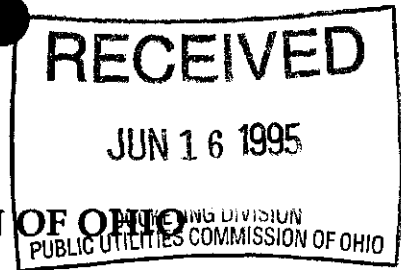


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BEFORE

THE PUBLIC UTILITIES COMMISSION OF OHIO



In the Matter of the Two-Year Review of :
Centerior Energy Corporation's :
Environmental Compliance Plan :
Pursuant to Section 4913.05, Revised :
Code. :

Case No. 94-1698-EL-ECP

PREPARED TESTIMONY
OF
KLAUS LAMBECK
FORECASTING DIVISION
PUBLIC UTILITIES COMMISSION OF OHIO

Staff Ex. _____

1
2 Q1: Please state your name and business address.

3 A: My name is Klaus Lambeck. My business address is 180 E.
4 Broad Street, Columbus, Ohio, 43266-0550, Division of
5 Forecasting, Utilities Department, Public Utilities
6 Commission of Ohio.

7
8 Q2: What is your occupation?

9 A: I am an Energy Specialist in the Forecasting Division of
10 the Utilities Department, in the Public Utilities
11 Commission of Ohio. I have been employed by the PUCO
12 since December, 1985.

13 My responsibilities include but are not limited to, the
14 analysis of electric utility emission allowance
15 availability and the economics of emission allowance
16 trading & banking; and of environmental costs and
17 benefits of alternate strategies for meeting requirements
18 of federal & state energy and environmental laws,
19 including Clean Air Act Amendments of 1990.

20
21 My prior position in the Forecasting Division was as
22 Researcher. Among other responsibilities I worked on the
23 analysis of demand and supply-side strategies for
24 forecast evaluation hearings, and analysis for the
25 Integrated Resource Planning process and the Power Siting
26 process.

27 Prior to joining the PUCO, I was a Coal Research
28

1 Specialist for the Ohio Department of Development and the
2 Ohio Department of Energy where I managed coal and
3 environmental studies.
4

5 Q3: What is your educational background?

6 A: I received my Bachelor of Science, Education, in 1977
7 from the Ohio State University. I also completed several
8 years of course work in Physics, Mathematics and English
9 at the Technische Universitaet in Berlin, Germany.

10 Q4: Could you briefly summarize your professional experience
11 related to environmental regulation of electric
12 utilities?

13 A: I was part of the PUCO Staff team in cases
14 94-1181-EL-ECP and 94-809-EL-ECP. I was part of the PUCO
15 Staff team in all 1992 ECP filing reviews. I was part of
16 the Staff team in case 91-2155-EL-COI, Allowance trading
17 and Accounting treatment. I was part of the Staff of the
18 Power Siting Board in cases 88-1092-EL-BTX,
19 88-1447-EL-BGN and 89-1302-EL-BGN.

20
21 Recently I gave remarks at a public hearing before U.S.
22 DOE on the National Energy Policy Plan.

23 I represented the PUCO in a national Acid Rain Dialogue
24 project conducted by the Center for Clean Air Policy,
25 Washington D.C.

26 I was a member of the Technical Subcommittee of the
27 Interstate High Sulfur Coal Task Force.
28

1 I participated in regional conferences and the NARUC
2 national conference on environmental externalities.
3

4 Q5: Do you have other relevant professional qualifications?

5 A: I was the Ohio representative in the ECO (ecology) expert
6 exchange of 1989 between Germany and the United States.

7 The program was designed to foster the exchange of ideas
8 and know-how in the utility/environmental sector between
9 States of both countries.

10 I am a member of the Society for Mining, Metallurgy, and
11 Exploration Inc. and the local chapter 155.
12

13 Q6: Have you previously testified before the PUCO?

14 A: I most recently testified in case No.

15 91-635-EL-FOR/92-312-EL-FOR/92-1172-EL-ECP.
16

17 Q7: What is the purpose of your testimony?

18 A: The purpose of my testimony is to comment on the
19 management and trading of SO2 allowances and to offer a
20 revision of earlier allowance price estimates.

21 Q8: Has the company made efforts to develop a short and long
22 term emission trading strategy?

23 A: Yes. The company has a long term strategy of banking
24 allowances and drawing down the bank during early Phase
25 II to defer higher cost options. The company also
26 developed a shorter term strategy with the assistance of
27 a consultant which is aimed at preserving operational
28

1 flexibility, market evaluation to prepare for acting in
2 economically favorable conditions, emissions dispatch
3 based on spot market indicators and implementation of
4 risk management through options, futures contracts and
5 swaps. In fuel procurement, a bundled product will be
6 solicited and, if feasible, accepted.

7
8 Q9: Are your allowance value estimates still the same as in
9 the original ECP analysis?

10 A: No. Certain parts that went into the original value
11 estimations still hold true today. Other pieces have
12 changed and there is one major addition to the main
13 assumptions. In addition to these factors we do have a
14 spot market today. This market is arguably thin, but
15 nevertheless numbers are available from several sources.
16 Central Appalachian low sulfur coal reserves are still
17 forecasted to be able to supply the Phase I and mid-range
18 Phase II demand. Exports are not anticipated to increase
19 significantly in the near term. Low sulfur production
20 capacity surplus still exists. Eastern coal field
21 transportation infrastructure is still forecasted to
22 handle anticipated increases in coal movements. And
23 finally, uncertainty over new environmental regulations
24 has not been alleviated. Recent changes are: the
25 anticipated low sulfur coal premiums are smaller;
26 scrubber installations have and are coming in at lower
27 than quoted prices and rail delivery concerns for PRB
28 coal have materialized. The movement to competition in

1 the electricity industry represents a major addition to
2 the main assumptions. All these factors have resulted in
3 an update of my earlier value estimates. The revised
4 values are shown in Ex. KL1. These values were used by
5 Staff witness Evans in his analysis. They reflect
6 estimates of spot market prices. Values for large
7 quantities and/or a long string of allowances can be
8 anticipated to be higher than the numbers shown.
9

10 Q10: Are the allowance values used in the company's analysis
11 reasonable?

12 A: Given what was known when the analysis was prepared, I
13 believe that the allowance value forecast is
14 reasonable.

15 Q11: Has the company acted on its available market
16 information?

17 A: Yes, but not to the fullest extent possible.
18 The company should be commended for the executed swap.
19 This type of response to a changed operating condition
20 exemplifies what is expressed in the Commission
21 allowance guidelines. The company also demonstrated an
22 understanding of the EPA auction process by the bid
23 price it submitted in the 1995 spot auction. To my
24 surprise the company elected not to test this
25 understanding in the six and seven year advanced
26 auction. It is unfortunate that the company did not
27 take advantage of this learning opportunity, and I
28

1 recommend the company do so in future EPA auctions.

2
3 As a final note on the auction, I want to express my
4 continued amazement that the coal industry at large has
5 not been more active in this forum, as demonstrated by
6 the bidders list. Not only do the utilities need to be
7 in a position to ask for bundled products, but the coal
8 industry needs to be capable of offering such a
9 product. This clearly was the intent of the allowance
10 market provisions in the Clean Air Act.

11
12 Q12: Is the Phase II strategy as currently proposed by CEN
13 reasonable?

14 A: I believe that the strategy is reasonable and reflects
15 the relative changes in coal and allowance markets.

16 Q13: Does that conclude your testimony?

17 A: Yes, it does.
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EMISSION ALLOWANCE PRICE PROJECTION UPDATE
June, 1995

1994 \$/ton

1994	
1995	135
1996	155
1997	170
1998	190
1999	210
2000	230
2001	260
2002	290
2003	320
2004	350
2005	385
2006	430
2007	430
2008	430
2009	405
2010	385
2011	365
2012	345
2013	315
2014	295
2015	285

CERTIFICATE OF SERVICE

I hereby certify that a true copy of the foregoing **Prepared Testimony of Klaus Lambeck** submitted on behalf of the Staff of the Public Utilities Commission of Ohio was served by regular U.S. mail upon the following parties of record, this 16th day of June, 1995.



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