8 Q Prefiled testimony?

9 A Yes. They are Exhibits JC-400 and JC-401.

10 MR. KIRSTEN: They have been previously
11 distributed. I don't have an extra copy with
12 me for the Court Reporter, but I will supply
13 one and substitute this copy which is my own,
14 if that is permissible, sir?

15 JUDGE MARSHALL: All right.

16 Q The exhibit which was prepared is marked JC-
17 400, is that the testimony entitled "Testimony of Marvin
18 Raber"?

19 A Yes.

20 Q If you were asked those questions today, would
21 your answers be the same?

22 A Yes, they would, subject to some minor cor-
23 rections I would like to introduce.

24 MR. KIRSTEN: We will get to those cor-
25 rections in a moment. For purposes of identi-

1 fication, could we have this marked as JC-400?

2 JUDGE MARSHALL: If there is no objec-
3 tion, it will be so marked.

4 (Whereupon, the Testimony of Marvin
5 Raber was marked JC-400 for identification.)

6 Q And annexed to that document is there another
7 document which is entitled Short Term Sales Forecast Summary
8 July 1980?

9 A Yes.

10 Q And does that contain the sales forecast ma-
11 terial which was referred to and identified in your testi-
12 mony?

13 A Yes, it does.

14 Q And was that sales forecast prepared by you
15 or under your supervision?

16 A Yes.

17 MR. KIRSTEN: May I have this document
18 marked as JC-401?

19 JUDGE MARSHALL: If there are no objec-
20 tions, it will be so marked.

21 (Whereupon, a document entitled Short
22 Term Sales Forecast Summary July 1980 was
23 marked JC-401 for identification.)

24 Q Mr. Raber, do you have any corrections to
25 make to Exhibit JC-400, your prepared filed testimony?

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

A Yes, I do. There are several minor corrections.

JUDGE MARSHALL: Off the record.

(Whereupon, there was an off the record discussion.)

JUDGE MARSHALL: Back on the record.

1 Q Mr. Raber, do you have any corrections which
2 you would like to make to the pre-filed testimony which has
3 been marked for identification as JC-400?

4 A Yes, I do. There are several minor corrections
5 in Exhibit JC-400; Page 4, about the middle of the first
6 whole paragraph, there is a sentence that begins: "The trend
7 determine was projected through 1981." The 1981 should be
8 1982.

9 The following paragraph on the same page also
10 requires a few minor corrections in the first line of that
11 paragraph. I would like to delete the word "new" so that the
12 phrase reads: "The number of residential customers is ex-
13 pected to increase by 1.7 percent," should be changed to
14 1.8 percent. It represents the number -- there is a number
15 in the word "new" 10,600 new, and I would like to replace
16 that with 11,400 additional.

17 Skipping the following line, the line after
18 that begins: "12,800 new," I would like to replace the "new"
19 with the word "additional."

20 Similarly, on the line below, there is a phrase
21 "10,300 new." Make that "10,000 additional."

22 MR. MAKUL: Excuse me. Is that the
23 10,300 that is being changed to 10,000 even?

24 THE WITNESS: Yes.

25 JUDGE MARSHALL: Just for the record,

1 the earlier correction you made of 12,800, the
2 12,800 figure remains the same?

3 THE WITNESS: Yes, it does.

4 Those are all the changes that I have
5 to JC-400.

6 Q The last one representing 10,000 additional
7 residential customers; is that the way it is supposed to
8 read?

9 A 10,000 additional residential customers; yes.

10 Q Do you have any corrections to JC-401?

11 A Yes. I think there are two minor corrections
12 to JC-401. On Page 3 of 14, the title to the table has a
13 spelling error. The second line of that title ought to read:
14 "GWH sales and percent change from previous year." On Page
15 6 of 14, the sentence at the top of the page was inadvertently
16 left incomplete. It should be completed by inserting the
17 number 12,657 gigawatt hours. That number is derived from
18 the table below.

19 Those are all the corrections I have.

20 Q I just have a few additional items by way of
21 direct testimony.

22 In addition to your pre-filed testimony, Mr.
23 Raber, the sales forecast presented in Exhibit JC-400 and
24 JC-401 differ from the sales forecast presented in the
25 original base for filing both the LEAC and the base rate cases?

1 A Exhibits JC-400 and 401 update the Jersey Central
2 forecast as of July, 1980, and therefore supersede the fore-
3 casts that were presented in the filing which were prepared
4 earlier. The update was made to assure consistency between
5 the sales forecast used in the LEAC filing and the base case,
6 since the time period of interest to these cases very closely
7 coincide.

8 The other reason for the update was basically
9 to account for changes in the projection of the performance
10 of economy which came about since the last previous forecast
11 was prepared. Those changes indicate that sales may be signi-
12 ficantly below the level that had been predicted in the earlier
13 forecast. Those are reflected in the July update.

1 Q Is the accuracy of the forecast significantly
2 less in the late 1981-82 time frame than in the near term,
3 say 1980-81, early 1981?

4 A I don't think it is because there is general
5 consensus that the economy will be on a recovery track by
6 the time frame of late 1981 and it is likely that predictions
7 of the performance of the economy and therefore forecast of
8 sales will be more accurate for that period of time. I think
9 that the forecast accuracy in the near term will depend on
10 predictions of economy at a time when recession is right near
11 the bottom and the near term projections are somewhat un-
12 certain because of the timing and the exact amount of the
13 beginning of the recovery.

14 I would say that the forecast accuracy further
15 out is probably as good.

16 Q At Page 2 of your testimony, you state: "The
17 July '84 forecast incorporates the effects of conservation
18 and recent price increases." Page 4, you state: "That the
19 continuation of the conservation trend drive by increases in
20 the price of electricity assuming that future price increases
21 would be comparable in magnitude of those experienced in the
22 past year are implicitly considered in the forecast."

23 Would you please explain those statements?

24 A Yes. Well, the historical data and trends that
25 are used as basis for projecting sales into the forecast

1 period implicitly include the responses of customers to
2 changes in the price of electricity. As I indicated on
3 Page 5 of my testimony, this type of trend is captured in
4 the 12-month rolling average procedure, and it implicitly
5 assumes that the electricity prices will trend about the
6 same way through the forecast period.

7 Q What about the most recent price trend for
8 Jersey Central, and what impact has there been perceived, if
9 any, on the Jersey Central sales of those price trends?

10 A I have no way to separate out an explicit price
11 trend impact that we can note the general trend in some
12 aggregate fashion, but I have no data that would allow me to
13 disaggregate this into components, one of which might be
14 labeled specifically price impact or price elasticity.

15 In recent years, Jersey Central customers have
16 experienced modest increases in real terms that is corrected
17 for the effects of inflation in 1976 and 1977; and for the
18 following two years 1978 and 1979, there was actually slight
19 decreases in rates.

20 Q In real terms?

21 A In real terms, yes.

22 Q Will you explain what you mean by "in real
23 terms"?

24 A That is corrected for the impact of inflation.
25 The numbers, the actual, or what I would term nominal numbers,

1 are adjusted by the inflation rate for the period of time
2 that they are in effect. In other words, if inflation went
3 up by so many percents in one year, the rate would be cor-
4 rected for that.

5 Q In view of the increases in rates in 1980,
6 should the forecast be adjusted for price elasticity effects
7 that are not captured by the historic data trend?

8 A In principle, I suppose it should be if one
9 believes that there is a direct linkage between price in-
10 creases and customer responses to those price increases on a
11 reasonable short-term basis.

12

13

14

15

16

17

18

19

20

21

22

23

24

25

1 A (Continuing.) I think in general, on a long-
2 term basis, as prices go up, customer usage is likely to go
3 down, but as I indicated before, I have no quantitative
4 direct linkage between a customer response and a price on a
5 short-term basis. We can observe the total trends.

6 Short-term elasticity responses are very dif-
7 ficult to identify and separate out and they're clouded by
8 a number of things that are happening out in the world and
9 let me see if I can give a couple of examples of these.

10 The magnitude of the increase, the rate in-
11 crease, is obviously an important parameter, but how do you
12 characterize the magnitude of this increase? Should it be
13 characterized in nominal terms unadjusted for inflation or
14 in real terms.

15 What is it that the customer perceives and re-
16 sponds to? Is it the real price increase or the nominal
17 price increase, or some combination of these, or some in-
18 crease relative to an increase in his income? Is it the total
19 bill or the unit price?

20 Customers having different income levels will
21 respond differently to price increases. In the commercial
22 and industrial areas, customers who can readily pass on the
23 cost of electricity price increases to their customers will
24 respond differently than organizations that can't.

25 The timing of a rate increase would have some

1 bearing on customer response. For example, a rate increase
2 that's granted in May is followed rather rapidly by the onset
3 of the summer/winter rate differential here in Jersey. What
4 is it that the customer responds to? Is he responding to
5 the price increase or responding to the onset, the normal
6 onset of the higher summer rates?

7 By the same token, a price increase that's
8 granted in September is followed fairly quickly by the onset
9 of the lower winter rates which tend to counterbalance the
10 impact that the customer sees.

11 The magnitude of the elasticity co-efficient
12 for each group which depends on the group or the individual
13 customer's particular circumstance also comes into play here,
14 and let me see if I can give some examples of what I'm think-
15 ing of.

16 Take a residential customer who may or may not
17 have turned his thermostat up to the point of incipient dis-
18 comfort. If he hasn't already done so, it's very easy for
19 him to do that in response to an increase in his bill. If
20 he's already done so, if he's already got his thermostat set
21 to the point of incipient discomfort, he may not wish to
22 adjust the thermostats further or, alternatively, it may take
23 a much larger increase in his bill to move the thermostat
24 another two or three degrees.

25 Once these easy steps have been taken, it

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

generally requires an investment of some sort to produce an additional conservation type response.

That, in turn, or a customer's willingness to do that sort of thing depends on the state of the economy, are they willing to do this in times of recession. These are the kinds of things that you have to get into in order to identify specific discrete elasticity responses on a short-term basis, and we have no real mechanism of doing this. The data just don't exist.

PENCAD CO., BAYONNE, N.J. 07002 - FORM 1048

1 Q Is it possible to quantify price elasticity
2 impacts by using Jersey Central's long-term forecast method-
3 ology?

4 A We did so at the request of Rate Counsel in
5 the last case and the more I think about that calculation,
6 the less I think it's applicable to this kind of a situa-
7 tion.

8 I really don't think that kind of a
9 calculation is applicable. It was not originally intended
10 to be, I should point that out. The long-term models which
11 embody a long-term price elasticity sub-model were intended
12 to track trends over a long period of time.

13 The data that these models are based
14 on go back to the 1960's when prices of electricity were
15 declining in real terms, and the situation is very differ-
16 ent today and it is not clear if the customer responses
17 to rising prices are the same or inversely in a sense,
18 but similar in a quantitative way to the kinds of responses
19 that customers make when prices are declining.

20 We had some discussion in the last
21 LEAC case about this point and I believe that there was
22 some agreement by Rate Counsel's consultants that in some
23 areas, particularly the industrial area, that the numerical
24 value that one cranks through the model and gets was not
25 applicable and I was again at that point emphasizing that

1 I thought that the residential and commercial calculations
2 that had been done were rather conservative.

3 So that I suppose in principle, it's
4 possible to do this, but I'm reluctant to make that kind
5 of an application.

6 MR. KIRSTEN: That's all the questions
7 that I have of Mr. Raber.

8 JUDGE MARSHALL: Okay.

9 THE WITNESS: I have one more thing
10 that I'd like to say.

11 Q Okay.

12 A I have some information concerning one of our
13 industrial customers that I think would be appropriate to

14 ---

15 Q I'm sorry, I had a note about that.

16 A --- describe, there has been some publicity
17 on the subject recently and it did come up briefly in one
18 of the discovery meetings.

19 Q There have been two, as a matter of fact,
20 residential customers --- two industrial customers at which
21 there have been questions about. One is Whippany Paper
22 Company and you have some more recent information on the
23 status of that?

24 A Yes, I do. The company is in bankruptcy
25 proceedings and it's future apparently depends on either

1 a sale of the company to new principals or the current prin-
2 cipals obtaining some investments of money from outside.

3 Whippany Paper has three plants within
4 our service area whose status is as follows: there is a
5 small plant that was shut down in December, 1979. The elec-
6 tricity usage of the plant is approximately eight gigawatt
7 hours per year. I'm told this particular plant is somewhat
8 antiquated and may well never reopen.

9 The eight gigawatt hour loss, I believe
10 is adequately captured by our current forecast. The plant
11 was shut down six or more months before the forecast was
12 done and this magnitude of the usage or the magnitude of
13 the sales lost to this plant is really quite small.

14 They have a large plant which was shut
15 down in June of this year and it's usage is approximately
16 46 gigawatt hours per year and they have a medium-sized
17 plant which was shut down late July or early August of this
18 year and it's usage is about 18 gigawatt hours per year.

19 The long-term disposition of the
20 latter two plants is uncertain at the present time. It
21 depends on negotiations that may still be going on. There
22 was some announcement of this in the press about a month
23 or so ago about other people who are interested in taking
24 it over. If the take over is successful, the plants could
25 go back in operation within a couple of months, I gather.

1 If the take over is not successful and the negotiations
2 don't succeed, the delay in returning these two plants to
3 operation may be longer, and I have no way of judging how
4 these are going to go, nor could the Whippany Paper people
5 tell our own customer services people how this was likely to
6 go.

7 The total curtailment for the two larger
8 plants would be in the order of 64 gigawatt hours per year.
9 The forecast implicitly assumed that those two plants are
10 operating.

11 I'm inclined not to propose an adjust-
12 ment to the forecast under the presumption that operations
13 are likely to resume in the not too distant future.

14 Q The other one that I think there was ques-
15 tions about was New Jersey Steel.

16 A Let me update you with regard to New Jersey
17 Steel.

18
19
20
21
22
23
24
25

1 A (Continuing.) That plant, if you recall,
2 that customer's plants were shut down virtually completely
3 about a year ago and that was discussed to some extent in
4 the last LEAC proceedings.

5 We have contacted New Jersey Steel within the
6 last few days to get an update on their status. They may
7 resume operations at a low level -- this is the rolling
8 mill, now, not the furnace -- sometime after the first of
9 the year.

10 If they do, the sales might be as high as
11 10 percent of their pre-shutdown level, which is pretty low,
12 and I think that's well within the kinds of things that are
13 captured by the forecast.

14 Full-scale operations or the resumption of
15 full-scale operations is not certain at the moment. They
16 may be able to resume operation in late '81 or early '82.
17 This depends on the resolution of a number of questions that
18 bear on the profitability of the plant, and these problems
19 involve negotiations with the labor unions, recruiting and
20 training new crews to operate the plants, and so on, and at
21 this point in time there is no basis that I see for changing
22 the forecast, particularly since their earliest assessment
23 of a return at any substantial level is beyond the periods
24 of interest for the case being discussed in these proceedings.

25 Q Thank you, Mr. Raber. That's all the questions

1 I have.

2 JUDGE MARSHALL: Okay.

3 MR. KIRSTEN: He's available for cross-
4 examination.

5 JUDGE MARSHALL: Off the record.

6 (A discussion was held off the record.)

7 JUDGE MARSHALL: Back on the record.

8 CROSS-EXAMINATION

9 BY MR. MAKUL:

10 Q Good morning, Mr. Raber.

11 A Good morning.

12 Q With regard to the Whippany Paper Company, you
13 said they might start operation again in the not too distant
14 future. Exactly how distant is not too distance to you?

15 A I have no way of knowing simply because I sus-
16 pect they won't tell us anything about the negotiations. I
17 suspect the negotiations are in a rather sensitive stage.

18 The newspaper article which appeared about a
19 month ago suggested that if the take-over were to go through,
20 they could be back in service in three months. That was a
21 month ago, so in theory at least that would bring them back
22 within the next two or three months.

23 Q That's the most optimistic or pessimistic, de-
24 pending on your point of view.

25 A I guess.

1 Q And of course the other end of the spectrum
2 could be never.

3 A As I perceive it, that isn't anybody's intent.
4 I think the intent is to somehow get those plants back. I
5 don't think they want to go out of business.

6 Q Well, it could be considerably longer than two
7 months?

8 A It could be, yes.

9 Q It could be six months or more, perhaps?

10 A I suppose.

11 Q Now, all the exhibits that have been produced
12 with respect to reductions in the sales forecast produce a
13 reduction in an amount of gigawatt hours per month, but
14 there's little or no additional specificity with regard to
15 time of day or time of week in which those reductions would
16 occur. Would you agree?

17 A That's correct. We have not been forecasting
18 it at that level.

19 Q And Mr. Steger was apparently, as a result, not
20 given any instructions as to how to treat that reduction in
21 sales, and I believe it's a fair characterization to say be-
22 cause it was very difficult to do it any other way, he assumed
23 that all the sales and all the hours go down by the same
24 percentage. Did you hear him testify to that?

25 A I heard him say that, yes.

1 Q Now, I think the record that we've developed
2 over the last couple of days pretty well indicates that de-
3 pending on whether or not the conservation occurs in an on-
4 peak period or off-peak period, that the price of displaced
5 electricity can vary significantly, depending on whether or
6 not the incremental source was coal-fired or oil-fired.

7 Based on your experience, there's conservation.
8 Could you give us any generality as to when that conservation
9 would be expected to occur?

10 A I would say that there are things going on in
11 the world that produce conservation across the board. There
12 are steps that the Company is taking that would produce con-
13 servation or load shifting, if you will, that are specifically
14 aimed at the high cost periods of time.

15 Those kinds of activities may not lead to very
16 much of a change in net sales. They may simply shift the
17 sales from a high-cost period to a lower-cost period.

18 Q Well, that's load shifting, not conservation
19 in the sense we're addressing it. Isn't it a natural reduc-
20 tion in gigawatt hours?

21

22

23

24

25

1 A That's right. Well, let me speculate. Indus-
2 trial sales are forecast to go lower per hour July forecast
3 than they were earlier.

4 I would not characterize that as a conserva-
5 tion-induced mechanism. I think it's driven by the economy,
6 but nevertheless, much of the sales would be lost during the
7 daytime, during the afternoon at peak times, and could con-
8 ceivably contribute to a reduction there.

9 On the other hand, losses in commercial sales
10 might well be in off-peak hours. For instance, stores are
11 closing earlier or air conditioning usage may be less, for
12 some reason. That could be either on-peak or off-peak. On-
13 peak, in my thinking, is the middle of the afternoon, sort
14 of.

15 Q Mr. Gentieu -- first of all, before we get
16 into that, how broad a period is considered on-peak versus
17 off-peak, and I note that Mr. Gentieu, in talking about the
18 PJM running rate, in some of the assumptions that he was go-
19 ing over this morning, noted that about two-thirds of the
20 time the price was representing displaced oil, and one-third
21 of the time displaced coal.

22 Would that be of any relevance to this de-
23 termination of what's an on-peak period or off-peak period?

24 A It may well be. I suspect that determination
25 has a lot to do with how you want to use the results, what

1 the application is.

2 Q Essentially, then, could we say if you had a
3 factory that was doing business one shift a day and five days
4 a week, and then that factory closed for one reason or another,
5 that that sales reduction would largely come out of the on-
6 peak period?

7 A Probably, but by the same token a factory that
8 was operating two shifts, a cutback would cut off the second
9 shift, most likely.

10 Q Well, the second shift would run from about,
11 oh, just rough estimates, maybe 4:00 or 5:00 in the after-
12 noon maybe till somewhere around midnight; correct?

13 A It seems reasonable.

14 Q And in the scenario where the Company cut back
15 from a two-shift-a-day operation to a one-shift-a-day opera-
16 tion, the whole second shift isn't from the off-peak period,
17 is it?

18 A The large percentage of it certainly would be.
19 I'm not sure where you want to make a clear boundary between
20 the off-peak and on-peak period, but I would guess that under
21 most conditions, the load is dropping off fairly significantly
22 from the peak value by 6:00 or 7:00 o'clock at night.

23 Q I take it you're not an expert with respect to
24 the load curves of the Company throughout the day and with
25 the incremental source of fuel for the incremental source of

1 electricity is.

2 A I'm not well versed in those as other wit-
3 nesses. I do not watch the dispatching of individual units
4 and the costs associated with those dispatches particularly
5 closely.

6 Q Now, in talking about stores, commercial cus-
7 tomers that are cutting back, I guess, would it be fair to
8 say that the typical store is open six, maybe seven days a
9 week and the hours of operation might be from roughly 8:00
10 or 9:00 in the morning to 9:00 or 10:00 at night?

11 A There are many stores that probably keep those
12 hours, yes.

13 Q I guess there's a few supermarkets that stay
14 open all night, in addition?

15 A Yes.

16 Q There's very few stores that open up at --
17 maybe a casino or two, but that's not in your service toy,
18 that may open at 9:00 at night, stay open all night and
19 close in the morning.

20 A I'd be surprised if they closed.

21 Q Now, with respect to the residential usage,
22 when would you expect conservation to occur; in the middle
23 of the night or during normal waking hours?

24 A Certainly there would be some during normal
25 waking hours, if the heating load or air conditioning load

Raber-cross

1 is reduced for one reason or another.

2 Q What are potential --

3 A I could see some potential for conservation at
4 night, also.

5 Q And could you describe that?

6 A For the simple reason that that is a logical
7 time to conserve on the things like air conditioning and
8 heating load. It's easier perhaps to dial your thermostat
9 up or down, as the case may be, at night while you're at
10 sleep, further in order to conserve money, really, than dur-
11 ing the day when you're up and about and might feel the dis-
12 comfort far greater. So, I'm not clear on exactly which way
13 that would go.

14

15

16

17

18

19

20

21

22

23

24

25

K 1

Raber - cross

1 Q With respect to the electric heating customers,
2 what proportion are they of your total residential customers?

3 A In terms of customers or in terms of usage?

4 Q In terms of customers.

5 A The number 10 percent sticks in my mind, but
6 let me check.

7 Q That's a good approximation. I am not looking
8 for an exact figure.

9 A Okay.

10 Q I don't know whether you were here on Wednes-
11 day but we had a large number of unhappy people, your custo-
12 mers.

13 A I was told.

14 Q And a lot of the testimony given by those
15 customers essentially was that they have cut back, some
16 are electric heating customers, and I believe some said
17 that they have cut back on their thermostats as much as
18 they can because of the price. I take it that that is a
19 pretty good example of price elasticity? Are not as a
20 result of the numerous increases that have occurred last
21 year, a year and a half, isn't it reasonable to assume
22 that there is limited additional price elasticity for
23 cutting back your thermostat at night and if that was the
24 easy place to cut back that it has already been done?

25 MR. KIRSTEN: I have a great deal of

1 confusion with the question.

2 MR. MAKUL: I will rephrase the question.

3 Q Price elasticity, I guess, is a continuing
4 phenomena, correct?

5 A It continues but not necessarily at a constant
6 rate.

7 Q And as prices increase, people do whatever is
8 easiest or least inconvenient to do in terms of cutting
9 back should they decide to do so?

10 A Should they decide to do so is very important,
11 but the easiest and most convenient thing is to, under their
12 conditions, is to pay the higher prices.

13 Q To the extent there might be individuals who
14 are not well off, who are having difficulty or great con-
15 cern with the electric bills, and the all electric custo-
16 mers, isn't it reasonable to believe if they had taken
17 measures tso far, probably the measures that occur is cut-
18 ting back the thermostat at night?

19 A That is certainly a logical measure to take,
20 yes.

21 Q So if there is going to be additional conser-
22 vation among this group, it might be cutting back during
23 the day at least to greater proportions than there is addi-
24 tional potentials to cut back at night?

25 A That is possible. I cannot say for sura.

1 Q With respect to non-heating customers, the
2 non-all electric customers, what kind of appliances do they
3 have that run/at night outside of possibly air-conditioners, what
4 other ones do they have that they would run at night?

5 A Dehumidifiers, obviously their refrigerators
6 run at night.

7 Q Minimal lighting load, perhaps?

8 A Yes.

9 Q And I guess to clarify at night, I mean well
10 after midnight? People don't go to bed with the chickens.

11 A Those are the major ones that I could think
12 of.

13 Q With respect to that, to the extent that the
14 balance of the usages during the daytime period, I wonder
15 if you can characterize the conservation potential among
16 those customers in the daytime period versus the nighttime
17 period?

18 A There may well be more activities during the
19 day that can either be shifted in the nighttime period, for
20 example cooking might be shifted to an off-peak period or
21 air-conditioning could be turned down. I think there may
22 well be some potential for air-conditioning to be turned
23 down at night. The potential is there in both time periods,
24 I think.

25 Q Well, air-conditioners don't norma-ly run all

1 year. That is the seasonal type thing?

2 A It is a seasonal type thing, yes.

3 Q But the non-air-conditioning type loads do
4 tend to be much more of a year-round nature. People will
5 use their various appliances in all months?

6 A That's correct except now the electric heating
7 also have course ---

8 Q Yes, and we are talking about the non-electric
9 heating customer.

10 A Yes.

11 JUDGE MARSHALL: Off the record.

12 (Whereupon, there was an off the record
13 discussion.)

14 JUDGE MARSHALL: We will break for
15 lunch now and be back at 1:15.

16 (Whereupon, the luncheon recess was
17 taken.)

18

19

20

21

22

23

24

25

L

Raber-cross

- 1 JUDGE MARSHALL: We'll go on the record.
- 2 MR. MAKUL: Are we continuing the cross-
- 3 examination?
- 4 JUDGE MARSHALL: Yes.
- 5 CROSS-EXAMINATION (CONTINUED)
- 6 BY MR. MAKUL:
- 7 Q Mr. Raber, this morning you mentioned that
- 8 some industrial customers are to some extent shifting pro-
- 9 duction or use of electricity from on-peak to off-peak.
- 10 A We were having a somewhat hypothetical dis-
- 11 cussion.
- 12 Q I see.
- 13 A At least, that was my interpretation of it.
- 14 Q You do not have time-of-day rates on your
- 15 largest -- for your largest customers?
- 16 A I'm not sure that we do or not.
- 17 Q I see; okay. Now, would it be fair to briefly
- 18 characterize your method for estimating sales to the resi-
- 19 dential sector is to determine a use-per-customer and then
- 20 a number of customers and then multiply the two to get the
- 21 usage for the residential class?
- 22 A That's correct, except that it's done indi-
- 23 vidually for the total electric customers and the non-total
- 24 electric customers.
- 25

1 Q Now, in terms of usage per customer, I would
2 like to direct your attention to a response to an information
3 request which is marked Exhibit JCE.

4 A Yes.

5 Q Page 404 essentially is a summary of the 1980
6 to 1981 projections for residential usage per household?

7 A Yes, it is, other than the 1980 that includes
8 actuals for as far as they're available.

9 Q How far does the actual go?

10 A Well, as it says in the footnote, 1980 data
11 includes six months of actual weather adjustments.

12 Q So they are weather adjusted?

13 A Yes.

14 Q In the forecast, which budgets are they based
15 on?

16 A I think that's backwards. The budgets are
17 based on a forecast, not the reverse. This is the July fore-
18 cast. This is the 3-plus-9 budget, as adjusted for presenta-
19 tion in the LEAC filing. I think the adjustment is shown on
20 Page 3 of 15 of the original filing.

21 Q With respect to those projections, what are the
22 assumptions made in terms of change of appliance mix or a
23 replacement of appliances upon wear-out?

24 A In the short-term methodology that is not con-
25 sidered explicitly. What we do is a rolling average of

1 historical sales data on a weather adjusted basis. Now,
2 that implicitly includes whatever replacement trends have
3 existed in the immediate past, and that is projected for-
4 ward into the future, so whatever has been going on is
5 captured in that sense.

6 Q So therefore, do these figures reflect any
7 change in either of the number of appliances or replacement
8 of appliances?

9 A Whatever has been going on in the recent past
10 is captured.

11 Q In terms of the future, is there any additional
12 assumptions unchanged?

13 A Assumptions that the recent past trend will
14 largely continue unless there is something specific that we
15 know of that creates a deviation or looks like it will
16 create a deviation in the future that is radically different
17 enough from the past trend to warrant an adjustment in the
18 appliance area. I don't think there is one.

19 Q These numbers on Page 404, does that include
20 an impact of price elasticity?

21 A In the sense that I mentioned before of what-
22 ever the price elasticity impact that is being captured by
23 the rolling average methodology.

24 Q The rolling methodology, I believe you described
25 it on Page 3 of JC-400?

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

A That's correct.

Q Could you briefly describe what that means?
Is that the average sales over the most recent 12 months?

A No. In the residential area, as we were just saying, the rolling average projections are based on numbers of customers, and on use per customer individually. The rolling average goes back longer than 12 months. It goes back several years and the historic data over that period of time, weather adjusted, and these are then fed into the rolling average calculation.

Q How many years does that data go back?

A Let me check. I think 1975 or thereabouts, but let me check.

1 A (Continuing.) Probably earlier than that,
2 probably in year 1970.

3 Q In terms of coming up with a price elasticity
4 adjustment, essentially could you briefly describe what is
5 the base period that you're looking at as your base level
6 consumption and how do you go from that to a projection of
7 what the consumption will be at a new higher price, in terms
8 of what base do you start from?

9 A I'm confused.

10 Q Okay.

11 A We've done no price elasticity adjustment other
12 than what's implicitly captured in the rolling average pro-
13 cedure.

14 Q The rolling average procedure you essentially
15 what you've been doing essentially, as I understand it, is
16 you've been looking at what the consumption has been during
17 rolling 12-month periods?

18 A Right.

19 Q And you're making an assumption of how the
20 price is going to -- has changed historically and is going
21 to change?

22 A No. We simply do the 12-month rolling average
23 procedure and whatever it captures, it captures. There's no
24 discrete adjustment for that. It's just implicitly built
25 into the procedure.

1 Q How many price increases, if you know offhand,
2 have occurred in the last 12 months and at what month did
3 they start having an impact on customers' bills?

4 A Well, in reverse chronological order, there
5 was an increase in May of this year which I presume would
6 show up in bills rendered in June, I guess.

7 Q Well, that was the dollar increase per resi-
8 dential customer.

9 A No --

10 Q The increase in the service charge in May.

11 A Yes. That was the emergency grant.

12 Q The interim.

13 A On the present case?

14 Q Yes.

15 A There was a LEAC adjustment in April of this
16 year and a LEAC adjustment in March of this year, LEAC ad-
17 justment in September of last year.

18 Q So, essentially there's been three increases,
19 the March, April and May, where we have seen much less than
20 a full 12-month effect on consumption on a 12-month rolling
21 average.

22 A That's true.

23 Q Wouldn't that tend to -- assuming that there
24 are price elasticity effects, would that not tend to give a
25 result which might be somewhat different, given that the

1 present level of prices are higher than what existed on a
2 rolling 12-month average?

3 A In theory, I suppose that's true, but you're
4 assuming that there is a run for one linkage within a price
5 increase and some change in consumption, and I'm not -- I
6 don't know how to demonstrate that that is in fact the case
7 on a short-term basis.

8 I think on a long-term basis, what you have
9 said is correct.

10 Q Now, over the past year, year-and-a-half, rates
11 have gone up significantly, and I believe one thing you said
12 earlier is that the income of an individual has something to
13 do with how much he's going to conserve, if at all, as a re-
14 sponse to prices.

15 A I would expect that would be one of the vari-
16 ables, yes.

17 Q Is it possible that someone would respond to
18 a relatively small increase, providing his income was ade-
19 quate, with no conservation?

20 A That's possible.

21 Q And then if there was another increase, he
22 might still respond with no conservation?

23 A That's possible.

24 Q But then after the third or fourth increase,
25 it starts getting significant both in terms of price and

1 otherwise in which he's been sensitized to cost of electricity
2 other than just receiving the bill, then we can start seeing
3 a conservation impact occurring for that individual where
4 there has been no response to prices before?

5 A That depends on a whole lot of other circum-
6 stances. This same individual might have received an income
7 increase in rate of pay and maybe he said that offsets it,
8 I like my air conditioner, and will continue to run it.

9 The response is not guaranteed, is what I'm
10 trying to say. It may happen; it may not happen. We have
11 no way of knowing this or judging this on an accuracy-wise
12 basis.

13 Q Well, overall you think it is a pretty reason-
14 able generalization that in your service territory that
15 electric rates have gone up at a much faster rate than dis-
16 posable income?

17 A Over what period of time?

18 Q The last year-and-a-half.

19 A Year-and-a-half? I guess I want to take two
20 exceptions to that. One is, I'm not sure that -- to the ex-
21 tent that that's true, I think it's not limited to our ser-
22 vice area. I think everybody has seen roughly the same kinds
23 of rate increases, and I think it's been established that
24 Jersey Central doesn't --

25 Q Everybody has seen a percentage increase the

Raber-cross

1 same as Jersey Central's customers have.

2 A Not in the very recent past, but that was be-
3 cause Jersey Central's rates were lower before. So, they've
4 gone up more on a percentage basis but even today I think
5 Jersey Central's rates are not higher than Public Service's
6 rates.

7 Q I'm not asking an absolute comparison of the
8 rates; I'm asking you the rates at which they went up com-
9 pared to the rates that disposable income went up.

10 A What I'm groping for is the rates at which
11 disposable income is going up, and I don't recall the figures
12 offhand.

13 Q I'm sure it hasn't been --

14 A It's possible it's not been on the same order
15 as the nominal increases in Jersey Central's rates, so, yeah,
16 I think the rates have gone up faster than disposable income.
17
18
19
20
21
22
23
24
25

1 Q There was a 1980 customer energy survey prepared
2 by GPU Service Corporation dated August 1, 1980.

3 Are you familiar with this at all?

4 A I am familiar with it to a limited extent.
5 Let me characterize that document for just a moment, if I
6 may.

7 This is one particular document that
8 is being issued among, it really wasn't issued until last
9 week despite the date that may be on it. It is just one
10 particular milestone in an ongoing program of customer
11 research, that this is a program that goes on continually
12 and most of the information from this program is said on a
13 more or less continuous basis into the forecasting process.

14 MR. KIRSTEN: Excuse me. The document
15 you are referring to, Mr. Makul, I think you
16 have it, the witness has it, but I think other
17 people may not. We have extra copies avail-
18 able.

19 If you are going to go into this further,
20 it probably might be a good idea --

21 MR. MAKUL: I have no intention to go
22 through it. If the parties would like to have
23 it marked into the record, I have no objection,
24 but I was not going to deal with it in terms
25 of specific page by page questions, but rather --

1 MR. KIRSTEN: I am sorry to interrupt.
2 I thought if you were going to spend some
3 time on it, it may be helpful if all the parties
4 have it.

5 Q I wanted to ask to the extent that additional
6 knowledge was developed from the survey, was it incorporated
7 in any way in the sales projection?

8 A I would say because the customer services
9 information is included, put into the forecasting process
10 on an ongoing basis, it doesn't necessarily await the publi-
11 cation of some discrete report such as this one which came
12 out last week.

13 Q There was one section of that survey, there was
14 a question about fuel or energy conservation measures which
15 customers have taken or plan to take.

16 Now, I see that there are many measures
17 in this survey where well under 50 percent of the people
18 have already taken many steps, and many people are planning
19 on taking the additional steps or taking the steps for the
20 first time.

21 How is that taken into account in the
22 12 months rolling average?

23 A Well, take your use per customer trend and you
24 will find it going down rather substantially in 1980 relative
25 to 1979.

1 Q Is that really so because going back to JCE,
2 I look at the 1980 versus the 1981 figures and --

3 A No, the 1981 figures are not all that different,
4 but the 1980, relative to the 1979 figures, are different.

5 Q From that figure the expected sales for 1980
6 for a NTE customer -- what does that stand for?

7 A Non Total Electric.

8 Q That kind of customer is expected to use 6,841
9 kilowatt hours in 1980 and 6,834 in 1981. That is only a
10 difference of 7 kilowatt hours. Isn't that a rather modest
11 amount of electrical conservation?

12 A You mean the change from those two years?

13 Q Yes, the change from year to year.

14 A Please note the change from 1979 to 1980.
15 That is a good deal larger. I have ^{got} them here in my testimony.
16 Use per customer in 1979 is 7,004 and 1980 it is 6,841, and
17 that is a substantial decrease due to both conservation and
18 the state of the economy.

19 Conservation steps that lead you from
20 1979 to 1980 may not all be continual for another year.

21 Q I believe you said this 1980 to 1981 figure
22 somehow implicitly captures a price elasticity effect. Am
23 I wrong?

24 A That's what I said, but I am not under -- do
25 you care to elaborate on the question? Yes, I think that's

1 what I said.

2 Q If you agree to that, furthermore, if the
3 Company is granted an increase in this proceeding and, in
4 addition, the Company's base rate case will be decided some-
5 time early in 1961 and presumably the Company will be back
6 for another LEAC proceeding to go into effect in March, and
7 who knows what after that, isn't there a continuing trend
8 toward higher prices, and wouldn't we expect to see another
9 reduction in residential usage as a result of the additional
10 price elasticity effect?

11 A If the increases come about in theory, there
12 may well be an additional reduction. If, let's keep in mind
13 there are forces that act the other way, for instance --

14

15

16

17

18

19

20

21

22

23

24

25

1 Q You're not referring to the Division of Rate
2 Counsel, are you?

3 A No, no, no, I was not. That's not what I had
4 in mind. What I had in mind were things like customer in-
5 come trends, new appliances having higher efficiency than
6 an appliance that is being replaced, just a tightening per-
7 haps, in a technical sense, of elasticity. The elasticity
8 does not necessarily remain constant, if you will. The
9 more easy steps you take the more you reduce your usage.
10 It is harder to effect further reductions.

11 Q I think one of the things you cited was more
12 efficient appliances. That would tend to reduce usage,
13 correct?

14 A Yes, it would.

15 Q And I guess one of the assumptions is that
16 if someone has more income, he will go out and buy more
17 appliances but isn't it also possible if someone has more
18 income he can replace his old, inefficient tube TV set with
19 a brand new color television set which is all solid state
20 and uses less electricity?

21 A Color sets use more electricity than black
22 and white sets.

23 Q A brand new color transistorized set uses
24 more electricity than an old tube black and white set?

25 A Perhaps more than the old tube black and

1 white sets.

2 Q How about the old tube color sets?

3 A Probably one would use less but on the other
4 hand people might buy refrigerators, for instance, and tend
5 to replace an existing model with a larger model that per-
6 haps has additional features in it.

7 Q What if they tend to replace --- I know in my
8 personal circumstances there is a space in the kitchen for
9 the refrigerator and a larger one wouldn't fit in there but
10 maybe I am the exception.

11 A In my personal circumstances, my wife is after
12 me to do just that.

13 Q With reference to some of the appliances, a
14 refrigerator ---

15 JUDGE MARSHALL: Off the record.

16 (Whereupon, there was an off the record
17 discussion.)

18 JUDGE MARSHALL: Back on the record.

19 Q With respect to refrigerators, back in the
20 fifties and sixties, wasn't there a big trend toward frost
21 free refrigerators?

22 A Yes, there was.

23 Q And aren't the new refrigerators designed to
24 be more energy efficient?

25 A Yes.

1 Q Even though they may be slightly larger?

2 A They are designed to be more energy efficient
3 but the absolute consumption will obviously depend on the
4 size also so one can offset a usage decline due to improved
5 efficiency by putting in a bigger one.

6 Q Well, has there been any study to determine
7 whether the average refrigerator is going to use more elec-
8 tricity than the average refrigerator being taken out?

9 A I don't have any specific data right now on
10 that, no.

11 Q Are not family sizes generally smaller than
12 they used to be?

13 A That is true, in general, family sizes are
14 declining.

15 Q Which would tend to indicate a smaller refrig-
16 erator might be adequate?

17 A That is a very subjective question. Perhaps
18 people choose to do shopping at lower frequency and there-
19 fore store more food.

20 Q Are air-conditioners wearing out everyday?

21 A I assume that they are throughout the service
22 territory, yes.

23 Q And in general are the new air-conditioners,
24 do they have higher energy efficient ratings than the older
25 air-conditioner?

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

A They are supposed to.

Q Would that not tend to indicate that for the same number of BPU's, cooling electricity would be used?

A Yes.

Q And, of course, the ability to replace these appliances to a great extent depends on income?

A Yes.

Q And so it doesn't necessarily follow that more income necessarily means more electricity consumption in all situations?

A I don't know that that follows, no.

Q I wonder if you can tell me judgmentally from Page 4 of 4 on JC-E, why you elected or came to the conclusion that it would not be proper to reduce the usage per customer other than nominal seven kilowatt hours for the non-total heating customer? What were the countervailing considerations and why did we end up with an end result of essentially no change?

A I think it was a feeling that the conservation trend would slow down a bit after the sharp decline that we're seeing in 1980 relative to 1979 coupled with a general improvement in the economy next year and the general improvement in real and disposable income.

Q I missed the last part.

A A general improvement in the real disposable

1 income as economy improves.

2 Q Did you make any assumptions as to what is
3 going to happen to electric rates through the balance of
4 1980 and into 1981?

5 A No. We made no specific assumptions.

6 Q What happens then, do assumption prices remain
7 unchanged?

8 A No. That's what the trend is captured by,
9 the moving average procedure prevails.

10 Q What evidence do you have that the conserva-
11 tion effect from '79 to '80 was it and that there is nothing
12 more to conserve?

13

14

15

16

17

18

19

20

21

22

23

24

25

1 A I think we need to distinguish between conser-
2 vation potential and the response that one actually is going
3 to get. The potential may be there whether there will truly
4 be a response in terms of real conservation remaining to be
5 seen.

6 I think the increase in real disposable
7 income will counterbalance the general tendency. People will
8 be in a recovering economy mood.

9 I think that will stimulate -- not
10 stimulate, but it will keep the usage relatively constant
11 because of the two offsetting factors.

12 Q Well, in order to have an increase in real
13 disposable income, don't you have to have an increase in
14 income which more than offsets inflation?

15 A Yes.

16 Q And you think that's going to happen?

17 A That's where our economic forecasts are going,
18 that in -- this is 1981, now?

19 Q Yes.

20 A The whole year of 1981, some recovery through
21 the early part and toward the end of the year some significant
22 straits in real disposable income.

23 Q But if the future trends continue along the
24 lines of the passed trends, particularly those of the last
25 12 months, electricity will become a larger and larger
portion of an individual's budget.

1 A You're making an assumption that I think is not
2 warranted.

3 You're making an assumption that the
4 trends of the last 12 months are driven purely by this price
5 effect that you're trying to quantify in some way, and I
6 think it's driven partly by that, but partly by responses
7 of customers in all classes to the general state of the
8 economy and that's going to improve toward the end of 1981.

9 Q I know that the Company is asking for some
10 78 million or so in this proceeding and the balance pending
11 over and above \$60 million of interim relief that's been
12 obtained, and the Company will probably be back for another
13 fuel clause request in March or February to go into effect
14 in March. I guess whether that's significant increases or
15 not will depend on what happens.

16 Would it be fair to say that characteriza-
17 tion of the study is that there's a continuing potential for
18 more conservation?

19 A I think there's a potential, yes.

20 Q But you're maintaining it will not be realized.

21 A No. I'm saying it's going to be counter-
22 balanced by other things, that the sales will or the use
23 per customer will stay roughly constant in that interval of
24 time, and then if you look at the projections beyond that
25 we will actually resume the historic trend of going up

1 slightly.

2 Q You're saying that conservation will be offset
3 by somehow by more usage by using appliances or intensively
4 by buying more appliances?

5 A Whatever, yes.

6 Q Could you give me some specific examples of
7 which appliances people might use more intensively or which
8 ones they might buy which they presently do not have?

9 A Well, air-conditioners, for one, freezers,
10 additional TV sets, any appliance that you care to name.

11 Q What is your air-conditioning saturation in
12 the service territory?

13 A I don't know what it is offhand. I can look
14 it up for you, if you like.

15 Q You think that everyone who ever wanted an
16 air-conditioner has bought one by now?

17 A I would doubt it.

18 Q Doubt it. Page 4 of 4 is actually broken down.
19 I was referring to the total figures for the year, but I
20 see it's broken down to a month by month basis and once again
21 I'm looking at the non-total electric.

22 I wonder if you could tell me how the
23 1980 versus 1981 numbers tie into your scenario of economic
24 recession through the end of 1980, and maybe bottoming out
25 or things starting to improve in the middle of 1981.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

JUDGE MARSHALL: First of all, as a preliminary matter, I would like to ask if the assumption in the question matches your past testimony or your belief, that the things will bottom out and begin to get better by mid 1981.

THE WITNESS: I'm sorry?

JUDGE MARSHALL: Part of his question was the assumption that you had -- that your belief was that things would get better by mid 1981.

Is that first your belief?

THE WITNESS: Yes.

That is consistent with our consultant's projections of the Company.

JUDGE MARSHALL: Okay. I just wanted to be sure. Thank you.

THE WITNESS: May we go off the record for just a moment, please?

JUDGE MARSHALL: Yes.

(A discussion was held off the record.)

PENGAD CO., BAYONNE, N.J. 07002 - FORM 1044

1 JUDGE MARSHALL: Back on the record.

2 A The numbers that you see on Page 4 of 4 are
3 an interplay between the two effects that I mentioned before,
4 namely, a continuing of conservation trends to some degree
5 coupled with a counter-balancing trend driven by disposable
6 income.

7 The relative impact of these things is
8 perhaps more visible if you look at the all electric custo-
9 mers where you can see a continuation of conservation par-
10 ticularly in the heating months. If you look at January,
11 February and again in December, there are significant de-
12 creases in the use per customer and that indicates a pre-
13 vailing of the conservation trend particularly for that
14 class of customer where the potential is greater.

15 For the other, for the NTE class, the
16 balance seems to be a little bit different, although take
17 December for instance, December 1931 incomes would be up
18 but yet usage is down a little bit, suggesting the conserva-
19 tion trend has prevailed there. The numbers fall out that
20 kind of a balance.

21 Q Under a certain type of appliance, group of
22 appliances that are relatively energy intensive, the TV
23 set, the washing machine, the refrigerator, whatever,
24 air-conditioner, and as these appliances break and people
25 go out and buy new ones, doesn't this change the appliance

1 mix continuously in the service territory?

2 A I'm troubled a little bit with some of your
3 words, as appliances break and are replaced.

4 Q Yes.

5 A That's one of the things that happens. The
6 other thing that happens includes buying more of certain
7 types of appliances, and perhaps not buying more of other
8 things, and that's what changes the mix of appliances in ad-
9 dition to just replacement of older appliances with new ones.

10 Q Let's focus on replacement of appliances that
11 break.

12 Is it not true that almost by definition
13 as the older one breaks, it's replaced with the new one?

14 A Generally speaking, I'd say yeah.

15 Q And is it not true that appliance manufacturers
16 today are making appliances that are much more efficient
17 in terms of energy usage than say eight to 10 years ago?

18 A For some appliances, that's true.

19 Q And so as a result, regardless of a price elas-
20 ticity effect or whatever, an individual has an appliance
21 that breaks, as long as he has the money or the credit to
22 replace it, there will be an incidental effect of more ef-
23 ficient usage?

24 A But as you yourself have pointed out, that's
25 an ongoing trend and that's captured in the forecast.

1 Q But it's only been in the last few years
2 though that those appliances have gotten that much more ef-
3 ficient. Isn't that true?

4 A That's true and if you look at that trend per
5 use of customer, I think you see that reflected. The use
6 per customer of the total non-electric class is sort of a
7 saturating girth which ---

8 Q When this exhibit was prepared, July 1980 was
9 the forecasted. Do you have a weather adjustment of the
10 actual July?

11 A Yes, I do.

12 Q Can you tell me what that is?

13 A On a total basis, the weather adjusted actual
14 is 1071 gigawatt hours.

15 Q Do you have it worked out to a usage per custo-
16 mer basis?

17 A Not off-hand but we can get that fairly readily.
18 The number that I quoted you is for the total company and
19 that included commercial and industrial and other classifica-
20 tions as well.

21 Q So that was in terms of replacing a forecasted
22 number with an actual number. If we look at Page 3 of 15 of
23 JC-A, I take it that the 1980 July figure in the first column
24 at the top of 1091, that 1071 is the actual number that would
25 replace it?

1 A I'm sorry, just give me a moment to find the
2 page that you refer to. Three of 15?

3 Q Page 3 of 15 of JC-A.

4 A Now, you wish to replace the July number on
5 this table and you read a number of 1091?

6 Q Yes. You just gave a figure of 1071 as being
7 the actual.

8 A Yes. The 1071 would replace the 1042. There
9 is two columns to the right of the 1091. There has been a
10 downward adjustment, 49 gigawatt hours to adjust the budget
11 number to the July forecast. So that the 1071 replaces the
12 1042, I think.

13 Q Would you be able to provide us with --- not
14 today necessarily --- with from Page 4 of 4 the residential
15 kilowatt hours per customer ---you have the estimates there
16 for July of 636 for the non-total electric, 782 for the all
17 electric. Would you be able to calculate actual numbers
18 based on the more updated figures?

19 A You mean the actual use per customer?

20 Q Yes.

21 A Yes, we can calculate those.

22 Q There was a nine plus three budget last Sept-
23 ember and three plus nine budget which came out about April
24 of this year. I wonder if you would also be able to provide
25 for us or calculate from those budgets the average use per

5
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

customer for both non-total electric and all electric so we could compare those to the actuals that were experienced in January through July of 1980?

A We can certainly provide that information.

Q Okay.

MR. MAKUL: I think that's all.

JUDGE MARSHALL: Okay. Miss Bello?

MS. BELLO: We have no questions.

JUDGE MARSHALL: Mr. Sahradnik?

CROSS EXAMINATION
BY MR. SAHRADNIK:

Q Mr. Raber, while I was listening intently when you were discussing about your inability to really quantify the price elasticity, and in essence what I understand you as saying is it's basically a failure to be able to predict the reactions of the people, your ratepayers, to increase and decrease?

Raber-cross

1 A At any one point in time for any specific in-
2 crease, yes.

3 Q Have you had the opportunity to attend any of
4 the hearings in the service areas on this matter?

5 A I have not had the opportunity to do so for
6 this case, but I have in the past occasionally attended
7 hearings, yes.

8 Q So you are unaware, then, of the reactions of
9 people and, for example, in Ocean County, which I represent,
10 to this proposed increase and past increases, correct?

11 A I have been told of the reaction of the people
12 who were here the other day. I know that the Company is very
13 sensitive to this.

14 I do not think the Company takes this
15 lightly. I think the Company appreciates the difficulty
16 that particularly people in low income brackets and senior
17 citizens have with the rate increases and they are not asked
18 for without some measure of concern for them.

19 Q Are you aware, has the information been con-
20 veyed to you what the attempts of these individuals, the
21 people who appeared at the meeting were with respect to
22 conserving electricity and their view as far as their intent
23 to do all possible to conserve electricity?

24 A I have heard that expressed. I don't know
25 how to quantify that.

Raber-cross

1 Q Are you familiar with the makeup of Ocean
2 County, the residential makeup with respect to the percentage
3 of senior citizens?

4 A I personally am not all that familiar. People
5 on my staff are. I gather that there are many senior citizens
6 in Ocean County?

7 Q That's correct. Are you also familiar with
8 the fact that a lot of people, basically, it is general
9 knowledge, have moved down to the area in an attempt to
10 escape the higher prices in north Jersey?

11 A May I ask you a question?

12 Are these, particularly the senior citi-
13 zens, aware of the Lifeline Benefits and the other benefits
14 that are available to them in the way of mitigating their
15 utility bills?

16 Q No, sir, I don't know that I specifically can
17 answer that. I think you would have to perhaps come down to
18 a hearing and maybe that can be asked through the people who
19 are attending in OceanCounty. There have also been some organiza-
20 tions, for example, the People's Utility Fight and the
21 Wattless Wednesday Movement that are active in Ocean County.
22 Are you aware of them?

23 A I am aware of the existence of these organiza-
24 tions, yes.

25 Q And the fact that they are advocating perhaps

Raber-cross

1 with respect to energy conservation throughout the service
2 area?

3 A So are we.

4 MR. KIRSTEN: I might say in that regard
5 that the questions of rate design, which I
6 think is implied in Counsel's question, the
7 question of time of day pricing, the effect of
8 conservation on rate design, are areas which I
9 think are more within the expertise of Mr.
10 Carter who has submitted testimony on rate
11 design.

12 He has addressed the question of low
13 management programming and the time of day
14 price experiment and some of the people that
15 Counsel referred to in Toms River complaints
16 were with the time of day rate, and that is
17 an area that Mr. Carter has specific knowledge.

18 MR. SAHRADNIK: I would like to follow
19 up with some questions, Judge, specifically
20 with the concept of price elasticity and
21 residential users.

22 Q Given the information conveyed to you from
23 some of the statements made by the people at these hearings
24 and your knowledge of the larger citizen makeup of the
25 community down there, aren't you in a better position to

1 predict the reaction of the people? It seems to me for
2 Ocean County there is, giving all of the criteria, the move-
3 ments to promote conservation, statements at the public hear-
4 ing, don't you feel that you can realistically expect a
5 conservation greater than that anticipated in the figures
6 which were just revealed?

7 MR. KIRSTEN: I have to object to the
8 form of the question because the testimony
9 at the hearings was not only that there was
10 conservation, but that there were in many
11 instances the inability of some of those
12 people to conserve any more which would in-
13 dicate a lack of any further price elasticity.

14 So that the implication that the desire
15 to conserve, and there is also testimony that
16 that desire to conserve had reached the maxi-
17 mum point and there was no longer any room
18 for future conservation, so that the implica-
19 tion of the question in view of the fact that
20 Mr. Raber was not there and aware of all the
21 testimony that was submitted or the fact
22 that there was such testimony, I think may be
23 somewhat misleading.

1 JUDGE MARSHALL: An objection has been
2 lodged to the form of your question. Do you
3 want to answer or do you wish to withdraw the
4 question?

5 MR. SAHRADNIK: Your Honor, I don't
6 recall the testimony that Mr. Kirsten has
7 stated, but perhaps I can ask it this way.

8 Q There certainly is a potential for more con-
9 servation in Ocean County in this service area than you
10 would admit, correct?

11 A I think there is a potential for conservation
12 everywhere, yes.

13 Q The movements that you are aware of, the
14 People's Utility Fight, / the Wattless-Wednesday Group, these
15 are something that have occurred in the recent, let us
16 say, five to six months to take on significance, is that
17 correct?

18 A Yes. Let me agree with you that I have been
19 aware of them for about that long.

20 Q And to the extent that these efforts are
21 being undertaken in your service area, separate and apart
22 from the Company's own efforts, isn't it realistic to as-
23 sume that there will be a greater degree of conservation
24 than was originally anticipated by the Company?

25 A I don't have any basis to draw that conclusion

1 for the following reasons:

2 One is Ocean County is a portion of the
3 Company's service area and the numbers that I am quoting
4 here are representative of the service area in its entirety.

5 Secondly, it depends on whether the
6 conservation actually takes place and not what the potential
7 is. The potential may be there. It may not be related and
8 as Mr. Kirsten has pointed out, there have been some dis-
9 cussions at least of an inability, or call it inability to
10 conserve further. Half the people in Ocean County have
11 taken the easy steps and the next ones are going to be very
12 difficult.

13 Q But Mr. Raber, you don't know that, do you?

14 A No, I don't. That is why I cannot quantify
15 this price elasticity effect that you are groping for any
16 better than I can. I don't know.

17 Q And certainly you are not saying that the po-
18 tential for conservation has peaked in Ocean County or any
19 where else in the service area?

20 A No, I am not saying that it has peaked.

21 Q Let me ask you, directing you to one other
22 area, inquiry. In the past few days you were volunteered
23 as the expert to update us on the activity of the Company
24 with respect to the use of refuse to generate electricity.

25 A I remember being so volunteered.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

Q Could you update us on that?

A I will give you the benefit of what knowledge I have. Please understand that this effort is not being conducted through my department and my knowledge of it is not very detailed.

Q Would there be someone else more appropriate to give this answer?

A Let me say what I was going to say.

MR. KIRSTEN: I think that Mr. Bright made some specific reference to the use of the project, for the use of refuse as a matter of, I think it was in South Amboy, in his testimony which was given on Wednesday, I believe.

MR. SAHRADNIK: That's correct, but in pursuing the matter, Mr. Bright stated that Mr. Raber would be able to update us on current activities in his capacity of planning and what have you for the Company and I was wondering if we can get an update?

MR. KIRSTEN: Go ahead.

THE WITNESS: Let me update you. The organization that is interested in building a power plant, fuel by refuse, is Resource Recovering Associates. Jersey Central actually

1 has a letter of intent with Resource Recover-
2 ing Associates to pursue energy from them from
3 such a plant. It is my understanding that
4 Resource Recovering Associates has lined up
5 a refuse stream and contract for this refuse
6 stream that they are now in the process of
7 lining up financing for the plant and involving
8 other things such as real estate negotiations.

9 The plant in question would be designed
10 to deliver 100 megawatts to the system. The
11 construction time for this plant would be
12 about three years and there would be at least
13 a year involved in wrapping up the financial
14 arrangements and so on coupled with licensing
15 activity and that presumes a well-expedited
16 licensing effort which the Jersey Central
17 people hope will come about.

18 The key point for it particularly for
19 the purchase of this proceeding is that plants
20 cannot be on-line in less than about four years
21 which means it can have no impact one way or
22 the other to what in the period of time of
23 interest to either of the cases being discussed
24 here.

25 MR. SAHRADNIK: Thank you. That's all

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16
- 17
- 18
- 19
- 20
- 21
- 22
- 23
- 24
- 25

I have.

JUDGE MARSHALL: For clarification, the Resource Recovering Associates, is that the group backed by Combustion Equipment?

THE WITNESS: I'm sorry, I don't know.

1 FURTHER CROSS EXAMINATION

2 BY MR. MAKUL:

3 Q I would like to ask a couple of followup ques-
4 tions prompted by Mr. Sahradnik's particular questions.

5 As you are probably aware, there are
6 some electric protest groups in your service territory, and
7 my understanding is that some of them are advocating using
8 as little electricity as possible as sort of a free speech
9 expression of their displeasure, a political statement of
10 their displeasure with Jersey Central Power & Light in their
11 rates.

12 Would it be fair to say that if, indeed,
13 there is any sort of response by customers in such a way
14 that this is something that goes beyond normal price elas-
15 ticity?

16 A You're suggesting a strike, if you will, and
17 suddenly somebody does something?

18 Q A usage strike.

19 A A usage strike. If that were to persist for
20 any period of time, I would say yes, that it might be some-
21 thing above and beyond the normal trend.

22 Q And the forecast that you make is based on
23 past trends, such a movement is a deviation from past trends
24 and, therefore, would not be captured in the methodology
25 to project sales?

1 A That is correct. I offhand recall no major
2 user strike.

3 Q Neither do I.

4 As one more information request, on
5 JCA, page 3 of 15, the second column is the adjustment to the
6 budget sales, and I am wondering if you could break that down
7 for us in an exhibit or whatever, into the major groups of
8 residential, commercial and industrial.

9 A Yes, I am sure we can do that.

10 MR. MAKUL; I think we have another
11 request, but we can deal with you during the
12 break.

13 THE WITNESS: I'm not sure I like that,
14 you will deal with me during the break.

15 MR. MAKUL: I will ask you -- it is an
16 involved thing that I think we're asking for.

17 JUDGE MARSHALL: Any redirect?

18 MR. KIRSTEN: No.

19 JUDGE MARSHALL: Are there any further
20 questions from anybody?

21 (No response.)

22 JUDGE MARSHALL: We will take a 15
23 minute break now.

24 (Whereupon, a recess was taken.)

25

1 JUDGE MARSHALL: We'll go back on the
2 record now. The Court Reporter will swear
3 the witness in.

4 H. LAWRENCE GOLDSTEIN, called as a witness
5 on behalf of Jersey Central Power & Light Company,
6 being duly sworn, testified as follows:

7 DIRECT EXAMINATION

8 BY MR. KIRSTEN:

9 Q Mr. Goldstein, will you please tell us the
10 nature of your position with GPU organization?

11 A I'm manager of Fossil Fuel Forecasts and
12 Planning.

13 Q And are you familiar with the fossil fuel fore-
14 casts which were incorporated in the various exhibits which
15 were prepared by Mr. Gentieu for the purpose of these pro-
16 ceedings?

17 A Yes, I am.

18 Q And are you prepared to support the estimates
19 of forecasts of the costs of oil, gas and coal as set forth
20 in those exhibits?

21 A Yes, I am prepared.

22 MR. KIRSTEN: Mr. Goldstein is avail-
23 able for cross examination

24
25

1 CROSS EXAMINATION

2 BY MR. MAKUL:

3 Q Good afternoon, Mr. Goldstein. Mr. Goldstein,
4 for the clause period, what assumptions did you make regard-
5 ing fuel oil prices, that is to say, the average price for
6 fuel oil consumed in this proceeding, would that be found
7 on JCA 3, page 2 of 3?

8 A Can you repeat the exhibit?

9 Q JCA 3, page 2 of 3.

10 A Yes, I am.

11 The question?

12 Q Yes. The average prices assumed for the
13 various types of fuel oil, I take it it's \$40.88 per barrel
14 for No. 2 oil.

15 A Correct.

16 Q The price for No. 6 oil, .3 percent sulfur,
17 is 36.77?

18 A Correct, for .3 percent sulfur.

19

20

21

22

23

24

25

1 Q And for one percent No. 6, it is \$30.30?

2 A That's correct.

3 Q And that comes up with a weighted average
4 price for No. 6 oil of 35.24 and a total average oil cost of
5 37.54?

6 A That's correct.

7 Q Now, of course, if you are able to make the
8 gas adjustment, these numbers come down somewhat on the
9 basis of given some consumption?

10 A And generation.

11 Q And generation. I see you made no express
12 calculation for any six oil higher than one percent sulfur,
13 is that correct?

14 A That's correct. We do not burn anything above
15 one percent sulfur fuel oil.

16 Q But my cross-examination of Mr. Steger this
17 morning, he indicated that the Central Hudson Plant burns
18 a high sulfur, I believe it is 2.8 percent sulfur six oil.

19 A Central Hudson Plant does.

20 Q And in order to calculate an escalation rate
21 for the cost of that unit, he had to get an oil price es-
22 calation from somewhere and so he used the oil price escala-
23 tion that I believe you developed.

24 A Central Hudson Plant is not one of our plants.
25 It is not a Jersey Central plant.

1 Q I realize it is not an Jersey Central plant,
2 but it does burn fossil fuel and in order to develop this
3 Levelized Energy Adjustment Clause an assumption has to be
4 made as to what the price of this fuel will be at that plant.
5 I believe Mr. Steger indicated that he used Jersey Central
6 numbers.

7 A Escalation numbers?

8 Q Yes.

9 A That probably is correct.

10 Q That would mean that he was using your escala-
11 tion assumption for six oil, I would imagine, since that
12 plant burns six oil?

13 A Yes, that is true.

14 Q But it is a different grade of six oil?

15 A Right, it is a high sulfur grade.

16 Q Would you expect that a high sulfur grade of
17 six oil would rise in price at the same rate as the .3 per-
18 cent and 1.0 percent?

19 A Prior to March, I would have expected that
20 to occur. What has happened in the marketplace is the
21 high sulfur grade of fuel oil has not escalated as every-
22 body expected them to escalate. The fact, of course, is
23 that it has come down. What I have projected in my escala-
24 tion rate was approximately a \$10 a barrel increase in the
25 cost. Now, to the extent that costs are now firming up,

1 we could very well arrive at a \$10 a barrel increase over
2 the year.

3 Q By a \$10 a barrel increase, you are telling
4 me a \$10 per barrel increase in all three types of oil,
5 the No. 2 oil, the low sulfur 6 and one percent?

6 A I would take that back and say from the point
7 in time we are today, from the point in time that we have
8 our budget, the \$10 would hold true for the distillate oil.
9 We have in there about a \$4 per barrel increase in the cost
10 of the resids and that would be relatively across the board.

11 That would be to the end of the year.

12 Q To the end of which year?

13 A The end of this year.

14 Q The end of 1980?

15 A The end of 1980. You want it for the whole
16 LEAC period, is that what you are asking?

17 Q Yes.

18 A The cost I would project over the LEAC period
19 for the distillate and the resids are as follows, and these
20 would be a purchase basis as opposed to a burned basis.

21 The cost of distillate oil I would
22 project over the LEAC period would increase from September
23 through August by \$7.23 a barrel. The cost of 3/10ths per-
24 cent sulfur oil would increase by a total cost of \$6.35 a
25 barrel. The cost of one percent sulfur oil would increase

1 by \$5.20 a barrel. I would suspect that to the best of
2 my knowledge, I would suspect that you would see the same
3 thing for higher grades.

- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15
- 16
- 17
- 18
- 19
- 20
- 21
- 22
- 23
- 24
- 25

1 Q Is there any document in the submissions made
2 for this proceeding where we could spot those increases?

3 A Yes.

4 Q Which one is that?

5 A JC-F.

6 Q Would you give us a moment to find that.

7 A That would be page 4 of 5.

8 Q I believe for the purposes of the clause, how-
9 over, the fuel clause that is taken into account is the fuel
10 clause as burned.

11 I wonder if you can explain how the num-
12 bers in JC-F, page 4 of 5 which are the as burned, how they
13 relate to page 2 of 3 of JCM-3 which are the as burned.

14 A The purchased costs are the costs that we
15 predicate our escalation on. They are related to the as
16 burned costs via inventory adjustments or inventory to the
17 extent that we purchase oil, it goes on to the inventory or
18 we have a weighted average cost of the inventory and that
19 is what they determine as the as burned cost, so if a station
20 that has significant inventory, your cost, your burned cost
21 end to lag your purchase cost by one dollar or so, and I
22 think that we can compare the purchase cost with the burn
23 cost and see this.

24 For example, over the test year filing
25 I have an average cost of 2 oil of \$42.32. The average cost

1 on an as burned basis of 2 oil is \$40.88. The difference
2 represents inventory lag.

3 For the 3/10th percent sulfur fuel oil
4 I have an average purchase cost of \$37.57, and a burn cost
5 of \$36.77, a difference of about \$1.00.

6 For the 1 percent sulfur fuel oil we
7 have a purchase cost of \$31.52 which we are forecasting. The
8 burn costs we have are \$30.30.

9 Now, these are on a non-adjusted basis.
10 When we adjust for gas it changes a little bit because we have
11 a change in the mix/^{of}fuel, so that is the relationship between
12 the burn cost and the purchase cost.

13 Q Now, this inventory lag, the time between which
14 the oil is purchased to the time it actually comes burned off
15 in terms of, as it is treated, do you use what is called a
16 first in, first out accounting basis?

17 A We use a weighted average cost basis which is
18 not first in and it is not last out. It is not FIFO and it
19 is not LIFO. It is the weighted average cost.

20 Q I wonder if you can explain about what kind of
21 time lag do we have when you are talking about inventory lag,
22 between the time when you make a purchase at a price and that
23 price winds up being reflected through totally in the burned
24 rate?

25 A Our inventory policy has been about 20 days

1 supply for each station for residual fuel oil. For distillate
2 fuel oils which are primarily used in the combustion turbines
3 we try and maintain a 50 hour to 100 hour requirement so on
4 a residual basis the 20 days represents almost a month so
5 it might be a month lag, but then on top of that there are
6 all of the inventory adjustment losses in products which are
7 not accounted for in the purchase.

8 Q If I might back up a few steps. With respect
9 to Central Hudson, I believe, am I correct, that your final
10 position on that is that the 2.8 sulfur oil that is burned
11 there would not be expected to escalate in cost at the same
12 rate as the 1 percent or .3 percent sulfur oil?

13 A What I am saying here is that to the best of
14 my knowledge I would think it would approximate. The absolute
15 cost increase that we see for one percent sulfur may be \$5
16 a barrel, \$5.50 a barrel, realizing, of course, that there
17 are market forces at play here.

18 Q Well, all right, maybe you can explain what
19 that means.

20 In making your forecast, did you ini-
21 tially disregard that there were market forces at play?

22 A As I said, I am primarily concentrating on
23 forecasting Jersey Central Power & Light's escalation,
24 not other escalations, not other fuel escalations.

25 Let me expound on what I mean by market

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

forces at play.

The current price of 2.3 percent sulfur fuel oil is fairly depressed at this point because there is not a big demand in the New York Harbor. The New York Harbor is essentially 3/10ths of a percent sulfur fuel oil, so to the extent that there is not a demand, the price is decreasing or lower than what the traditional relationship would normally be.

1 A (Continuing) In New England, which uses high
2 sulfur fuel oil, the price would be more reflective than
3 that. Now, in terms of dollars --- well, most of our product,
4 most of our residual fuel oil comes from Venezuela or the
5 Caribbean.

6 If we use the official minimum purchased
7 price of Venezuela, we end up with these differentials, about
8 roughly an \$8 barrel difference between the .3 percent sul-
9 fur and the 2.8 and roughly about a \$4 a barrel difference
10 between the one percent and 2.8 on an accurate basis.

11 Q Those are the official prices, I believe you
12 stated?

13 A Those are the official prices. If we got to
14 spot prices, spot cargos in New York Harbor, the price dif-
15 ferential is essentially the same.

16 Q Is not the market for oil to some extent
17 greater than just in one harbor? Isn't it an international
18 supply and demand situation?

19 A Yes, it is, but to the extent that .3 percent
20 sulfur fuel oil is primarily consumed probably roughly 90
21 percent is consumed in New York Harbor, that's where the
22 market is.

23 One percent is a commodity that's
24 known as national. 2.8 percent is sulfur residual fuel
25 oil, a product that's primarily sold in New England.

1 A And Planner, yes.

2 Q And Planner, however, in talking to Mr. Steger
3 he did use your oil assumptions to forecast what the prices
4 of oil would do to the PJM running rate?

5 A That is correct. Now, to the extent that there
6 is a couple of plants that burn the high sulfur fuel oil, if
7 he applied the rates that I used for Jersey Central, then
8 he's talking about a \$5.70 barrel differential.

9 Q You're saying that he would have used the
10 same escalation rates that he used but ---

11 A Exactly.

12 Q Which would mean that he essentially --- I
13 guess a corollary would be that the spread between a high
14 sulfur six oil and one percent six oil would not be increas-
15 ing, according to his assumption?

16 A That's correct. If you use the escalation that
17 we applied, you would apply it across the board. To the
18 extent that the absolute price is different, then if you
19 apply the percentage to it, you're going to get a change in
20 dollars.

21 Q When was your forecast of burned prices made
22 that we see in JC-A-3?

23 A This represents our three plus nine budget
24 and I started preparation of the 3+9 budget probably in
25 January.

1 Q And when was the document completed in the
2 form of these numbers that are on page 2 of 3, if not actually
3 written on this page, at least where you had everything
4 together where it would be a simple process to get these num-
5 bers?

6 In other words, when were your assump-
7 tions frozen?

8 A The assumptions were frozen, oh, I would say
9 in March.

10 Q In March. What was the status of the market
11 for oil in March as compared to now?

12 A The prices in March were just starting to
13 decrease.

14 Q So, we were essentially --

15 A Let me finish that. The prices for oil were
16 starting to decrease for specific grades of oil, primarily
17 for the higher sulfur grades.

18 For the distillate oil, prices have
19 never decreased. Prices have, indeed, increased over the
20 last six months. Low sulfur .3 percent fuel oil, which is
21 probably the largest grade of fuel that we consume, was
22 maintaining its price. Let's say the prices were not es-
23 calating.

24 The higher sulfur grade like 1 percent
25 were just starting to come down. There was some price movement

Goldstein-cross

1 downward.

2 Q Do you know what's happening to the 2.8
3 percent?

4 A No, I don't. I would say that the prices were
5 coming down there also because I kind of -- I know that in
6 April, May, those were the grades, primary grades, that were
7 cut, decreased by the Venezuelan government, By Exxon.

8 You know, once the Venezuelan government
9 decreases those grades, those grades are then decreased by
10 the suppliers, Exxon and all the other suppliers in New York
11 Harbor. They're passed along to the consumer in a decrease.

12 Q I asked Mr. Steger this morning if he knew in
13 the various other oil-fired generating stations that are
14 within the PJM system, if he knew what grades of oil were
15 burned at those various generating stations. He indicated
16 he did not, that he just took the prices or started with the
17 prices that were shown for those units.

18 A Yeah.

19 Q Are you aware of what grades of oil are burned
20 at the various portions of PJM?

21 A Yes, I am.

22 Q Can you review that for me, please?

23 A For the most part, the New York Harbor, again,
24 Public Service, burns a .3 percent. If we go out to Pennsyl-
25 vania, we go up to 1 percent. I believe Delmarva, Delaware

1 and Maryland burn either a 1 percent -- I don't know how high
2 it goes. I think it's 1 percent of .3 percent, and they all
3 burn the same grade of distillate.

4 Q So, you're saying that no one in PJM is burning
5 2.8 percent?

6 A Routinely, I can't say that I know of anybody
7 that is, although you mentioned somebody, the Hudson plant.

8 Q That's not in PJM.

9 A Yeah.

10 Q I take it that GPU is not unique in having an
11 oil price forecasting person at all major utilities, your
12 counterpart?

13 A I would say yes. I would say that most of the
14 utilities do have my counterpart.

15 Q Now, as part of our information request, JCA.4,
16 which was the projections of the PJM running rate made by
17 PJM and -- I'm sorry, JCA.2, not JCA.4.

18 MR. KIRSTEN: A.2?

19 MR. MAKUL: Yes.

20 Q I don't know who these people are on the operating
21 committee up at the top there or who are members of the
22 production cost task force, but I would imagine that they
23 received input from various utilities of what their cost,
24 projected costs of fuel would be in terms of coming up with
25 a PJM operating forecast. Does that sound logical?

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

A I don't think we ever discussed fuel prices.

Q Never discussed fuel prices?

A I sit in on the fuel situation task force.

Q Yes.

A And that's consistent with all member companies of PJM, and I can say that unequivocally we do not discuss prices.

1 Q Well, all right. On Page 3 of 9 we have some
2 of the assumptions that went to the PJM running rate pro-
3 jection?

4 A Page 3 of 9?

5 Q Yes, of that JC-A.2, Page 3 of 9. You have
6 that?

7 A I'm sorry ---

8 MR. MAKUL: Why don't we go off the
9 record for a second.

10 JUDGE MARSHALL: Off the record.

11 (A discussion was held off the record.)

12 JUDGE MARSHALL: Back on the record.

13 Q Do you see, oh, about two inches up from the
14 bottom of the text there's a listing of assumptions on fuel
15 prices and the assumptions there essentially are that 1980
16 the price of the oil products will escalate by 20 percent
17 and 1981 by 15 percent.

18 How do these projections, which are
19 used for planning purposes, compare to your projections?

20 A 1980, my projection was 30 percent escalation;
21 1981, 20 percent.

22 Q So in total you're projecting a 50 percent
23 escalation?

24 A No.

25 Q I guess you have a compound effect.

1 A No. I'm projecting a straight escalation.
2 Starting in December of 1979 I would escalate the oil prices
3 by 30 percent. Starting in 1981 I would escalate oil prices
4 by 20 percent.

5 Q What causes you ---

6 A Let me continue. Consequently, after the 3
7 plus 9 budget, we lowered our escalation because we had
8 three months of actual data in that escalation and so,
9 therefore, while we initially back in December indicated
10 that we would have a \$10 increase --- the 30 percent trans-
11 lates to roughly a \$10 increase in the price of resid and
12 distillate oils.

13 After the first three months of actuals,
14 we then escalated the residual fuel oils by \$4 a barrel.
15 So, what we're saying is that our escalation rate was more
16 akin to the 20 percent than the 30 percent.

17 Q You're saying after the March modification
18 that you're more in line with the PJM projection for 1980?

19 A Yes.

20 Q But you're ---

21 A For our budget, for our official budget we're
22 more in line with the PJM escalation rate for 1980. I am
23 at 20 percent for 1981.

24 Q And what do you know that PJM doesn't know?

25 A What do I know that PJM does not know? That

1 is the question?

2 Q Yes, assuming your's is correct and PJM's
3 is wrong, which I realize we're looking at a crystal ball
4 but obviously that's your belief.

5 A I think I have more information at my disposal.
6 I do not know my counterparts background. I happened to
7 work for an oil company, I happened to work in refinery
8 operations. I think I have a very adequate knowledge of
9 the market situation, the world supply situation, therefore,
10 I think I can make an intelligent projection of costs.

11 While we're on the subject of what we
12 know and what we don't know, I would like to go into the
13 mechanism for my projecting costs.

14 Q Fine. Why not now.

15 A What I have done and what I have used is a
16 technique which is called the cost pass through approach.
17 This is a technique that Data Resources has utilized and I
18 believe most of the other econometric firms utilize that
19 as well.

20 What it consists of is trying to deter-
21 mine the cost increase of crude oil and then taking that
22 value and assigning it to the products.

23 For example, if the cost of crude oil
24 for 1980 increased by \$10 a barrel, then we will say that
25 the cost of the products would increase by \$10 a barrel.

1 A (Continuing) To the extent that I have tracked
2 the last three years, I would like to read my price compari-
3 sons.

4 In 1978, the cost of crude oil, this is
5 the average refiner's cost of crude oil in the United States
6 from January to December of 1978, increased by 87 cents a
7 barrel.

8 At the same token, the price of 3/10ths
9 percent oil which we buy for Jersey Central increased by
10 \$2.49 a barrel.

11 The price of 1 percent fuel oil increased
12 by \$1.00 a barrel.

13 The price of distillate fuel oil in-
14 creased by \$1.38 a barrel, so we were paying more than the
15 cost of crude oil, just the sole increase in the crude oil
16 that one can say represents the refiner's increase in profit
17 margins.

18 In 1979, the difference between January
19 and December of 1979, the crude oil prices increased by
20 \$10.52 a barrel. By the same token, the price of 3/10ths
21 percent sulfur fuel oil increased by \$49.03. The price of
22 1 percent fuel oil increased by \$12.65. The price of
23 distillate increased by \$11.76.

24 For the same period, for 1980, 1980
25 the cost from January through May of 1980, the costs have

1 increased \$3.04.

2 The price of distillate oil has increased
3 by \$5.04. The price of low sulfur 3/10ths percent sulfur
4 oil has decreased by \$1.52, and the price of the lower grade
5 of the more sulfur content residual fuel oil, 3.5.

6 The 1 percent sulfur fuel oil decreased
7 by \$3.50. The record shows that for every \$1.00 of increase
8 in crude oil cost, the utilities, and primarily Jersey Central
9 utility as well as all New York Harbor utilites, since they
10 are New York Harbor prices, have paid more than that \$1.00.
11 So the mechanisms we used for projecting our cost, this cost
12 pass through approach, we tried to determine the cost of
13 crude oil and we say dollar for dollar that is passed on to
14 the product.

15 Q Essentially, would it be fair to say that this
16 method assumes that the refiner and marketer will make the
17 same margin in terms of cents or dollars per barrel on each
18 barrel of oil he sells and so the only thing which is affect-
19 ing the market price, then, is the variation in the price
20 of crude?

21 A In a simplistic manner of explaining it, that
22 is correct.

23 The difference in sulfur contents are
24 in excessive refinery operations and costs, but the record
25 shows that what is happening is the refiners are not only

1 taking their costs, but also increasing their profit margins.

2 Q In your view, is oil marketing a competitive
3 business?

4 A Yes, I would say that oil, since there is no
5 government action against the oil companies, I would say that
6 oil marketing is competitive, in that sense.

7 Q Is oil refining a competitive business in that
8 sense?

9 A Again, I would say to the extent I really do
10 not know the costs that each refiner has, I am told that it
11 is competitive.

12 Q Do you know what refiner utilization is at
13 present compared to a year ago or two years ago?

14 A Yes, a year ago it was running at a record rate,
15 I think above 93 percent.

16 Currently, I believe refinery utilization
17 is 73 percent which is a record low.

18 Q Would you accept, subject to check, that in
19 yesterday's New York Times it stated that refinery utilization
20 at present is under 70 percent, I believe it was 69.9 percent?

21 A I would believe that.

22 Q Under such circumstances where refinery utiliza-
23 tion was lower, would it be fair to say when refinery utiliza-
24 tion is high that there is some indication that it is a
25 seller market and where refinery utilization is low, it means

1 that people have spare capacity and things are getting more
2 competitive, and that is becoming more like a buyer's
3 market for refining, for obtaining refining services?

4 A I think in the United States' refineries,
5 traditionally, refineries maximize gasoline products and
6 distillate products.

7 Refineries do not produce excessive
8 quantities of fuel oil. Refineries have traditionally made
9 their money on pass through products.

10 Up until many years ago, refineries
11 regarded refining organizations as a loss operation. That
12 has all changed. Certainly there has been a decrease in
13 the consumption of gasoline. Certainly our stocks currently
14 of distillate oil are quite high. They are above the levels
15 that -- well, let me retract that statement.

16 The distillate levels are within the
17 normal range that the Department of Energy has set as a
18 target for what we need in October. Refineries are back down
19 on their refining runs because the tankage is limited.

20 In other words, they have an excess
21 capacity and an excess of products right now. There is no
22 question about that.

23 However, their costs are continually
24 going up and at this point in time I have not seen any
25 lowering of the refinery gate price for gasoline. I have

1 seen lower prices of gas at the stations which indicate to
2 me that the dealers are decreasing their margin. Their
3 margin was increased about a year ago or a year and a half
4 ago where they were allowed to earn double or triple what
5 they are previously earning. What they are doing stimulates
6 the market to cut back.

7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

1 Q You have read nothing in the newspapers about
2 major oil companies dropping their wholesale price of gaso-
3 line?

4 A I read that spot market prices for gasoline
5 is coming down in the Gulf Coast. I have not read anything
6 at this point to indicate that there has been a drastic
7 change in the refinery gate price in this area.

8 Q Is the refinery gate price the same thing,
9 like if you read in the newspapers about Texaco lowering
10 their price of gasoline?

11 A Yes, but Texaco --- you are picking an unusual
12 situation. Companies, for example, like British Petroleum,
13 BP, has access to North Slope crude. North Slope crude was
14 priced at a very, very low price relative to the world mar-
15 ket prices. BP had a competitive advantage of about three
16 cents a gallon of gasoline, 5 cents a gallon of gasoline;
17 DEO, if you remember a couple of months ago forced BP to
18 raise their price and by the same token, Texaco has all
19 the disadvantages of high prices and to stay competitive
20 they have to take a reduction in their refinery price, their
21 refinery gate price.

22 Q If there was a reduction in the dealer margin
23 then that would force the refinery gate price ---

24 A I have not seen any data that would indicate
25 a significant decrease in the refinery gate price.

1 Q You have read nothing in any newspapers or
2 trade publications to indicate that the major oil companies
3 are lowering their price of gasoline?

4 A I have read Platts. We get Platts Service. I
5 read it every day. I know what the market is. I know what
6 you're saying. Again, I say that I have not seen any de-
7 terioration of refinery gate price.

8 Q With respect to the cost pass through approach,
9 that assumes that the market conditions are such that the
10 refiners or dealers, the distributors may be able to main-
11 tain its profit margin on each unit of barrel, each barrel
12 that they handle? Isn't that the bottom assumption which
13 this whole thing rests upon?

14 A Let me go over this and illustrate a point.
15 The price of crude oil from January to our current May went
16 up \$3.04. The price of distillate oil went up \$5.04. That
17 to me means that there is a \$2 increase in refiners or dealers'
18 profits, right?

19 Q I'm asking you. You didn't answer the question.
20 What I'm asking is, is the whole basis of this approach, that
21 a refiner or a marketer is able to maintain its profit mar-
22 gin?

23 A Again, my answer is that for every \$1 increase
24 in the cost of crude oil, the cost market approach assumes
25 a \$1 increase in products but it is not there. The product

1 market has been more significant so that in every roll back
2 the price will not bring us down to the cost market approach
3 of a dollar for a dollar. What I am saying is that the dol-
4 lar increase in crude oil price has translated to a \$1.50,
5 a \$1.60 increase in product price. What you are telling
6 me is that now, we will see a 50 cent decrease from the cost
7 of that product. I agree that might very well be but the
8 point is that we will still see a dollar for dollar increase
9 in the cost of that product.

10 Q It would appear to me, sir, that as sales are
11 dropping off, the volume consumed of oil drops off and I
12 think you would acknowledge that that is indeed happening,
13 correct?

14 A Correct.

15 Q That dealers would find either individually
16 or in an aggregate, their volume of sales are going down?

17 A Their volume of sales are going down. The
18 refinery costs are going up.

19

20

21

22

23

24

25

1 Q Which, under normal economic theory, would mean
2 that in order to try to maintain or expand their overall level
3 of profits that they might take a smaller margin so as to get
4 a larger market share, albeit of a dwindling market?

5 A Let me rephrase the question to you and pose
6 this answer.

7 Q I don't answer the questions. I ask the questions.

8 A I will rephrase the answer this way.

9 OPEC, the traditional supply service
10 curve at OPEC is now a backward binding curve, backward
11 binding supply curve.

12 OPEC is cutting their products and
13 raising their price.

14 Q I am not talking about OPEC supplies. I am
15 talking about people who are marketing in this country and
16 refining in this country.

17 A But, you cannot sort the cost of crude oil
18 from the cost of products, and that is my contention.

19 Q I am asking you about your cost pass through
20 approach where you take the input price of crude, be it from
21 OPEC or whoever, as an input into the system and then you are
22 adding on a pass through.

23 I am asking you a question focusing on
24 the pass through, not on the cost of crude.

25 A The cost increase --

1 MR. KIRSTEN: I am sorry. I don't know
2 if there is a question pending. I have not
3 heard --

4 Q I guess the question pending is that given that
5 sales are dwindling and that before, for example, the refinery
6 capacity was over 93 percent indicating that there was very
7 much spare capacity around so people would not be in a position,
8 refiners would not be in a position to want to try to expand
9 their market share now with refinery utilization at 70
10 percent that refiners do have spare capacity and efforts to
11 maintain market position, maintain profits, would try to
12 expand market spares by perhaps taking a smaller margin?

13 A I think the refiners are doing exactly what
14 the OPEC nations are doing. They are using a backbending
15 supply curve.

16 Refiner utilization has decreased, less
17 products are being made. Therefore, the demand, if it is
18 maintained at that level, will soon sop up the excess
19 capacity.

20 Traditionally, the market, the demand
21 for heating oil, the demand for distillate is in the winter-
22 time, not in the springtime or summertime. We are approach-
23 ing the wintertime. That is when demand picks up.

24 Demand will pick up from average of
25 about 2 million barrels a day to as much as 5 million barrels

1 a day during the wintertime so demand is certainly going to
2 pick up.

3 Q So you are telling me that this is a normal
4 expected seasonal demand?

5 A That is what the market is all about. That is
6 what the petroleum market is all about. It is a seasonal
7 demand.

8 Q And inventories are higher even compared to
9 the normal seasonal expected variations?

10 A I agree with your question, and to the extent
11 that the refineries are cutting back products, that is, to
12 dry up surplus and create an environment for continued cost
13 pass throughs. That is why refinery capacity is down.

14 Q Now, we are in a situation where the refinery
15 utilization is down, the tanks are quite full --

16 A Tanks are only full for one product. The tanks
17 are full for distillate oil. Residual oil has decreased and
18 is on the lower end of the DOE level at this point. Crude
19 oil tanks are very full.

20 Q Residual oil is a product which you get a fixed
21 percentage from every barrel of any particular crude that you
22 buy?

23 A Residual oil is a function of crude. There are
24 some crudes that give you more yield of residual and others
25 that give you less.

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

Traditionally, in the US, our residual fuel oils have amounted to about 20 percent of the barrel.

Q I understand there is a lot of gas displacement programs that the federal government is encouraging and administering to back oil out of the utility.

Would it be correct in assuming that most of the oil that is being backed out is residual?

A The program was initially set up to back out distillate oil. It is now being used to displace low sulfur, intermediate sulfur on the east coast.

1 Q Do you know if Public Service is displacing
2 oil with gas?

3 A Public Service is displacing oil with gas.

4 Q Are there other utilities in that area that
5 is displacing oil with gas?

6 A Jersey Central Power and Light is displacing
7 oil.

8 Q It seems all these things combined would re-
9 duce the demand for No. 6 oil?

10 A There is a reduction in demand. However,
11 given the fact that gas availability is not adequate in
12 the wintertime, there is a demand for residual fuel oil.

13 Q But the end effect is, is it not, is that
14 utilities who are very large users, very large parts of
15 the market for six oil have been through construction of
16 nuclear plants and gas for oil displacement and so on and
17 so forth, are they reducing their usage of six oil?

18 A The usage of six oil has fallen off by about
19 eight percent, 10 percent. Not everybody can displace
20 residual fuel oil with gas. One has to be able to burn
21 natural gas in their boilers. Not every utility has that
22 capacity and not every utility wants to engage in convert-
23 ing their boiler to a gaseous fuel that might not be
24 available in a year's time.

25 Q So you are telling me then that despite the

1 fact that about 20 percent of every oil that comes into re-
2 fineries comes out as a residual oil and the fact that
3 utilities are burning less of that oil, all of these things
4 are totally irrelevant and the price of residual oil is
5 going to keep getting bumped higher and higher as the price
6 of crude oil goes up?

7 MR. KIRSTEN: I object to that. That
8 is not what the testimony says. No where
9 does he say it is irrelevant. His characteri-
10 zation of relevant seems to disagree with Mr.
11 Makul's characterization of why it is rele-
12 vant. No where has he said it is irrelevant.

13 MR. MAKUL: I asked several questions
14 about the cost pass through approach and the
15 fact that the volumes being sold were reduced
16 and I believe Mr. Goldstein's response was
17 that the supply and demand curve is somewhat
18 bending backwards and that the spare capacity
19 might, not that he used the word irrelevant,
20 but that it is not really a factor and they
21 are going to dry up these supplies to maintain
22 that price.

23 MR. KIRSTEN: I disagree with you.
24 He said that the reason that the utilization
25 is because they are doing exactly the same

1 thing OPEC is doing, reducing supplies to
2 maintain a high price so it is relevant to
3 prove that notwithstanding the reduction usage,
4 the price will still go up. That is relevant.

5 MR. MAKUL: I guess you misheard me,
6 Mr. Kirsten, because what I said was that Mr.
7 Goldstein's position was that a change in
8 usage is irrelevant to a change in price be-
9 cause ---

10 MR. KIRSTEN: It is not relevant. It
11 is relevant in the opposite direction.

12 MR. MAKUL: Perhaps the witness can
13 clarify it. The less that is used, the higher
14 the price will be. Is that the new supply
15 and demand law of economics we are operating
16 with?

17 MR. KIRSTEN: The less the supply, the
18 higher the price will be.

19 MR. MAKUL: And the reason why the
20 supply is drying up ---

21 MR. KIRSTEN: Because there is less
22 demand so they reduce the supply to maintain
23 a high price.

24 MR. MAKUL: And that is so even though
25 22 percent of every barrel comes out as

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

residual?

MR. SAHRADNIK: I object because I think Mr. Kirsten is getting in a position as to testifying without having being sworn under oath.

MR. KIRSTEN: Because the way the question is phrased is argumentative.

JUDGE MARSHALL: Off the record.

(Whereupon, there was an off the record discussion.)

1 JUDGE MARSHALL: Back on the record.

2 Do you still have an unanswered ques-
3 tion or was it resolved in the break?

4 MR. MAKUL: I didn't have any questions
5 answered during the break.

6 JUDGE MARSHALL: Okay.

7 The other Court Reporter isn't here
8 to read it back, so why don't you restate
9 your question. However, when you restate it,
10 before Mr. Goldstein answers, just wait a
11 second or two to see if Mr. Kirsten is going
12 to object. If so, let him state his objec-
13 tion.

14 You can answer, but do not speak at
15 the same time.

16 Q Do you agree with the general statement, then,
17 that regardless of how much excess capacity there may be in
18 the refining industry and regardless of how little oil may
19 be sold through marketers, that that will never reduce their
20 margin in the form of a pass through in terms of their --
21 a margin on each barrel handled?

22 JUDGE MARSHALL: Excuse me. Could
23 the Court Reporter read back that question?

24 MR. MAKUL: I'll repeat it.

25 Q Are you saying in the clause pass through

1 approach that the refiner, the marketer, will always take the
2 same markup on each barrel of oil regardless of how slack
3 the demand may be for the product?

4 A What I am saying is that the refiner will cover
5 his costs of crude oil in refining costs.

6 He may back off on his margin a little
7 bit.

8 What I have done is try to illustrate
9 that the refiners' margins have increased over the past
10 three years. To the extent that they have increased more
11 than the cost of his crude oil, he can back off somewhat.

12 Q But the time period from 1978 through '79,
13 was that not a period of very rapid escalations in the world-
14 wide price of oil?

15 A Well, 1978 was not. Average crude costs went
16 up only 87 cents through the whole year.

17 Q 1979?

18 A 1979, yes, it was, but if we dwell on 1978 as
19 a basis here, the refiners' margins more than doubled.

20 Q Would you agree that in the 1979 period that
21 perhaps demand at that time was artificially stimulated by
22 something called panic buying?

23 A There was a definite shortage of oil in 1979.
24 The Iranian situation developed back in '78 and it was a
25 backout of roughly two million barrels of oil in the market-

1 place. I wouldn't say that it was panic buying. I would
2 say it was necessity buying.

3 Q What was refiner utilization a year ago?

4 A Pretty close to 90 odd percent, I believe.

5 Q And it's now 70 percent?

6 A 70 percent.

7 Q If there was a shortage of oil, where did they
8 get all the oil to refine to get 93 percent utilization?

9 A A lot of it came out of their stocks.

10 Q And inventories were getting lower?

11 A Inventories -- in 1979, the winter of 1979,
12 there was a panic to build up inventories of distillate oil
13 in this country and --

14 Q It was a panic condition?

15 A I wouldn't call it a panic, but there was a
16 lot of incentive to build up inventories because the inventory
17 targets were way below what the DOE had set as an official
18 goal and this is the winter of 1978/1979.

19 Q As a result of this, this panic, which was
20 your word, I'll just call it a determined effort to build up
21 inventories of heating oil, refinery utilization was high?

22 A Refinery utilization was high.

23 We imported a large amount of distillate.
24 Also, refinery utilization was high because of gasoline
25 production which was also being produced. We were maximizing

1 distillate, but also producing considerable amount of gaso-
2 line.

3 Q We had to get those products, it was felt,
4 in case of a cutoff of supplies and the refineries were sitting
5 very pretty with respect to the fact that it was a number one
6 top priority national program, to get that oil refined in
7 the form of distilled products?

8 MR. KIRSTEN: I object to the characteri-
9 zation of "sitting pretty". I don't know what
10 that means.

11 MR. MAKUL: They were able to have a
12 93 percent utilization.

13 JUDGE MARSHALL: Could you read back
14 the original question?

15 (The Court Reporter read back the
16 following:

17 Question: We had to get those products,
18 it was felt, in case of a cutoff of supplies
19 and the refineries were sitting very pretty
20 with respect to the fact that it was a number
21 one top priority national program, to get that
22 oil refined in the form of distilled products?)
23
24
25

2v 1 Goldstein - cross

1 JUDGE MARSHALL: And the objection was?

2 MR. KIRSTEN: The form of the question.

3 I don't know what the characterization "sitting
4 pretty" is and I don't understand what the ques-
5 tion is.

6 MR. MAKUL: By sitting pretty I meant
7 that they were able to refine a lot of products,
8 get and maintain a profit margin and they made
9 a lot of money.

10 JUDGE MARSHALL: With that definition
11 of "sitting pretty", does the witness under-
12 stand the question?

13 THE WITNESS: I don't. I'd like it
14 read back.

15 JUDGE MARSHALL: Okay. Could you read
16 it back again?

17 (The Court Reporter read back the fol-
18 lowing: "Question: We had to get those
19 products, it was felt, in case of a cut off
20 of supplies and the refineries were sitting
21 very pretty with respect to the fact that it
22 was a No. 1 top priority national program,
23 to get that oil refined in the form of dis-
24 tilled products?")

25 MR. MAKUL: I was asking him to

1 comment.

2 MR. KIRSTEN: I really have to object
3 to the form of this examination, sir. This
4 is not a matter of commenting and then con-
5 versation. I can't see how you can pass on
6 the relevance of a question when there's no
7 question.

8 MR. MAKUL: I think the question then
9 is --- I was asking a question, as I recall,
10 Mr. Kirsten, and you objected and broke the
11 question.

12 BY MR. MAKUL:

13 Q How does that compare to the present business
14 environment that the refiners find themselves in?

15 MR. KIRSTEN: I object to the form of
16 the question as irrelevant.

17 MR. MAKUL: It is not irrelevant.

18 MR. KIRSTEN: What's the relevance?

19 MR. MAKUL: The relevance is he's using
20 a cost pass through approach pursuant to the
21 same number of cents or dollars per barrel
22 regardless of market conditions and he's
23 citing figures to justify that of 1979 as to
24 what the pass throughs were and the point.
25 that I'm trying to make is that the business

1 environment that the refiners are in today
2 is substantially different than the business
3 environment that the refiners were in in 1979.

4 MR. KIRSTEN: It seems a lot simpler
5 if you asked him that question, is the environ-
6 ment different and if so in what way and what
7 impact did that have on the pricing and we can
8 follow the line of questioning. I cannot fol-
9 low the line of questioning and I think it's
10 irrelevant and immaterial the way you posed
11 it.

12 JUDGE MARSHALL: It may have been some-
13 what ungrammatical in certain respects, but it
14 does have a certain relevancy. So, I'll deny
15 the objection.

16 THE WITNESS: Can I have the question
17 read back?

18 (The Court Reporter read back the fol-
19 lowing: "Question: How does that compare to
20 the present business environment that the
21 refiners find themselves in?")

22 A The present business environment for the re-
23 finers can be characterized as follows: The refiner's ac-
24 quisition cost of crude oil has increased. That cost has
25 to be passed along, therefore, the refinery has cut down on

4
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25

a utilization, the refinery has cut down on capacity, and they're now down to a utilization factor of 73 percent or 70 percent.

The major point is that refinery costs have indeed increased in terms of acquisition of crude oil. If one buys a barrel of oil at \$35 a barrel and he makes all gasoline and he sells it for 83 cents, he's not going to stay in business very long because that 83 cents is not enough to cover that barrel of oil.

Q Mr. Goldstein, you're twisting things around. I'm not suggesting ---

MR. KIRSTEN: I object to the comment.

MR. MAKUL: I am not suggesting that.

MR. KIRSTEN: I object to the comment.

I move that it be stricken.

JUDGE MARSHALL: Okay. An objection has been made that your comment be stricken.

MR. MAKUL: I'll accede to the objection.

JUDGE MARSHALL: Okay.

Q The scenario you posed where the cost of the raw material was a dollar and the products sold for less than a dollar, that was not an example where it was a reduction of the cost pass through, rather, you went to a more extreme example where the cost pass through became instead

PENGAD CO., BAYONNE, N.J. 07002 - FORM 1044

1 of adding on the cost, the individual is losing money, and
2 that's not the question I posed, Mr. Goldstein.

3 The question I posed is that if a
4 product costs a dollar or if the raw material costs a dollar
5 and the refiner is making a margin of 10 cents, the end
6 product price of a dollar 10, that would it not be possible
7 theoretically that in times of low demand and severe over-
8 capacity, that the refiner might reduce his margin to some-
9 thing less than 10 cents in that theoretical example?

10 A Would you say three cents? Is that the ques-
11 tion you're posing to me?

12 Q The question I'm posing to you is if that as
13 opposed to that he might reduce his margin to 10 cents?
14
15
16
17
18
19
20
21
22
23
24
25

1 A I'm not arguing that point with you. My
2 comment here is if the refiners' cost is a dollar and he,
3 in good times, charges \$1.10, in bad times he might charge
4 \$1.05, but that is not the point.

5 The point is that his costs in bad times
6 is going up. His costs have increased another dollar, he's
7 going to charge \$2.00 now to recover that cost.

8 Sure, his margin will be lower, but
9 he's not going to sell that product at \$1.80. The cost
10 pass through approach says that for every dollar increase
11 in the cost of his doing business, the cost of his crude
12 oil as a major cost, that is going to be passed on, in terms
13 of a price.

14 I'm not arguing margins. All I'm saying
15 is historically when there has been an increase in the price
16 of crude, the refiners and the distributors have seen fit to
17 raise their margins.

18 All I am saying is a cost pass through
19 basis is that, and when conditions are tight, the cost of
20 doing business -- the increased cost of doing business is
21 going to be passed on.

22 My contention is essentially that the
23 cost of crude oil is increasing. There is no denying that
24 the cost of crude oil has increased and we can submit offi-
25 cial documentation to show that the cost of crude oil --

1 refiner acquisition costs of fuel oil has increased as crude
2 oil has increased.

3 Q I have no dispute with that.

4 A And to the extent that cost has increased, that
5 will be passed along in terms of product.

6 Q But that will be passed through, but the
7 approach that you used to come up with a product price assumes
8 that the margin remains constant?

9 A No. I have not said that at all. In my cost
10 pass through approach, I have increased the cost of the
11 product by the price of crude oil. I say if crude oil went
12 up \$10 a barrel, that's what I would expect to see in terms
13 of cost of the product.

14 Q So, the implicit assumption is, then, that
15 since there was no correction made the other way for margin,
16 that the margin would remain unchanged. Is that correct?

17 A Whatever the margin is, the margin can come
18 down, but the cost is still going to go up whenever the cost
19 of crude oil is.

20 Q The only question is that because crude oil
21 goes up 10 cents, the margin comes down by 1 cent and the
22 theoretical example in that case is the end price of the
23 product goes up by 9 cents. Would that be right?

24 MR. KIRSTEN: I object to this. This
25 is argumentative. We have gone on with the

1 same question for at least an hour. Mr.
2 Makul happens to be absolutely wrong. The
3 witness has said so and he is not satisfied
4 with that answer and he's continued to say,
5 but isn't it so, but isn't it so, but isn't
6 it so.

7 The margins happen to go up as the
8 amount of units sold go down.

9 Now, Mr. Makul doesn't want to believe
10 that fact as stated by this witness and if he
11 asks the question 20 times, he's going to get
12 the same answer, and I object to the repeti-
13 tion.

14 JUDGE MARSHALL: An objection has been
15 made on the outstanding question on the grounds
16 of it is unduly repetitious.

17 Mr. Makul?

18 MR. MAKUL: I've asked the witness to
19 comment upon the effect of the fact that we
20 are in, as has been reported, an oil glut, and
21 to what extent that might have an effect on
22 margins as opposed to margins that may have
23 occurred in historical periods.

24 What Mr. Kirsten states is what the
25 witness stated which is based on data that

1 occurred in the past years, in the past years
2 that were cited, 1978, 1979, the early part of
3 1980.

4 If the witness can enlighten us about
5 this, my memory was there was no oil glut and
6 the essential question is that because of the
7 market condition, the worldwide supply of oil,
8 the fact that consumption is widely reported
9 to be down, that is it not possible that since
10 the price paid for oil represents a combination
11 of the cost of the crude and the margins of
12 the various people who handle and refine that
13 crude, is it not possible that the non-crude
14 oil components of the overall cost of oil are
15 dropping.

16 MR. KIRSTEN: You want to testify to
17 that? I'll cross examine you on it, Mr. Makul.

18 MR. MAKUL: I am asking --

19 MR. KIRSTEN: The witness has said you
20 are wrong. You may not like that answer, but
21 if you want to get on the stand and testify,
22 I think I can prove that you're wrong.

23 JUDGE MARSHALL: Well, there was an
24 outstanding question and then during the course
25 of the response to Mr. Kirsten's objection you

1 stated another question.

2 Was your earlier question withdrawn
3 and that put in its place or was that merely
4 a rhetorical question you made during your
5 response?

6 MR. MAKUL: I think this would probably
7 be best handled in a brief later. We'll move
8 on to another area.

9 JUDGE MARSHALL: Does that mean you're
10 withdrawing those two questions?

11 MR. MAKUL: Yes.

12 JUDGE MARSHALL: Okay.

13 Q Mr. Goldstein, with respect to the projections,
14 I see them escalating on a month by month basis to get to
15 your final figures. This is on JC-A.3, page 2 of 3.

16 Now, we have budget figures there start-
17 ing in September and going through next August. You were
18 asked to provide an exhibit during discovery and, unfortunately,
19 I don't think there's a number on it, but we asked you to
20 compare the actual cost of oil burned in July of 1980 to
21 the previous budget.

22 It's a handwritten copy, maybe if I show
23 it to you -- do you recognize that?

24 JUDGE MARSHALL: Off the record.

25 (A discussion was held off the record.)

1 JUDGE MARSHALL: Back on the record.

2 There's been an off the record discus-
3 sion. The parties have stated during the
4 course of the day that it looks like there
5 may be minimal cross examination on Tuesday.

6 In light of that, Mr. Sahradnik has
7 asked, and I feel it possibly would be for the
8 benefit of all parties concerned and for
9 competent treatment of his memorandum on the
10 question of a further hearing date in Monmouth,
11 for this memorandum to be submitted on Wednesday
12 rather than on Monday as originally requested.

13 Agreed?

14 MR. SAHRADNIK: Thank you, Judge. I
15 appreciate that.

16 JUDGE MARSHALL: Okay. Now looks like
17 a good time to break.

18 Are there any further matters before
19 we break right now?

20 (No response.)

21 JUDGE MARSHALL: We'll break now.
22 We'll resume Monday morning at 9:00 o'clock.
23 Thank you for attending.

24 (HEARING ADJOURNED TO MONDAY, AUGUST
25 25, 1980, NEWARK, NEW JERSEY, 9:00 A.M.)

E X H I B I T S

Number	Description	Page
JC-H.1	Three page document, a Response to Public Advocate's Data Request made at Hearing on August 21, 1980	341
JC-400	Testimony of Marvin Raber.	354
JC-401	Short Term Sales Forecast Summary July 1980.	354

I N D E X T O W I T N E S S E S

NAME	DIRECT	CROSS	REDIR.	RECROSS
LAWRENCE P. GENTIEU				
BY: MR. KIRSTEN	317		348	
ROBERT STEGER				
BY: MR. KIRSTEN	338			
BY: MR. MAKUL		341		349
BY: MR. SAHRADNIK		351		
MARVIN RABER				
BY: MR. KIRSTEN	353			
BY: MR. MAKUL		370		
		417		
BY: MR. SAHRADNIK		407		
H. LAWRENCE GOLDSTEIN				
BY: MR. KIRSTEN	419			
BY: MR. MAKUL		420		