STATE OF NEW YORK
BOARD ON
ELECTRIC GENERATION SITING AND THE ENVIRONMENT

CASE 80005 - Application by Rochester Gas and Electric Corporation on behalf of itself, Orange and Rockland Utilities, Inc., Central Hudson Gas & Electric Corporation and Niagara Mohawk Power Corporation for a certificate of environmental compatibility and public need to construct an 1150 MW standardized nuclear power plant in the Town of Sterling, Cayuga County, New York.

OPINION AND ORDER VACATING CERTIFICATE, DENYING APPLICATION AND CLOSING PROCEEDING

Issued: February 11, 1980

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At a session of the New York State Board on Electric Generation Siting and the Environment for the Sterling-SNUPPS Generating Facility held in the City of Albany on January 23, 1980.

BOARD MEMBERS PRESENT:

Anne F. Mead, Chairman, Alternate for Charles A. Zielinski, Chairman, Public Service Commission

Herbert Doig, Alternate for Robert F. Flacke, Commissioner, Department of Environmental Conservation

Glenn E. Haughie, M.D., Alternate for David Axelrod, M.D., Commissioner, Department of Health

Dr. William E. Seymour, Alternate for William D. Hassett, Commissioner, Department of Commerce, dissenting

David B. Weinstein, Ad Hoc Member

CASE 80005 - Application by Rochester Gas and Electric Corporation on behalf of itself, Orange and Rockland Utilities, Inc., Central Hudson Gas & Electric Corporation and Niagara Mohawk Power Corporation for a certificate of environmental compatibility and public need to construct an 1150 MW standardized nuclear power plant in the Town of Sterling, Cayuga County, New York.

OPINION AND ORDER VACATING CERTIFICATE, DENYING APPLICATION AND CLOSING PROCEEDING

(Issued February 11, 1980)

APPEARANCES: See Opinion and Order issued January 11, 1978

By order issued May 4, 1978, we suspended operation of the authorizations provided to Rochester Gas and Electric Corporation[1/] in our January 11, 1978 Opinion and Order granting a certificate of environmental compatibility and public need for the proposed Sterling-SNUPPS nuclear generating plant. We found that the circumstances upon which we based our finding of public need had so materially changed as a result of the New York Power Pool's 1978 Section 149-b report that we were compelled to reexamine our decision to authorize construction and operation of the Sterling-SNUPPS facility.

By further order issued December 5, 1978, we set out to reexamine the need for the Sterling-SNUPPS facility with due consideration to the record developed in Public Service Commission's Case 27319 (the Commission's investigation into the long-range forecasts and facilities expansion plans of the New York electric corporations filed under Section 149-b of the Public Service Law). In addition, we determined that our final decision would be based on the record compiled in Case 27319, the responses filed to our May 4, 1978 order, and briefs filed after the close of the record in Case 27319. The December 5, 1978 order outlined five need issues to be addressed on reopening:

1. The reliability of the demand forecasts used to resolve the need issues, in light of more recent forecasts.

2. Whether the Lake Erie Generation Station now under consideration in Case 80007 is an alternative available to fill Niagara Mohawk's need for Sterling capacity.

3. Whether there is a statewide need for 1150 megawatts of generating capacity.

1/On behalf of itself, Orange and Rockland Utilities, Inc., Central Hudson Gas & Electric Corporation and Niagara Mohawk Power Corporation.

4. Whether there would be a market for the excess capacity that would exist if the Sterling participants would not immediately require the full share of available Sterling capacity, particularly considering the possibility of competitive Canadian power.

5. The likely inservice date for the Sterling facility.

Briefs in response to the rehearing issues have now been received from the applicants, the Public Service Commission staff, the Consumer Protection Board, the Genesee Valley Peoples' Power Coalition, Ecology Action of Oswego, and the West Branch Conservation Association.

NEED FOR ADDITIONAL CAPACITY

The five issues to be addressed by the December 5, 1978 order can be reduced to one relatively straightforward question relating to current projections of peak load and available capacity to meet that load: what electric supply and demand is expected to be for the State and for each of the Sterling participants within a reasonable planning period from the date of this decision.

The forecasts submitted by the Sterling participants and the other members of the New York Power Pool in Case 27319 were exhaustively reviewed in that case. Alternative forecasts were submitted by the PSC and CPB staffs (jointly), a Boston based organization known as the Energy Systems Research Group (ESRG), and a group of econometricians at Cornell. These forecasts provided the raw material the parties have used to draft their "need" arguments. The differences in the data bases and techniques used to forecast future demand were cause for lively debate among the forecasters in Case 27319. Without question, any attempt to forecast peak demand and available supply is subject to considerable uncertainty.

Supply Uncertainties

For the most part, all parties have used the forecast of available capacity in the New York Power Pool's 1979 Report to the State Energy Office. Moreover, the parties have uniformly adopted the supply forecast approach used in our original Opinion and Order granting the Sterling certificate, i.e., assuming that planned but unlicensed capacity not currently under construction will not be available to meet forecast demands. Since the issuance of the Sterling Opinion, the Case 80002 Siting Board has granted a certificate for an 850 MW coal-fired increment of capacity, but the availability of other capacity additions remains uncertain at this date.[1/] The resulting base supply forecast is shown at page 21, 1979 SEO Report of the New York Power Pool. The 1979 New York Power Pool supply forecast was generally accepted by the parties for planning purposes and we, too, shall utilize it as the best projection of supply extant.[2/]

1/The unlicensed capacity involved is: PASNY's pumped storage hydro project at Prattsville (1000 MW), and its Arthur Kill fossil facility (700 MW); LILCO and NYSE&G's joint venture facilities proposed in case 80003, Jamesport (2300 MW) and Case 80008, New Haven/Stuyvesant (2500 MW); and Niagara Mohawk's Lake Erie Generating Station (1700 MW). After the session at which we announced our decision, the Siting Board in Case 80003 voted tentatively to certify an 800 MW coal facility and the Board in Case 80007 announced its decision to certify one of the two proposed LEGS units.

2/We recognize some uncertainty on this point. On the one hand, the forecast may be overstated because it includes a large amount of oil-fired capacity, the continued availability of which may be in doubt because of the politics and economics of oil supply. In the same direction, over 800 megawatts of PASNY capacity now available to Niagara Mohawk, RG&E and Central Hudson and included in the supply figures may not be available after 1990. Also, possible coal conversions and nuclear retrofits may affect the continued availability of the amounts of capacity assumed in Appendix A. On the other hand, we have not included additional Canadian hydro capacity which seems uncertain. Nor have we provided any allowance for hydro additions over and above those projected by the New York Power Pool, notwithstanding the greater potential for this resource claimed in the State Energy Office's draft master plan. On balance, however, we think the Pool's supply forecast worthy of reliance for purposes of our decision in this case.

Demand Forecast Uncertainties

All parties accept the proposition that electric demand is a function of a relatively limited number of demographic and economic variables. The agreement, however, ends there. The parties present diverse forecasts of population, commercial and industrial activity, energy requirements, and the percentage of total energy requirements that will be met by centrally generated electricity. The forecasts are depicted on Appendix A, page one.

The limits of reason in this forecasting effort were defined on the high side by the National Economic Research Associates (NERA) forecast and on the low side by the ESRG "low" forecast. The NERA forecast is substantially higher than any other in the record and indicates a need for nine Sterling-sized increments of capacity by 1994. It reflects unabashed optimism about statewide economic conditions and pessimism about the implementation of alternative energy supply and conservation technologies in the forecast period. Conversely, the ESRG "low" forecast is the lowest in the case--it indicates no peak load growth after the mid-1980's. It is pessimistic about future economic conditions in the State and optimistic about the implementation of alternative energy technologies and conservation practices.

While neither the NERA forecast nor the ERSG "low" forecast is impossible of fulfillment, the achievement of either depends on events over which neither we nor the utilities have much control. The NERA forecast--described by some parties as a "business as usual" forecast--assumes that the historical relationships that existed early in the 1970's between population, economic activity, electric rates, and the demand for electricity will remain substantially the same. NERA expects that demand will continue

to grow with population, income, and economic activity as it has in the past--with reductions for expected consumer responses to increases in the real price of electricity. The ESRG "low" forecast, on the other hand, assumes that New York State's future population and economic output will be substantially less than any other forecast; that the energy needed to meet the forecasted domestic and production requirements, such as they are, will be relatively low; and that cogeneration and on-site generation will play a large part in meeting electric requirements.[1/]

Neither forecast is, given its assumptions, demonstrably wrong or inaccurate. If the assumptions are correct, the forecasts may well be correct. But we find that the assumptions in each are unreasonable and that the forecasts therefore amount to statements of what these parties believe the future ought to be, not what it reasonably can be expected to be.

To be sure, unforeseeable perturbations in energy markets--OPEC actions or Federal legislation, for example--could restrict or increase the demand for electricity to the limits established by the NERA and ESRG low forecasts. And, demographic and economic variables may differ substantially

1/The ESRG "probable" forecast is the simple arithmetic mean of its "low" and "high" forecasts, and is therefore understated precisely to the extent the "low" forecast assumptions are unreasonable. According to the Sterling participants, the entire 5500 MW difference between the ESRG "probable" 1995 peak forecast, and the NYPP 1995 peak forecast can be attributed to allegedly too-low estimates of the State's economic output (2200 MW, or 40%), energy intensity or energy needed to produce that output (2300 MW, or 42%), and too-extensive estimates of cogeneration (1000 MW, or 18%).

from those used in the other consensus forecasts described below. Nonetheless, it is the range established in those forecasts that will constitute a point of departure for our determination of the "need" issue in this rehearing because we find their assumptions are the most reasonable.

As previously noted, the NERA and ESRG "low" forecasts are too extreme to be used for planning purposes. The forecasts in the 1979 Pool Report, though reduced, are still somewhat higher than the PSC/CPB, ESRG "high," and Cornell group forecasts.[1/] The lack of forecasting success of the electric companies over the past five years indicates that even their latest reduced forecast must be discounted somewhat. This forecast should, in our judgment, be viewed as the outer limit of optimism. The PSC/CPB staff forecast, the Cornell group forecast, and the ESRG "high" forecast are close to each other and establish to us a reasonable range of probable peak demands for the forecast period. But even these forecasts establish too wide a range for our specific purpose and we must, therefore, choose one as the most probable.[2/]

The PSC staff brief presented updated forecasts that show:

1/Our December 5, 1978 order did not specifically state that the 1979 Report to the State Energy Office would be considered in our evaluation of the need issues. However, the forecasts in the 1979 Report include substantially reduced load forecasts and all parties have urged that they be considered by the Board in lieu of the much higher forecasts by the Pool members that were considered in Case 27319.

2/Appendix A, page 2 depicts these forecasts and relates them to the supply assumptions we have adopted.

> . . .[T]he Sterling participants as a group first becoming deficient in summer of 1991 with a 106 MW deficiency, growing to 242 MW shortage that winter. According to our forecasts, that winter would also mark the beginning of substantial deficiencies for the Power Pool as a whole.
>
> Half of the plant's capacity, or 572 MW, would be needed by the Sterling utilities in the following winter of 1992-1993. . . .Central Hudson will become slightly deficient in the summer of 1990 and the following winter, and thereafter grow to 87 MW summer and 42 MW winter deficiencies by 1992. Orange and Rockland will experience slight and then sizable deficiencies earlier in the forecast period than the other Sterling companies, beginning in summer 1986 and continuing in summer thereafter, as well as winters after 1988-89. . . . In 1992, our last forecast year, RC&E needs only 28 MW more summer peak capacity, and 88 MW more the next winter. Projected deficiency years for Niagara Mohawk are similar to RG&E's but no deficiency prior to a 38 MW need for winter 1991-92, 41 MW the next summer, and sizable deficiencies thereafter. (Brief p. 12-13)

The tables presented by the Consumer Protection Board in its brief indicate similar capacity deficiencies for the Sterling participants and the Pool by 1992 (p. 10-11).

The Department of Environmental Conservation brief states that if the Board is to determine the public need issue solely on the basis of capacity reliability criteria:

1. If its "probable" forecast is used, capacity deficiencies will be experienced in 1993.

2. If its "high" forecast is used, four large increments of generating capacity will be required by 1993.

Ecology Action, the Genesee Valley Peoples' Power Coalition and the West Branch Conservation Association, relying on forecasts presented by other parties, all argue that because deficiencies will not be experienced until the early 1990's, the Sterling facility's certificate should not be reinstated at this time.

What emerges from all of this is that there is some disagreement among the parties about exactly when capacity deficiencies will occur for the Sterling participants and exactly how large those deficiencies will be.[1/] The Sterling participants, while emphasizing that they believe their own forecasts are more reliable than those of any other party, argue that even if the lower peak load forecasts are adopted for planning purposes, they have a need for a Sterling-sized increment of capacity. But it is quite clear that any need indicated by these data is far more remote than it was at the time we issued our Opinion and Order granting the original Sterling certificate. Instead of reserve margin deficiencies in 1984-1986, no party now anticipates deficiencies until at least 1988 and that projection, by the Sterling participants, must be discounted for the reason we discussed above.[2/]

The most reasonable projection on this record, in our view, is that offered by PSC staff and the CPB. That joint forecasting effort is confirmed to some extent by the Sterling applicants' own forecasts in their 1979 State Energy Office submittal. Indeed, the applicants themselves

1/Appendix A, pages 3-6 depicts projected demand and supply for each of the Sterling participants as indicated by the company's forecast, the PSC/CPB forecast and the ESRG high and probable case forecasts.

2/See Appendix B which depicts several projected capacity surpluses and deficiencies for the Sterling-SNUPPs participants as a group.

state that the results of the PSC staff/CPB forecast "do not differ materially from those of the companies."[1/] The purpose of our inquiry then would best be served by primary reliance on the PSC Staff/CPB projections discussed in the PSC staff brief on rehearing. That forecast suggests that only half of the capacity represented by Sterling will be needed by the Sterling participants by the winter of 1992-1993, fully thirteen years from now.[2/] Thus, in view of this materially different need picture than the one we were confronted with in January, 1978, we must decide whether a sufficient basis continues to exist for a finding of public need for Sterling and, in addition, whether the existing need picture warrants any change in the balancing test we performed in January, 1978.

The relative remoteness of the forecast need for additional capacity has induced the parties to introduce a series of new arguments relative to the question whether the certificate should be vacated or reinstated. Arguing in favor of reinstating the certificate even in the face of the remoteness of the need for additional capacity, the applicants argue that installation of the plant earlier than absolutely required to meet projected capacity deficiencies will result in net savings (in spite of the cost of carrying the excess capacity) for two reasons. First, the operating cost of the proposed facility will, they contend, be much less than the operating cost of existing oil-fired plants so consumers will realize an operating cost savings for the duration of the excess capacity period. Second, the construction cost escalations that will make a plant completed in the late 1980's less expensive than an identical plant completed in

1/Referring to the 1979 SEO forecast of the Sterling participants.

2/We observe also that this forecast of electric peak demand is generally consistent with the projection of an electric peak demand growth rate of 1.8% to 1.9% per year which has been tentatively adopted, at the time of this writing, by the New York State Energy Planning Board.

the early 1990's will, they assert, be avoided, resulting in a capital cost savings.

The Sterling opponents generally maintain that the alleged cost savings attendant to early installation are speculative. PSC staff argues that the cost studies are out of date, not related specifically to the Sterling participants, and ignore cost escalations that nuclear plants constructed after the Three Mile Island accident may experience. In response to the criticisms, the Sterling participants have pointed out that the dollar savings from an early installation plan are in the billions (over the life of the plant); that the studies did not recognize recent OPEC price increases, higher import duties, and Federal taxes from the National Energy Act that would make the savings even greater; and that design changes resulting from the Three Mile Island investigation are likely to be limited to controls and instrumentation (rather than structure or system design) so those cost increases can be expected to be relatively small.

Citing policy statements by both President Carter and Governor Carey, the Sterling participants also observe that reduced dependence on foreign oil is a major public policy priority. New York's dependence on generating facilities fueled with imported oil makes it especially vulnerable to interruptions or price increases from arbitrary actions by foreign powers. Early installation and operation of an 1150 MW base load non-oil generating facility would, they assert, displace oil-fired generation consuming 500 million gallons of oil annually.

The Sterling opponents point out that a decision to build Sterling to meet future capacity requirements necessarily forecloses implementation of other plans to meet the same capacity requirements. If the decision results in early installation, the loss of alleged benefits of alternatives

is seen as being particularly unfortunate. PSC staff argues that there is a "current flux in technologies," and recommends that the Sterling application be denied. Staff further suggests that the Sterling application could be refiled from scratch at some future date pursuant to "the Article VIII currently in force."

DEC staff concludes that since no justification has been offered to support licensing this plant in the 1980's on a basis other than need for additional capacity, and in the absence of such a need in the 1980's, "Applicant has lost." As an alternative approach, DEC favors reopening this case for further evaluation of alternative facilities already in the record. CPB is partial to construction of 400 MW coal-fired units instead of Sterling. Other parties indicate their sympathy for a generation expansion plan that would rely exclusively on renewable energy sources (solar, wind, biomass) but no specifics on availability, reliability, cost or impact are provided.

CONCLUSION

At the outset, we should make it clear that, absent a strong justification for licensing a plant on a basis other than need for additional capacity, we would consider it extraordinary to certify, in early 1980, construction and operation of a generating facility only half the capacity of which would be required thirteen years hence. The record here demonstrates that a seven and one-half year construction period would be required to complete the Sterling-SNUPPS facility. Even adding a reasonable amount of time to account for possible litigation delay after Board licensing, construction delays in addition to those already factored into the plant construction cycle and

Six years to date!

a margin for forecasting error, we think it would clearly be premature to certify a plant at this time whose full capacity was not expected to be needed to meet reserve margins of the participating utilities until the mid-1990's.

We conclude that public need for the additional capacity represented by the Sterling-SNUPPS facility has not been adequately demonstrated by the applicants and that the immediacy of the need for the additional capacity represented by this application, when considered in light of the facility's environmental and economic costs and impacts and other pertinent considerations, fails to support a finding that the facility is in the public interest.

The Sterling participants are correct in their observation, made numerous times in their briefs, that flexibility in generation planning is required over and above the arithmetic summing up of available supply and demand forecast figures. But in view of the costs and impacts of the proposed facility, there is surely a limit to the bounds of reasonable planning flexibility. And we think the Sterling applicants ask too much of us here. An analysis of their contentions make it plain that, given the demand forecast we adopt, we would have to build redundant contingencies into the planning horizon, beyond those we think would be reasonable for weighing the immediacy of the need for this facility against its attendant costs and impacts, in order to justify certification of the plant. First, we should allow a number of years for the utilities to, in effect, grow into the plant's full capacity. We recognized the propriety of that planning contingency in our original opinion and we agree that sound decisionmaking should take it into account. But, given the demand projections we think most reasonable, an affirmative certification decision at

this time would require that we provide for another span of years to account for possible forecasting errors and a period of post-Board decision judicial review. We believe a planning "window" extending three years beyond the scheduled in-service date of the generating unit being reviewed--in this case, one ending in 1991--will provide sufficient flexibility to plan for reasonable contingencies. And it is plain from the PSC/CPB forecast that we adopt as most reasonable for our decisional purposes here, that the Sterling participants will not require enough additional capacity to warrant construction of a unit the size of Sterling until a date beyond the outer limit of a reasonable planning period for a certification decision in early 1980. Unlike the case before us in January, 1978, where virtually the full capacity of the plant appeared to be needed by the applicants at the end of the planning period, capacity deficiencies here only begin to develop by 1991. Such a demonstration is too remote and uncertain to sustain a finding of public need for the facility and a finding that the facility would be in the public interest considering the immediacy and totality of the needs of the people of the State and other pertinent factors.[1/]

We also find unpersuasive the arguments advanced by the applicants that construction and operation of Sterling-SNUPPS earlier than required to meet projected capacity deficiencies would be justified. There has been no showing in this record--indeed, the applicants refused our earlier invitation to come forward with such an analysis--

1/Since we are unable to find a basis for public need on the part of the applicants for the additional capacity represented by Sterling-SNUPPS within the time frame of our analysis, it is not necessary to reexamine the consistency of the facility with the long-range planning objectives for an economical and reliable electric system in the State. There are, as we indicated earlier in this Opinion, a number of applications pending final Board action and tentatively certified that may be well suited to meet any statewide need for capacity in the 1990's in light of our need finding here.

that would adequately support a finding of public need on the basis of projected economies of early construction. The statements and data belatedly supplied by the applicants in their May 22, 1979 brief allegedly demonstrating the economic advantages of early installation of this facility are either based upon studies performed many years ago which are of questionable current validity or upon inadequately tested evidence in other cases submitted for purposes other than to support a finding of public need for Sterling-SNUPPS.

Applicants' oil displacement argument has considerable merit, largely because of the unassailability of its premise--reducing the dependence of New York State and the nation on imported oil. But, again, a sufficient demonstration has not been made on this record that would support a finding of public need for the construction of this nuclear generating unit for oil displacement purposes.

We conclude, for these reasons, that there is insufficient basis for a finding of public need for the Sterling-SNUPPS facility extant in this record and that the need for additional capacity demonstrated here is too remote to support a finding that the facility would be in the public interest, considering all pertinent factors, including the timeliness of need. Because Section 146 of the Public Service Law requires such findings to enable us to grant a certificate for the construction or operation of a major steam electric generating facility, we must vacate the certificate we issued to applicants in January, 1978 and deny the application.

Some further observations seem desirable in light of this decision. First, it is not clear that we could have now authorized a reinstatement of the authorizations granted in the original certificate in light of the impact of the

changed need situation on the complex balancing test that we performed at that time, even if we were persuaded that proper contingency planning to meet projected capacity deficiencies justified a finding of public need at this time for the capacity represented by Sterling-SNUPPS. For example, the current remote and uncertain need raises legitimate new questions, among them, whether the coal-fired facility proposed here as an alternate might not have been a better planning vehicle to satisfy such a need. That type of plant, with its shorter construction cycle and smaller capacity, would seem to provide greater flexibility in attempting to meet capacity deficiencies that are genuinely uncertain to develop than would a large nuclear generating station. In addition, our original analysis was based on costs, impacts and alternatives of a nuclear facility built in the early 1980's. Many of these factors appear to have changed materially since then; enough so that further consideration of updated data would likely have been required before certification could have been reinstated.

Moreover, intervening events beyond the question of demand forecasts have again altered many of the assumptions upon which we based our earlier decision. The majority that voted to certify the Sterling-SNUPPS generating facility placed great weight on a policy declaration made at that time that the Federal government intended to resolve promptly the remaining technology and policy uncertainties surrounding spent nuclear fuel storage and disposal. In fact, the majority explicitly relied upon that Federal undertaking in assessing the health and safety risks of the nuclear fuel cycle when comparing the coal and nuclear modes that were offered as alternatives. In the intervening two years, the Federal government has not fulfilled that promise. The

nuclear waste problem still remains in virtually the same unresolved status that was an important factor in the decision of two of the Board members to dissent from the majority opinion in January, 1978 granting a certificate for the construction and operation of the Sterling-SNUPPS facility. Clearly, that question would have to be reconsidered fully before we could consider reinstating the authorizations granted in January, 1978, even if we could find that a generating facility was needed.

Of course, it is impossible to discuss a license for a nuclear generating station without mentioning the Three Mile Island accident and its ramifications on this mode of electric generation. We have taken notice of and reviewed the Kemeny Commission Report on this incident in light of the responsibilities placed upon us by Article VIII of the Public Service Law. We concluded from that review that the cost, safety and timing implications of Three Mile Island on construction of the proposed Sterling plant would have to be evaluated either by additional comments or further hearings before a certificate for the facility could be reinstated, even if a finding of public need for the Sterling plant had been clearly established.

In conclusion, we wish to make it clear that nothing in this decision is meant to suggest that a majority of this Board is persuaded that a nuclear generating plant--including Sterling-SNUPPS--cannot be certified in New York State at some time in the future. It may well be the case that the nuclear waste disposal problem can and will be resolved soon by the Federal government and that the Federal government will take the requisite executive and regulatory actions promptly to restore public confidence in nuclear generation. And we urge that these issues be given immediate and decisive

attention by the Federal government so that nuclear energy can be relied upon, as it may well need to be, to meet New York State's energy needs in the 1990's. But these issues are somewhat beyond the immediate question of the Sterling-SNUPPS certificate. We conclude, for the reasons discussed above, that the certificate granted in January, 1978 must be vacated and the application for a certificate denied.[1/]

The Board on Electric Generation Siting and the Environment for Case 80005 orders:

1. The certificate of environmental compatibility and public need granted pursuant to Article VIII of the Public Service Law to Rochester Gas and Electric Corporation on behalf of itself, Orange and Rockland Utilities, Inc., Central Hudson Gas and Electric Corporation and Niagara Mohawk Power Corporation for the construction and operation of an 1150 MW standardized nuclear plant on the Sterling site in the Town of Sterling, Cayuga County, by Opinion and Order of this Board issued January 11, 1978 is vacated and the application for such a certificate is hereby denied.

2. All pending requests, motions and petitions filed in this proceeding and not yet acted upon are denied except to the extent granted in this Order.

3. This proceeding is closed.

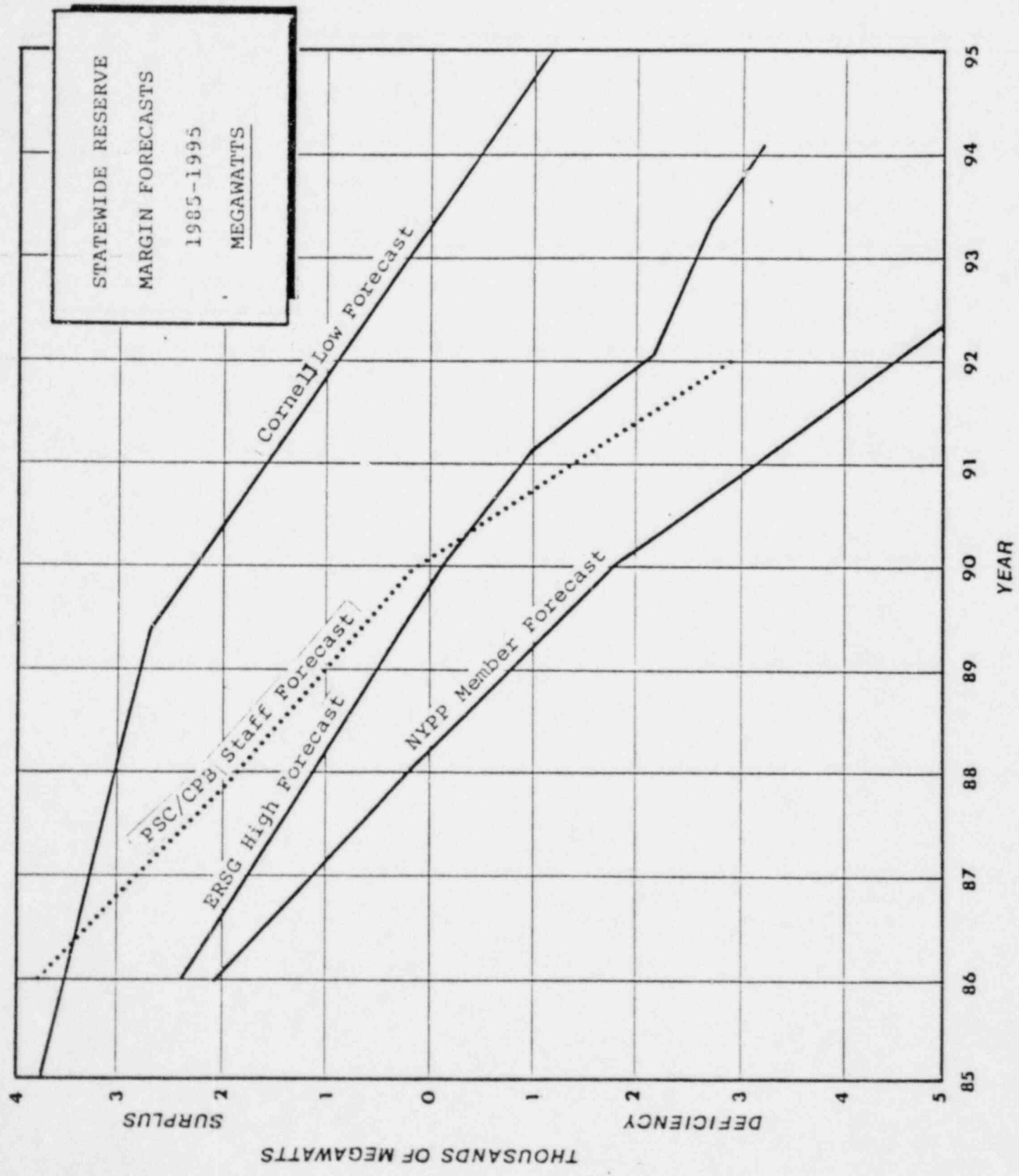
By The New York State Board
On Electric Generation Siting
And The Environment - Case
80005,

(SIGNED) SAMUEL R. MADISON
Secretary to the Board

1/ In recognition of the fact that a considerable investment has been made in this application by the participating utilities and because the dynamic nature of many of the variables in the energy supply and demand formula, we think it would make good sense for the applicants to preserve as much as possible of this application and evidence in this proceeding for possible future use in another application.

STATEWIDE RESERVE MARGIN FORECASTS 1990-1995

	1990	1991	1992	1993	1994	1995
Available Capacity (From Appendix E)	32,485	31,444	31,274	31,071	30,911	30,911
Peak Forecasts						
NERA (SEO Report)	29,259	30,030	30,820	31,630	32,465	
Pool						
High (Probable + 8%)	30,283	31,028	31,752	32,530	33,361	
Probable (1979 SEO Report)	28,040	28,730	29,400	30,120	30,890	
Low (Probable - 8%)	25,797	26,432	27,048	27,710	28,419	
DPS/CPB Staff (C.27319, Exh.85)	26,706	27,279	27,874	28,459	29,057	
ESRG (C. 27319, Exh.62)						
High	26,722	27,039	27,342	27,638	27,898	
Probable	24,376	24,529	24,669	24,795	24,906	
Low	21,996	21,987	21,966	21,933	21,831	
Cornell Group (C.27319, Exh.95)						
High	25,333					27,648
Low	24,340					26,352
SEO Staff (Draft SEO Plan)	27,007		28,071		29,336	
Capacity Requirement (Peak + 22%)						
NERA	35,696	36,637	37,600	38,589	39,607	
Pool						
High	36,945	38,074	38,519	39,686	40,700	
Probable	34,209	35,051	35,868	36,746	37,866	
Low	31,472	32,247	32,998	33,806	34,671	
DPS/CPB Staff	32,581	33,280	34,006	34,720	35,450	
ESRG						
High	32,601	32,988	33,357	33,718	34,036	
Probable	29,738	29,925	30,096	30,250	30,385	
Low	26,835	26,824	26,799	26,758	26,634	
Cornell Group						
High	30,906					33,731
Low	29,685					32,149
SEO Staff	32,949		35,015		35,790	
Forecast Reserve Margin Surplus/(Deficiency)						
NERA	(3,211)		(6,326)		(8,696)	
Pool						
High	(4,460)		(7,245)		(9,789)	
Probable	(1,724)		(4,594)		(6,785)	
Low	1,013		(1,724)		(3,760)	
DPS/CPB Staff	(96)		(2,732)		(4,534)	
ESRG						
High	(116)		(2,083)		(3,125)	
Probable	2,747		1,178		526	
Low	5,650		4,475		4,277	
Cornell Group						
High	1,579					(2,820)
Low	2,790					(1,248)
SEO Staff	(464)		(3,741)		(4,879)	


STATEWIDE RESERVE
MARGIN FORECASTS
1985-1995
MEGAWATTS
Cornell Low Forecast
PSC/CPB Staff Forecast
ERSG High Forecast
NYPP Member Forecast
SURPLUS
DEFICIENCY
THOUSANDS OF MEGAWATTS
YEAR
4
3
2
1
0
1
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3
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85
86
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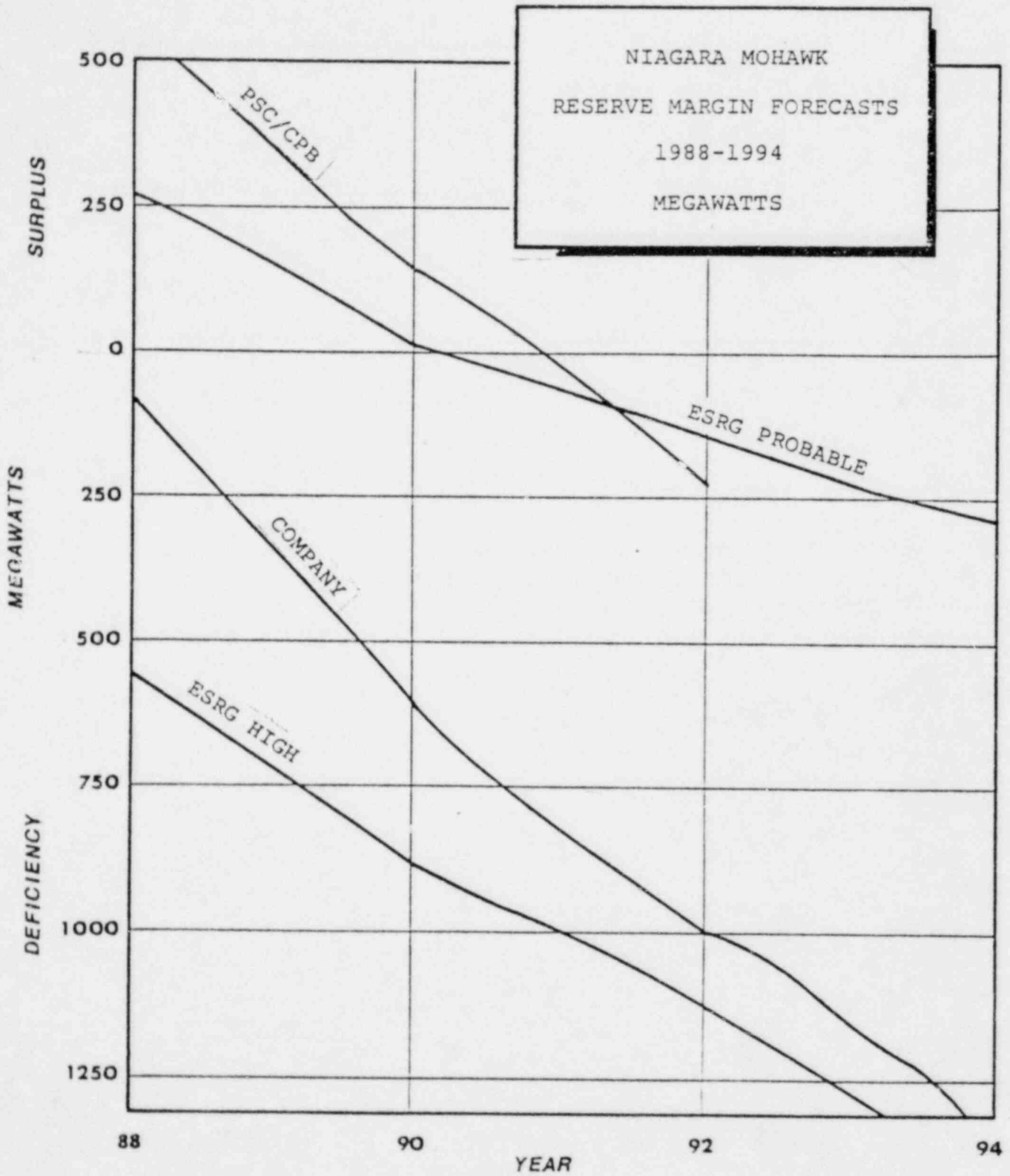
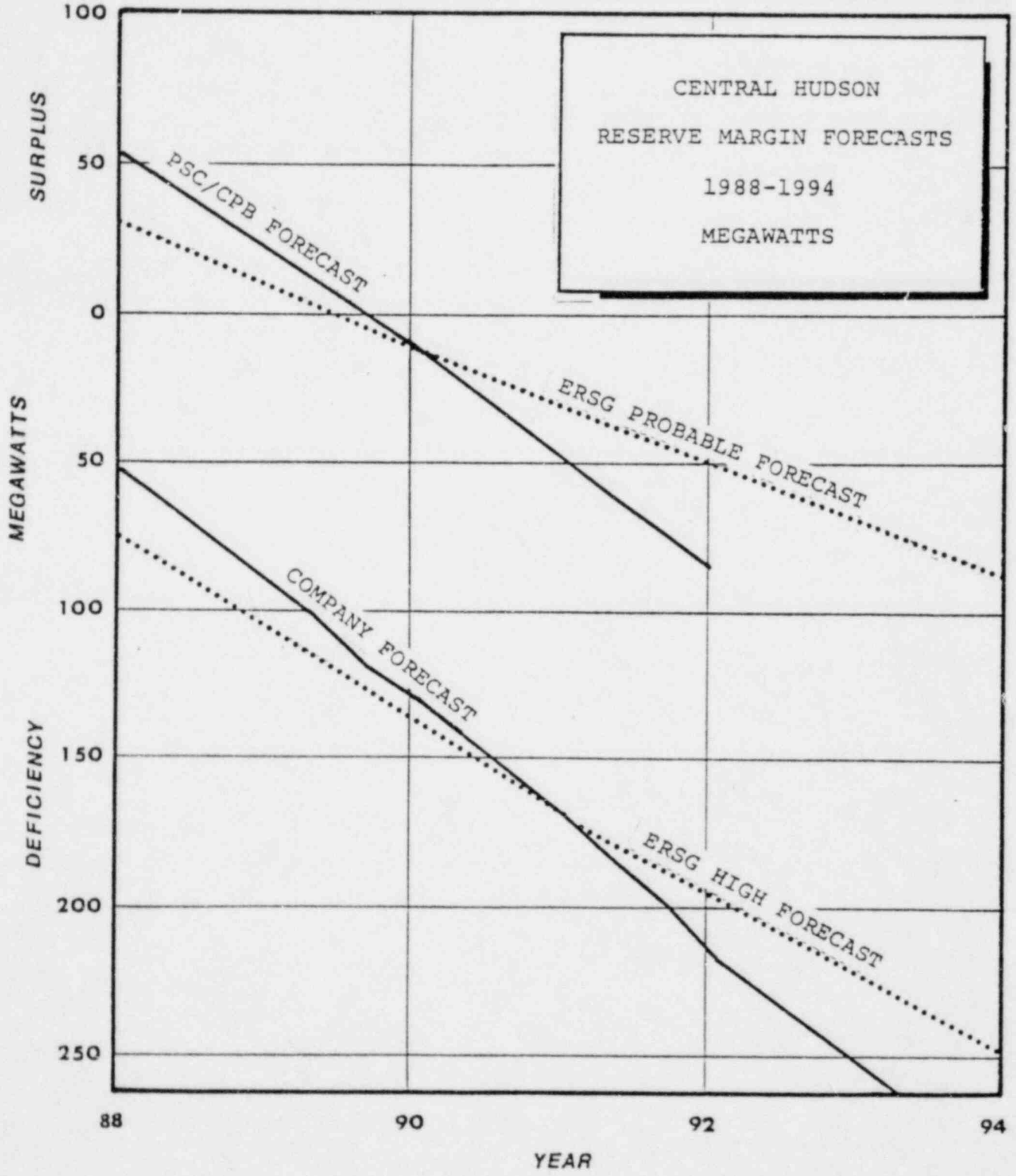

NIAGARA MOHAWK
RESERVE MARGIN FORECASTS
1988-1994
MEGAWATTS
500
250
0
250
500
750
1000
1250
SURPLUS
MEGAWATTS
DEFICIENCY
PSC/CPB
ESRG PROBABLE
COMPANY
ESRG HIGH
88
90
92
94
YEAR


CENTRAL HUDSON
RESERVE MARGIN FORECASTS
1988-1994
MEGAWATTS
PSC/CPB FORECAST
ERSG PROBABLE FORECAST
COMPANY FORECAST
ERSG HIGH FORECAST
SURPLUS
DEFICIENCY
MEGAWATTS
100
50
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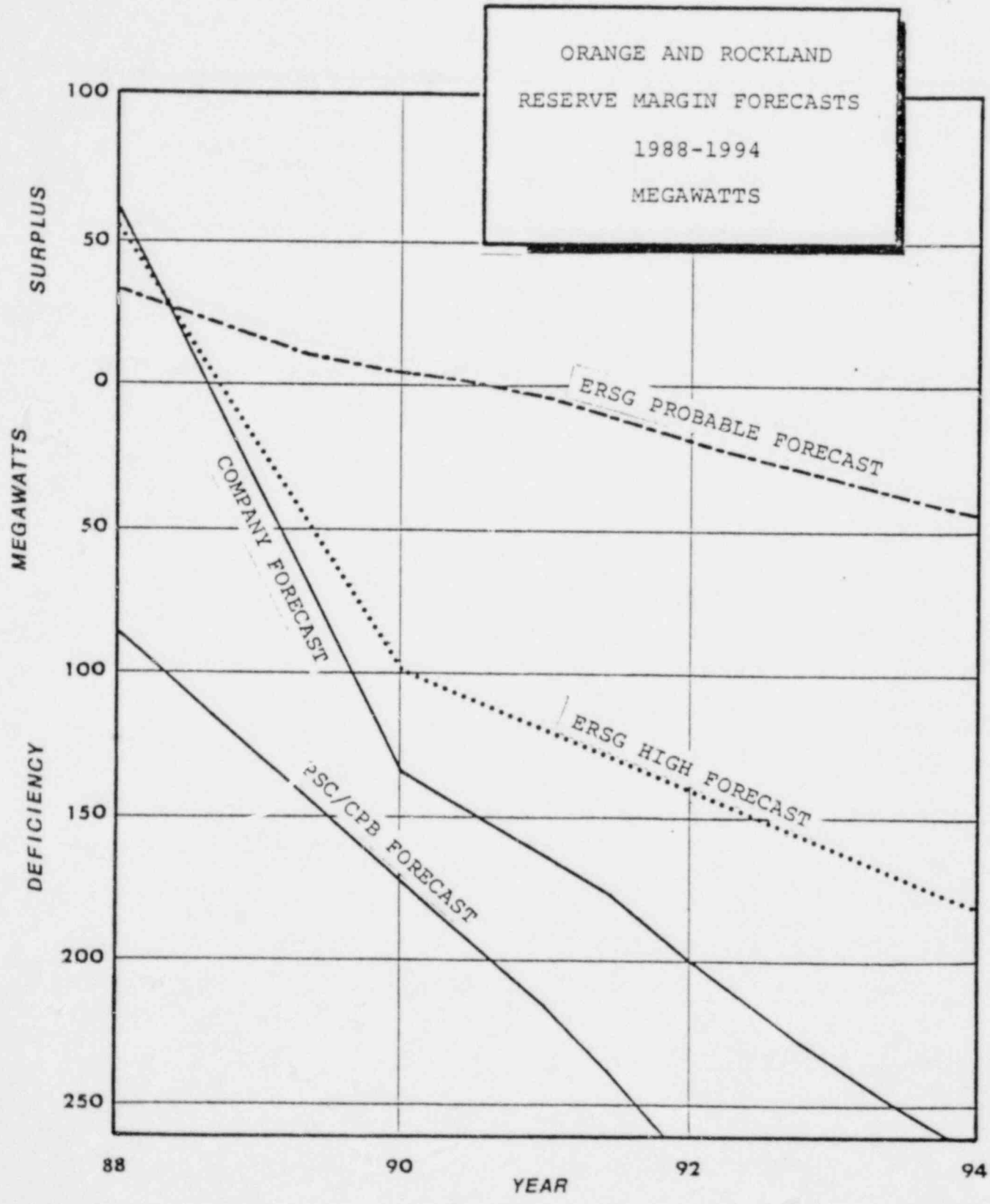
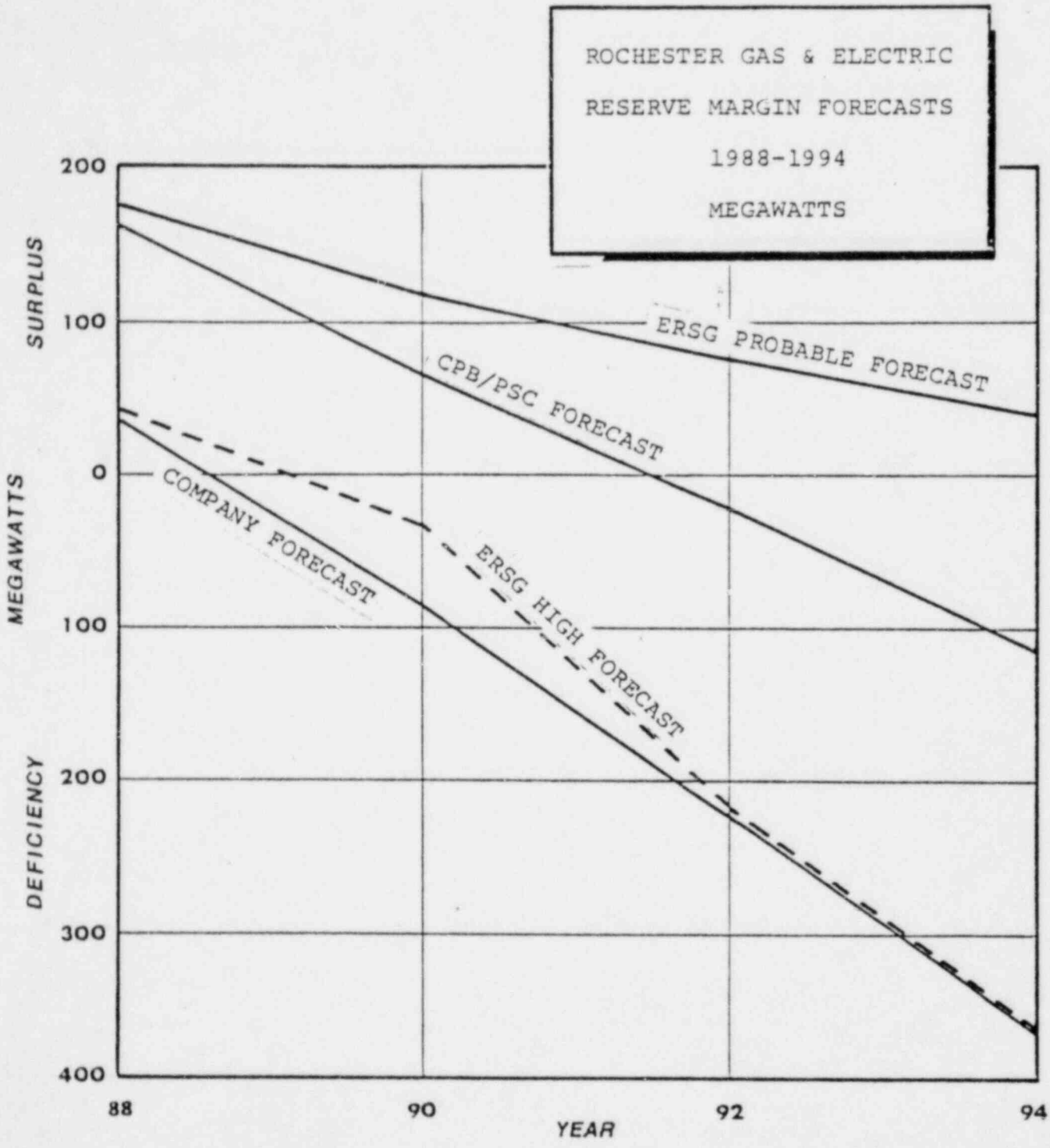
150
200
250
88
90
92
94
YEAR


ORANGE AND ROCKLAND
RESERVE MARGIN FORECASTS
1988-1994
MEGAWATTS
MEGAWATTS
SURPLUS
DEFICIENCY
100
50
0
50
100
150
200
250
88
90
92
94
YEAR
ERSG PROBABLE FORECAST
COMPANY FORECAST
ERSG HIGH FORECAST
PSC/CPB FORECAST


ROCHESTER GAS & ELECTRIC
RESERVE MARGIN FORECASTS
1988-1994
MEGAWATTS
200
100
0
100
200
300
400
SURPLUS
MEGAWATTS
DEFICIENCY
ERSG PROBABLE FORECAST
CPB/PSC FORECAST
COMPANY FORECAST
ERSG HIGH FORECAST
88
90
92
94
YEAR

STERLING-SNUPPS PARTICIPANTS CAPACITY SURPLUS/DEFICIENCY*

	1985		1986		1987		1988		1989		1990		1991		1992	
	S	W	S	W	S	W	S	W	S	W	S	W	S	W	S	W
Per Original Board Decision**	(424)	(632)	(906)	(1109)	-	-	-	-	-	-	-	-	-	-	-	-
Per 1978 ç 149-b Report of New York Power Pool (Case 27319)	567	417	118	46	(228)	(379)	(632)	(816)	(1069)	(1262)	(1509)	(1726)	(1957)	(2153)	(2376)	(2581)
Per Staff in Case 27319	1782	1716	1457	1471	1246	1173	983	891	704	601	416	303	126	10	(174)	(308)
Per 1979 New York Power Pool Filing to Energy Office	267	943	684	141	226	148	(112)	(187)	(439)	(547)	(782)	(874)	(1127)	(1189)	(1447)	(1499)
Per Staff Brief on Rehearing-Case 80005	1062	1763	1539	1353	1092	1009	820	718	532	384	200	52	(106)	(242)	(425)	(572)

*Excludes uncertified facilities; includes Nine Mile Point No. 2 and Hydro additions for Niagara Mohawk Power Corporation as projected by New York Power Pool's 1979 filing to the Energy Office.

**Low end of the range given in the decision.

STATE OF NEW YORK
BOARD ON
ELECTRIC GENERATION SITING AND THE ENVIRONMENT

CASE 80005 - Application by Rochester Gas and Electric Corporation on behalf of itself, Orange and Rockland Utilities, Inc., Central Hudson Gas & Electric Corporation and Niagara Mohawk Power Corporation for a certificate of environmental compatibility and public need to construct an 1150 MW standardized nuclear power plant in the Town of Sterling, Cayuga County, New York.

DR. WILLIAM E. SEYMOUR, Alternate for William D. Hassett, Commissioner, Department of Commerce, dissenting:

This Board has reopened this proceeding for the purpose of reexamining and refining the applicants' need for capacity. I believe that the applicants have demonstrated a public need for the additional capacity represented by the Sterling-SNUPPS facility and that the need is sufficiently immediate to warrant reinstituting the authorizations granted in our original decision. It seems clear to me that a need has been shown by the utilities for substantial amounts of additional capacity in the early 1990's and that, given the length of time required for construction of the plant, including a reasonable allowance for unanticipated delays, issuance of a certificate at this time would provide a reasonable construction schedule and satisfy capacity needs within the same time frame.

I have also carefully reviewed the Kemeny Commission report. I discerned from that review that any plant equipment modifications and retrofits required to provide necessary additional protection could be accomplished within the

contemplated Sterling-SNUPPS construction schedule in a time frame that would permit the Sterling facility to meet the capacity needs of the 1990's.

I, therefore, dissent from the decision of my colleagues to vacate the certificate and deny the application.