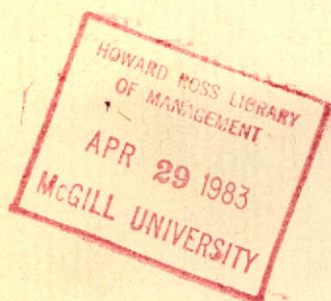


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Saskatchewan Power Corporation

ANNUAL REPORT

1982



HIGHLIGHTS

	1982	1981
	(\$ million)	
Revenue from		
Sales	621.1	509.9
Net Earnings		
(loss)	(3.4)	(0.3)
Funds from		
Operations ...	56.1	51.8
Capital		
Expenditures .	272.3	248.1
Energy Sales		
—electricity		
(billions of		
kilowatt hours)	8.5	8.5
—natural gas		
(millions of		
cubic metres) .	3 012	2 814

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CORPORATE HEAD OFFICE

Saskatchewan Power
Corporation
2025 Victoria Avenue
Regina, Saskatchewan
S4P 0S1

LETTER OF TRANSMITTAL

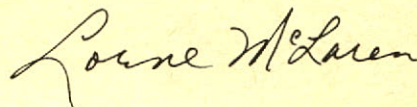
Regina
1983 March

To His Honour
C. Irwin McIntosh
Lieutenant Governor of the Province of Saskatchewan

Sir:

I have the honour to submit herewith the Annual Report of the Saskatchewan Power Corporation for the year ended 1982 December 31, including the financial statements for the year duly certified by the Provincial Auditor and in the form approved by the Treasury Board, all in accordance with The Power Corporation Act.

I have the honour to be, Sir,
Your obedient servant,



Minister-in-Charge
Saskatchewan Power Corporation

BOARD OF DIRECTORS



G.D. Hill



Hon. J.G. Lane



A.E. Bechard



W.H. Blaisdell



E. Laurence



M.N. Manning



F.A. Meyers



P. Olynik



L. Smith



D. Stankov



G. Thorpe



F.W. Woodward

Hon. L.A. McLaren
Chairman
Regina
Minister of Labor,
Minister-in-Charge
the Saskatchewan Power
Corporation
and the Potash Corporation
of Saskatchewan

Hon. J.G. Lane
Regina
Attorney General,
Minister of
Intergovernmental Affairs,
Provincial Secretary,
and Minister-in-Charge of
Saskatchewan Telecommunications

G.D. Hill
Vice-Chairman
Estevan
Executive Committee Chairman

A.E. Bechard†
Sedley

W.H. Blaisdell
Regina
Finance Committee Chairman

E. Laurence*
Yorkton

M.N. Manning‡
North Battleford

F.A. Meyers‡
Saskatoon

P. Olynik†
Moose Jaw

L. Smith‡
Pathlow

D. Stankov*
Regina
Audit Committee Chairman

G. Thorpe†
Yorkton

F.W. Woodward*
Regina

*Executive Committee †Finance Committee ‡Audit Committee

CHAIRMAN'S LETTER

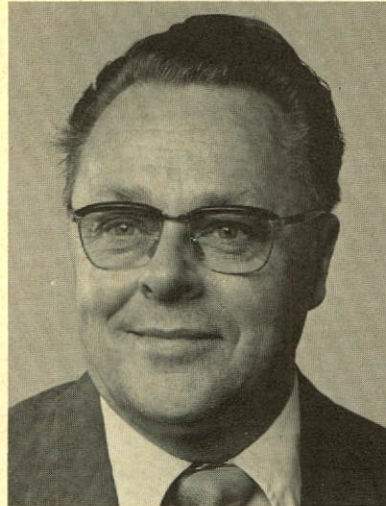
In 1982, a year of change and unexpected events, few could have predicted the impact of the national and international economy on the well-being of the Saskatchewan Power Corporation.

With inflation raging across Canada and around the world we saw reduced potash production in Saskatchewan as demand for that fertilizer resource declined. Consequently, electricity used in potash mining was down and together with reduced manufacturing production in other sectors had a large impact on revenue from industrial customers.

Meanwhile, prospects of energy interchange among prairie province utilities diminished with the postponement of the Western Electric Power Grid proposal. This option for energy exchange became less attractive because of changes in economic circumstances in the three prairie provinces.

However, a pre-feasibility study of expansion of electrical generating facilities in the Estevan area was completed in 1982 and a more detailed study will be completed in 1983.

With a change in government in Saskatchewan in April of 1982, time was taken to review and revise operational and financial policies within the Saskatchewan Power Corporation. In July, a preliminary forecast predicted a year end deficit of \$37.4 million. Significant efforts were made to reduce controllable costs. The success of these efforts and the effect of lower interest rates



Hon. L.A. McLaren

and a Canadian dollar that was stronger by year end than forecasts had anticipated, contributed to an actual loss of \$3.4 million by year end. Reduced capital expenditures and amounts claimed as Alberta Royalty Tax Credits also contributed to a better than predicted financial performance in 1982.

Construction activity was re-activated at the Nipawin Hydroelectric Power Station site in order to work toward meeting electricity demands expected in the latter half of the 1980s. The Saskatchewan Natural Gas Distribution Program proceeded. Thirty communities received natural gas service and four pilot projects for supply of gas to farms established the feasibility of this service.

Overall, the government aims to restore and further expand employment and industrial activity in Saskatchewan

through instigating necessary and useful projects such as those dealing with the production and delivery of electricity and natural gas.

In light of the poor financial performance of the Saskatchewan Power Corporation in 1982, the decision of the Public Utilities Review Commission regarding rates charged for electricity and natural gas will be significant in future years. Higher rates are necessary to meet the ever increasing costs to produce and deliver energy, including the development of new facilities such as the Nipawin Hydroelectric Power Station and the second unit at the Poplar River Power Station.

It is a challenge to deal with utility operations in a difficult economic time. I look forward to the future with the confidence that this government will, through the Saskatchewan Power Corporation, deliver electricity and gas as economically and as efficiently as possible. At the same time, I look forward to seeing the financial well-being of the Saskatchewan Power Corporation restored to an acceptable level of stability.

A handwritten signature in dark ink, reading "Lorne McLaren". The signature is fluid and cursive.

Minister-in-Charge

PRESIDENT'S LETTER

Efficient operation during a time of financial restraint was the challenge faced by the Saskatchewan Power Corporation in 1982. During the year expenses were reduced wherever possible while the corporation faced rising costs of virtually every commodity and necessary service. The severe impact of high interest and the lower consumption in the industrial sector put pressure on net earnings.

The declining financial position is clearly evident. In 1982, the corporation experienced a net loss of \$3.4 million, establishing a third consecutive year of decline in net earnings. Interest on borrowed funds was the highest single expense item in the electric system. High levels of borrowing were required to finance construction of the Nipawin station and the second unit at Poplar River.

The major expense increase in the gas system occurred in the Alberta Border Price for natural gas and in associated federal taxes. Only a portion of these increases in costs and taxes were passed on to customers in 1982.

Expense cutbacks included a hiring freeze and reduced levels of corporate activity in all departments while still maintaining service in a safe and reliable manner. Programs dealing with the public as well as operational and capital expansion have been closely re-examined, revised, reduced or eliminated where possible.

Improvements in operational efficiency were implemented and planned for in 1982. At



E.B. Campbell

ways of handling operations in a technologically advanced era.

The support and guidance of the Board of Directors is gratefully acknowledged.

A handwritten signature in cursive script, reading "E.B. Campbell".

Acting President

head office a new computer was installed which will help to improve customer billing and other essential computing processes. Site development for the new System Control Centre began in Regina where, by 1985, the planning and dispatch of electricity and natural gas supplies will be assisted by advanced computer systems.

To enhance electric system security and to permit beneficial interchanges of electricity a 230 kV (kilovolt) tie-line with Basin Electric Power Cooperative of North Dakota was brought into full operation during the year. Tie-lines with Manitoba Hydro also provide a valuable source of electricity exchange during peak load times and in the event of system emergencies.

In these times of financial stress the employees of the corporation are striving to implement new and more productive

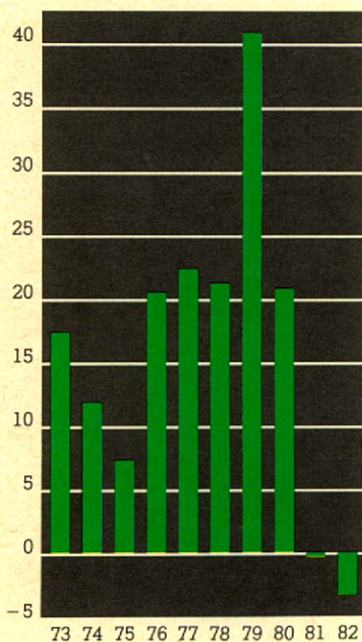
FINANCIAL PERFORMANCE

Net Earnings

The Saskatchewan Power Corporation experienced a loss of \$3.4 million in 1982. This represents the third consecutive year that net earnings have declined. From \$41.7 million in 1979, net earnings dropped to \$21.5 million in 1980 followed by a loss of \$0.3 million in 1981 and a further loss of \$3.4 million in 1982.* The 1982 loss was mainly because of lower than anticipated rate increases and reduced industrial revenues, partially offset by a colder than normal first quarter and signifi-

CORPORATE NET EARNINGS

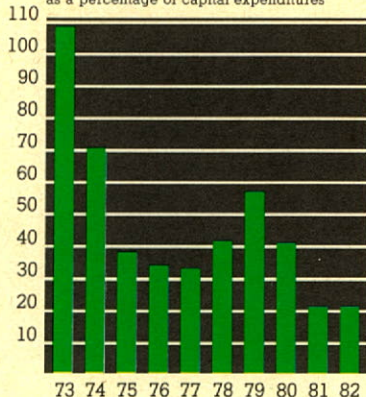
\$ millions



*These net income and loss figures for 1979 to 1981 are re-stated to reflect the retroactive portion of Alberta royalty tax credit claimed in 1982.

FUNDS FROM OPERATIONS

as a percentage of capital expenditures



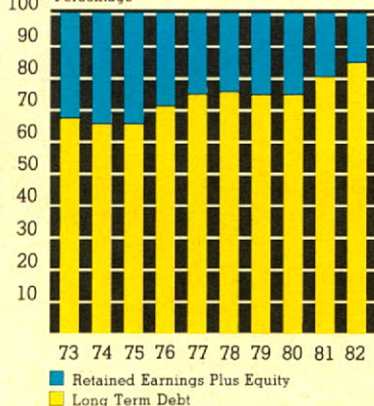
cant efforts to reduce expenses.

These efforts achieved worthwhile savings in 1982 that will also have benefits beyond this year. As well, the corporation experienced favorable developments such as strengthening of the Canadian dollar and declining interest rates during the year.

Net earnings for the 10-year period 1973 to 1982 averaged \$16.0 million. However, capital expenditures have risen from \$38.8 million in 1973 to \$272.3 million in 1982. This has

COMPOSITION OF CAPITAL

Percentage



resulted in a significant deterioration in the corporation's financial position as measured by the debt to equity ratio of 67:33 in 1973, compared to 82:18 in 1982. The corporation has had to borrow an increasing portion of the funds required for new capital expenditures.

Revenue and Rates

In 1982, total revenues amounted to \$646.9 million, an increase of \$119.6 million or 22.7 per cent over 1981.

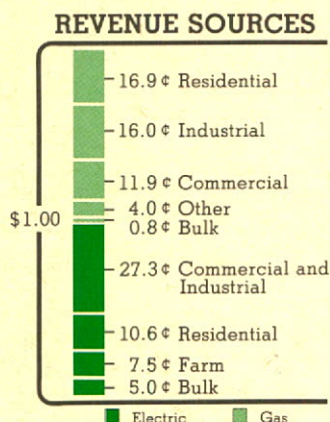
Revenue from electricity sales increased \$44.6 million over 1981, to \$326.6 million, of which \$20.7 million was due to rate increases averaging 12.5 per cent for industrial and commercial customers in 1982 January and February. Rates to residential, farm, street light and industrial customers were last changed in 1981 August, effecting a \$10.6 million increase in 1982 revenues. A further source of revenue amounting to \$12.4 million resulted from a change in the composition of sales—the volume of the residential sales increase was partially offset by lower-volume industrial sales.

Gas sales revenue in 1982 was \$294.5 million, an increase of \$66.7 million or 29.3 per cent over 1981. Rate increases ranging from 16.5 to 20.4 per cent were implemented for all customer groups in 1982 February, in order to recover increases in the Alberta border price for natural gas, increases in Saskatchewan gas prices, grants in lieu of federal excise taxes and

increases in operating costs and interest expense. The revenue gained from the 1982 increases was \$39.0 million. The increases implemented in 1981 May and July represented an additional \$13.9 million revenue increase in 1982.

The 1982 August 01 increase in the Alberta Border Price for natural gas was not passed on to customers as has been past practice. Approximately \$5.0 million would have been received in revenue had the increase been implemented.

Rate increases for 1983 and subsequent years will require



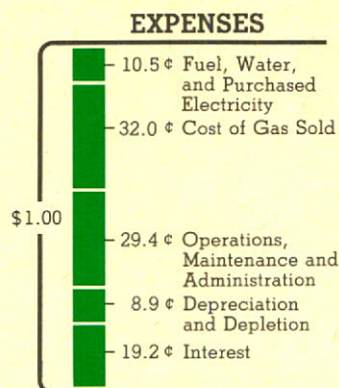
the approval of the Public Utilities Review Commission which was established in 1982. At the end of 1982, the corporation was preparing an application for 1983 rate increases for presentation to the commission.

Expenses

Total Expenses

The corporation's total expenses for 1982 were \$650.4 million, a 23.3 per cent increase over 1981.

The cost of fuel for electricity generation, including coal and natural gas and the purchase of



imported electricity increased by \$13.7 million from the previous year to \$68.0 million in 1982. In 1982 the corporation relied on the more costly gas and coal thermal generation as well as on import purchases because the amount of energy produced by hydro stations decreased since flows on both the South Saskatchewan River and the Churchill River were lower than in 1981, and because the second unit at the Poplar River Power Station was delayed 8½ months by a construction strike.

The cost of gas sold rose by \$61.7 million or 42.0 per cent, the result of increases in the price of Alberta and Saskatchewan gas and grants to the federal government in lieu of federal natural gas taxes.

Higher costs were experienced for materials, equipment, supplies and labor, causing an increase in operating, maintenance and administration expenses of \$11.7 million or 6.5 per cent to \$190.9 million in 1982. The effectiveness of the

corporation's efforts to reduce this category of expenses was partially offset by grants in lieu of taxes paid to communities as well as the funding of an ad hoc increase in payments granted to superannuates in 1982.

The large capital construction program and the poor profit performance of the corporation during 1981 and 1982 resulted in higher borrowings. Interest expenses increased by 29.7 per cent or \$28.5 million to \$124.8 million in 1982. The increase over the previous year was due to the full year's effect of 1981 borrowings, high interest rates and the decline in the value of the Canadian dollar.

Taxes, Grants and Surcharges

The growing amounts of taxes, surcharges and grants in lieu of taxes that are included in customers' bills and paid to various levels of government is a matter of continuing concern.

The grants and surcharges related to energy sales revenue and paid to urban municipalities have escalated rapidly in the past few years. In addition, the corporation pays grants in lieu of taxes to several rural municipalities. In 1982 these amounted to \$1.2 million, the major portion relating to the corporation's coal mining operations. In 1982, \$25.7 million was paid to Saskatchewan communities; approximately 82 per cent of surcharges and payments was paid to cities and 18 per cent to towns, villages and rural municipalities.

The corporation also collects

TABLE 1

		(\$000)
Grants in lieu of Federal Taxes		
Natural Gas and Gas Liquids Tax ..	\$ 80 337	
Petroleum and Gas Revenue Tax ..	6 267	\$ 86 604
Municipalities		
Grants in lieu of taxes	12 849	
Grants in lieu of taxes on mining operations	1 051	
Surcharges collected	11 556	
Other taxes and payments	255	25 711
Provincial Education and Health Tax collected on electricity bills		
		11 653
		123 968
Other payments to Federal and Provincial Governments		
		44 287
TOTAL		\$168 255

and pays education and health taxes on electricity sales, which in 1982 amounted to a payment of \$11.7 million to the provincial government. The grants to the federal government in lieu of taxes on natural gas, first imposed in 1981, amounted to \$86.6 million in 1982.

All revenue-related and assessment-related payments, grants, surcharges and taxes comprised a substantial part of the cost of energy to the consumer in 1982, amounting to \$124.0 million.

As well, other payments were made to federal and provincial governments, including royalties on natural gas and coal, water rental, federal sales tax and education and health tax on goods purchased and produced to an estimated total of \$44.3 million. This resulted in a total of \$168.3 million in taxes, grants and surcharges for 1982.

(See Table 1)

Capital Expenditures

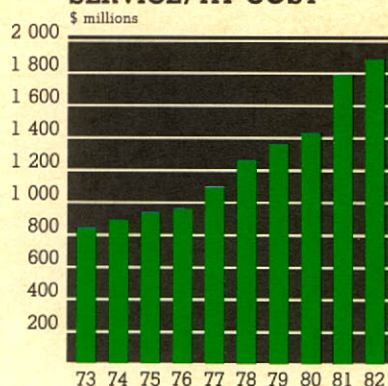
In 1982, total capital expenditures were \$272.3 million. Of this, \$224.0 million was for electric projects, 5.3 per cent more than in 1981.

The 1982 construction strike delayed the completion of the second 294 MW unit at the Poplar River Power Station by 8½ months. The cost of additional interest during construction, plus escalation and administration, has resulted in an increase of \$16.3 million in the capital cost of this unit.

Total capital expenditures for gas projects in 1982 were \$37.3 million, \$20.4 million higher than in 1981 due primarily to the Saskatchewan Natural Gas Distribution Program costs of \$17.7 million.

The purchase of the Island Falls Hydroelectric Power Station northwest of Flin Flon on the Churchill River was settled

UTILITY PLANT IN SERVICE, AT COST

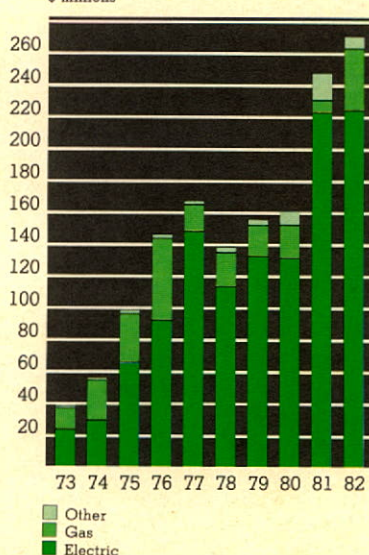


out of court in 1982, at a total capital cost of \$57 million.

The Province of Saskatchewan borrowed \$356.0 million in 1982 to meet the corporation's financing needs.

CAPITAL EXPENDITURES

Improvements and Additions to Facilities
\$ millions



FINANCIAL RESULTS 1982



Saskatchewan Power Corporation and wholly-owned subsidiaries

North-Sask Electric Ltd. —operates electric generating plants and distribution systems at various locations in the northern part of the province.

Many Islands Pipe Lines Limited

Many Islands Pipe Lines (Canada) Limited—gathers, produces and purchases gas in Alberta primarily for the use of the Corporation and transports gas through its interprovincial transmission lines from the Alberta-Saskatchewan border to Saskatchewan Power Corporation facilities.

Consumers Oil Limited—engages in gas development and production in western Canada.

Consumers Oil Inc.

CONSOLIDATED STATEMENT OF EARNINGS AND EARNINGS RETAINED IN THE CORPORATION

for the years ended December 31

	Note Reference	1982	1981
		(in thousands)	As Restated
REVENUE			
Electricity sales		\$326 591	\$282 037
Gas sales		294 491	227 826
Other	2, 5	25 838	17 482
		<u>646 920</u>	<u>527 345</u>
EXPENSES			
Fuel, water and purchased electricity ..		68 032	54 318
Cost of gas sold	4	208 661	146 981
Operating, maintenance and administration	3, 9	190 948	179 281
Depreciation and depletion	6	57 960	50 855
		<u>525 601</u>	<u>431 435</u>
EARNINGS BEFORE INTEREST		<u>121 319</u>	<u>95 910</u>
INTEREST EXPENSE			
Long-term debt	11	128 528	89 343
Other		21 981	24 443
Capitalized	17	(25 745)	(17 554)
		<u>124 764</u>	<u>96 232</u>
NET EARNINGS (LOSS)		<u>(3 445)</u>	<u>(322)</u>
EARNINGS RETAINED IN THE CORPORATION			
At beginning of year		221 973	222 295
Transferred from Rate Stabilization Reserve		13 700	—
At end of year		<u>\$232 228</u>	<u>\$221 973</u>

See major accounting policies and notes.

CONSOLIDATED STATEMENT OF CHANGES IN FINANCIAL POSITION

for the years ended December 31

	Note Reference	1982 (in thousands)	1981 As Restated
SOURCE OF FUNDS			
Net earnings (loss)		\$ (3 445)	\$ (322)
Transactions not requiring cash:			
Depreciation and depletion		57 960	50 855
Other		1 593	1 282
		<u>56 108</u>	<u>51 815</u>
Long-term debt—Province of Saskatchewan		356 047	253 860
Contributions in aid of construction		13 246	12 907
Sale of Dragline	18	45 000	—
Other		2 077	769
		<u>472 478</u>	<u>319 351</u>
APPLICATION OF FUNDS			
Capital expenditures		272 307	248 080
Reduction in long-term debt		67 304	43 181
Other		2 194	17 801
		<u>341 805</u>	<u>309 062</u>
INCREASE IN WORKING CAPITAL		<u>\$130 673</u>	<u>\$ 10 289</u>

See major accounting policies and notes.

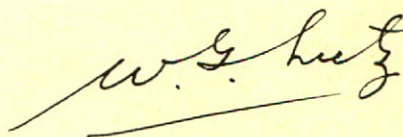
AUDITOR'S REPORT

To the Members
of the Legislative Assembly
Province of Saskatchewan

I have examined the consolidated statement of financial position of Saskatchewan Power Corporation as at 1982 December 31, and the consolidated statements of earnings and earnings retained in the corporation and changes in financial position for the year then ended. My examination was made in accordance with generally accepted auditing standards, and accordingly included such tests and other procedures as I considered necessary in the circumstances.

In my opinion, these consolidated financial statements present fairly the financial position of Saskatchewan Power Corporation as at 1982 December 31 and the results of its operations and changes in its financial position for the year then ended in accordance with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

Regina, Saskatchewan
1983 March 04



W.G. Lutz, F.C.A.
Provincial Auditor



CONSOLIDATED STATEMENT OF FINANCIAL POSITION

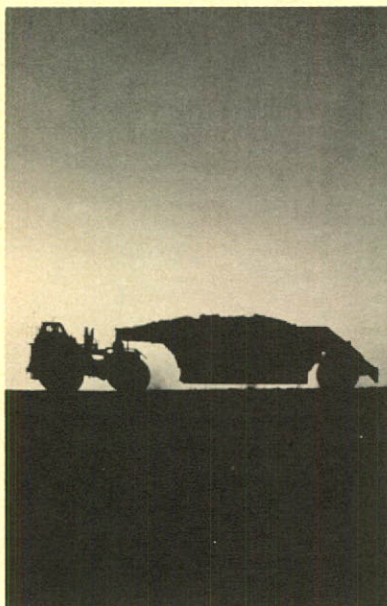
As at December 31

	Note Reference	1982 (in thousands) As Restated	1981 (in thousands) As Restated
UTILITY PLANT			
Utility plant in service, at cost	19	\$1 884 403	\$1 790 278
Less accumulated depreciation & depletion		544 350	495 349
		1 340 053	1 294 929
Construction in progress		329 257	189 708
		1 669 310	1 484 637
CURRENT ASSETS			
Bank and short-term investments		49 761	—
Accounts receivable and unbilled revenue	18	169 138	109 174
Inventories, at cost	7	66 786	51 084
Prepaid expenses		1 811	1 503
		287 496	161 761
DEFERRED CHARGES AND OTHER ASSETS			
	13	97 350	81 154
		\$2 054 156	\$1 727 552

See major accounting policies and notes.

	Note Reference	1982 (in thousands) As Restated	1981
CAPITALIZATION			
Equity			
Earnings retained in the Corporation . .		\$ 232 228	\$ 221 973
Rate stabilization reserve		—	13 700
		<u>232 228</u>	<u>235 673</u>
Contributions in aid of construction . .		<u>78 836</u>	<u>75 415</u>
		<u>311 064</u>	<u>311 088</u>
Long-term debt net of sinking funds	20	<u>1 384 314</u>	<u>1 076 387</u>
Obligation under capital lease	12	<u>31 609</u>	<u>30 753</u>
		<u>1 726 987</u>	<u>1 418 228</u>
CURRENT LIABILITIES			
Bank indebtedness		—	86 415
Short-term advances from the Province of Saskatchewan		—	22 000
Accounts payable and accrued liabilities		<u>220 338</u>	<u>139 761</u>
Long-term debt due within one year	12, 20	<u>48 386</u>	<u>25 486</u>
		<u>268 724</u>	<u>273 662</u>
COMMITMENTS AND CONTINGENT LIABILITIES			
	15, 18		
CUSTOMER DEPOSITS			
		<u>7 082</u>	<u>6 883</u>
DEFERRED INCOME ITEMS			
Unamortized gain on dragline sale	18	<u>15 807</u>	—
Prepaid revenue		<u>35 556</u>	<u>28 779</u>
		<u>51 363</u>	<u>28 779</u>
		<u>\$2 054 156</u>	<u>\$1 727 552</u>





MAJOR ACCOUNTING POLICIES

Consolidation—The consolidated financial statements include the financial position and operating results of the five wholly-owned subsidiaries of the Saskatchewan Power Corporation.

Customer Capital Contributions—Capital contributions are required from customers when the cost of providing service is expected to exceed estimated revenue to be earned over a period of time. Where the deficiency is expected to continue beyond the estimated life of the facilities required to serve such customers, the contribution is classified as contributions in aid of construction. Where the deficiency is expected for only a portion of the life of the facilities, the contribution is classified as deferred revenue and amortized into income over an appropriate period.

Fixed Assets—Fixed assets include electricity and gas supply facilities (generation, production, transmission and distribution) and general plant (buildings, office and service equipment). Cost includes direct material and labor and overhead costs such as engineering and administration that are considered applicable to the capital construction program. Interest on funds used during construction is capitalized at the

weighted average interest rate on current year long-term and short-term borrowings.

The cost of additions to and replacement of fixed assets is capitalized when service life is extended. The cost of fixed assets retired, less the proceeds of sale, is charged to accumulated depreciation. When the complete asset unit is retired a gain or loss is recognized.

Gas and Coal Exploration Costs—The Corporation follows the full cost method of accounting for the acquisition cost of gas and coal in place and exploration and development costs. All costs of land acquisition, geological and geophysical expenditures, rentals on undeveloped properties, costs of drilling productive and non-productive wells, overhead related to exploration activities and interest are capitalized and form part of plant in service.

Future Generation and Environmental Studies—Costs associated with the planning, site selection and environmental and social impact studies are charged to operations as incurred, except for those related directly to the design or construction of a specific capital facility.

Depletion of Gas and Coal Properties—Depletion of gas and coal properties is calculated using the composite unit-of-production method based on estimated remaining recoverable gas and coal reserves and the unamortized costs of these reserves.

Depreciation—Depreciation is calculated on a straight-line estimated service life basis for the various classes of property except for gas production and gathering systems for which the unit-of-production method is used. Estimated service lives of the major assets are as follows:

Electric System

Generation	
Hydroelectric	50 years
Thermal	30 years
Capital lease	35 years

Transmission	
Lines	40 years
Switching stations	30 years

Distribution	
Oil fields	20 years
Rural and urban	
Overhead	30 years
Underground	40 years

Gas System

Transmission	
lines	28 years
Distribution	
systems	25-40 years

Foreign Exchange on Long-Term Debt—All long-term debt payable in foreign currencies is recorded in Canadian dollar equivalents using exchange rates prevailing at year end. Unrealized gains and losses related to these foreign exchange translations, net of accumulated charges to income, are amortized to income over the remaining term of each obligation.

Accrued interest on the foreign long-term debt is

recorded at exchange rates prevailing at year end. Interest paid during the year on foreign currency is translated at rates prevailing at the time of the transaction. Foreign currency gains and losses relative to these items are charged to income in the current period.

Joint Ventures—Saskatchewan Power Corporation follows the proportionate consolidation method of accounting for its participation in joint ventures.

Amortization of Debt Costs and Gains—Unamortized debt discounts and expenses applicable to advances received from the Province of Saskatchewan are charged to income in equal annual amounts over the period to the maturity or early maturity option, where applicable, of the debt.

From time to time, the Province of Saskatchewan cancels, before the maturity thereof, Province of Saskatchewan debentures held as investments in sinking funds for the repayment of such debentures. Advances from the Province to the Corporation which were initially financed by the cancelled securities are repaid and the difference between the book value and par value of the cancelled debentures is amortized into income on a yield basis over the remaining term of the debentures cancelled.

Superannuation—The Corporation's financial obligations for the superannuation of its employees are legislated in Sections 34 and 35 of the Power Corporation Superannuation Act and Section 42 of the

Superannuation (Supplementary Provisions) Act, as amended in 1982.

The Corporation meets its obligations under the Power Corporation Superannuation Act for employee superannuation allowances payable in the future by making regular payments into the Power Corporation Superannuation Fund equal to the annual charges against income for such allowances. The charges against income are calculated at the actuarially determined rate necessary to provide for future superannuation benefits over the remaining working lives of the employees. Actuarial valuations are carried out approximately every three years.

The Corporation meets its obligations under the Superannuation (Supplementary Provisions) Act for ad-hoc allowances payable in the future to present beneficiaries by making a payment into the Power Corporation Superannuation Fund equal to the present value of the ad-hoc allowances. The charge against income is the actuarially determined rate necessary to fund the ad-hoc increases granted to the present beneficiaries of the Power Corporation Superannuation Fund.

The Corporation meets its obligations under the Superannuation (Supplementary Provisions) Act by making regular payments to the Public Employees (Government Contributory) Superannuation Plan and charges against income amounts equal to the employer contribution required under the provisions of the Act.

NOTES TO THE FINANCIAL STATEMENTS

1.

In 1929, the Saskatchewan Power Commission was established to manufacture and supply electrical energy in the Province. In 1949, the Saskatchewan Power Corporation was established by Order-in-Council to replace this function of the Commission. Pursuant to The Power Corporation Act passed on 1950 April 08, the Corporation was established in essentially its present form.

In accordance with the provisions of its Act, the Corporation's main functions are the generation, transmission, distribution and sale of electrical energy, the production of coal and the production, purchase, transmission, distribution and sale of natural gas.

The financial results of the Corporation are included in the consolidated financial statements of the Crown Investments Corporation of Saskatchewan.

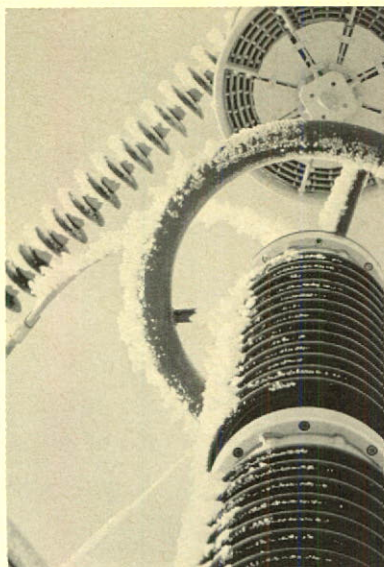
2.

Restatement

Other Revenue and Retained Earnings were restated to reflect, retroactively, amounts claimed as Alberta Royalty Tax Credits allowed in respect to royalties paid to the Province of Alberta. The amounts are \$381 000 in 1978, \$1 000 000 in 1979, \$1 000 000 in 1980, and \$2 003 000 in 1981. This increased Other Revenue by \$2 003 000 and Retained Earnings by \$2 381 000 in the 1981 figures as restated.

3.

Engineering and Environmental Study costs on future generation facilities charged to operations were \$623 000 in 1982 (\$8 775 000 in 1981).



4.

In 1969, the Corporation entered into an agreement for the purchase of gas by TransCanada PipeLines over a 5½ year period. The agreement provides for the return to the Corporation of a like amount at the same price. On application by TransCanada PipeLines, the National Energy Board ruled that effective 1976 November 01, the price to be paid by the Corporation for gas returned by TransCanada under this agreement would be the price established by agreement between the Alberta and Federal Governments plus transportation. This ruling by the National Energy Board was appealed to the Supreme Court of Canada. In 1981 December, the court ruled that the board had exceeded its authority in purporting to substitute the imputed Alberta Border Price for that fixed by the contract between the parties.

Delivery of gas to the Corporation started in 1976 November. The Corporation has paid the higher price under protest. The additional payments recorded as cost of gas

were \$6.7 million in 1980, \$17.1 million in 1979, \$18.4 million in 1978, \$14.6 million in 1977 and \$2.7 million in 1976.

In 1979 the Corporation commenced an action in the Saskatchewan Court of Queen's Bench for the recovery of monies paid under protest. This case is now proceeding.

5.

Other Revenue (000's)	1982	1981
Amortized revenue prepayments ..	\$ 3 048	\$ 2 189
Alberta price adjustment	12 122	9 478
Royalty tax credit	4 000	2 003
By-products	757	656
Other	5 911	3 156
	<u>\$25 838</u>	<u>\$17 482</u>

6.

Depreciation and Depletion (000's)	1982	1981
Depreciation	\$54 960	\$48 094
Depletion	3 710	3 328
Capitalized	(710)	(567)
	<u>\$57 960</u>	<u>\$50 855</u>

7.

Inventories (000's)	1982	1981
Maintenance material and supplies		
—average cost	\$18 166	\$14 031
Plant and mine repair parts		
—average cost	14 229	12 295
Coal and fuel oil		
—FIFO	11 742	10 656
Gas in storage		
—FIFO	22 649	14 102
	<u>\$66 786</u>	<u>\$51 084</u>

8.

The Corporation's directors received \$35 323 (\$21 400 in 1981) from Saskatchewan Power Corporation. The 13 senior officers (13 in 1981) received, in aggregate, \$879 734 in salaries for 1982 (\$783 534 in 1981).

9.

The charge against income and payments to the Power Corporation Superannuation Fund and Public Employees (Government Contributory) Superannuation Plan for employees' future superannuation benefits was \$10 743 000 in 1982 (\$9 254 000 in 1981). An amount of \$2 166 000 was paid into the Fund in 1982 (\$1 500 000 in 1981) to cover the present value of the 1982 ad-hoc increases granted to the present beneficiaries of the Power Corporation Superannuation Fund. An amount of \$1 783 000 was paid into the fund in 1982 to cover the present value of the survivor's allowance increases granted to spouses of beneficiaries of the Power Corporation Superannuation Fund.

The Corporation makes regular payments into the Power Corporation Superannuation Fund at the actuarially determined rates equal to the charges against income. These rates will provide for future pension benefits over the remaining working lives of the employees. The most recent actuarial valuation indicated that there are past service costs of \$50 983 000 which will be funded and charged to future operations in this manner.

10.

Approximately 0.43 million hectares (1.062 million acres) net of unexplored properties were transferred to Saskoil in 1979. Saskatchewan Power Corporation and its subsidiary Many Islands Pipe Lines (Canada) Limited have an overriding royalty interest and certain repurchase rights in these properties.

11.

Interest on Long-Term Debt (000's)

	1982	1981
Interest paid and accrued	\$145 022	\$103 889
Amortization of debt costs and gains:		
Debt discount and expense	1 208	843
Gain on early repayment of debt	(1 385)	(1 692)
Foreign exchange provision	5 888	3 988
Sinking fund earnings	(22 205)	(17 685)
	<u>\$128 528</u>	<u>\$ 89 343</u>

12.

Obligation Under Capital Lease (000's)

	1982	1981
The obligation under Capital Lease, for the dragline at Coronach, is with the Continental Bank of Canada. The lease, which extends until 2014, has an implicit interest rate of 7.8%	\$30 753	\$31 199
The obligation under Capital Lease, for other equipment, is with Scotia Leasing Limited. The leases, which extend until 1987, have a variable interest rate determined monthly, based on the prime lending rate of the Bank of Nova Scotia	1 545	—
	<u>32 298</u>	<u>31 199</u>
Amount due within one year	689	446
	<u>\$31 609</u>	<u>\$30 753</u>

Future minimum lease payments are as follows:

Period Ended	
1983 December	3 342
1984 December	3 342
1985 December	3 342
1986 December	3 342
1987 December	2 984
Thereafter	53 891
	<u>70 243</u>
Less: Amount representing interest	37 945
	<u>\$32 298</u>

13.

Deferred Charges and Other Assets (000's)

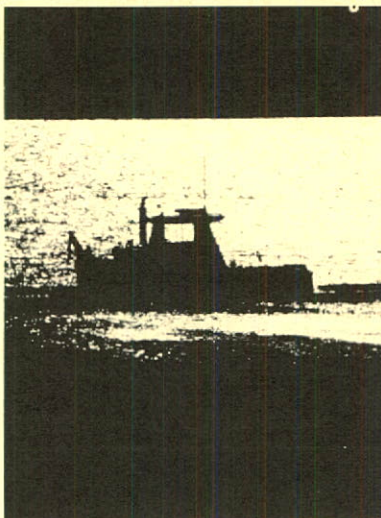
	1982	1981
Unrealized foreign exchange loss	\$40 492	\$30 595
Unamortized debt costs and gains	11 476	6 491
Prepaid gas purchases	—	1 497
Deferred mining costs	6 115	6 258
Deferred gas in storage	31 307	30 956
Construction contribution	2 024	2 079
Farm and insulation loans	3 094	1 375
Other	2 842	1 903
	<u>\$97 350</u>	<u>\$81 154</u>

14.

Included in these consolidated financial statements are income and expense amounts resulting from routine operating transactions conducted at prevailing market prices with various Saskatchewan Crown controlled departments, agencies and corporations with which the Corporation is related.

Account balances resulting from these transactions are included in the consolidated statement of financial position and are settled on normal trade terms.

Other amounts due to and from related parties and the terms of settlement are described separately in the consolidated financial statements and the notes thereto.



15.

Commitments and Contingencies

At 1982 December 31, the Corporation was committed in the amount of approximately \$383 million for construction materials, equipment and services on contracts not completed at year end and approximately \$2 310 million

for coal and natural gas contracted for future delivery valued at current prices.

16.

The Corporation conducts a portion of its operations on a joint venture basis. The 1982 comparisons are:

	(000's)	
	Corporation Total	Joint Venture
Revenues..	\$ 646 920	\$ 20 259
Expenses..	650 365	7 256
Plant in Service		
—at cost.	1 884 403	65 110

17.

Interest was capitalized on construction projects at a rate of 16.0% in 1982 and 16.0% in 1981.

18.

The Corporation negotiated an extension and amendment of a coal purchase contract which included the sale of a dragline for which an interest bearing promissory note at 12½% due 1983 February 28 and extended to 1983 April 29 was received. Gain on the sale was deferred and is to be amortized over 27 years, the life of the contract.

The Corporation intends to market the promissory note. If suitable financing cannot be obtained, the dragline sale and renegotiated coal contract will be cancelled.

19.

Utility Plant in Service (000's)

	Cost	Accumulated Depreciation and Depletion	1982 Net	1981 Net
Electric				
Generation	\$ 730 029	\$ 164 999	\$ 565 030	\$ 592 515
Generation—Capitalized Lease	32 085	2 982	29 103	30 021
Transmission	210 849	64 517	146 332	137 633
Distribution	376 736	127 556	249 180	227 216
	1 349 699	360 054	989 645	987 385
Gas				
Production	139 146	35 138	104 008	102 629
Gathering, Treatment & Compression	53 433	28 375	25 058	22 165
Transmission & Storage	123 082	46 661	76 421	65 414
Distribution	136 008	44 915	91 093	82 690
	451 669	155 089	296 580	272 898
General Plant				
Buildings & Equipment	81 335	29 199	52 136	34 646
Equipment—Capitalized Lease	1 700	8	1 692	—
	83 035	29 207	53 828	34 646
	\$1 884 403	\$ 544 350	\$1 340 053	\$1 294 929

20.

Long-Term Debt (\$000's) Advances from Province of Saskatchewan

Received	Repayable	Interest Rate	Face Amount In Foreign Currency (1)	Debt Recorded	Equity in Sinking Fund
1958	1983	4 ¹ / ₈	10 505	\$ 12 909	\$ 19 787
1963	1983	5 -5 ¹ / ₄	15 855	21 506	16 120
1959	1984	4 ³ / ₄ -5	16 318	20 052	27 384
1964	1984	5 ¹ / ₄ -5 ¹ / ₂		3 035	873
1964	1985	5 ¹ / ₂		6 064	3 985
1965	1985	5 ¹ / ₂		2 140	—
1966	1986	5 ⁷ / ₈ -6 ¹ / ₄		11 326	4 458
1976	1986	8 ³ / ₄	75 000	92 160	—
1981	1986	13 ³ / ₈		75 000	—
1966-67	1986-87	5 ¹ / ₄ -5 ¹ / ₂		13 033 (2)	9 215
1967	1987	6		5 855	2 589
1982	1987	16 ³ / ₄		20 000	—
1967-68	1987-88	5 ¹ / ₄ -6 ¹ / ₂		9 752 (2)	5 971
1968	1988	7 ¹ / ₄		11 025	5 212
1982	1988	16 ³ / ₄		20 000	—
1968-69	1988-89	6 ¹ / ₂ -7 ¹ / ₄		27 908 (2)	14 421
1969	1989	7 ⁵ / ₈	11 300	13 885	4 809
1982	1989	16 ³ / ₄		60 000	—
1969-70	1989-90	7 ¹ / ₄ -8 ¹ / ₂		32 907 (2)	14 676
1965	1990	4 ⁷ / ₈	2 950	3 625	2 231
1970	1990	8 ³ / ₄		15 000	8 119
1970-71	1990-91	6 ³ / ₄ -8 ¹ / ₄		33 062 (2)	12 318
1961	1991	5 ³ / ₄		2 450	3 659
1981	1991	16 ³ / ₈	150 000	184 320	—
1971-72	1991-92	6 ³ / ₄ -7 ¹ / ₂		27 613 (2)	8 284
1982	1992	15 ⁵ / ₈	46 452	57 080	—
1982	1992	15	100 000	122 880	—
1972-73	1992-93	7 -7 ¹ / ₂		23 189 (2)	5 526
1973-74	1993-94	7 ¹ / ₂		6 297 (2)	1 289
1964	1994	5 ¹ / ₂		3 769	1 574
1973	1998	7 ³ / ₄ -8 ¹ / ₄		40 000	6 672
1974	1999	10		20 000	2 823
1975	2000	9 ⁷ / ₈		40 000 (3)	3 684
1980	2000	11 ³ / ₄		50 000	1 180
1976	2001	10 ¹ / ₄		50 000	3 950
1977	2002	9		50 000	3 402
1982	2002	13		75 000	—
1978	2003	9 ¹ / ₂		45 000	2 312
1979	2004	10		60 000	2 232
1976	2006	8 ⁷ / ₁₀	75 000	92 160	5 800
1977	2007	8 ⁵ / ₈	75 000	92 160	5 045
1978	2008	9 ¹ / ₄	75 000	92 160	3 877

Other Long-Term Debt

House Mortgages—Various Rates 175

Saskatchewan Economic Development Corporation—This is the amount owing on an agreement for sale for the purchase of Real Estate, bearing interest at 11% and paid in equal monthly blended payments of principal and interest, ending 1986 July 01 991

\$1 644 322

\$ 213 477

175

991

\$1 645 488

\$ 213 477

Long-Term Debt—net of sinking fund \$1 432 011

Amounts due within one year 47 697

\$1 384 314

(1) United States dollars; (2) Advances totalling \$173 761 000 with an original term of 20 years are subject to redemption on six months' notice; (3) Retractable at holder's option to 1983; (4) Debt repayments and sinking fund installments on outstanding debt for the next five years are as follows: 1983-\$47 697; 1984-\$5 514; 1985-\$15 054; 1986-\$186 346; 1987-\$33 931

FINANCIAL STATISTICS (000's)
CONSOLIDATED STATEMENT OF EARNINGS

	1982	1981	1980
REVENUE			
Electricity sales	\$ 326 591	\$ 282 037	\$ 242 078
Gas sales	294 491	227 826	188 448
Other	25 838	17 481	17 784
	646 920	527 344	448 310
EXPENSES			
Fuel, water and purchased electricity	68 032	54 318	54 145
Cost of gas sold	208 661	146 981	116 307
Operating, maintenance and administration	190 948	179 281	147 192
Depreciation and depletion	57 960	50 855	41 217
Interest expense—net	124 764	96 232	67 912
	650 365	527 667	426 773
NET EARNINGS	(3 445)	(323)	21 537

CONSOLIDATED STATEMENT OF CHANGES IN FINANCIAL POSITION
SOURCE OF FUNDS

Funds from operations	56 108	51 815	65 680
Long-term debt	356 047	253 860	48 750
Contributions in aid of construction	13 246	12 907	9 405
Capital lease proceeds	—	—	—
Other	47 077	769	1 851
	472 478	319 351	125 686

APPLICATION OF FUNDS

Capital expenditures	272 307	248 080	160 011
Reduction in long-term debt	67 304	43 181	33 086
Dividends	—	—	10 275
Other	2 194	17 801	5 913
	341 805	309 062	209 285

INCREASE (DECREASE) IN
WORKING CAPITAL

130 673 10 289 (83 599)

CONSOLIDATED STATEMENT OF FINANCIAL POSITION
ASSETS

Utility plant in service, at cost	1 884 403	1 790 278	1 429 953
Accumulated depreciation and depletion	(544 350)	(495 349)	(448 093)
Construction in progress	329 257	189 708	306 126
Current and other assets	384 846	242 915	208 011
	2 054 156	1 727 552	1 495 997

LIABILITIES AND PROVINCE'S EQUITY

Retained earnings	232 228	221 973	222 295
Rate stabilization reserve	—	13 700	13 700
Contributions in aid of construction	78 836	75 415	70 796
Long-term debt net of sinking funds	1 415 923	1 107 140	900 160
Current and other	327 169	309 324	289 046
	\$2 054 156	\$1 727 552	\$1 495 997

PERCENTAGE EQUITY	18.0	21.9	25.4
--------------------------------	-------------	-------------	-------------

1979	1978	1977	1976	1975	1974	1973
\$ 216 161	\$ 186 875	\$ 156 728	\$ 126 192	\$ 100 832	\$ 90 003	\$ 86 206
170 620	145 142	125 358	99 212	71 297	51 626	44 724
17 534	13 115	10 340	5 777	3 114	3 535	2 834
404 315	345 132	292 426	231 181	175 243	145 164	133 764
40 001	34 548	37 218	23 405	16 540	10 473	11 128
105 306	95 424	71 563	48 826	32 914	20 800	15 748
117 188	100 974	88 553	80 624	64 460	49 262	40 297
37 812	34 765	30 501	29 397	27 656	26 957	25 483
62 263	58 353	42 253	28 468	26 421	25 936	23 779
362 570	324 064	270 088	210 720	167 991	133 428	116 435
41 745	21 068	22 338	20 461	7 252	11 736	17 329
80 864	57 513	55 245	48 908	36 708	39 668	42 191
58 950	129 223	126 317	195 715	39 550	23 517	44 490
7 309	6 620	7 100	6 391	6 311	3 237	3 065
32 085	—	—	—	—	—	—
6 901	6 117	45 342	344	334	652	297
186 109	199 473	234 004	251 358	82 903	67 074	90 043
140 774	139 290	167 607	145 634	98 010	56 675	38 779
35 413	82 776	30 313	33 295	29 371	31 362	21 249
16 500	10 300	8 200	10 200	3 600	—	—
11 837	4 469	1 240	1 837	1 749	—	—
204 524	236 835	207 360	190 966	132 730	88 037	60 028
(18 415)	(37 362)	26 644	60 392	(49 827)	(20 963)	30 015
1 349 609	1 246 954	1 156 868	995 952	933 685	871 560	844 927
(410 839)	(378 021)	(350 012)	(322 310)	(295 912)	(269 661)	(245 511)
230 483	198 298	157 341	153 785	72 906	38 859	12 702
196 923	197 085	135 428	79 636	62 951	41 229	47 591
1 366 176	1 264 316	1 099 625	907 063	773 630	681 987	659 709
211 033	193 488	182 720	174 582	164 321	160 669	148 933
13 700	6 000	6 000	—	—	—	—
66 706	63 087	59 169	55 212	51 406	49 052	47 342
871 576	822 963	741 034	574 362	406 879	391 336	398 660
203 161	178 778	110 702	102 907	151 024	80 930	64 774
\$1 366 176	\$1 264 316	\$1 099 625	\$907 063	\$773 630	\$681 987	\$659 709
25.1	24.2	25.1	28.6	34.6	34.9	33.0

PRODUCTION

Electricity

Thermal generating stations produced 74 per cent of the total electricity supply, up from 66 per cent in 1981. Boundary Dam Power Station and the nearby Estevan Power Station provided 50 per cent of total electrical supply in 1982.

The first unit at the Poplar River Power Station completed its first full year of service in 1982, producing 19 per cent of the electric system's needs.

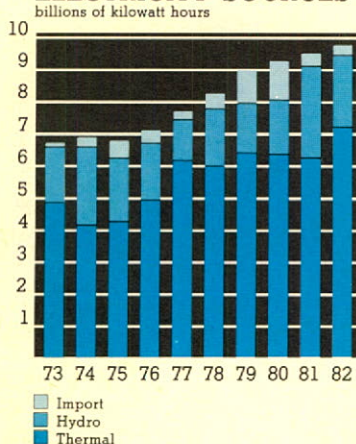
Hydro generating stations provided 23 per cent of electricity supply in 1982, down from 30 per cent in 1981.

The flow in both the Saskatchewan and Churchill River systems was below the 1981 levels and was also below the long term average.



The second unit at the Poplar River Power Station near Coronach was under construction in 1982 and is scheduled for completion in mid-1983.

ELECTRICITY SOURCES



Three per cent of electricity used in Saskatchewan in 1982 was imported from Manitoba Hydro and Basin Electric Power Cooperative of North Dakota. Exchanges with Manitoba are through three 230 kV (kilovolt) interconnections. In addition, the output of the corporation's hydro station at Island Falls is delivered to the Manitoba Hydro transmission system through two 110 kV lines to Flin Flon and returned to Saskatchewan through the three 230 kV tie-lines.

Thermal Production

The thermal generating stations in southern Saskatchewan use lignite coal mined in nearby coal fields. In 1982, a total of 6 002 000 Mg (megagrams)* of coal was burned. About 4 177 500 Mg of coal was burned at the Boundary Dam and Estevan power stations compared to 4 230 000 Mg in 1981. At Poplar River, 1 784 000 Mg was burned in 1982, compared

*One megagram (or tonne) is equivalent to one thousand kilograms.

to 614 000 Mg in 1981. At Saskatoon, the Queen Elizabeth Power Station burned 41 000 Mg of Alberta sub-bituminous coal, compared to 94 000 Mg in 1981.

Because the second 294 MW unit at the Poplar River Station will be on-stream in 1983 before the new dragline at the Poplar River Mine is fully operational, about 1 300 000 Mg of lignite coal was stockpiled at the mine and power station during 1982. Annual coal requirements at the Poplar River Power Station when the second unit is fully operational will be 3 700 000 Mg.

Land reclamation at the Poplar River Mine site included removal and storage for future replacement of some 65 ha (hectares) of coversoil. Final leveling on about 12 ha and weed control on 400 ha of land was completed. At the mines near Estevan about 200 ha of spoil piles were levelled and about 150 ha were seeded with grasses and legumes.



The new dragline at the Poplar River Mine, near Coronach, was purchased in 1981 and was 40 per cent assembled by 1982 year end. The 122 m boom will be the longest of its kind in North America.

The use of natural gas for generation of electricity increased to 195 million cubic metres in 1982, up from 148 million cubic metres in 1981.

Fly ash recovered from the burning of lignite coal at Boundary Dam is used as a replacement for cement in concrete. In 1982, 24 400 Mg of fly ash was sold, down 13 per cent from 1981, reflecting a downturn in the province's building and construction activity.

However, revenue from fly ash sales declined only two per cent.

Environmental monitoring of air and water quality affected by the corporation's thermal generating facilities and operations continued. A report of the Poplar River Bilateral Monitoring Committee submitted in 1982 stated that the Poplar River Power Station was operating within recommended water quality objectives.

TABLE 2

Generation Statistics			
	1982 Rated Generating Capacity (kilowatts)	1982 Gross Generation 10 ³ kW·h	1982 Generation % Increase or (Decrease) From 1981
HYDRO			
Squaw Rapids	280 000	1 021 612	(16.8)
Coteau Creek	187 000	663 238	(36.4)
Island Falls	97 600	604 162	9.7
Total Hydro	564 600	2 289 012	(18.8)
THERMAL			
Boundary Dam	874 500	4 974 090	(3.5)
Estevan	65 000	290 859	(6.7)
A.L. Cole	108 000	16 284	8.1
Queen Elizabeth	232 000	436 990	5.6
Poplar River	294 000	1 978 800	127.4
Total Steam	1 573 500	7 697 023	13.8
INTERNAL COMBUSTION			
Success	45 000	4 162	122.1
Landis	70 000	57 677	458.7
Total Internal Combustion	115 000	61 839	407.0
Total	2 253 100	10 047 874	4.7
Less Station Service		610 576	11.1
Net Generated		9 437 298	4.3
Net Purchased		317 857	(24.7)
Net System 10 ³ kW·h		9 755 155	3.0
Northern Diesel Plants	8 350	9 557	(0.1)
Northern Purchases		16 426	(22.9)
Total	2 261 450	9 781 138	3.0
Annual Peak Load (Net)			
(1982-01-15-17:47)	1 829 000		
Annual Peak Load (Gross)			
(1982-01-15-17:47)	1 925 000		
Minimum Load (Net)			
(1982-05-25-05:00)	575 000		

Energy Exchange

In 1982, a contract with the Basin Electric Power Cooperative (BEPC) of North Dakota came into effect to allow exchange of electricity over a 230 kV interconnecting transmission line constructed in 1981.

The contract provides for delivery of up to 100 MW of capacity to BEPC during the May to October period when electricity demand in the U.S.A. is the highest and the return of an equivalent amount of electricity at mutually agreeable times.

In 1982, May to October, the corporation delivered 33 200 MW·h to BEPC and received 10 515 MW·h by year end. The remaining 22 685 MW·h is to be returned by 1983 April 30.



Fish were raised in the warm water discharged from the Estevan Power Station. This experiment may lead to commercial operations at other thermal power stations.



A trench for a gas pipeline was excavated across the bottom of the North Saskatchewan River near North Battleford.

Natural Gas

The total natural gas sold in 1982 was 3 012 million cubic metres compared to 2 814 million cubic metres in 1981, an increase of 7.0 per cent.

Natural gas in underground storage reached a maximum of 366.8 million cubic metres in 1982. This gas was available to the system at a peak rate of approximately 7.9 million cubic metres daily, or 42.5 per cent of the 1982 peak day requirements. Natural gas storage

allows for greater utilization of transmission pipelines for transporting gas to storage reservoirs when demand is low in summer, and provides greater ability to meet peak demand for gas in winter.

Proven reserves at 1982 year end, through ownership or contract, were 55 300.8 million cubic metres. This is a supply equivalent of 18.4 times the 1982 consumption rate.

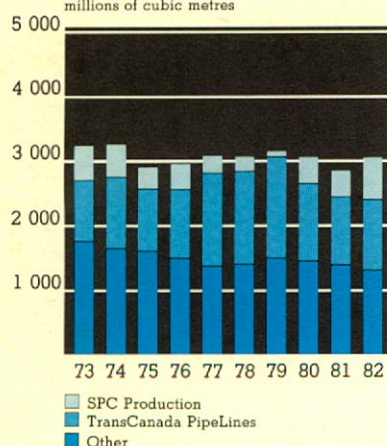
In 1982, the corporation participated in the drilling of 41 wells, 34 of which were successful. The corporation's share

of these wells increased proven reserves by 106 million cubic metres of natural gas. Of these wells (six located in Saskatchewan and 35 in Alberta) the corporation has an average

working interest of 46 per cent. In addition, 21 gas or oil wells in which the corporation had a royalty interest were drilled on lands in both Saskatchewan and Alberta, with approximately 90 per cent success.

GAS SOURCES

$10^6 \text{ m}^3 @ 101.325 \text{ kPa}$
millions of cubic metres



Staff

During the year, the corporation had an average monthly staff of 3 510 employees.

As a cost reduction measure a hiring freeze was implemented in May. As a result, by year end the total staff was reduced by 158 from the May peak. This reduction was achieved in spite of the addition of 19 employees in preparation for expanded operations at the Poplar River

Power Station and Mine.

At the beginning of the year, two-year agreements were negotiated with both unions. The agreements provided for wage increases in 1982 of 12 per cent for employees in the International Brotherhood of Electrical Workers Union (IBEW) and 12.75 per cent for employees in the Energy and Chemical Workers Union (ECW). For 1983, the IBEW agreement provides an 11 per cent increase and the ECW agreement provides an 11.75 per cent increase.

In support of the corporation's Affirmative Action program, in 1982 the corporation employed 41 women in 'non-traditional' occupations (a 55 per cent increase over 1981), 78 native people (an increase from 57 in 1981) and 83 disabled persons by year end (surpassing a goal of 70 for 1982).

In 1982, 43 employees retired.

TABLE 3

Gas Supply Sources

(10^6 m^3)
(millions of cubic metres)

Sources	1982	1981	Increase (Decrease) 10^6 m^3	%
Alberta				
TCPL	1 107	1 058	41	3.9
Field Suppliers	490	513	(32)	(6.2)
Production	557	464	102	22.0
TOTAL	2 154	2 035	111	5.5
Saskatchewan				
Field Suppliers	782	842	(80)	(9.5)
Production	205	199	8	4.0
TOTAL	987	1 041	(72)	(6.9)
TOTAL VOLUME DELIVERED	3 141	3 076	39	1.3
Storage, Fuel and Other Users	(129)	(262)	(133)	50.8
TOTAL SOLD	3 012	2 814	172	6.1



Gas service lines were extended to 3 000 urban and farm premises under the Saskatchewan Natural Gas Distribution Program. More than 1 300 new customers were using gas by year end.

SERVICE

Customers Served

At year end the corporation was serving 371 006 customers with electricity and 233 688 with natural gas.

A significant development during the year was the extension of natural gas service to 30 communities under the Saskatchewan Natural Gas Distribution Program. Four farm service pilot projects involved the extension of natural gas to 79 farms near Kronau, Golden Prairie, Marengo and Mildren. The program cost \$17.7 million; approximately \$3.9 million in federal funds was applied for under the Distribution System Expansion Program to help pay for the facilities.

In May, a major snow and ice storm in the Kindersley/Swift Current region caused exten-



Customers may make bill payments in person at any one of the 33 district offices and 10 regional offices throughout Saskatchewan, and inquire about all aspects of electric and gas service.



A tornado in August destroyed three steel transmission towers and damaged three more on the 138 kV double circuit line between Saskatoon and North Battleford. Customers in five communities were without electricity from two to four hours.

sive damage to electrical distribution lines and resulted in outages affecting 11 000 customers in the southwest area of the province.

In August, a tornado seriously damaged the 138 kV line between Saskatoon and North Battleford.

Two skid-mounted propane/air plants were constructed and used in 1982. These mobile units can provide emergency gas supply to small community distribution systems in the event of service disruption.



Mobile emergency gas supply units are available in the event of service disruption.

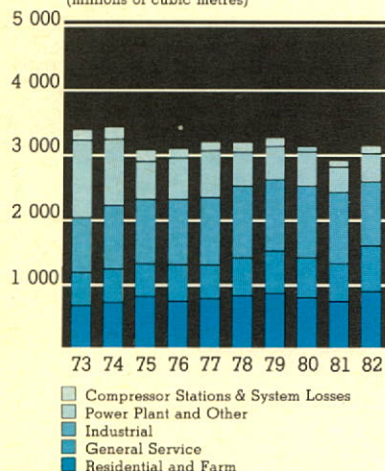
Customer Energy Consumption

Electricity delivered to customers in 1982 was 8 543 GW·h*, or 0.7 per cent more than in 1981. An increase in sales due to colder weather in the first quarter of 1982 was offset by a significant decrease in industrial activity during the year.

A new annual system net peak demand of 1 829 MW (megawatts)* occurred on 1982 January 15, surpassing the

GAS CONSUMPTION

10⁶ m³ @ 101.325 kPa
(millions of cubic metres)



record high of 1 773 MW recorded on 1980 December 19, an increase of 3.1 per cent.

The use of natural gas by customers increased 7.0 per cent from 2 814 million cubic metres in 1981, to 3 012 million cubic metres in 1982. The increase reflects a change in

*A megawatt is one million watts. A gigawatt hour can be described as one thousand megawatts used for one hour.

TABLE 4

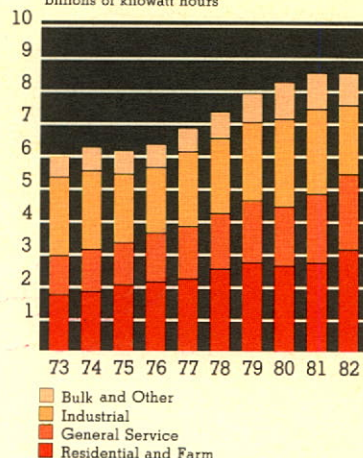
Communities added to the Natural Gas System in 1982

Atwater	Neilburg
Bangor	North Portal
Bounty	Otthon
Edam	Paradise Hill
Frenchman Butte	Paynton
Goodsoil	Peerless
Kronau	Roche Percee
Lajord	St. Walburg
Lashburn	Sheho
Maidstone	Spruce Lake
Markinch	Tuffnell
Marsden	Turtleford
Marshall	Valparaiso
Meota	Vawn
Mervin	Waseca

weather patterns as measured in degree-days. In 1982 temperatures were 6.6 per cent colder than normal, while in 1981 they

ELECTRICITY CONSUMPTION

billions of kilowatt hours



were 15.5 per cent warmer than normal.

Total gas consumption for a single day in 1982 peaked at

TABLE 5

Electricity customers served

	1982	1981
Residential*	252 101	246 899
Farm	71 740	71 433
Commercial/Industrial*	45 620	45 494
Street Lights	929	931
Internal Use and Other	616	593
TOTAL	371 006	365 350

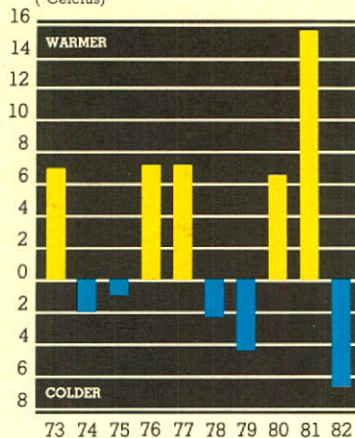
*The residential total for 1982 includes a decrease of about 500 customers due to the departure of many residents from Uranium City.

Natural gas customers served

	1982	1981
Residential	204 716	199 297
Farm	1 256	1 132
Commercial/Industrial	27 716	27 116
TOTAL	233 688	227 545

SASKATCHEWAN DEGREE-DAYS

Percentage change from normal average degree days*
(Based on 30 year average Regina temperatures)
(*Celsius)



■ Warmer ■ Colder

*A degree day is the number of degrees by which daily mean temperature falls below 18°C.
One degree day is counted for each degree of deficiency for each day on which such a deficiency occurs.

18.6 million cubic metres on 1982 January 15. This surpassed by 3.9 per cent the previous record of 17.9 million cubic metres, set in 1977.

Colder weather in 1982 caused an increase in average residential and farm energy consumption for 1982 over 1981. The average electrical consumption per residential customer was 7 335 kW·h, up 9.3 per cent from 6 711 kW·h in 1981. Average consumption per farm customer was up 16.4 per cent from 1981.

Average yearly residential consumption of natural gas was 4 405 m³, up 18.8 per cent from 3 707 m³ in 1981, primarily due to the colder weather.

Energy Conservation and Load Management

In 1982, emphasis continued on encouraging the wise use and con-

servation of energy by customers as well as in internal operations.

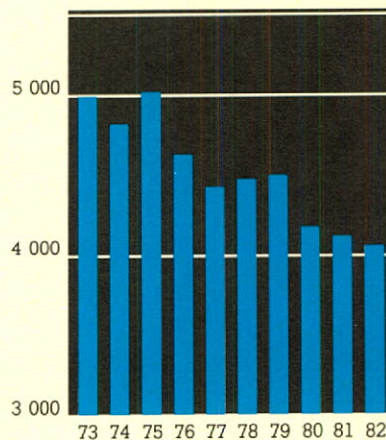
The corporation provided loans and administered a federal grant program to help residential homeowners to



Cost-cutting practices such as installing heat exchangers, retrofitting buildings to make them more energy efficient and adjusting heat and air-conditioning levels are important aspects of the corporation's energy saving program.

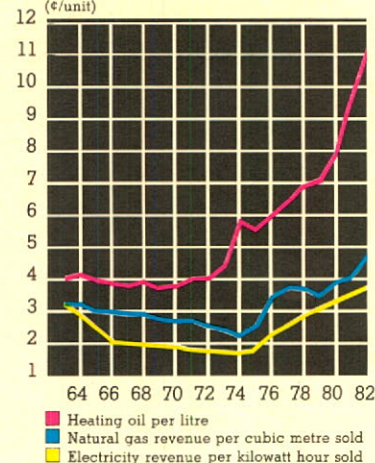
RESIDENTIAL GAS CONSUMPTION

yearly average in cubic metres (weather-adjusted)



RESIDENTIAL COST OF ELECTRICITY, NATURAL GAS AND HEATING OIL

In constant 1971 dollars, adjusted by average of Regina and Saskatoon Consumer Price Indexes
(\$/unit)



■ Heating oil per litre
■ Natural gas revenue per cubic metre sold
■ Electricity revenue per kilowatt hour sold

reduce their energy costs. In 1982, the corporation granted 5 512 Warm-Up Saskatchewan interest-free loans of up to \$1 000 each, totalling \$3.9 million.

The Home Energy Loan Program provides \$3 000 interest-free loans to the first owner/occupiers of new homes built to energy efficiency standards. In 1982, the program provided \$600 000 through 200 loans on completed homes, with 1 174 homes under construction at year end. In 1982, owners of 54 per cent of the homes built or under construction in Saskatchewan applied for or received assistance under this program.

The Canada Oil Substitution Program, administered by the corporation, offers taxable federal grants of up to 50 per cent of the cost to convert home heating systems from oil to

natural gas. During the year, 1 756 grants amounting to \$1.2 million of assistance to Saskatchewan homeowners had been processed. In 1982, the oil to gas conversions resulted in estimated annual saving of 8.5 million litres of fuel oil.

Junior Citizen Program



The Junior Citizen Program was sponsored in co-operation with the Saskatchewan Weekly Newspapers Association. The Lieutenant Governor of Saskatchewan, The Honorable C. Irwin McIntosh, presented a medal of recognition to Brent Allin of Weyburn (above), one of six Junior Citizens. The others were Hugh Jansen of North Battleford, Beverly Giles of Regina, Patricia Quaroni of Melfort, Christine Boyer of North Battleford and Marie Mihalicz of Beauval.

Safety

While the corporation continued to strive to maintain a high safety standard, there were, however, five public fatalities in 1982. Four resulted from contact with electrical facilities and one involved natural gas. One employee involved in powerline



A safety officer instructs pupils in a northern school about electrical safety.

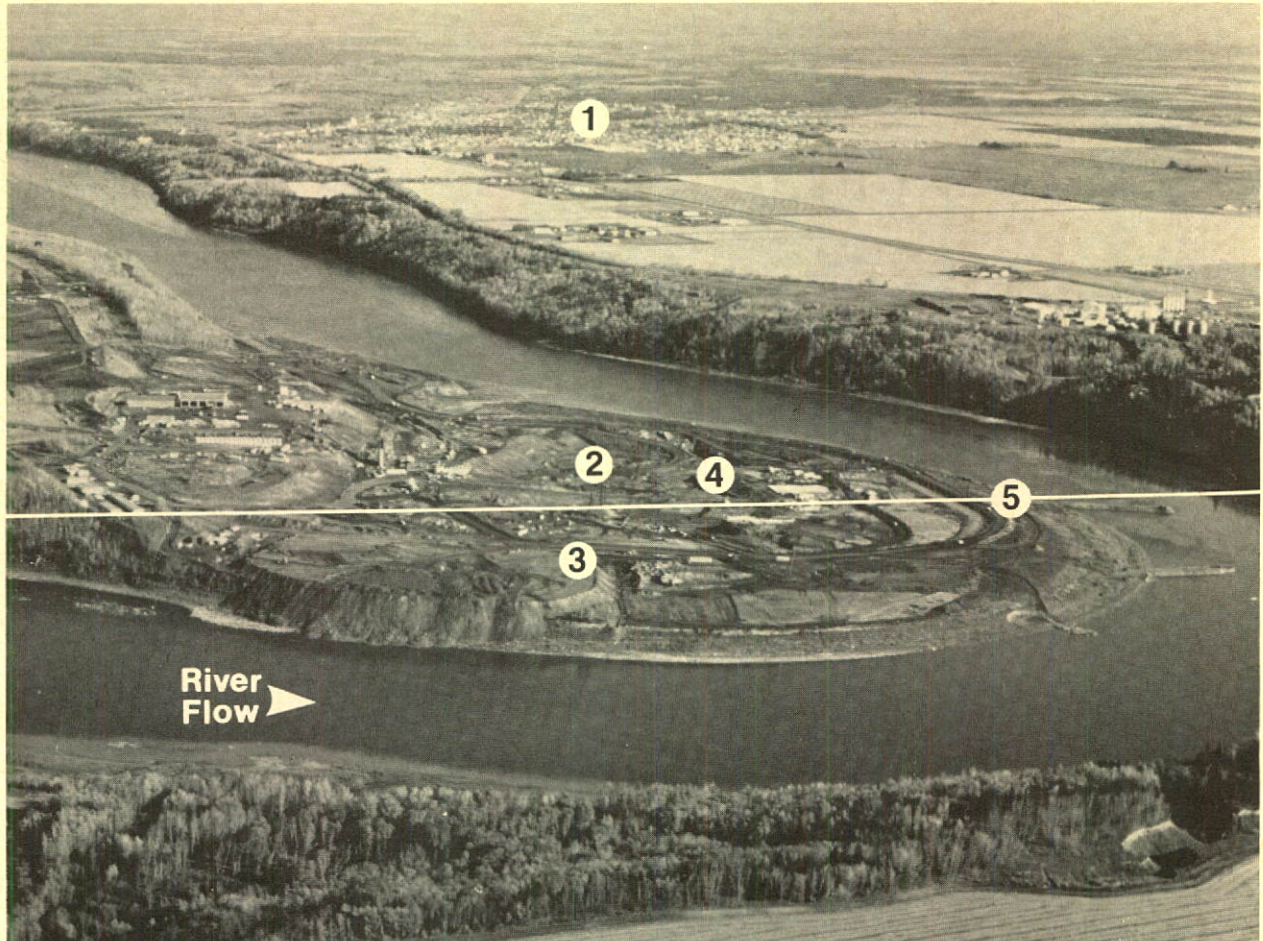
construction was killed in 1982.

For the fifth consecutive year, the corporation received national recognition from the Canadian Electrical Association (CEA) and the Canadian Gas Association (CGA) for an improved safety record among employees. The award from CGA was for reducing lost-time injuries in 1982 in gas operations by more than 20 per cent over the previous year. The CEA award was for reducing lost-time injuries by 25 per cent in 1982, over the previous three-year average in electric operations.



Regular safety audits of tools used by employees are undertaken.

PLANNING AND DEVELOPMENT



The Nipawin hydroelectric project construction site is located 4 km upstream from the town of Nipawin on the Saskatchewan River. Shown on the above photo: 1. Town of Nipawin; 2. power house site; 3. intake; 4. spillway; 5. dam.

Electric Generation and Transmission Expansion

Completion of the second unit at the Poplar River Power Station will add 294 MW of capacity to the electric system in 1983. Total estimated construction cost of the second unit is \$205 million. The work force at the site peaked at 600 in 1982.

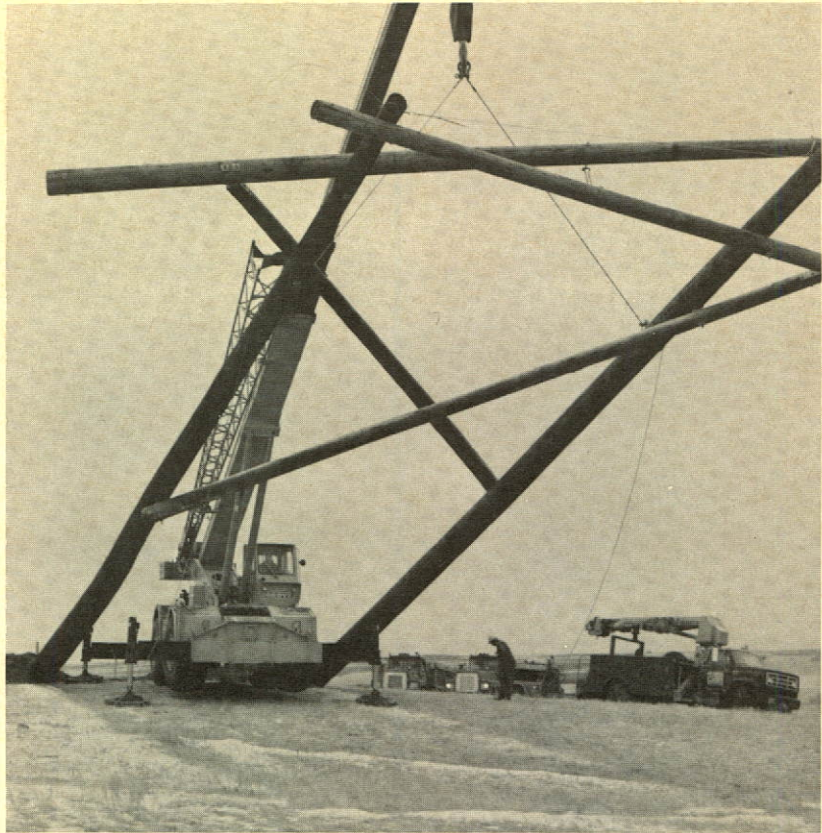
A 230 kV transmission line from Assiniboia to Swift Current was 90 per cent complete by year end. The line will deliver energy in 1983 from the Poplar River Power Station into the provincial grid, and meet increased customer needs in southwestern Saskatchewan.

Construction of a 230 kV switching station was completed at Coteau Creek, with comple-

tion of the Assiniboia and Swift Current switching stations expected early in 1983. The Codette switching station was 70 per cent complete by year end. When complete the station will provide construction power to the Nipawin project construction site. The Swift Current-Coteau Creek line was converted from 138 kV to 230 kV operation in December.



Presentations on the possible environmental impact of the alternative corridors for the Coteau Creek/North Battleford electric transmission line were discussed in several area communities. Lines between Codette and Beatty, Swift Current and Assiniboia, and Meadow Lake and Glaslyn were discussed in the concerned areas. Land-owners and customers in the communities affected by the Saskatchewan Natural Gas Distribution Program were provided with project information.



Construction of the 230 kV Assiniboia-Swift Current transmission line continued during 1982.

Nipawin Hydroelectric Project

The Nipawin hydroelectric project will bring 252 MW of electrical capacity to the grid by 1986 at a projected cost of \$600 million.

Site construction work at Nipawin started in 1981. During 1982, the main civil contract was awarded for construction of the Francois-Finlay Dam, spillway, power house, and emergency by-pass channel. Initial excavation for the power house, spillway and intake structures was completed in 1982. Concrete placement was started on the spillway and intake structure. The work force at the site peaked at 460 in 1982; more than 85 per cent of the

construction workers were local residents.

Electric Supply Options

The corporation continued studies of several electric supply options to determine the most appropriate development sequence to meet needs to the year 2000.

The completion of the Poplar River Power Station in 1983 and Nipawin in 1986 will meet the province's electric energy needs into the early 1990s.

Field studies were concluded for potential lignite-fired ther-

mal generation at Grainland on Lake Diefenbaker and near Gravelbourg on the Wood River. Preliminary studies were made for a station at Regina. The possibility of adding two more 294 MW units at the Poplar River Power Station is a further option.

In addition, a preliminary assessment carried out in the Estevan area concluded that further development of thermal generation in that area is feasible. More detailed studies at Estevan will be completed in 1983.

Studies were concluded for potential hydro generating stations at The Forks and Choice-land on the Saskatchewan River.

The proposal for a Western Electric Power Grid as a potential electric supply option for Saskatchewan, involving the sale of Manitoba-produced hydro power to Saskatchewan and Alberta, was deferred for at least two years. Altered economic circumstances in the prairie provinces made the postponement necessary.

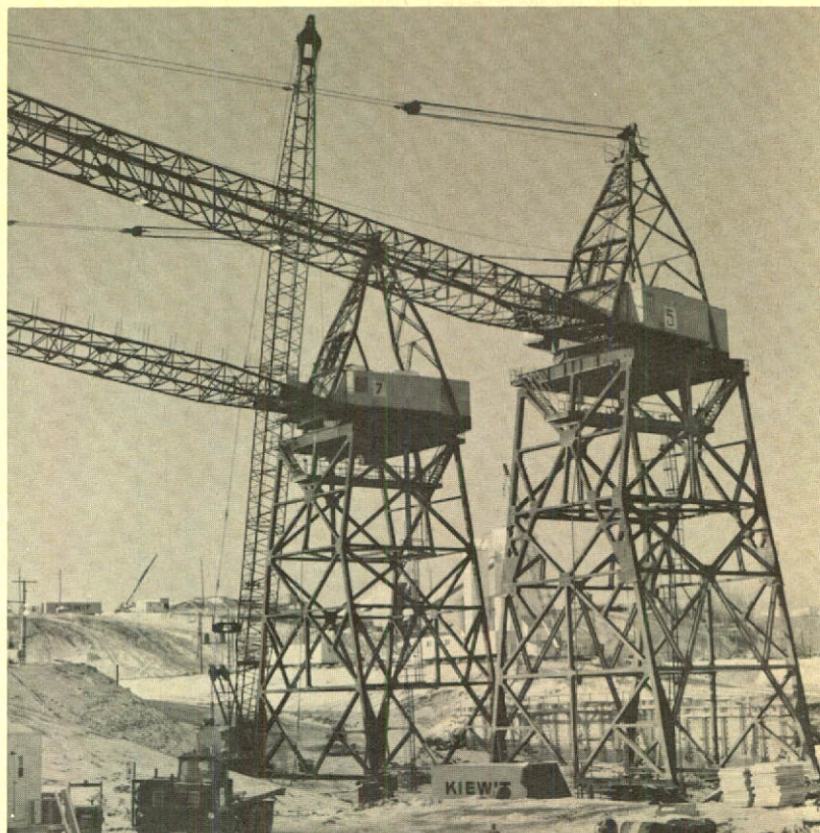
Natural Gas

Development of gas reserves in Saskatchewan and Alberta in 1982 involved an investment of \$4.8 million.

Development of a fifth underground gas storage cavern was started at Regina, which when completed in 1984, is designed to add 28.2 million



Reservoir clearing continued at the Nipawin project site. Using bulldozers and hand operated cutters, approximately 580 ha (1 430 acres) of reservoir area was cleared in 1982.



Two of three travelling whirley cranes were in position at year end at the Nipawin Hydroelectric Power Station project site. The cranes are used to hoist equipment and materials.

cubic metres of usable storage. Improvements to other storage facilities at Cantuar, Bayhurst and Beacon Hill will increase peaking capacity by approximately 0.9 million cubic metres per day by 1983-84.

One small producing field and a solution gas project, both in the Kindersley area, were connected to deliver natural gas to the system.

In 1982, connections were made to the Foothills Pipeline (Sask.) Ltd. pipeline to serve 13 farms along the right-of-way.

Technological Advancements

Research and Development

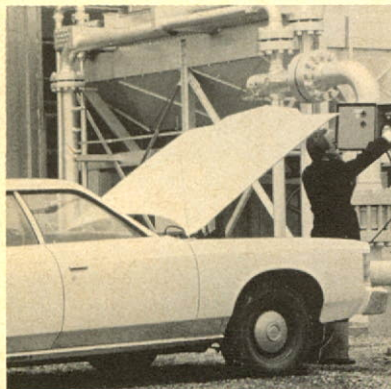
The Research and Development Centre performs chemical, electrical and mechanical laboratory analyses for, and provides specialized advice to various departments in the corporation. It also evaluates and develops alternative energy sources, new and improved energy conversion and utiliza-



Construction of the new system control centre, east of Regina, began in 1982 at a total projected cost of \$22.5 million by 1985. When operational, the centre will more efficiently provide computerized dispatch and monitoring of the electric and gas systems.

tion methods, and improved methods of operating, controlling and monitoring the electric and gas systems.

A computerized information search system gives access to available research results that are relevant to Saskatchewan, and ensures that research



The future widespread use of compressed natural gas as a vehicle fuel looks promising.



A new computer system to improve province-wide data processing and computing functions was installed at head office in 1982 resulting in the retirement of the Ferranti Packard 6000 computer which served the corporation for 18 years.

undertaken in Canada or internationally is not duplicated.

Projects undertaken in 1982 included development of a new protective relay for better security and reliability of the electrical transmission system. Because of general utility interest in Canada, this work is being partially funded by the Canadian Electrical Association.

A computer-controlled device has been developed to automatically record transmission line data when distur-

bances such as lightning strikes occur. This information helps to rapidly identify fault locations and to facilitate repair with minimal loss of service to customers and damage to other equipment.

In 1982 March, the Research and Development Centre moved to its new location at the site of the old Regina Power Station in Wascana Centre. The first phase of the building was completed in 1982 and design work is under way for the second phase.

RECORD OF PROGRESS (Unaudited)

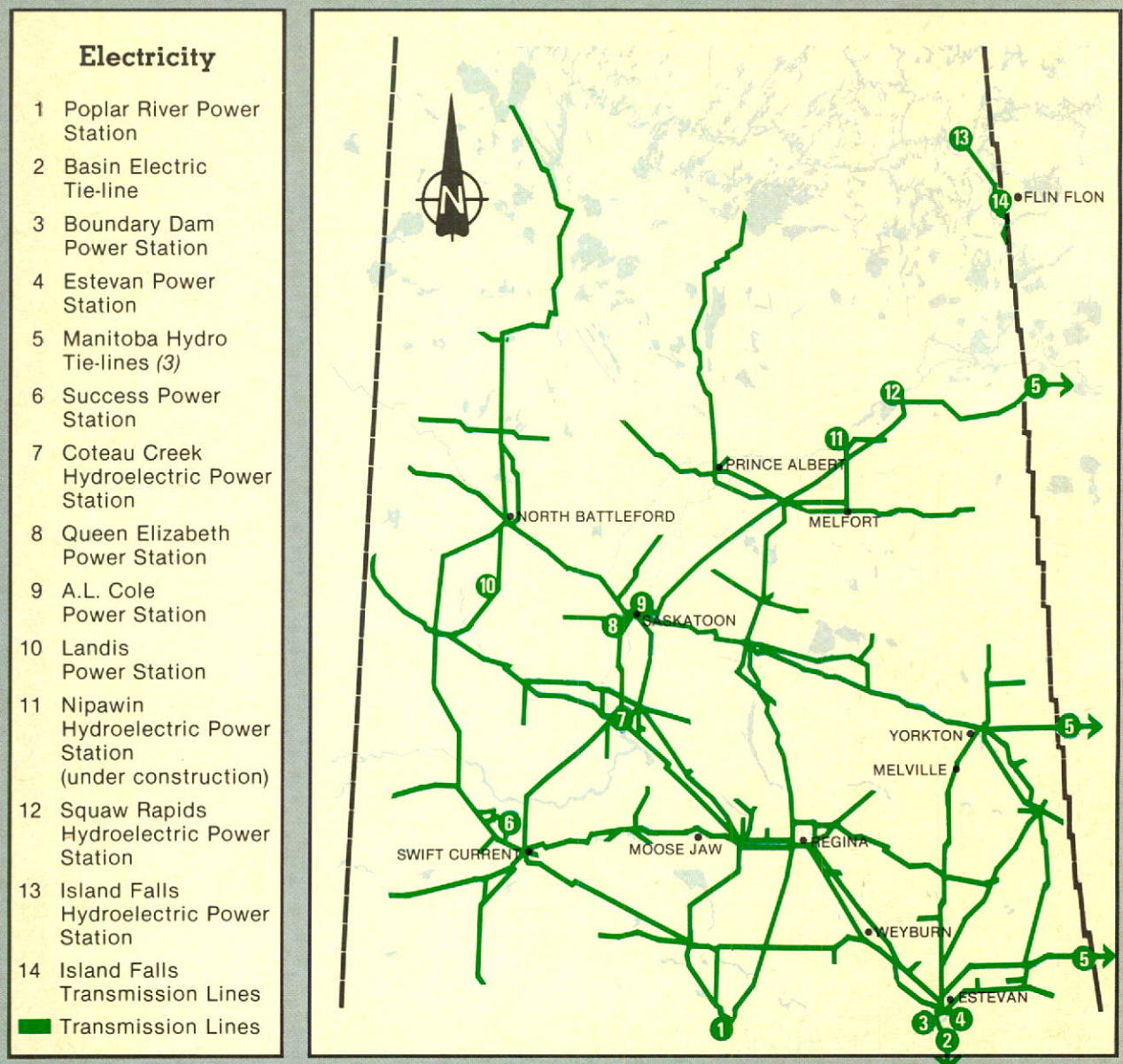
	<u>1982</u>	<u>1981</u>	<u>1980</u>
ELECTRICITY			
Customers at December 31	371 006	365 350	357 249
Electricity sold (10 ⁶ kW · h)	8 543	8 486	8 164
Average yearly residential consumption (kW · h)	7 335	6 711	6 794
Average yearly farm consumption (kW · h)	18 474	15 875	16 138
Rated generating capacity (kW)			
Hydro	564 600	564 600	467 000
Steam	1 573 500	1 573 500	1 573 500
Internal combustion	115 000	115 000	115 000
Total	2 253 100	2 253 100	2 155 500
Seasonal gross system peak load (kW)	1 886 000	1 925 000	1 858 000
Pole kilometres of line excluding urban distribution system			
72 kV and higher	9 680	9 603	9 447
Under 72 kV	124 661	124 099	123 389
NATURAL GAS			
(Gas volumes at 101.325 kPa)			
Customers at December 31	233 688	227 545	221 378
* Gas sold (10 ⁶ m ³)	3 012	2 814	3 029
Average yearly residential consumption (m ³)	4 405	3 707	4 032
** Degree days deficiency (Regina)	6 294	4 988	5 526
Maximum daily consumption (10 ³ m ³)	18 550	17 046	17 515
Kilometres of pipeline in service			
Gathering	1 033	1 018	985
Transmission and laterals	8 479	8 097	8 068
Distribution	5 902	5 706	5 553
Average monthly employees	3 510	3 453	3 280

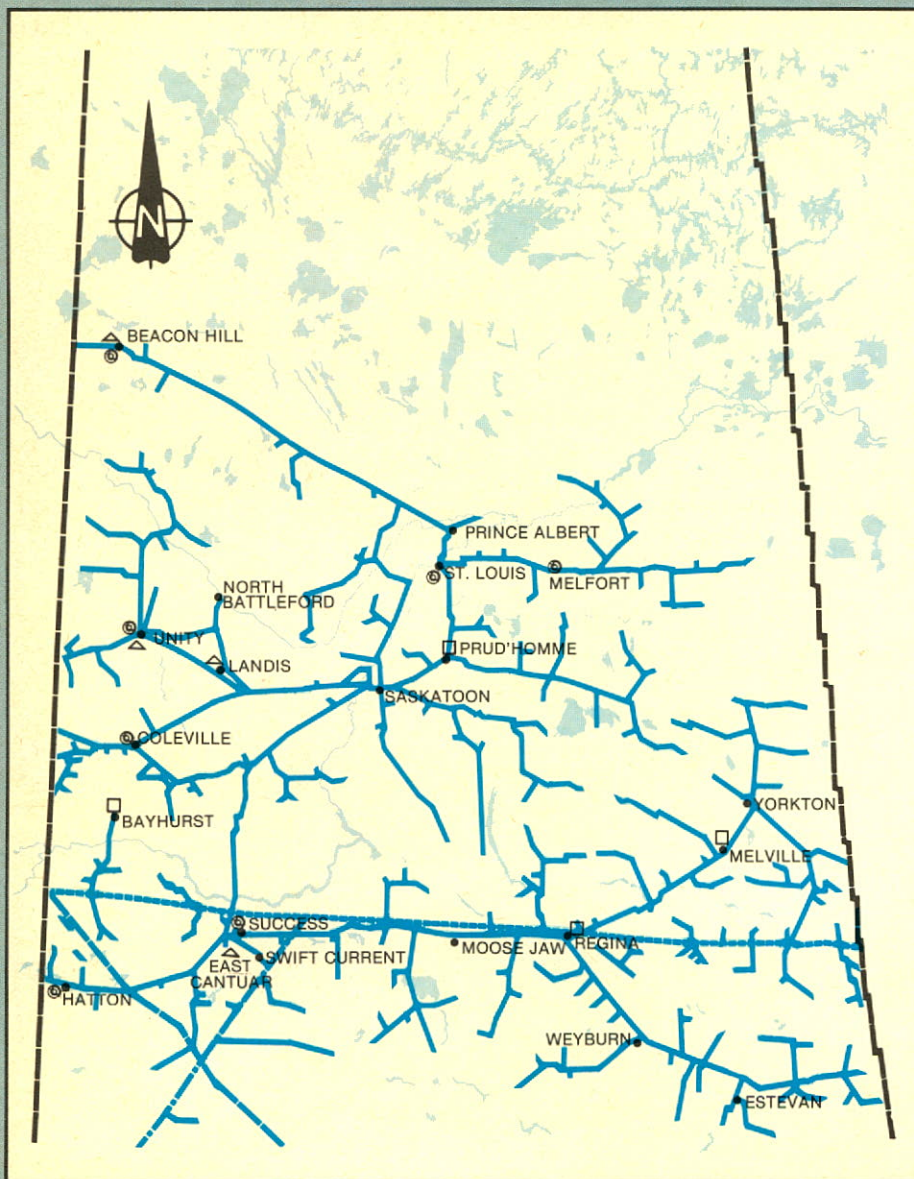
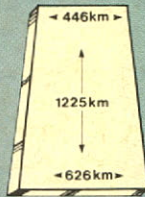
*Includes intersystem usage

**Celsius using 18°C as base temperature.

<u>1979</u>	<u>1978</u>	<u>1977</u>	<u>1976</u>	<u>1975</u>	<u>1974</u>	<u>1973</u>
347 997	337 872	327 323	315 635	302 611	291 966	283 282
7 881	7 329	6 961	6 347	6 125	6 192	5 990
6 902	6 753	6 335	6 074	6 003	5 713	5 390
16 440	15 487	14 333	13 616	12 873	11 969	11 025
467 000	467 000	467 000	467 000	467 000	467 000	467 000
1 349 500	1 349 500	1 349 500	1 057 000	1 057 000	1 057 000	1 057 000
115 000	115 000	164 400	172 975	171 137	113 050	111 885
1 931 500	1 931 500	1 980 900	1 696 975	1 695 137	1 637 050	1 635 885
1 724 000	1 680 000	1 585 000	1 432 000	1 330 000	1 289 600	1 290 900
9 153	8 990	8 752	8 380	8 309	8 229	8 156
122 567	121 747	121 045	120 109	119 299	118 457	117 163
215 684	208 761	201 892	193 229	183 305	173 240	164 902
3 127	3 040	3 057	2 925	2 892	3 235	3 212
4 641	4 584	4 264	4 461	4 930	4 887	4 771
6 165	6 038	5 485	5 477	5 966	6 033	5 495
17 588	16 801	17 931	16 578	15 093	14 733	15 310
985	985	985	867	821	816	772
8 013	8 010	7 955	7 920	7 879	7 873	7 549
5 411	5 249	5 129	4 928	4 752	4 582	4 331
3 112	3 016	2 949	2 887	2 837	2 625	2 519

ENERGY SYSTEMS IN SASKATCHEWAN





Natural Gas

- ⊙ Compressor Station
- △ Storage Facility
- Compressor Station and Storage Facility

Transmission Lines

TransCanada PipeLines Limited

Consolidated Pipeline Co.

Foothills Pipeline Ltd.

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A.N. Hynd
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Chief Engineer

V.H. Nelson
Vice-President
Energy Supply Planning

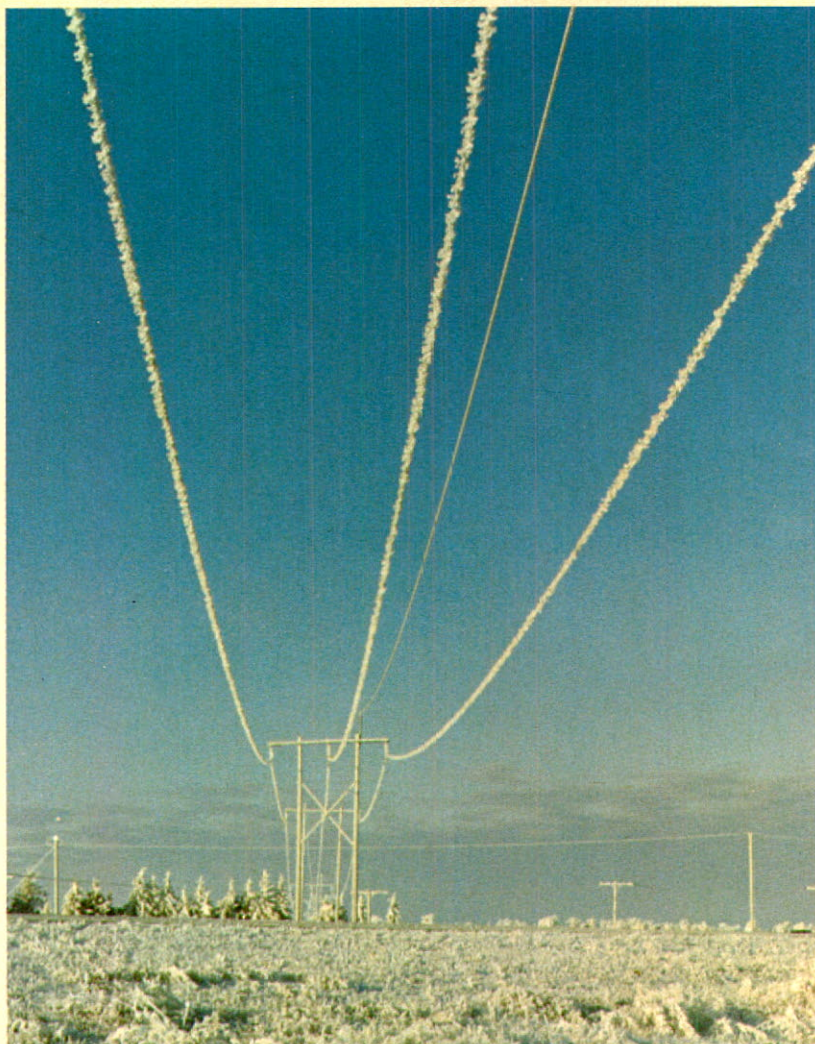
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Gas Operations

J.G. Verhoeven
Director
Corporate Services

K.D. Wellman
Corporate Legal Counsel
Board Secretary

W.R. Wiggins
Vice-President
Electric Operations



While aesthetically pleasing, snow and ice build-up on electrical facilities can cause lines to sag and possibly break, creating safety hazards and threatening service reliability to customers.

SASKATCHEWAN **POWER** CORPORATION



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