

# ANNUAL REPORT

1978

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OF MANAGEMENT

APR 2 1979

MCGILE UNIVERSITY

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- Mr. J. R. S. Sadler, Regina, Corporate Officer, Crown Investments Corporation
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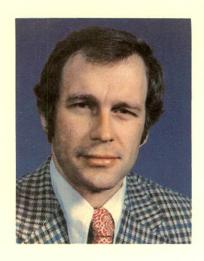
#### **Board Secretary**

Mr. D. F. Axtell, Corporate Secretary, Crown Investments Corporation

## **Corporate Management**

- Mr. F. G. Ursel, General Manager
- Mr. E. B. Campbell, Deputy General Manager
- Mr. D. E. Cuddington, Comptroller
- Mr. W. R. Wiggins, Manager, Electric System
- Mr. B. A. Steuart, Acting Manager, Gas System
- Mr. A. J. Bast, Director of Personnel
- Mrs. K. D. Wellman, Corporate Legal Counsel
- Mr. W. H. Correll, Manager, Business and Information Services

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



Regina 1979 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 1978 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 of the

Saskatchewan Power Corporation

# Highlights

1978	19//
(\$ mi	llions)
331.6	281.9
20.7	22.3
56.6	54.7
139.3	167.6
7.3	6.9
107.9	108.5
	(\$ mi 331.6 20.7 56.6 139.3

## General Manager's Report

The growing provincial needs for both electricity and natural gas were comfortably within the Saskatchewan Power Corporation's (SPC) supply capability during 1978. The 300 MW (megawatts) of capacity added to the Boundary Dam Power Station in 1977 December enabled the Corporation to meet rising customer demand and energy requirements with less reliance on its natural gas and sub-bituminous (Alberta) coal-burning thermal plants. It was a year of higher than average water flows in both branches of the Saskatchewan River which replenished previously low water levels in reservoirs and increased the energy available from hydro stations.

As a result of burning substantially less gas in thermal plants, the total Saskatchewan requirement for natural gas was lower in 1978 than it was in the preceding year. Retail sales volumes increased modestly. However, the impact of conservation measures taken by the Corporation's customers is increasingly apparent in customer billing statistics.

To facilitate customer endeavors to conserve energy, the Corporation is taking part in a government loan program which was established during the year. This program provides for interest free loans for buying and installing insulation and other energy conserving materials.

A substantial growth in electrical energy sales was experienced during 1978. In particular, sales to oilfield, residential and farm customer categories advanced strongly. This growth in electrical loads in Saskatchewan is in marked contrast to the experience of some other Canadian utilities that are currently in a period of slow growth. Industrial loads did not keep pace with other loads. However, a number of developments are now in the offing which point to increased demands in this category in the near future.

The Corporation, like other gas utilities, is in a surplus gas supply position. This surplus position is expected to be of relatively short duration. However, the combination of more gas being available and the slower growth in customer demands for gas created some supply contract administration and gas field management problems which would not have been considered likely only two or three years ago. In addition to storing more gas in the Cantuar field, the Corporation is utilizing the Pierceland pool in the Beacon Hill field to store gas purchased under contract from Alberta suppliers until it is required.

To meet the 1979-80 electrical loads, the Corporation had planned to have the first generating unit in the Poplar River Power Station in service. A series of lengthy delays has moved the expected in-service date back to the first quarter of 1980. It will be necessary again to operate the less economical plants and to purchase Manitoba power, if it is available, to meet a portion of the expected loads during the 1979-80 winter season.

The continuing growth of both the Corporation's winter electrical peak demand and the summer peak of Basin Electric of North Dakota has created an opportunity for each utility to make use of the other's generating capacity to assist meeting its seasonal peak. Agreement was reached with Basin Electric in 1978 to interconnect the two systems with a 230 kV (kilovolt) transmission line between Boundary Dam Power Station and Minot via Tioga in North Dakota, a distance of approximately 227 kilometres. The interconnection will add materially to the security and reliability of the SPC system. This joint agreement is subject to regulatory approval in the United States and to approvals in Canada by the National Energy Board and the Saskatchewan Department of Environment.

North American utilities have been experiencing increasing resistance from landowners and environmentalists on matters relating to the location of powerlines. The Corporation is working with government departments to expedite the handling of land crossing and en-

vironmental problems in the province. Although no public hearings were held during 1978 all major transmission projects were the subject of environmental overviews. Late in the year a board of inquiry was appointed by the Department of the Environment to consider the Corporation's proposed Squaw Rapids-The Pas 230 kV transmission interconnection with Manitoba Hydro.

The report of a board of inquiry appointed by the Saskatchewan Government in 1977 to examine and report on whether the Corporation should be authorized to build a dam for a hydro-electric plant at Wintego Rapids on the Churchill River was released in September. The conclusion of the board that the Churchill project should not proceed was accepted by the Government. Consideration of a hydro development on the Churchill River was halted and other alternatives have been advanced in the planning process.

Another board of inquiry, also appointed by the Saskatchewan Government in 1977, reported its findings on the Corporation's proposed extension to the Poplar River Power Station at Coronach and the construction of a hydro plant near Nipawin. The board concluded that, subject to certain conditions, the Corporation should be authorized to go ahead with the proposed extension at Poplar River and a plant at Nipawin.

The conditions set forth by the board of inquiry included the requirement that more detailed economic feasibility studies be carried out on the Nipawin project and that the plant be redesigned to make the project more acceptable locally. At Poplar River, the Corporation will be required to implement approved land management procedures and mined land reclamation plans and to adopt safeguards recommended by the International Joint Commission (IJC) and accepted by the Canadian Government against water quality problems that might arise. The Corporation's plans had already included provisions to accommodate flue gas desulphurization equipment if it is ever needed.

Final decision on the location of the next addition to the Corporation's generating facilities will not be taken until after the International Poplar River Water Quality Board established by the IJC in 1977 under the provisions of the Boundary Waters Treaty of 1909, has reported its findings relative to water quality. Pending decision as to whether an extension will be made to the Poplar River station or a new plant built at Nipawin, planning is proceeding for both possibilities.

The Corporation experienced significant cost increases again in 1978. Interest expense and provision for future repayment of debt were increased materially as a result of the decline in the external value of the Canadian dollar and the price of Alberta gas was again raised twice in one year. Inflationary price increases on other cost items moderated slightly during the year but nevertheless continued at a rate that makes further rate increases necessary. Some of the cost increases were passed on to the Corporation's commercial and industrial customers. However, rates to residential electric and gas customers were held at 1977 levels throughout 1978.

The signing of two-year agreements early in 1978 with the two unions which represent Corporation employees set the stage for a year of good relations with the Corporation's employees. With the second contract year still to run, the outlook for 1979 is equally as good. I would like to acknowledge the loyal and dedicated service of all Corporation employees during 1978.

Respectfully submitted,

F. G. Ursel,

General Manager.

## **Operations**

#### **Electric Load Growth**

The number of customers served by the Corporation's electric system increased by 10 549 during 1978 to a total at year end of 337 872. Most of the increase occurred in the residential customer category.

Customers were supplied with 7.33 billion kW·h (kilowatt hours) of electricity during 1978, an increase of 5.3 per cent over the 6.96 billion kW·h they required in 1977.

A 1.9 per cent decline in kilowatt hours sold to industrial customers was offset by increases in other categories. Sales to oilfield customers advanced by 13 per cent, while 10.5 per cent more was sold to residential and farm customers.

A customer peak demand of 1 575 000 kW (kilowatts) was recorded on December 29. The 1978 peak was 53 000 kW higher than the 1977 peak.

#### **Electricity Supply**

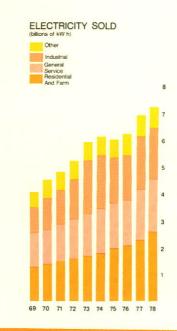
The Corporation's hydro-electric plants produced 21 per cent of the electrical energy required in 1978. Thermal plants produced 73 per cent and the remainder was imported from Manitoba.

Following two low water years, 1978 river flows were above average. Flows on the North and South Saskatchewan Rivers exceeded the average by 19 and 20 per cent respectively. Generation at the Squaw Rapids Hydro-Electric Station returned to the one billion kilowatt hour level, approximating the annual production during the years 1970 to 1975.

The utility's largest lignite coalburning plant, Boundary Dam Power Station, Estevan, increased its production by 25.1 per cent over the previous year. The additional 954 252 000 kW h produced increased the station total for the year to 4 760 690 000 kW h or approximately 61.6 per cent of the electric system total.

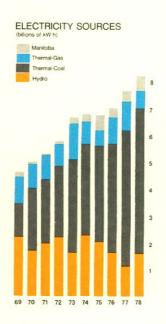
Coal consumption at the Boundary Dam station and Estevan Generating Station was 4.26 million megagrams (Mg), 17 per cent more than 1977. The increase reflects the first full year of operation of the 300 MW unit added to the system in 1977 December.

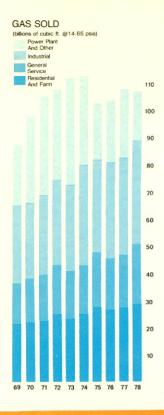
The higher production at Boundary Dam, together with the increased availability of hydro power, reduced the amount of energy required from the Queen Elizabeth Power Station. The 324 400 Mg of coal used at the



#### Generation Statistics

<u>c</u>	1978 Rated Generating apacity (kW)	1978 Gross Generation (kW.h x 10²)	Generation % Increase or (Decrease) From 1977
HYDRO			
Squaw Rapids		1 039 990	28 7
Couteau Creek	187 000	726 808	54 9
Total Hydro	467 000	1 766 798	38.4
STEAM			
Boundary Dam	874 500	5 141 010	25.6
Estevan	70 000	337 275	(25.0)
A. L. Cole	108 000	46 902	(72 0)
Queen Elizabeth		804 150	(48.3)
Regina "A"		6 031	(87.7)
Total Steam	1 349 500	6 335 368	0.3
INTERNAL COMBUSTION			
Landis	70 000	113 823	(47.5)
Success	45 000	864	(92.6)
Kindersley	-	2 983	(66.4)
Total.	115 000	117 670	(50.4)
Total (Capacity) Generation	1 931 500	8 219 836	5.0
Less Station Service		486 088	103
Net Generated		7 733 748	4.7
Net Purchased		499 183	412
Net System kW.h		B 232 931	6.3
Northern Diesel Plants	7 075	6 542	28.6
Northern Purchases		19 870	196
Total	1 938 575	8 259 343	6 4
Annual Peak Load (Net) (1978-12-29-17-50)	1 575 000		
Annual Peak Load (Gross)	WHEN YOU SHAREST STOCKETCH		
Minimum Load Net (1978-07-16-06-00)	505,000		





plant was only half the consumption of the previous year.

With increased energy available from coal and water generation facilities, production in gas-fired stations required only 7.9 billion cubic feet (Bcf) of natural gas, a reduction of 6.7 Bcf from 1977.

A province-wide electric interruption took place Sunday August 13 as a result of a lightning strike in the Estevan area. The lightning caused the failure of a 138 kV circuit breaker at Boundary Dam, resulting in the eventual loss of the power station. The outage cascaded throughout the system shutting down all generating plants. The emergency routines in which the power production and transmission personnel are trained were applied for the first time in eight years. Power was restored to most of the province within four hours.

# GAS SOURCES (pilions of cubic fl. @14.65 poin) Other Purchases TransCanada Peeline SPC Production 110 100 90 80 70 40 30 20

#### Gas Supply Sources

Billions of Cubic Feet at 14.65 psia

			%
			Increase
SOURCES	1978	1977	(Decrease)
ALBERTA			
TransCanada PipeLines	50.1	50 0	.2
Field Suppliers	15.3	13.4	14.2
SPC Production	13.4	12.8	4.7
Total (Alberta)	78.8	76.2	3.4
SASKATCHEWAN			
Field Suppliers	34.1	34.9	(2.3)
SPC Production	2.2	4.9	(55.1)
Total (Saskatchewan)	36.3	39.8	(8.8)
Total Volume Delivered	115.1	116.0	(.8)
Storage, Fuel and Other Uses.	7.2	7.5	(4.0)
Total Sold	107.9	108.5	(.6)

#### Gas Load Growth

By the end of 1978, the number of natural gas customers was up 6869 from the previous year to a total of 208 761. An additional 5.2 Bcf of gas was consumed by the Corporation's retail customers. However, the reduced use of gas in the Corporation's power plants resulted in an overall 0.6 Bcf reduction in demand for gas which declined to 107.9 Bcf for the year.

The maximum daily consumption of natural gas in the province during 1978 was 596.3 MMcf (million cubic feet), recorded December 30. This was well below the daily record of 636.4 MMcf set in 1977.

During 1978, two new SPC pipelines were put into service to transport gas from the Corporation's reserves and contracted supplies in Alberta.

A 28 km transmission line was built from the Alberta border to Beacon Hill, Sask. The line will permit the exporting of up to 30 MMcf of gas daily from the Saddle Lake area of Alberta.

A 54 km transmission line was completed from the Esther gas field in Alberta to the Coleville Compressor Station. This line will allow up to 13.7 MMcf of gas to be exported daily from the Esther gas field.

Permits provide for removal and transportation of 126 Bcf of gas from the Saddle Lake area and 47.6 Bcf from the Esther area over 15-year terms. The Corporation continued taking delivery of a portion of the Saddle Lake area deliveries at Unity under an existing agreement with Pan-Alberta Gas Limited.

#### Public and Customer Services

The emphasis of the Corporation's information programs directed to customers and the public continued to be the promotion of energy conservation.

The wise use of energy was stressed in all consumer services programs for farm, residential, commercial and industrial customers.

A similar emphasis on conservation was given in displays at Mexabition and Agribition shows and other fairs.

The Corporation is administering a "Warm Up Saskatchewan" program with the Department of Consumer Affairs and Saskatchewan Housing Corporation. Over 2600 applications with a value of \$1.5 million have been approved under the program since it began in May. The program offers interest-free loans between \$100 and \$1000 to homeowners/occupiers for buying and installing insulation and other energy-saving materials.

To help customers pay for the higher energy bills experienced each winter, the Corporation carried out a new promotion of its Equalized Payment Plan.

The Corporation continued its intensive efforts to reduce the number of public accidents. Safety advertising, particularly to farm customers, was stepped up.

Injuries to the public from accidents involving SPC facilities went up by 10 in 1978 to 25.

The number of accidental contacts by the public resulting in damage to



Cereal grain planted on mined land near Boundary Dam Power Station during reclamation program.



SPC facilities dropped to 206 from 238 in 1977. There were three fatalities as a result of two of these accidents, compared to four fatalities the year before.

A significant aspect of the safety program was a series of school safety presentations in many of the province's rural high schools. The presentations were conducted by field staff and emphasized farm electrical safety.

In addition to safety information campaigns, staff continued to identify potential safety hazards affecting the public and to attempt to eliminate these hazards. Patrols continued along rural lines and farm yards to identify hazards such as inadequate clearances. During the year, more than 1000 hazards were eliminated.

The Corporation continued to make its waste ash from the Boundary Dam Power Station available to the construction industry. In addition to the continued use of fly ash as an additive in mixing concrete, tests found use for lagoon ash as a sub-base in road construction.

A 26 km section of Highway 47 near Estevan was rebuilt using 150 000 Mg of lagoon ash from the Boundary Dam station. The material will continue to be supplied free of charge to the provincial highways department for this purpose.



Lagoon ash used as sub-base in rebuilding highway near Estevan.

# Construction for Future Energy Needs

#### **Electricity Generation**

The main construction activity in 1978 was at Poplar River Power Station. Construction was proceeding well at year end. However, lengthy delays experienced during the year set back the expected in-service date by about 10 months.

A 3.3 m circulation water supply line was laid and the 120 m smoke stack structure was completed.

Work continued on the major parts of the powerhouse, turbine and boiler. Construction of the precipitator was nearing completion at the end of the year. Work also started on both the mechanical and the electrical auxiliary systems.

The work force on the project reached a peak of 454 in October.

Work on the Boundary Dam station was limited to several clean-up contracts. The new 300 MW unit, completed late in 1977, was officially commissioned in 1978 June.

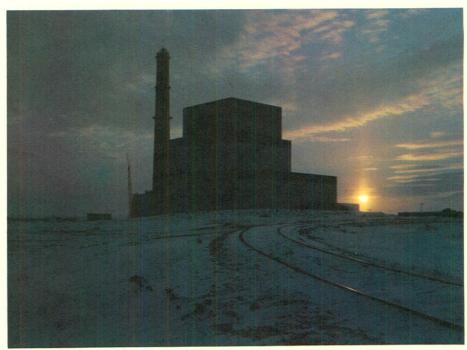
#### **Transmission**

The Corporation's 1978 capital construction program also included several transmission line and switching station projects.

Work continued on switching stations at Poplar River and Assiniboia and on a transmission line connecting these points. This project will initially supply power for operation of a dragline at the Poplar River mine site and for electric heating of the power plant during construction. When the plant begins operation, the 75 km 230 kV line will be used to carry power from the plant into the provincial system.

The Corporation added a second circuit to the 138 kV transmission line from the Queen Elizabeth Power Station, Saskatoon, to North Battleford in order to increase energy supply to the North Battleford area. In addition to stringing a second circuit on the 127 km line, additions were made to the Queen Elizabeth and North Battleford switching stations.

The Corporation built 35.5 km of 138 kV line to provide service to a Cochin Pipeline pumping station near Hayter, Alta. Also, 19.3 km of 138 kV line was built to serve a Cochin Pipeline pumping station near Findlater.



Major facets of Poplar River Power Station completed.

#### Coal Mining

The Corporation's Souris Valley Mine near Estevan produced 343 300 Mg of lignite coal in 1978 for delivery to the Boundary Dam station.

Erection of a Bucyrus Erie 2570W dragline, which is to be used to strip mine overburden at Poplar River coal mine, was completed in August. It took its first bucketful of overburden in September. The dragline and operators are now ready for stripping operations to begin in the fall of 1979 to have coal available for the start-up of the Poplar River plant.

Erection of a similar dragline for coal mining in the Estevan area was well advanced at year end. The dragline will be leased to Manalta Coals Ltd. for the mining of coal at the Boundary Dam station.



New dragline assembled at Poplar River for removing overburden at coal mine.

#### Reclamation

The reclamation program at Estevan continued in 1978 with about 53 ha (hectares)\* levelled to 10 per cent slopes or less. Of the levelled area, 40 ha were seeded to clover, 9500 trees were planted on the terraced hills and trout were stocked in the recreational water bodies.

Excellent moisture conditions in 1978 resulted in good vegetation in areas that have been reclaimed.

At Poplar River, reclamation was limited to weed control on about 400 ha of mine land owned by the Corporation. Land levelling was delayed until next year.

In October, about 80 ha of railroad corridor was seeded to grass.

#### Gas Storage Facilities

Underground storage facilities enable the Corporation to meet a fluctuating customer demand while maintaining a relatively constant daily supply of gas from its suppliers.

Two additional storage caverns at Regina were completed in 1978 bringing the usable storage at Regina to 2.9 Bcf. Further expansion is planned for 1979.

By the end of 1978, the Corporation's storage facilities were capable of producing up to 280 MMcf per day or about 41 per cent of the projected peak day requirements.

<sup>\* 1</sup> ha = 2.5 acres

#### Long Term Gas Supply

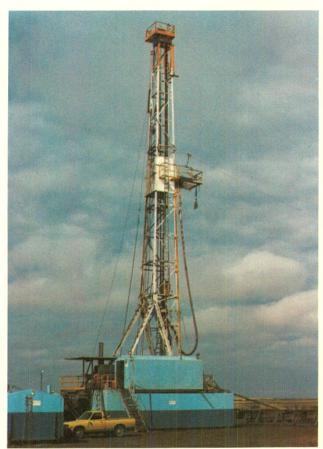
During 1978, the Corporation continued to acquire, explore for and develop additional natural gas reserves in Saskatchewan and Alberta. The Corporation invested a total of \$6.1 million in 1978, bringing total expenditures since 1972 to \$81.6 million.

Two additional gas fields, developed as a result of the gas exploration program, were placed on production during 1978. The St. Lina field in northeast Alberta is delivering gas to the Corporation through the Cold Lake pipeline to Beacon Hill. The Esther field, in east-central Alberta, is delivering gas to the Corporation at Smiley, Sask.

Proven reserves to which the Corporation has access, either through ownership or contract, now total approximately 2418 Bcf. These reserves would be sufficient to meet the 1978 requirements for 22 years, although within five years it is likely that additional supplies will be needed in order to meet the peak requirements of the system.

# Research and Development

During 1978, the Corporation continued to be actively involved in a variety of research projects. Research and development activity included studies of specific aspects of the production, distribution, transmission and use of electricity and natural gas and utilization of unconventional energy sources.

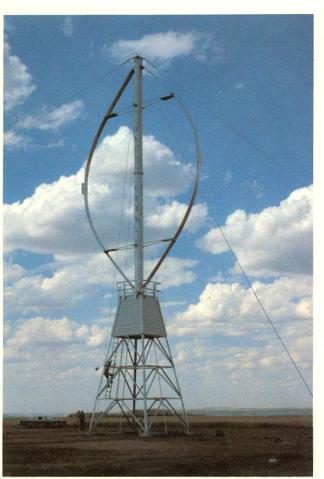


Gas exploration at Tramping Lake, Sask., as part of program to add to supply position.

#### Rotational Speed Control

The Corporation has developed a new technique to monitor and control the speed of gas turbines and compressors. The speed control device prevents overspeed or underspeed operation, reducing the possibility of damage to the turbine and compressor.

By using a microwave principle, speed can be measured without physical contact with the rotating shaft of the turbine. Electronic counters significantly improve the accuracy of measurements.



Wind turbine at Swift Current.

#### **Wood Gasifier**

The Corporation is participating in an experimental wood gasification project at Hudson Bay, Sask., to produce gas from wood chips. Other participants in the two-year project are Saskatchewan Forest Products Corporation and the federal government.

An attempt will be made to run a modified diesel engine with the gas produced.

The project is aimed at finding out if wood gasification is an environmentally acceptable, economical and simple way to generate electricity in isolated northern communities. The project would also evaluate the conversion of wood waste to thermal energy for possible utilization by forest product industries.

#### Wind Power

A wind turbine with a rated output of 55 kW was erected at Swift Current in the summer. It will be tied to the provincial grid system and its performance will be evaluated under local weather and other conditions. The rotor is 17 m high and 10 m in diameter.

The project is supported by the National Research Council and the federal department of agriculture through the Swift Current Research Station.

Tests on a small vertical axis wind turbine at Regina were successfully completed in January.

## Finance and Administration

#### Net Income

Consolidated net income declined by \$1.7 million to \$20.7 million in 1978.

Net income from the electric system was \$16.4 million, including a loss of \$0.6 million from operations of the Corporation's northern subsidiary.

Gas system net income was \$4.3 million, a decline of \$12.6 million from 1977 levels. The 6.7 Bcf reduction in use within the Corporation for gasfired electric generation contributed \$2.2 million to the reduced net income.

#### Revenue & Rates

While rates to residential electric and gas customers were unchanged in 1978, rates to commercial and industrial customers were increased to recover inflationary cost increases. Some increases were introduced in January and some in December. These increases added approximately \$5.8 million to electric revenues and \$0.5 million to gas revenues for 1978.

#### Expenses

Fuel cost for producing electrical energy declined from 1977 as a result of the higher production from Boundary Dam and the increased availability of hydro power generated within the system and purchased from

Manitoba. Generation from less economical plants which require expensive natural gas and subbituminous coal was significantly reduced from 1977.

The cost of natural gas rose by \$23.5 million or 34 per cent from 1977, in spite of the over-all reduction in demand. Two significant price increases to the Corporation for Alberta gas were experienced as domestic gas prices are being allowed to approach present world prices.

Other operating and maintenance costs rose by \$12.4 million, with increased salaries, wages and benefits, accounting for \$6.6 million of this increase, while grants in lieu of taxes rose by \$1.1 million, a 20 per cent increase over 1977.

In addition, \$5.1 million in Education and Health Tax on electricity sold was collected for Saskatchewan and \$6.7 million was collected as surcharge on electric revenues for urban municipalities.

Interest expense increased by \$16.1 million, reflecting the full year effect of the placing in service of Unit No. 6 at Boundary Dam Power Station and the continued decline of the value of the Canadian dollar, relative to the United States dollar. Interest costs were increased by \$12.0 million in 1978 as a result of the Canadian dollar's decline in value.

#### Capital Program

Expenditures by major category were as follows:

		<u>1977</u> illion)
Electric Capital Expenditures Generation	14.6 16.5	109.8 19.3 17.3 146.4
Gas Capital Expenditures Exploration & Production	6.1	7.9
Treatment & Compression Transmission &	1.7	3.2
Storage	3.4 7.2 18.4 4.9	1.8 <u>6.8</u> <u>19.7</u> 1.5
	139.3	167.6

Ongoing construction expenditures for the first unit at Poplar River Power Station, draglines and coal mining facilities as well as transmission facilities to service Poplar River comprise a significant portion of the electric system capital expenditures.

The continued development of resources for security of future gas supply and facility additions for new customers required \$18.4 million for expenditures by the gas system.

#### External Financing

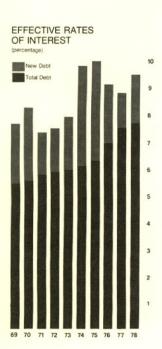
The province borrowed in the U.S. and Canadian markets and advanced \$129.2 million to the Corporation to finance capital construction and operations. A further \$4.7 million, repayable in 1979, was borrowed by the Corporation from the Chemical Bank of New York.

#### Litigation

On October 3, the Supreme Court of Canada handed down its ruling on the price payable by the Corporation to TransCanada PipeLines Limited (TCPL) for gas returned to the Corporation under a purchase contract. It ruled that the NEB had iurisdiction to regulate the price paid by the Corporation for gas delivered by TCPL in accordance with provisions of the gas purchase agreement between the two companies. The effect of this decision is to require the Corporation to pay the Saskatchewan zone rate redelivered gas rather than the contract price. The Corporation still has pending before the Federal Court of Appeal an appeal questioning the manner in which the NEB dealt with the contract in 1976 December.

#### Labor Relations

Early in 1978, revised two-year collective bargaining agreements were concluded with Local 9-649 of the Oil, Chemical and Atomic Workers international union and Local 2067 of the International Brotherhood of Electrical Workers.



Each agreement provides for general wage increases of 7.5 per cent for the first year and a further six per cent for the second year.

#### **Training**

During 1978, the Corporation continued its program to train and develop employees. A variety of courses were conducted in the electric and gas trades, safety training and management.

Altogether 1185 employees attended trades courses, seminars and workshops for a total of 7098 man days.

Close to 100 safety training classes were held and were attended by 1234 employees. The classes covered first aid, defensive driving, pole top rescue and fire fighting.

Through its training pool, the Corporation continued to prepare employees for various positions in power stations. Graduates of the training pool were placed in Boundary Dam Power Station to complete the staffing of the new unit and in Poplar River Power Station to form the nucleus of the initial staff.

#### Safety

The Corporation continued its expanded program to reduce the

number of accidents among employees. Although it is too early to observe any reliable trends, the number of lost time injuries has shown a decline over the past three years. There were 73 such injuries in 1978 compared with 94 in 1977 and 98 in 1976.

Injuries requiring medical aid decreased to 186 from 196 the previous year, and vehicle accidents were down by six to 170 in 1978.

The safety program continued to be well received among employees. It involves encouraging a responsibility on the part of all employees, including supervisors and management, to identify hazards, understand how to cope with them and to act in time to prevent accidents and injuries.

#### **Employees Honored**

Retirement functions were held in 1978 to honor 47 employees.

The Corporation also paid tribute to 300 employees who attained various milestones in their service. Those honored included one employee who reached 40 years of service; 13 employees for 35 years of service; 44 for 30 years of service; 95 for 25 years of service and 140 for 20 years of service.

# **FINANCIAL RESULTS 1978**

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 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 exploration, development and production in western Canada.

# Consolidated Statement of Income and Retained Income

Year Ended December 31

	1978 (000's)	1977 (000's)
INCOME		
Electricity sales	\$186 875	\$156 728
Gas sales (Note 2)	144 720	125 192
Other	10 725	8 395
	342 320	<u>290 315</u>
OPERATING EXPENSES		
Fuel, water and purchased electricity	34 548	37 218
Produced and purchased cost of gas sold (Note 3)  Other operating, maintenance and administration	92 993	69 452
(Note 4)	100 974	88 553
Depreciation and depletion (Note 5)	34 765	30 501
	263 280	225 724
Net income before interest expense	79 040	64 591
INTEREST EXPENSE		
Long-term debt (Note 6)	68 609	54 188
Other	5 586	2 402
Capitalized (Note 6)	(15 842)	(14 337)
	58 353	42 253
NET INCOME	20 687	22 338
Retained income at beginning of year	182 720	174 582
Income appropriated to Rate Stabilization Reserve Income transferred to Crown Investments Corporation	_	(6 000)
of Saskatchewan (Note 8)	(10 300)	(8 200)
RETAINED INCOME at end of year	\$ <u>193_107</u>	\$182 720
See major accounting policies and notes.		

# Consolidated Statement of Changes In Financial Position

#### Year Ended December 31

	1978 (000's)	1977 (000's)
SOURCE OF FUNDS		
Net Income	\$ 20 687	\$ 22 338
Depreciation and depletion	34 765 1 107	30 501 1 909
	56 559	54 748
Contributed surplus and revenue prepayments  Advances from Province of Saskatchewan  Bank term loan	6 620 129 223 4 675	7 100 126 751 44 505
	197 077	233 104
APPLICATION OF FUNDS		
Expenditures on plant and equipment	139 290 82 776	167 607 30 313
of Saskatchewan (Note 8)	10 300 2 454	8 200 340
INCREASE (DECREASE) IN WORKING CAPITAL	<u>234 820</u> <u>(37 743)</u>	206 460 26 644
CHANGES IN COMPONENTS OF WORKING CAPITAL		
Increase (decrease) in current assets Short-term investments	12 942 8 270 7 268 28 480	21 313 11 149 879 33 341
Increase (decrease) in current liabilities  Bank loan and short-term financing  Accounts payable and accrued liabilities	(982) 67 205 66 223	3 775 2 922 6 697
INCREASE (DECREASE) IN WORKING CAPITAL	\$(37 743)	\$ 26 644
See major accounting policies and notes.		

#### Auditor's Report

To the Members of the Legislative Assembly of the Province of Saskatchewan

I have examined the consolidated balance sheet of Saskatchewan Power Corporation as at 1978, December 31, and the consolidated statements of income and retained income 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 1978, 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.

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

Regina, Saskatchewan 1979, March 2

# **Consolidated Balance Sheet**

#### At December 31

ASSETS			<u>978</u> 00's)		_	9 <u>77</u> 00's)
CURRENT ASSETS						
Short-term investments Accounts receivable — Customers — Unbilled sales — Other Inventories at cost Gas in storage at cost Prepaid expenses		34 26 5 17 9	242 5 545 934 768 924 669 585 667	\$	24 27 6 13 6	300 963 446 568 818 801 291 187
OTHER ASSETS AND DEFERRED CHARGES						
Unrealized foreign exchange losses (Note 1) Other assets (Note 10) Unamortized debt cost (Note 11)		9	131 848 058 037		5 1	802 379 060 241
UTILITY PLANT						
Plant in service at cost (Note 9)	_	246 378 868 198 067 263	933 298 231	-	156 350 806 157 964 099	012 856 341 197
LIADULTIES AND DROVINCE'S FOLIIT	-v					
LIABILITIES AND PROVINCE'S EQUIT CURRENT LIABILITIES  Bank loan	ĭ	6	153		7	135
Income payable to Crown Investments Corporation of Saskatchewan (Note 8)		44	300 530 969		39	200 179 363
Long-term debt due within one year		74	272 224		18	124
CUSTOMER DEPOSITS		1000	776			364
UNAMORTIZED REVENUE PREPAYMENTS		16	778		15	337
COMMITMENTS AND CONTINGENT LIABILITIES (Note 7)						
LONG-TERM DEBT NET OF SINKING FUNDS (Note 12)		822	963		741	034
PROVINCE'S EQUITY  Contributed surplus	¢		087			169
from retained income		193	000 107 194		182 247	Charles and the same of the sa
See major accounting policies and notes.	\$1_				099	

## **Major Accounting Policies**

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

Customer Capital Contributions and Revenue Prepayments — Capital contributions and revenue prepayments 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 Contributed Surplus. Where the deficiency is expected for only a portion of the life of the facilities, the contribution is classified as a revenue prepayment 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.

**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.

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.

**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 30 years
Transmission LinesSwitching stations	40 years 30 years
Distribution Oil fields	20 years 30 years
Gas System Transmission lines	

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.

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 35 and 36 of the Power Corporation Superannuation Act and Section 42 of the Superannuation (Supplementary Provisions) Act, 1977.

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

#### Notes to the Financial Statements

- The 1977 Balance Sheet has been restated to comparatively reflect the revised presentation of foreign currency Long-Term Debt and the corresponding Unrealized foreign exchange losses. This restatement has no effect on the Statement of Income for the year ended 1977, December 31.
- Income from 1977 gas sales includes \$1 579 000 which resulted from a retroactive increase in contract prices for gas sold in 1975 and 1976.
- 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 1, 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. This ruling by the National Energy Board is currently under appeal by the Corporation to the Federal Court of Canada. Delivery of gas to the Corporation started in 1976, November. The Corporation is paying the higher price under protest. The additional payments recorded as costs of gas were \$19.2 million in 1978, \$15.2 million in 1977 and \$2.8 million in 1976.
- The charge against income and payments to the Power Corporation Superannuation Fund and the Public Employees (Government Contributory) Superannuation Plan for employees' future superannuation benefits was \$6 602 000 in 1978 (\$6 085 000 in 1977).

5. Depreciation and Depletion (000's)

	19/8	19//
Depreciation	\$33 815	\$29 151
Depletion		1 676
Capitalized	(623)	(326)
	\$34 765	\$30 501

6. Interest on Long-Term Debt (000's)

		1978		1977
Interest paid and accrued	\$73	677	\$62	778
Amortization of debt costs and gains:  Debt discount and expense		719		730
Gain on early repayment of debt	(1	066)	(1	249)
Foreign exchange provision	6	628	3	676
Sinking fund earnings	(11	349)	(11	747
	\$68	609	\$54	188
the state of the s	project	ata at	0 10	to of

Interest was capitalized on construction projects at a rate of 9.5% in 1978 and 9.25% in 1977.

7. Commitments and Contingencies

At 1978, December 31, the Corporation was committed in the amount of approximately \$51.9 million for construction materials, equipment and services on contracts not completed at year end and approximately \$450 million for natural gas contracted for future delivery valued at current prices.

Income was transferred to the Province of Saskatchewan in 1977.

#### 9. Utility Plant in Service (000's)

		Cost	Deprec and Dep	iation		1978 Net		1977 Net
Electric	200	SCHOOL ST 16					****	507
Generation	\$ 416	964	\$104	713	\$312		\$283	
Transmission	150	504	44	918	105	586	96	
Distribution	273	095	97	779	175	316	168	849
	840	563	247	410	593	153	548	858
Gas		224	20	754	0.7	407	82	944
Production		221		754	87	467	1.515	775
Gathering, Treatment & Compression		025	21	403		622	19	1000
Transmission & Storage	103	537	34	427	69	110	67	456
Distribution	103	541	32	717	70	824	66	449
	363	324	112	301	251	023	236	624
General Plant	43	067	18	310	_24	757		374
	\$1 246	954	\$378	021	\$868	933	\$806	856

<ol><li>Other Assets (000's</li></ol>
---------------------------------------

Other Assets (000's)			<ol> <li>Unamortized Debt Cost (000's)</li> </ol>		
	1978	1977		1978	1977
Prepaid gas purchases	\$4 049	\$3 372	Unamortized debt discounts and		
Deferred mining costs	2 387	612	expenses applicable to advances		
Deferred gas in storage	1 294	· —	received from the Province		
Farm loans	478	501	of Saskatchewan	\$8 462	\$7 530
Other	1 640	894	Less unamortized gains arising from		
A DELEGACIONE	\$9 848	AS COUNTY CONTROL	the early repayment of long-term debt	5 404	6 470
	-	45.51		\$3 058	\$ <u>1 060</u>

#### 12.Long-Term Debt (\$000's)

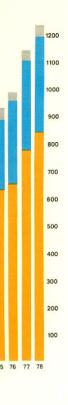
#### Advances from Province of Saskatchewan

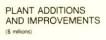
Year Received	Year Repayable	Interest Rate	Face Amount In Foreign Currency (1)	Debt Recorded	Equity in Sinking Fund
1959	1979	5 -53/4		\$ 9 650	\$ 7 693
1961	1979	53/4		4 978	3 494
1960	1980	5 -6		14 634	9 760
1961	1981	5 -51/2		8 533	4 880
1962	1982	51/8-51/2		24 689	10 599
1963	1982	51/4		9 703	3 904
1958	1983	4 1/8	11 820	13 623	11 487
1963	1983	5 -51/4	18 355	23 259	9 929
1959	1984	43/4-5	19 591	22 535	16 286
1964	1984	51/4-51/2		3 429	672
1964	1985	51/2		7 516	2 782
1965	1985	51/2		2 140	
1966	1986	51/8-61/4		13 820	3 486
976	1986	83/4	75 000	88 935	
966-67	1986-87	51/4-51/2	70 000	13 033(2)	5 843
967	1987	6		7 895	2 330
967-68	1987-88	51/4-61/2		9 752 (2)	3 788
968	1988	71/4		12 979	3 598
1968-69	1988-89	61/2-71/4		27 908 (2)	8 916
1969	1989	7%	13 050	15 150	3 029
1969-70	1989-90	71/4-81/2	13 030	32 907 (2)	8 682
965	1990	47/8	3 625	4 173	1 449
970	1990	83/4	3 625	15 000	4 426
970-71	1990-91	63/4-81/4		33 062 (2)	6 935
		53/4			2 486
961	1991	Control of the Contro		3 000	4 571
971-72	1991-92	$6\frac{3}{4}$ - $7\frac{1}{2}$		27 613 (2)	
972-73	1992-93	7 -71/2		23 189 (2)	2 723
973-74	1993-94	7 1/2		6 297 (2)	579
964	1994	5½		4 151	999
973	1998	73/4-81/4		40 000	2 658
1974	1999	10		20 000	1 215
975	2000	91/8		40 000 (3)	1 105
976	2001	101/4		50 000	916
1977	2002	9		50 000	544
1978	2003	91/2		45 000	<del>-</del>
1976	2006	87/10	75 000	88 935	1 330
1977	2007	85/8	75 000	88 935	792
978	2008	91/4	75 000	88 935	· ·
				995 358	153 886
ther Long-Ter	rm Debt			5.4.005.44	
hemical Bank	of New York — Term	Loan		54 665 (4)	
City of Regina	_ This is the present	value, on the basis of	51/2%		
nterest rate of	f estimated navments	vet to be made to the	City for its		
electrical syste	em. Final payments are	e expected to be made	in 1983	930	
		anding portion of the \$2			
olly of Weybur	for the City's electric	al system. Semi-annual	2 million		
ovmente with	interest at 51/4% will	ratira the liability in 107	9	159	
ayments with	interest at 572 % Will I	care the hability in 197		0	
Royal Bank of	Canada Mortgages —	6% first mortgages on	houses in Estevan	<u>9</u>	0450 000
				<u>\$1 051 121</u>	<u>\$153 886</u>
ong-Term Del	bt — net of sinking fur	nd			\$897 235
Amounts due v	within one year				74 272
mounts due v	munit one year				\$822 963
1) United Ot	aton dollars				<u> </u>
1) United Sta	ates utilats.				

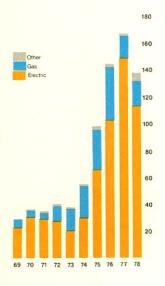
United States dollars.
 Advances totalling \$173 761 000 with an original term of 20 years are subject to redemption on six months notice.
 Retractable at holder's option to 1983.
 This loan is repayable in 1979, September.
 Debt repayments and sinking fund insigned in the payable in 1979. 1979 - \$74 272; 1980 - \$18 751; 1981 - \$17 320; 1982 - \$27 986; 1983 - \$20 645

GROSS PLANT IN SERVICE

# Financial Statistics (000's)







CONSOLIDATED INCOME		4070		1077
ELECTRIC GUOTEN		<u>1978</u>		<u>1977</u>
ELECTRIC SYSTEM Sales (1)	. •	187 103	\$	156 964
Other	Ф	8 262	Ф	6 249
Outor		195 365		163 213
Fuel, water and purchased electricity		39 820		44 660
Other operating, maintenance and administration.		69 639		61 014
Depreciation and depletion		26 003		22 057
Interest and other debt costs — net		43 471		30 008
		178 933		157 739
Net income		16 432		5 474
GAS SYSTEM				
Sales (1)		157 067		143 162
Other		2 463		2 146
		159 530		145 308
Produced and purchased cost of gas sold		100 296		80 216
Other operating, maintenance and administration		31 335		27 539
Depreciation and depletion		8 762		8 444
Interest and other debt costs — net		14 882		12 245
Not income		155 275 4 255		128 444 16 864
Net income		20 687		22 338
Consolidated Net Income		20 007		22 330
CONSOLIDATED STATEMENT OF				
CHANGES IN FINANCIAL POSITION				
SOURCES OF FUNDS				
Funds from operations		56 559		54 748 7 100
Contributed surplus and revenue prepayments		6 620 133 898		171 256
Long-term debt		(2 454)		(340)
Othor.		194 623		232 764
APPLICATION OF FUNDS				,
Expenditures on plant and equipment		139 290		167 607
Repayment of long-term debt		82 776		30 313
Income transferred		10 300		8 200
		232 366		206 120
Increase (decrease) in working capital		(37 743)		26 644
CONSOLIDATED BALANCE SHEET				
ASSETS				2 40 0000
Current and other assets		196 704		135 428
Plant in service — cost	1	246 954	1	156 868 (350 012)
Accumulated depreciation and depletion		(378 021) 198 298		157 341
Work in progress	1	263 935	1	
LIABILITIES AND PROVINCE'S EQUITY	=		=	
Current and other		178 778		110 702
Long-term debt — net		822 963		741 034
Contributed surplus		63 087		59 169
Rate Stabilization Reserve — appropriated from		6 000		6 000
retained income		193 107		182 720
rictained income	\$1	263 935	\$1	099 625
PERCENTAGE EQUITY		20.7	=	22.5
I ENGLATINGE EXCIT		20		

Intersystem usage of gas and electricity is included in system sales.
 This usage is eliminated on the statement of Consolidated Income and Retained Income.

1976	1975	1974	1973	1972	1971	1970	1969
\$126 379 1 951 128 330 30 308 56 671 20 865 21 054 128 898 (568	19 347 46 088 19 971 20 294 105 700	\$ 90 127 1 714 91 841 12 427 34 650 19 350 19 857 86 284 5 557	\$ 86 329 1 559 87 888 13 161 28 370 18 334 18 065 77 930 9 958	\$ 79 246 1 242 80 488 8 963 26 186 17 123 16 700 68 972 11 516	\$ 76 169 \frac{1}{1} 177 \frac{77}{77} 346 \tau 905 23 522 16 537 \frac{16}{103} \frac{64}{067} \frac{13}{279}	\$ 72 387 1 136 73 523 7 577 21 696 15 970 14 614 59 857 13 666	\$ 67 020 1 069 68 089 6 004 20 546 15 590 15 493 57 633 10 456
110 550	75 353	55 352	49 345	47 972	45 223	42 306	38 760
2 011	1 494	1 821	1 275	1 022	999	809	894
112 561	76 847	57 173	50 620	48 994	46 222	43 115	39 654
51 633	34 142	22 696	18 459	16 579	15 524	13 152	11 613
23 953	18 372	14 612	11 927	10 549	9 922	9 773	9 352
8 532	7 685	7 607	7 149	7 275	6 844	6 933	6 347
7 414	6 127	6 079	5 714	5 203	5 117	4 796	5 767
91 532	66 326	50 994	43 249	39 606	37 407	34 654	33 079
21 029	10 521	6 179	7 371	9 388	8 815	8 461	6 575
20 461	7 252	11 736	17 329	20 904	22 094	22 127	17 031
48 157	36 708	39 613	42 191	44 496	44 610	44 645	40 247
6 391	6 311	3 237	3 065	1 877	1 732	1 307	1 488
195 715	39 550	23 517	44 490	27 714	28 624	47 870	45 016
(742	(1 415)	707	297	(16)	(194)	(2 795)	8 216
249 521	81 154	67 074	90 043	74 071	74 772	91 027	94 967
145 634 33 295 10 200 189 129 60 392	98 010 29 371 <u>3 600</u> 130 981 (49 827)	56 675 31 362 ————————————————————————————————————	38 779 21 249 ——— 60 028 30 015	40 534 27 168 20 900 88 602 (14 531)	34 392 25 336 ——— 59 728 15 044	36 812 32 730 10 400 79 942 11 085	28 487 48 494 <u>8 100</u> 85 081 <u>9 886</u>
79 636 995 952 (322 310 153 785 907 063	933 685	41 229 871 560 (269 661) 38 859 681 987 80 930	47 591 844 927 (245 511) 12 702 659 709	31 088 789 094 (220 620) 30 411 629 973 77 153	28 554 765 367 (197 467) 14 979 611 433 56 283	733 869	31 317 695 260 (159 942) 22 844 589 479 69 073
574 362	406 879	391 336	398 660	375 254	378 404	375 851	378 897
55 212	51 406	49 052	47 342	45 997	45 181	44 390	43 755
174 582	164 321	160 669	148 933	131 569	131 565	109 471	97 754
\$907 063	\$773 630	\$681 987	\$659 709	\$629 973	\$611 433	\$599 961	\$589 479
25.3	27.9	30.8	29.8	28.2	28.9	25.6	24.0

# Record of progress

	1978		1977	1976			
OPERATION — ELECTRIC SYSTEM							
Customers at December 31	337 872	327	323	315	635		
Electricity sold (millions of kW·h)	7 329	6	961	6	347		
Average yearly residential consumption (kW·h)	6 753	6	335	6	074		
Average yearly farm consumption (kW·h)	15 487	14	333	13	616		
Rated generating capacity (kW)							
Hydro	467 000 1 349 500 115 000	1 349	000 500 400	467 1 057 172	000		
Total	1 931 500	1 980	900	1 696	975		
Season gross system peak load (kW)	1 680 000	1 585	000	1 432	000		
Pole kilometres of line excluding urban distribution system 72 kV and higher	8 990 121 747		752 045	8 120	380		
OPERATIONS—GAS SYSTEM (Gas volumes at 14.65 psia)			0,10				
Customers at December 31	208 761 107 901		892 501	193 103			
consumption (Mcf)* *Degree days deficiency	172		159		167		
(Regina)	6 037	5	486	5	475		
(Mcf)	596 320	636	440	588	420		
Gathering	985		985		867		
Transmission and laterals	8 010		955		920		
Distribution	5 249	5	129	4	928		
AVERAGE MONTHLY							
EMPLOYEES	3 016	2	949	2	887		

<sup>\*</sup>Celsius using 18°C as base temperature

		1975			<u>1974</u>			1973			1972			<u>1971</u>			<u>1970</u>			1969
	302	611		291	966		283	282		277	508		274	400		271	000		269	200
	6	125		6	192		5	990		5	289		4	913		4	618		4	159
	6	003		5	713		5	390		5	343		5	037		4	910		4	750
	12	873		11	969		11	025		10	481		10	180		8	954		8	250
	057	000 000 137 137		057	000 000 050 050		057	885	1	907	000 000 500 500	1	807	000 000 500 500	1	807	000 000 500 500	1	682	000 000 500 500
1	330	000	1	289	600	1	290	900	1	175	000	1	089	000	1	066	000		956	000
		309 299		8 118	229 457			156 163			918 309		7 115	828 816			458 280		7 114	223 832
		305 660		173 114	240 837		164 113	902 998			416 356			658 187		145 99	498 309		142 88	364 697
		184			183			179			197			185			188			188
		941			043			500			355			010			325			142
	535	700		522			543			539	240		522	440		487	240		447	030
	7	821 879		7	816 873		7	772 549		7	772 113		6	737 521		6	732 133		5	715 499
		752			582			331			067			759			565			391
	2	837		2	625		2	519		2	453		2	420		2	464		2	461

