

POOR ORIGINAL

1980 ANNUAL REPORT

Nebraska Public Power District

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POWER BRIDGE

About the cover...

NPPD's generating capability has steadily been moving toward maximum use of coal, a low cost and available fuel source. The percentage of electricity that can be generated by coal on NPPD's system has increased from 20 percent in 1975 to 48 percent in 1980. The 650,000 kilowatt Gerald Gentleman Station Unit No. 1 is Nebraska's largest coal-fired generating unit. Upon completion of Unit No. 2, the Station will be the state's largest producer of electric energy.

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The Nebraska Public Power District's **Board of Directors**

The Nebraska Public Power District is a public corporation and political subdivision of the State of Nebraska. Control of the District and its operations is vested in a Board of Directors, consisting of 11 members popularly elected from districts comprising subdivisions of the District's chartered territory. These districts encompass 85 of the state's 93 counties and portions of two other counties. The District has the power, among other things, to acquire, construct, and operate generating plants, transmission lines, substations and distribution systems and to purchase, generate, distribute, transmit and sell electric energy, both at wholesale and retail, for lighting, power, heating and other sources. Management and operation of the District is accomplished with a staff of more than 2,000 persons.

OFFICERS:

Bernard M. DeLay, **President**

George H. Barber, **First Vice President**

Henry D. Kosman, **Second Vice President**

James W. Orr, **Secretary**

Fred A. Herrington, **Treasurer**

Durwood W. Hill, **General Manager**

Theodore M. Kyster, **Assistant Treasurer**

Robert D. Malmstrom, **Controller**

Janet H. Carmichael, **Assistant Secretary**



H. Jackson Cary



Ralph E. Holzfaster

Newly Elected Board Members

In November, 1980, two new members were elected to the Board of Directors succeeding Dr. R. M. Gilmore of Kearney and James W. Orr of North Platte. The two new directors, whose terms began in January, 1981, are H. Jackson Cary of Kearney, a farmer-livestock feeder, and Ralph E. Holzfaster of Paxton, a farmer-agribusinessman.



Leslie Scott Taylor York Businessman-Salesman	George W. Knight Lincoln Businessman	Jules W. Burbach Hartington Grain Elevator Owner-Operator	Fred A. Herrington Lincoln State Tax Commissioner	Dr. R. M. Gilmore Kearney Dentist	Ralph J. Lubeck Stamford Farmer-Livestock Feeder
Geo. H. Barber Beatrice Electrical Contractor	Henry D. Kosman Scottsbluff Banker	David L. Duren Columbus Certified Public Accountant	Bernard M. DeLay Norfolk Banker	James W. Orr North Platte Businessman	

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A message from the **Board of Directors**

Despite rising costs and continuing conservation efforts, we have every indication that energy loads and peak demands on our system are going to grow at a faster rate than that which is being projected by many electric utilities in our region and throughout the country.

Primarily this is because Nebraska is an agricultural state where the effects of a recessionary period are not so severe, and where there is growth potential for irrigation and automated, labor-saving livestock and grain handling equipment.

Our Planning Department is projecting a weather normalized effective annual compound growth rate of 4.4 percent from 1980 through 1990 in the summer peak demand and an energy sales effective annual compound growth rate of 3.5 percent during the same time frame.

Thus, we have had to concentrate much of our deliberation on a variety of options to meet future load growth requirements realizing that if our projections are accurate, we will continue to experience periodic deficiencies on our system without proper planning.

Despite the fact that energy sales for the year were lower than anticipated, District customers recorded one of the largest percentage increases in peak demand on record. Emphasizing the direct relationship between the weather and our power and energy sales, the unusually hot and dry summer resulted in a record native load peak demand on our system of 1,719,800 kilowatts which was 9.7 percent higher than the previous peak of 1,567,300 kilowatts set in August of 1979. On the other hand, unusually mild winter temperatures both in the early and latter parts of the year were responsible for an increase in energy consumption of only seven tenths of one percent, for the year.

The District announced during the year that our Gerald Gentleman Station Unit No. 2 generating plant near Sutherland is expected to begin operation in 1981 with more than \$100 million remaining in the construction account. Current estimates indicate the plant will be constructed at approximately \$52.7 million under the budget and there will be an additional \$48.1 million due to a reduced cash flow and resulting interest income, and a determination that supplemental cooling costing \$18.6 million will not be required.

Knowing full well that we will not need both the proposed MANDAN transmission line to Canada and the coal-fired Fossil III plant in Custer County for new major sources of power and energy in the 1980s, we continued side-by-side planning for these two facilities until it could be determined which would be the most economical on a timely basis.

Early in 1981 we agreed with management's recommendation that we delay activity on the coal plant and concentrate our efforts on MANDAN.

Increasing electric rates is one of the least pleasant responsibilities of a utility and having to increase rates beyond what had been expected is even more difficult.

No one likes to pay higher prices for anything — even something as vital as electric energy. The fact is, however, a combination of unforeseen events happened to the District during 1980. In addition, the current inflationary spiral has and will continue to result in higher costs for fuel, labor, material and supplies. The combination of these factors forced us to raise rates effective in 1981 in order to meet the District's financial obligations.

Blade problems in the high pressure turbine at the Gerald Gentleman Station Unit No. 1 coal-fired generating plant near Sutherland and disc cracking in the low pressure turbine at the Cooper Nuclear Station near Brownville forced a reduction in the energy output of those two low-cost generating facilities and required us to make temporary modifications to certain plant equipment.

We had to replace some lost generation from the Sheldon Station coal-fired plant near Hallam when one of that plant's units was forced off the line for a time due to the failure of a large transformer. There also was the cost of replacing the transformer.

We purchase some electricity from the Omaha Public Power District's new Nebraska City coal-fired plant and our rate-making process failed to include all the costs which were incurred at that plant and at our new Gentleman Station Unit No. 1.

This failure was partially due to inexperience with the start-up of such large generating facilities. These costs included fuel oil for start-up of the boiler, operational costs and maintenance costs.

In the aftermath of the Three Mile Island nuclear incident, we were required to spend additional dollars for safety features at our nuclear plant during the year. Unanticipated operation and maintenance costs to meet environmental standards, such as those for electrostatic precipitators at Gentleman and Sheldon Stations, continue to be a major drain on our revenue.

Our retail and wholesale customers used less kilowatt-hours of electricity than had been anticipated due to the milder than normal weather. This resulted in our revenue being considerably below what had been budgeted.

All of these unusual events created the requirements for additional dollars but, unfortunately, no utility is capable of precise budgeting for the unexpected type of costs that beset us during 1980.

Although inflation is continuing to make a shambles of the budget, we did make substantial cuts in the 1980 and 1981 budgets. This includes such areas as administration, transportation and construction and we are going to continue doing everything we can to offset the unexpected costs, short of losing reliability.

We look to the future with confidence realizing that our decisions must be conscientiously scrutinized to assure that the tradition of adequate electric energy at the lowest possible cost will be perpetuated.

Wokman *Earl H. Barber* *James W. Orr*
Les Taylor *David L. Duran* *Fred A. Heinig*
Jim H. Jay *Dr. Tom Gilmore* *George W. Knight*
Ralph J. Lubeck *Julius W. Bursbach*

Board of Directors

D. W. Hill



A message from the **General Manager**

Often it takes a bad situation to bring a family closer together. Realizing that 1980 was not a financially successful year for the District, this situation resulted, I believe, in a camaraderie among the management and staff that is unequalled in our history.

Likewise, our utility has developed a closer working relationship with the wholesale customers through a series of meetings and hearings during which we were able to detail our operational problems and our proposed solutions in an effort to prevent a repetition of our 1980 experiences.

A look back through 1980, however, reveals that we indeed accomplished much although we may have allowed ourselves to become disappointed in the face of a series of events over which we had little or no control. If we accentuate the positive it becomes readily apparent that 1980 was the type of year in which a growing utility, like ours, can be proud.

I am confident that we improved the operations of the District during the year. We completed an in-depth restructuring of top management which will result in improved accountability and efficiency. We also tightened up on certain policies in an effort to curtail as much as practical the types of spending that do not have a direct effect on service or reliability.

We are committed to operating a conservative but responsive utility and I am convinced that, in certain areas, we can still learn to get by with less during this continuing period of spiralling inflation.

To help us overcome the effects of deficit spending during 1980, management requested and our Board of Directors approved an "off-year" wholesale rate increase and a larger-than-anticipated retail rate increase to be effective January 1, 1981. Hopefully, the new rate base will enable us to operate in the black during 1981 and improve our overall financial position as we plan ahead to meet our obligations.

Continuing financial discussions with our wholesale customers, productive dialogue conducted during the rate hearing and a series of meetings throughout the state to explain the reasons prompting the rate increase certainly contributed to the widespread acceptance of the new rates. This is not to suggest that our customers liked the increase but at least they had a better understanding of the factors involved in setting rates.

A long-standing customer rate dispute that resulted in years of litigation was finally brought to a successful conclusion during 1980. In the spirit of compromise, we were able to settle differences with the City of Lincoln and I have every confidence in the decision to end the dispute made by our Board of Directors and management was the right one. There are always some who are critical of compromise but further delays would have added to the already exorbitant costs of negotiation, manpower and legal fees.

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Establishment of a statewide organization representing all electric utilities is an encouraging development that should result in cost savings for the utilities and their customers. Formation of the Nebraska Power Association (NPA) was accomplished in the spirit of cooperation befitting the nation's only totally public power state.

As one of the large key utilities in the new Association, we in NPPD management are excited about the renewed cooperative attitude among the large and small public entities. Major benefits include long and short term sales as well as exchanges of power and energy, participation in large generating units, joint planning and dispatching and a generally renewed sense of togetherness for the benefit of all.

NPPD has long experienced the results of utility cooperation. We continue to emphasize joint planning of future transmission and subtransmission facilities with our rural electric utility neighbors to minimize cost, avoid duplication and provide a sound basis for budget preparation.

Sixteen rural districts, who are also wholesale customers of NPPD, have formally agreed to perform long-range planning studies. During 1980, Seward County and Twin Valleys Rural Public Power Districts signed 10-year joint subtransmission plans, making a total of six rural districts that have formalized future plans with NPPD since 1977.

Additional cooperative ventures during the year included a service area agreement with Midwest Electric Membership Corporation and a service agreement with the City of Crete. Of course, no summary of 1980 teamwork ventures would be complete without a mention of the fraternal partnership that surfaced following the devastating tornado that bombarded the Grand Island area in June. Our utility sustained nearly \$300,000 in damages from that storm but even before all of our transmission work was cleaned up we pitched in, with a host of other utilities, to lend a helping hand to Grand Island in restoring service.

Almost before that job was finished we moved many of our personnel into the state's largest city to help the Omaha Public Power District restore service that had been interrupted by a series of wind and electrical storms.

We vividly remember the assistance many of these same utilities gave us when a portion of our system crumbled under the weight of a devastating snow storm in 1976. After all, we feel that is what public power is all about.

No review of 1980 would be complete without a mention of the American Public Power Association (APPA) award we were fortunate to receive during the year. The E. F. Scattergood System Achievement Award was presented to NPPD recognizing that through the earnest, coordinated efforts of a great number of employees, we improved service to our customer-owners, enhanced the prestige of and made a substantial contribution to the Association and to the public power industry nationally.

So, you can see that despite some problems during the year, we can temper those disappointments with pride. Without the support of the Board of Directors, we could not be doing the positive and constructive things we are doing. We are on a sound course for the future.

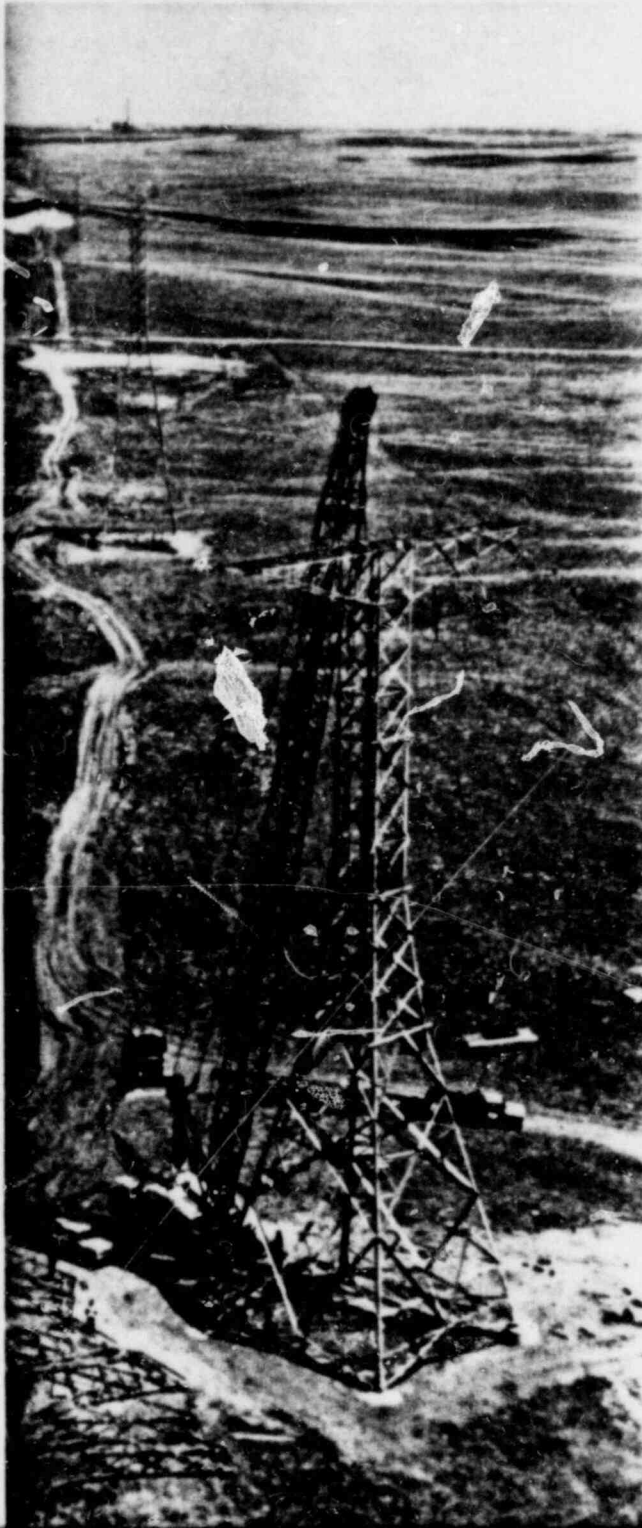
Dwight

General Manager

1980 in Review

Sales, Revenue and Expenses

Mild winter temperatures, a continuing program of urging energy conservation and increasing electric rates were primarily responsible for limiting total kilowatt-hour sales of electricity during 1980 to an increase of only seven-tenths of one percent over 1979. The increase was considerably less than the 9.8 percent jump from 1978 to 1979.



The year 1980 saw total kilowatt-hour sales of 8.32 million compared to 8.26 million in 1979.

However, customers set one of the largest summer-time peak demand increases in the District's history. A mid-summer hot and dry period resulted in a peak demand increase of 9.7 percent over 1979.

The peak demand increase exceeded the District's projected increase of 8.2 percent because of heavy irrigation and air conditioner use.

Electric system operating revenues in 1980 rose to a new high of \$241.7 million which is an increase of 7.57 percent over the 1979 figure of \$224.7 million. An increase in rates is primarily reflected in the larger operating revenues.

Electric System operating expenses amounted to \$249.9 million which represents an increase of 21.43 percent over 1979's figure of \$205.8 million.

There were significant increases in the cost of purchased power and such production costs as fuel, operation and maintenance.

Approximately 26.2 percent of the total kilowatt-hour sales of electric energy in 1980 was to retail customers and 73.8 percent was to wholesale customers.

The District is the largest electric utility in Nebraska.

Financing

The District issued \$80 million in notes for the power supply development program during the year. Accepted was the quotation of The First Boston Corporation of New York and its managers of a coupon rate of 8.25 percent and a net interest cost to NPPD and its ratepayers of 8.73 percent. The notes carry a two-year maturity date to May 1, 1982.

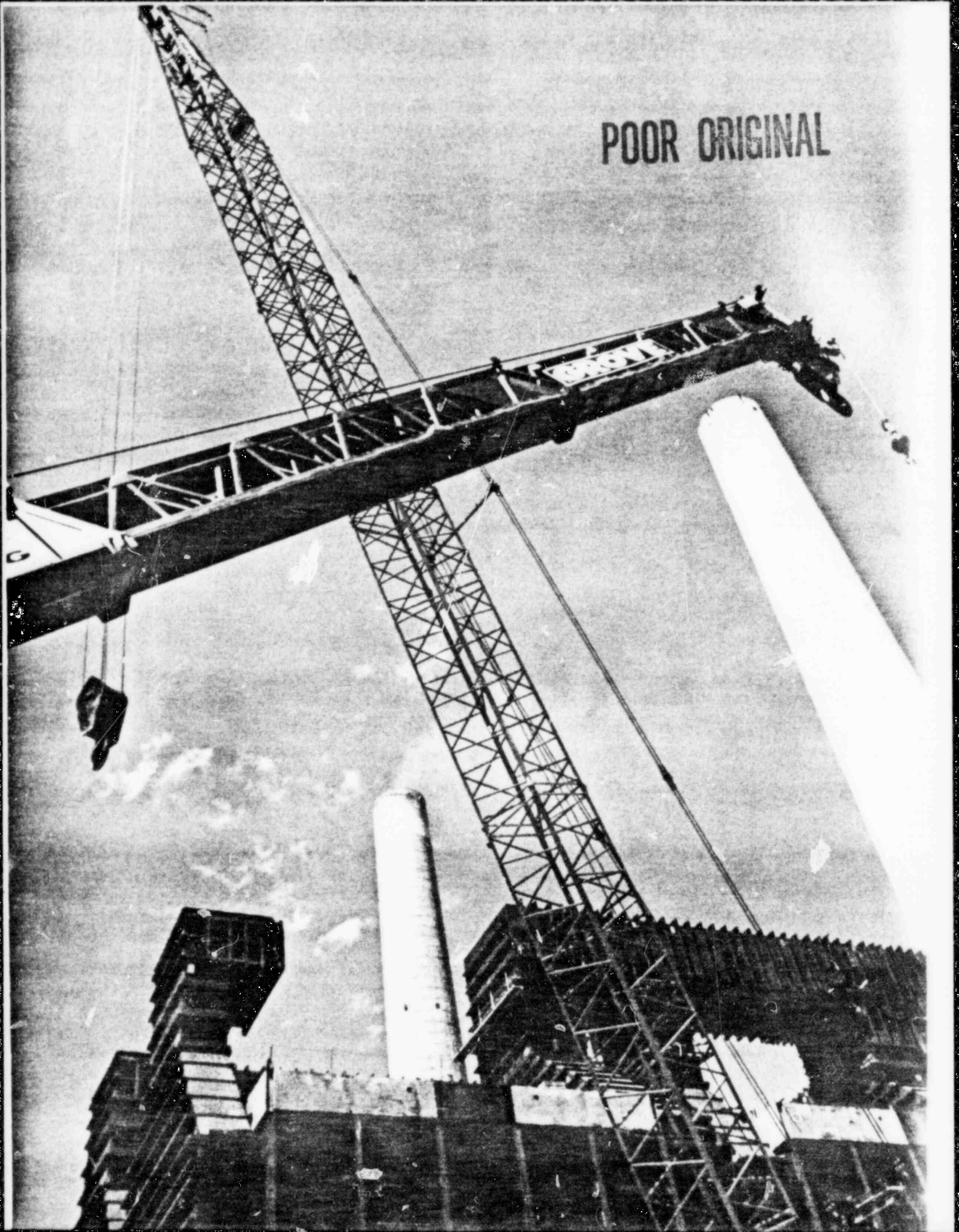
The notes will supply money for the District's ongoing power supply activities including the proposed coal-fired generating facility in Eastern Custer County and the MANDAN interconnection transmission line between Nebraska and Manitoba, Canada.

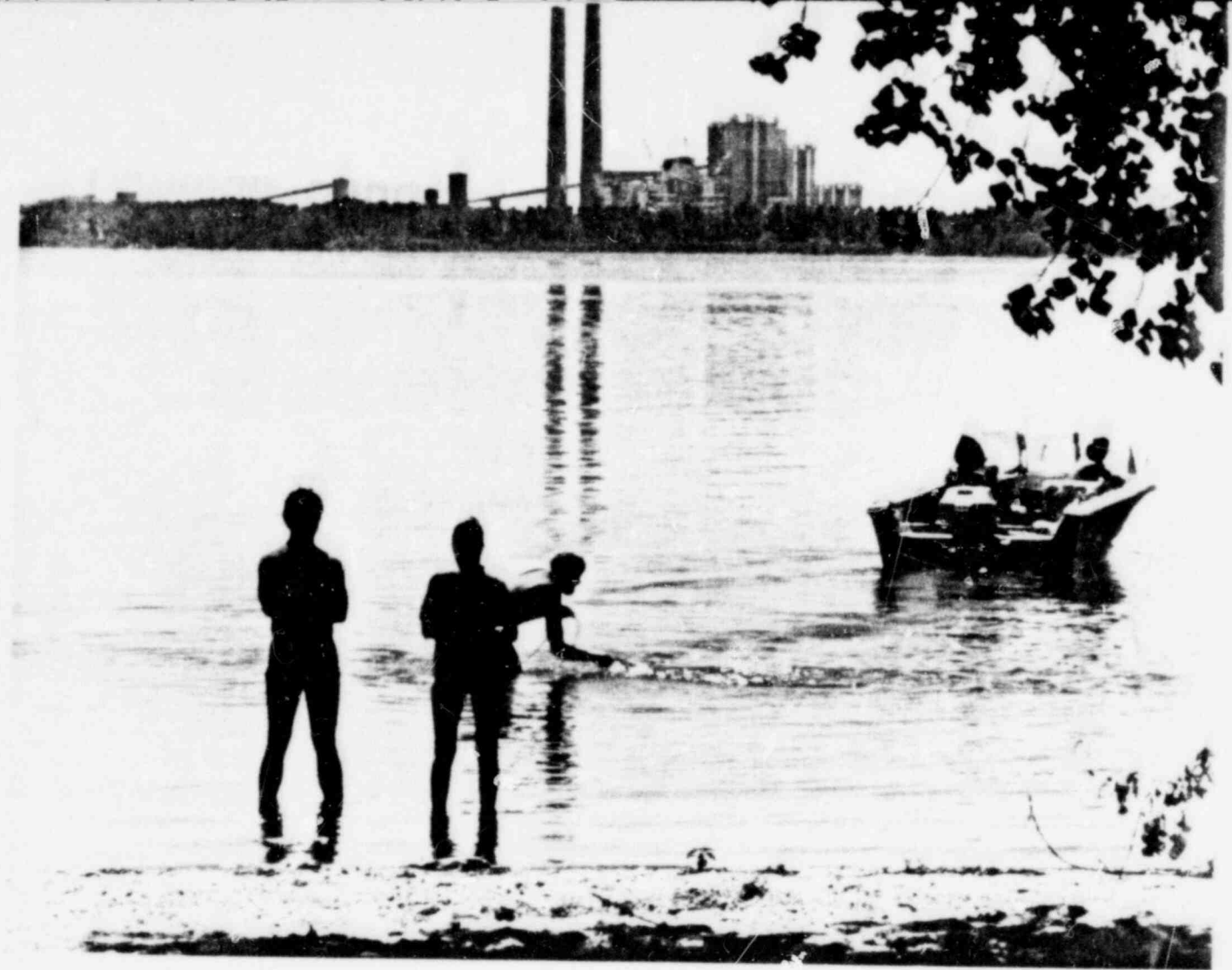
In August, the District approved a \$30 million revolving credit plan with Morgan Guaranty Trust Company of New York to provide working capital.

This was the first time NPPD has ever utilized a revolving credit arrangement to provide working capital. The need came about because of deficiencies in revenue caused primarily by curtailed purchases of electricity due to milder than anticipated weather, and higher than anticipated costs of purchased power resulting from mechanical problems at Gerald Gentleman Station Unit No. 1 and Cooper Nuclear Station.

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Gerald Gentleman Station Units No. 1 and 2

A financial analysis completed in September revealed that Gerald Gentleman Station Unit No. 2 near Sutherland will begin operation in 1981 with more than \$100 million remaining in the construction account.

Estimates indicate that the 650,000 kilowatt coal-fired power plant will be constructed at approximately \$52.7 million under the budget and there will be an additional \$40.1 million due to a reduced cash flow and resulting interest income. The financing surplus is a result of additional interest income due to high interest rates and it appears supplemental cooling costing \$18.6 million included in the financing figures will not be required.

Gentleman Unit No. 2 is now expected to cost \$287.9 million compared to the budgeted cost of \$340.6 million. Included in the revised cost is a contingency of \$16 million not only to cover unexpected expenditures for all items but also to cover a payment to public schools to alleviate financial impact.

Construction costs per kilowatt will be between \$458 and \$480 depending on the final generating capability of the facility. The District believes a 620,000 kilowatt net rating for the plant is conservative and a net output of

approximately 650,000 kilowatts is possible and would result in the lower cost per kilowatt.

Data compiled by the Electric Utility Cost Group (EUCG) reveals that even with the more conservative figure, the Unit will have a per-kilowatt cost below the average of other similar plants constructed in the same time frame in this region.

NPPD cooperated with the Nebraska Legislature in drafting legislation that is believed to remove the constitutional objections in allowing the District to assist public schools in alleviating the financial impact attributed to employment in connection with power plant construction. The Legislature approved the measure early in 1981.

Not included in the new estimate for Unit No. 2 is the cost of supplemental cooling which, if required, is estimated to cost \$18.6 million. The determination by the Nebraska Department of Environmental Control as to the need for additional cooling facilities will be made after the Unit goes into operation.

Temperature measurements taken during the operation of Unit No. 1 at the same site have shown that the

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actual impact of the heated water from the plant is less than predicted and, therefore, it is considered unlikely that additional cooling facilities will be required for Unit No. 2.

NPPD is officially looking toward a November 1, 1981, commercial operation date for Unit No. 2.

In late 1979, Unit No. 1 was taken out of service when unusually high vibrations were detected in the high pressure turbine. After the turbine was dismantled, it was discovered that approximately half of the first row of rotating blades were gone and the second and third rows were significantly damaged.

The turbine was shipped to Richmond, Virginia, where the manufacturer, Brown-Boveri Corporation, removed the first three rows of rotating blades and the first three rows of stationary blades. A pressure plate was installed as a temporary fix and the repaired turbine was returned to the plant site where it was put back in service. The temporary repairs caused a reduction in the output of the unit.

During the fall outage of 1980, the turbine was again returned to the manufacturer where the blades were reinstalled. At year's end, the Unit was operating at normal capacity.

In February, the District initiated legal proceedings in

Federal District Court relating to the construction of Unit No. 1. The suit was filed against National Industrial Constructors, Inc. (NIC), Austin Industries, Inc., both of Dallas, Texas, and Federal Insurance Company of New York City seeking damages to NPPD in an amount in excess of \$50 million plus interest and costs of the action.

The suit alleges that NPPD and its ratepayers were damaged by cost overruns, extra costs and the cost of replacement power due to the delay in the timely completion of Unit No. 1.

NIC is charged with breach of contract, negligence and misrepresentation and Austin Industries with failure to honor its guarantee, negligence and misrepresentation. Federal Insurance was the bonding company for the Unit's general constructor which was NIC. NIC is a wholly owned subsidiary of Austin Industries.

Almost immediately thereafter, NIC filed suit against NPPD in Nebraska's Lancaster County District Court asking about \$33 million in compensation for losses incurred during the delay which the suit contends was caused by NPPD's mismanagement. That action has since been stayed by court order.

The Unit began commercial operation April 2, 1979, several months behind its originally scheduled operational date.

The MANDAN Project

The District, as the lead U.S. utility in the MANDAN Project, moved ahead during 1980 to build the 500,000 volt AC transmission line which will link the Upper Midwest with Manitoba's hydro power resources.

NPPD filed a MANDAN Project corridor application with the North Dakota Public Service Commission in 1980, and in early 1981 filed a route application for the Project with the South Dakota Public Utilities Commission. Project staff members also took part in a number of public meetings and hearings across the Dakotas and in northeastern Nebraska to testify before regulatory agencies and to answer the public's questions about the Project. Landowners' comments obtained during the meetings are being used in routing the 600-mile line through the three states.

MANDAN (MANitoba, DAKota, Nebraska) will extend from near Winnipeg, Manitoba, to Hoskins, Nebraska. Participating summer and winter peaking utilities would benefit primarily from a seasonal exchange of power to meet the summer peak demands in the southern portion of the area and the winter peak loads in the northern areas. By using surplus generation in the off season for seasonal diversity exchanges, the need for new generating stations will be reduced. Utilities in North Dakota and South Dakota are studying the project to determine their interest in participating in the line.

Substations are planned in South Dakota and North Dakota and terminals will be built near Winnipeg and Hoskins.

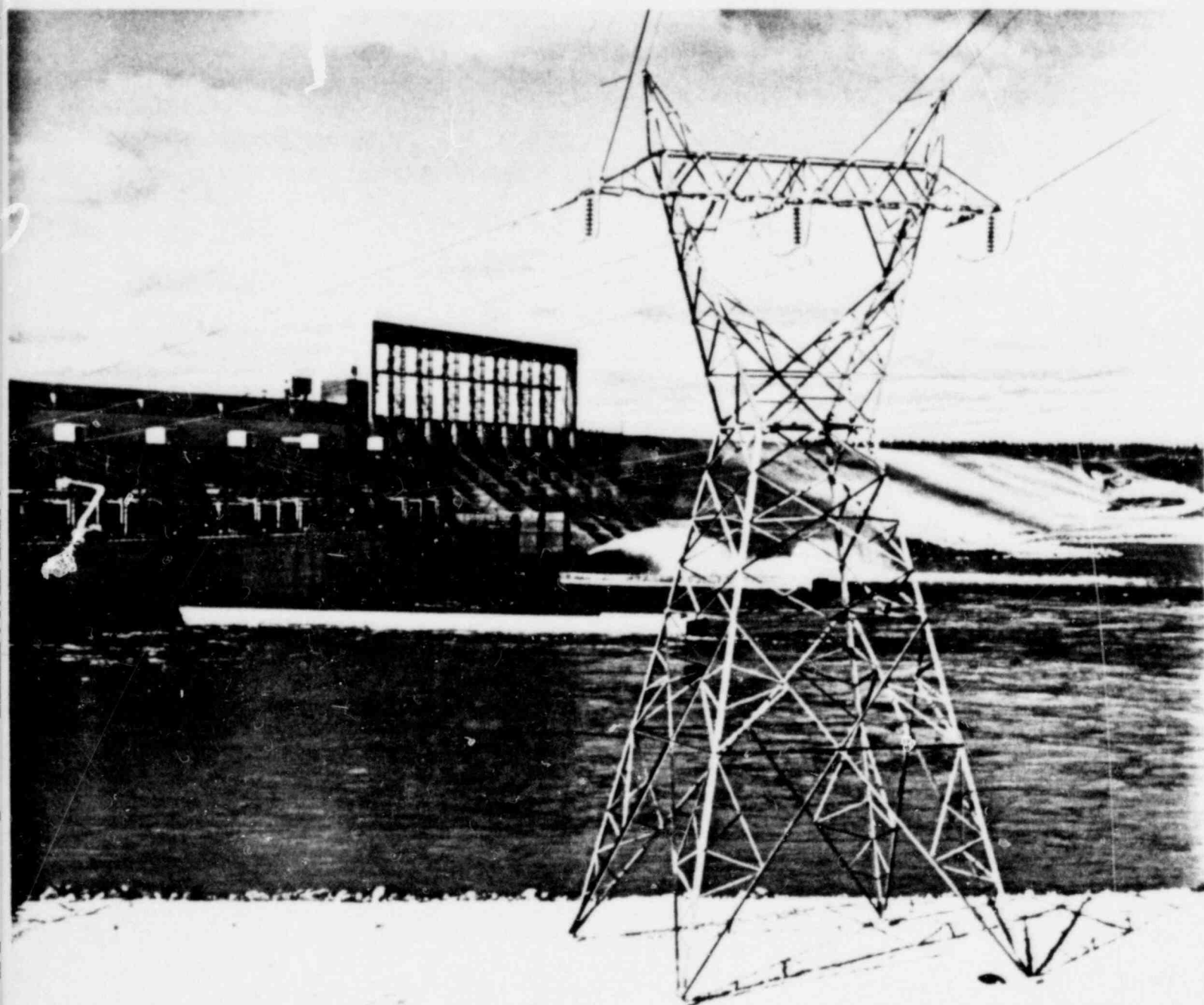
Routing for the line had not been fully determined by early 1981, but a six-mile-wide "preferred" corridor has been selected in North Dakota and in northeastern Nebraska. A proposed route has been selected for South Dakota. Line routing approval must be secured from both the South Dakota Public Utilities Commission and the South Dakota State Legislature. Hearings on the North Dakota corridor application were held in late 1980, with additional hearings to continue in March of 1981. Applications will also be filed in 1981 with the Nebraska Power Review Board and the Nebraska Public Service Commission. Alternate routes within the Nebraska corridor will be reviewed following public meetings, and a preferred route will then be identified for the Nebraska segment.

The two utilities actively participating in the MANDAN Project planning are NPPD and Manitoba Hydro Electric Board. Minnkota Power Co-Operative of Grand Forks, North Dakota, and Otter Tail Power Company of Fergus Falls, Minnesota, have also indicated interest in the project and have given their support. A number of other utilities have expressed interest, and discussions are underway with several of them.

The Project, in addition to the seasonal diversity exchange capability, will provide the means for other transactions between participants, including economy energy, emergency energy, scheduled outage energy, energy storage, firm power and energy, and participation power and energy. The Project will utilize renewable hydroelectric resources, aid utilities to reduce oil and natural gas consumption, and allow utilities to make more efficient use of existing facilities and defer construction of new facilities.

The MANDAN Project is less costly than an equivalent-sized coal-fired power plant. Overall, the MANDAN Project will cost less to build and operate than any other alternative open to the District.

Manitoba Hydro is presently capable of generating about 3,600 megawatts of electrical power from 15 existing hydro dam sites in the Nelson River watershed, one of the largest watershed systems in North America. The hydro power resource is so vast that this capability can be expanded by as much as 6,000 additional megawatts with the construction of more dams. For comparison, the existing generating capacity of just two of the larger Manitoba Hydro generating stations is about equal to the total capacity of all the hydro electric dams on the Missouri River. Storage capacity is immense; by regulating the water level of Lake Winnipeg by four feet, the Manitoba Hydro system can store water volume sufficient to generate all the electricity used in South Dakota in a year.



A Manitoba Hydro Dam on the Nelson River

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Fossil III Generating Plant

In May, the District's Board gave its approval to a specific site in eastern Custer County for the planned construction of the Fossil III 650,000 kilowatt coal-fired generating plant.

Approval of the site came upon the recommendation of management following an updated report received in March from the consulting firm of R. W. Beck and Associates concerning the feasibility of the plant. The location is east of Highway 183, southeast of the community of Sargent. The site is approximately 1,400 acres.

Studies stretching back several years focused on the eastern portion of Custer County as a recommended area for the coal-fired facility. The Beck report to the Board noted that the District was continuing to pursue both the generating plant and the MANDAN interconnection to Manitoba, Canada, for several months before a final decision is to be made as to which one may be postponed for a period of time. The District has repeatedly said it would not need both resources in the same time frame.

Turbine-generator and boiler bids had been received by the District and an application had been made to the Nebraska Power Review Board for the Fossil III plant before it was decided in early 1981 to delay construction of the project for approximately three years in favor of the MANDAN line.

Management then detailed to the Board plans for reducing activities associated with construction of the coal plant and severely limiting expenditures for the project for about three years. Certain activities will be continued to allow the District to retain the site for a future project.

No further consideration was given to the turbine-generator and boiler bids that had been submitted.

The \$6.7 million already expended for the plant will not be lost to the District and its ratepayers because the money had been spent on such necessary preliminary activities as siting, environmental studies and engineering, and these expenditures would not be necessary again when the District decides in the future to build a plant.

If current power use forecasts hold true, NPPD will not need the resources of Fossil III for its customers until the 1990s, but if joint studies within the Nebraska Power Association (NPA) indicate that other utilities could utilize that source of power with the District, a completion schedule could proceed that would meet the needs of the District and other participants in an earlier time frame.

NPPD's planning forecasts of future electrical demand indicate that the District will need its next major source of power supply in the mid to late 1980s. MANDAN is

on a completion timetable that would supply that source.

NPPD's summer season demand, winter season demand and annual energy usage are projected to increase in the future, but generally at lower growth rates than have historically occurred over the past several years. The weather normalized summer peak demand is projected to have an annual compound growth rate of 4.4 percent from 1980 through 1990, while the District is forecasting an annual compound growth rate of 3.5 percent in its annual energy sales through the same time frame.

Cooper Station

The 800,000 kilowatt Cooper Nuclear Station near Brownville, the largest generating facility on the NPPD system, was out of service for a little more than three months during 1980.

The plant was shut down for inspection March 1 after NPPD had learned that some cracking had occurred in rotor discs in some Westinghouse turbines at other plants. That cracking problem was also found in Cooper Station's low-pressure Westinghouse turbines.

Six of the 24 discs in the two low-pressure turbines were removed and specially manufactured baffle plates were installed to accomplish proper steam flow regulation. Annual refueling and other modifications required by the Nuclear Regulatory Commission were also accomplished during the shutdown.

Turbine modifications, costing more than \$1 million, reduced the maximum output of the plant to approximately 632,000 kilowatts. Cooper Station went back into service as a totally safe unit and the reduced load configuration will continue until the District is able to obtain two new low-pressure rotors. Westinghouse has said it expects delivery to NPPD in late summer or early fall.

Efforts by the District to secure an earlier fabrication and delivery schedule were not successful.

In addition to the estimated \$1 million cost to fabricate and install the baffle plates, the loss of plant output until the fall of 1981 will cost the District's ratepayers millions of dollars more. The higher costs are a result of the necessity to generate the lost output from other more expensive units or purchase the makeup power from other utilities. Cooper Station is the lowest cost generating unit on the NPPD system with the exception of hydro plants.

Cost of the two new low-pressure rotors is estimated at \$13.5 million.

In addition, the District finalized an agreement with Westinghouse for the refurbishment of the existing rotors when the new ones are installed. Following the refurbishment,

bishment and rebuilding, the rotors would be returned to Cooper Station as spares. This process is expected to be completed in mid 1983. Estimated cost of the refurbishment is \$10.5 million including escalation.

The spare rotors on hand would minimize outage time for future turbine overhauls and provide backup for emergencies which may be caused by failure in the installed rotors.

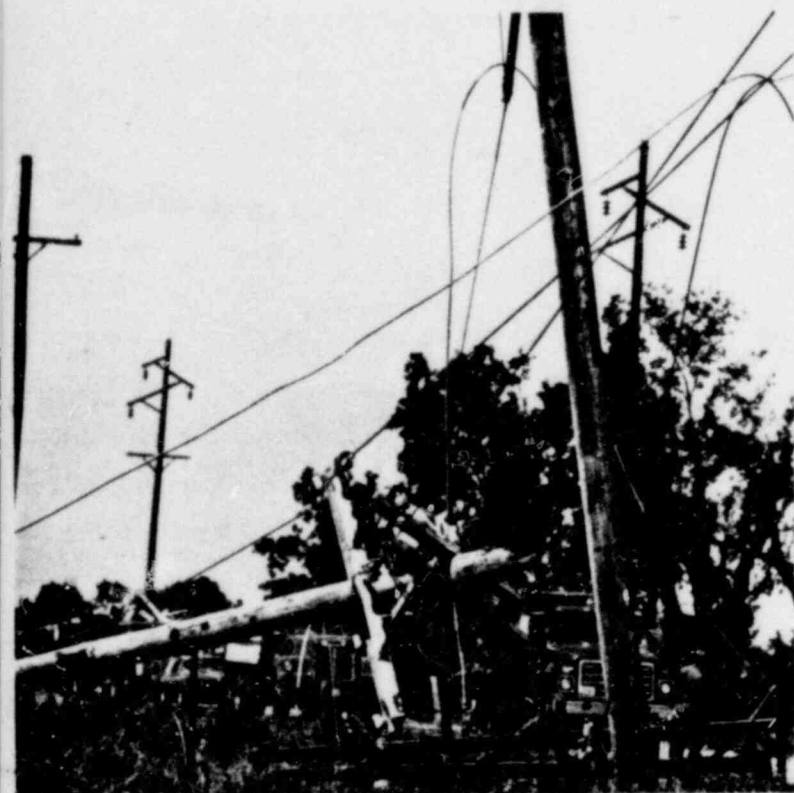
The turbine is outside and separate from the nuclear containment structure. There has never been an instance where any part of a Westinghouse nuclear turbine has fractured and caused a metal fragment to be thrown outside the turbine. Should this have occurred, however, the probabilities of the piece of metal from the turbine

part of the plant causing any serious damage to the nuclear part of the plant has always been considered to be extremely low.

Half of the energy generated at Cooper Station is contracted to Iowa Power and Light Company and 12½ percent is contracted to the City of Lincoln. These two utilities will share with NPPD on the same percentage basis the cost of the repairs.

Despite experiencing the rotor difficulties, Cooper Station had a successful generating year. The power cost per kilowatt-hour net generation was 2.031 cents compared to 2.160 cents during 1979. The facility operated 6,242 hours and generated 3.8 billion kilowatt-hours of electricity for the system.

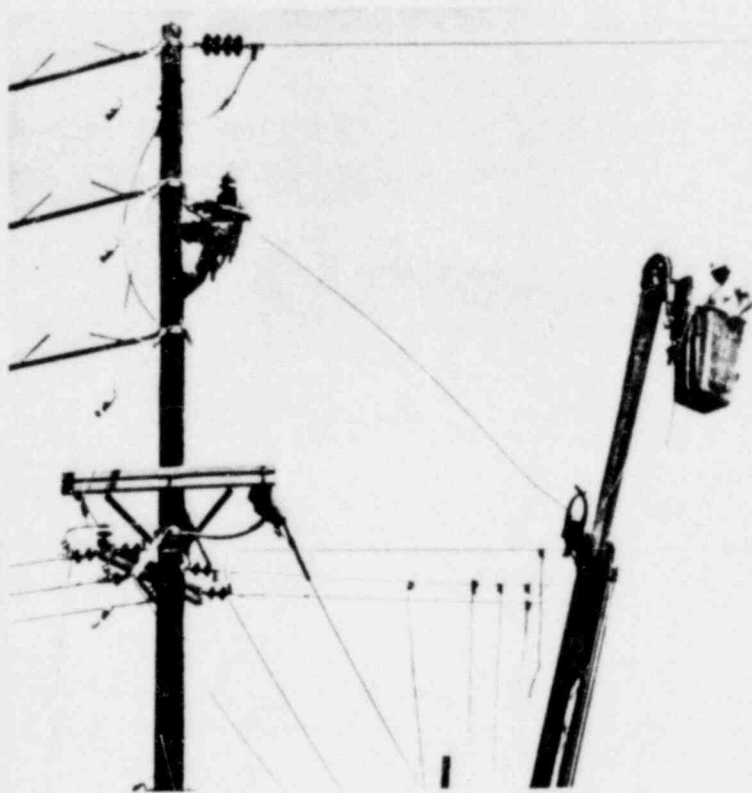
NPPD Crews Assist in Tornado Aftermath



Mother Nature played a significant role in the Grand Island area in June.

A devastating tornado — actually it has been determined that there were several tornadoes — hit the vicinity over a three-hour period causing millions of dollars in damage to the state's third largest city. Electrical facilities were literally ripped apart.

NPPD's damage was limited mostly to subtransmission and transmission lines on the outskirts of Grand Island and our system suffered damages of approximately



\$300,000. However, our crews and crews from many other public electric utilities in the state came to the aid of the Grand Island utility in an effort to restore power as quickly as humanly possible.

Our crews had barely completed their efforts in Grand Island when high winds hit the state's largest city. We then came to the aid of the Omaha Public Power District to help restore service to thousands of their customers who were without electricity over a period ranging from hours to days. Our system was spared any damage in the Omaha storm.

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LES/NPPD Sign Agreement

August 7, 1980, was an historic day for NPPD and the City of Lincoln (LES). A rate dispute that spanned several years, resulted in costly legal fees, reached the state's highest court and had repercussions far beyond the obvious, came to an end.

Final documents completing the settlement of the rate litigation were signed in Lincoln and the signing involved members of the boards of directors and top management of both utilities.

NPPD Board President Bernard M. DeLay and Keith Newhouse, chairman of the LES Board, both said that the settlement established a new relationship between the utilities — one that will benefit all Nebraskans.

One of the major benefits will be an improved financing position since the utilities will no longer have to carry the burden of ongoing litigation as they seek to issue bonds for system improvements.

Max Kiburz, president of the Board of Directors of the new Nebraska Power Association (NPA), which represents all segments of the Nebraska power industry, remarked that one of the objectives of NPA is to encourage settlement of disputes within the industry. He praised the agreement saying that the Association "is happy to have this issue settled so that we can all give our attention to the primary responsibility of providing reliable service at the lowest possible cost."

Management and Board members of both utilities were repeatedly commended for their diligent efforts in culminating the agreement that ended the strife.

Major items of the agreement were:

- A \$28 million plus interest payment by LES to NPPD for past billing disputes and LES's acquisition of some transmission facilities in the Lincoln area.

- Cancellation of the contract that required NPPD to furnish LES 175,000 kilowatts of power and energy through 1992.

- LES will be 30 percent participation purchaser in the output of NPPD's Sheldon Station near Hallam and an eight percent participation purchaser in the output of NPPD's Gerald Gentleman Station near Sutherland.

- An LES option to participate in the proposed MANDAN transmission line to Canada or NPPD's substitute project if MANDAN is not built.

The existing litigation was dismissed and the power and energy agreements became effective January 1, 1981.



Principals in the long sought agreement with the City of Lincoln gathered for a news conference following the signing. Left to right are Don Schaufelberger, NPPD deputy general manager; D. W. Hill, NPPD general manager; Bernard M. DeLay, president of the NPPD board of directors; Walter Canney, administrator of the Lincoln Electric System; and Keith Newhouse, Chairman of the LES administrative board.

Irrigation

Two interrelated functions of hydroelectric generation and irrigation are headquartered at the District's North Platte regional office.

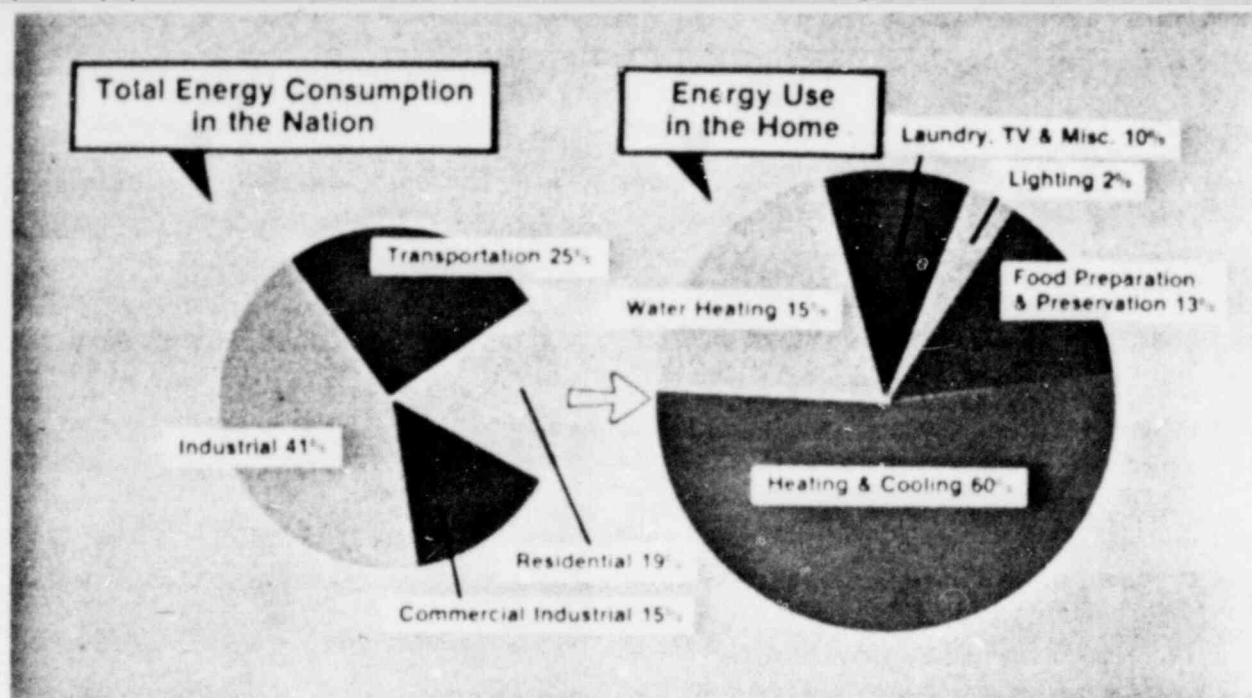
The hydraulic division consists of two diversion dams, 62 miles of large canals, and a hydroelectric power plant. During 1980, about 992,400 acre-feet of water was diverted into the system.

The irrigation division is made up of the Gothenburg, Dawson County and Kearney canals. There are three diversion dams and about 500 miles of canals and laterals. The three irrigation canals diverted a total of 137,325 acre-feet of water during the summer of 1980. This water was distributed to 615 farms and applied to 32,800 acres of crops.

The three irrigation canals owned by NPPD and the four non-owned canals that receive supplemental storage water from the District received a full supply for the year. The year-end reservoir storage was at lower than normal capacity due to below normal precipitation and a low river flow.

The Board of Directors approved in 1979 an average rate increase of about 7.5 percent per year for 1980 and 1981 for the District's surface irrigation customers. The new rates are estimated to provide revenue of \$353,642 in 1981.

POOR ORIGINAL



Customer Conservation

Nebraskans are spending increasing sums of money for home energy conservation measures according to a residential customer survey the District conducted during the year.

During the period 1973 to 1979, more than half of the District's retail residential customers added insulation, storm windows, weatherstripping or other conservation measures. The addition of ceiling insulation has been the most popular, with 31.5 percent of the households taking this conservation step. Other common expenditures included storm windows, 22 percent; weatherstripping, 21.8 percent and wall insulation, 18.6 percent.

The survey revealed that an estimated 12,850 households (15.6 percent) took one or more conservation measures in 1979, a significant increase over the 8.9 percent in 1978, and an even more dramatic increase over the 1975 proportion of 3.3 percent. More than 18 percent of the customers surveyed indicated they planned to add ceiling insulation during 1980.

The survey showed that dwellings heated with electricity represent 12.2 percent of all housing in NPPD's retail service area. However, 42.2 percent of the apartments are heated electrically.

The type of heating system varies with the age of the dwelling. Electric heating is used in 38.3 percent of dwellings which are five years old or less, but electric heat is found in only 5.8 percent of homes which are over 20 years old. Homes more than 20 years old represent 65.3 percent of the total housing in NPPD's service area.

Newer homes are also more likely to have central air conditioning. Central electric air conditioners are found

in 69.3 percent of homes which are five years old or newer and in only 20.9 percent of homes more than 20 years old.

Central and window air conditioners are found in 76.6 percent of all dwellings in the service area, but it was also noted that in the Western Region, primarily the Panhandle area, only 55.5 percent of the dwellings have air conditioning.

Electricity is the most popular source of energy for kitchen ranges and clothes dryers, the study showed.

More than 75 percent of the customers receiving questionnaires completed and returned them.

The Board of Directors approved the District's participation in the Nebraska Residential Conservation Service Program which is designed to aid residential customers in energy conservation.

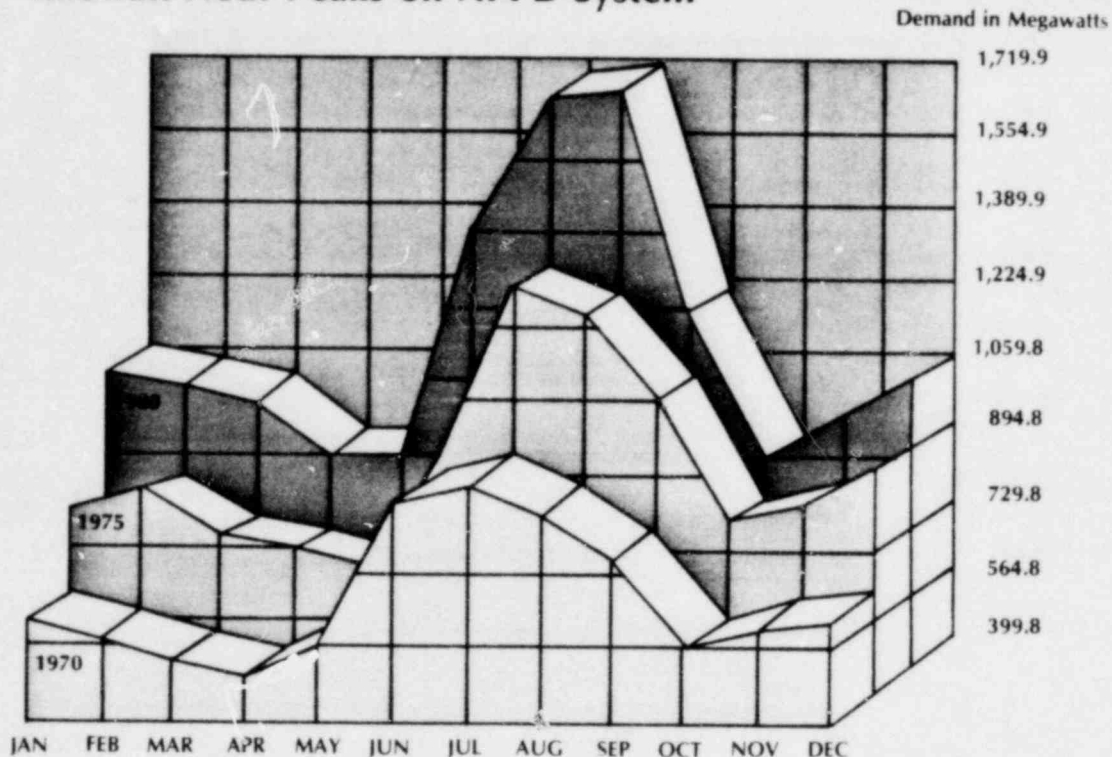
The program provides for conservation audits of homes as well as other services upon request of residents. Customers asking for an energy audit will be given an estimate of the cost of energy-saving measures which may be recommended, an estimate of the savings in energy costs, possible economic benefits to the customer in the way of tax incentives and other information.

NPPD and eight other participating utilities will also arrange for installation and financing of conservation measures if requested by customers, or the customers may make their own arrangements.

An energy audit fee of \$15 will be charged.

Peak Demand — Its Impact Is Basic

Kilowatt-Hour Peaks on NPPD System



In planning generation and transmission capacity to meet the needs for electric energy, electric utilities, such as Nebraska Public Power District, must first look to peak demand. Peak demand represents the amount of electricity we must be prepared to supply our customers when their total requirements for electricity are the highest. In Nebraska, the peak demand occurs in June, July, August and September, when irrigation pumps and air conditioners are working at full force.

As a result, we have had to provide the generation and transmission capacity to fulfill the peak requirements of our customers even though we knew full well there are periods of the year and times of the day when customer demand for electricity is far below what it is at the peak.

The difference between the capacity needed to meet peak demand and the demand at other seasons of the year and times of the day is something we have been trying to correct for several years. To make the most efficient use of generation and transmission capacities, and indeed of our nation's resources, we must close the gap between the extremes in demand for electric energy. If electricity could be stored, the situation would be different. But it can't. Neither can the ever increasing need

for electricity during the summer months be ignored when it is used to irrigate vitally needed agricultural products and provide air conditioning that improves the efficiency of people at work and at home, in addition to other applications.

So, our challenge is to encourage the wise use of electricity especially during periods of peak usage. We also try to improve our overall system load factor by educating our customers on the deferred use of electricity from periods of peak demand to periods of reduced demand.

Progress is being made in the area of improved system load factor. One indication is an increasing number of customers switching to electric heat. There are now more than 14,000 electric heat customers on NPPD's retail system. It should be noted that as people switch to electric heat, it not only helps make more efficient use of our power plants and transmission lines during the winter months, it also helps conserve petroleum-based fuels that are in short supply.

By shaving peak demand and improving the system load factor, our customers can save money on their electric bills.

NPPD Senior Management

This chart of NPPD senior management was prepared to visually present the restructuring of positions reporting directly to the general manager and deputy general manager that occurred during 1980.

Don Schaufelberger is a native of Lincoln and a 1949 graduate of the University of Nebraska-Lincoln with a degree in electrical engineering. A U.S. Navy veteran, Schaufelberger began his public power career as an engineer for Consumers Public Power District in Beatrice in 1949. In 1952, he transferred to Lincoln as System planning engineer. In 1958, he was named chief engineer and in 1964, he moved to Columbus in the position of operations director. Schaufelberger was promoted to assistant general manager at Columbus in 1968, a position he retained following the merger in 1970 which formed NPPD, and in 1972, he advanced to his current post as deputy general manager.



Don E. Schaufelberger

DEPUTY GENERAL MANAGER

First Assistant General Manager ENGINEERING & CONSTRUCTION



Frank C. Whitney

First Assistant General Manager OPERATIONS



Cecil R. Jones

The newest NPPD assistant general manager is Frank Whitney. Whitney holds a bachelor of science degree in engineering from Brown University and a master's degree in business administration from Northeastern University. Following five years of active duty as a navy pilot, Whitney brought to NPPD twenty years of experience with an investor-owned utility, consulting engineering firms and a municipal system. Immediately prior to joining NPPD, Whitney was general manager of the Holland Board of Public Works, which was responsible for operation of the electric water and waste water utilities of the city of Holland, Michigan, and was at the same time chairman of the Michigan Public Power Agency. As first assistant general manager for NPPD, Whitney oversees the following areas:

- Transmission & Distribution Engineering & Construction
- Generation Engineering & Construction
- Special Projects
- Engineering Services

Cecil Jones is a native of Arcadia, Nebraska, and a 26-year employee of NPPD and a predecessor utility. Jones started his career in the public power industry as a lineman for the former Consumers Public Power District in Loup City in 1954. In 1958, he transferred to the Scottsbluff system office as a dispatcher and in 1966, he was promoted to Western System power supply supervisor. In 1968, Jones was promoted to power system supervisor in the Columbus General Office. In 1971, he advanced to director of operations, and in 1974 he was made assistant general manager. In his capacity as first assistant general manager, Jones directs the activities of the following areas:

- Power Production
- Fuel Management
- System Dispatching
- Licensing & Quality Assurance
- Environmental Affairs
- System Operations & Maintenance
- Regional Operations & Maintenance
- Legislative Affairs
- Hydraulic System & Irrigation Facilities

BOARD OF DIRECTORS

GENERAL MANAGER



Durwood W. Hill

A native of Prague, Oklahoma, D. W. Hill is a long-time public power leader in the nation. Following college and service in the U.S. Coast Guard during World War II, he began teaching as a principal and head football coach. He later became associated with the Grand River Dam Authority of Oklahoma, where he advanced to the position of assistant general manager. In 1956, Hill moved to Tillamook, Oregon, where he was made general manager of Tillamook Oregon Public Utility District. In 1961, he accepted the position as general manager of Clark County Public Utility District in Vancouver, Washington. Hill began employment with the former Consumers Public Power District in May, 1964, as assistant general manager and on Aug. 1, 1964, was named general manager.

First Assistant General Manager CORPORATE SERVICES



Dil A. Blatchford

A native of Maskell, Nebraska, Dil Blatchford has been an assistant general manager since joining NPPD in November, 1975. After serving four years in the U.S. Army Air Force, Blatchford graduated from the University of Nebraska-Lincoln in 1950 with a degree in electrical engineering. Blatchford came to NPPD from the Nebraska Electric Generation & Transmission Cooperative, where he served as general manager. Prior utility experience includes service with the Franklin County Rural Public Power District, the Hastings Utilities and as an engineering consultant. In his position as first assistant general manager, Blatchford oversees the following areas:

- Planning
- Rates & Contracts
- Customer Relations
- Research & Development
- Data Processing

First Assistant General Manager FINANCE & ADMINISTRATION



Ted M. Kyster

A native of Council Bluffs, Iowa, Ted Kyster became an NPPD assistant general manager in 1977. Kyster holds a degree in business administration from the University of Nebraska-Omaha, and served two years in the U.S. Navy. Kyster started his career with the District as chief clerk in O'Neill in 1961. In 1963, he transferred to Sheldon Station as plant accountant, and in 1966 he moved to Lincoln in the position of assistant accountant. Kyster transferred to Columbus as general records supervisor in 1967, and in 1972 he was promoted to assistant treasurer. In 1974 Kyster assumed the additional duties of controller and he was appointed treasurer in 1975. In Kyster's post as first assistant general manager, his primary responsibilities include overseeing the activities of the following areas:

- Treasury
- Accounting
- Budget & Statistical
- Administrative Services
- Public Affairs
- Purchasing
- Energy Applications

POOR ORIGINAL

FINANCIAL COMMENTARY

Nebraska Public Power District had an eventful year in 1980. Of the many events that occurred, the most significant were: the setting of a new peak demand for native load (native load excludes non-firm and participation sales) which was nearly 10% higher than any previously recorded; the increase in revenues of over 12% from native load sales in comparison to the previous year; the 5% increase in native load MWH sales from the prior year; the impact of weather and economic conditions on total revenues; the impact on the District's operating expenses from unanticipated increases in costs and extended unscheduled maintenance outages; the settlement of a long-standing rate dispute between NPPD and the City of Lincoln; and a deficiency in net revenues which resulted in the establishment of new rate schedules for 1981. These events are reflected in the financial statements of the District and are described in more detail in the following commentary.

Operating Revenues and MWH Sales

In 1980, total operating revenues for the Electric System of the District were \$241.7 million which is an increase of 7.6% or approximately \$17.1 million from 1979. Excluding non-firm, participation, and non-electric sales, the total operating revenues increased 12.1% over the previous year.

Of the total electric operating revenues in 1980, \$86.9 million were classified as retail revenues and reflected an increase of \$10.7 million (14.1%) over 1979. This increase was due to a 4.0% KWH growth and to higher rates placed in effect in 1980.

Wholesale revenues, derived from sales to municipalities, public power districts, and cooperatives having contracts with the District, increased \$13.1 million (11.4%) over 1979 to \$128.2 million. A 5.9% KWH growth over 1979 and higher rates placed in effect January 1, 1980, caused the increase.

Revenues from sales to other wholesale customers classified as non-firm or participation sales decreased \$7.4 million (24.6%) from 1979. This decrease occurred primarily because of the curtailment of generation at the District's two major generating plants. Such curtailment is explained later in this commentary.

The District's 1980 peak demand for its native load was 1,719,800 kilowatts. This is 9.7% higher than the previous record peak demand set in 1979.

Operating Expenses

Operating expenses of the Electric System of the District totaled \$249.9 million in 1980, an increase of \$44 million over 1979. Production and purchased power expenses accounted for \$40 million of this increase. Much of this increase can be attributed to the purchase of more power than anticipated due to unplanned outages caused by equipment failure, increased maintenance costs, and reduced operating levels at Cooper Nuclear Station and Gerald Gentleman Station Unit No. 1.

Other operation and maintenance expenses, including labor, materials, supplies, and services, amounted to \$22.4 million compared to \$20.9 million in 1979.

Net Revenues

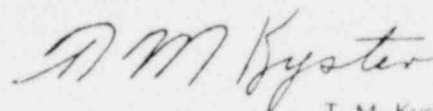
The Electric System operations resulted in a net loss of \$10.2 million in 1980. The loss reflects a decrease in net revenues of \$4.7 million as a result of the settlement between NPPD and the City of Lincoln.

General

In 1980, the Electric System's revenues were not sufficient to provide for all of the payments and to meet all the requirements specified in the District's Electric System Revenue Bond Resolution. That deficiency was caused by the combination of weather and economic conditions and the factors discussed previously in this commentary.

In order to recover this deficiency, the NPPD Board of Directors authorized increased rates for 1981, to provide funds for all necessary payments and other requirements for 1981 and to recover the 1980 deficiency at the earliest practical time.

Another significant event occurred in 1980 when the District and the City of Lincoln reached a settlement agreement regarding a long-standing dispute pertaining to billings for electric service. The settlement also provided, effective January 1, 1981, for the cancellation of a firm power agreement and the initiation of participation agreements.



T. M. Kyster

First Assistant General Manager & Assistant Treasurer

Nebraska Public Power District ELECTRIC SYSTEM

Report of Independent Public Accountants

To the Board of Directors of
Nebraska Public Power District:

We have examined the balance sheets of the ELECTRIC SYSTEM of NEBRASKA PUBLIC POWER DISTRICT (a public corporation and political subdivision of the State of Nebraska) as of December 31, 1980 and 1979, and the related statements of revenues and expenses, accumulated net revenues and changes in financial position for each of the three years in the period ended December 31, 1980. We have also examined the supplemental schedules of the calculation of the debt service ratios for each of the three years in the period ended December 31, 1980. Our examinations were made in accordance with generally accepted auditing standards and, accordingly, included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

In our auditors' report dated April 2, 1980, our opinion on the 1978 and 1979 financial statements was qualified as being subject to the collection of the receivable from the City of Lincoln. As explained in Note (4), the litigation related to the billings for wholesale electric service to the City has been settled and \$4,714,000 has been recorded as a reduction of net revenues in the current year, in accordance with generally accepted accounting principles. Accordingly, our present opinion on the 1978 and 1979 financial statements, as presented herein, is no longer subject to the outcome of this matter.

In our opinion, the financial statements referred to above present fairly the financial position of the Electric System of Nebraska Public Power District as of December 31, 1980 and 1979, and the results of its operations and changes in its financial position for each of the three years in the period ended December 31, 1980, and the supplemental schedules of the calculation of the debt service ratios for each of the three years in the period ended December 31, 1980, present fairly the information set forth therein, all in conformity with generally accepted accounting principles applied on a consistent basis.

Arthur Andersen & Co.

Omaha, Nebraska,
March 10, 1981.

Nebraska Public Power District ELECTRIC SYSTEM

Balance Sheets

December 31, 1980 and 1979

	1980 (Thousands of Dollars)	1979 (Thousands of Dollars)
ASSETS		
Utility Plant, at Cost	\$489,949	\$452,615
Less — Reserve for depreciation and amortization	140,853	129,468
	<u>\$349,096</u>	<u>\$323,147</u>
Debt Reserve Account:		
Cash	\$ 4	\$ —
Investment securities	30,738	30,703
	<u>\$ 30,742</u>	<u>\$ 30,703</u>
Receivables from Sale of Property	\$ 2,611	\$ 2,979
Current Assets:		
Cash and investment securities (Note 7)	\$121,981	\$137,823
Receivables, less reserves (Note 4)	30,336	60,488
Materials and supplies, at average cost	20,293	14,055
Prepayments and other assets (Note 1-H)	266	15,354
	<u>\$172,876</u>	<u>\$227,726</u>
Deferred Charges:		
Advance payments to Nuclear Facility for nuclear fuel (Note 1)	\$ 24,314	\$ 21,806
Unamortized financing costs	3,584	3,808
Other	3,904	2,626
	<u>\$ 31,802</u>	<u>\$ 28,240</u>
	<u>\$587,127</u>	<u>\$612,795</u>
LIABILITIES AND CAPITAL		
Long-Term Debt (Note 6)	\$391,528	\$398,142
Less — Current maturities	7,031	6,760
	<u>\$384,497</u>	<u>\$391,382</u>
Accumulated Net Revenues	111,479	121,635
	<u>\$495,976</u>	<u>\$513,017</u>
Notes Payable:		
52½% of prime, due 1982	\$ 1,320	\$ —
65% of prime, due 1982 to 1984 (Note 8)	15,000	—
57% of prime, due 1982 to 1984 (Note 4)	4,447	29,247
72½% of prime, due 1982 to 1986	30,000	30,000
	<u>\$ 50,767</u>	<u>\$ 59,247</u>
Current Liabilities:		
Current maturities of long-term debt	\$ 7,031	\$ 6,760
Accounts payable	22,831	23,292
Accrued lease payments	3,053	2,564
Accrued interest	66	1,052
Other	4,007	3,208
	<u>\$ 36,988</u>	<u>\$ 36,876</u>
Unamortized Payment Received for Refinancing Costs	\$ 3,396	\$ 3,655
	<u>\$587,127</u>	<u>\$612,795</u>

The accompanying notes to financial statements are an integral part of these balance sheets.

Nebraska Public Power District
ELECTRIC SYSTEM

Statements of Revenues and Expenses and Accumulated Net Revenues
for each of the Three Years in the Period Ended December 31, 1980

	1980	1979	1978
	(Thousands of Dollars)		
Revenues and Expenses:			
Operating Revenues (Notes 3 and 4)	\$241,712	\$224,662	\$199,177
Operating Expenses:			
Power purchased —			
Nuclear Facility and Power Supply System	\$ 96,055	\$ 76,412	\$ 29,456
Other	59,767	64,174	66,615
Production —			
Fuel	23,611	25,944	30,079
Operation and maintenance	6,965	6,409	6,130
Deferred production cost, net (Note 1-H)	15,094	(11,588)	(2,947)
Other operation	17,435	16,450	15,603
Other maintenance	4,952	4,431	3,694
Leased plant payments (Note 1)	5,678	4,953	4,486
Depreciation and amortization	15,956	14,715	15,288
Payroll taxes and payments in lieu of taxes	4,430	3,954	3,523
Total operating expenses	\$249,943	\$205,854	\$171,927
Net operating revenues (expenses)	\$ (8,231)	\$ 18,808	\$ 27,250
Interest and Other Revenues:			
Allowance for funds used during construction	\$ 2,047	\$ 1,462	\$ 1,655
Interest and other	23,648	15,759	8,838
Total interest and other revenues	\$ 25,695	\$ 17,221	\$ 10,493
Net revenues before other deductions	\$ 17,464	\$ 36,029	\$ 37,743
Other Deductions:			
Bond interest	\$ 23,157	\$ 21,449	\$ 19,096
Other interest	3,853	3,767	1,844
Miscellaneous, net	610	98	128
Total other deductions	\$ 27,620	\$ 25,314	\$ 21,068
Net Revenues (Expenses) (Notes 3 and 4)	\$ (10,156)	\$ 10,715	\$ 16,675
Accumulated Net Revenues:			
Beginning balance	121,635	110,920	95,065
Charges in connection with property sold	—	—	(820)
Ending Balance	\$111,479	\$121,635	\$110,920

The accompanying notes to financial statements are an integral part of these statements.

Nebraska Public Power District
ELECTRIC SYSTEM

Supplemental Schedules — Calculation of
Debt Service Ratios for each of the Three
Years in the Period Ended December 31, 1980

	1980	1979	1978
	(Thousands of Dollars)		
Operating revenues	\$241,712	\$224,662	\$199,177
Operating expenses, excluding depreciation and amortization of \$16,458,000, \$15,364,000 and \$15,851,000	233,485	190,490	156,076
	\$ 8,227	\$ 34,172	\$ 43,101
Interest and other revenues, excluding interest on construction funds of \$9,639,000, \$7,642,000 and \$5,449,000	14,009	8,117	3,389
Net revenues available for debt service	<u>\$ 22,236</u>	<u>\$ 42,289</u>	<u>\$ 46,490</u>
Amounts deposited in the Electric System Debt Service Account —			
Principal	\$ 6,505	\$ 5,025	\$ 4,395
Interest	19,385	15,602	14,639
	<u>\$ 25,890</u>	<u>\$ 20,627</u>	<u>\$ 19,034</u>
Ratio of net revenues available for debt service to debt service deposits	<u>.86</u>	<u>2.05</u>	<u>2.44</u>

The accompanying notes to financial statements are an integral part of these statements.

Nebraska Public Power District
ELECTRIC SYSTEM

Statements of Changes in Financial
Position for each of the Three Years
in the Period Ended December 31, 1981

	1980	1979	1978
	(Thousands of Dollars)		
Funds Provided by Operations:			
Net revenues (expenses)	\$ (10,156)	\$ 10,715	\$ 16,675
Add items which require no current outlay of working capital —			
Depreciation and amortization	15,956	14,715	15,288
Other	502	649	563
Total funds provided by operations	\$ 6,302	\$ 26,079	\$ 32,526
Other Sources of Funds:			
Sale of revenue bonds	—	60,893	71,244
Proceeds from notes payable	19,520	5,600	33,647
Contribution from Basin Electric (Note 9)	11,868	32,601	6,702
Federal Disaster Assistance for storm damage	—	—	1,954
(Increase) decrease in fund balances	15,809	(3,306)	(67,087)
Proceeds from sales of property	698	225	1,049
Total funds provided	<u>\$ 54,197</u>	<u>\$ 122,092</u>	<u>\$ 80,035</u>
Funds Applied:			
Utility plant additions	\$ 55,449	\$ 77,285	\$ 54,422
Decrease in receivables from sales of property	(368)	(359)	(2,220)
Increase (decrease) in receivables	(30,152)	11,134	7,355
Increase (decrease) in materials and supplies	6,238	1,803	(863)
Advance payments to Nuclear Facility for nuclear fuel (Note 1)	2,508	19,966	900
Repayment of notes payable	28,000	—	8,909
Retirements of long-term debt	6,760	5,275	4,641
(Increase) decrease in accounts payable	461	(4,985)	4,857
Other working capital changes	(15,390)	11,032	2,569
Other	691	941	(535)
Total funds applied	<u>\$ 54,197</u>	<u>\$ 122,092</u>	<u>\$ 80,035</u>

The accompanying notes to financial statements are an integral part of these statements.

Nebraska Public Power District ELECTRIC SYSTEM

Notes to Financial Statements

(1) SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES:

A. Organization —

The District has three separate divisions for accounting purposes as follows:

- Electric System
- Nuclear Facility
- Power Supply System

As required by Bond Resolutions, separate records are maintained for each division. The Electric System financial statements exclude the Nuclear Facility and Power Supply System, for which financial statements are presented separately herein. The Electric System financial statements should be read in conjunction with such other financial statements.

B. Depreciation, Amortization and Maintenance —

In 1980 the District began using separate depreciation rates for each major classification of plant. Depreciation was approximately 3.0% of Utility Plant in Service. During 1979 and 1978, 2.5% was used to calculate the provision for depreciation.

The District has signed long-term lease agreements with approximately 250 municipalities. These lease agreements obligate the District to pay for normal property additions during the term of the lease. The District has recorded a provision for amortization of \$4,323,000 in 1980, \$4,215,000 in 1979 and \$5,307,000 in 1978, which is approximately equal to its obligation for additions to properties leased from municipalities.

The District charges maintenance and repairs, including the cost of renewals and replacements of minor items of property, to maintenance expense accounts. Renewals and replacements of property (exclusive of minor items of property, as set forth above) are charged to utility plant accounts. Upon retirement of property subject to depreciation, the cost of property is removed from the plant accounts and charged to the reserve for depreciation, along with the removal costs, net of salvage.

C. Allowance for Funds Used During Construction —

This allowance, representing the cost of funds used to finance construction, is capitalized as a component of the cost of utility plant and is credited to Interest and Other Revenues. The capitalization rates for construction financed with revenue bonds are based on the interest cost of each issue less interest income. The rate for construction financed by revenues is

based on a projected rate for short-term borrowing. For the periods presented herein, the rates vary from 6.1% to 7.75%.

D. Unamortized Financing Costs —

These costs represent issuance expenses on all bonds and the premium to retire the Electric System Revenue Bonds, 1975 Series, prior to their maturity date and are being amortized over the life of the respective bonds using the bonds outstanding method.

E. Advance Payments to the Nuclear Facility for Nuclear Fuel—

In December, 1978, \$30 million intermediate term notes were issued and the proceeds deposited in the General Reserve Fund to finance the Electric System's obligation to the Nuclear Facility for working capital for nuclear fuel. Payments to the Nuclear Facility for these obligations and carrying costs are reflected in the balance sheet as a deferred charge.

F. Unamortized Payment Received for Refinancing Costs —

This payment represents a reimbursement from the Nuclear Facility for certain refinancing costs of the Electric System incurred in 1968 and is being amortized over the life of the 1968 Revenue Bond issue using the bonds outstanding method.

G. Investment Securities —

Investments are made in U.S. Government securities, Federal Agency obligations, and bank certificates of deposit. The Debt Reserve Account in the Debt Service Fund is valued semi-annually at January 1 and July 1 at the lower of cost or market in accordance with requirements of the Electric System Revenue Bond Resolution (Electric Resolution). As a result of such valuation, the carrying value of the securities decreased \$1,169,000 on January 1, 1981. The securities in the remaining funds are valued at the lower of cost or principal amount in accordance with requirements of the Electric Resolution.

H. Deferred Production Costs —

Estimated fuel costs in excess of those included in basic rates are recovered by a Production Cost Adjustment (PCA) which is billed to all customers. When PCA billings do not recover the applicable actual costs, the excess cost is deferred. When PCA billings exceed applicable actual costs and prior deferred costs, the excess is not reported in revenues in the current period. Present District policy requires that billings for the PCA shall be made using rates adjusted from time to time so that all actual costs incurred by the District which are to be recovered by the PCA shall be recovered from PCA billings either in the current rate period or future rate periods.

I. Revenue Recognition —

In accordance with industry practice, the District recognizes revenues for retail service in the month the meters are read.

(2) 1980 RATE STUDY:

Pursuant to the Electric Resolution, the Board of Directors of the District directed that, in light of the District's financial condition, an interim rate study be made. The study resulted in rate increases for 1981, to provide funds for all payments and other requirements for 1981 and for the 1980 deficiency, excluding the Lincoln settlement as discussed in Note (4).

Rate adjustments for wholesale and retail service, including the PCA rate, which were placed in effect in 1981, are expected to increase revenues by approximately \$24 million for the year.

The 1980 deficiency was caused by a combination of weather and economic conditions plus unanticipated increases in costs and extended unscheduled maintenance outages. KWH sales for 1980 increased only 0.7% over 1979, while operating expenses significantly exceeded estimates. Cooper Nuclear Station and Gerald Gentleman Station Unit No. 1 both incurred extended outages, increased maintenance

costs, and reduced operating levels. See Notes (4) and (6) for the Power Supply System and the Nuclear Facility, respectively, for a discussion of operational problems.

(3) RATES:

The District designs its wholesale electric service rates (which are ordinarily adjusted every two years) to cover amounts allocated to wholesale cost of service, including: 1) operating expenses other than depreciation, 2) debt service, and 3) certain capital additions. All costs allocated to wholesale service (including amounts applicable to retail sales of the District) are recovered from customers in the current rate period or in future rate periods by increasing or reducing revenue requirements in such future rate periods. The following table illustrates the effect of these adjustments in revenue requirements on the Statements of Revenues and Expenses.

Adjustments of Revenue Requirements

Effect on Statements of Revenues & Expenses	Rate Periods			1980 Estimated
	1974-1975	1976-1977	1978-1979	
	(Millions of Dollars)			
1974-1975	\$(7.3)			
1976-1977	5.9	\$(2.1)		
1978-1979	1.4	.6	\$ 9.4	
1980 Estimated		.3	(5.7)	\$(7.8)
1981 Projected		.3	(3.7)	7.8
1982-1983 Projected		.9	—	—

As provided in the Electric Resolution, the District covenants to charge rates for electric and other services so that revenues will be sufficient to pay annual operating expenses, including Nuclear Facility and Power Supply System charges, debt service and other charges payable out of Electric System revenues.

(4) LINCOLN SETTLEMENT:

In April, 1980, the District and the City of Lincoln approved the general terms of a proposed settlement concerning a rate dispute. Final agreements were signed by the parties on August 7, 1980. The settlement included, among other things, the payment by Lincoln of \$28,000,000 as payment in full of all disputes relating to billings for electric service through December 31, 1979, the transfer to Lincoln of certain substation facilities and associated equipment, and the amendment of the firm power agreement with respect to billings and scheduling of power thereunder. Effective January 1, 1981, the firm power agreement between the parties was cancelled and participation agreements, which provide a portion of the City's electric service requirements, were signed. Net revenues for 1980 were decreased by \$4,714,000 due to the settlement. This effect was not included in the 1980 deficiency discussed in Note (2) above, but will be included in the 1982-1983 rates.

As a result of the settlement, the District paid all but \$4,447,000 of the \$32,447,000 borrowed under a credit agreement secured by the receivable from Lincoln. The remaining balance will be paid in 24 monthly installments beginning in April, 1982.

(5) PENSION PLAN:

The District has a retirement income plan covering substantially all of its full-time employees. Employee's contributions to the plan are based on salary, and the District's contributions are allocated to employee's trust accounts based partially on the employee's contributions and partially on years of service and annual salary. The plan provides for retirement income equal to the total of the employee's trust account, including trust earnings. The cost of the plan was \$2,834,000 for 1980, \$2,489,000 for 1979 and \$2,115,000 for 1978.

(6) LONG-TERM DEBT:

December 31,	
1980	1979
(Thousands of Dollars)	

Revenue Bonds:

Serial Bonds —

2.00%, due 1980 to 1990	\$ 6,925	\$ 7,875
4.20%-5.00%, due 1980	—	5,555
4.30%-6.00%, due 1981 to 1985	36,745	36,745
4.75%-6.30%, due 1986 to 1990	44,465	44,465
4.90%-6.40%, due 1991 to 1995	34,010	34,010
5.00%-6.10%, due 1996 to 2000	39,850	39,850
5.00%-6.30%, due 2001 to 2005	49,740	49,740
5.75%-6.40%, due 2006 to 2009	27,820	27,820

Term Bonds, with annual sinking fund requirements —

5.10%, due 1987 to 2002	41,000	41,000
6.60%, due 1993 to 2003	33,200	33,200
6.75%, due 1991 to 1995	17,100	17,100
7.00%, due 1996 to 2005	57,250	57,250
	<u>\$388,105</u>	<u>\$394,610</u>

Lease Purchase Payables —

2.00%, due 1980 to 1992	5,790	6,046
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Unamortized Bond Discount	(2,367)	(2,514)
	<u>\$391,528</u>	<u>\$398,142</u>

(7) CASH AND INVESTMENT SECURITIES:

December 31,	
1980	1979
(Thousands of Dollars)	

Revenue Fund	\$ 15,502	\$ 10,390
Operating Fund	7,039	3,583
Construction Funds —		
1975 Project	5,474	6,856
1976 Project	3,034	5,407
1977 Project	6,271	5,809
1978 Project	25,401	32,660
1979 Project	42,879	45,574
Merger Properties	953	907
Bulk Transmission Account		
(Note 9)	1,278	3,239
Debt Service Account	4,086	7,858
Reserve and Contingency Fund	1,133	1,203
General Reserve Fund	8,931	14,343
	<u>\$121,981</u>	<u>\$137,829</u>

Funds consist of \$102,905,000 of investment securities and \$19,076,000 of cash at December 31, 1980, and \$122,061,000 of investment securities and \$15,768,000 of cash at December 31, 1979.

(8) REVOLVING CREDIT AGREEMENT:

A revolving credit agreement, dated in September, 1980, allows the District to borrow up to \$30 million for working capital at a rate of 65% of the prime interest rate. It is anticipated that the notes will be repaid from revenues of the District in eight equal quarterly installments beginning in April, 1982.

(9) CONSTRUCTION AND FINANCING:

The 1981 construction plan for the Electric System provides for estimated expenditures of \$35.9 million. These expenditures will not require the issuance of long-term debt.

In 1977, the District entered into a long-term transmission service contract with Basin Electric Power Cooperative (Basin Electric) which provides, among other things, that the District receive an amount, estimated at \$53 million, which will be applied by the District to the cost of construction of certain additions to the District's bulk transmission system.

Supplementary Information To Disclose The Effects Of Changing Prices (Unaudited)

The following supplementary information is supplied in accordance with the requirements of FASB Statement No. 33, "Financial Reporting and Changing Prices", for the purpose of providing certain information about the effects of changing prices. It should be viewed as an estimate of the approximate effect of inflation, rather than as a precise measure.

Constant dollar amounts represent historical costs stated in terms of dollars of equal purchasing power, as measured by the Consumer Price Index for All Urban Consumers (CPI-U). Current cost amounts reflect the changes in specific prices of plant from the date the plant was acquired to the present, and differ from constant dollar amounts to the extent that specific prices have increased more or less rapidly than prices in general.

The current cost of property, plant, and equipment, represents the estimated cost of replacing existing plant assets and was determined by indexing the surviving plant by the Handy-Whitman Index of Public Utility Construction Costs. The current year's provision for depreciation on the constant dollar and current cost amounts of property, plant, and equipment was determined by applying the District's depreciation rates to the indexed plant amounts.

Fuel inventories and the cost of fuel used in production have not been restated from their historical cost in nominal dollars. Wholesale power contracts limit the recovery of fuel costs through the operation of adjustment clauses or adjustments in basic rate schedules to actual costs. For this reason, fuel inventories are effectively monetary assets.

Charges to the District's customers are based on historical cost. Consequently, the excess of the cost of plant stated in terms of constant dollars or current cost over the historical cost of plant is reflected as a reduction to net recoverable cost.

To properly reflect the economics of historical cost rate methodology in the Statement of Revenues and Expenses, the reduction of net property, plant, and equipment should be offset by the gain from the decline in purchasing power of net amounts owed. During a period of inflation, holders of monetary assets suffer a loss of general purchasing power while holders of monetary liabilities experience a gain. The gain from the decline in purchasing power of net amounts owed is primarily attributable to the substantial amount of debt which has been used to finance property, plant, and equipment. Since the District is limited to the recovery of historical costs, the District does not realize a holding gain on debt. The benefit of any holding gain on debt accrues to the customers.

Nebraska Public Power District ELECTRIC SYSTEM

Statement of Revenues and Expenses Adjusted for Changing Prices for the Year Ended December 31, 1980

	Conventional Historical Cost	Constant Dollar Average 1980 Dollars	Current Cost Average 1980 Dollars
(Thousands of Dollars)			
Operating Revenues	\$241,712	\$241,712	\$241,712
Purchased Power	\$155,822	\$155,822	\$155,822
Fuel Used in Production	23,611	23,611	23,611
Amortization of Lease-Operated Plant	4,323	4,323	4,323
Depreciation Expense	11,633	17,653	18,959
Other Operating and Maintenance Expense	54,554	54,554	54,554
Other Deductions	27,620	27,620	27,620
Interest and Other Revenues	(25,695)	(25,695)	(25,695)
	<u>\$251,868</u>	<u>\$257,888</u>	<u>\$259,194</u>
Net Revenues (Expenses) from Continuing Operations (Excluding Reduction to Net Recoverable Cost)	<u>\$ (10,156)</u>	<u>\$ (16,176)*</u>	<u>\$ (17,482)</u>
Increase in Specific Prices (Current Cost) of Property, Plant, and Equipment Held During the Year**			\$ 44,818
Reduction to Net Recoverable Cost		\$ (18,381)	(14,693)
Effect of Increase in General Price Level			(47,200)
Excess of Increase in General Price Level Over Increase in Specific Prices After Reduction to Net Recoverable Cost			\$ (17,075)
Gain from Decline in Purchasing Power of Net Amounts Owed		25,480	25,480
Net		<u>\$ 7,099</u>	<u>\$ 8,405</u>

*Including the reduction to net recoverable cost, the net revenues (expenses) from continuing operations on a constant dollar basis would have been \$(34,557) for 1980.

**At December 31, 1980, current cost of property, plant, and equipment, excluding construction work in progress, net of accumulated depreciation, was \$443,130, while historical cost or net cost recoverable through depreciation was \$218,362.

Five-Year Comparison of Selected Supplementary Financial Data Adjusted for Effects of Changing Prices

	Years Ended December 31,				
	1976	1977	1978	1979	1980
(In Thousands of Average 1980 Dollars)					
Operating Revenues	\$217,646	\$216,383	\$251,571	\$255,044	\$241,712
Historical Cost Information Adjusted for General Inflation:					
Net Revenue (Expenses) from Continuing Operations (Excluding Reduction to Net Recoverable Cost)				\$ 6,626	\$ (16,176)
Net Assets at Year-end at Net Recoverable Cost				\$130,577	\$106,474
Current Cost Information:					
Net Revenues (Expenses) from Continuing Operations (Excluding Reduction to Net Recoverable Cost)				\$ 5,130	\$ (17,482)
Excess of Increase in General Price Level Over Increase in Specific Prices After Reduction to Net Recoverable Cost				\$ 19,638	\$ 17,075
Net Assets at Year-end at Net Recoverable Cost				\$130,577	\$106,474
General Information:					
Gain from Decline in Purchasing Power of Net Amounts Owed				\$ 27,272	\$ 25,480
Average Consumer Price Index	170.5	181.5	195.4	217.4	246.8

Nebraska Public Power District
POWER SUPPLY SYSTEM

Report of Independent Public Accountants

To the Board of Directors of
Nebraska Public Power District:

We have examined the special-purpose statements of assets and liabilities of the POWER SUPPLY SYSTEM of NEBRASKA PUBLIC POWER DISTRICT (a public corporation and political subdivision of the State of Nebraska) as of December 31, 1980 and 1979, and the related special-purpose statements of revenues and costs for each of the three years in the period ended December 31, 1980. Our examinations were made in accordance with generally accepted auditing standards and, accordingly, included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

The accompanying special-purpose financial statements have been prepared for the purpose of complying with, and on the basis of, accounting requirements specified in the Power Supply System Revenue Bond Resolution adopted by the District on September 29, 1972, as supplemented, securing the revenue bonds issued thereunder. As described in Note 1(B), these requirements differ from generally accepted accounting principles. Accordingly, the financial statements are not intended to present and, in our opinion, do not present the financial position and results of operations of the Power Supply System of Nebraska Public Power District in conformity with generally accepted accounting principles.

In our opinion, however, the special-purpose financial statements of the Power Supply System of Nebraska Public Power District referred to above are presented fairly pursuant to the requirements of the Power Supply System Revenue Bond Resolution described in Note 1(B), applied on a consistent basis.

Arthur Andersen & Co.

Omaha, Nebraska,
March 10, 1981.

Nebraska Public Power District

POWER SUPPLY SYSTEM

Statements of Assets and Liabilities

December 31, 1980 and 1979

Prepared Pursuant to Requirements of the
Power Supply System Revenue Bond Resolution

	1980	1979
	(Thousands of Dollars)	
ASSETS		
Utility Plant in Service	\$ 410,971	\$409,320
Less — Reserve for depreciation (Note 1)	9,719	4,549
	<u>\$ 401,252</u>	<u>\$404,771</u>
Construction Work in Progress (Note 2)	\$ 260,800	\$207,406
Special Funds:		
Debt service —		
Debt service account	\$ 25,195	\$ 54,601
Debt reserve account	57,908	56,295
Reserve and contingency fund	2,016	4,879
Construction fund	162,681	186,237
Development Notes — 1980 Series —		
Development fund	53,263	—
Interest fund	9,900	—
Power note fund	35,615	38,258
Revenue fund	2,149	2,468
Operating fund	1,016	1,264
	<u>\$ 349,743</u>	<u>\$344,002</u>
Accounts Receivable, Insurance claim (Note 5).....	\$ 2,045	\$ —
Accounts Receivable, primarily from Electric System	\$ 4,098	\$ 29
Interest Receivable	\$ 8,562	\$ 6,149
Fuel Inventory, at average cost	\$ 10,446	\$ 12,509
Prepayments and Other Assets	\$ 983	\$ 672
	<u>\$1,037,929</u>	<u>\$975,538</u>
LIABILITIES		
Revenue Bonds (Note 2):		
Serial Bonds —		
4.00%-5.60%, due 1980 to 1985	\$ 43,660	\$ 48,830
4.90%-6.00%, due 1986 to 1990	66,780	66,780
5.50%-6.40%, due 1991 to 1995	87,775	87,775
5.70%-6.60%, due 1996 to 2001	74,050	74,050
Term Bonds, with annual sinking fund requirements —		
5.80%, due 1998 to 2012	168,930	168,930
6.13%, due 1999 to 2016	239,635	239,635
6.75%, due 1999 to 2001	23,025	23,025
6.90%, due 2002 to 2008	75,345	75,345
7.10%, due 2009 to 2016	129,005	129,005
	<u>\$ 908,205</u>	<u>\$913,375</u>
Development Notes, 8.25%, due 1982	80,000	—
Power Note, 66⅔% of prime, due 1981	35,500	45,000
Accrued Interest	1,640	660
Accounts Payable and Other Accrued Liabilities	8,814	13,948
Operating Reserves (Note 1) —		
Renewals and Replacement	2,452	1,433
Coal Car Maintenance	1,318	1,122
	<u>\$1,037,929</u>	<u>\$975,538</u>

The accompanying notes to financial statements are an integral part of these statements.

Nebraska Public Power District POWER SUPPLY SYSTEM

Statements of Revenues and Costs for each of the Three Years in the Period Ended December 31, 1980 Prepared Pursuant to Requirements of the Power Supply System Revenue Bond Resolution

	1980	1979	1978
	(Thousands of Dollars)		
Revenues (Notes 1 and 6):			
Sales to the Electric System	\$ 58,467	\$ 40,835	\$ 2,836
Investment and other income (Note 5)	5,691	4,148	237
Total revenues	<u>\$ 64,158</u>	<u>\$ 44,983</u>	<u>\$ 3,073</u>
Costs:			
Operating expenses —			
Production —			
Fuel	\$ 21,392	\$ 13,092	\$ 1,673
Operation and maintenance	8,068	5,041	282
Insurance	989	800	98
Provisions for operating reserves (Note 1)	695	540	75
General and administrative	1,212	575	35
	<u>\$ 32,356</u>	<u>\$ 20,052</u>	<u>\$ 2,163</u>
Debt service (Note 1) —			
Principal	5,170	4,550	—
Interest	26,632	20,381	910
Total costs	<u>\$ 64,158</u>	<u>\$ 44,983</u>	<u>\$ 3,073</u>

The accompanying notes to financial statements are an integral part of these statements.

Nebraska Public Power District POWER SUPPLY SYSTEM

Notes to Financial Statements

(1) SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES:

A. Organization —

The District has three separate divisions for accounting purposes as follows:

Electric System
Nuclear Facility
Power Supply System

As required by Bond Resolutions, separate records are maintained for each division. The Power Supply System financial statements exclude the Electric System and Nuclear Facility, for which financial statements are presented separately herein. The Power Supply System financial statements should be read in conjunction with such other financial statements.

B. Basis of Accounting —

Revenues are recognized and billed at an amount equal to costs as defined by the Power Supply System Revenue Bond

Resolution (Power Supply Resolution) which include operating expenses (excluding depreciation), and debt service on the revenue bonds, less investment income. Revenues are computed and billed so that no equity is accumulated in the Power Supply System.

Costs as defined by the Power Supply Resolution differ in the following respects from generally accepted accounting principles:

(1) Amortization of the debt principal is included as a cost in the accompanying Statements of Revenues and Costs as "Debt service-Principal."

Depreciation is not recorded as a cost. Had the District provided straight-line depreciation over a 40-year life rather than including amortization of debt principal over the same period, costs would have increased \$5,100,000 in 1980, \$3,200,000 in 1979 and \$370,000 in 1978. Accumulated depreciation through December 31, 1980, would have increased costs approximately \$10,300,000. The reserve for depreciation shown on the Statements of Assets and Liabilities was provided by recording amounts equal to repayment of debt.

(2) Billings to provide working capital for renewals and replacements of property are included in the accompanying Statements of Revenues and Costs as "Provisions for operating reserves." Under generally accepted accounting principles, provisions for renewals and replacements are not expenses but renewals and replacements of property (exclusive of minor items of property) are charged to utility plant accounts.

(3) Interest income on construction fund investments for Gerald Gentleman Station Unit No. 1 is capitalized although commercial operation began in April, 1979. Such income would be included in income of the period under generally accepted accounting principles.

(4) Charges for Power Supply System services are based on cost and facilities are financed with debt securities. Therefore, there are no significant unrecorded costs of inflation in the financial statements.

C. Utility Plant —

Amounts borrowed for interest expense, less interest earned on investment securities, all financing costs and all other costs related to construction projects are capitalized.

D. Special Funds —

Special funds consist of \$346,140,000 of investment securities and \$3,603,000 of cash as of December 31, 1980, and \$339,942,000 of investment securities and \$4,060,000 of cash at December 31, 1979.

Investments are made in U.S. Government securities, Federal Agency obligations, and bank certificates of deposit. The Debt Reserve Account in the Debt Service Fund and the Reserve Account in the Reserve and Contingency Fund are valued semi-annually at January 1 and July 1 at the lower of cost or market in accordance with requirements of the Power Supply Resolution. As a result of such valuation, the carrying value of the securities decreased \$3,941,000 on January 1, 1981. Gains or losses on valuations are included in investment income. The securities in the remaining funds are valued at the lower of cost or principal amount in accordance with requirements of the Power Supply Resolution.

(2) CONSTRUCTION AND FINANCING:

The District formed the Power Supply System in 1972 to finance, construct, and operate additional power generation, transmission and related facilities. The entire output of the Power Supply System is sold to the Electric System.

The District estimates that Gerald Gentleman Station Unit No. 2, a 650 MW coal-fired generating unit will be completed in late 1981. The original estimated costs of \$354,000,000 include initial fuel inventory and working capital, but exclude interest during construction, financing expenses, and reserve funds. Indications are that the actual costs will be substantially less. The total costs of the plant, as originally estimated, have been financed by the issuance of Revenue Bonds.

In June, 1980, the Board of Directors of the District authorized the execution of a Letter of Intent between Manitoba Hydro Electric Board of Winnipeg, Manitoba, Canada, and the District relating to the construction and placing in service in the late 1980's of transmission facilities to interconnect Manitoba Hydro and the District for, among other things, the seasonal exchange of power and associated energy. The Letter of Intent contemplates the development of definitive contracts.

In February, 1981, the Board of Directors decided to proceed first with the interconnection with Manitoba Hydro and to defer Fossil Unit 3, a 650 MW coal-fired generating plant, previously having an estimated in-service date of 1987.

Substantially all of the preliminary costs incurred to date, associated with these and other studies, have been funded by the issuance of \$80 million of Development Notes due in 1982. Such borrowings are expected to be repaid from proceeds of future Revenue Bond issues.

(3) LITIGATION:

On February 15, 1980, the District filed suit to recover amounts totaling in excess of \$50 million from various contractors. The suit alleges damages from delays, cost overruns, and other damages and expenses associated with the construction of Gerald Gentleman Station Unit No. 1. The general contractor, National Industrial Constructors, Inc., (NIC), counter-claimed against the District to recover amounts totaling in excess of \$32 million as a result, among other things, of the alleged failure of the District to effectively coordinate and administer the construction of Unit No. 1. The parties are currently engaged in discovery proceedings.

The suit filed by NIC against the District in District Court of Lancaster County, Nebraska, has been stayed, pending the outcome of the suit described in the preceding paragraph.

(4) OPERATIONS:

In early December, 1979, Gerald Gentleman Station Unit No. 1 was taken out of service for eight weeks due to excessive vibration in the turbine generator. Temporary repairs were made and the unit was returned to service in late January, 1980, at approximately 95% of its rated capacity. In September, 1980, permanent repairs were made, under warranty, by the manufacturer during an extended regularly scheduled maintenance outage.

(5) INSURANCE CLAIM:

As a result of the December, 1979, outage discussed in Note (4) above, the District filed a claim against an insurance carrier for additional expense associated with the outage. The claim is being contested and legal action is pending. The District recorded a \$2,045,000 claim receivable and reduced billings to the Electric System by the same amount in 1980.

(6) RATE COVENANT:

The District is required under the Power Supply Resolution to charge rates for electric power and energy from the Power Supply System so that revenues will be at least sufficient to pay operating expenses, aggregate debt service on the Power Supply System Revenue Bonds, amounts to be paid into the Debt Reserve Account and Reserve and Contingency Fund, and all other liens payable out of revenues of the Power Supply System.

Nebraska Public Power District
NUCLEAR FACILITY

Report of Independent Public Accountants

To the Board of Directors of
Nebraska Public Power District:

We have examined the special-purpose statements of assets and liabilities of the NUCLEAR FACILITY of NEBRASKA PUBLIC POWER DISTRICT (a public corporation and political subdivision of the State of Nebraska) as of December 31, 1980 and 1979, and the related special-purpose statements of revenues and costs for each of the three years in the period ended December 31, 1980. Our examinations were made in accordance with generally accepted auditing standards and, accordingly, included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

The accompanying special-purpose financial statements have been prepared for the purpose of complying with, and on the basis of, accounting requirements specified in the Nuclear Facility Revenue Bond Resolution adopted by the District on August 22, 1968, as supplemented, securing the revenue bonds issued thereunder. As described in Note 1(B), these requirements differ from generally accepted accounting principles. Accordingly, the financial statements are not intended to present and, in our opinion, do not present the financial position and results of operations of the Nuclear Facility of Nebraska Public Power District in conformity with generally accepted accounting principles.

In our opinion, however, the special-purpose financial statements of the Nuclear Facility of Nebraska Public Power District referred to above are presented fairly pursuant to the requirements of the Nuclear Facility Revenue Bond Resolution described in Note 1(B), applied on a consistent basis.

Arthur Andersen & Co.

Omaha, Nebraska,
March 10, 1981.

Nebraska Public Power District
NUCLEAR FACILITY

Statements of Assets and Liabilities
December 31, 1980 and 1979
Prepared Pursuant to Requirements of the
Nuclear Facility Revenue Bond Resolution

ASSETS	1980	1979
	(Thousands of Dollars)	
Utility Plant in Service	\$384,569	\$384,570
Less — Reserve for depreciation (Note 1)	46,227	37,082
	<u>\$338,342</u>	<u>\$347,488</u>
Construction Work in Progress	\$ 22,475	\$ 13,922
Nuclear Fuel — Net of Amortization (Notes 1 and 2)	\$ 96,557	\$100,787
Special Funds:		
Debt reserve account	\$ 26,249	\$ 26,251
Reserve and contingency fund	4,617	5,973
Construction fund	297	8,259
Fuel reserve account	4,161	1,883
Operating fund	1,235	756
Revenue fund	931	619
	<u>\$ 37,490</u>	<u>\$ 43,741</u>
Accounts Receivable	\$ 3,665	\$ 2,875
Interest Receivable	\$ 324	\$ 582
Prepayments and Other Assets	\$ 864	\$ 501
	<u>\$499,717</u>	<u>\$509,896</u>
LIABILITIES		
Revenue Bonds:		
Serial Bonds —		
4.55%-7.13%, due 1980	\$ —	\$ 9,145
4.55%-7.20%, due 1981 to 1985	52,980	52,980
4.80%-7.20%, due 1986 to 1990	45,685	45,685
6.00%-7.30%, due 1991 to 1995	18,780	18,780
7.38%, due 1996 to 2003	11,745	11,745
Term Bonds, with annual sinking fund requirements—		
5.10%, due 1987 to 2002	155,000	155,000
6.30%, due 1993 to 2003	68,430	68,430
6.60%, due 1992 to 2003	67,200	67,200
	<u>\$419,820</u>	<u>\$428,965</u>
Accounts Payable and Other Accrued Liabilities	1,870	3,465
Operating Reserves (Note 1)	78,027	77,466
	<u>\$499,717</u>	<u>\$509,896</u>

The accompanying notes to financial statements are an integral part of these statements.

Nebraska Public Power District NUCLEAR FACILITY

Statements of Revenues and Costs
for each of the Three Years in
the Period Ended December 31, 1980
Prepared Pursuant to Requirements of the
Nuclear Facility Revenue Bond Resolution

	1980	1979	1978
	(Thousands of Dollars)		
Revenues (Notes 1 and 4):			
Sales —			
Electric System	\$ 38,470	\$ 53,946	\$ 27,502
Iowa Power and Light Company	38,480	53,948	27,509
Investment income	4,608	4,374	3,287
Total revenues	<u>\$ 81,558</u>	<u>\$ 112,268</u>	<u>\$ 58,298</u>
Costs:			
Operating expenses —			
Production —			
Fuel	\$ 16,891	\$ 14,467	\$ 10,365
Operation and maintenance	16,222	9,454	7,938
Insurance	2,281	1,563	1,361
Provisions for operating reserves (Note 1)	8,352	51,375	3,767
Technical and administrative	4,173	1,792	1,250
	<u>\$ 47,919</u>	<u>\$ 78,651</u>	<u>\$ 24,681</u>
Debt service (Note 1) —			
Principal	9,145	8,730	8,335
Interest	24,494	24,887	25,282
Total costs	<u>\$ 81,558</u>	<u>\$ 112,268</u>	<u>\$ 58,298</u>

The accompanying notes to financial statements are an integral part of these statements.

Nebraska Public Power District NUCLEAR FACILITY

Notes to Financial Statements

(1) SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES:

A. Organization —

The District has three separate divisions for accounting purposes as follows:

- Electric System
- Nuclear Facility
- Power Supply System

As required by Bond Resolutions, separate records are maintained for each division. The Nuclear Facility financial statements exclude the Electric System and Power Supply System, for which financial statements are presented separately herein. The Nuclear Facility financial statements should be read in conjunction with such other financial statements.

B. Basis of Accounting —

Revenues are recognized and billed at an amount equal to costs as defined by the Nuclear Facility Revenue Bond Resolution (Nuclear Resolution) which include operating ex-

penses (excluding depreciation), and debt service on the revenue bonds, less investment income. Revenues are computed and billed so that no equity is accumulated in the Nuclear Facility.

Costs as defined by the Nuclear Resolution differ in the following respects from generally accepted accounting principles:

(1) Amortization of the debt principal is included as a cost in the accompanying Statements of Revenues and Costs as "Debt service-Principal."

Depreciation is not recorded as a cost. Had the District provided straight-line depreciation over a 30-year life rather than including amortization of debt principal over the same period, costs would have increased \$3,700,000 for 1980, \$4,100,000 for 1979 and \$4,100,000 for 1978. Accumulated depreciation through December 31, 1980, would have increased costs approximately \$33,700,000. The reserve for depreciation shown on the Statements of Assets and Liabilities was provided by recording amounts equal to repayment of debt.

(2) Billings to provide working capital for renewals and replacements of property and nuclear fuel are included in the accompanying Statements of Revenues and Costs as "Provisions for operating reserves." Under generally accepted accounting principles, provisions for renewals and replacements are not expenses but renewals

and replacements of property (exclusive of minor items of property) are charged to utility plant accounts. Provisions for working capital for nuclear fuel are not expenses under generally accepted accounting principles until the fuel is used.

(3) Interest income on construction fund investments is capitalized although commercial operation began in July, 1974. Such income would be included in income of the period under generally accepted accounting principles.

(4) Charges for Nuclear Facility services are based on cost and facilities are financed with debt securities. Therefore, there are no significant unrecorded costs of inflation in the financial statements.

C. Nuclear Fuel —

Nuclear fuel in the reactor is being amortized on the basis of energy produced as a percentage of total energy expected to be produced.

D. Special Funds —

Special funds consist of \$35,403,000 of investment securities and \$2,087,000 of cash as of December 31, 1980, and \$43,116,000 of investment securities and \$625,000 of cash at December 31, 1979.

Investments are made in U.S. Government securities, Federal Agency obligations, and bank certificates of deposit. The Debt Reserve Account in the Debt Service Fund and the Reserve Account in the Reserve and Contingency Fund are valued semi-annually at January 1 and July 1 at the lower of cost or market in accordance with requirements of the Nuclear Resolution. As a result of such valuation, the carrying value of the securities decreased \$805,000 on January 1, 1981. Gains or losses on valuations are included in investment income. The securities in the remaining funds are valued at the lower of cost or principal amount in accordance with requirements of the Nuclear Resolution.

(2) NUCLEAR FUEL:

The District has entered into contracts for various service components for fuel loadings as follows:

Service Component	Service Provided Through
Uranium	1983 (Estimated)
Conversion	1988
Enrichment	2007
Fabrication	1988

The District has expanded its capacity for storage of spent fuel and it is estimated that such capacity will be adequate for storage of spent fuel through 1990. Due to General Electric Company's failure to perform with respect to buyback and removal of fuel provided under the nuclear fuel supply contract, and the related litigation, as discussed in Note (3) below, the District is providing for the cost of disposal of said fuel as part of the fuel cost of the Nuclear Facility.

(3) LITIGATION:

In September, 1975, the District filed suit in the United States District Court for the District of Nebraska to recover amounts totaling \$150 million, plus additional amounts to be determined by the Court, from various contractors. The suit concerns damages and expenses associated with the design, construction and operation of Cooper Nuclear Station. Certain counterclaims have been filed seeking approximately \$8,763,000 and litigation expenses. The parties are currently engaged in discovery proceedings.

The nuclear fuel supply contract with General Electric Company discussed in Note (2) provides for buyback and removal of spent nuclear fuel supplied by General Electric Company pursuant to such contract. General Electric Company has failed to remove such spent nuclear fuel. In October, 1978, the District commenced litigation against General Electric Company in connection with the failure to perform with respect to such contract. General Electric has filed an answer denying liability and counterclaiming for return of payments allegedly made under a reservation of rights. The District has filed a reply to the counterclaim denying liability. The parties are currently engaged in discovery proceedings.

(4) RATES:

The District is required under the Nuclear Resolution to charge rates for electric power and energy from the Nuclear Facility so that revenues will be at least sufficient to pay operating expenses, aggregate debt service on the Nuclear Facility Revenue Bonds, amounts to be paid into the Debt Reserve Account and Reserve and Contingency Fund, and all other charges or liens payable out of revenues of the Nuclear Facility.

Under terms of a power sales contract with Iowa Power and Light Company (Iowa Power), the District will make available one-half of the production to Iowa Power with the balance available to the District's Electric System. Iowa Power and the District's Electric System each pay a proportionate share of the nuclear fuel costs (based on energy actually delivered) plus one-half of all other costs of the facility.

The District has also agreed to make available, through its Electric System, 12½% of the output of the Cooper Nuclear Station to the City of Lincoln.

(5) PLANT DECOMMISSIONING COSTS:

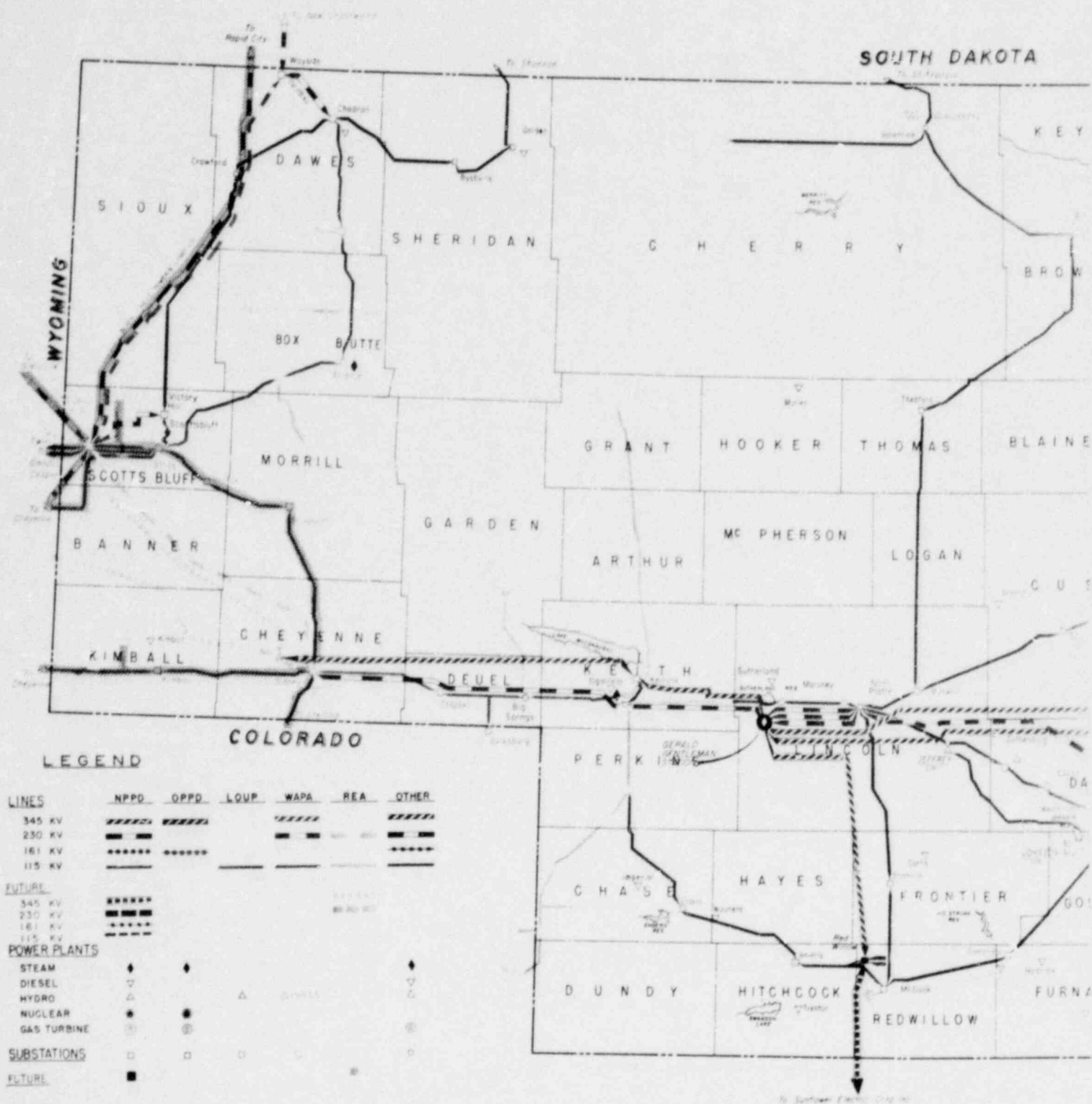
The funds for decommissioning are anticipated to be provided by the reserve funds accumulated in connection with the operation of the Nuclear Facility. These reserve funds, plus any other excess funds including funds received from the sale of equipment and supplies, will be available for payment of decommissioning costs. As a result of changing conditions and requirements for decommissioning, the District intends to continue reviewing decommissioning costs and funding requirements in the future.

(6) OPERATIONS:

In March, 1980, during the scheduled refueling outage of Cooper Nuclear Station, cracks were discovered in certain discs of the two low pressure rotors of the main turbine-generator. Temporary modifications were made to the rotors and the plant returned to service on June 4, 1980, at approximately 80% of its rated capacity. New replacement rotors at a cost of approximately \$13.5 million are on order and are to be delivered during the summer of 1981. The plant is scheduled to be shut down April 26, 1981, for a four-week refueling outage and again September 15, 1981, for seven weeks to install the new rotors and complete certain modifications required by the Nuclear Regulatory Commission. The District is also planning to have the damaged rotors repaired during 1982 for use as spare parts at a cost of approximately \$10.5 million.

(7) CONSTRUCTION AND FINANCE:

As a result of certain additions and modifications to Cooper Nuclear Station (CNS) required by the Nuclear Regulatory Commission, it is estimated that the cost of completing CNS will be increased approximately \$33 million over previous cost estimates. The District intends to finance such requirements from the issuance of short-term notes and from other available funds. The notes would be repaid with proceeds of future Revenue Bond issues.



POOR ORIGINAL

EXISTING 1980 AND FUTURE



SEATTLE, WASHINGTON COLUMBUS, NEBRASKA DENVER, COLORADO

POOR ORIGINAL

	Average Number of Customers	KWH Sales (Thousands)	%	Revenue From Sales (Thousands)	%
SALES					
Retail:					
Residential	80,579	693,757	8.3	\$ 32,068	13.3
Rural & Farm	5,849	91,621	1.1	4,477	1.9
Commercial	17,844	523,288	6.3	23,336	9.6
Industrial	108	732,217	8.8	21,564	8.9
Municipal & Federal	3,078	141,903	1.7	5,526	2.3
Total Retail	107,458	2,182,786	26.2	\$ 86,971	36.0
Wholesale:					
56 Municipalities (Total Requirements)		1,127,543	13.6	\$ 32,322	13.4
City of Lincoln (Partial Requirements)		644,475	7.7	7,290	3.0
18 Municipalities (Interconnection — Partial Requirements)		199,192	2.4	4,351	1.8
26 Public Power Districts & Cooperatives (Total Requirements) ..		3,150,782	37.9	84,264	34.8
Other Utilities — Non-Firm & Participation		1,015,856	12.2	22,658	9.4
Total Wholesale		6,137,848	73.8	\$150,885	62.4
Total Electric Revenues		8,320,634	100.0	\$237,856	98.4
Other Operating Revenues				3,856	1.6
Total Electric System Operating Revenues				\$241,712	100.0
GENERATION					
Production:					
Electric System		798,527	9.6	\$ 30,576	15.2
Purchased Power (1):					
Power Supply System		2,315,575	27.8	\$ 58,467	29.0
Nuclear Facility		1,892,639	22.8	37,588	18.7
Other		3,313,893	39.8	74,861	37.1
Total Purchased Power		7,522,107	90.4	\$170,916	84.8
Total KWH Sold — Electric System		8,320,634	100.0	\$201,492	100.0

(1) The Electric System purchases 100% of the net generation of the Power Supply System and 50% of the net generation of the Nuclear Facility based upon the total costs of the respective systems. Pursuant to the Power Sales Contract, Iowa Power and Light Company purchased 1,895,414,000 KWHs. Iowa Power and Light participation is not included in the table.

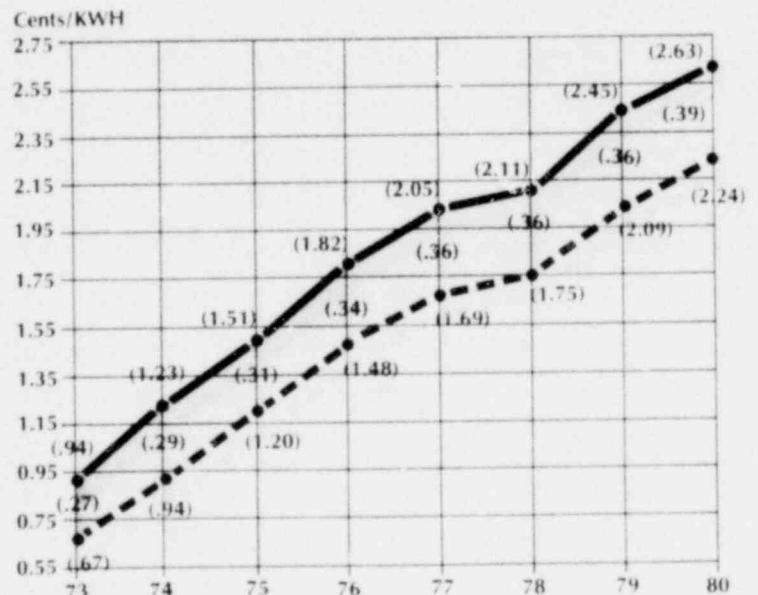
Total Operating Expenses Per KWH Sold

(Includes Purchased Power and Production)
(Excludes Irrigation and Non-Cash Items)

Purchased Power & Production Only

All Other Operating Expenses

The inflationary spiral is really quite evident in this graph. Since 1972 our operating expenses per KWH sold have increased 175%. The purchased power and production portion of these costs alone has increased over 231%, while the remaining operating expenses have gone up only 38% in comparison.



GENERAL

Utility Plant (at cost):

	1980	1979	Increase (1)
	(Thousands of Dollars)		
Electric System	\$ 489,949	\$ 452,615	\$ 37,334
Power Supply System	671,771	616,726	55,045
Nuclear Facility	407,044	398,492	8,552
Total Utility Plant	<u>\$1,568,764</u>	<u>\$1,467,833</u>	<u>\$100,931</u>

Production Plant Facilities:

	Number of Plants (2)	Accredited Capability (KW)
Steam — Conventional	7	1,105,800
Steam — Nuclear	1	778,000 ⁽³⁾
Hydro	9	123,020
Diesel	14	55,110
Peaking Turbine	3	149,000
Total Production Plant Facilities	<u>34</u>	<u>2,210,930</u>

(1) Net of Retirements.

(2) Includes two steam plants, five hydro plants, and ten diesel plants under contract to the District.

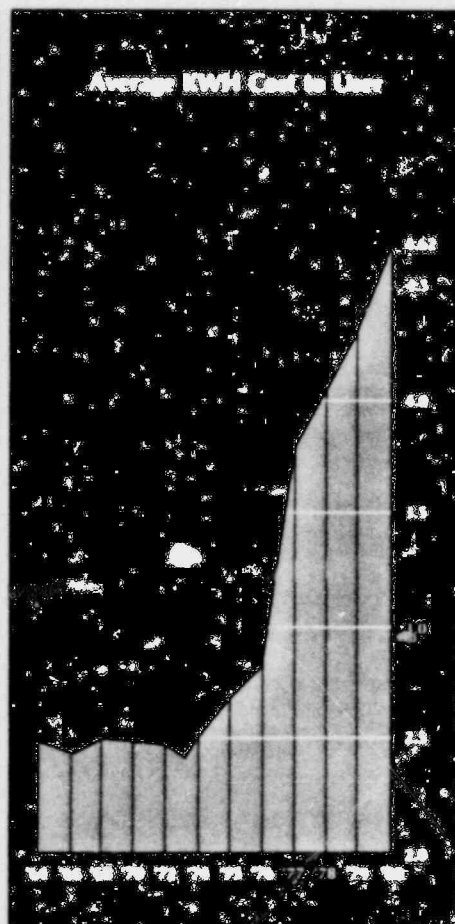
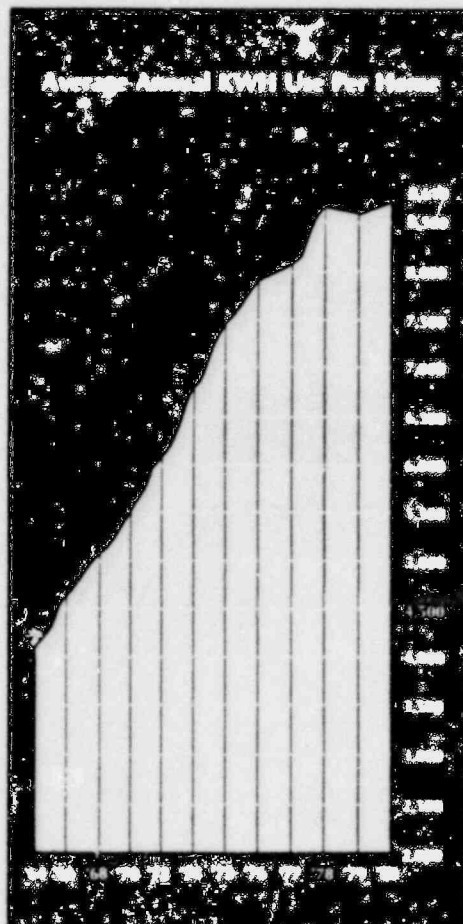
(3) Includes 389,000 KW contracted to Iowa Power and Light.

Transmission Facilities:

Miles of Transmission Line in Service 6,328

Personnel:

Number of Permanent Employees 2,095



POOR ORIGINAL