

The chronology of events and decisions that brought us to the hearing in Case No. EA-79-119 on March 28, 1979, have been researched by the Staff of the Commission at the request of Commissioner Alberta Slavin.

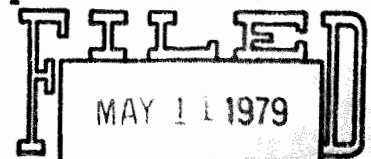
The prefiled testimony of Staff's witness Chester G. Sullivant and the record of the cross-examination of Clyde Allen, Vice President for Rates, Union Electric Company, are quoted herein to explain how Union Electric made the decision to build combustion turbines.

In the prefiled testimony of Michael Proctor, Staff witness in EA-79-119, was included a portion of the testimony of Sullivant from ER-77-154. Mr. Sullivant's testimony reveals the chronology of events that led Union Electric to choose combustion turbines. In 1972, the Company favored building the combustion turbines for the additional capacity it needed. However, in 1973, the oil embargo placed oil supplies in great jeopardy. Because of this supply threat, the Company began preliminary work on Rush Island units 3 and 4. The oil embargo eased in 1974 and the Company once again weighed the advantages and disadvantages and abandoned the Rush Island units in favor of oil-fired combustion turbines.

On page 865 of the transcript, Public Counsel was cross-examining Clyde Allen of the Company. In this testimony, Mr. Allen states that the Corporate Planning Department makes recommendations regarding the type, location and need for generating facilities. The top management of the Company then makes the decision which, in the instance of the combustion turbines, was for all practical purposes made in 1975 and committed to paper as a plan in 1977.

Revised Late Filed
Staff

Exhibit No. 2
Date 5/11/79 Case No. EA-79-119
Reporter Strahman
Rec'd 5-11-79. rls.



PUBLIC SERVICE COMMISSION

The then proposed Rush Island units differed from usual base load units. These units were cycling units designed to run at a lower minimum (150 Megawatts) than an ordinary base load unit which will trip off if run below 300 Megawatts. The cycling unit can coast on the system at 150 Megawatts until additional capacity is needed, then it can be brought up to 600 Megawatts at a rate of 10 MW/min. This description explains the term "intermediate base load" which was the classification given the proposed Rush Island units.

These cycling or intermediate base load units differ from combustion turbines in capacity. A combustion turbine is limited to supplemental peak load at a capacity of normally 50 or 90 MW size. These units, however, can be brought in to use from zero within 10 to 15 minutes; whereas, the base load and cycling units would require approximately 12 hours to be brought up from zero generation. A cycling unit can be operated many more hours and for more megawatts than a combustion turbine.

Although these units are designed for different purposes, the Company states in the testimony that the determining factor was fuel. The combustion turbines are oil-fired; whereas, the cycling units are coal-fired. In the Staff's opinion, peaking units that are capable of generation by means of only one source of fuel lack the flexibility to adapt to different fuel sources and may be outdated. These units are of much less value if not capable of being converted to the cheapest fuel available for the life of the plant.

Attached hereto is the relevant testimony on this issue.

1 witness in support of the Adjustment.

2 EXAMINER REIMNITZ: All right. If there is
3 nothing further of Mr. Sullivant, he can step down.

4 (Witness excused.)

5
6 MR. SMITH: We would like to recall Mr. Allen.

7 WITNESS H. CLYDE ALLEN WAS RECALLED TO THE STAND.

8 DIRECT EXAMINATION BY MR. SMITH:

9 Q Mr. Allen, do you know what would have been
10 the expected service life of Rush Island Units 3 and 4 had
11 they been erected?

12 A It would have been at least 30 years and not
13 more than 40.

14 Q Of the four and one-half million dollars
15 write-off here, what portion of that is applicable to
16 Missouri?

17 A Well, it would be the \$609,000 per year, times
18 five years, which would be \$3,045,000.

19 Q Under cross-examination by Mr. Liberman, Mr.
20 Sullivant said some portion of the \$5.9 million would be
21 used if those plants were ever reinstated or he more
22 specifically said all but 2.2 million could be used, do you
23 agree with that statement?

24 MR. LIBERMAN: I will object to the question
25 because his testimony was that very likely the 2.2 could be

1 used also.

2 BY MR. SMITH:

3 Q Mr. Allen, do you agree that any or all of that
4 expenditure would be utilized if those plants were built?

5 A Unfortunately, it would not be usable, we
6 would have to start completely from scratch if we were to
7 build a new plant there in that place.

8 Q With respect to the 3. million dollars of
9 charges relating to the cancellation, what was the nature of
10 those charges?

11 A Those were expenses incurred by equipment
12 suppliers in preliminary design and procurement of materials
13 to construct the equipment. That was documented that they
14 had incurred those expenses before we paid the fees.

15 Q Were any of those charges penalties for
16 cancellation?

17 A To the best of our ability to determine,
18 none of them were penalties.

19 Q What was the service life of the combustion
20 turbines that replaced the Rush Island generators?

21 A They would be about the same, their mode of
22 operation would be the same as for the 3 and 4 Units, 30
23 to 40 years.

24 MR. SMITH: I have no further questions.

25 COMMISSIONER JONES: How many hours a year

1 of construction period. Now, of the five Westinghouse
2 units that are in operation now of the type of Callaway,
3 four were completed in less than 70 months from the--well,
4 if you go comparable of this, from the date of starting
5 construction to the date of commercial operation, they were
6 completed between 70 and 75 months. So I think we have
7 adequate time built into the schedule to handle any reason-
8 able problems that develop.

9 MR. SMITH: I have no further questions at
10 this time.

11 EXAMINER REIMNITZ: Mr. Fischer.

12 CROSS-EXAMINATION BY MR. FISCHER:

13 Q Mr. Allen, in your prefiled testimony you
14 stated at Page 2 that you were the Director of Corporate
15 Planning from January 1, 1969, to April 22, 1975, and that
16 you were the Assistant Director of Corporate Planning from
17 1964 until you assumed the Director's position; is that
18 correct?

19 A That's correct.

20 Q And you're presently the Vice President for
21 Rates; is that correct?

22 A That's correct.

23 Q On Page 3 of your prefiled testimony you
24 stated, "As Vice President-Rates, I have overall responsi-
25 bility for the development and administration of all the .

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LATE-FILED

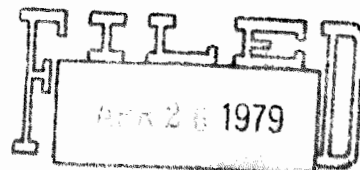
STAFF

Exhibit No. 2

Date 4/26/79 Case No. EA-79-119

Reporter STRATMAN

REC'D 4-26-79. Also.



PUBLIC SERVICE COMMISSION

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