

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION



In the Matter of)
)
WASHINGTON PUBLIC POWER) Docket No. 50-513
)
SUPPLY SYSTEM)
)
(Nuclear Project No. 4))

AFFIDAVIT OF ROBERT B. GALLUP
REGARDING NEED FOR POWER UPDATE

I. Background

The evidentiary hearings on environmental and site suitability issues for WPPSS Nuclear Projects No. 1 ("WNP-1") and No. 4 ("WNP-4") were conducted on May 13-15, 1975, at which time certain exhibits were received into evidence by the Atomic Safety and Licensing Board ("Board"). This evidence included, inter alia, the 1975 West Group Forecast (Applicant's Ex. 4). In addition, I submitted prepared testimony for the evidentiary hearings (Tr. following p. 164), and responded to examination and cross-examination by the parties and the Board (Tr. 155-158, 160-164, 174-176, 247-248, 263-344, 346-376). Thereafter, the Board issued its Partial Initial Decision in which it made findings of fact and conclusions of law relating to, inter alia, the need for power issue. NRCI-75/7 131, 140-142, (July 30, 1975).

The evidentiary hearings on radiological health and safety issues were conducted on November 11-13, 1975, at which time the Applicant requested that con-

sideration of its financial qualifications to construct WNP-4 be deferred. Thus, the issuance of a construction permit for WNP-4 has been delayed pending the disposition of the financial qualification issue.

II. 1976 West Group Forecast

In the interim, the 1976 West Group Forecast ("1976 Forecast") was issued. The 1976 Forecast (like the 1975 West Group Forecast already in evidence as Applicant's Ex. 4) is an annual 11-year forecast of loads and resources for the Pacific Northwest region which is prepared by the Pacific Northwest Utilities Conference Committee. To update the record with regard to the need for power matter, a copy of the 1976 Forecast is attached hereto as Attachment A.

The 1976 Forecast indicates that there has been a decrease in energy loads forecasted for the period 1976-1987, which, as discussed below, has been more than offset by a decrease in energy resources estimated to be available in that same period. The table entitled "West Group Forecast - June 1987" of the 1976 Forecast reflects that the load decrease for 1983-1984 (the years in which, for realistic planning purposes, the 1976 Forecast takes credit for the capability of WNP-4) is 489 average MW. This amount represents a decrease of 2.26% from the load estimates presented in the 1975 West Group Forecast ("1975 Forecast").

As I indicated at p. 7 of my prepared testimony submitted at the evidentiary hearings held on May 13-

15, 1975 (Tr. following p. 164), a reduction in load growth from that estimated in the 1975 Forecast would result, under normal circumstances, in a reduction in the need for the development of additional resources. However, the 1976 Forecast indicates that the generating resources expected to be available for the period 1976-1987 has decreased substantially from the resources estimated in the 1975 Forecast. This decrease in estimated resources is due to slips in schedule of certain of those facilities which were credited as resources for a given year in the 1975 Forecast. The slips in schedule of various nuclear and coal-fired facilities were due to a number of factors including regulatory delays, financing difficulties, load reductions and construction delays.

Significantly, the table entitled "West Group Forecast - Estimated Loads and Resources, July 1976 - June 1987" of the 1976 Forecast reflects that the decrease in load estimates is more than offset by the decrease in resources. In fact, the surpluses noted on p. 6 in my previous testimony (Tr. following p. 164) are changed to deficiencies in the 1976 Forecast. I noted on pp. 6-7 of my previous testimony that delay in the completion of any units could quickly turn a surplus into a deficit, and this, in fact, is what has occurred. For example, based upon the 1975 Forecast, the load/resource picture in the year 1983-1984 (when the energy from WNP-4 was then planned to be available) showed that if all units were completed in accor-

dance with the milestone schedule set forth in the 1975 Forecast, there would be a surplus of approximately 338,000 average kilowatts of resources to meet loads without reserves. The 1976 Forecast shows a deficiency of 685,000 average kilowatts for this year. With respect to 1984-1985 and 1985-1986, the 1975 Forecast indicated that there would also be a surplus of resources to meet loads without reserves if all units were completed in accordance with the milestone schedule. The 1976 Forecast shows deficiencies of 525,000 and 31,000 average kilowatts, respectively, for these years.

The comparison of the 1976 Forecast with the 1975 Forecast reveals that while certain generating facilities planned or under construction at the time of the issuance of the 1975 Forecast have been advanced by one to nine months in schedule, many more have been delayed, some up to three years (see Table on p. 5). Accordingly, energy from these facilities for which credit was taken for a given year in the 1975 Forecast will not be available during the time frames previously anticipated. Specifically, the changes in operating dates of major resources in the 1976 Forecast from those included in the 1975 Forecast are shown in the following table:

Changes in Milestone Operating Dates
1976 Forecast Compared to 1975 Forecast

	<u>Capability - MW</u>	<u>Acceleration</u>	
		<u>Years</u>	<u>Months</u>
<u>Plants With Advanced Operating Dates</u>			
Colstrip #2	330	0	3
Jim Bridger #3	500	0	9
WNP #2	1,100	0	1
WNP #4	1,250	0	6

		<u>Delay</u>	
		<u>Years</u>	<u>Months</u>
<u>Plants With Delayed Operating Dates</u>			
Trojan	1,130	0	5
Colstrip #3	700	1	0
Colstrip #4	700	1	0
Jim Bridger #4	500	0	3
WNP #3	1,240	1	0
WNP #5	1,240	1	0
Boardman (Carty)	500	0	2
Pebble Springs #1	1,260	3	0
Pebble Springs #2	1,260	3	0
Skagit #1	1,288	0	6
Skagit #2	1,288	1	6

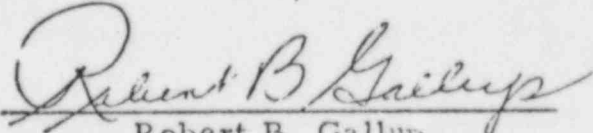
The changes in load estimates and resource schedules has resulted in a shift of energy surplus and deficiencies for the year 1983-1984 through 1985-1986 as shown in the following table:

Surplus or (Deficit) of Resources
to Meet Loads - Excluding Reserves
Average MW

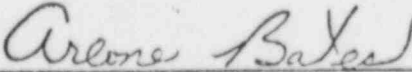
	<u>1975</u> <u>Forecast</u>	<u>1976</u> <u>Forecast</u>
1983-1984	338	(685)
1984-1985	1,077	(525)
1985-1986	1,634	(31)

III. Conclusion

The 1976 Forecast contains the most current information available relating to anticipated annual energy loads and resources of the West Group Area through the mid-1980's. It is in the context of these anticipated energy loads and resources that the need for WNP-4 should be evaluated. As noted, the 1976 Forecast more than confirms the need for this nuclear facility in the time frame projected. Indeed, relative to the forecasts contained in the 1975 Forecast, the need for WNP-4 is even more urgent.


Robert B. Gallup

Subscribed and sworn to before me this 2nd day of August 1976.


Notary Public in and for the
State of Washington
Residing at Seattle