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ELECTRIC POWER STATISTICS
VOLUME I

ANNUAL ELECTRIC POWER SURVEY
OF CAPABILITY AND LOAD

1967 Actual

1968 - 1972 Forecast

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Energy and Minerals Section

ELECTRIC POWER STATISTICS
VOLUME I

ANNUAL ELECTRIC POWER SURVEY
OF CAPABILITY AND LOAD

1967 Actual
1968 - 1972 Forecast

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57-201	Electric and Gas Meter Registrations. Approx. 150pp. Meter registrations by province, county or census division, company and place served, by type of service	\$1.50
57-202	Electric Power Statistics Vol. II - Annual Statistics. Approx. 70pp. Summary and detailed analyses of generation and use of electric power in Canada, power plant equipment, customers, employees, salaries and wages, financial statistics, and historical tabulation of supply and disposal of electric energy	1.00
57-203	Electricity Bills for Domestic, Commercial and Small Power Service. Approx. 15pp. Includes an annual index of electricity bills for domestic service and bills for light and power in cities and representative municipalities .....	.50
57-204	Electric Power Statistics, Vol. I - Annual Electric Power Survey of Capability and Load. Approx. 45pp. Current and projected data of capability and load of major producers of electric energy in Canada .....	.75
Monthly		
57-001	Electric Power Statistics. Approx. 8pp. Production by utilities and industrial establishments, imports and exports, power made available for use in Canada, secondary energy used, sales to ultimate customers by rate category, cumulative monthly totals for year to date, by province .. 10¢ a copy; per year,	1.00
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SYMBOLS

The interpretation of the symbols used in the tables throughout this publication is as follows:

† Revised figures.

.. Figures not available.

... Figures not appropriate or not applicable.

- Nil or zero.

INTRODUCTION

This report presents the results of the Annual Electric Power Survey of Capability and Load which was conducted in March 1968. The survey covers all producers of electric energy in Canada which generate 10 million kwh. or more per annum. This report, therefore, covers the same group of firms which provide the statistics for the monthly "Electric Power Statistics" report (catalogue No. 57-001). The report is organized in such a manner that there is a direct comparison and link with the monthly "Electric Power Statistics" in that the generation figures are common to the two publications: Any differences are due to late revisions.

There are approximately 150 responding firms in the group, about half of which are utilities and half industrial establishments. The combined group accounts for 99.5 per cent of all generation, and all the imports and exports. The utilities group contributes approximately 80 per cent of the generation to the Canada total.

The survey is carried out in co-operation with the Canadian Electrical Association. Area representatives of the Association collect and edit the returns, which are forwarded to the Dominion Bureau of Statistics for final revision, editing, and compilation. The assistance received from the Canadian Electrical Association and its members has been invaluable.

1967 CAPABILITY AND LOAD SURVEY

Review of Survey Results

Total net generating capability in 1967 for firms which generate over 10 million kwh. per year increased 2,437,000 Kw. or 8.42 per cent to 31,370,000 Kw. The forecast years 1967-72 indicate an anticipated growth of 16,780,000 Kw. to 48,150,000 Kw., a compound growth rate of 8.95 per cent as compared with the 1957-1967 growth rate of 6.66 per cent. Thermal capability is expected to grow at an annual rate of 13.49 per cent in the forecast period compared with an actual rate of 14.46 per cent in the previous ten year period, while hydro-electric capability is expected to increase at 6.89 per cent compared with 4.73 per cent in the previous ten years. Seventy-eight per cent of the thermal capability growth will be in fossil-fuelled steam plants, nineteen per cent in nuclear-fuelled steam plants and three per cent in gas turbine plants.

The first nuclear capability was put into service in 1967. The nuclear capability does not include the 20,000 Kw. plant at Rolphton, Ontario, which is an experimental plant and therefore is not considered part of the capability. However, energy generated in this plant has been fed into the system and is included in Table 1. It is expected that by 1972 the nuclear capability will reach 1,700,000 Kw. or 3.53 per cent of the total Canadian generating capability.

In the previous forecast it was estimated that the net generating capability in 1967 would be 32,444,000 Kw. The actual net generating capability fell short of this estimate by 1,074,000 Kw. This was caused by the delay of the installation of some units until 1968 and by some units being put into service too late to be considered part of the generating capability at the time of the firm power peak load. The 1967 capability was significantly below the previous forecast for New Brunswick and Ontario.

The largest absolute growths in generating capability for the forecast period are indicated for: Ontario 6,283,000 Kw.; Quebec 3,275,000 Kw.; Newfoundland 2,056,000 Kw. and British Columbia 1,973,000 Kw. Of the increased generating capability in Ontario, 3,779,000 Kw. will be in fossil-fuelled plants, (steam, internal combustion and gas turbine) while nuclear-fuelled steam plants will account for 1,533,000 Kw. of the increase. Quebec plans to increase its capability by adding 3,090,000 Kw. hydro and 180,000 Kw. in fossil-fuelled steam plants. The Newfoundland forecast is for an increase of 1,652,000 Kw. in hydro capability and 404,000 Kw. in thermal capability, while British Columbia estimates are for increases of 1,790,000 Kw. and 183,000 Kw. in hydro and thermal capability respectively.

In the period from 1957 to 1967 the compound growth rate of firm power peak load in Canada was 6.66 per cent. This growth rate is expected to increase to 7.02 per cent during the period 1967 to 1972. During the forecast period the indicated reserve is expected to increase from 3,507,000 Kw. in 1967 to 8,826,000 Kw. in 1972. The indicated reserve, stated as a percentage of firm power peak load, amounted to 12.5 per cent in 1967 and it is forecast that it will be 22.4 per cent in 1972.

Firm energy requirements increased 7.24 per cent from 151,653 million Kwh. in 1966 to 162,629 million Kwh. in 1967 compared with a compound growth rate of 6.79 per cent in the previous ten year period and a forecast growth rate of 7.15 per cent for the period 1967-1972. The additional firm energy requirement in 1967 was supplied by an increase in net generation of 7,630 million Kwh. a decrease in net exports of 1,529 million Kwh. and a decrease of 1,817 million Kwh. secondary energy delivered within Canada.

Concepts and Definitions

Table 1. Capability, Firm Power Peak Load and Energy Requirements:

The generating capability and firm power peak load concepts are virtually unchanged from previous reports. Generating capability measures the expected power of all available generating facilities of the province (or nation) at the time of one-hour firm peak load for each of the respondents. This may differ from the generating capacity as measured by the name plate rating of the equipment and published in the "Prime Mover and Electric Generating Equipment" report.

The variations between generating capability and generating capacity may be caused by high water in reservoirs resulting in a higher water head and greater generation than the name plate capacity; the impossibility of placing all pieces of equipment on the line at the same time, low water, ice, or some equipment being considered unreliable, thereby resulting in generation below capacity.

All figures in Table 1 of the report are calculated at the time of the one-hour peak load for each of the respondents. As a result, capability and peak loads are non-coincident (the arithmetic sum of the actual peak loads regardless of time of occurrence) and may be equal to, or greater than, the coincident peak load for each of the provinces. Insofar as the utilities have about 80 per cent of the load of the nation and most of the peak loads occur in December, the variation from the coincident peak will not be too great. Two major systems which account for about 50 per cent of the capability have only a slight variation between their coincident and non-coincident peak loads. Of thirty major systems serving Canada, three had peak loads on December 18, thirteen on other dates between November 30 and December 31 and fourteen outside this period.

Receipts and deliveries of firm power used in calculating net capability are the interprovincial and international transfers of power under firm contracts, or the best estimate of firm obligations possible in the absence of contracts. The actual receipts and deliveries of firm and secondary power are taken into account in the calculation of firm power peak loads.

Peak loads are the total demands within a province after all inter-changes have been taken into account to remove any duplication. The peak loads include all electricity consumed by ultimate customers, line losses, and manufacturing plants own consumption, but do not include generating station service which is deducted before arriving at generating capability. Firm power peak loads exclude the secondary or surplus power used by ultimate customers on an interruptible basis, as these are not firm obligations.

Indicated shortages (line 15, Table 1) are a measure of the firm power commitments that a system was not able to meet at the time of its peak load.

The indicated power reserve of a province (shown in Table 1) is the reserve after all firm obligations and shortages have been met or received. It is the difference between net capability and total firm peak load within the province or gross capability less firm power peak load on the province, and is a measure of the industries' ability to satisfy demands of a province and meet contingencies. Since not all systems are fully interconnected, the reserves of power shown cannot always be fully utilized.

Net generation figures which are identical with the figures presented in the monthly "Electric Power Statistics" report (or revisions thereof) are exclusive of station service. No forecasts of generation are given for 1968-72.

Firm energy receipts and deliveries are the actual receipts and deliveries under firm contracts or obligations.

Secondary energy delivered within the province is the surplus energy sold at time of low demand and when surplus generating capability is available. This energy may be interrupted at any time and, consequently, sells at very low rates, generally for use in electric boilers.

Firm energy available is the measure of primary demands of electric energy, including residential, commercial and power sales, and all line losses after deducting net exports. It is an important economic indicator and, as such, is of major importance in forecasting.

Indicated shortage (line 36, Table 1) is an estimate of the total quantity of energy a system was unable to deliver due to its inability to meet firm power commitments during the year; no shortages have occurred since 1957.

Firm energy requirements are a measure of the needs for electric energy that have been or can be met (firm energy available) and those that cannot be serviced (shortage).

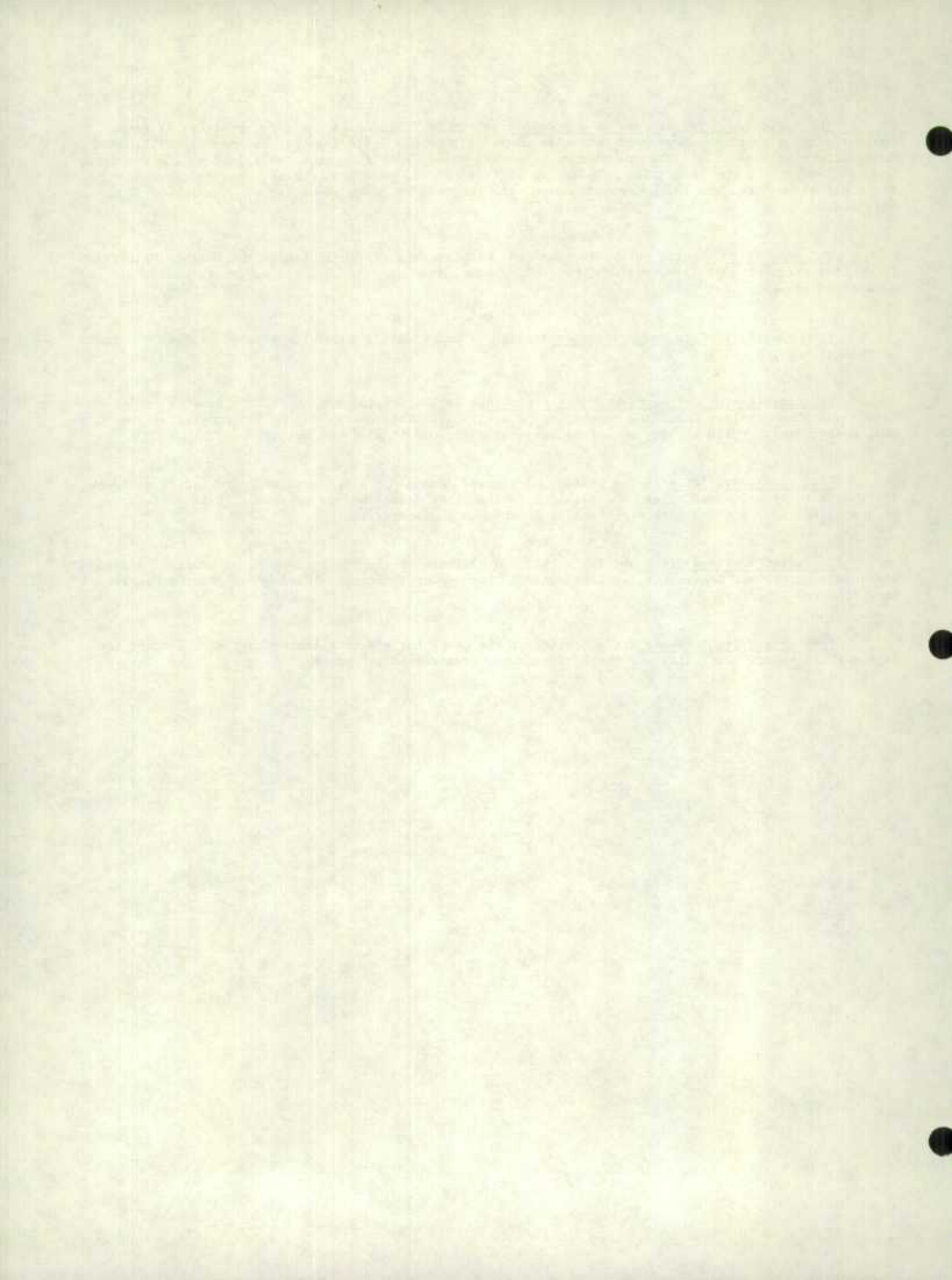


CHART-A

TOTAL GENERATING CAPABILITY WITHIN CANADA

1957-1972

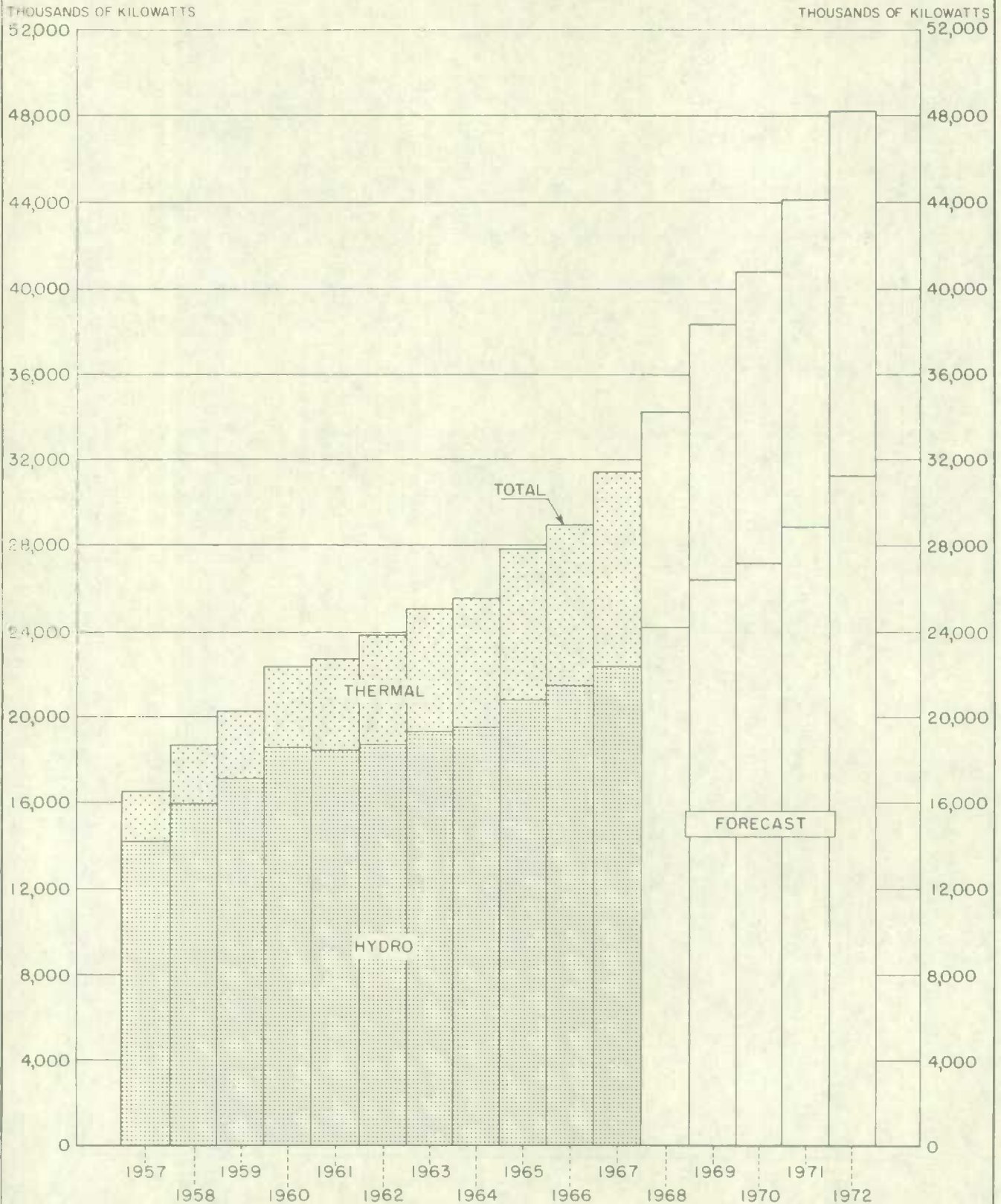


CHART-B

NET CAPABILITY AND PEAK LOADS WITHIN CANADA 1957-1972

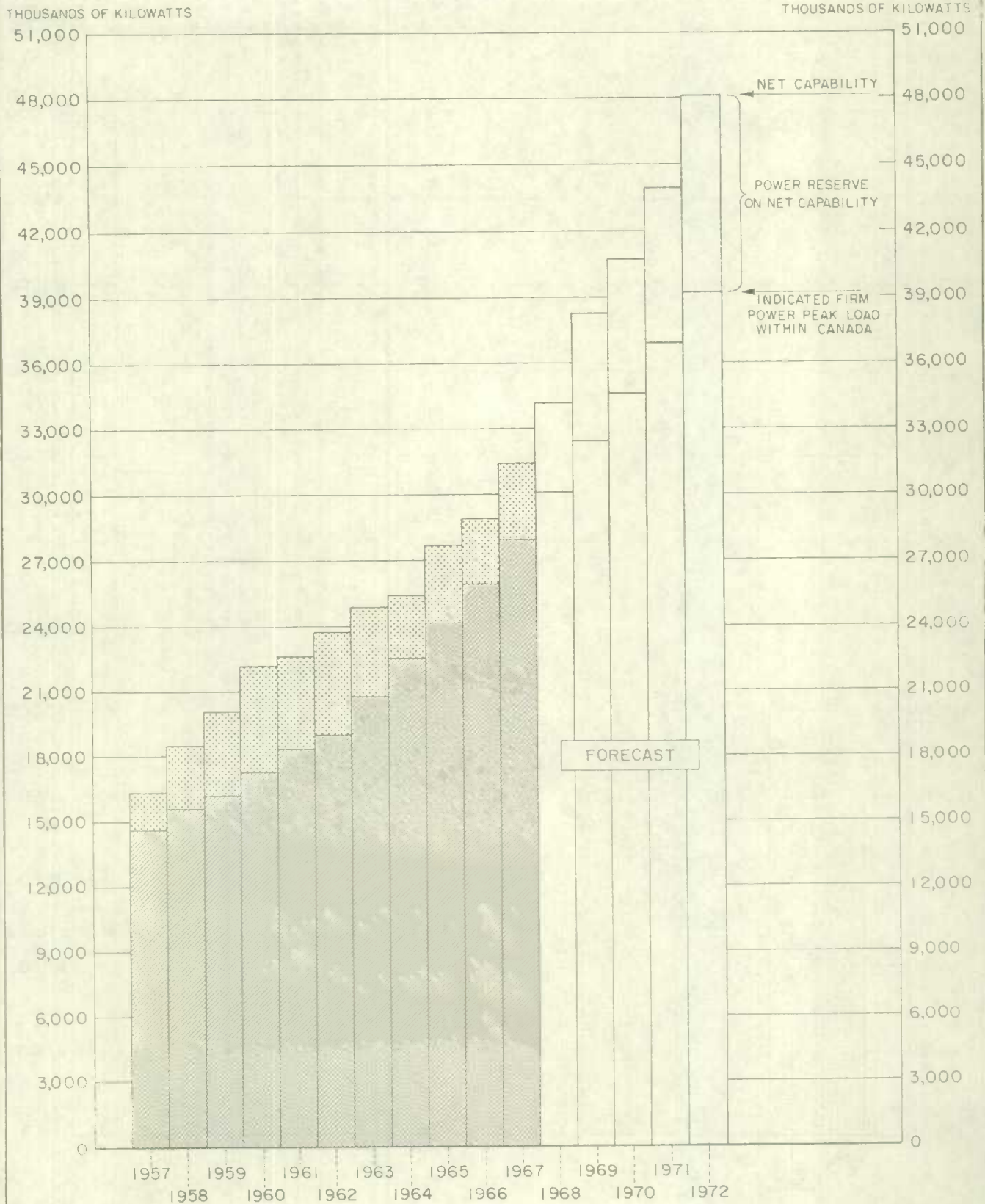


CHART - C

NET GENERATING CAPABILITY WITHIN PROVINCES 1957-1972

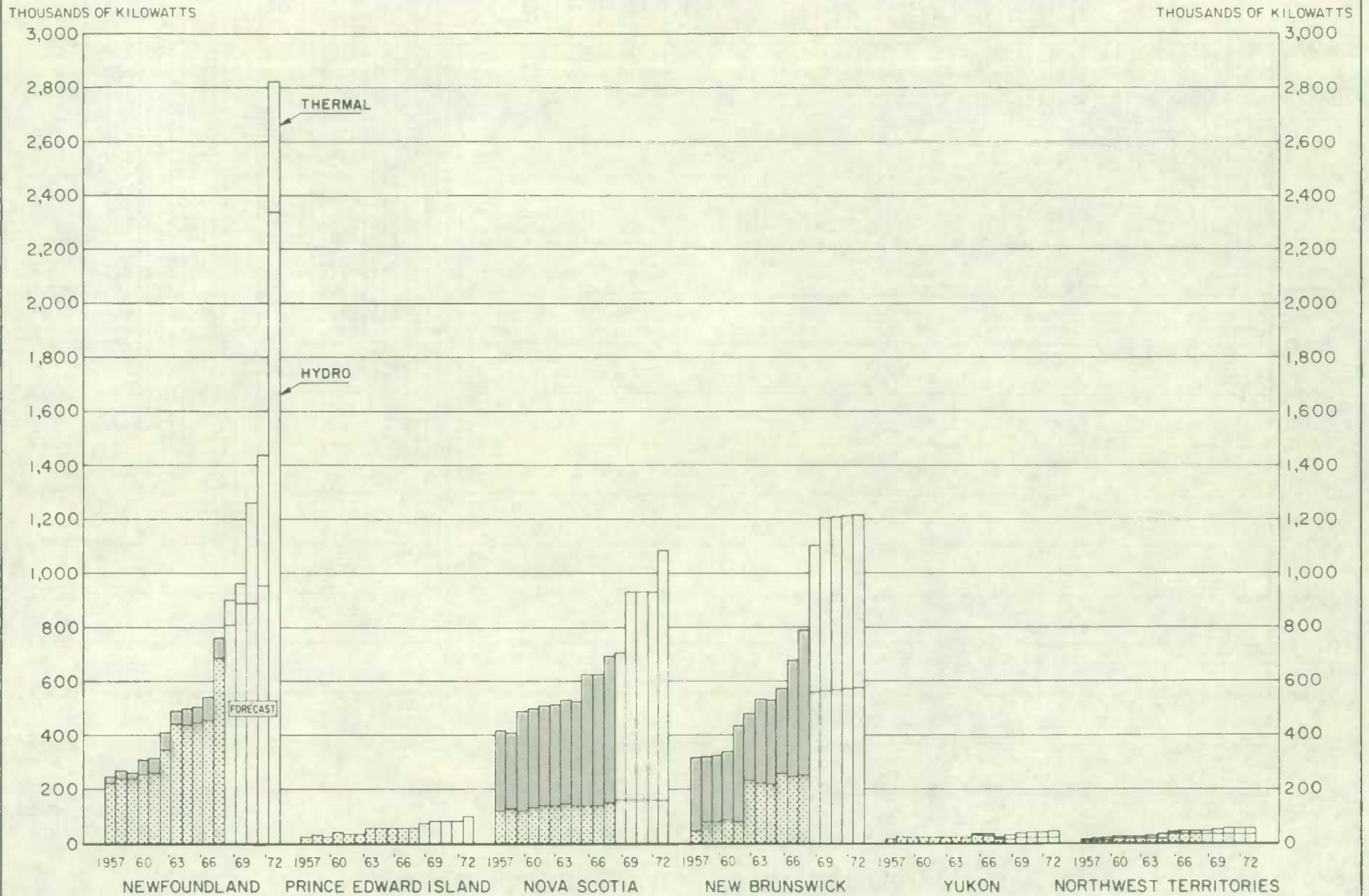


CHART — C

NET GENERATING CAPABILITY WITHIN PROVINCES 1957—1972

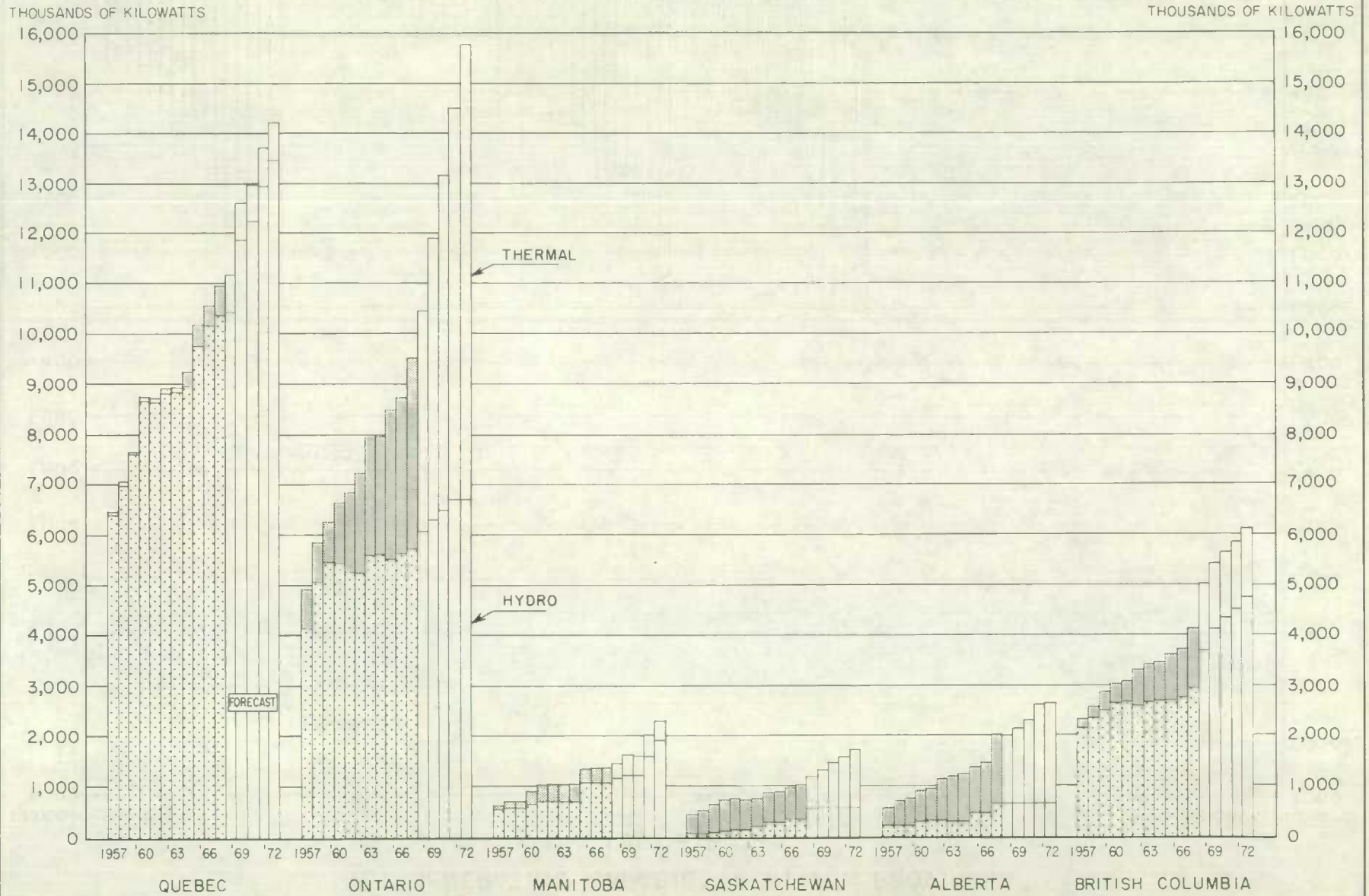


CHART - D

NET CAPABILITY AND FIRM DEMAND WITHIN PROVINCES 1957-1972

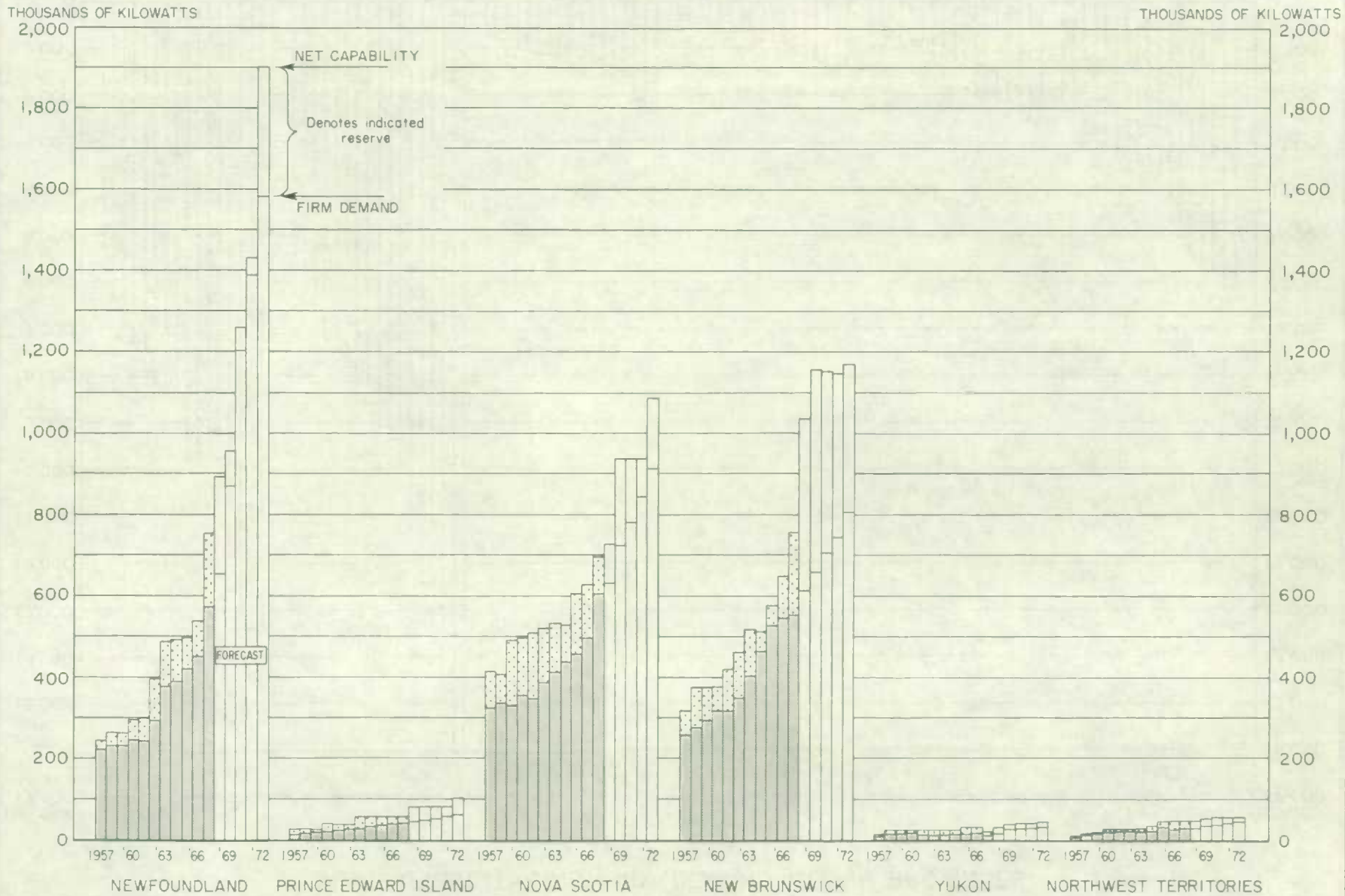


CHART - D

NET CAPABILITY AND FIRM DEMAND WITHIN PROVINCES 1957-1972

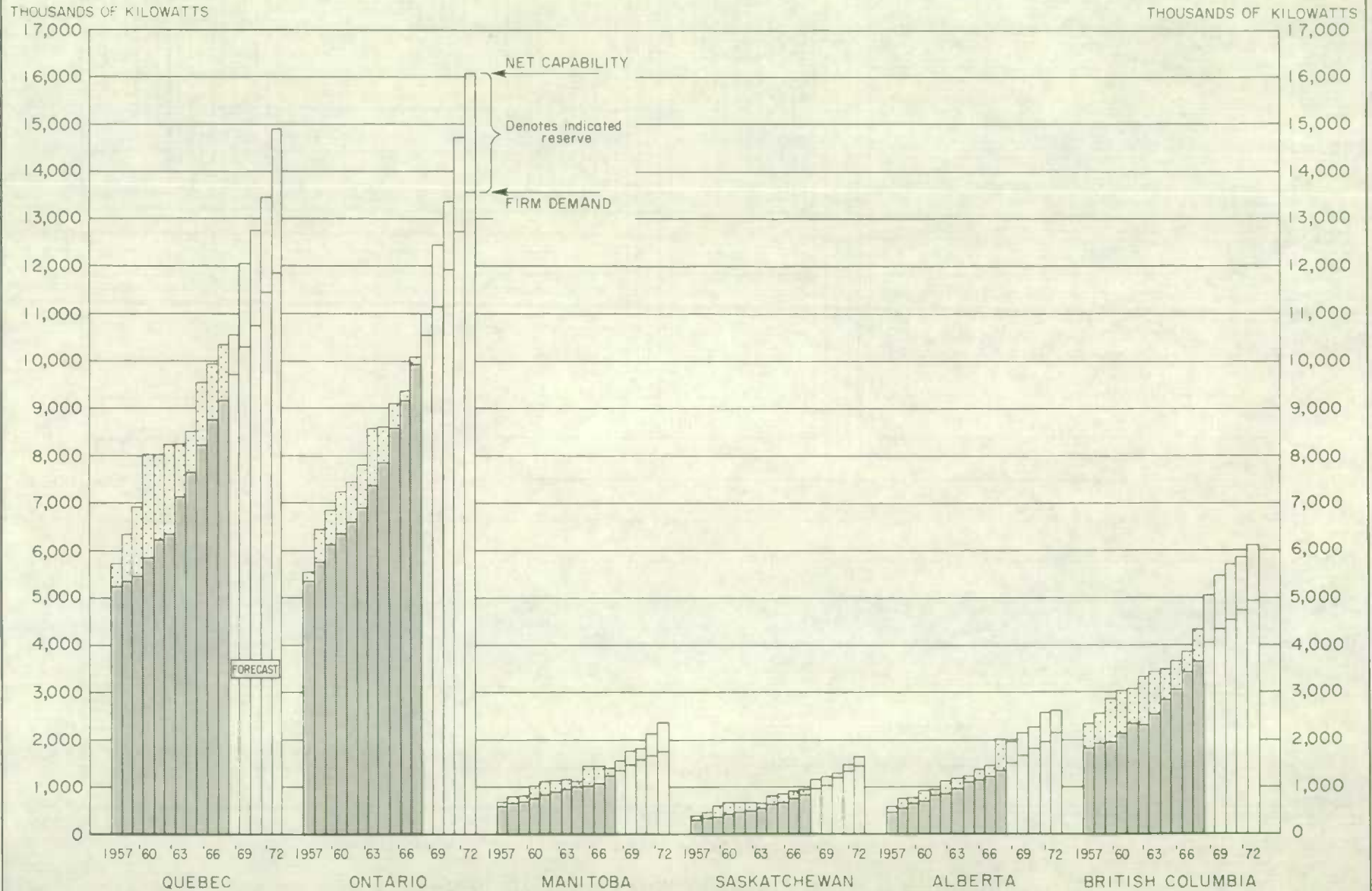


CHART - E

FIRM ENERGY REQUIREMENT WITHIN CANADA 1957-1972

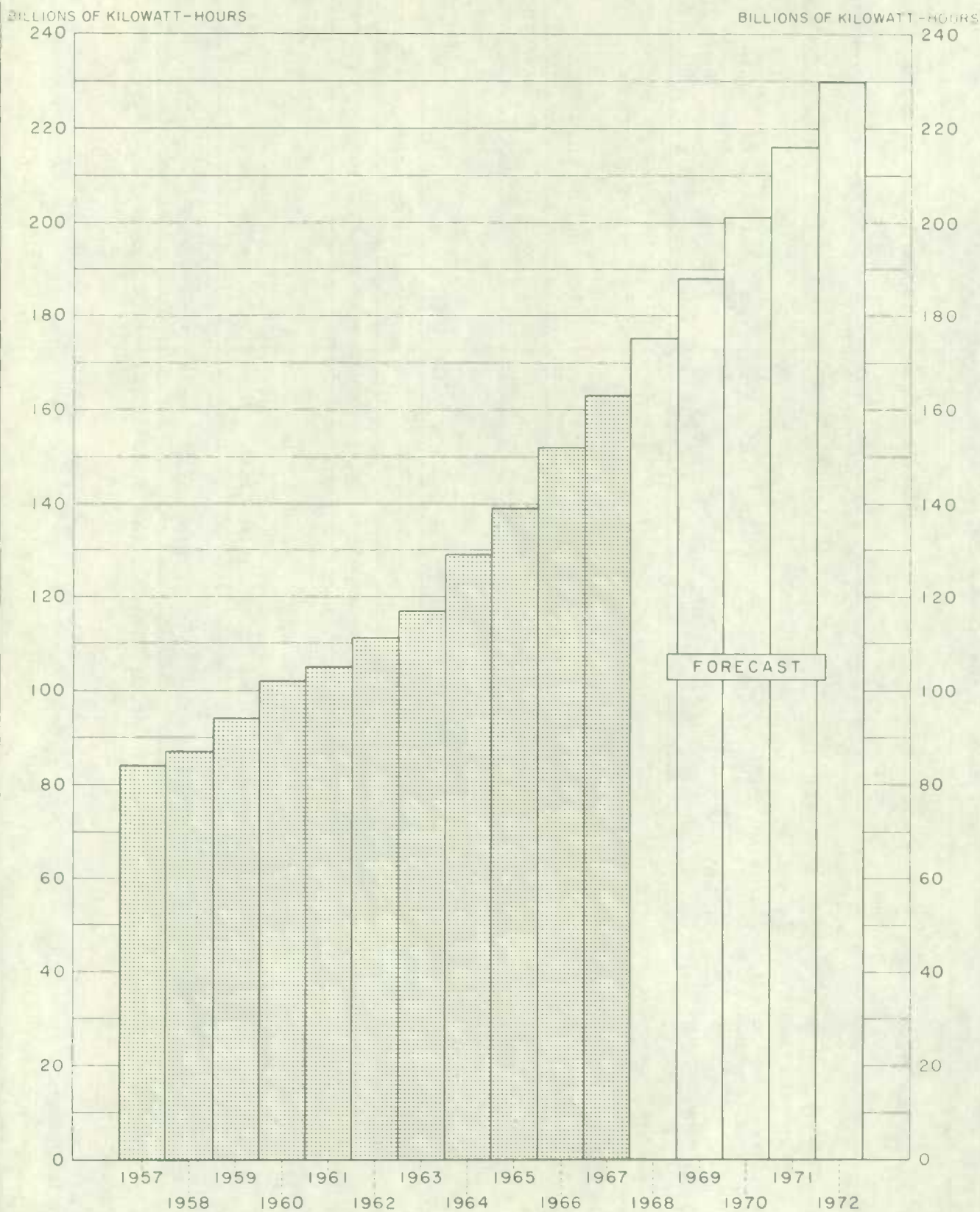


TABLE 1. Capability, Firm Power Peak Load, and Energy Requirements

Capability and peak load		Actual					Forecast					
		1957	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972
thousands of kilowatts												
<u>Capability:</u>												
Net generating capability:												
1.	Hydro-electric	14,143	19,241	19,493	20,779	21,459	22,393	24,212	26,412	27,195	28,818	31,250
2.	Steam - Conventional )	(	5,194	5,422	6,354	6,634	7,798	8,714	10,605	12,295	13,127	13,974
3.	Nuclear )	(	-	-	-	-	167	180	200	200	950	1,700
	)	2,326	(
4.	Internal combustion )	(	236	255	243	257	264	276	283	283	284	288
5.	Gas turbine )	(	382	384	460	583	748	868	868	874	919	938
6.	Total net generating capability	16,469	25,053	25,554	27,836	28,933	31,370	34,250	38,368	40,847	44,098	48,150
Receipts of firm power from:												
7.	Other provinces .....	...	...	...	...	...	...	...	...	...	...	...
8.	United States	-	2	2	-	100	180	-	-	-	-	-
9.	Total receipts	-	2	2	-	100	180	-	-	-	-	-
Deliveries of firm power to:												
10.	Other provinces .....	...	...	...	...	...	...	...	...	...	...	...
11.	United States	150	122	127	89	87	95	106	113	118	108	87
12.	Total deliveries	150	122	127	89	87	95	106	113	118	108	87
13.	Total net capability (6 + 9 - 12)	16,319	24,933	25,429	27,747	28,946	31,455	34,144	38,255	40,729	43,990	48,063
<u>Peak loads:</u>												
14.	Firm power peak load within province	14,664	20,755	22,503	24,199	25,973	27,948	30,092	32,398	34,595	36,917	39,237
15.	Indicated shortages	2	28	13	-	-	-	-	-	-	-	-
16.	Total indicated firm power peak load within province (14 + 15)	14,666	20,783	22,516	24,199	25,973	27,948	30,092	32,398	34,595	36,917	39,237
17.	Firm power peak load on province (12 + 16)	14,816	20,905	22,643	24,288	26,060	28,043	30,198	32,511	34,713	37,025	39,324
<u>Indicated reserve:</u>												
18.	Indicated reserve (13 - 16)	1,653	4,150	2,913	3,548	2,973	3,507	4,052	5,857	6,134	7,073	8,826

TABLE 1. Capability, Firm Power Peak Load, and Energy Requirements - Concluded

Energy	Actual						Forecast				
	1957	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972
millions of kilowatt-hours											
Net generation by:											
19. Hydro-electric	82,973	103,539	113,212	116,692	129,444	132,253	...	...	...	...	...
20. Steam - Conventional)		(17,111	20,051	25,485	26,521	31,082	...	...	...	...	...
21. Nuclear)		(87	141	120	161	143	...	...	...	...	...
22. Internal combustion)	7,288	(593	574	504	632	671	...	...	...	...	...
23. Gas turbine)		(312	282	313	376	615	...	...	...	...	...
24. Total net generation	90,261	121,642	134,260	143,114	157,134	164,764	...	...	...	...	...
Receipts of energy from:											
25. Other provinces .....	...	...	...	...	...	...	...	...	...	...	...
26. United States:											
(a) Firm .....	..	12	6	4	133	1,363	2	2	2	2	2
(b) Secondary .....	..	2,867	2,971	3,573	2,922	2,779	...	...	...	...	...
27. Total receipts of energy	831	2,879	2,977	3,577	3,055	4,142	...	...	...	...	...
Deliveries of energy to:											
(a) Firm:											
28. Other provinces .....	...	...	...	...	...	...	...	...	...	...	...
29. United States	1,172	867	835	633	613	634	785	835	883	725	718
(b) Secondary:											
30. Other provinces .....	...	...	...	...	...	...	...	...	...	...	...
31. United States	3,613	2,754	3,392	2,937	3,697	3,234	...	...	...	...	...
32. Total deliveries of energy	4,785	3,621	4,227	3,570	4,310	3,868	...	...	...	...	...
33. Total energy available (24 + 27 - 32)	86,307	120,900	133,010	143,121	155,879	165,038	...	...	...	...	...
34. Secondary energy delivered within province	2,540	3,655	3,671	4,072	4,226	2,409	...	...	...	...	...
35. Firm energy available within province (33 - 34)	83,767	117,245	129,339	139,049	151,653	162,629	175,078	188,156	201,141	215,756	229,691
36. Indicated shortage	554	-	-	-	-	-	-	-	-	-	-
37. Firm energy requirement within province (35 + 36)	84,321	117,245	129,339	139,049	151,653	162,629	175,078	188,156	201,141	215,756	229,691
38. Firm energy requirement on province (28 + 29 + 37)	85,493	118,112	130,174	139,682	152,266	163,263	175,863	188,991	202,024	216,481	230,409

TABLE 1. Capability, Firm Power Peak Load, and Energy Requirements

Capability and peak load	Actual						Forecast				
	1957	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972
thousands of kilowatts											
<u>Capability:</u>											
Net generating capability:											
1. Hydro-electric	220	444	442	446	454	690	812	887	887	962	2,342
2. Steam - Conventional)		(45	45	45	52	47	47	37	337	437	437
3. Nuclear)		(-	-	-	-	-	-	-	-	-	-
4. Internal combustion)	29	(7	11	11	13	13	13	13	13	13	13
5. Gas turbine)		(-	-	-	25	15	29	29	29	29	29
6. Total net generating capability	249	496	498	502	544	765	901	966	1,266	1,441	2,821
Receipts of firm power from:											
7. Other provinces	-	-	-	-	-	-	-	-	-	-	-
8. United States	-	-	-	-	-	-	-	-	-	-	-
9. Total receipts	-	-	-	-	-	-	-	-	-	-	-
Deliveries of firm power to:											
10. Other provinces	6	10	8	7	10	12	11	11	11	11	921
11. United States	-	-	-	-	-	-	-	-	-	-	-
12. Total deliveries	6	10	8	7	10	12	11	11	11	11	921
13. Total net capability (6 + 9 - 12)	243	486	490	495	534	753	890	955	1,255	1,430	1,900
<u>Peak loads:</u>											
14. Firm power peak load within province	222	349	376	422	450	571	653	868	1,201	1,386	1,580
15. Indicated shortages	-	28	13	-	-	-	-	-	-	-	-
16. Total indicated firm power peak load within province (14 + 15)	222	377	389	422	450	571	653	868	1,201	1,386	1,580
17. Firm power peak load on province (12 + 16)	228	387	397	429	460	583	664	879	1,212	1,397	2,501
<u>Indicated reserve:</u>											
18. Indicated reserve (13 - 16)	21	109	101	73	84	182	237	87	54	44	320

Energy	Actual						Forecast				
	1957	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972
millions of kilowatt-hours											
Net generation by:											
19. Hydro-electric	1,305	1,930	2,278	2,485	2,555	2,888	...	...	...	...	...
20. Steam - Conventional)		(96	98	217	286	153	...	...	...	...	...
21. Nuclear )		( -	-	-	-	-	...	...	...	...	...
22. Internal combustion)	50	(8	12	24	24	28	...	...	...	...	...
23. Gas turbine)		(-	-	-	6	74	...	...	...	...	...
24. Total net generation	1,355	2,034	2,388	2,726	2,871	3,143	...	...	...	...	...
Receipts of energy from:											
25. Other provinces .....	..	-	-	-	-	-	-	-	-	-	-
26. United States:											
(a) Firm .....	..	-	-	-	-	-	-	-	-	-	-
(b) Secondary .....	..	-	-	-	-	-	...	...	...	...	...
27. Total receipts of energy .....	-	-	-	-	-	-	...	...	...	...	...
Deliveries of energy to:											
(a) Firm:											
28. Other provinces	46	36	54	56	57	58	58	60	60	60	5,810
29. United States	-	-	-	-	-	-	-	-	-	-	-
(b) Secondary:											
30. Other provinces .....	..	37	30	28	24	26	...	...	...	...	...
31. United States .....	..	-	-	-	-	-	...	...	...	...	...
32. Total deliveries of energy	46	73	84	84	81	84	...	...	...	...	...
33. Total energy available (24 + 27 - 32)	1,309	1,961	2,304	2,642	2,790	3,059	...	...	...	...	...
34. Secondary energy delivered within province	119	83	11	2	-	50	...	...	...	...	...
35. Firm energy available within province (33 - 34)	1,190	1,878	2,293	2,640	2,790	3,009	3,626	4,978	6,879	8,395	9,794
36. Indicated shortage	-	-	-	-	-	-	-	-	-	-	-
37. Firm energy requirement within province (35 + 36)	1,190	1,878	2,293	2,640	2,790	3,009	3,626	4,978	6,879	8,395	9,794
38. Firm energy requirement on province (28 + 29 + 37)	1,236	1,914	2,347	2,696	2,847	3,067	3,684	5,038	6,939	8,455	15,604

TABLE 1. Capability, Firm Power Peak Load, and Energy Requirements

Capability and peak load	Actual						Forecast				
	1957	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972
thousands of kilowatts											
<u>Capability:</u>											
Net generating capability:											
1. Hydro-electric	-	-	-	-	-	-	-	-	-	-	-
2. Steam - Conventional )	(	51	51	51	51	51	71	71	71	71	91
3. Nuclear)	(-	-	-	-	-	-	-	-	-	-
4. Internal combustion )	(	7	7	7	7	7	7	10	10	10	10
5. Gas turbine)	(-	-	-	-	-	-	-	-	-	-
6. Total net generating capability	25	58	58	58	58	58	78	81	81	81	101
Receipts of firm power from:											
7. Other provinces	-	-	-	-	-	-	-	-	-	-	-
8. United States	-	-	-	-	-	-	-	-	-	-	-
9. Total receipts	-	-	-	-	-	-	-	-	-	-	-
Deliveries of firm power to:											
10. Other provinces	-	-	-	-	-	-	-	-	-	-	-
11. United States	-	-	-	-	-	-	-	-	-	-	-
12. Total deliveries	-	-	-	-	-	-	-	-	-	-	-
13. Total net capability (6 + 9 - 12)	25	58	58	58	58	58	78	81	81	81	101
<u>Peak loads:</u>											
14. Firm power peak load within province	14	27	31	35	37	40	44	47	51	56	60
15. Indicated shortages	-	-	-	-	-	-	-	-	-	-	-
16. Total indicated firm power peak load within province (14 + 15)	14	27	31	35	37	40	44	47	51	56	60
17. Firm power peak load on province (12 + 16)	14	27	31	35	37	40	44	47	51	56	60
<u>Indicated reserve:</u>											
18. Indicated reserve (13 - 16)	11	31	27	23	21	18	34	34	30	25	41

Energy	Actual						Forecast				
	1957	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972
millions of kilowatt-hours											
Net generation by:											
19. Hydro-electric .....	-	-	-	-	-	-	...	...	...	...	...
20. Steam - Conventional)		(102	119	131	150	175	...	...	...	...	...
21. Nuclear )		( -	-	-	-	-	...	...	...	...	...
22. Internal combustion)	57	(9	5	5	5	7	...	...	...	...	...
23. Gas turbine )		( -	-	-	-	-	...	...	...	...	...
24. Total net generation	57	111	124	136	155	182	...	...	...	...	...
Receipts of energy from:											
25. Other provinces .....	..	-	-	-	-	-	-	-	-	-	-
26. United States:											
(a) Firm .....	..	-	-	-	-	-	-	-	-	-	-
(b) Secondary .....	..	-	-	-	-	-	...	...	...	...	...
27. Total receipts of energy .....	-	-	-	-	-	-	...	...	...	...	...
Deliveries of energy to:											
(a) Firm:											
28. Other provinces	-	-	-	-	-	-	-	-	-	-	-
29. United States	-	-	-	-	-	-	-	-	-	-	-
(b) Secondary:											
30. Other provinces .....	-	-	-	-	-	-	...	...	...	...	...
31. United States .....	-	-	-	-	-	-	...	...	...	...	...
32. Total deliveries of energy .....	-	-	-	-	-	-	...	...	...	...	...
33. Total energy available (24 + 27 - 32)	57	111	124	136	155	182	...	...	...	...	...
34. Secondary energy delivered within province	-	-	-	-	15	21	...	...	...	...	...
35. Firm energy available within province (33 - 34)	57	111	124	136	140	161	180	205	231	273	311
36. Indicated shortage	-	-	-	-	-	-	-	-	-	-	-
37. Firm energy requirement within province (35 + 36)	57	111	124	136	140	161	180	205	231	273	311
38. Firm energy requirement on province (28 + 29 + 37)	57	111	124	136	140	161	180	205	231	273	311

TABLE 1. Capability, Firm Power Peak Load, and Energy Requirements

Capability and peak load	Actual						Forecast				
	1957	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972
thousands of kilowatts											
<u>Capability:</u>											
Net generating capability:											
1. Hydro-electric	126	143	141	141	141	151	162	162	162	162	162
2. Steam - Conventional)	(387	383	482	482	540	540	771	771	771	771	921
3. Nuclear)	(-	-	-	-	-	-	-	-	-	-	-
4. Internal combustion)	(2	3	3	3	3	3	3	3	3	3	3
5. Gas turbine)	(-	-	-	-	-	-	-	-	-	-	-
6. Total net generating capability	415	532	527	626	626	694	705	936	936	936	1,086
Receipts of firm power from:											
7. Other provinces	-	-	-	-	-	-	20	-	-	-	-
8. United States	-	-	-	-	-	-	-	-	-	-	-
9. Total receipts	-	-	-	-	-	-	20	-	-	-	-
Deliveries of firm power to:											
10. Other provinces	2	1	1	25	-	-	-	-	-	-	-
11. United States	-	-	-	-	-	-	-	-	-	-	-
12. Total deliveries	2	1	1	25	-	-	-	-	-	-	-
13. Total net capability (6 + 9 - 12)	413	531	526	601	626	694	725	936	936	936	1,086
<u>Peak loads:</u>											
14. Firm power peak load within province	322	411	438	457	496	604	631	723	780	843	912
15. Indicated shortages	-	-	-	-	-	-	-	-	-	-	-
16. Total indicated firm power peak load within province (14 + 15)	322	411	438	457	496	604	631	723	780	843	912
17. Firm power peak load on province (12 + 16)	324	412	439	482	496	604	631	723	780	843	912
<u>Indicated reserve:</u>											
18. Indicated reserve (13 - 16)	91	120	88	144	130	90	94	213	156	93	174

TABLE 1. Capability, Firm Power Peak Load, and Energy Requirements - Concluded

Energy	Actual						Forecast				
	1957	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972
millions of kilowatt-hours											
Net generation by:											
19. Hydro-electric	514	799	718	449	439	664	...	...	...	...	...
20. Steam - Conventional)		(1,313	1,662	2,158	2,408	2,267	...	...	...	...	...
21. Nuclear )		( -	-	-	-	-	...	...	...	...	...
22. Internal combustion)	966	( -	-	-	-	-	...	...	...	...	...
23. Gas turbine )		( -	-	-	-	-	...	...	...	...	...
24. Total net generation	1,480	2,112	2,380	2,607	2,847	2,931	...	...	...	...	...
Receipts of energy from:											
25. Other provinces .....	..	-	-	-	59	96	50	140	-	-	-
26. United States:											
(a) Firm .....	..	57	43	44	-	-	-	-	-	-	-
(b) Secondary .....	..	-	-	-	-	-	...	...	...	...	...
27. Total receipts of energy .....	..	57	43	44	59	96	...	...	...	...	...
Deliveries of energy to:											
(a) Firm:											
28. Other provinces	9	8	7	34	125	-	-	-	-	-	-
29. United States	-	-	-	-	-	-	-	-	-	-	-
(b) Secondary:											
30. Other provinces	-	60	113	144	123	170	...	...	...	...	...
31. United States .....	-	-	-	-	-	-	...	...	...	...	...
32. Total deliveries of energy	9	68	120	178	248	170	...	...	...	...	...
33. Total energy available (24 + 27 - 32)	1,471	2,101	2,303	2,473	2,658	2,857	...	...	...	...	...
34. Secondary energy delivered within province	-	1	2	7	10	27	...	...	...	...	...
35. Firm energy available within province (33 - 34)	1,471	2,100	2,301	2,466	2,648	2,830	3,138	3,541	4,015	4,334	4,632
36. Indicated shortage	-	-	-	-	-	-	-	-	-	-	-
37. Firm energy requirement within province (35 + 36)	1,471	2,100	2,301	2,466	2,648	2,830	3,138	3,541	4,015	4,334	4,632
38. Firm energy requirement on province (28 + 29 + 37)	1,480	2,108	2,308	2,500	2,773	2,830	3,138	3,541	4,015	4,334	4,632

TABLE 1. Capability, Firm Power Peak Load, and Energy Requirements

Capability and peak load	Actual						Forecast				
	1957	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972
thousands of kilowatts											
<u>Capability:</u>											
Net generating capability:											
1. Hydro-electric	148	224	222	260	251	253	564	565	566	567	568
2. Steam - Conventional)		(304	305	310	421	533	533	636	636	636	636
3. Nuclear)		(-	-	-	-	-	-	-	-	-	-
4. Internal combustion)	173	(7	7	7	7	7	7	7	7	7	7
5. Gas turbine)		(-	-	-	-	-	-	-	-	-	-
6. Total net generating capability	321	535	534	577	679	793	1,104	1,208	1,209	1,210	1,211
Receipts of firm power from:											
7. Other provinces	5	5	9	33	8	8	8	8	8	8	8
8. United States	-	2	2	-	-	-	-	-	-	-	-
9. Total receipts	5	7	11	33	8	8	8	8	8	8	8
Deliveries of firm power to:											
10. Other provinces	-	-	2	-	-	-	20	-	-	-	-
11. United States	8	28	31	37	38	45	55	61	65	70	49
12. Total deliveries	8	28	33	37	38	45	75	61	65	70	49
13. Total net capability (6 + 9 - 12)	318	514	512	573	649	756	1,037	1,155	1,152	1,148	1,170
<u>Peak loads:</u>											
14. Firm power peak load within province	258	401	461	528	544	551	612	657	704	742	804
15. Indicated shortages	-	-	-	-	-	-	-	-	-	-	-
16. Total indicated firm power peak load within province (14 + 15)	258	401	461	528	544	551	612	657	704	742	804
17. Firm power peak load on province (12 + 16)	266	429	494	565	582	596	687	718	769	812	853
<u>Indicated reserve:</u>											
18. Indicated reserve (13 - 16)	60	113	51	45	105	205	425	498	448	406	366

Energy	Actual						Forecast				
	1957	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972
millions of kilowatt-hours											
Net generation by:											
19. Hydro-electric	606	1,272	1,019	1,104	1,182	1,306	...	...	...	...	...
20. Steam - Conventional)		(1,019	1,525	1,844	2,023	2,316	...	...	...	...	...
21. Nuclear )		( -	-	-	-	-	...	...	...	...	...
22. Internal combustion)	755	(-	4	5	6	4	...	...	...	...	...
23. Gas turbine )		( -	-	-	-	-	...	...	...	...	...
24. Total net generation	1,361	2,296	2,548	2,953	3,211	3,626	...	...	...	...	...
Receipts of energy from:											
25. Other provinces .....	..	89	145	211	307	216	30	31	31	32	32
26. United States:											
(a) Firm .....	..	12	3	1	10	-	-	-	-	-	-
(b) Secondary .....	..	2	3	17	1	7	...	...	...	...	...
27. Total receipts of energy	28	103	151	229	318	223	...	...	...	...	...
Deliveries of energy to:											
(a) Firm:											
28. Other provinces	-	-	1	-	-	58	50	140	-	-	-
29. United States	29	178	163	179	203	216	358	399	439	393	385
(b) Secondary:											
30. Other provinces	-	57	43	45	59	38	...	...	...	...	...
31. United States	12	68	82	57	109	118	...	...	...	...	...
32. Total deliveries of energy	41	303	289	281	371	430	...	...	...	...	...
33. Total energy available (24 + 27 - 32)	1,348	2,096	2,410	2,901	3,158	3,419	...	...	...	...	...
34. Secondary energy delivered within province	1	1	-	159	116	125	...	...	...	...	...
35. Firm energy available within province (33 - 34)	1,347	2,095	2,410	2,742	3,042	3,294	3,479	3,682	3,899	4,102	4,326
36. Indicated shortage	-	-	-	-	-	-	-	-	-	-	-
37. Firm energy requirement within province (35 + 36)	1,347	2,095	2,410	2,742	3,042	3,294	3,479	3,682	3,899	4,102	4,326
38. Firm energy requirement on province (28 + 29 + 37)	1,376	2,273	2,574	2,921	3,245	3,568	3,887	4,221	4,338	4,495	4,711

TABLE 1. Capability, Firm Power Peak Load, and Energy Requirements

Capability and peak load	Actual						Forecast				
	1957	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972
thousands of kilowatts											
<u>Capability:</u>											
Net generating capability:											
1. Hydro-electric	6,406	8,846	8,982	9,768	10,141	10,374	10,409	11,851	12,215	12,943	13,464
2. Steam - Conventional)	(59	192	361	374	528	696	696	708	708	708	708
3. Nuclear)	(-	-	-	-	-	-	-	-	-	-	-
4. Internal combustion)	55 (10	15	13	15	19	20	21	22	23	24	
5. Gas turbine)	(36	36	36	36	36	36	36	36	36	36	
6. Total net generating capability	6,461	8,951	9,225	10,178	10,566	10,957	11,161	12,604	12,981	13,710	14,232
Receipts of firm power from:											
7. Other provinces	7	12	18	7	10	12	11	11	11	11	921
8. United States	-	-	-	-	-	-	-	-	-	-	-
9. Total receipts	7	12	18	7	10	12	11	11	11	11	921
Deliveries of firm power to:											
10. Other provinces	694	703	717	635	633	633	588	588	250	250	250
11. United States	56	6	6	6	2	2	2	2	2	2	2
12. Total deliveries	750	709	723	641	635	635	590	590	252	252	252
13. Total net capability (6 + 9 - 12)	5,718	8,254	8,520	9,544	9,941	10,334	10,582	12,025	12,740	13,469	14,901
<u>Peak loads:</u>											
14. Firm power peak load within province	5,256	7,118	7,651	8,228	8,761	9,142	9,702	10,302	10,775	11,428	11,872
15. Indicated shortages	2	-	-	-	-	-	-	-	-	-	-
16. Total indicated firm power peak load within province (14 + 15)	5,258	7,118	7,651	8,228	8,761	9,142	9,702	10,302	10,775	11,428	11,872
17. Firm power peak load on province (12 + 16)	6,008	7,827	8,374	8,869	9,396	9,777	10,292	10,892	11,027	11,680	12,124
<u>Indicated reserve:</u>											
18. Indicated reserve (13 - 16)	460	1,136	869	1,316	1,180	1,192	880	1,723	1,965	2,041	3,029

TABLE I. Capability, Firm Power Peak Load, and Energy Requirements - Concluded

Energy	Actual						Forecast				
	1957	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972
millions of kilowatt-hours											
Net generation by:											
19. Hydro-electric	37,802	49,454	56,268	55,952	61,900	62,348	...	...	...	...	...
20. Steam - Conventional)		(320	424	897	470	1,413	...	...	...	...	...
21. Nuclear )		( -	-	-	-	-	...	...	...	...	...
22. Internal combustion)	185	(44	6	13	17	24	...	...	...	...	...
23. Gas turbine)		(1	1	1	-	-	...	...	...	...	...
24. Total net generation	37,987	49,819	56,699	56,863	62,387	63,785	...	...	...	...	...
Receipts of energy from:											
25. Other provinces .....	..	143	128	189	169	218	58	60	60	60	5,810
26. United States:											
(a) Firm .....	..	-	1	1	1	1	1	1	1	1	1
(b) Secondary .....	..	-	-	-	-	-	...	...	...	...	...
27. Total receipts of energy	65	143	129	190	170	219	...	...	...	...	...
Deliveries of energy to:											
(a) Firm:											
28. Other provinces	4,075	4,218	4,979	4,317	3,855	3,853	3,975	3,820	3,546	1,734	1,738
29. United States	485	15	16	14	14	15	15	16	16	17	18
(b) Secondary:											
30. Other provinces	876	1,004	2,040	602	2,453	1,440	...	...	...	...	...
31. United States	64	18	40	33	12	10	...	...	...	...	...
32. Total deliveries of energy	5,500	5,255	7,075	4,966	6,334	5,318	...	...	...	...	...
33. Total energy available (24 + 27 - 32)	32,552	44,707	49,753	52,087	56,223	58,686	...	...	...	...	...
34. Secondary energy delivered within province	1,716	2,613	2,672	2,860	2,858	1,836	...	...	...	...	...
35. Firm energy available within province (33 - 34)	30,836	42,094	47,081	49,227	53,365	56,850	60,312	64,171	67,171	71,729	75,008
36. Indicated shortage	540	-	-	-	-	-	-	-	-	-	-
37. Firm energy requirement within province (35 + 36)	31,376	42,094	47,081	49,227	53,365	56,850	60,312	64,171	67,171	71,729	75,008
38. Firm energy requirement on province (28 + 29 + 37)	35,936	46,327	52,076	53,558	57,234	60,718	64,302	68,007	70,733	73,480	76,764

TABLE 1. Capability, Firm Power Peak Load, and Energy Requirements

Capability and peak load	Actual						Forecast				
	1957	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972
thousands of kilowatts											
<u>Capability:</u>											
Net generating capability:											
1. Hydro-electric	4,145	5,601	5,603	5,548	5,687	5,772	6,093	6,335	6,508	6,743	6,743
2. Steam - Conventional)	(2,376	2,379	2,885	2,947	3,280	3,845	5,016	6,094	6,411	6,948	
3. Nuclear)	(-	-	-	-	167	180	200	200	950	1,700	
4. Internal combustion)	(787	(12	8	7	7	8	8	8	9	9	11
5. Gas turbine)	(-	-	74	149	288	351	351	351	396	396	
6. Total net generating capability	4,932	7,989	7,990	8,514	8,790	9,515	10,477	11,910	13,162	14,509	15,798
Receipts of firm power from:											
7. Other provinces	705	699	709	627	625	625	580	580	242	242	292
8. United States	-	-	-	-	-	-	-	-	-	-	-
9. Total receipts	705	699	709	627	625	625	580	580	242	242	292
Deliveries of firm power to:											
10. Other provinces	1	2	8	-	-	-	-	-	-	-	-
11. United States	86	88	90	46	47	48	49	50	51	36	36
12. Total deliveries	87	90	98	46	47	48	49	50	51	36	36
13. Total net capability (6 + 9 - 12)	5,550	8,598	8,601	9,095	9,368	10,092	11,008	12,440	13,353	14,715	16,054
<u>Peak loads:</u>											
14. Firm power peak load within province	5,369	7,410	7,897	8,596	9,157	9,930	10,544	11,191	11,912	12,712	13,556
15. Indicated shortages	-	-	-	-	-	-	-	-	-	-	-
16. Total indicated firm power peak load within province (14 + 15)	5,369	7,410	7,897	8,596	9,157	9,930	10,544	11,191	11,912	12,712	13,556
17. Firm power peak load on province (12 + 16)	5,456	7,500	7,995	8,642	9,204	9,978	10,593	11,241	11,963	12,748	13,592
<u>Indicated reserve:</u>											
18. Indicated reserve (13 - 16)	181	1,188	704	499	211	162	464	1,249	1,441	2,003	2,498

TABLE 1. Capacity, Firm Power, Peak Load, and Energy Requirements - Continued

Energy	Actual						Forecast				
	1957	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972
millions of kilowatt-hours											
Net generation by:											
19. Hydro-electric	27,894	29,099	30,150	32,924	36,971	37,644	...	...	...	...	...
20. Steam - Conventional)		(8,291	9,313	11,661	11,262	14,152	...	...	...	...	...
21. Nuclear)		(87	141	120	161	143	...	...	...	...	...
22. Internal combustion)	2,089	(24	22	21	23	18	...	...	...	...	...
23. Gas turbine)		(-	-	4	13	23	...	...	...	...	...
24. Total net generation	29,983	37,501	39,626	44,730	48,430	51,980	...	...	...	...	...
Receipts of energy from:											
25. Other provinces .....	..	5,205	7,026	4,893	6,263	5,481	3,945	3,789	3,515	1,702	1,937
26. United States:											
(a) Firm .....	..	-	-	-	-	-	-	-	-	-	-
(b) Secondary .....	..	2,846	2,907	2,897	2,339	2,516	...	...	...	...	...
27. Total receipts of energy	5,375	8,051	9,933	7,790	8,602	7,997	...	...	...	...	...
Deliveries of energy to:											
(a) Firm:											
28. Other provinces	4	8	28	20	-	-	-	-	-	-	-
29. United States	658	672	654	438	393	400	409	416	424	310	310
(b) Secondary:											
30. Other provinces	18	257	255	258	99	161	...	...	...	...	...
31. United States	3,524	2,649	3,240	2,656	2,853	2,506	...	...	...	...	...
32. Total deliveries of energy	4,204	3,586	4,177	3,372	3,345	3,067	...	...	...	...	...
33. Total energy available (24 + 27 - 32)	31,154	41,966	45,382	49,148	53,687	56,910	...	...	...	...	...
34. Secondary energy delivered within province	194	437	568	639	592	112	...	...	...	...	...
35. Firm energy available within province (33 - 34)	30,960	41,529	44,814	48,509	53,095	56,798	60,440	63,748	67,866	72,375	77,608
36. Indicated shortage	-	-	-	-	-	-	-	-	-	-	-
37. Firm energy requirement within province (35 + 36)	30,960	41,529	44,814	48,509	53,095	56,798	60,440	63,748	67,866	72,375	77,608
38. Firm energy requirement on province (28 + 29 + 37)	31,622	42,209	45,496	48,967	53,488	57,198	60,849	64,164	68,290	72,685	77,918

TABLE 1. Capability, Firm Power Peak Load, and Energy Requirements

Capability and peak load	Actual						Forecast				
	1957	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972
thousands of kilowatts											
<u>Capability:</u>											
Net generating capability:											
1. Hydro-electric	561	735	735	1,061	1,061	1,061	1,171	1,205	1,205	1,609	1,912
2. Steam - Conventional )	(	291	291	291	291	291	291	389	389	389	389
3. Nuclear)	(-	-	-	-	-	-	-	-	-	-
4. Internal combustion )	(	7	8	9	11	12	12	13	9	9	9
5. Gas turbine )	(	-	-	-	-	9	24	24	24	24	24
6. Total net generating capability	639	1,033	1,034	1,361	1,363	1,373	1,498	1,631	1,627	2,031	2,334
Receipts of firm power from:											
7. Other provinces	69	134	94	83	84	87	87	137	187	87	87
8. United States	-	-	-	-	-	-	-	-	-	-	-
9. Total receipts	69	134	94	83	84	87	87	137	187	87	87
Deliveries of firm power to:											
10. Other provinces	14	-	-	1	1	41	1	1	1	1	51
11. United States	-	-	-	-	-	-	-	-	-	-	-
12. Total deliveries	14	-	-	1	1	41	1	1	1	1	51
13. Total net capability (6 + 9 - 12)	694	1,167	1,128	1,443	1,446	1,419	1,584	1,767	1,813	2,117	2,370
<u>Peak loads:</u>											
14. Firm power peak load within province	608	955	1,004	1,022	1,083	1,246	1,354	1,476	1,569	1,663	1,763
15. Indicated shortages	-	-	-	-	-	-	-	-	-	-	-
16. Total indicated firm power peak load within province (14 + 15)	608	955	1,004	1,022	1,083	1,246	1,354	1,476	1,569	1,663	1,763
17. Firm power peak load on province (12 + 16)	622	955	1,004	1,023	1,084	1,287	1,355	1,477	1,570	1,664	1,814
<u>Indicated reserve:</u>											
18. Indicated reserve (13 - 16)	86	212	124	421	363	173	230	291	244	454	607

TABLE 1. Capability, Firm Power Peak Load, and Energy Requirements - Concluded

Energy	Actual						Forecast				
	1957	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972
millions of kilowatt-hours											
Net generation by:											
19. Hydro-electric	3,333	4,736	4,799	5,256	6,037	6,476	...	...	...	...	...
20. Steam - Conventional)		(61	148	199	75	26	...	...	...	...	...
21. Nuclear )		( -	-	-	-	-	...	...	...	...	...
22. Internal combustion)	5	(13	14	15	22	27	...	...	...	...	...
23. Gas turbine )		( -	-	-	-	-	...	...	...	...	...
24. Total net generation	3,338	4,810	4,961	5,470	6,134	6,529	...	...	...	...	...
Receipts of energy from:											
25. Other provinces .....	..	885	900	777	627	642	610	617	617	617	617
26. United States:											
(a) Firm .....	..	-	-	-	-	-	-	-	-	-	-
(b) Secondary .....	..	-	-	-	-	-	...	...	...	...	...
27. Total receipts of energy	571	885	900	777	627	642	...	...	...	...	...
Deliveries of energy to:											
(a) Firm:											
28. Other provinces	136	-	-	5	17	48	11	11	11	11	242
29. United States	-	-	-	-	-	-	-	-	-	-	-
(b) Secondary:											
30. Other provinces	18	65	49	111	303	407	...	...	...	...	...
31. United States .....	-	-	-	-	-	-	...	...	...	...	...
32. Total deliveries of energy	154	65	49	116	320	455	...	...	...	...	...
33. Total energy available (24 + 27 - 32)	3,755	5,630	5,812	6,131	6,441	6,716	...	...	...	...	...
34. Secondary energy delivered within province	408	185	153	143	226	153	...	...	...	...	...
35. Firm energy available within province (33 - 34)	3,347	5,445	5,659	5,988	6,215	6,563	7,195	7,931	8,530	9,037	9,482
36. Indicated shortage	-	-	-	-	-	-	-	-	-	-	-
37. Firm energy requirement within province (35 + 36)	3,347	5,445	5,659	5,988	6,215	6,563	7,195	7,931	8,530	9,037	9,482
38. Firm energy requirement on province (28 + 29 + 37)	3,483	5,445	5,659	5,993	6,232	6,611	7,206	7,942	8,541	9,048	9,724

TABLE 1. Capability, Firm Power Peak Load, and Energy Requirements

Capability and peak load	Actual						Forecast				
	1957	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972
thousands of kilowatts											
<u>Capability:</u>											
Net generating capability:											
1. Hydro-electric	87	208	309	309	392	392	557	560	560	560	560
2. Steam - Conventional)		(492	529	535	531	531	531	671	811	911	1,051
3. Nuclear)	376	(-	-	-	-	-	-	-	-	-	-
4. Internal combustion)		(36	35	35	33	33	33	33	33	33	33
5. Gas turbine)		(39	39	41	40	55	85	85	85	85	85
6. Total net generating capability	463	775	912	920	996	1,011	1,206	1,349	1,489	1,589	1,729
Receipts of firm power from:											
7. Other provinces	-	-	-	1	1	41	1	1	1	1	1
8. United States	-	-	-	-	-	-	-	-	-	-	-
9. Total receipts	-	-	-	1	1	41	1	1	1	1	1
Deliveries of firm power to:											
10. Other provinces	69	134	94	83	84	87	87	137	187	87	87
11. United States	-	-	-	-	-	-	-	-	-	-	-
12. Total deliveries	69	134	94	83	84	87	87	137	187	87	87
13. Total net capability (6 + 9 - 12)	394	641	818	838	913	965	1,120	1,213	1,303	1,503	1,643
<u>Peak loads:</u>											
14. Firm power peak load within province	299	531	619	685	761	833	970	1,083	1,201	1,335	1,470
15. Indicated shortages	-	-	-	-	-	-	-	-	-	-	-
16. Total indicated firm power peak load within province (14 + 15)	299	531	619	685	761	833	970	1,083	1,201	1,335	1,470
17. Firm power peak load on province (12 + 16)	368	665	713	768	845	920	1,057	1,220	1,388	1,422	1,557
<u>Indicated reserve:</u>											
18. Indicated reserve (13 - 16)	95	110	199	153	152	132	150	130	102	168	173

Energy	Actual						Forecast				
	1957	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972
millions of kilowatt-hours											
Net generation by:											
19. Hydro-electric	546	985	1,369	1,698	1,686	1,736	...	...	...	...	...
20. Steam - Conventional)		(1,833	1,782	1,855	2,048	2,374	...	...	...	...	...
21. Nuclear )		( -	-	-	-	-	...	...	...	...	...
22. Internal combustion)	1,147	(106	106	91	106	126	...	...	...	...	...
23. Gas turbine)		(49	64	69	80	104	...	...	...	...	...
24. Total net generation	1,693	2,973	3,321	3,713	3,920	4,340	...	...	...	...	...
Receipts of energy from:											
25. Other provinces .....	..	62	17	109	306	221	11	11	11	11	11
26. United States:											
(a) Firm .....	..	-	-	-	-	-	-	-	-	-	-
(b) Secondary .....	..	-	-	-	-	-	...	...	...	...	...
27. Total receipts of energy	3	62	17	109	306	221	...	...	...	...	...
Deliveries of energy to:											
(a) Firm:											
28. Other provinces	503	687	651	599	614	600	610	617	617	617	617
29. United States	-	-	-	-	-	-	-	-	-	-	-
(b) Secondary:											
30. Other provinces	67	4	9	4	2	15	...	...	...	...	...
31. United States .....	-	-	-	-	-	-	...	...	...	...	...
32. Total deliveries of energy	570	691	660	603	616	615	...	...	...	...	...
33. Total energy available (24 + 27 - 32)	1,126	2,344	2,678	3,219	3,610	3,946	...	...	...	...	...
34. Secondary energy delivered within province	-	17	20	14	14	9	...	...	...	...	...
35. Firm energy available within province (33 - 34)	1,126	2,327	2,658	3,205	3,596	3,937	4,489	5,315	5,927	6,675	7,373
36. Indicated shortage .....	-	-	-	-	-	-	...	...	...	...	...
37. Firm energy requirement within province (35 + 36)	1,126	2,327	2,658	3,205	3,596	3,937	4,489	5,315	5,927	6,675	7,373
38. Firm energy requirement on province (28 + 29 + 37)	1,629	3,014	3,309	3,804	4,210	4,537	5,099	5,932	6,544	7,292	7,990

TABLE 1. Capability, Firm Power Peak Load, and Energy Requirements

Capability and peak load	Actual						Forecast				
	1957	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972
thousands of kilowatts											
<u>Capability:</u>											
Net generating capability:											
1. Hydro-electric	238	326	326	490	490	680	680	680	680	680	680
2. Steam - Conventional)		(713	748	750	820	1,156	1,153	1,298	1,458	1,773	1,773
3. Nuclear)		(-	-	-	-	-	-	-	-	-	-
4. Internal combustion)	350	(31	31	24	26	24	23	19	19	19	19
5. Gas turbine)		(130	130	131	155	155	153	153	153	153	172
6. Total net generating capability	588	1,200	1,235	1,395	1,491	2,015	2,009	2,150	2,310	2,625	2,644
Receipts of firm power from:											
7. Other provinces	4	-	-	-	-	-	-	-	-	-	-
8. United States	-	-	-	-	-	-	-	-	-	-	-
9. Total receipts	4	-	-	-	-	-	-	-	-	-	-
Deliveries of firm power to:											
10. Other provinces	-	10	12	19	19	15	17	22	25	28	31
11. United States	-	-	-	-	-	-	-	-	-	-	-
12. Total deliveries	-	10	12	19	19	15	17	22	25	28	31
13. Total net capability (6 + 9 - 12)	592	1,190	1,223	1,376	1,472	2,000	1,992	2,128	2,285	2,597	2,613
<u>Peak loads:</u>											
14. Firm power peak load within province	476	984	1,106	1,121	1,219	1,340	1,509	1,675	1,817	1,962	2,190
15. Indicated shortages	-	-	-	-	-	-	-	-	-	-	-
16. Total indicated firm power peak load within province (14 + 15)	476	984	1,106	1,121	1,219	1,340	1,509	1,675	1,817	1,962	2,190
17. Firm power peak load on province (12 + 16)	476	994	1,118	1,140	1,238	1,355	1,526	1,697	1,842	1,990	2,221
<u>Indicated reserve:</u>											
18. Indicated reserve (13 - 16)	116	206	117	255	253	660	483	453	468	635	423

Energy	Actual						Forecast				
	1957	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972
millions of kilowatt-hours											
Net generation by:											
19. Hydro-electric	807	881	896	1,411	1,425	1,497	...	...	...	...	...
20. Steam - Conventional)		(3,294	3,770	3,794	4,310	4,723	...	...	...	...	...
21. Nuclear )		( -	-	-	-	-	...	...	...	...	...
22. Internal combustion)	1,533	(60	90	57	80	97	...	...	...	...	...
23. Gas turbine)		(257	209	230	252	382	...	...	...	...	...
24. Total net generation	2,340	4,492	4,965	5,492	6,067	6,699	...	...	...	...	...
Receipts of energy from:											
25. Other provinces .....	..	27	22	11	19	29	1	2	2	2	2
26. United States:											
(a) Firm .....	..	-	-	-	-	-	-	-	-	-	-
(b) Secondary .....	..	-	-	-	-	-	-	-	-	-	-
27. Total receipts of energy	22	27	22	11	19	29	...	...	...	...	...
Deliveries of energy to:											
(a) Firm:											
28. Other provinces	-	-	-	-	18	15	27	70	97	109	123
29. United States	-	-	-	-	-	-	-	-	-	-	-
(b) Secondary:											
30. Other provinces	4	-	-	-	-	-	...	...	...	...	...
31. United States .....	-	-	-	-	-	-	...	...	...	...	...
32. Total deliveries of energy	4	-	-	-	18	15	...	...	...	...	...
33. Total energy available (24 + 27 - 32)	2,358	4,519	4,987	5,503	6,068	6,713	...	...	...	...	...
34. Secondary energy delivered within province	-	-	-	4	-	-	...	...	...	...	...
35. Firm energy available within province (33 - 34)	2,358	4,519	4,987	5,499	6,068	6,713	7,624	8,476	9,302	10,247	11,241
36. Indicated shortage	-	-	-	-	-	-	-	-	-	-	-
37. Firm energy requirement within province (35 + 36)	2,358	4,519	4,987	5,499	6,068	6,713	7,624	8,476	9,302	10,247	11,241
38. Firm energy requirement on province (28 + 29 + 37)	2,358	4,519	4,987	5,499	6,086	6,728	7,651	8,546	9,399	10,356	11,364

TABLE 1. Capability, Firm Power Peak Load, and Energy Requirements

Capability and peak load	Actual						Forecast				
	1957	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972
thousands of kilowatts											
<u>Capability:</u>											
Net generating capability:											
1. Hydro-electric	2,187	2,670	2,689	2,692	2,779	2,968	3,712	4,106	4,351	4,531	4,758
2. Steam - Conventional )	(	475	498	643	664	840	1,006	1,019	1,019	1,019	1,019
3. Nuclear)	(-	-	-	-	-	-	-	-	-	-
4. Internal combustion )	(	163	106	117	115	121	126	127	128	128	128
5. Gas turbine )	(	177	177	177	177	189	189	189	189	189	189
6. Total net generating capability	2,350	3,428	3,481	3,627	3,741	4,121	5,033	5,441	5,687	5,867	6,094
Receipts of firm power from:											
7. Other provinces	-	10	12	19	19	15	17	22	25	28	31
8. United States	-	-	-	-	100	180	-	-	-	-	-
9. Total receipts	-	10	12	19	119	195	17	22	25	28	31
Deliveries of firm power to:											
10. Other provinces	4	-	-	-	-	-	-	-	-	-	-
11. United States	-	-	-	-	-	-	-	-	-	-	-
12. Total deliveries	4	-	-	-	-	-	-	-	-	-	-
13. Total net capability (6 + 9 - 12)	2,346	3,438	3,493	3,646	3,860	4,316	5,050	5,463	5,712	5,895	6,125
<u>Peak loads:</u>											
14. Firm power peak load within province	1,821	2,537	2,886	3,058	3,421	3,647	4,027	4,315	4,520	4,721	4,956
15. Indicated shortages	-	-	-	-	-	-	-	-	-	-	-
16. Total indicated firm power peak load within province (14 + 15)	1,821	2,537	2,886	3,058	3,421	3,647	4,027	4,315	4,520	4,721	4,956
17. Firm power peak load on province (12 + 16)	1,825	2,537	2,886	3,058	3,421	3,647	4,027	4,315	4,520	4,721	4,956
<u>Indicated reserve:</u>											
18. Indicated reserve (13 - 16)	525	901	607	588	439	669	1,023	1,148	1,192	1,174	1,169

Energy	Actual						Forecast				
	1957	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972
millions of kilowatt-hours											
Net generation by:											
19. Hydro-electric	10,054	14,194	15,516	15,196	16,978	17,420	...	...	...	...	...
20. Steam - Conventional)		(780	1,207	2,727	3,486	3,480	...	...	...	...	...
21. Nuclear )		( -	-	-	-	-	...	...	...	...	...
	487	(
22. Internal combustion)		(300	293	255	331	315	...	...	...	...	...
23. Gas turbine)		(5	4	5	20	30	...	...	...	...	...
24. Total net generation	10,541	15,279	17,020	18,183	20,815	21,245	...	...	...	...	...
Receipts of energy from:											
25. Other provinces .....	..	-	-	-	18	15	27	70	97	109	123
26. United States:											
(a) Firm .....	..	-	2	2	122	1,362	1	1	1	1	1
(b) Secondary .....	..	19	61	659	582	256	...	...	...	...	...
27. Total receipts of energy	545	19	63	661	722	1,633	...	...	...	...	...
Deliveries of energy to:											
(a) Firm:											
28. Other provinces	9	4	1	11	19	29	1	2	2	2	2
29. United States	-	2	2	2	3	3	3	4	4	5	5
(b) Secondary:											
30. Other provinces	13	23	21	-	-	-	...	...	...	...	...
31. United States	13	19	30	191	723	600	...	...	...	...	...
32. Total deliveries of energy	35	48	54	204	745	632	...	...	...	...	...
33. Total energy available (24 + 27 - 32)	11,051	15,250	17,029	18,640	20,792	22,246	...	...	...	...	...
34. Secondary energy delivered within province	90	268	180	196	337	18	...	...	...	...	...
35. Firm energy available within province (33 - 34)	10,961	14,982	16,849	18,444	20,455	22,228	24,333	25,798	26,950	28,201	29,512
36. Indicated shortage	14	-	-	-	-	-	-	-	-	-	-
37. Firm energy requirement within province (35 + 36)	10,975	14,982	16,849	18,444	20,455	22,228	24,333	25,798	26,950	28,201	29,512
38. Firm energy requirement on province (28 + 29 + 37)	10,984	14,988	16,852	18,457	20,477	22,260	24,337	25,804	26,956	28,208	29,519

TABLE 1. Capability, Firm Power Peak Load, and Energy Requirements

Capability and peak load	Actual						Forecast				
	1957	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972
thousands of kilowatts											
<u>Capability:</u>											
Net generating capability:											
1. Hydro-electric	15	27	27	29	28	17	17	26	26	26	26
2. Steam - Conventional)		(-	-	-	-	-	-	-	-	-	-
3. Nuclear)		(-	-	-	-	-	-	-	-	-	-
4. Internal combustion)		(-	-	3	4	4	14	14	15	15	16
5. Gas turbine)		(-	-	-	-	-	-	-	-	-	-
6. Total net generating capability	15	27	27	32	32	21	31	40	41	41	42
Receipts of firm power from:											
7. Other provinces	-	-	-	-	-	-	-	-	-	-	-
8. United States	-	-	-	-	-	-	-	-	-	-	-
9. Total receipts	-	-	-	-	-	-	-	-	-	-	-
Deliveries of firm power to:											
10. Other provinces	-	-	-	-	-	-	-	-	-	-	-
11. United States	-	-	-	-	-	-	-	-	-	-	-
12. Total deliveries	-	-	-	-	-	-	-	-	-	-	-
13. Total net capability (6 + 9 - 12)	15	27	27	32	32	21	31	40	41	41	42
<u>Peak loads:</u>											
14. Firm power peak load within province	12	14	15	16	17	14	16	26	27	28	30
15. Indicated shortages	-	-	-	-	-	-	-	-	-	-	-
16. Total indicated firm power peak load within province (14 + 15)	12	14	15	16	17	14	16	26	27	28	30
17. Firm power peak load on province (12 + 16)	12	14	15	16	17	14	16	26	27	28	30
<u>Indicated reserve:</u>											
18. Indicated reserve (13 - 16)	3	13	12	16	15	7	15	14	14	13	12

TABLE 1. Capability, Firm Power Peak Load, and Energy Requirements - Concluded

Energy	Actual						Forecast				
	1957	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972
millions of kilowatt-hours											
Net generation by:											
19. Hydro-electric	45	87	94	103	103	102	...	...	...	...	...
20. Steam - Conventional )		( -	-	-	-	-	...	...	...	...	...
21. Nuclear )		( -	-	-	-	-	...	...	...	...	...
22. Internal combustion)		(-	-	6	7	7	...	...	...	...	...
23. Gas turbine )		( -	-	-	-	-	...	...	...	...	...
24. Total net generation	45	87	94	109	110	109	...	...	...	...	...
Receipts of energy from:											
25. Other provinces	-	-	-	-	-	-	-	-	-	-	-
26. United States:											
(a) Firm	-	-	-	-	-	-	-	-	-	-	-
(b) Secondary .....	-	-	-	-	-	-	...	...	...	...	...
27. Total receipts of energy .....	-	-	-	-	-	-	...	...	...	...	...
Deliveries of energy to:											
(a) Firm:											
28. Other provinces	-	-	-	-	-	-	-	-	-	-	-
29. United States	-	-	-	-	-	-	-	-	-	-	-
(b) Secondary:											
30. Other provinces .....	-	-	-	-	-	-	...	...	...	...	...
31. United States .....	-	-	-	-	-	-	...	...	...	...	...
32. Total deliveries of energy .....	-	-	-	-	-	-	...	...	...	...	...
33. Total energy available (24 + 27 + 32)	45	87	94	109	110	109	...	...	...	...	...
34. Secondary energy delivered within province	-	23	29	27	27	26	...	...	...	...	...
35. Firm energy available within province (33 - 34)	45	64	65	82	83	83	92	115	161	165	168
36. Indicated shortage	-	-	-	-	-	-	-	-	-	-	-
37. Firm energy requirement within province (35 + 36)	45	64	65	82	83	83	92	115	161	165	168
38. Firm energy requirement on province (28 + 29 + 37)	45	64	65	82	83	83	92	115	161	165	168

TABLE 1. Capability, Firm Power Peak Load, and Energy Requirements

Capability and peak load	Actual						Forecast				
	1957	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972
thousands of kilowatts											
<u>Capability:</u>											
Net generating capability:											
1. Hydro-electric	10	17	17	35	35	35	35	35	35	35	35
2. Steam - Conventional)		(1	1	1	1	1	1	1	1	1	1
3. Nuclear)		(-	-	-	-	-	-	-	-	-	-
4. Internal combustion)	1	(11	13	9	10	10	10	15	15	15	15
5. Gas turbine)		(-	2	1	1	1	1	1	7	7	7
6. Total net generating capability	11	29	33	46	47	47	47	52	58	58	58
Receipts of firm power from:											
7. Other provinces	-	-	-	-	-	-	-	-	-	-	-
8. United States	-	-	-	-	-	-	-	-	-	-	-
9. Total receipts	-	-	-	-	-	-	-	-	-	-	-
Deliveries of firm power to:											
10. Other provinces	-	-	-	-	-	-	-	-	-	-	-
11. United States	-	-	-	-	-	-	-	-	-	-	-
12. Total deliveries	-	-	-	-	-	-	-	-	-	-	-
13. Total net capability (6 + 9 - 12)	11	29	33	46	47	47	47	52	58	58	58
<u>Peak loads:</u>											
14. Firm power peak load within province	7	18	19	31	27	30	30	35	38	41	44
15. Indicated shortages	-	-	-	-	-	-	-	-	-	-	-
16. Total indicated firm power peak load within province (14 + 15)	7	18	19	31	27	30	30	35	38	41	44
17. Firm power peak load on province (12 + 16)	7	18	19	31	27	30	30	35	38	41	44
<u>Indicated reserve:</u>											
18. Indicated reserve (13 - 16)	4	11	14	15	20	17	17	17	20	17	14

Energy	Actual						Forecast				
	1957	1963	1964	1965	1966	1967	1968	1969	1970	1971	1972
millions of kilowatt-hours											
Net generation by:											
19. Hydro-electric	67	102	105	114	168	172	...	...	...	...	...
20. Steam - Conventional)		(2	3	2	3	3	...	...	...	...	...
21. Nuclear )		( -	-	-	-	-	...	...	...	...	...
22. Internal combustion)	14	(24	22	12	11	18	...	...	...	...	...
23. Gas turbine)		(-	4	4	5	2	...	...	...	...	...
24. Total net generation	81	128	134	132	187	195	...	...	...	...	...
Receipts of energy from:											
25. Other provinces	-	-	-	-	-	-	-	-	-	-	-
26. United States:											
(a) Firm	-	-	-	-	-	-	-	-	-	-	-
(b) Secondary .....	-	-	-	-	-	-	...	...	...	...	...
27. Total receipts of energy .....	-	-	-	-	-	-	...	...	...	...	...
Deliveries of energy to:											
(a) Firm:											
28. Other provinces	-	-	-	-	-	-	-	-	-	-	-
29. United States	-	-	-	-	-	-	-	-	-	-	-
(b) Secondary:											
30. Other provinces .....	-	-	-	-	-	-	...	...	...	...	...
31. United States .....	-	-	-	-	-	-	...	...	...	...	...
32. Total deliveries of energy .....	-	-	-	-	-	-	...	...	...	...	...
33. Total energy available (24 + 27 - 32)	81	128	134	132	187	195	...	...	...	...	...
34. Secondary energy delivered within province	12	27	36	21	31	32	...	...	...	...	...
35. Firm energy available within province (33 - 34)	69	101	98	111	156	163	170	196	210	223	236
36. Indicated shortage	-	-	-	-	-	-	-	-	-	-	-
37. Firm energy requirement within province (35 + 36)	69	101	98	111	156	163	170	196	210	223	236
38. Firm energy requirement on province (28 + 29 + 37)	69	101	98	111	156	163	170	196	210	223	236

TABLE 2. Total Net Generating Capability within Provinces(1)

Province	1957	1963	1964	1965	1966	1967	Forecast					Percentage change (compounded)		
							1968	1969	1970	1971	1972	1957 1967	1963 1967	1967 1972
thousands of kilowatts														
Newfoundland (including Labrador)	249	496	498	502	544	765	901	966	1,266	1,441	2,821	11.88	11.44	29.82
Prince Edward Island	25	58	58	58	58	58	78	81	81	81	101	8.78	-	11.73
Nova Scotia	415	532	527	626	626	694	705	936	936	936	1,086	5.28	6.87	9.37
New Brunswick	321	535	534	577	679	793	1,104	1,208	1,209	1,210	1,211	9.47	10.34	8.84
Quebec	6,461	8,951	9,225	10,178	10,566	10,957	11,161	12,604	12,981	13,710	14,232	5.42	5.19	5.37
Ontario	4,932	7,989	7,990	8,514	8,790	9,515	10,477	11,910	13,162	14,509	15,798	6.79	4.47	10.67
Manitoba	639	1,033	1,034	1,361	1,363	1,373	1,498	1,631	1,627	2,031	2,334	7.95	7.37	11.19
Saskatchewan	463	775	912	920	996	1,011	1,206	1,349	1,489	1,589	1,729	8.12	6.87	11.33
Albarta	588	1,200	1,235	1,395	1,491	2,015	2,009	2,150	2,310	2,625	2,644	13.10	13.84	5.58
British Columbia	2,350	3,428	3,481	3,627	3,741	4,121	5,033	5,441	5,687	5,867	6,094	5.78	4.71	8.14
Yukon	15	27	27	32	32	21	31	40	41	41	42	3.42	6.49	14.87
Northwest Territories	11	29	33	46	47	47	47	52	58	58	58	15.63	12.83	4.29
Canada	16,469	25,053	25,554	27,836	28,933	31,370	34,250	38,368	40,847	44,098	48,150	6.66	5.80	8.95

(1) Table 1, item 6.

TABLE 3. Firm Power Peak Load within Provinces(1)

Province	1957	1963	1964	1965	1966	1967	Forecast					Percentage change (compounded)		
							1968	1969	1970	1971	1972	1957 1967	1963 1967	1967 1972
thousands of kilowatts														
Newfoundland (including Labrador)	222	349	376	422	450	571	653	868	1,201	1,386	1,580	9.90	13.10	22.57
Prince Edward Island	14	27	31	35	37	40	44	47	51	56	60	11.07	10.33	8.45
Nova Scotia	322	411	438	457	496	604	631	723	780	843	912	6.49	10.10	8.59
New Brunswick	258	401	461	528	544	551	612	657	704	742	804	7.88	8.27	7.85
Quebec	5,256	7,118	7,651	8,228	8,761	9,142	9,702	10,302	10,775	11,428	11,872	5.69	6.46	5.36
Ontario	5,369	7,410	7,897	8,596	9,157	9,930	10,544	11,191	11,912	12,712	13,556	6.34	7.59	6.42
Manitoba	608	955	1,004	1,022	1,083	1,246	1,354	1,476	1,569	1,663	1,763	7.44	6.88	7.19
Saskatchewan	299	531	619	685	761	833	970	1,083	1,201	1,335	1,470	10.79	11.92	12.03
Alberta	476	984	1,106	1,121	1,219	1,340	1,509	1,675	1,817	1,962	2,190	10.95	8.03	10.32
British Columbia	1,821	2,537	2,886	3,058	3,421	3,647	4,027	4,315	4,520	4,721	4,956	7.19	9.50	6.33
Yukon	12	14	15	16	17	14	16	26	27	28	30	1.55	-	16.47
Northwest Territories	7	18	19	31	27	30	30	35	38	41	44	15.66	13.62	7.96
Canada	14,664	20,755	22,503	24,199	25,973	27,948	30,092	32,398	34,595	36,917	39,237	6.66	7.72	7.02

(1) Table 1, item 14.

TABLE 4. Firm Energy Requirement within Provinces(1)

Province	1957	1963	1964	1965	1966	1967	Forecast					Percentage change (compounded)			
							1968	1969	1970	1971	1972	1957 1967	1963 1967	1967 1972	
millions of kilowatt-hours															
Newfoundland (including Labrador)	1,190	1,878	2,293	2,640	2,790	3,009	3,626	4,978	6,879	8,395	9,794	9.72	12.51	26.65	
Prince Edward Island	57	111	124	136	140	161	180	205	231	273	311	10.94	9.74	14.07	
Nova Scotia	1,471	2,100	2,301	2,466	2,648	2,830	3,138	3,541	4,015	4,334	4,632	6.76	7.74	10.36	
New Brunswick	1,347	2,095	2,410	2,742	3,042	3,294	3,479	3,682	3,899	4,102	4,326	9.35	11.98	5.60	
Quebec	31,376	42,094	47,081	49,227	53,365	56,850	60,312	64,171	67,171	71,729	75,008	6.12	7.80	5.70	
Ontario	30,960	41,529	44,814	48,509	53,095	56,798	60,440	63,748	67,866	72,375	77,608	6.26	8.14	6.44	
Manitoba	3,347	5,445	5,659	5,988	6,215	6,563	7,195	7,931	8,530	9,037	9,482	6.97	4.78	7.64	
Saskatchewan	1,126	2,327	2,658	3,205	3,596	3,937	4,489	5,315	5,927	6,675	7,373	13.33	14.05	13.37	
Alberta	2,358	4,519	4,987	5,499	6,068	6,713	7,624	8,476	9,302	10,247	11,241	11.03	10.40	10.86	
British Columbia	10,975	14,982	16,849	18,444	20,455	22,228	24,333	25,798	26,950	28,201	29,512	7.31	10.36	5.83	
Yukon	45	64	65	82	83	83	92	115	161	165	168	6.31	6.71	15.15	
Northwest Territories	69	101	98	111	156	163	170	196	210	223	236	8.98	12.71	7.68	
Canada	84,321	117,245	129,339	139,049	151,653	162,629	175,078	188,156	201,141	215,756	229,691	6.79	8.52	7.15	

(1) Table 1, item 37.

TABLE 5. Indicated Reserve (1)

Province	1957	1963	1964	1965	1966	1967	Forecast					Percentage change (compounded)			
							1968	1969	1970	1971	1972	1957 1967	1963 1967	1967 1972	
thousands of kilowatts															
<u>Newfoundland (including Labrador)</u>															
1. Gross capability	249	496	498	502	544	765	901	966	1,266	1,441	2,821	11.88	11.44	29.82	
2. Firm power peak load on province ...	228	387	397	429	460	583	664	879	1,212	1,397	2,501	9.89	10.79	33.84	
3. Indicated reserve (1 - 2)	21	109	101	73	84	182	237	87	54	44	320	...	...	...
4. Indicated reserve expressed as a per cent of firm power peak load	9.2	28.2	25.4	17.0	18.3	31.2	35.7	9.9	4.5	3.1	12.8	...	...	...
<u>Prince Edward Island</u>															
1. Gross capability	25	58	58	58	58	58	78	81	81	81	101	8.78	-	11.73	
2. Firm power peak load on province ...	14	27	31	35	37	40	44	47	51	56	60	11.01	10.33	8.45	
3. Indicated reserve (1 - 2)	11	31	27	23	21	18	34	34	30	25	41	...	...	...
4. Indicated reserve expressed as a per cent of firm power peak load	78.6	114.8	87.1	65.7	56.8	45.0	77.3	72.3	58.8	44.6	68.3	...	...	...
<u>Nova Scotia</u>															
1. Gross capability	415	532	527	626	626	694	725	936	936	936	1,086	5.28	6.87	9.37	
2. Firm power peak load on province ...	324	412	439	482	496	604	631	723	780	843	912	6.43	10.04	8.59	
3. Indicated reserve (1 - 2)	91	120	88	144	130	90	94	213	156	93	174	...	...	...
4. Indicated reserve expressed as a per cent of firm power peak load	28.1	29.1	20.0	29.9	26.2	14.9	14.9	29.5	20.0	11.0	19.1	...	...	...
<u>New Brunswick</u>															
1. Gross capability	326	542	545	610	687	801	1,112	1,216	1,217	1,218	1,219	9.41	10.26	8.76	
2. Firm power peak load on province ...	266	429	494	565	582	596	687	718	769	812	853	8.40	8.57	7.43	
3. Indicated reserve (1 - 2)	60	113	51	45	105	205	425	498	448	406	366	...	...	...
4. Indicated reserve expressed as a per cent of firm power peak load	22.6	26.3	10.3	8.0	18.0	34.9	61.9	69.4	58.3	50.0	42.9	...	...	...

(1) Gross capability (Table 1, items 6 + 9); firm power peak load on province (Table 1, item 17); indicated reserve (Table 1, item 18).

TABLE 5. Indicated Reserve(1) - Continued

Province	1957	1963	1964	1965	1966	1967	Forecast					Percentage change (compounded)		
							1968	1969	1970	1971	1972	1957 1967	1963 1967	1967 1972
thousands of kilowatts														
<u>Quebec</u>														
1. Gross capability	6,468	8,963	9,243	10,185	10,576	10,969	11,172	12,615	12,992	13,721	15,153	5.42	5.16	6.68
2. Firm power peak load on province ...	6,008	7,827	8,374	8,869	9,396	9,777	10,292	10,892	11,027	11,680	12,124	4.99	5.72	4.40
3. Indicated reserve (1 - 2)	460	1,136	869	1,316	1,180	1,192	880	1,723	1,965	2,041	3,029	...	...	...
4. Indicated reserve expressed as a per cent of firm power peak load	7.7	14.5	10.4	14.8	12.6	12.2	8.6	15.8	17.8	17.5	25.0	...	...	...
<u>Ontario</u>														
1. Gross capability	5,637	8,688	8,699	9,141	9,415	10,140	11,057	12,490	13,404	14,751	16,090	6.05	3.94	9.67
2. Firm power peak load on province ...	5,456	7,500	7,995	8,642	9,204	9,978	10,593	11,241	11,963	12,748	13,592	6.22	7.40	4.51
3. Indicated reserve (1 - 2)	181	1,188	704	499	211	162	464	1,249	1,441	2,003	2,498	...	...	...
4. Indicated reserve expressed as a per cent of firm power peak load	3.3	15.8	8.8	5.8	2.3	1.6	4.4	11.1	12.0	15.7	18.4	...	...	...
<u>Manitoba</u>														
1. Gross capability	708	1,167	1,128	1,444	1,447	1,460	1,585	1,768	1,814	2,118	2,421	7.51	5.76	10.64
2. Firm power peak load on province ...	622	955	1,004	1,023	1,084	1,287	1,355	1,477	1,570	1,664	1,814	7.54	7.75	7.11
3. Indicated reserve (1 - 2)	86	212	124	421	363	173	230	291	244	454	607	...	...	...
4. Indicated reserve expressed as a per cent of firm power peak load	13.8	22.2	12.4	41.2	33.5	13.4	17.0	19.7	15.5	27.3	33.5	...	...	...
<u>Saskatchewan</u>														
1. Gross capability	463	775	912	921	997	1,052	1,207	1,350	1,490	1,590	1,730	8.55	7.94	10.46
2. Firm power peak load on province ...	368	665	713	768	845	920	1,057	1,220	1,388	1,422	1,557	9.60	8.45	11.10
3. Indicated reserve (1 - 2)	95	110	199	153	152	132	150	130	102	168	173	...	...	...
4. Indicated reserve expressed as a per cent of firm power peak load	25.8	16.5	27.9	19.9	18.0	14.3	14.2	10.7	7.3	11.8	11.1	...	...	...

(1) Gross capability (Table 1, items 6 + 9); firm power peak load on province (Table 1, item 17); indicated reserve (Table 1, item 18).

TABLE 5. Indicated Reserve(1) - Concluded

Province	1957	1963	1964	1965	1966	1967	Forecast					Percentage change (compounded)		
							1968	1969	1970	1971	1972	1957 1967	1963 1967	1967 1972
thousands of kilowatts														
<u>Alberta</u>														
1. Gross capability	592	1,200	1,235	1,395	1,491	2,015	2,009	2,150	2,310	2,625	2,644	13.03	13.84	5.58
2. Firm power peak load on province ...	476	994	1,118	1,140	1,238	1,355	1,526	1,697	1,842	1,990	2,221	11.03	8.05	12.96
3. Indicated reserve (1 - 2)	116	206	117	255	253	660	483	453	468	635	423	...	...	...
4. Indicated reserve expressed as a per cent of firm power peak load	24.4	20.7	10.5	22.4	20.4	48.7	31.7	26.7	25.4	31.9	19.0	...	...	...
<u>British Columbia</u>														
1. Gross capability	2,350	3,438	3,493	3,646	3,860	4,316	5,050	5,463	5,712	5,895	6,125	6.27	5.85	7.25
2. Firm power peak load on province ...	1,825	2,537	2,886	3,058	3,421	3,647	4,027	4,315	4,520	4,721	4,956	7.17	9.50	6.33
3. Indicated reserve (1 - 2)	525	901	607	588	439	669	1,023	1,148	1,192	1,174	1,169	...	...	...
4. Indicated reserve expressed as a per cent of firm power peak load	28.8	35.5	21.0	19.2	12.8	18.3	25.4	26.6	26.4	24.9	23.6	...	...	...
<u>Yukon</u>														
1. Gross capability	15	27	27	32	32	21	31	40	41	41	42	3.42	6.49	14.87
2. Firm power peak load on province ...	12	14	15	16	17	14	16	26	27	28	30	1.55	-	16.47
3. Indicated reserve (1 - 2)	3	13	12	16	15	7	15	14	14	13	12	...	...	...
4. Indicated reserve expressed as a per cent of firm power peak load	23.1	92.9	80.0	100.0	88.2	50.0	93.8	53.8	51.9	46.4	40.0	...	...	...
<u>Northwest Territories</u>														
1. Gross capability	11	29	33	46	47	47	47	52	58	58	58	15.63	12.83	4.29
2. Firm power peak load on province ...	7	18	19	31	27	30	30	35	38	41	44	15.66	13.62	7.96
3. Indicated reserve (1 - 2)	4	11	14	15	20	17	17	17	20	17	14	...	...	...
4. Indicated reserve expressed as a per cent of firm power peak load	57.1	61.1	73.7	48.4	74.1	56.7	56.7	48.6	52.6	41.5	31.8	...	...	...
<u>Canada</u>														
1. Gross capability	16,469	25,055	25,556	27,836	29,033	31,550	34,250	38,368	40,847	44,098	48,150	6.72	5.47	8.82
2. Firm power peak load on Canada	14,816	20,905	22,643	24,288	26,060	28,043	30,198	32,511	34,713	37,025	39,324	6.59	7.63	7.00
3. Indicated reserve (1 - 2)	1,653	4,150	2,913	3,548	2,973	3,507	4,052	5,857	6,134	7,073	8,826	...	...	...
4. Indicated reserve expressed as a per cent of firm power peak load	11.2	19.9	12.9	14.6	11.4	12.5	13.4	18.0	17.7	19.1	22.4	...	...	...

(1) Gross capability (Table 1, items 6 + 9); firm power peak load on province (Table 1, item 17); indicated reserve (Table 1, item 18).

GLOSSARY OF TERMS

Firm Energy Requirement

Energy required to meet firm obligations, or for use in own industrial plant other than secondary energy.

Firm Power

Maximum power always to be available, short of major outages caused by storm, explosion, strikes, etc.

Firm Power Peak Load

The annual Firm Power maximum average net kilowatt load of one hour duration within the Utility, System or Industrial Establishment.

Firm Obligations

Shall include only maximum commitments under contract agreements to accept or deliver power on an irrevocable basis or the best estimate of firm obligations in the absence of contracts.

Indicated Demand

The sum of firm power peak load and indicated shortage.

Indicated Reserve

Net capability less indicated firm power peak load within the province or gross capability less firm power peak load on the province.

Industrial Establishment

A firm which generates power primarily for use in its own plants.

Net Generating Capability

The maximum net kilowatt output (after station service) available from the generating facilities of the Utility, System or Industrial Establishment with all equipment available, at the time of the annual Firm Power Peak Load, determined as the average kilowatt output for one hour with no allowance for outages of generating units.

Net Capability

The sum of net generating capability and purchases of firm power under firm obligation from other utilities less deliveries of firm power under firm obligation to other utilities.

System

Two or more Utilities, Industrial Establishments or a combination of these, having interconnections for the exchange of power, which although they may be separately incorporated, are controlled, managed or operated by one principal.

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1967-1968

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9. R.E. Tweeddale, N.B. Electric Power Comm., Fredericton, N.B.

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3. R.L. Borden, Dominion Bureau of Statistics, Energy & Minerals Section, Ottawa
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10. J.W. Newby, Calgary Power Ltd., Box 1900, Calgary, Alta.
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12. W.A. Reed Saskatchewan Power Corp., Regina, Sask.
13. K.G. Richardson, National Energy Board, Ottawa 4, Ont.

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8. W.S. Preston, Ontario Hydro, 620 University Ave., Toronto, Ont.

List of Respondents

Provinces

Enterprises

Newfoundland

The Bowater Power Co. Ltd.
Churchill Falls (Labrador) Corp. Ltd.
Newfoundland & Labrador Power Commission
Newfoundland Light & Power Co. Ltd.
Twin Falls Power Corp.

Bowater's Newfoundland Limited
Iron Ore Co. of Canada, Menihek
Price (Nfld.) Pulp & Paper Ltd.

Prince Edward Island

Maritime Electric Co. Ltd.
Town of Summerside Electric Light Department

Nova Scotia

Nova Scotia Light & Power Co. Ltd.
Nova Scotia Power Commission
Seaboard Power Corp. Ltd.

Bowaters Mersey Paper Co. Ltd.
Imperial Oil Enterprises Ltd.
Minas Basin Pulp & Power Co. Ltd.
Nova Scotia Pulp Co.
Scott Maritimes Pulp Ltd.
Sydney Steel Corp.

New Brunswick

City of Campbellton
City of Edmundston Power Plant Department
Maine & N.B. Electric Power Commission
New Brunswick Electric Power Commission

Atlantic Sugar Refineries Ltd.
Consolidated-Bathurst Ltd.
Fraser Companies Ltd.
Atholville Mill
Edmundston
Newcastle
Irving Pulp & Paper Ltd.
N.B. International Paper Co.

Quebec

Gulf Power Co.
Hart-Jaune Power Co.
La Cité de Jonquière
MacLaren Quebec Power Co.
The Manicouagan Power Co.
Ottawa Valley Power Co.
Pembroke Electric Light Co. Ltd.
Commission Hydroélectrique de Québec
Saguenay Power Co.
City of Sherbrooke
Smelter Power Corporation

Abitibi Ste. Anne Paper Co. Ltd.
Aluminum Co. of Canada Ltd.
Anglo-Canadian Pulp & Paper, Limouli Plant
Canadian Celanese Ltd.
Canadian International Paper Co.
Gatineau Mills
Trois-Rivières
Consolidated-Bathurst Ltd., Port Alfred Plant
Dominion Ayers Limited
Dominion Textile Co. Ltd.
Domtar Ltd., Donnacona
Domtar Pulp & Kraft Paper Co. Ltd., Windsor
E.B. Eddy Co., Hull Plant
Electric Reduction Co. of Canada Ltd.
Gaspé Copper Mines Ltd.
Gaspesia Pulp & Paper Co. Ltd.
Iron Ore Company
James MacLaren Company Ltd.
Noranda Mines Ltd.
Ogilvie Flour Mills
The Price Co. Ltd.
Quebec North Shore Paper Co.
Thurso Pulp & Paper Co.

List of Respondents - Continued

Utilities

Industrials

Ontario

Atomic Energy of Canada Ltd.
Bracebridge Water, Light and Power Commission
Campbellford Public Utilities Commission
Canadian Niagara Power Co. Ltd.
Cedars Rapids Transmission Co. Ltd.
Gananoque Electric Light & Water Supply Co. Ltd.
Great Lakes Power Co. Ltd.
Huronian Company Limited
Ontario Hydro-Electric Commission
Orillia Water, Light & Power Commission
Ottawa Hydro-Electric Commission
Pembroke Hydro-Electric Commission
Peterborough Hydraulic Power Co. Ltd.
Renfrew Hydro-Electric Commission
St. Lawrence Power Co.

Abitibi Power & Paper Co. Ltd.
Iroquois Falls
Smooth Rock Falls
Sturgeon Falls
Algoma Steel Corp. Ltd.
Allied Chemical Canada Ltd., Amherstburg Plant
American Can of Canada Ltd.
Brown Forest Industries Ltd.
Canadian General Electric Co. Ltd.
Continental Can Company of Canada Ltd.
Dow Chemical Co. Ltd.
Dryden Paper Co., Ltd.
E.B. Eddy Co., Ottawa Plant
Ford Motor Co. of Canada Ltd.
Great Lakes Paper Co. Ltd.
Hiram Walker & Sons Ltd.
International Nickel Co. Ltd.
Ontario-Minnesota Pulp & Paper Co. Ltd.
Fort Frances
Kenora
The Ontario Paper Co. Ltd.
The Polymer Corp. Ltd.
St. Lawrence Seaway Authority
Spruce Falls Power & Paper Co. Ltd.
The Steel Co. of Canada Ltd.
Strathcona Paper Co. Ltd.

Manitoba

Manitoba Hydro
Northern Manitoba System
Southern Manitoba System
Northern Manitoba Power Co. Ltd.
City of Winnipeg Hydro-Electric System

Hudson Bay Mining & Smelting Co. Ltd.
Sherritt Gordon Mines - Lynn Lake

Saskatchewan

Churchill River Power Co. Ltd.
Northern Power Co. Ltd.
Saskatchewan Power Corp.

Eldorado Mining & Refining Ltd.
Hudson Bay Mining & Smelting Co. Ltd.
Kalium Chemicals Limited

Alberta

Calgary Power Ltd.
Canadian Utilities Limited
East Kootenay Power Co. Ltd.
City of Edmonton
City of Lethbridge
Corporation of the City of Medicine Hat
Northland Utilities Ltd.

British American Oil Co. Ltd., Rimbey Gas Processing Plant
Chemcell (1963) Limited
Cloverbar Plant
Duvernay Plant
Great Canadian Oil Sands
North Western Pulp & Power Ltd.
Pan American Pet. Corp., West Whitecourt Plant
Sherritt Gordon Mines Ltd.

British Columbia

British Columbia Hydro and Power Authority
East Kootenay Power Co. Ltd.

Aluminum Co. of Canada Ltd.
Anacanda Company (Canada) Ltd.

List of Respondents - Concluded

Utilities

Industry

British Columbia - Concluded

City of Nelson
Corp. of the City of Revelstoke
West Kootenay Power & Light Co. Ltd.

B.C. Forest Products Ltd.
Cowichan Sawmill Division
Hammond Sawmill Division
Victoria Sawmill Division
Canadian Forest Products Ltd.
Elburne Sawmills
Port Mellon
Columbia Cellulose Company Ltd.
Celgar Ltd.
Prince Rupert Pulp. Division
Cominco Ltd.
Crown Zellerbach Building Materials Ltd.
Crown Zellerbach Canada Ltd.
Elk Falls Co. Ltd.
Kicking Horse Forest Products Ltd.
MacMillan Bloedel Ltd.
Alberni Pulp & Paper Division
Powell River Division
MacMillan Bloedel Industries Ltd.
Canadian White Pine Division
Chemainus Division
Harmac Pulp Division
Pacific Petroleum Ltd.
Rayonier Canada (B.C.) Ltd.
Port Alice Division
Woodlora Division

Yukon

Northern Canada Power Commission
(a) Mayon River
(b) Whitehorse
Yukon Electrical Co. Ltd.
Yukon Hydro Co. Ltd.

Northwest Territories

Northern Canada Power Commission
(a) Taltson River
(b) Yellowknife

Cominco Ltd.



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