

BEFORE

THE PUBLIC UTILITIES COMMISSION OF OHIO

- - -

In the Matter of the) Case No. 07-589-GA-AIR
Application of Duke Energy)
Ohio, Inc. for an Increase)
in Gas Rates.)

In the Matter of the) Case No. 07-590-GA-ALT
Application of Duke Energy)
Ohio, Inc. for Approval of)
an Alternative Rate Plan)
for its Gas Distribution)
Service.)

In the Matter of the) Case No. 07-591-GA-AAM
Application of Duke Energy)
Ohio, Inc. for Approval to)
Change Accounting Methods.)

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DEPOSITION OF ANTHONY J. YANKEL

THURSDAY, FEBRUARY 21, 2008

1:17 O'CLOCK P.M.

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1 Deposition of Anthony J. Yankel, a
2 witness herein, called by Duke Energy Ohio, Inc.
3 for cross-examination under the statute, taken
4 before us, Deborah J. Holmberg, Registered Merit
5 Reporter, Valerie J. Grubaugh, Registered Merit
6 Reporter, Certified Realtime Reporter, and
7 Notaries Public in and for the State of Ohio,
8 pursuant to notice and stipulations of counsel
9 hereinafter set forth, at the offices of The
10 Office of The Ohio Consumers' Counsel, 10 West
11 Broad Street, 18th Floor, Columbus, Ohio, on
12 Thursday, February 21, 2008, beginning at 1:17
13 o'clock p.m. and concluding on the same day.

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1 APPEARANCES:

2
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14 ON BEHALF OF THE STAFF OF THE PUBLIC UTILITIES
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14
15 ALSO PRESENT:

16 Don Wathen

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S T I P U L A T I O N S

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It is stipulated by and among counsel for the respective parties herein that the deposition of Anthony J. Yankel, a witness herein, called by Duke Energy Ohio, Inc. for cross-examination under the statute, may be taken at this time and reduced to writing in stenotype by the Notary, whose notes may thereafter be transcribed out of the presence of the witness; that proof of the official character and qualification of the Notaries is waived; that the witness may sign the transcript of his deposition before a Notary other than the Notaries taking his deposition; said deposition to have the same force and effect as though the witness had signed the transcript of his deposition before the Notaries taking it.

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1 ANTHONY J. YANKEL
2 of lawful age, being first duly placed under oath,
3 as prescribed by law, was examined and testified
4 as follows:

5 CROSS-EXAMINATION

6 BY MR. FINNIGAN:

7 Q. Good afternoon, Mr. Gonzalez (sic).
8 Wait. Mr. Yankel. I knew that.

9 Mr. Yankel, good afternoon.

10 A. Good afternoon.

11 Q. I wanted to ask you about your testimony
12 relating to the Company's cost of service study.

13 One of the things that you criticized was
14 the use of a March 2007 peak for the cost of
15 service study; is that correct?

16 A. That's correct.

17 Q. And the Company used a coincident peak
18 method to develop the cost of service study;
19 correct?

20 A. I wouldn't call it a method. They used
21 coincident peak data within their methodology,
22 yes.

23 Q. Okay. And this involves developing load
24 factors from load research data and then applying
25 it to normal or forecasted weather.

1 A. That is how the Company did it, yes.
2 That's not necessarily -- The two aren't
3 necessarily related, but yes, that's how the
4 Company did it.

5 Q. And this technique would be appropriate
6 to use only if the actual data that's used in that
7 method is consistent with normal weather; right?
8 I mean, isn't that your -- one of your criticisms?

9 A. Yes, that is a criticism, basically, the
10 fact that the load factors that were utilized by
11 the Company were based upon actuals and not
12 normalized, and then they were combining those
13 load factor numbers with normalized sales data.

14 Q. Okay. So you would say, you know, you
15 can't use March load factors for the cost of
16 service because March is not normally your coldest
17 month. Isn't that the essence of what you're
18 saying here?

19 A. Yes.

20 Q. Okay. You recommend that January load
21 data should be used for developing the system peak
22 for the cost of service study.

23 A. I recommended that as probably a
24 surrogate for doing a better job, but January
25 being typically the coldest month of the year, I

1 recommended using the January data.

2 I didn't totally like the choices I had,
3 but it was the only choice I had as far as the
4 data that was available. Again, the January data
5 was actual data. Again, we're still comparing
6 actual with normalized, but yes, I chose January.

7 Q. Now, you said you didn't like the data
8 that you had. What data would you have preferred
9 to have to make a recommendation on the system
10 peak for the cost of service study?

11 A. Possibly something that's more normalized
12 on the basis of peak. And, again, if one looks
13 at -- As I demonstrated in my testimony, if one
14 looks at the peak day temperatures for the 30th of
15 January, which is the day that the Company had
16 picked as the peak for January, if one looked at
17 that and got a ratio of that compared to the
18 overall temperatures for January, that's still off
19 from what is considered normal in 30-year normals
20 from NOAA, something that would be more reflective
21 of a more normal load factor. I've not done any
22 calculation.

23 Q. Would it be appropriate to consider the
24 system peak as one indicator of when the proper
25 peak load would be for developing this load factor

1 data?

2 A. Depending on what you mean by "system
3 peak". I just have a minor problem with that as
4 to whether or not you have interruptible in there
5 and whatnot. But, yes, essentially system
6 throughput would be a major driving force.

7 Q. That would be an acceptable proxy to use
8 for peak load for developing the cost of service,
9 assuming no interruptions for interruptible
10 customers.

11 A. Well, in this case we're not looking at
12 interruptible customers.

13 Let me rephrase that.

14 In the methodology that we're dealing
15 with right now on the peak portion as opposed to
16 the average portion, interruptible customers are
17 not a part of the equation. So it's more of a
18 throughput on a firm basis is probably the
19 appropriate thing to be looking at.

20 Q. Okay. So the day of total peak send-out
21 would be an acceptable proxy for a peak load for
22 developing the cost of service?

23 A. Again, given the Company's method, if the
24 peak day send-out is -- quote -- normal -- Again,
25 the Company is comparing actual data from, you

1 know, a specific month, January, February, March,
2 and is comparing that to normalized data, and you
3 have a mismatch between normalized and actual, if
4 your actual is very far off from normal, you're
5 going to get an inappropriate result.

6 Q. But I'm just talking about the data to
7 use for the peak data for the load research part,
8 and I'm suggesting that the input for the peak
9 data could be the system peak. Well, strike that.
10 That was a bad question. Let me start over again.

11 I'm simply suggesting that as one of the
12 inputs to the cost of service study using this
13 coincident peak method that the date whenever the
14 total maximum send-out occurred, as measured by
15 the Company's meters during the winter season,
16 would be an acceptable proxy for the peak day for
17 developing the cost of service.

18 A. Well, it certainly would be the peak day.
19 I mean, I would call it the peak day for the year.
20 Putting it into the cost of service study requires
21 another leap of faith, which is a bit of a
22 problem, and that is, you're comparing actuals
23 with normalized, so you still would have to take
24 that peak day, whatever it may have been, and
25 essentially normalize that --

1 Q. Okay.

2 A. -- before you stuck it into the equation.

3 Q. Okay. I understand what you're saying,
4 but I'm just saying in terms of your starting
5 input, that would be an acceptable starting input,
6 and then you would normalize it with an acceptable
7 weather normalization methodology.

8 A. For the peak day, yes, and for the month,
9 actually, as well.

10 Q. Okay. So your recommendation of
11 January 30th was based on NOAA data in that
12 January was the coldest month of the year and
13 January -- January 30th was the coldest day?
14 Wait. Strike that.

15 Your input or your recommendation to use
16 January 30th of the -- for the system peak was
17 based on what?

18 A. Was based on my belief that the normal
19 peak occurs in January. It doesn't always occur
20 in January, but normally, you know, they would
21 indicate it's in January, so I focused on January
22 as the month, and the only day that I was given,
23 which apparently is the coincident peak day
24 calculated by the Company, is January 30th. If
25 you look through the workpapers, there's one peak

1 day listed for each month throughout, and
2 January 30th is the -- is the day listed.

3 I mean, it could have been January 3rd.
4 I have no idea, you know, what the throughputs
5 were. I'm just saying the data provided by the
6 Company was January 30th, so I used that.

7 Q. There were workpapers that had the peak
8 day of every month, and the peak day you were
9 given from the Company's workpapers was
10 January 30th.

11 A. Yes.

12 Q. Okay. And you concluded that January was
13 the coldest month from NOAA temperature data?

14 A. That, and I guess sort of personal
15 knowledge. On a normal basis, January seems to be
16 the coldest month.

17 Q. Okay. Is it your recommendation that
18 January should always be used as the system peak
19 for all cost of service studies for utilities in
20 the north part of the country that have major
21 heating loads?

22 A. That would probably be appropriate.
23 There may be obvious instances where some
24 companies differ for one reason or another. But,
25 generally speaking, again, looking at the NOAA

1 data, if January is the coldest month of the year,
2 and if space heating is a primary driving force
3 for the utility, then January should probably be
4 the month picked.

5 Q. What would be the considerations for
6 using -- What would be the considerations for
7 using some time other than January for a company
8 that has a large space heating load?

9 A. If there were cases where, for one reason
10 or another, there was a peak that occurred -- the
11 annual peak would have occurred in February or
12 March, if it was 60 percent of the time in
13 February, 70 percent of the time in February for a
14 given utility, again, I don't know the
15 circumstances, but if that was the primary time
16 when the peak occurred, then for that particular
17 utility you'd probably be looking at a different
18 month.

19 But, again, for this utility, at least
20 it's my understanding, that normally,
21 predominantly, most frequently, the peak occurs in
22 January. So January seems to be the appropriate
23 month.

24 Q. Is it appropriate to use the month when
25 the peak occurs in the test year for the cost of

1 service study?

2 A. Not by itself, I don't believe. And,
3 again, the reason is we're looking at normalized
4 data, and if you're looking at normalized data,
5 you should look at the normalized peak, not an
6 oddball peak.

7 Q. But I thought you said you were taking
8 the actual peak and you were normalizing it and
9 then comparing it to forecasted or normal weather?

10 A. I don't believe I said that. I said I
11 was looking at January's the month that normally
12 has the peak in it.

13 Q. Right.

14 A. I took the data, which was all that was
15 available to me, which was the January 30th data,
16 and applied that January 30th data. Again, I
17 still had problems with the January 30th data,
18 because it was not normalized.

19 Q. But your starting point for developing
20 the coincident peak is to start with some peak
21 day; right? You have to pick the peak day to
22 begin with.

23 A. I don't know if you have to pick a
24 specific peak day, but you do have to pick a day
25 that's considered a peak.

1 Q. Okay. And what are you saying would be
2 the -- the methodology a company should follow for
3 selecting that peak? Are you saying that it
4 should always be January for companies in the
5 northern part of the U.S. because that's the
6 coldest temperature?

7 A. It would be one methodology. Another
8 methodology -- And, again, I've not gone into the
9 methodologies. But one methodology would be to
10 develop equations that would show the daily
11 relationship between temperature and send-out, and
12 then combine those relationships with normal
13 temperature data for January, February, December,
14 and essentially pick a more normalized peak day.

15 Q. Okay. And I take it you did not apply
16 that methodology in this case?

17 A. Right. I did not.

18 Q. Okay. And you're saying that the
19 measured send-out during the winter season is one
20 factor that can be considered in choosing the
21 correct peak day for the cost of service study.

22 A. It's a start. But, again, the actual
23 send-out for a given winter day, or for any day,
24 for that matter, is not a normalized, so you still
25 have the problem of normalization, but yes.

1 Q. I understand that. But I'm just saying
2 the starting point for the input into the cost of
3 service and the coincident peak, that would be one
4 starting input to use.

5 I understand that no matter what your
6 input is or your beginning point, you're always
7 going to have to perform some normalization, but
8 in terms of the input or starting point, are you
9 saying that the measured send-out would be one
10 acceptable starting point to use for developing
11 the coincident peak approach?

12 A. It would be the starting point for then
13 developing some kind of a normalization for the
14 peak day send-out, yes. But peak day send-out is
15 an appropriate value to be, you know, putting into
16 this, the problem being is it needs to be a
17 normalized peak day send-out.

18 Q. Okay. Now, what is it that is going to
19 affect a utility's peak day, is it only going to
20 be temperature, or are there going to be other
21 factors that can affect it?

22 A. Temperature is probably an extremely
23 strong factor, but day of the week is certainly a
24 factor as well.

25 Sometimes -- And, again, depending on the

1 utility and the research that's been done, there
2 may be a prior day temperature that's been looked
3 at. The second, third day of a cold spell, you
4 know, may require more heating load than, say, the
5 day prior to it. So there are some other factors
6 that can be reviewed and gone into it and looked
7 at.

8 Q. How about cloudiness, is that a factor
9 that can affect peak load?

10 A. It can. Again, it depends on the amount
11 of data the company has and how it puts that data
12 together. Cloudiness. Wind is certainly a
13 factor.

14 Q. Humidity?

15 A. I'm a chemical engineer, but I still
16 don't know whether humidity makes a difference
17 inside of a house or not. I know outside it
18 certainly does, but inside I'm not sure.

19 Q. You don't know if that can be a factor
20 affecting the system?

21 A. That, I do not.

22 Q. Why is the day of the week a factor that
23 affects the system peak?

24 A. There's -- Certainly, commercial load is
25 reduced. Commercial industrial load is reduced.

1 Not necessarily interruptible load is reduced on
2 the weekend, holidays, that type of thing.

3 Q. So we can't make a general rule that says
4 the coldest month of the year is always when the
5 system peak occurs. That would not be a true
6 statement, would it?

7 A. No. Excuse me. It would not be a true
8 statement. I was getting caught up in the double
9 negative there.

10 But the coldest day or the coldest period
11 would be a very good indication of probably where
12 the peak day occurs. And, again, you can check
13 that by just measurement of throughput.

14 Q. Okay. Or just looking at the temperature
15 gauge, right, when the coldest day of the year
16 occurred?

17 A. No. You look at the temperature to see
18 what the coldest day was and then check the
19 throughput around that time frame because, again,
20 it may have been on a Sunday that the coldest
21 temperatures would have occurred and that type of
22 thing. So, I mean, you still need to go back to
23 throughput ultimately.

24 Q. Okay. So if you measure the throughput
25 on the coldest day of the year, and that's a

1 weekday, that would be a good indication of the
2 system peak; is that what you're saying?

3 A. Probably. Again, I think, depending on
4 how you want to do it. You know, one of the
5 simplest things available to the Company would be
6 that they should have daily send-outs and just
7 look at those daily send-out records for 150 days
8 and see where your peak send-out day was, and you
9 can correlate that then to temperature in each one
10 of those 150 days, you know, for the last several
11 years, and you correlate those with the
12 temperature on each one of those days --

13 Q. Okay.

14 A. -- and do your -- put in wind
15 calculations, as far as that goes. Again, it's
16 just a regression analysis. As many variables as
17 you want to put in.

18 Q. Okay. Do you know what the coldest day
19 of the year was in Duke Energy Ohio's service area
20 in 2007?

21 A. I have not checked on that. I've heard
22 from a couple of your witnesses, and it supports
23 something for more of central Ohio, which is again
24 about the 4th or 5th of February of this year.

25 Q. Which witnesses did you hear that from?

1 Are you referring to in written testimony filed in
2 the case?

3 A. No. Storck and Gribler, I heard that
4 from.

5 Q. Where did you hear it or when did you
6 hear it from Storck and Gribler?

7 A. Depositions two days ago. One said 4th
8 or 5th, and one said the 5th. And that's in
9 keeping with what I know for central Ohio as far
10 as some of the work that I've done.

11 Q. Does that sound like a reasonable time
12 period for the system peak?

13 A. It was a very cold time frame that
14 occurred late in winter, basically, in February.

15 Q. Does that sound like that would have been
16 an acceptable choice to use that date,
17 February 5th, as the system peak?

18 A. Again, I was going after the -- quote --
19 more normal peak, so again, I picked January.

20 Q. Okay. But is the coldest day of the year
21 when the maximum send-out occurred? Assuming that
22 it happened on February 5th, would that be an
23 acceptable date to use for the coincident peak
24 approach?

25 A. It would have been a different approach.

1 Probably -- Let's put it this way: It would have
2 been a lot better than the March approach. So,
3 you know, January or February, assuming that that
4 day was in there. I'm not sure if that date for
5 February was actually in the Company's workpapers.

6 Q. It was not in the original filing, no.

7 A. Okay. I'm not sure if it was even in the
8 workpaper.

9 Q. I don't know.

10 A. The listing of months, I'm not even sure
11 if that date was in there.

12 Q. I'm not sure either.

13 A. I don't even have it. But again, I don't
14 know.

15 Q. Okay. Well, why don't we go ahead and
16 move on, though.

17 But is there anything you would object to
18 about that approach of using the February 5th date
19 for the system peak as one acceptable alternative?

20 A. No objections other than the one that I
21 have for the January date that I picked myself.
22 In fact, it's still not normalized. It was just
23 something better than March.

24 Q. Okay. I'm just looking at the date you
25 used for the starting point.

1 So in terms of the starting point, that
2 would be an acceptable starting point as long as
3 you normalized it?

4 A. Yes.

5 Q. Okay. Now, let's go ahead and talk about
6 the customer component of mains. That's another
7 issue that you raise in your testimony. Do you
8 recall that?

9 A. Yes.

10 Q. DE-Ohio used an allocation factor for the
11 mains cost where four percent was charged to the
12 customer component and 96 percent was charged to
13 the demand component; is that correct?

14 A. No.

15 Q. Okay. What is your understanding of the
16 allocation factor that was used for the gas mains
17 cost?

18 A. Ninety percent and 10 percent.

19 Q. Okay. And that was based on a regression
20 analysis that the Company performed?

21 A. Yes.

22 Q. The regression analysis that the Company
23 performed showed a customer cost of how much per
24 foot of main?

25 A. I believe it was \$1.89 per foot of main.

1 Q. You did your own regression analysis and
2 came up with a customer cost of zero per foot of
3 main; is that correct?

4 A. I came up with a negative amount. It may
5 have been a minus \$9. I'm not sure what it was,
6 but I set it at zero.

7 Q. Okay. And what does that mean, the
8 customer cost per foot of main that both you and
9 the Company were trying to calculate through these
10 regression analyses?

11 A. In some ways it doesn't mean anything.
12 It's a proxy, shall we say. It's not an absolute
13 number that when the Company's putting mains in
14 the ground it knows that it's \$1.89 per foot that
15 they're putting in.

16 It's essentially an estimate based upon a
17 regression analysis and the theory that where this
18 regression analysis crosses the X axis at zero --
19 or, it crosses the Y axis, basically, and X equals
20 zero, would be called the customer component of
21 mains.

22 Q. But what is it intending to show?

23 A. It's intending to show -- It shows a lot
24 of things. I mean, it partially shows economies
25 of scale, because as the pipe gets larger that's

1 being put in the ground, the price goes up.

2 But, you know, there is a basic component
3 to, for example, digging a ditch. I mean, you dig
4 a ditch a foot deep, or two feet, or however deep
5 you're digging it, and it doesn't make a whole lot
6 of difference if you're putting in a one-inch main
7 or a six-inch main. So it's showing those types
8 of costs and impacts.

9 Q. Okay. And I guess the way I think of it
10 is that what the regression analysis shows is that
11 it shows how much it would cost per customer if
12 the load were zero.

13 A. That's the theory and conversation behind
14 it, yes. That analysis, yes.

15 Q. Okay. So you're saying that if the
16 Company installed all of its mains and didn't
17 serve any load, the Company could actually make
18 money because its costs would be negative.

19 A. I'm sorry. Try that again.

20 Q. Well, I'm just trying to understand your
21 regression analysis, and I guess, you know, number
22 one, I don't understand how it could show a
23 negative cost to the Company, because if what
24 you're trying to represent is the Company's cost
25 to install a main at zero load, it seems like it

1 would necessarily need to be a positive number
2 because the Company's going to incur some cost for
3 that main, but you said it was negative.

4 So I'm just trying to understand how the
5 Company could install any main at a negative cost,
6 because this sounds like a good deal for the
7 Company. It sounds like we could make a lot of
8 money doing that. I want to go back and tell my
9 bosses and, you know, win a prize because we came
10 up with this great cost-saving measure.

11 A. This regression analysis is very similar
12 to the other ones that the Company has introduced
13 in this case, at least the witnesses that I've
14 been looking at.

15 There's a number of regressions that are
16 developed to show trends in the data. So this
17 shows trends in the data. What this effectively
18 is showing is that the larger the main is
19 proportionally costing more and more to install.

20 I'm not an expert on plastic pipe, but
21 what the regression is showing is that if you
22 double the size of the pipe from, say, two-inch to
23 four-inch it costs so much, and that amount that
24 it's costing is increasing by more than double the
25 size of the two-inch main. And then, again, same

1 from four to eight, it's costing more than double,
2 although you've got a four-inch pipe and an
3 eight-inch pipe, it's costing more than double.
4 So the line of regression -- And, again, the
5 methodology used by the Company, the line of
6 regression is actually crossing the Y intercept
7 where X is zero at a negative spot.

8 Q. I understand, you know, trends and, you
9 know, economies of scale, but that's not what I'm
10 asking.

11 What I'm asking is: Do you know of any
12 way Duke Energy Ohio or any gas utility could
13 install any main and serve zero load at a cost of
14 zero dollars?

15 A. Not off the top of my head.

16 Q. Doesn't that make your regression
17 analysis a little bit suspect?

18 A. No. Again, it's a regression analysis.
19 It's the method chosen by the Company to define a
20 certain component of cost.

21 What this is showing is that there is no
22 component -- there is no customer component of
23 that cost. It's not that there's no cost, but
24 there's no customer component.

25 Q. Okay. But the customer component is what

1 relates to the customer -- the Company's cost to
2 serve the customer at zero load. So my question
3 to you is: How can the Company install a main and
4 serve zero load at zero cost? Is there any way in
5 the world that could happen?

6 A. First of all, the Company -- the smallest
7 main I'm aware of is a one-inch plastic main
8 they're sticking in. Again, it's a theoretical
9 conversation we're having, because the Company
10 never puts in a zero size main or maybe even a
11 half-inch or quarter-inch main. The Company stops
12 at one inch.

13 Q. Is there any -- Is there any way the
14 Company could install any diameter of main and
15 serve no load at zero cost to the Company?

16 A. If you're serving zero load and you have
17 a \$30 customer charge, you can make money. It
18 doesn't matter the size of the load.

19 Q. That's not what I'm asking you is what
20 the Company's charges are. That's not my
21 question. I'm asking you about the Company's
22 costs, and I'm asking you: Is there any way the
23 Company can install a main of any diameter and
24 serve no load at zero cost to the Company? Is
25 there any way that could happen?

1 A. Well, by the fact that they've installed
2 the main there's a cost to the Company. So I'm
3 having a difficult time following the question.
4 I'm sorry.

5 Q. Okay. So is your answer then that there
6 would always be some cost to the Company for
7 installed main per foot, some cost above zero?

8 A. For a pipe diameter someplace above zero,
9 yes.

10 Q. Okay. For any pipe diameter above zero,
11 there's going to be some cost to the Company for
12 installing that main.

13 A. Yes.

14 Q. Okay. On your regression analysis, you
15 left out certain diameters of pipe; 1.25 inches,
16 2.75 inches and 12 inches.

17 How many feet of pipe did you exclude
18 from your regression study as compared to the
19 total amount or total length of pipe that was kept
20 in the regression study?

21 A. My understanding is that I took out less
22 than one percent of all the pipe that's in the
23 ground. Clarify that. Of the plastic pipe that
24 we're talking about in the Company's model, less
25 than one percent.

1 Q. Did you do a regression analysis leaving
2 those three diameters of pipe in your study?

3 A. No.

4 Q. You don't know what impact that would
5 have on the calculated customer component?

6 A. No. I'm struggling to kind of give you
7 an answer here, because I assume it would be not a
8 whole lot different than what the Company had,
9 because what I did was, I took out the
10 Company's -- I took out three numbers that the
11 Company had utilized and added one.

12 So it probably wouldn't be a whole lot
13 different than what the Company came up with. All
14 I did was remove three numbers that the Company
15 had in its equation.

16 Q. Okay. And you're saying, though, that
17 you don't know what the impact would have been on
18 a regression analysis if you would have kept those
19 three values in?

20 A. Again, similar to what the Company had is
21 what I'm assuming.

22 Q. Those three diameters of pipe you
23 excluded, are they part of the Company's costs?

24 A. Yes.

25 Q. Okay. Why do you believe it's acceptable

1 to exclude some elements of the Company's costs in
2 doing this regression analysis?

3 A. Well, whenever this Company or any
4 company does anything, especially in the area of,
5 say, distribution, and gas utilities is probably
6 most like this, you run into different costs in
7 different areas, things don't cost the same per
8 foot.

9 It costs a lot more to install in a
10 metropolitan area than it would in a very rural
11 area, as far as the cost per foot. Right-of-ways
12 cost different, what have you. It costs more to
13 cross over a highway than it just does through a
14 farmer's field.

15 So the installation of pipe can be -- the
16 cost of the installation of pipe can vary from
17 place to place. Some of these pipe, as I recall,
18 one of them was only 400 feet of pipe for the
19 entire system. I don't know if that's several
20 different locations, but it's a good chance that
21 may have been just one location that was 400 feet
22 of certain pipe at a certain cost. It would
23 effectively be an outlier.

24 Again, if you look at the data, those
25 seem to be outliers, those three pipes. The small

1 length of pipe that's there, they seem to be
2 specialty pipe for one reason or another that was
3 stuck in.

4 Q. If the Company has to incur costs for
5 that specialty pipe, why wouldn't you include
6 those in your regression analysis? It's all part
7 of the Company's cost, isn't it?

8 A. Part of the Company's cost, but it's --
9 you know, when you take less than one percent of
10 the Company's cost and try to make a universal
11 declaration of that one percent, that's
12 inappropriate.

13 Again, trying to get back into normal,
14 what's more their normal costs and how they
15 normally do things.

16 Q. You mentioned that one reason that you
17 determined that the customer component of main
18 costs should be zero or negative was that there
19 are different characteristics of plastic pipe
20 versus steel pipe; is that correct?

21 A. I wouldn't characterize it that way. I
22 said that the reason there was a difference
23 between this study and the last study that the
24 Staff had done was because there was a difference
25 in the pipe that was being utilized. This case,

1 it was plastic; last time, it was steel.

2 Q. What are the different cost
3 characteristics of plastic pipe versus steel pipe
4 that would cause a different outcome in terms of
5 the customer component of mains?

6 A. I did not look into that.

7 Q. Are there different characteristics of
8 plastic pipe versus steel pipe that you would
9 expect to cause a different outcome in calculating
10 the customer components of mains?

11 A. None that I would expect, basically
12 because I have not reviewed it. So I've got no
13 expectation on that. All I did was make an
14 observation that there were two different sets of
15 numbers, two different sets of material being
16 utilized.

17 Q. Okay. So you're saying in the last rate
18 case in 2001 there was more steel pipe, now
19 there's more plastic pipe, and you calculated a
20 different customer component of mains, so you
21 attribute the difference in the customer component
22 to be the result of more plastic pipe at the time
23 of this study.

24 A. Slightly different characterization.
25 There was -- In the last case, the study was done

1 on 100 percent steel pipe; and in this case, it
2 was done on 100 percent plastic pipe. But it's
3 because, again, the difference that the Company
4 was looking at between the two. The Company chose
5 as its database plastic versus steel.

6 They used steel last time. There was,
7 obviously, plastic in the ground last time, but
8 they did not do, you know, a factor or whatever of
9 steel to plastic. It was just a 100 percent look
10 at steel in the last case and a 100 percent look
11 at plastic in this case.

12 Q. Let me change the topic a little bit.
13 Now I want to shift the topic to talk about Rider
14 AMRP, the Accelerated Main Replacement Program,
15 and the revenue requirement for the AMRP and how
16 that should be allocated.

17 Now, at Page 44 of your testimony, you
18 talk about how when mains go in the rate base they
19 are allocated using a demand allocator, K415. Do
20 you recall that?

21 A. Yes.

22 Q. Lines 19 and 20.

23 A. Yes.

24 Q. Yet, in the AMRP, you say that the
25 allocator to be used should be a combination of a

1 demand and a throughput allocator; is that
2 correct?

3 A. Yes.

4 Q. And why is it appropriate to use a
5 different allocator for the mains in the AMRP as
6 opposed to a base rate proceeding?

7 A. It's my understanding that the AMRP is
8 developed for a number of reasons, safety being
9 one, but as a side impact of that, it's certainly
10 losses, lost and unaccounted for gas, and it is
11 because of that there's a benefit in replacing
12 these old mains because it gets rid of the lost
13 and unaccounted for problem, it reduces lost and
14 unaccounted for, which is shared by all customers
15 equally on the basis of throughput.

16 Q. Isn't that statement also true for the
17 mains that are placed into service through a base
18 rate case?

19 A. No. Mains are allocated, as we discussed
20 very early in this deposition, regarding --

21 Q. Not how they're allocated, how they
22 affect your lost and unaccounted for gas.

23 The mains that you put into the ground
24 through the AMRP affect the lost and unaccounted
25 gas the same way as the mains that are placed into

1 service and the costs are recovered through a base
2 rate case; isn't that correct?

3 A. Could I have it reread?

4 Q. I'll just reask it.

5 You said that the AMRP revenue
6 requirement should be allocated based on demand
7 and throughput because there's a component of the
8 AMRP program that reduces lost and unaccounted for
9 gas; is that correct?

10 A. That's correct.

11 Q. Okay. Aren't new mains that are placed
12 into the Company's plant in service through a base
13 rate proceeding also going to improve the
14 Company's lost and unaccounted for gas statistics?

15 A. They will, but they're not allocated that
16 way.

17 Q. Okay. Will they have any different
18 impact on loss and unaccounted for gas than the
19 impact that the mains put into the ground through
20 the AMRP and recovered through the AMRP will have?

21 A. When you're just looking at new mains,
22 once a new main is put in the ground, it -- it
23 will have a step change, shall we say, and the
24 amount of lost and unaccounted for for that
25 stretch of pipe, and going forward that's not

1 looked at anymore. I mean, lost and unaccounted
2 for, if it goes down 50 percent, it went down
3 50 percent, we're no longer paying for it, and
4 nobody worries about it, unfortunately.

5 (recess taken.)

6 MR. FINNIGAN: Let's go back on the
7 record.

8 BY MR. FINNIGAN:

9 Q. Mr. Yankel, we were talking about the
10 impact that mains have on reducing lost and
11 unaccounted for gas, and my question is: If the
12 company puts in a new main and recovers the cost
13 in a base rate case the next year, and it also
14 puts in a new main as part of the AMRP program and
15 recovers the cost through Rider AMRP, in both
16 cases that new main would still reduce the same
17 amount of gas, wouldn't it?

18 A. It would, but the treatments are
19 different, obviously, because again, you said --
20 if we have a rate case the next year versus the
21 AMRP program, so we have two different programs.

22 But yes, if you stick in one main under
23 one scenario or one main under a different
24 scenario, you're still sticking in the main, they
25 are both going to reduce losses.

1 Q. If they both have the same impact on
2 reducing losses, why should they be allocated with
3 different allocators, one a demand allocator and
4 the other with a demand plus throughput allocator?

5 A. Well, because again, it's an accelerated
6 main replacement program we're talking about.
7 We're not just talking about your normal main
8 replacement program.

9 And the allocation factor I'm proposing
10 is only for the duration of the AMRP charges
11 themselves. It would be normal treatment --
12 ratemaking treatment after that, which would be
13 the allocation K415.

14 Q. What is it about the accelerated nature
15 of the AMRP that justifies using a throughput
16 allocator for the mains?

17 A. In trying to develop any methodology for
18 allocating the AMRP costs, one has to try to look
19 at it fresh. This isn't something that's been
20 around for 50 years and here is how we have been
21 doing it forever.

22 In the last case, my understanding, it
23 was a stipulated number, there was no look at
24 allocations. I wasn't involved, but that's at
25 least my understanding from the stipulation.

1 So I took a look -- a fresh look at what
2 I would consider almost a new program, something
3 close to a new program, and this is how I felt the
4 benefits were of the program. And as opposed to
5 just the benefits of the mains themselves. And I
6 felt that 50/50 split, you know, could have been
7 80/20, what have you, but I felt that there was a
8 couple of components to this.

9 Q. Well, the benefits of the program come
10 from the mains themselves; right? The reduction
11 on lost and unaccounted for gas, that's the
12 benefit we're talking about here; right?

13 A. Right.

14 Q. That doesn't come from the program, it
15 comes from the main; right?

16 A. Well, the fact that we're accelerating it
17 certainly is coming from the program. I mean, the
18 program is accelerating these costs. It's a
19 separate program. It's not going through base
20 rates. It's a rider. It's different than a
21 normal ratemaking treatment.

22 Q. I understand it is an accelerated
23 program, but what I'm having trouble understanding
24 is why is it that the accelerated nature of the
25 program would justify a different allocator for

1 the mains depending on whether you're in a base
2 rate case or in AMRP proceeding?

3 A. I don't know what you mean by AMRP
4 proceeding. I mean, we have essentially AMRP
5 costs with a cap every year.

6 Q. That's what I mean by AMRP proceeding.

7 A. Okay. I'm assuming that we have some
8 sort of a cap, and that we -- we -- the Company
9 exceeds that cap every year. It's a question of
10 how do you divide up those costs? What should you
11 consider? I feel that you should consider the
12 impact on lost and unaccounted for.

13 Q. And why wouldn't you consider that as the
14 allocator in a base rate case?

15 A. I have no problem with that. I think
16 that may not be a bad idea.

17 Q. Okay. Do you know of any other utilities
18 that allocate their mains cost based on
19 throughput?

20 A. Not specifically. I certainly have seen
21 strictly throughput advocated in the past.
22 Actually, I just don't recall what other companies
23 are using. I know the -- essentially what I
24 consider an average nexus method, you know, the
25 K415 used by the Company is often used.

1 Q. And you're not aware of anybody that uses
2 a demand and throughput method for allocating
3 mains cost?

4 A. Not specifically.

5 Q. And in the annual Rider AMRP proceeding
6 since 2002 through 2007, the K415 allocator was
7 used to allocate the mains cost during those
8 proceedings; isn't that correct?

9 A. Not that I'm aware of. My understanding
10 is it was strictly allocated on the basis of price
11 caps that were agreed to in the stipulation.

12 Q. How were the costs allocated to the
13 different customer classes under those price caps,
14 or to know whether you hit the price caps for the
15 different customer classes?

16 A. I don't know. I did not participate in
17 those proceedings.

18 Q. It would have to be some allocation
19 method, wouldn't it?

20 A. I do not know that.

21 Q. Okay. Well, you'd have to come up with
22 some method for allocating the cost to the
23 different class; right? You'd need something.

24 A. At this moment, I don't know how that was
25 done in those proceedings.

1 Q. I understand you don't know how it was
2 done, but there had to be some method in place to
3 allocate costs of main in the annual AMRP
4 proceedings. Do you accept that?

5 A. I have a problem accepting whether or not
6 there was even an allocation. I don't know.
7 That's what I'm saying, I don't know.

8 If there was an allocation, then yes,
9 there had to be a method. I don't even know --
10 I'm not at Step 1 yet, that's all, because I just
11 don't know. I'm not arguing that it didn't take
12 place, I just don't know.

13 Q. So in the annual AMRP proceedings from
14 2002 through 2007, you do not know if any cost
15 allocation method was used for allocating mains
16 cost to the different customer classes; would that
17 be correct?

18 A. Right. Or if there was an allocation, I
19 do not know what that was.

20 Q. Okay. Now, let me ask you about the
21 Company's Riser Replacement program. Are you
22 familiar with that?

23 A. Yes.

24 Q. How should the costs of the Riser
25 Replacement program be allocated?

1 A. I don't know if I address that in my
2 testimony. At this point I actually do not recall
3 addressing it at all.

4 Q. Do you have any opinion on how those
5 costs should be allocated?

6 A. No, I do not at this point.

7 Q. Let me ask you to address another topic
8 in your testimony, and this is the Company's Sales
9 Decoupling Rider proposal. Are you familiar with
10 that?

11 A. Yes.

12 Q. And one of the statements in your
13 testimony at Page 49 is that the Company's
14 declining revenues due to -- are not due to
15 declining use per customer. You state that that's
16 a fallacy; is that correct?

17 A. Could you give me a line reference?

18 Q. Sure. Please direct your attention to
19 Page 47, Lines 11 through 13. You state there
20 that, "Probably the largest fallacy is that
21 somehow a decline in the usage per customer figure
22 results in a decrease in the Company's revenues
23 and thus the need for a rate case".

24 I would suggest to you that a major
25 reason for this rate case is declining usage per

1 customer, and I understand you do say that you
2 disagree with that statement; is that fair?

3 A. I would say that's fair. My belief is
4 that the reason for the rate case is pretty much
5 the Company's belief that its expenses are higher
6 than its revenues given the rate of return that it
7 desires.

8 Q. And isn't a major reason that the
9 revenues have declined over time due to declining
10 customer usage?

11 A. I don't believe on a normalized basis
12 revenues have declined. If one looks at
13 especially the projections in the Company's filing
14 for the next five years, the usage itself should
15 be increasing, the overall usage.

16 Q. Do you agree or disagree that on a per
17 customer basis there has been steadily declining
18 usage over the last few years?

19 A. I disagree with the word "steadily", but
20 there has been declining usage over the last
21 several years; for the last, say, ten years.

22 Q. And if you say that it hasn't been
23 steady, are you saying there have been years of
24 increase in usage per customer and use of decrease
25 usage per customer?

1 A. Yes.

2 Q. Okay. And what is the average over the
3 last ten years, on average? Has there been
4 declining usage per customer?

5 A. On average, on a normalized basis, it's
6 my understanding there has been decreases in usage
7 per customer.

8 Q. And how much have those decreases been?

9 A. I do not recall. I may have a number in
10 my testimony, I just can't think of it off the top
11 of my head.

12 Q. Let me direct your attention to your
13 statement on Page 50, Lines 11 through 13. You
14 state that, "An obvious explanation for some of
15 the decrease in usage per customer is the
16 possibility that more customers are taking service
17 in smaller dwellings or condominiums".

18 Do you have any data to support that
19 statement?

20 A. No.

21 Q. And what's the basis for the statement?

22 A. Personal observations, and again,
23 northern Ohio, but I'm assuming Cincinnati is no
24 different. There just seems to be a lot of
25 smaller dwellings going in, a lot more condos

1 going in, people moving into them.

2 Certainly some very large homes going in,
3 but I look at the numbers of those as I go up and
4 down the street. Just a whole lot of condos.
5 People seem to be moving into smaller dwellings.

6 Q. And when you say, "personal observation",
7 you haven't done any kind of formal study of this,
8 this is just casual observation that you make, as
9 you say, driving down the street?

10 A. Driving down the street.

11 Q. Okay. Are you aware of any data that
12 would be available to determine whether on balance
13 average home sizes have been increasing or
14 decreasing over time, like data from the U.S.
15 Department of Energy, or National Homeowners
16 Association, or National Realtors Association, or
17 other type of similar data?

18 A. I believe there's data out there. I'm
19 not familiar with specifically what it is, but I
20 think possibly HUD -- I believe there are agencies
21 that collect data similar to that, but I do not
22 recall looking at something like that. I may
23 have, but I don't recall.

24 Q. And if that data showed that for new
25 housing stock, home sizes are bigger over time,

1 then that would refute this statement that you
2 made here, wouldn't it?

3 A. Yes, it would, if it was -- included such
4 things as condominiums. Depending on if they are
5 talking about single-family homes or talking about
6 living units.

7 Q. Let me ask you to direct your attention
8 to the customer charge that the Company proposes
9 in this case, and also the customer charge
10 proposed by the Staff Report. Are you familiar
11 with those proposals?

12 A. Generally, yes.

13 Q. What percent of the customer bill would
14 be recovered through the fixed customer charge
15 under the Company's proposal?

16 A. I don't believe I've calculated that. Do
17 you have an estimate? I could kind of --

18 Q. Just asking you if you know.

19 A. I'm going to guess 40, 45 percent.

20 Q. Okay. And -- Okay. Now, what percentage
21 of the total customer bill would be recovered
22 through the fixed monthly customer charge under
23 the Staff's proposal?

24 A. I believe I calculated possibly 79
25 percent in my testimony.

1 Q. Okay. Now, you mentioned that the
2 customer charge should be smaller to promote
3 conservation. That's your recommendation;
4 correct?

5 A. Yes.

6 Q. Doesn't the fact that natural gas prices
7 have increased so much over the past few years by
8 itself provide a strong incentive for customers to
9 conserve their usage?

10 A. In complete isolation, yes. I mean,
11 higher prices would tend to push for more
12 conservation, depending on where those prices are
13 coming from, either the base rates, or the GCR, or
14 the marketer's rates. The higher those rates go
15 in total or separately, you know, the more
16 conservation we push for.

17 Q. Let me ask you to direct your attention
18 to the topic of weather normalization. You
19 criticized two aspects of the Company's weather
20 normalization method; one was the use of 59
21 degrees Fahrenheit for the base for determining
22 heating degree days; correct?

23 A. Yes.

24 Q. And another criticism was the use of a
25 ten-year weather normal as opposed to a 30-year

1 weather normal; correct?

2 A. Yes.

3 Q. Now, in terms of the first criticism, the
4 temperature at which to calculate heating degree
5 days, what is it that is trying to be calculated
6 here? What is it that you're trying to show?
7 Isn't it trying to show the temperature at which
8 the heating load begins?

9 A. I don't view it that way.

10 Q. How do you view it?

11 A. And let me explain that. There is no
12 temperature at which the heating load begins on a
13 universal basis. Every household is different.

14 I've got an aunt that is similar to other
15 aunts and other old ladies, but if it's 80 degrees
16 outside, she's got a sweater on because her blood
17 is just not working well. So there's some people
18 that have their heating degree load start at 75
19 degrees.

20 Q. Well, I'm not asking you about an
21 individual customer, I'm asking you about the
22 Company's total system.

23 Well, let me ask you, what is it that you
24 understand a heating degree is supposed to
25 represent?

1 A. It's supposed to represent a difference
2 between a base point, and effectively when one
3 would expect heating load to begin. One would
4 normally, on an average basis, expect heating load
5 to begin, I believe, closer to 65 than 59 degrees.

6 Q. And what is your basis for concluding
7 that heating load begins at 65 degrees instead
8 of 59 degrees?

9 A. The general assumption there is that
10 there's a comfort level in the house at 70
11 degrees, and if that general comfort level starts
12 getting colder than that, people turn on their
13 heat.

14 And, again, that's the average daily
15 temperature, let's say 70, at night it might cool
16 down to, say, 55 or something. So there's a
17 period of time when they are going to be using
18 something, it's not just the average.

19 The 70 degree number is the comfort level
20 for most people. That comfort level is somewhat
21 adjusted by appliances in the home, lighting,
22 cooking, television, whatnot. They are actually
23 generating heat inside the home, so therefore,
24 there is not as much -- the comfort level is
25 adjusted by action of internal heating, it's

1 unrelated to the space heating in the house.

2 Q. How should a company go about determining
3 what is the proper base temperature for
4 calculating heating degree days?

5 A. I'm not sure what you mean. I mean, they
6 are certainly calculated by NOAA, so I'm not sure,
7 companies come up with its own system, its own
8 basis of 59 degrees.

9 Q. All right. And what's your understanding
10 of how the Company did that?

11 A. From the depositions I heard the other
12 day, it sounded like it was a regression analysis
13 done on several different temperatures, and
14 whatever turned out to be the highest R-squared
15 factor that came out of those regressions was the
16 number the Company picked.

17 Q. Why is that not a proper method to use to
18 determine the base temperature for heating degree
19 days?

20 A. Well, other than the fact that it doesn't
21 seem to make sense if their heating degrees days
22 is at 59 degrees and cooling degree days is at 65
23 degrees, I mean, they are going two different
24 directions there.

25 I've not seen the data, so I have no idea

1 whether the Company even has a strong R-squared
2 value to look at. I have no idea.

3 Q. Why would you expect the base temperature
4 for heating degree days and cooling degree days to
5 be the same?

6 A. Again, there's that comfort level. That
7 comfort level starts at the same place; people
8 either start getting too hot or too cold. There's
9 not this large band -- Again, one has to
10 understand this is an average daily temperature.

11 Whether we're looking at 65, or 59, or
12 whatever the number is, it's the average
13 temperature for the day. And there is going to be
14 hours when it's going to be a lot colder than that
15 or a lot warmer than that. Just because I'm warm
16 and happy at noon on a given day doesn't mean I'm
17 not going to be freezing to death at 4:00 in the
18 morning.

19 Q. So you're saying that heating load and
20 cooling load should begin at the same temperature?

21 A. It is pretty much the national standard,
22 that's how they have been doing it, same
23 temperature -- I mean, you either have a heating
24 degree day or cooling degree day.

25 Q. That's NOAA's approach, they use 65

1 degrees for both?

2 A. Yes.

3 Q. Aren't you aware from personal
4 observation that there's a range of temperatures
5 somewhere between 60 and 70 degrees where people
6 don't want to switch on their heat or their air
7 conditioning, either because they are comfortable
8 without it, they might open their windows and let
9 the air in, or they might want to conserve on
10 their energy usage, which could lead to a
11 different base temperature for determining heating
12 degree days and cooling degree days?

13 A. Yeah, but you didn't want to talk about
14 my aunt. But yes, there are people that have
15 different temperature ranges and they react
16 differently. And as each person reacts
17 differently, they are going to start heating or
18 cooling on the average.

19 There's a continuum there. There is not
20 a dead zone, because there's a continuum of people
21 that vary. I mean, each person, each individual
22 household is operated differently.

23 Q. And what would be the right way for
24 determining the proper base temperature, would it
25 be to study the amount of heating load and cooling

1 load on your system at various temperatures and
2 then do a regression analysis to determine when
3 the heating load and when the cooling load begins,
4 or would a better way to be just always use 65
5 degrees as your base temperature for HDD and CDD
6 just because that's what NOAA uses?

7 A. Your best way of doing things would be to
8 develop an equation based upon the individual data
9 of the utility in mind and go from there.

10 So that's essentially what the Company's
11 told me they are doing, but it's so far off from
12 what NOAA has done, I've not seen any -- it's so
13 far off from what the Company did in the last rate
14 case. The last rate case they used 65 degrees.

15 Q. So you haven't seen the Company's data,
16 you just have seen the result and you object to
17 the result because it's so much lower than the 65
18 degrees used by NOAA as the base temperature?

19 A. They provided no justification in this
20 case for it. If I look at some of the equations
21 used by the company, I see that there are other
22 gaps in the numbers.

23 For example, there's gaps in -- I think
24 when it's heating degree days for the month
25 exceeds 500, there's different equations being

1 applied, and if it's under 500, I'm not sure if
2 you're aware of that -- we haven't talked about
3 that, it's not in my testimony, but there are
4 different parts of those equations where the
5 Company's factoring things differently.

6 Q. Did you review the Company's data for its
7 regression analysis for calculating 59 degrees to
8 be the proper base temperature for HDD?

9 A. No, I was not provided that. The first
10 time I heard that was two days ago during a
11 deposition.

12 Q. Did you ask for it?

13 A. There was a lot of information we asked
14 for with respect to that. I'd have to go back
15 through and see what answers we got. I can't say
16 we specifically asked for that.

17 Q. Okay. Now, with regard to cooling degree
18 days, the Company uses 65 degrees as the base
19 temperature for calculating a cooling degree day;
20 isn't that correct?

21 A. Yes.

22 Q. And that's consistent with NOAA; correct?

23 A. That one is consistent with NOAA, yes.

24 Q. Are you aware of any other utilities that
25 calculate a heating degree day with a base

1 temperature other than 65 degrees?

2 A. No.

3 Q. Is it your recommendation that all
4 companies should use 65 degrees as the base
5 temperature for calculating heating degree days
6 and cooling degree days?

7 A. Unless there's some strong justification
8 put forth to the contrary, yes.

9 Q. What would be the strong justification
10 you could put forth to the contrary?

11 A. To show that the Company's load has a
12 marked difference at 65 versus 59 degrees, for
13 example. And there was basically no heating load
14 that took place between 65 and 59 degrees.

15 Q. What kind of analysis would you need to
16 perform to show that kind of variation in load at
17 different temperatures?

18 A. I believe probably a -- It's very
19 simplistic. I can't think what it is. But
20 basically a scatter diagram, just listing every
21 day what the heating degree load is and what your
22 throughput is for, say, residential.

23 Again, you have to do it for residential,
24 commercially. You wouldn't want to do it for your
25 total system throughput because you have

1 industrial in there and other factors taking
2 place, but if you're just looking at the
3 residential load off your research load data, for
4 example.

5 Q. What kind of mathematical formulas would
6 you apply to the scatter diagram to analyze the
7 data?

8 A. Ultimately, you'd probably put -- do a
9 regression analysis with it, but that's more to
10 come up with an equation.

11 Q. Okay.

12 A. And again, that equation you could still
13 put in with a regression analysis. Oftentimes,
14 you can specify your zero point, so you
15 specify 65. You could specify 59, as far as that
16 goes.

17 But you look at that regression analysis,
18 and that's part of what bothers me about the way
19 the Company has done this. The Company has put in
20 a -- kind of like a dogleg, like 500 heating
21 degree days for a month, and indicated that usage
22 level is different above that level for a month
23 average, a month total.

24 And then there is -- First of all, it's
25 different for the month for that portion that's

1 500 or below than it is for above. And on some
2 months, say October, whenever it gets past
3 the 500, it's certainly just one block -- they are
4 going to be looking at different segments of the
5 usage level. It seems they should have a segment
6 there that reflects what is going on between 65
7 and 59 degrees.

8 Q. Is what you're talking about a scatter
9 diagram and regression analysis to determine the
10 proper base temperature for calculating heating
11 degree days?

12 A. That's how I would do it.

13 Q. And I understand you haven't seen the
14 Company's data, so you don't know whether they
15 used an acceptable methodology or not.

16 I think we have already discussed that
17 you were just concerned with the ultimate
18 result, 59 degrees Fahrenheit as the base
19 temperature, and that was so far off the NOAA 65
20 degree base temperature.

21 A. Standard.

22 Q. Right.

23 A. Yes.

24 Q. And I'm not sure if we discussed this,
25 but are you aware of any companies that use a base

1 temperature other than 65 degrees for calculating
2 heating degree days?

3 A. Off the top of my head, I can say no. I
4 mean, that doesn't -- Again, I looked at the
5 Columbia stuff, I looked at East Ohio stuff. I
6 don't recall them being anything other than 65
7 degrees. I've done work elsewhere, and I just
8 don't recall anything other than 65 degrees.

9 Q. Let's -- Let me ask you about the concept
10 of ten-year weather normals versus 30-year weather
11 normals.

12 Do you have an opinion as to whether
13 30-year weather normals should be used by all
14 utilities for developing a weather normalization?

15 A. I think 30 years, or possibly longer,
16 should be used.

17 Q. Is that the industry standard?

18 A. Thirty years seems to be the industry
19 standard.

20 Q. Are there any indications that that
21 standard is changing to a shorter time period?

22 A. The Company certainly has indicated that
23 it believes it's moving down. I have not seen
24 much indication.

25 My understanding is Dominion East Ohio is

1 using a shorter time frame. The reason being,
2 again, more of a regression analysis. It wasn't
3 that they had -- Maybe they did, I don't know what
4 their intent was, but through regression analysis
5 they seemed to think that a 17-year average works
6 better for them, or has worked better for them in
7 the past.

8 There's a question on whether in a lot of
9 areas other than heating degree day type load,
10 precipitation being one of them I can think of,
11 and most people seem to think that the longer the
12 database, the more reflective of normal, the
13 better chance you have of predicting, quote,
14 normal.

15 Q. Are you aware of any utilities other than
16 Dominion East Ohio and Duke Energy Ohio that use a
17 time period other than 30 years to develop weather
18 normals?

19 A. Out west, people use 80, 90, 100 years
20 for looking at as far as precipitation values go,
21 that I'm involved with. So that's weather. It's
22 just, you know, what is standard.

23 Out west there is much more interest in
24 hydro power, and if much water gets into the dams
25 to fill up the dams, so, therefore, the

1 precipitation values, river flows.

2 Q. I'm talking about weather normals to
3 estimate customer usage. What are you talking
4 about?

5 A. I'm talking about what's normal weather,
6 meaning temperature, precipitation, whatnot.

7 Q. Okay. I don't really care about
8 precipitation. This is a gas rate case. You're
9 aware that precipitation is not an issue in this
10 case, is it?

11 A. Right. You asked me about weather, and I
12 told you about weather.

13 Q. Okay. Well, I want to ask about it in
14 the context of this case, I'm not really too
15 interested about how much precipitation affects
16 hydro power in the west. If you think that's
17 relevant to this case, let me know. Do you think
18 it's relevant?

19 A. I think it's relevant, the fact that they
20 are looking at long-term weather averages as
21 opposed to short-term weather averages.

22 There's been moves on the hydro end to
23 pick different time frames to reflect, quote, more
24 recent weather, and that's sort of what we're
25 looking at here, you know, if we use a ten-year

1 average to predict more recent weather, or do we
2 use a 30-year average to get a longer time frame.

3 Q. Are you aware of any gas utilities other
4 than Dominion, East Ohio and Duke Energy Ohio that
5 use a time period for determining normal weather
6 other than 30 years?

7 A. No, I do not.

8 Q. Okay. Are you aware of any discussions
9 within the industry to move towards a shorter time
10 period for determining customer usage for gas
11 utilities?

12 A. I'm not specifically aware. It would not
13 surprise me if somebody was talking about that.
14 If Duke is trying to do it, there are probably
15 other utilities trying to do it as well.

16 Q. How should a utility determine what the
17 proper time is for developing weather normals?

18 A. I think it's more up to the Commission,
19 and I think the Commission has to decide for
20 itself what is an appropriate time frame to
21 reflect anticipated weather, and anticipated
22 weather is not something that's easily predicted
23 by last year or the last five years. It's, again,
24 long-term average.

25 Q. How should the Commission make that

1 determination as to what is the appropriate time
2 period to use for developing weather normals?

3 A. I believe it should use at least
4 a 30-year average. I mean, I'm not sure if I
5 answered your question.

6 Q. How -- You said that -- I first asked you
7 how should a utility determine what's the right
8 time period to use for developing weather normals,
9 and doesn't every utility have to make that
10 decision, because they have to do their own
11 budgeting and forecasting?

12 A. They do. But again, we're in a rate case
13 at this point in time, so the Company could have
14 its own forecasts, internal forecasting, which
15 could be different than regulatory requirements by
16 the Commission as to how it's going to set rates
17 and what it's going to consider normal.

18 Q. In terms of the company's budgeting and
19 forecasting process, when a company budgets or --
20 and forecasts its revenues and expenses, wouldn't
21 you expect that the company would want to use the
22 most accurate method available to it?

23 A. If I was the company, I would want to use
24 the most appropriate data available.

25 Q. And the most appropriate data would be

1 the data that would produce the most accurate
2 forecast; right?

3 A. I did not say that. I said -- And,
4 again, this is how I would be doing it. I may use
5 different data for different settings.

6 Q. Okay. But if you're developing a
7 forecast for a company's budget, wouldn't you want
8 to use the information expected to produce the
9 most accurate forecast?

10 A. I don't know what the Company's internal
11 thought process would be on that as far as their
12 internal forecasting. I can't tell you that.

13 MR. SAUER: Can we go off the record for
14 a minute?

15 MR. FINNIGAN: Sure.

16 (Discussion held off the record.)

17 BY MR. FINNIGAN:

18 Q. Mr. Yankel, at one point in your
19 testimony you compared the ten-year weather normal
20 to data from 1977 to 1979, and you used that
21 analysis to reach a conclusion about the lack of
22 predictiveness of the ten-year weather normal. Do
23 you recall that?

24 A. Yes, I do.

25 Q. Why did you pick those three years?

1 A. Well, a couple of different reasons. One
2 of which was the beginning of the 30-year time
3 frame.

4 Q. I thought 1970 was the beginning of the
5 30-year time frame.

6 A. Oh, that's right. It was '96 or -- I'm
7 sorry. Can you --

8 MR. SAUER: Can you point to a response?
9 BY MR. FINNIGAN:

10 Q. 1977 through 1979 you used three years to
11 kind of carve out, and you compared the ten-year
12 weather normal data against those three years, and
13 then reached a conclusion that the ten-year
14 weather normals showed a lack of predictiveness
15 when compared to that actual data. Do you recall
16 that?

17 A. Yes. I'm sorry. I was thinking what you
18 told me was a different time frame.

19 Q. Okay. And I'm just asking, why did you
20 pick those three years, 1977 through 1979?

21 A. Because they were -- some of the years
22 were with the most obvious contradiction to what
23 the Company is doing with its choice of a ten-year
24 time frame, because that particular ten-year time
25 frame showed a very different pattern.

1 It showed a similar pattern, as I recall,
2 with respect to a ten-year time frame, and then
3 the following three years were way off. And I
4 just wanted to show how far off one can be by
5 choosing a ten-year time frame.

6 Q. Didn't that time period, 1977 through
7 1979, include the coldest winter over perhaps the
8 last 50 years?

9 A. Yes.

10 Q. Okay. Is that just a coincidence that
11 you used that for your analysis?

12 A. Next winter we could have the coldest
13 winter of 200 years. I don't know that.

14 Q. Okay. Did you use the 30-year weather
15 normals to compare against those three years, 1977
16 and 1979, to see whether the 30-year weather
17 normals fared any better in terms of
18 predictiveness?

19 A. No, I did not.

20 Q. What would you expect to find if you did
21 that?

22 A. Can you show me where it's at, and I can
23 answer the question, I mean, in my testimony?

24 Q. No, I don't know what page it's at.

25 A. If I knew what page, I could probably

1 answer your question.

2 Q. Well, it's about something that you
3 didn't do, so I don't think it's going to be in
4 your testimony.

5 So I think my question to you is that if
6 you did that same kind of analysis of
7 predictiveness or lack of predictiveness for
8 30-year weather normals as you did for the
9 ten-year weather normals and compared that to the
10 1977 through 1979 data, would you expect that the
11 30-year weather normals would show any better
12 predictiveness than the ten-year weather normals.

13 A. As you indicated, I've not done the
14 analysis, I don't know.

15 Q. Well, if you assert that the 30-year
16 weather normal is a better technique to use, would
17 you assert that would be a better predictor of the
18 weather during those years?

19 A. I believe that 30 years would be a better
20 predictor. Other than that, I don't know how the
21 30-year would have lined up against those three
22 specific years.

23 Q. If it's a better predictor, wouldn't you
24 expect it to show better results when compared to
25 those three years?

1 A. One would expect that, yes.

2 MR. FINNIGAN: That's all the questions I
3 have. Thank you, Mr. Yankel.

4 (Discussion held off the record.)

5 (Signature not waived.)

6 - - -

7 (Thereupon, the deposition was concluded
8 at 2:50 o'clock p.m. on Thursday,
9 February 21, 2008.)

10 - - -

A F F I D A V I T

- - -

STATE OF _____,)

) SS:

COUNTY OF _____,)

Anthony J. Yankel, having been duly
placed under oath, deposes and says that:

I have read the transcript of my
deposition taken on Thursday, February 21, 2008,
and made all necessary changes and/or corrections
as noted on the attached correction sheet, if any.

Anthony J. Yankel

Placed under oath before me and
subscribed in my presence this _____ day of
_____, _____.

Notary Public

My Commission Expires: _____.

- - -

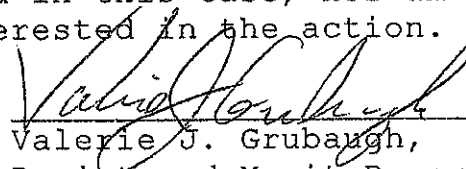
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C E R T I F I C A T E

State of Ohio,)
)
) SS:
County of Fairfield,

I, Valerie J. Grubaugh, Registered Merit Reporter, Certified Realtime Reporter and Notary Public in and for the State of Ohio, hereby certify that the foregoing is a true and accurate transcript of the deposition testimony, taken under oath on the date hereinbefore set forth, of Anthony J. Yankel.

I further certify that I am neither attorney or counsel for, nor related to or employed by any of the parties to the action in which the deposition was taken, and further that I am not a relative or employee of any attorney or counsel employed in this case, nor am I financially interested in the action.


Valerie J. Grubaugh,
Registered Merit Reporter,
Certified Realtime Reporter and
Notary Public in and for the
State of Ohio.

My Commission Expires:
August 10, 2011.

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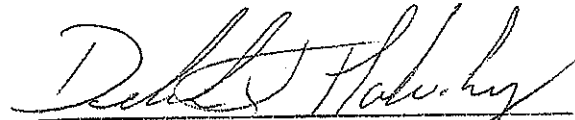
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State of Ohio,)
) SS:
County of Delaware)

- - -

I, Deborah J. Holmberg, Registered Merit Reporter and Notary Public in and for the State of Ohio, hereby certify that the foregoing is a true and accurate transcript of the deposition testimony, taken under oath on the date hereinbefore set forth, of Anthony J. Yankel.

I further certify that I am neither attorney or counsel for, nor related to or employed by any of the parties to the action in which the deposition was taken, and further that I am not a relative or employee of any attorney or counsel employed in this case, nor am I financially interested in the action.



Deborah J. Holmberg,
Registered Merit Reporter
and Notary Public in and
for the State of Ohio

My Commission Expires: October 7, 2011.

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