PROVINCE OF BRITISH COLUMBIA

SIXTH ANNUAL REPORT

OF THE

BRITISH COLUMBIA POWER COMMISSION

FOR THE YEAR ENDED MARCH 31st

1951

VICTORIA, B.C.
Printed by DON MCDIARMID, Printer to the King's Most Excellent Majesty
1951

To Colonel the Honourable CLARENCE WALLACE, C.B.E.,
Lieutenant-Governor of the Province of British Columbia.

MAY IT PLEASE YOUR HONOUR:

The undersigned has the honour to present the Annual Report of the British Columbia Power Commission for the fiscal year ended March 31st, 1951.

BYRON I. JOHNSON,
Premier.

Victoria, B.C.,
June 30th, 1951.

The Honourable Byron I. Johnson, M.B.E.,
Premier, Parliament Buildings, Victoria, B.C.

SIR,—The Annual Report of the British Columbia Power Commission, covering the fiscal year 1950–51, is respectfully submitted herewith in accordance with section 98 of the "Electric Power Act."

We have the honour to be
Sir,
Your obedient servants,

W. W. FOSTER,
Commissioner.

F. L. SHAW,
Commissioner.

S. R. WESTON,
Chairman.

Victoria, B.C.,
June 22nd, 1951.

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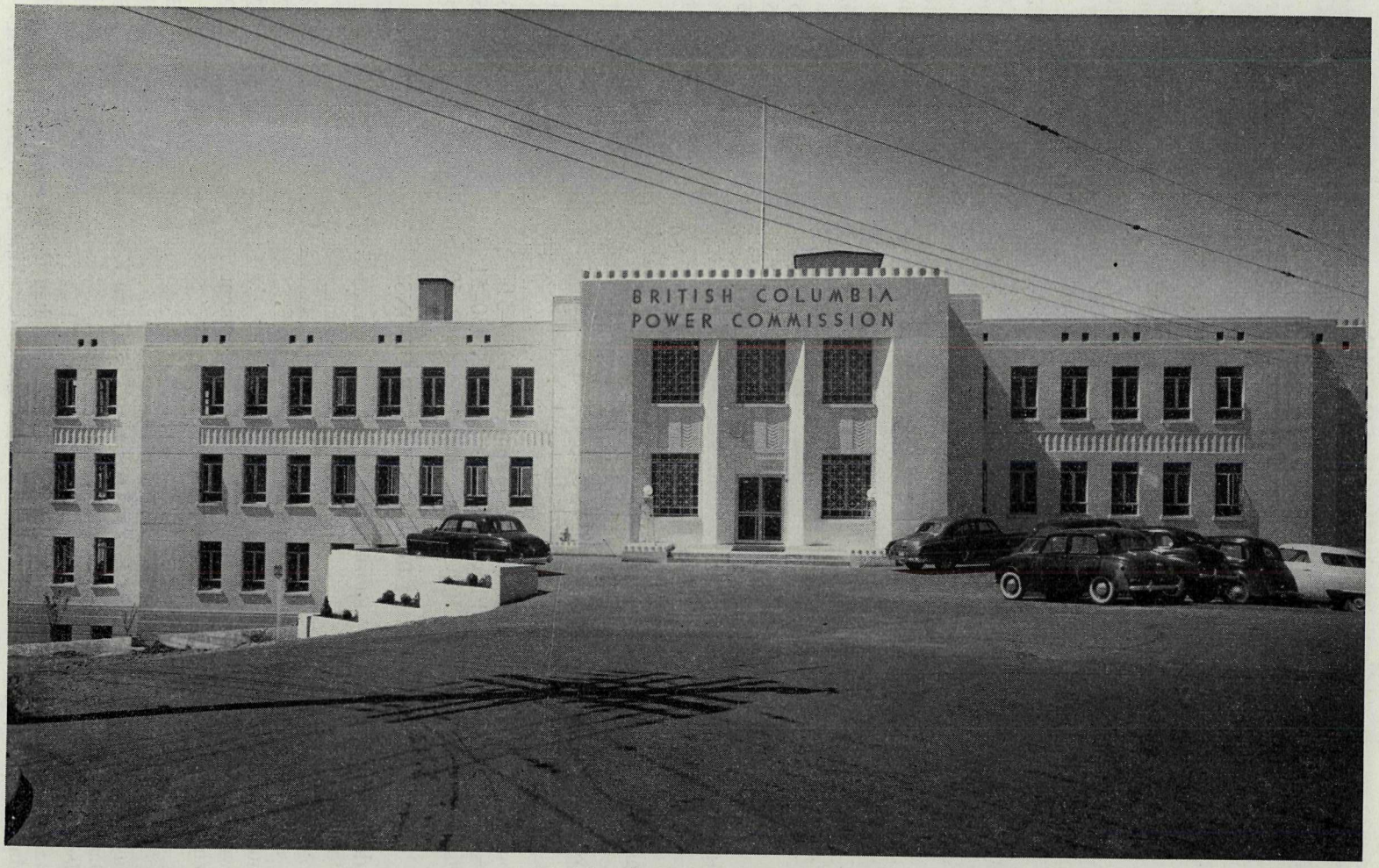


Administration Building, Victoria.

Sixth Annual Report of the British Columbia Power Commission, Fiscal Year Ended March 31st, 1951

I. GENERAL REVIEW

During the fiscal year ended March 31st, 1951, the Commission connected 4,075 new customers to its distribution-lines. This is over 600 more than the comparative growth of new accounts in any previous year of the organization's five and one-half years of operations and represents the addition of over sixteen newly served premises every working-day. A total of 16,763 or 38 per cent of all customers served have been brought the benefits of electricity through the efforts of the Commission, the balance of the services having been acquired from other organizations.

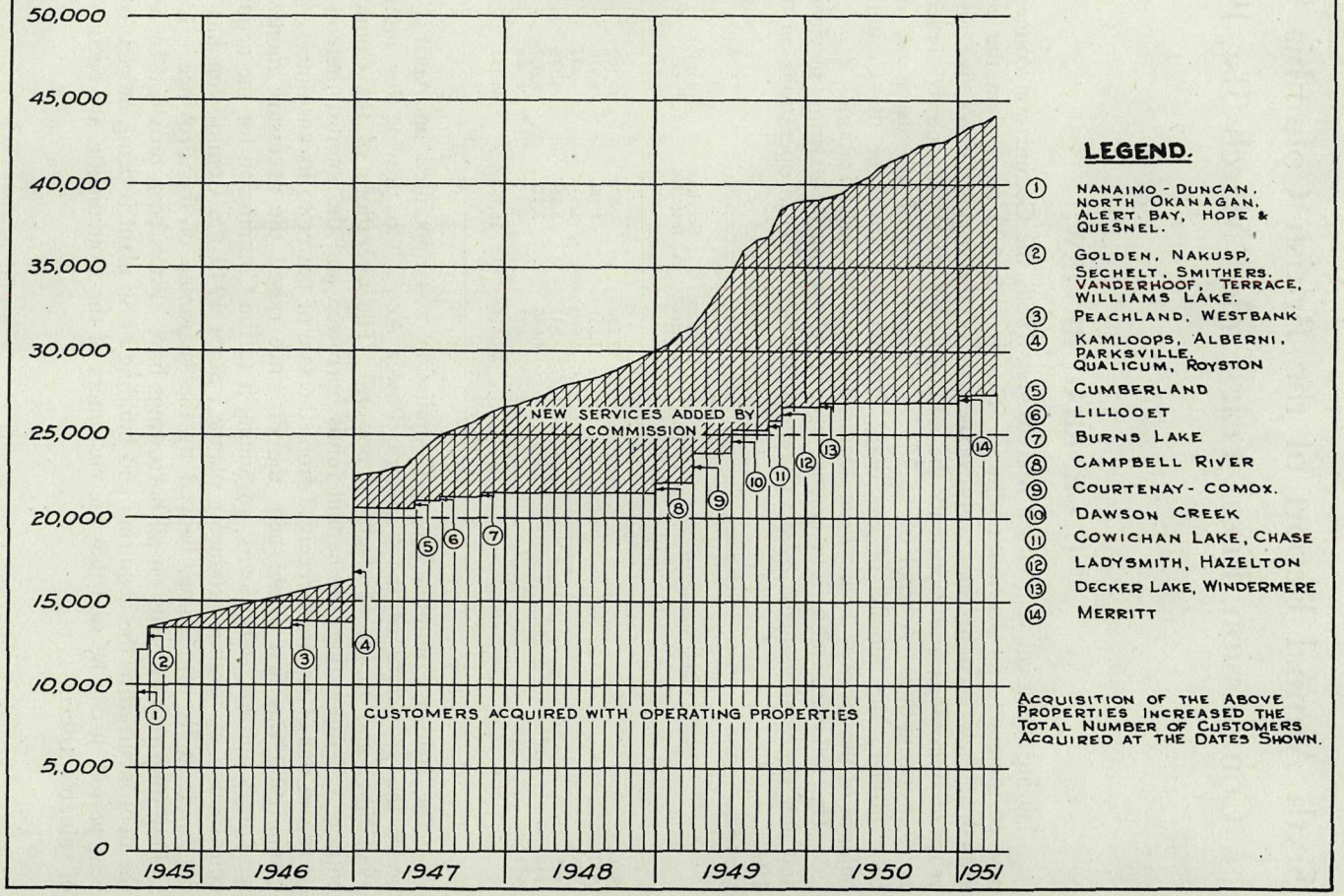
The following table is a concise record of previously existing services acquired and new connections made by the Commission since it began operations on August 1st, 1945:—

Period Ended March 31st	Services Acquired	Services Installed	Total for Period	Cumulative to End of Period
1946	13,270	832	14,102	14,102
1947	7,151	1,786	8,937	23,039
1948	1,000	3,431	4,431	27,470
1949	831	3,318	4,149	31,619
1950	4,686	3,321	8,007	39,626
1951	473	4,075	4,548	44,174
Totals	27,411	16,763	44,174	.....

The British Columbia Power Commission was appointed on April 17th, 1945, under the provisions of the "Electric Power Act," "to provide for improving the availability and supply of electrical power." The operations of the Commission are entirely self-supporting, the capital funds borrowed and the interest thereon having to be repaid out of revenues received from the sale of power to its customers. When the Commission was first established, the Province raised the necessary money for both temporary and long-term loans, advancing it to the Commission for the acquisition and construction of revenue-producing plants. Since 1949 the Commission has been raising funds in its own name, backed by the guarantee of the Province. Interest and sinking-fund requirements on all borrowings have always been provided for in full. As the debt incurred in the acquiring and building of all plant is being retired over a forty-year period, it can be said that the customers of the Commission are becoming owners of valuable assets.

BRITISH COLUMBIA POWER COMMISSION.

GRAPH SHOWING GROWTH IN NUMBER OF CUSTOMERS 1945 ~ 1951.

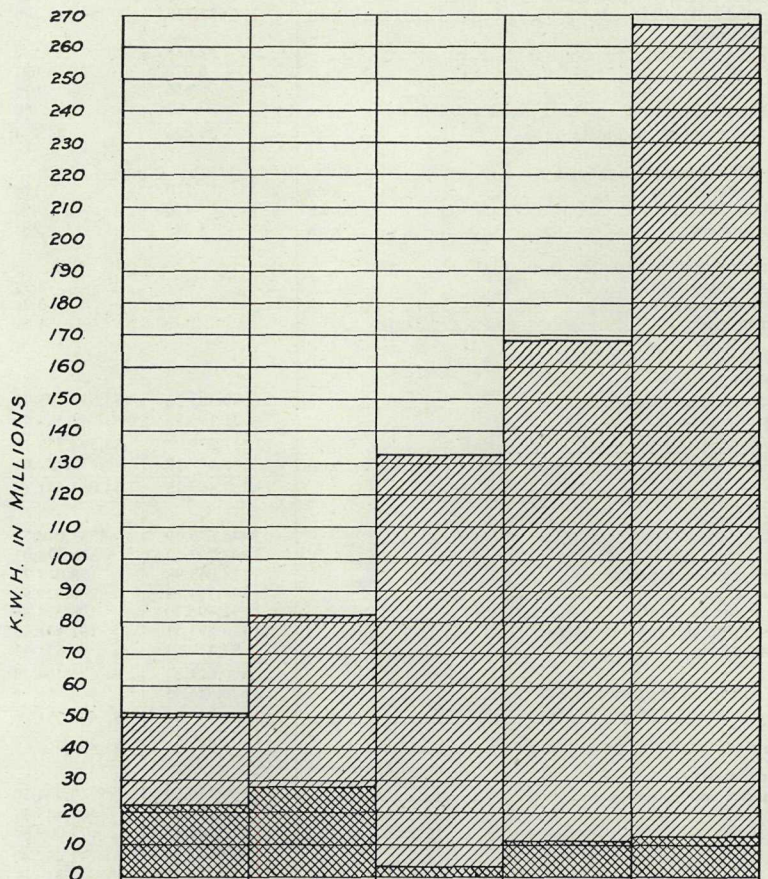


Comparative figures for the fiscal years ended March 31st, 1950 and 1951, illustrate the growth made during the present year's operations:—

	Year Ended March 31st		Difference
	1950	1951	
Number of generating units in operation	62	71	9
Generating capacity in kilowatts	97,640	100,350	2,710
Transmission-lines (over 23 kv) in circuit-miles	458	550	92
Distribution-lines in circuit-miles	1,958	2,393	435
Number of power districts in operation	23	25	2
Energy generated and purchased kwh	168,683,738	267,488,496	98,804,758
Number of customers—			
Residential	32,688	36,548	3,860
Commercial	6,070	6,691	621
Power	816	875	59
Street-lighting	52	60	8
Total number of customers	39,626	44,174	4,548
Average monthly consumption—			
Residential customers kwh	110	126	16
Commercial customers kwh	420	460	40
Power customers kwh	3,347	3,284	—63
Average charge per kwh paid by—			
Residential customers	3.6¢	3.3¢	—0.3¢
Commercial customers	3.6¢	3.2¢	—0.4¢
Power customers	1.7¢	1.6¢	—0.1¢
Revenue—			
Power districts—			
Electric-energy sales	$3,080,389.22	$3,550,795.78	$470,406.56
Miscellaneous	31,190.75	43,563.40	12,372.65
	$3,111,579.97	$3,594,359.18	$482,779.21
Special-contract sales	155,889.18	470,282.61	314,393.43
	$3,267,469.15	$4,064,641.79	$797,172.64
Operating expenses—			
Labour	$446,636.49	$535,034.72	$88,398.23
Fuel	298,762.52	376,578.03	77,815.51
Other direct operating expenses	118,063.93	158,014.20	39,950.27
Customer accounting and collecting	177,764.18	206,829.90	29,065.72
Gross revenue assessment (3 per cent)	91,796.70	106,524.89	14,728.19
Administration and general expense	170,293.51	191,931.23	21,637.72
Purchased power	93,377.51	99,851.41	6,473.90
	$1,396,694.84	$1,674,764.38	$278,069.54
Interest on capital in operation	670,814.45	964,966.78	294,152.33
Total direct expenses	$2,067,509.29	$2,639,731.16	$572,221.87
Operating surplus (excluding provision for reserves)	$1,199,959.86	$1,424,910.63	$224,950.77
Provision for reserves—			
Maintenance and renewals	$554,416.69	$713,004.50	$158,587.81
Sinking fund	335,406.29	482,483.33	147,077.04
Contingencies	157,484.88	77,009.64	—80,475.24
	$1,047,307.86	$1,272,497.47	$225,189.61
Net operating surplus (transferred to Stabilization Reserve)	$152,652.00	$152,413.16	—$238.84

BRITISH COLUMBIA POWER COMMISSION

GRAPHIC REPRESENTATION OF TOTAL YEARLY PRODUCTION OF ELECTRICAL ENERGY FOR THE 5 YEAR PERIOD 1946-1951, SHOWING PROPORTIONS PRODUCED BY COMMISSION PLANTS AND PURCHASED POWER.



	1946-47	1947-48	1948-49	1949-50	1950-51
K.W.H. GENERATED	28,667,919	54,301,630	129,464,276	157,946,073	255,556,217
K.W.H. PURCHASED	22,283,930	28,231,710	3,221,236	10,737,665	11,932,279
TOTALS	50,951,849	82,533,340	132,685,512	168,683,738	267,488,496

It will be observed that the growth recorded in the number of customers has been accompanied by corresponding increases in generating plant (both number of units and total capacity), in transmission- and distribution-line mileages, and in energy generated.

Continued expansion of the Commission's operations is expected in the future. Construction work on the Clowhom hydro-plant to serve the Seechelt Peninsula is well advanced and completion is expected before the end of the calendar year. Service to the Ucluelet-Tofino area will be commenced soon after the close of the fiscal year, bringing electric power to yet another area of the Province.

In view of the considerably larger fixed charges required to carry the additional investment brought into operation during the year, the net operating surplus for the year was highly gratifying. Increased revenues were responsible for producing a figure very close to that resulting from the 1949–50 operations.

During the coming fiscal year heavy carrying charges on the Whatshan Development will be levied against operations, which charges will not nearly be offset by fuel and maintenance savings resulting from the close-down of the Kamloops and Barriere plants. Consequently, until greater use of the available capacity of the Whatshan plant is made, the net surplus position may be below the amount recorded this year.

Other factors which may have an adverse effect on the net operating result next year are the higher expenses attributable to increased wages and salaries granted to offset partially the upward cost-of-living trend. The probable reduction in the rate of capital expenditure during the coming year will increase the proportion of administration and general expense charged to operations. Added to these items is the fact that revenues in the North Okanagan and Kamloops Power Districts will be adversely affected by the introduction of promotional rates during the coming year, despite the fact that the schedules in general may not bring about decreased charges to many customers.

In all areas, and particularly those where promotional rates have been in effect, the consumption per customer continues to increase at a satisfactory rate while the average charge for energy is gradually being reduced. The progress made in each power district in this regard is portrayed in the table " Statistics Relating to the Supply of Electrical Energy " for the past five years. Twenty-two out of the present twenty-five power districts are now operating under the uniform rate structure introduced by the Commission in 1946.

In the sphere of public relations a programme of educational advertising by the Commission was commenced during the fiscal year. A quarterly house organ—*Progress*—issued first in January, 1950, was published regularly and was well received by employees. The wide and ever-growing demand for copies indicates the advisability of continuing this venture, perhaps at more frequent intervals. The Commission is indebted to the Province's daily and weekly newspapers for excellent coverage of its operations.

The administration building in Victoria was completed before the close of the fiscal year, the staff moving into the new quarters at the end of January, 1951. This centralization brought about a reorganization between head office and power district staffs, producing greater efficiency and economy by eliminating the need for regional offices at Nanaimo and Vernon.

This Sixth Annual Report describes in detail the year's activities under the functional headings of Legal, Construction, Operation, Surveys and Investigations, and Financial.

Power District	Fiscal Year Ended March 31	Residential Service						Commercial	
		Revenue	Consumption	Number of Customers	Av. Monthly Consumption	Av. Monthly Bill	Revenue per Kwh	Revenue	Consumption
		$	Kwh		Kwh	$	c.	$	Kwh
Alberni	1947	29,556.13	662,644	2,474	90	4.00	4.5	18,405.25	530,739
	1948	122,940.07	2,907,171	2,938	90	3.80	4.2	77,132.03	2,010,020
	1949	136,368.13	3,765,710	3,208	102	3.70	3.6	81,429.61	2,901,691
	1950	147,834.51	4,961,178	3,354	125	3.75	3.0	83,036.08	3,218,867
	1951	170,960.60	6,319,938	3,527	153	4.15	2.7	87,070.95	3,630,063
Alert Bay	1947	5,858.78	53,000	110	43	4.70	11.0	9,219.72	119,000
	1948	6,848.87	96,520	132	68	4.85	7.1	10,076.96	199,110
	1949	8,896.85	194,099	169	108	4.95	4.6	10,817.20	356,670
	1950	11,880.90	312,594	179	151	5.75	3.8	10,458.64	319,851
	1951	15,979.11	449,860	330	165	5.85	3.6	11,364.57	371,979
Burns Lake	1948	2,567.51	14,650	66	48	8.35	17.5	2,488.95	17,195
	1949	5,917.23	32,646	109	34	6.15	18.1	7,293.14	49,924
	1950	5,102.24	77,432	186	53	3.45	6.6	7,367.02	174,199
	1951	10,604.06	203,641	242	78	4.05	5.2	11,271.61	351,894
Campbell River	1949	6,543.76	91,199	713	64	4.60	7.2	4,812.59	75,319
	1950	36,238.20	668,051	794	72	3.95	5.4	24,327.20	563,367
	1951	41,010.51	987,061	922	96	4.00	4.2	25,729.35	869,279
Comox Valley	1947	1,255.30	21,247	93	76	4.50	5.9		
	1948	28,846.60	381,012	837	45	3.40	7.6	9,409.21	221,106
	1949	37,677.14	521,950	860	51	3.70	7.2	11,632.05	270,818
	1950	108,602.24	2,059,626	2,371	77	4.05	5.3	59,351.00	1,548,844
	1951	123,435.83	2,953,547	2,511	101	4.20	4.2	66,144.69	1,884,695
Dawson Creek	1950	37,671.29	576,005	1,031	72	4.70	6.5	53,373.83	839,652
	1951	53,604.86	1,114,412	1,151	86	4.15	4.8	45,911.80	1,429,969
Golden	1947	6,275.26	44,200	124	31	4.35	14.2	7,513.21	74,000
	1948	6,855.41	53,994	141	34	4.30	12.7	8,488.36	98,407
	1949	6,846.84	102,008	158	57	3.80	6.7	8,098.93	210,186
	1950	8,692.40	168,454	173	84	4.35	5.2	9,876.01	290,431
	1951	10,611.69	213,611	197	93	4.65	4.9	9,261.30	284,817
Hazelton	1950	1,676.35	33,625	109	89	4.45	5.0	1,490.47	31,659
	1951	6,613.02	150,347	144	98	4.30	4.4	5,309.95	110,980
Hope	1947	11,103.42	107,300	269	37	3.80	10.3	10,076.62	141,300
	1948	11,470.01	184,792	342	51	3.20	6.2	12,647.95	291,137
	1949	16,558.16	349,212	398	78	3.70	4.7	15,721.28	497,161
	1950	20,696.73	544,149	468	102	3.90	3.8	17,673.17	579,248
	1951	25,597.47	692,109	543	113	4.15	3.7	22,372.45	872,093
Houston	1951	2,765.95	50,995	63	94	5.10	5.4	1,652.71	33,715
Kamloops	1947	29,586.47	835,165	2,354	118	4.25	3.6	34,612.54	656,614
	1948	113,315.36	3,176,827	2,588	107	3.80	3.6	136,481.20	2,647,482
	1949	124,136.04	3,717,417	2,778	116	3.85	3.3	157,761.03	3,034,725
	1950	148,675.32	4,512,023	3,257	124	4.10	3.3	189,534.87	3,815,925
	1951	175,898.82	5,405,709	3,546	131	4.30	3.3	214,193.92	4,546,975
Lake Cowichan	1950	9,645.54	111,310	412	54	4.70	8.7	8,351.60	110,564
	1951	19,004.41	316,770	456	61	3.65	6.0	9,990.24	238,092
Lake Windermere	1951	11,167.21	222,981	278	81	4.05	5.0	9,322.58	253,256
Lillooet	1948	3,643.72	46,091	82	68	5.35	7.9	3,872.34	109,177
	1949	5,782.38	83,536	81	83	5.75	6.9	6,714.59	192,801
	1950	7,769.87	98,745	150	70	5.50	7.9	8,205.45	248,445
	1951	9,489.21	113,450	162	63	5.25	8.4	8,500.60	254,891
Merritt	1951	4,262.80	60,984	388	53	3.70	7.0	2,944.07	93,220

[1] Denotes total number of customers at respective dates of acquisition.

Service				Power Service				Street-lighting Service			Totals			
Number of Customers	Av. Monthly Consumption	Av. Monthly Bill	Revenue per Kwh	Revenue	Consumption	Number of Customers	Revenue per Kwh	Revenue	Consumption	Number of Customers	Revenue	Consumption	Number of Customers	Revenue per Kwh
	Kwh	$	c.	$	Kwh		c.	$	Kwh		$	Kwh		c.
											(Date of acquisition: Jan. 1st, 1947.)		2,877	
427	425	14.70	3.5	3,456.37	32,633	40	10.6	1,732.96	26,148	2	53,150.71	1,252,164	2,943	4.2
484	365	14.00	3.8	15,913.73	431,583	40	3.7	6,776.41	134,571	2	222,762.24	5,483,345	3,464	4.1
534	472	13.25	2.8	24,387.59	1,028,897	46	2.4	6,376.81	154,383	2	248,562.14	7,850,681	3,790	3.2
526	509	13.10	2.6	31,175.68	1,944,961	52	1.6	7,284.06	173,894	2	269,330.33	10,298,900	3,934	2.6
534	573	13.75	2.4	32,720.48	2,343,641	55	1.4	7,816.70	205,163	2	298,568.73	12,498,805	4,118	2.4
											(Date of acquisition: Aug. 1st, 1945.)		152	
55	180	13.95	7.7	3,734.55	73,700	25	5.1	180.00	3,600	1	18,993.05	249,300	191	7.6
65	274	13.80	5.1	2,610.06	54,640	7	4.8	134.00	300	1	19,669.89	350,570	205	5.6
75	409	12.40	3.0	1,547.41	54,202	8	2.9	169.02	3,800	3	21,430.48	608,771	255	3.5
78	344	11.25	3.3	3,638.55	173,343	10	2.1	750.15	28,796	2	26,728.24	834,584	269	3.2
87	384	11.75	3.1	4,246.50	260,899	10	1.6	1,156.50	55,152	3	32,746.68	1,137,890	430	2.9
				(Date of acquisition: Burns Lake, Nov. 1st, 1947; Decker Lake, Feb. 15th, 1950.)									116[1]	
28	126	18.30	14.5	392.85	2,803	4	14.0	125.00	3,872	1	5,574.31	38,520	99	14.5
36	130	19.00	14.6	1,675.04	18,801	8	8.9	362.98	17,544	1	15,248.39	118,915	154	12.8
70	255	10.80	4.2	912.12	47,738	5	1.9	618.16	22,301	1	13,999.54	321,670	262	4.4
82	396	12.70	3.2	4,067.09	162,162	10	2.5	632.60	25,446	1	26,575.36	743,143	335	3.6
											(Date of acquisition: Jan. 1st, 1949.)		831	
120	311	19.90	6.4	944.98	26,896	3	3.5	77.65	1,553	1	12,378.98	194,967	837	6.3
151	324	14.00	4.3	5,745.58	163,895	9	3.5	671.54	27,019	2	66,982.52	1,422,332	956	4.7
188	421	12.45	3.0	8,088.86	368,471	12	2.2	847.50	43,800	2	75,676.22	2,268,611	1,124	3.3
	(Date of acquisition: Royston, Jan. 1st, 1947; Cumberland, June 5th, 1947; Courtenay-Comox, Apr. 1st, 1949.)												2,593[1]	
											1,255.30	21,247	93	5.9
75	295	12.50	4.3	2,021.40	78,362	2	2.6	1,422.52	40,175	2	41,699.73	720,655	916	5.8
75	298	12.80	4.3	2,547.31	95,115	3	2.7	2,598.61	77,731	2	54,455.11	965,614	940	5.6
352	395	15.15	3.8	10,727.61	373,740	43	2.9	7,040.13	211,374	4	185,720.98	4,193,584	2,770	4.4
368	436	15.30	3.5	11,406.34	396,791	38	2.9	7,096.72	214,765	4	208,083.58	5,449,798	2,921	3.8
											(Date of acquisition: June 30th, 1949.)		1,278	
284	370	23.50	6.4	25,294.65	455,775	38	5.6	2,576.25	36,968	2	118,916.02	1,908,400	1,355	6.3
297	415	13.35	3.2	14,660.21	710,574	44	2.1	2,094.00	40,663	2	116,270.87	3,295,618	1,494	3.5
											(Date of acquisition: Sept. 1st, 1945.)		158	
46	135	13.75	10.2	861.04	8,700	7	9.9	954.60	25,000	...	15,604.11	151,900	177	10.2
54	162	14.00	8.6	745.06	5,914	6	12.6	500.45	...	...	16,589.28	158,315	201	10.5
54	317	12.25	3.9	417.82	5,631	5	7.4	796.76	33,104	1	16,160.35	350,929	218	4.6
62	428	14.55	3.4	510.46	7,940	6	6.4	1,302.00	41,899	1	20,380.87	508,724	242	4.0
60	407	13.25	3.3	626.44	14,364	5	4.4	1,320.00	42,923	1	21,819.43	555,715	263	3.9
											(Date of acquisition: Nov. 1st, 1949.)		68	
41	204	9.60	4.7	643.48	26,128	1	2.5	...	...	...	3,810.30	91,412	151	4.2
49	199	9.50	4.8	2,366.00	100,738	1	2.4	119.90	2,000	2	14,408.87	364,065	196	3.9
											(Date of acquisition: Aug. 1st, 1945.)		190	
48	284	20.20	7.1	252.60	4,800	4	5.3	286.00	27,676	1	21,718.64	281,076	322	7.7
84	316	13.75	4.4	195.04	5,437	2	3.6	749.00	27,867	1	25,062.00	509,233	429	4.9
91	436	13.80	3.2	1,678.91	75,516	4	2.2	1,110.00	52,680	1	35,068.35	974,569	494	3.6
117	440	13.40	3.1	3,814.88	200,091	8	1.9	1,190.50	54,195	1	43,375.28	1,377,683	594	3.1
143	539	13.80	2.6	8,447.28	334,490	14	2.5	1,420.00	64,600	1	57,837.20	1,963,292	701	2.9
											(Date of commencement of operation: May 10th, 1950.)			
17	244	12.00	4.9	40.62	1,060	1	3.8	216.00	4,250	1	4,675.28	90,020	82	5.2
											(Date of acquisition: Kamloops, Jan. 1st, 1947; Chase, Sept. 30th, 1949.)		3,101[1]	
609	392	20.60	5.3	11,258.70	452,823	116	2.5	1,553.75	62,870	1	77,011.46	2,007,472	3,080	3.9
650	335	18.25	5.2	72,421.50	3,473,306	120	2.1	4,809.85	199,320	1	327,027.91	9,496,935	3,359	3.5
710	363	18.90	5.2	70,700.45	3,164,181	118	2.2	4,772.75	197,149	1	357,370.27	10,113,472	3,607	3.5
779	423	21.00	5.0	99,468.88	4,723,241	118	2.1	3,687.81	170,104	2	441,366.88	13,221,293	4,156	3.3
822	465	21.95	4.7	118,516.97	6,019,243	133	2.0	7,319.61	258,171	3	515,929.32	16,230,098	4,504	3.2
											(Date of acquisition: Sept. 30th, 1949.)		467	
72	287	23.35	7.6	16.00	9	1	.....	89.76	2,992	1	18,102.90	224,875	486	8.0
79	271	11.35	4.2	43.22	2	1	.....	248.31	8,277	1	29,286.18	563,141	537	5.2
											(Date of acquisition: Jan. 31st, 1950.)		104	
82	302	11.10	3.7	2,418.18	76,770	3	3.2	123.75	4,886	1	23,031.72	557,893	364	4.1
											(Date of acquisition: Aug. 1st, 1947.)		135	
45	316	11.20	3.5	781.38	13,545	14	5.8	...	...	...	8,297.44	168,813	141	4.9
40	358	12.45	3.5	1,696.03	33,621	14	5.0	...	...	...	14,193.00	309,958	135	4.6
45	471	15.55	3.3	2,166.62	83,936	15	2.6	351.40	15,960	1	18,493.34	447,086	211	4.2
46	457	15.25	3.3	2,281.59	104,895	12	2.2	594.00	23,790	1	20,865.40	497,026	221	4.2
											(Date of acquisition: Dec. 30th, 1950.)		473	
80	397	12.55	3.2	775.71	54,550	7	1.4	659.00	25,400	1	8,641.58	234,154	476	3.7

whole year rather than on the actual number shown, which is at the end of the fiscal year.

Power District	Fiscal Year Ended March 31	Residential Service						Commercial	
		Revenue	Consumption	Number of Customers	Av. Monthly Consumption	Av. Monthly Bill	Revenue per Kwh	Revenue	Consumption
		$	Kwh		Kwh	$	c.	$	Kwh
Nakusp	1947	7,952.72	75,000	217	30	3.20	10.6	3,804.34	48,400
	1948	9,347.76	99,211	230	37	3.45	9.4	5,317.30	79,093
	1949	11,278.30	203,261	272	66	3.65	5.5	5,399.76	129,445
	1950	13,435.91	288,992	285	86	4.00	4.7	6,761.13	168,762
	1951	14,956.98	347,610	296	99	4.25	4.3	7,276.23	195,984
Nanaimo-Duncan								(Date of acquisition:	Nanaimo-Dun
	1947	299,777.93	5,933,381	7,477	72	3.65	5.1	140,757.69	3,506,220
	1948	378,033.10	7,839,393	8,278	83	4.00	4.8	188,970.81	4,394,887
	1949	377,682.07	9,802,055	9,102	94	3.60	3.8	230,543.15	7,473,774
	1950	439,755.84	13,787,333	10,696	116	3.70	3.2	269,599.68	9,910,654
	1951	533,452.06	18,342,407	11,457	137	4.00	2.9	284,898.18	11,860,216
North Okanagan	1947	173,236.77	4,169,895	4,167	87	3.60	4.2	112,465.09	2,715,790
	1948	203,025.85	5,242,519	4,791	97	3.75	3.9	133,269.83	3,107,124
	1949	256,731.80	7,034,583	5,660	111	4.05	3.6	158,666.22	3,772,011
	1950	315,280.21	9,163,547	6,296	125	4.30	3.4	170,180.39	3,937,094
	1951	363,571.94	10,892,651	6,992	134	4.50	3.3	189,948.09	4,486,445
Peachland-Westbank	1947	5,984.54	68,059	244	36	3.15	8.8	3,212.77	41,002
	1948	11,098.89	180,318	312	53	3.25	6.2	5,943.78	116,398
	1949	15,424.04	331,954	360	80	3.75	4.6	7,444.17	172,653
	1950	18,778.35	445,273	398	96	4.05	4.2	9,135.29	255,698
	1951	19,902.87	494,949	403	103	4.15	4.0	8,710.20	219,192
Quesnel	1947	9,856.63	127,000	252	45	3.50	7.7	13,962.69	171,200
	1948	11,726.60	172,363	312	51	3.50	6.8	15,086.51	316,178
	1949	15,435.00	273,872	403	66	3.70	5.6	17,464.16	458,739
	1950	22,004.89	430,700	510	78	4.00	5.1	24,771.04	708,675
	1951	30,995.64	691,357	647	99	4.40	4.5	32,168.21	985,701
Sechelt	1947	15,609.09	139,159	423	30	3.40	11.2	5,747.09	70,300
	1948	20,850.30	255,328	628	40	3.25	8.2	7,488.11	139,777
	1949	30,391.53	446,248	763	52	3.55	6.8	10,946.95	315,380
	1950	39,875.07	591,434	892	55	3.70	6.7	12,007.80	409,694
	1951	45,541.72	719,286	1,005	61	3.90	6.4	13,489.84	468,241
Smithers	1947	10,920.33	102,000	245	36	3.85	10.7	9,737.67	75,000
	1948	10,577.48	158,769	308	49	3.30	6.7	10,867.63	247,854
	1949	15,814.70	333,809	369	83	3.90	4.7	14,248.84	445,398
	1950	20,670.41	567,052	396	123	4.45	3.7	17,006.03	528,626
	1951	26,268.37	827,678	447	160	5.10	3.2	18,996.01	625,436
Terrace	1947	2,850.84	17,100	62	26	4.30	16.7	3,692.31	33,100
	1948	4,736.81	52,155	186	38	3.50	9.1	5,984.98	93,072
	1949	9,853.09	136,816	261	50	3.55	7.2	6,649.24	133,184
	1950	14,296.73	256,957	328	73	4.05	5.6	8,667.07	228,086
	1951	20,466.73	431,932	381	99	4.70	4.7	12,694.89	361,448
Vanderhoof	1947	4,462.45	43,800	78	49	5.00	10.2	7,917.34	70,000
	1948	4,424.41	64,373	106	60	4.15	6.9	6,138.75	101,171
	1949	5,858.85	114,864	125	84	4.25	5.1	6,608.10	177,005
	1950	7,325.58	173,711	144	109	4.60	4.2	7,784.69	217,696
	1951	9,628.04	263,654	188	138	5.00	3.7	8,889.64	316,218
Williams Lake	1947	7,324.45	85,300	116	66	5.70	8.6	11,386.30	150,600
	1948	7,184.58	126,285	157	76	4.30	5.7	13,546.73	292,938
	1949	9,625.70	197,675	202	90	4.35	4.9	16,069.72	432,245
	1950	12,718.04	292,533	259	103	4.45	4.4	19,239.98	568,683
	1951	15,918.77	433,415	272	136	5.00	3.7	20,724.82	603,354
Totals	1947	621,611.11	12,484,250	18,705	74	3.70	5.0	392,510.63	8,403,265
	1948	957,493.33	21,051,771	22,434	84	3.80	4.5	653,211.43	14,482,126
	1949	1,096,821.61	27,732,914	25,991	96	3.80	4.0	778,320.73	21,099,129
	1950	1,448,626.62	40,120,724	32,688	110	4.00	3.6	1,018,198.44	28,674,720
	1951	1,761,708.67	52,700,354	36,548	126	4.20	3.3	1,128,836.90	35,348,153

[1] Denotes total number of customers at respective dates of acquisition. [2] *See* Statement 2, "Combined Operations—

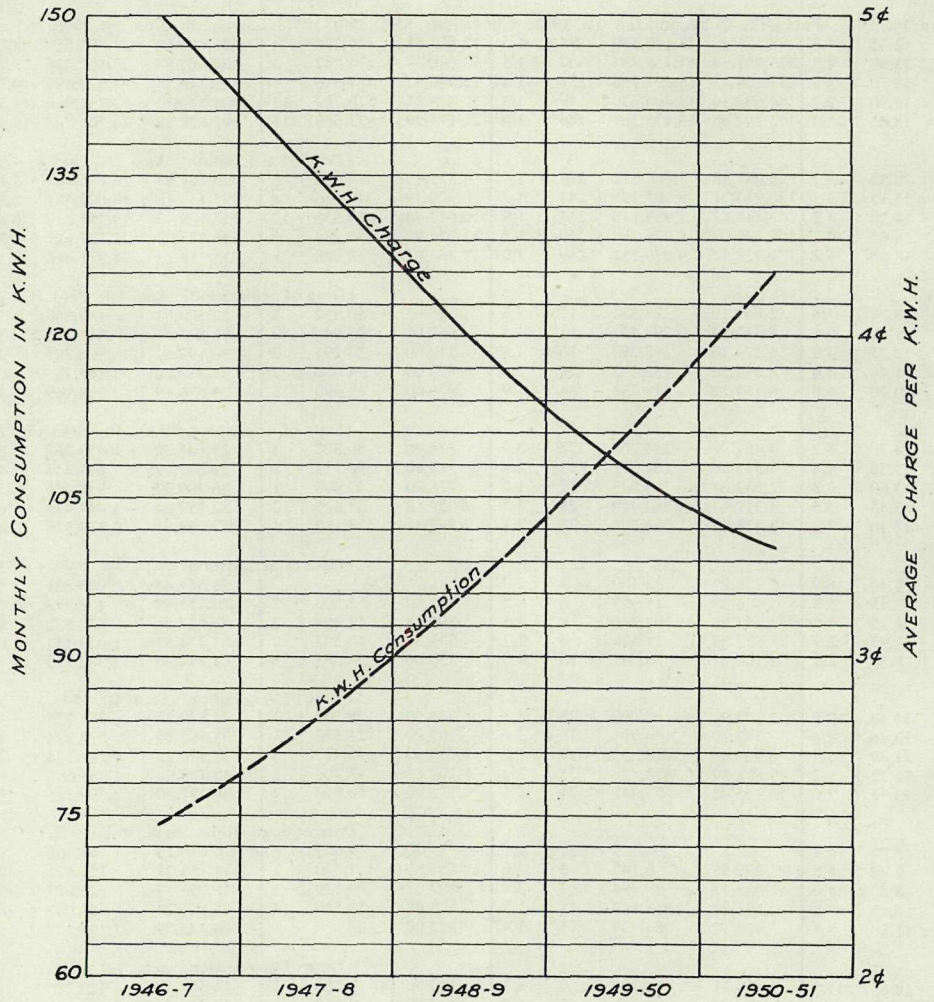
NOTE.—The average monthly consumption and the average monthly bill are based on the average number of customers for the

Service				Power Service				Street-lighting Service			Totals			
Number of Customers	Av. Monthly Consumption	Av. Monthly Bill	Revenue per Kwh	Revenue	Consumption	Number of Customers	Revenue per Kwh	Revenue	Consumption	Number of Customers	Revenue	Consumption	Number of Customers	Revenue per Kwh
	Kwh	$	c.	$	Kwh		c.	$	Kwh		$	Kwh		c.
											(Date of acquisition: Sept. 1st, 1945.)		250	
52	76	6.00	7.9	529.68	7,500	12	7.1				12,286.74	130,900	281	9.4
65	114	7.70	6.7	383.11	2,440	5	15.7				15,048.17	180,744	300	8.4
65	167	7.00	4.2	361.70	5,195	8	7.0	301.79	6,314	1	17,341.55	344,215	346	5.0
68	211	8.45	4.0	421.08	6,860	7	6.1	360.00	7,690	1	20,978.12	472,304	361	4.5
67	243	9.05	3.7	676.49	18,146	9	3.7	372.00	7,620	1	23,281.70	569,360	373	4.1
can, etc., Aug. 1st, 1945; Parksville-Qualicum, Jan. 1st, 1947; Chemainus, Mar. 15th, 1947; Ladysmith, Nov. 1st, 1949.)													8,608[1]	
1,048	310	12.45	4.0	198,306.40	13,187,560	294	1.5	12,563.58	446,398	4	651,405.60	23,073,559	8,823	2.8
1,203	320	13.80	4.3	223,901.54	14,448,894	307	1.5	13,680.38	474,242	5	804,585.83	27,157,416	9,793	3.0
1,503	444	13.70	3.1	213,174.35	15,227,253	131	1.4	13,940.97	467,616	4	835,340.54	32,970,698	10,740	2.5
1,684	511	13.90	2.7	180,688.34	14,405,610	149	1.3	16,476.86	610,789	13	906,520.72	37,831,986	12,542	2.4
1,811	567	13.65	2.4	153,102.85	13,175,567	144	1.2	21,175.79	823,658	14	992,628.88	44,201,848	13,426	2.2
											(Date of acquisition: Aug. 1st, 1945.)		4,477	
795	303	12.55	4.2	125,087.98	7,566,512	226	1.7	9,571.83	434,708	8	420,361.67	14,886,905	5,196	2.8
889	306	13.15	4.3	138,914.71	8,205,735	244	1.7	9,900.79	449,066	8	485,111.18	17,004,444	5,932	2.9
976	335	14.10	4.2	142,438.12	7,959,110	244	1.8	10,672.98	489,535	13	568,509.12	19,255.239	6,893	2.9
1,031	325	14.05	4.3	158,882.09	8,936,704	249	1.8	12,034.99	490,284	8	656,377.68	22,527,629	7,584	2.9
1,094	345	14.60	4.2	171,728.37	9,029,754	249	1.9	13,465.83	568,998	8	738,714.23	24,977,848	8,343	3.0
											(Date of acquisition: Aug. 7th, 1946.)		288	
45	114	8.90	7.8	2,841.19	79,335	12	3.6	325.01	10,952	2	12,363.51	199,348	303	6.2
55	192	9.80	5.1	4,372.84	297,533	15	1.5	660.00	23,946	2	22,075.51	618,195	384	3.6
64	245	10.55	4.3	6,594.36	368,399	16	1.8	730.00	27,291	2	30,192.57	900,297	442	3.4
71	320	11.40	3.6	8,529.56	433,152	20	2.0	870.00	34,070	2	37,313.20	1,168,193	491	3.2
70	257	10.20	4.0	10,153.72	548,738	24	1.9	870.00	36,090	2	39,636.79	1,298,969	499	3.1
											(Date of acquisition: Aug. 1st, 1945.)		289	
85	174	14.20	8.2	3,451.98	104,260	22	3.3	374.00	50,808	1	27,645.30	453,268	360	6.1
101	279	13.30	4.8	2,315.88	102,581	13	2.3	518.40	50,112	1	29,647.39	641,234	427	4.6
115	358	13.60	3.8	2,533.81	165,523	17	1.5	776.80	40,006	1	36,209.77	938,140	536	3.9
151	442	15.45	3.5	4,317.93	282,410	25	1.5	1,059.18	25,625	2	52,153.04	1,447,410	688	3.6
171	524	17.10	3.3	12,478.65	604,306	28	2.1	1,367.41	38,162	1	77,009.91	2,319,526	847	3.3
											(Date of acquisition: Sept. 1st, 1945.)		337	
74	91	7.40	8.2	2,228.27	83,400	4	2.7				23,584.45	292,859	501	8.1
94	139	7.45	5.3	776.33	11,993	6	6.5	38.50	1,500	2	29,153.24	408,598	730	7.1
120	235	8.15	3.5	3,382.78	97,746	8	3.5	306.28	11,498	2	45,027.54	870,872	893	5.2
126	272	7.95	2.9	887.78	11,526	7	7.7	504.22	16,503	2	53,274.87	1,029,157	1,027	5.2
141	294	8.50	2.9	3,500.17	88,002	13	4.0	750.00	26,683	3	63,281.73	1,302,212	1,162	4.9
											(Date of acquisition: Sept. 1st, 1945.)		293	
66	88	11.40	12.9	3,178.94	47,000	28	6.8	684.00	8,758	1	24,520.94	232,758	340	10.5
102	237	10.40	4.4	3,343.17	154,791	15	2.2	707.00	13,580	1	25,495.28	574,994	426	4.5
108	356	11.40	3.2	6,234.69	478,732	17	1.3	1,078.00	33,415	2	37,376.23	1,291,354	496	2.9
117	380	12.25	3.2	9,862.89	428,428	21	2.3	1,204.65	43,400	2	48,743.98	1,567,506	536	3.1
118	456	13.85	3.0	13,795.42	655,441	21	2.1	1,332.00	50,800	2	60,391.80	2,159,355	588	2.8
											(Date of acquisition: Sept. 20th, 1945.)		59	
35	80	8.95	11.1					93.00	9,000	1	6,636.15	59,200	98	11.2
56	149	9.60	6.5	279.98	6,145	3	4.6	152.50	7,450	1	11,154.27	158,822	246	7.0
66	170	8.50	5.0	1,033.73	30,494	7	3.4	497.27	20,530	1	18,033.33	321,024	335	5.6
73	267	10.15	3.8	2,391.44	154,869	11	1.5	522.00	18,140	1	25,877.24	658,052	413	3.9
97	336	11.80	3.5	5,460.17	384,739	15	1.4	522.00	20,030	1	39,143.79	1,198,149	494	3.3
											(Date of acquisition: Sept. 1st, 1945.)		106	
45	129	14.65	11.3	1,008.31	12,200	4	8.3	180.00	3,285	1	13,568.10	129,285	128	10.5
52	168	10.20	6.0	621.87	9,106	5	6.8	180.00	2,250	1	11,365.03	176,900	164	6.4
57	278	10.35	3.7	560.09	9,884	6	5.7	446.50	16,140	1	13,473.54	317,893	189	4.2
62	310	11.10	3.6	637.83	11,221	6	5.7	577.60	22,160	1	16,325.70	424,788	213	3.9
72	414	11.65	2.8	2,188.18	66,772	9	3.3	648.00	25,100	1	21,353.86	671,744	270	3.2
											(Date of acquisition: Sept. 1st, 1945.)		161	
64	207	15.20	7.6	3,059.51	53,000	22	5.8	452.00	3,689	1	22,222.26	292,589	203	7.6
86	311	14.40	4.6	1,269.63	38,452	10	3.3	461.40	8,400	1	22,462.34	466,075	254	4.8
102	385	14.30	3.7	1,813.19	64,472	14	2.8	792.00	29,297	1	28,300.61	723,689	319	3.9
110	439	14.85	3.4	2,867.45	99,413	15	2.9	792.00	26,321	1	35,617.47	986,950	385	3.6
116	438	15.05	3.4	3,452.08	161,854	17	2.1	841.00	29,840	1	40,936.67	1,228,463	406	3.3
											(At respective dates of acquisition.)		27,411	
3,494	278	13.00	4.7	359,255.52	21,713,423	816	1.7	28,950.73	1,112,892	24	1,402,327.99	43,713,830	23,039	3.2
4,188	308	13.90	4.5	471,260.08	27,343,260	818	1.7	40,816.20	1,436,651	30	2,122,781.04	64,313,808	27,470	3.3
4,911	382	14.10	3.7	483,722.36	28,909,668	677	1.7	45,807.17	1,679,586	40	2,404,671.87	79,421,297	31,619	3.0
6,070	420	14.90	3.6	553,600.90	32,970,990	816	1.7	59,963.26	2,080,484	52	3,080,389.22	103,846,918	39,626	3.0
6,691	460	14.70	3.2	587,241.59	35,681,969	875	1.6	73,008.62	2,646,267	60	3,550,795.78[2]	126,376,743	44,174	2.8

Financial Summary."
whole year rather than on the actual number shown, which is at the end of the fiscal year.

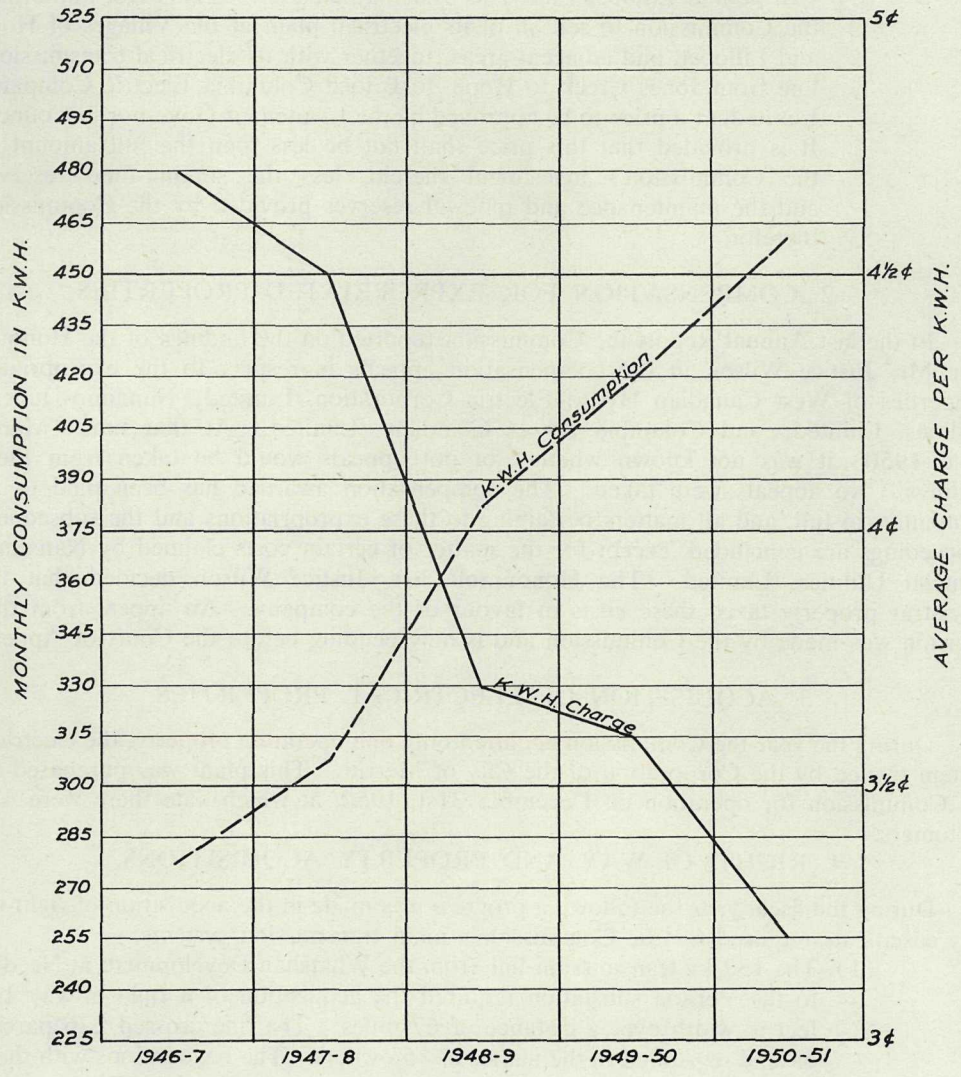
BRITISH COLUMBIA POWER COMMISSION

GRAPH SHOWING INCREASE IN RESIDENTIAL CONSUMPTION AND REDUCTION IN KWH CHARGE TO CUSTOMERS 1946 - 1951.



BRITISH COLUMBIA POWER COMMISSION

GRAPH SHOWING INCREASE IN COMMERCIAL CONSUMPTION AND REDUCTION IN KWH. CHARGE TO CUSTOMERS 1946-1951.



II. LEGAL

1. LEGISLATION

Two Acts concerning the Commission were passed at the 1951 Session of the Legislature and are described here, although actually introduced after March 31st:—

(*a*) *"Electric Power Act."*—This Act was amended to raise the borrowing limitation from $45,000,000 to $60,000,000. Other amendments concerning financial provisions of a minor nature were also passed.

(*b*) *"Hope and Lillooet Electrical Systems Sale Act."*—This Act authorized the Commission to sell all of its electrical plant at the Villages of Hope and Lillooet, and adjacent areas, together with its electrical transmission-line from Jones Creek to Hope, to British Columbia Electric Company, Limited, at a price to be approved by the Lieutenant-Governor in Council. It is provided that this price shall not be less than the full amount of the Commission's investment therein, less the sinking-fund reserves and the maintenance and renewal reserves provided by the Commission therefor.

2. COMPENSATION FOR EXPROPRIATED PROPERTIES

In the last Annual Report the Commission reported on the findings of the Honourable Mr. Justice Wilson in the compensation appeals in respect to the expropriated properties of West Canadian Hydro Electric Corporation, Limited; Nanaimo-Duncan Utilities, Limited; and Columbia Power Company, Limited. At that time (March 31st, 1950) it was not known whether or not appeals would be taken from these findings. No appeals were taken. The compensation awarded has been paid to all companies in full, and all matters pertaining to these expropriations and the subsequent proceedings are concluded, except for the matter of certain costs claimed by Nanaimo-Duncan Utilities, Limited. The Honourable Mr. Justice Wilson decided that the Registrar properly taxed these costs in favour of the company. An appeal from that decision was made by the Commission and is now pending before the Court of Appeal.

3. ACQUISITION OF ELECTRICAL PROPERTIES

During the year the Commission acquired only one operating property, the electrical system owned by the Corporation of the City of Merritt. This plant was purchased by the Commission for operation on December 31st, 1950, at which date there were 473 customers.

4. RIGHTS-OF-WAY AND PROPERTY ACQUISITIONS

During the fiscal year the following progress was made in the acquisition of right-of-way easements required for the Commission's main transmission systems:—

(1) The 132-kv transmission-line from the Whatshan Development at Needles to the Vernon substation required the acquisition of a right-of-way 130 feet in width over a distance of 67 miles. The line crossed 226 parcels of land registered in the names of 85 owners. The negotiations with these owners for the necessary right-of-way were commenced on February 1st, 1950, and settlements with 79 owners have now been completed. The remaining 6 claims are in various stages of completion.

(2) In the course of the year, 3 of the 8 outstanding right-of-way claims on the 63-kv transmission-line from Vernon to Kamloops were completed. The 5 remaining claims on this line, out of a total 224 parcels of land registered in the names of 114 owners, are at this date in various stages of negotiation.

(3) In the course of the year, 8 of the 12 outstanding right-of-way claims on the 132-kv transmission-line from the John Hart plant to Nanaimo and Port Alberni were completed. There remains 4 claims on this line, out of a total of 414 parcels of land registered in the names of 115 owners, yet to be finalized, and negotiations on these are in various stages of completion.

(4) Survey plans for the Duncan to Lake Cowichan 60-kv transmission-line were submitted for approval by the Land Registry Office on July 31st, 1950, and negotiations for the necessary easements by way of right-of-way commenced. This line required a right-of-way 80 feet in width over some 13 parcels of land registered in the names of 5 owners.

(5) Survey plans for the Vernon–Armstrong 60-kv transmission-line were registered on November 2nd, 1950, and the acquisition of the necessary easements by way of right-of-way over private properties commenced. This line required the acquisition of a right-of-way 60 feet in width over a distance of 5.84 miles, affecting 28 parcels of land registered in the names of 27 owners. By the end of the fiscal year easements over 23 of of the parcels had been completed with 23 owners, and negotiations with the remaining 4 are nearing completion.

(6) Survey plans required in connection with the acquisition of easements, by way of right-of-way, over private property for the 138-kv transmission-line from the John Hart generating plant to the Elk Falls Company's Sulphate Mill at Duncan Bay have been completed and submitted for approval by the Land Registry Office. The preliminary work of contacting the private property owners, prior to acquiring the necessary easements, has been concluded and the clearing is now under way.

(7) Survey plans for the 60-kv transmission-line from the Commission's substation at Nanaimo to the MacMillan pulp-mill at Cedar, Vancouver Island, were submitted to the Land Registry Office, and negotiations for the required easements by way of right-of-way were commenced.

(8) A preliminary survey plan covering the first 9 miles of the Clowhom Falls–Sechelt 63-kv transmission-line right-of-way has been furnished, and the work of contacting the private property owners, prior to entry, has been completed, as has the cruising of the merchantable timber on the right-of-way.

In rural areas throughout the Province, distribution-line extensions necessitated the acquisition of some 26 easements by way of right-of-way over private lands.

The purchase and settlement of claims involving some 200 acres of privately owned lands, required in connection with the Whatshan Development, were completed during the course of the year. One of these claims involved the relocation of a tourist and fishing camp located on the shores of Whatshan Lake.

The following applications were launched under the "Navigable Waters Protection Act," in connection with overhead and under-water cable crossings of navigable rivers and lakes:—

(1) Overhead cable crossing of a portion of Salmon Arm, Seechelt Inlet, required for the Clowhom Falls–Sechelt 60-kv transmission-line right-of-way.

(2) Overhead cable crossing of the North Thompson River at Kamloops, required for the 12,000-v distribution-line extension to improve the availability and supply of power for the Kamloops and North Kamloops areas.

(3) Under-water cable crossing of Okanagan Lake, between Kelowna and Westbank, required for the 6,900/12,000-v extension to serve Westbank, Peachland, and adjacent areas.

(4) Under-water cable crossing of Cormorant Channel, from Alert Bay to Malcolm Island, to serve the residents of Sointula.

Other overhead cable crossings of a more minor nature were applied for on the following rivers:—

(1) Courtenay River at Courtenay.
(2) South Thompson River at a point 4 miles east of Pritchard.
(3) South Thompson River from a point in District Lot 265, Range 15, Township 19, across from Campbell Creek.

Substation sites were acquired at the following places:—

(1) Lake Cowichan, from Unity Hall Holding Society.
(2) Courtenay, from British American Oil Company, Limited.
(3) Ladysmith, from the City of Ladysmith.
(4) Needles, substation and power-house site, from the Crown, Provincial.
(5) Puntledge, from Canadian Collieries (Dunsmuir) Limited.

5. PROPERTY SALES

The following lands and buildings, which were surplus to requirements, were disposed of:—

(1) Jinglepot hydro-plant buildings and lands.
(2) Nanaimo hydro and steam plant buildings and lands.
(3) Lots 6 and 7, Block 2, of Suburban Lot 24, Plan 466, Nanaimo District.
(4) Lot 10 and easterly 40 feet of Lot 5, Block 42, Section 1, Nanaimo District.
(5) Vanderhoof diesel power-house building.
(6) Lots 16 to 19 inclusive, Block 2, Map 1135, Village of Vanderhoof.
(7) Two cabins and outbuildings, Whatshan Lake.

6. CONTRACTS

Contracts have been drawn and settled covering all major construction projects undertaken during the year, together with numerous contracts for the supply of plant and equipment required in connection therewith.

Apart from ordinary service contracts, agreements were completed for the supply of industrial power in power districts and for the supply of street-lighting service in certain incorporated villages and unorganized communities.

On January 16th, 1951, the Commission entered into an agreement with Northland Utilities (B.C.) Limited for the supply of natural gas at Dawson Creek. The source of supply is in the Province of Alberta, the gas being piped across the inter-Provincial boundary. The Commission, as a consequence of this agreement, is now using natural gas as fuel in the generating plant at Dawson Creek.

7. WATER LICENCES

Water licences held by the Commission for storage and diversion purposes on the following rivers and creeks were cancelled at the Commission's request, as of March 9th, 1951:—

(1) Final Licence No. 5091, Coal Creek.
(2) Final Licence No. 7941, McCarrigle Creek.
(3) Final Licence No. 3328, Millstone River.
(4) Final Licence No. 11754, Millstone River.
(5) Final Licence No. 7942, storage licence issued in connection with Final Licence No. 7941.
(6) Final Licence No. 5090, storage licence issued in connection with Final Licence No. 3328.
(7) Final Licence No. 10134, Seton Lake Creek.

8. INSURANCE

Comprehensive insurance coverages on all phases of the Commission's operations were maintained in force. There were certain rearrangements and deletions of some types of coverage effected in order to meet the needs of the Commission.

No major claims under any of the coverages were experienced during the course of the year's operations, with the exception of one property-damage claim in the sum of $500, which has been adjusted to the satisfaction of the claimant. There were numerous other small claims under the fleet and property-damage coverages, which were reported and satisfactorily settled.

The result of the safety programme, which was instituted last year in connection with the Commission's motor-vehicle fleet, has been very gratifying, as the accident rate this year has shown an appreciable decline over former years.

III. CONSTRUCTION

1. PRODUCTION PLANT

Burns Lake

A diesel-electric generating unit of 250-kw capacity, obtained by transfer from Quesnel, was installed in the new power-house built last year. This machine, together with the two previously installed, provides a total capacity of 450 kw. In addition two portable units, each of 50-kw capacity, were made available during the winter months.

Clowhom Falls

Construction of a hydro-electric power development at Clowhom Falls, consisting initially of two 1,500-kw generating units, was begun during the late summer of 1950. The general contract covering construction of a dam, pipe-line piers, power-house, and operators' dwellings was awarded to Dawson, Wade & Company, Limited, on September 21st, 1950, and work was commenced promptly thereafter. By the end of the fiscal year the dam and pipe-line piers had been completed, work on the operators' dwellings was well advanced, and excavation was proceeding for the power-house.

Delivery of generators, turbines, transformers, and other equipment is scheduled for the late summer and autumn of 1951, and it is expected that the plant will be ready for operation by November, 1951.

Dawson Creek

A new diesel-electric generating unit of 600-kw capacity was installed to replace a 240-kw unit of advanced age. The new machine is a dual-fuel unit (it can burn either oil or gas) and is similar to the machine installed the previous year. Generating capacity now available at Dawson Creek is 1,880 kw.

Houston

A temporary building was constructed and three 30-kw portable diesel-electric generating units were installed on release from Burns Lake. Capacity available at Houston is, therefore, 90 kw, which was brought into production on May 10th, 1950.

Lillooet

Construction of a new building to house diesel-electric generating equipment was completed, but no machinery was installed.

Merritt

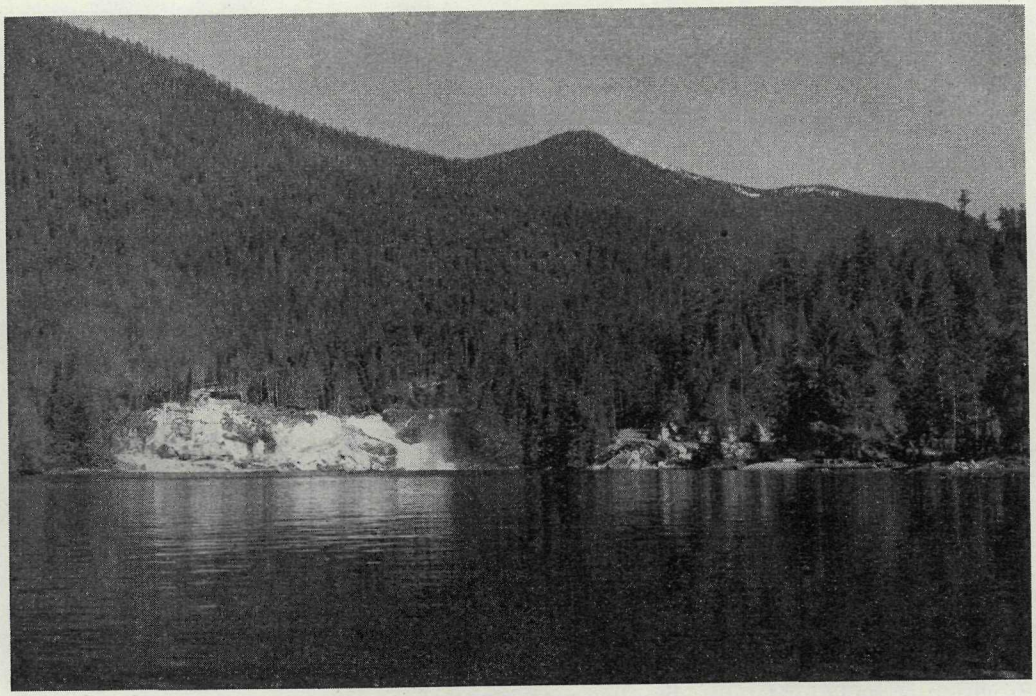
The Merritt generating plant was acquired from the City of Merritt, and was taken under Commission operation on December 31st, 1950, by which time the first of three projected 250-kw diesel-electric generating units was in operation. The plant capacity at the end of the fiscal year was 250 kw, with installation of the second and third units in progress.

Quesnel

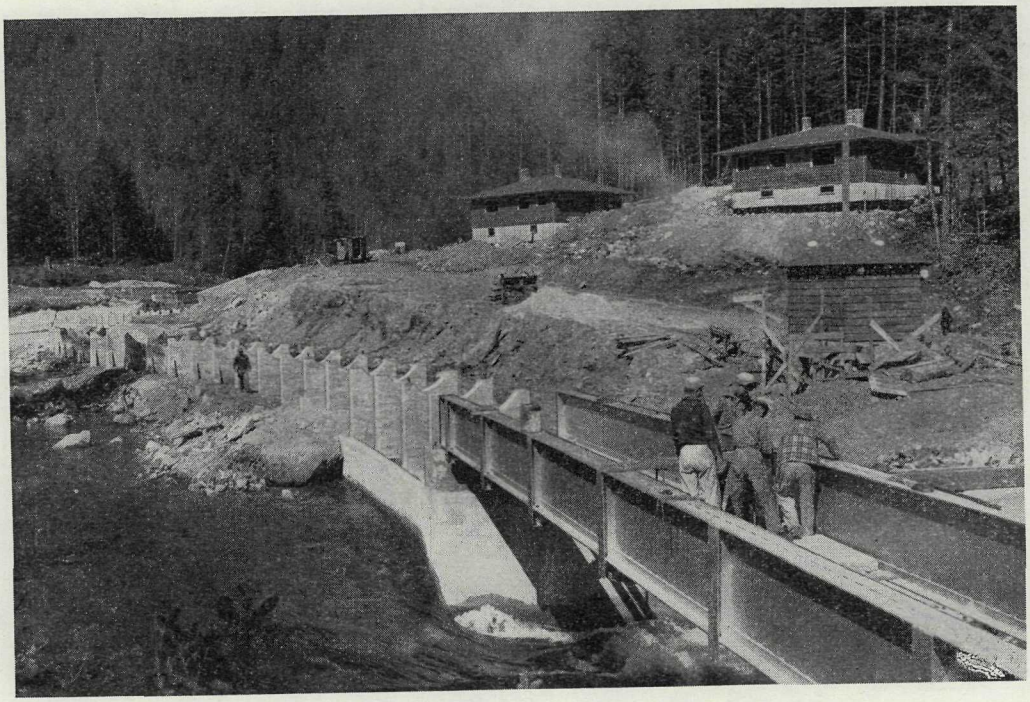
Two new diesel-electric generating units, each having a capacity of 600 kw, were installed during the year. These machines released two 250-kw units, giving a net increase of 700 kw. The generating capacity of the Quesnel plant is now 1,450 kw.

Sechelt

The generating capacity of the Sechelt plant was increased from 560 kw to 810 kw by the installation of a diesel-electric set of 250-kw capacity.



Power-house site and falls at head of Salmon Arm, Clowhom Development.



Operators' dwellings and penstock forms, Clowhom Development.

Smithers

A new diesel-electric generating unit of 560-kw capacity was installed to replace a 250-kw machine, increasing the plant's capacity from 750 kw to 1,060 kw. At the end of the fiscal year, installation of a second 560-kw unit was in progress.

Terrace

A portable unit of 50 kw was in operation during the peak-load winter months in addition to the 350 kw of installed capacity of this plant.

Tofino

Rehabilitation of the Tofino generating plant, acquired from War Assets Corporation, was carried out during the year. Generating capacity of 300 kw is now available in three diesel-electric units of 100 kw each.

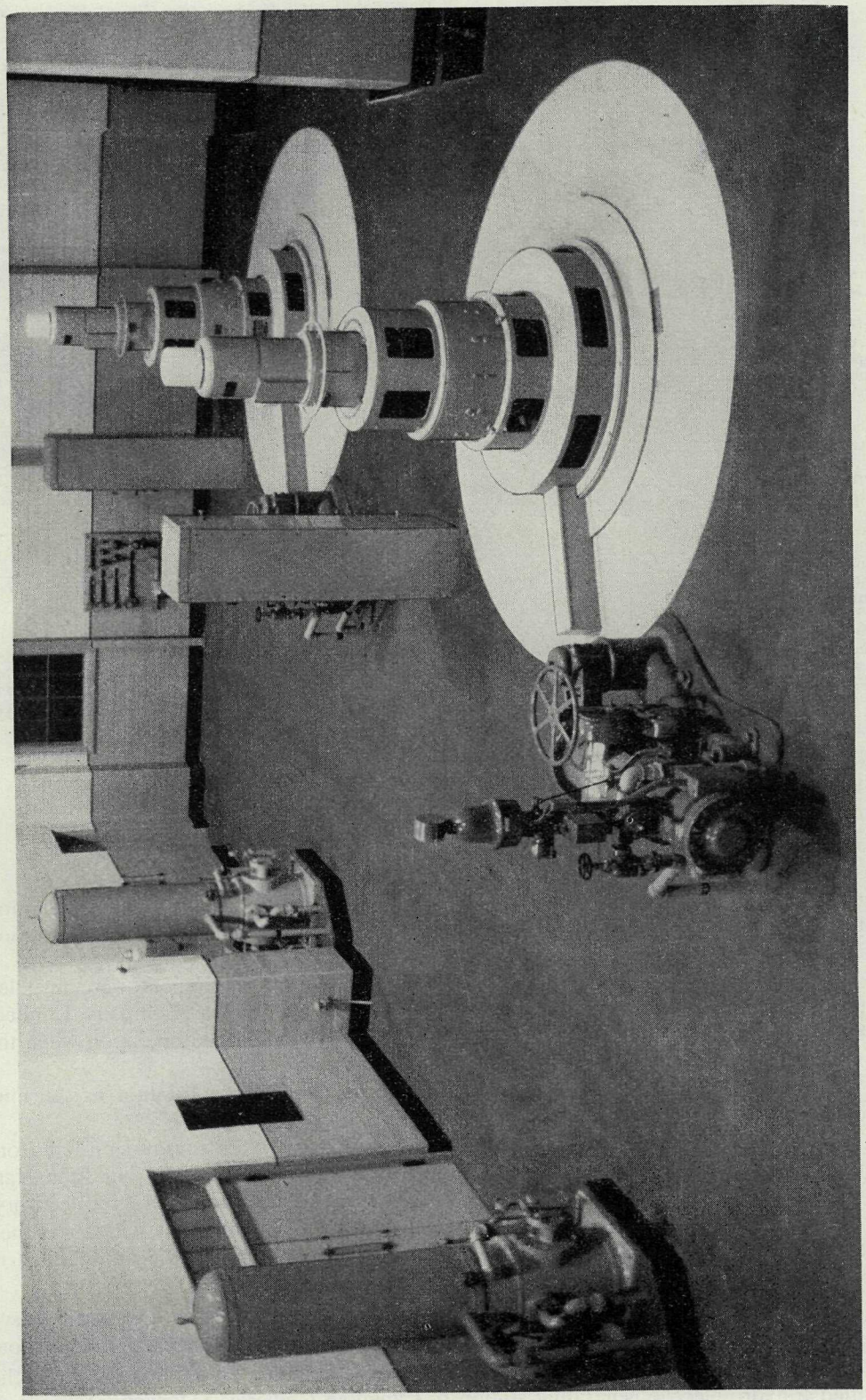
Whatshan

Even though concrete lining was required in a greater proportion of the 12,500-foot tunnel than appeared likely at an earlier stage, all work on the tunnel, including final closure and provision of the concrete plug at the Arrow Lake end, was complete by the end of the fiscal year, leaving only some under-water excavation on Whatshan Lake near the tunnel entrance. Mechanical and electrical equipment was installed, ready for testing and placing in operation.

The initial installation in this plant consists of two 11,250-kw generating units. Provision is made for later adding two more units of the same size.

Williams Lake

Capacity of the plant was increased from 575 kw to 775 kw by the installation of a new diesel-electric unit of 250-kw capacity, replacing a 50-kw set which had outlived its usefulness.



Interior of power-house, Whatshan Development.

Generating Capacity in Operation at Beginning and End of the Fiscal Year, Together with Additions and Removals Made during the Year

Plant Location	Type[1]	Capacity at March 31, 1950		Installations During Year		Removals During Year		Capacity at March 31, 1951	
		Number of Units	Total Capacity in Kw	Number of Units	Total Capacity in Kw	Number of Units	Total Capacity in Kw	Number of Units	Total Capacity in Kw
Alert Bay	D	3	550	----	----------	----	----------	3	550
Athalmer	D	2	450	----	----------	----	----------	2	450
Barriere	H	2	1,500	----	----------	----	----------	2	1,500
Burns Lake	D	2	200	1	250	----	----------	3	450
Dawson Creek	D	5	1,520	1	600	1	240	5	1,880
Golden	D	3	450	----	----------	----	----------	3	450
Hazelton	D	2	200	----	----------	----	----------	2	200
Hope	D	1	200	----	----------	----	----------	1	200
Houston	D	----	----------	3	90	----	----------	3	90
John Hart	H	4	80,000	----	----------	----	----------	4	80,000
Kamloops	S	4	2,700	----	----------	----	----------	4	2,700
Lake Cowichan	D	1	75	----	----------	----	----------	1	75
Lillooet	D	3	250	----	----------	----	----------	3	250
Merritt	D	----	----------	1	250	----	----------	1	250
Nakusp	HD	2	270	----	----------	----	----------	2	270
Quesnel	D	3	750	2	1,200	2	500	3	1,450
Sechelt	HD	4	560	1	250	----	----------	5	810
Shuswap Falls	H	2	5,200	----	----------	----	----------	2	5,200
Smithers	D	3	750	1	560	1	250	3	1,060
Terrace	D	3	350	----	----------	----	----------	3	350
Tofino	D	----	----------	3	300	----	----------	3	300
Vanderhoof	D	3	350	----	----------	----	----------	3	350
Westbank	D	6	740	----	----------	----	----------	6	740
Williams Lake	D	4	575	1	250	1	50	4	775
Totals		62	97,640	14	3,750	5	1,040	71	100,350

[1] NOTE.—D=diesel-electric; H=hydro-electric; S=steam-electric.
Capacities are based on name-plate ratings converted to kw at 80 per cent power factor.

2. TRANSMISSION PLANT

VANCOUVER ISLAND SYSTEM

Capacity of the Nanaimo substation was increased during the year by the installation of three 5,800-kva 138/69-kv transformers, bringing the total capacity of this substation to 34,800 kva.

Circuit-breakers, disconnects, and metering and control equipment were installed to provide interconnection with the British Columbia Electric Railway Company, Limited, 138-kv line from Nanaimo to Victoria. This equipment commenced operation when the Nanaimo–Victoria line was energized on October 1st, 1950.

A 69-kv oil circuit-breaker was installed at the Nanaimo substation in the Pine Street line.

At the close of the year, construction was well advanced on a transmission-line from Duncan to Lake Cowichan, which, when completed, will make energy from John Hart Development available to the Lake Cowichan Power District and intervening territory. At the end of the year this line had been energized as far as Summit, which area was then receiving service; it was designed and built for 60-kv operation but will be operated in the immediate future at 23 kv.

Construction has commenced on a 60-kv substation at Ladysmith, designed to serve the Ladysmith area and to relieve load conditions at Nanaimo's Pine Street substation.

Three 5,000-kva 138/13.8-kv transformers were installed on a site adjacent to the Puntledge hydro-electric generating station of Canadian Collieries (Dunsmuir) Limited.

A short length of double-circuit 138-kv line was built to connect this transformer bank to the 138-kv lines from John Hart Development and the new substation was energized on October 20th, 1950. Sixty-cycle power thus became available to the Comox Valley area.

To meet the requirements of a contract covering supply of energy to Elk Falls Timber Company, Limited, at Duncan Bay, a double-circuit transmission-line of wood-pole construction from John Hart Development to Duncan Bay, together with terminal equipment at each end, was designed, and material, including two 20,000-kva three-phase transformers (132/13.8 kv), with on-load tap changers, was ordered for late 1951 delivery.

Vernon–Kamloops

A 1,500-kva substation at Westwold was completed and placed in service. This station takes power from the 63-kv Vernon–Kamloops line and supplies the new 6.9/12.0-kv distribution system serving Falkland, Westwold, and Monte Lake.

Construction of a 63-kv substation at Lumby allowed supply to that area to be transferred from the 23-kv circuit, with resultant improvement in voltage conditions both at Lumby and elsewhere on the 23-kv system.

Six and nine-tenths miles of 63-kv transmission-line were constructed from a point on the Vernon–Kamloops line near O'Keefe's Ranch, north of Vernon, to Armstrong, and a 1,500-kva substation at Armstrong approached completion.

Whatshan–Vernon

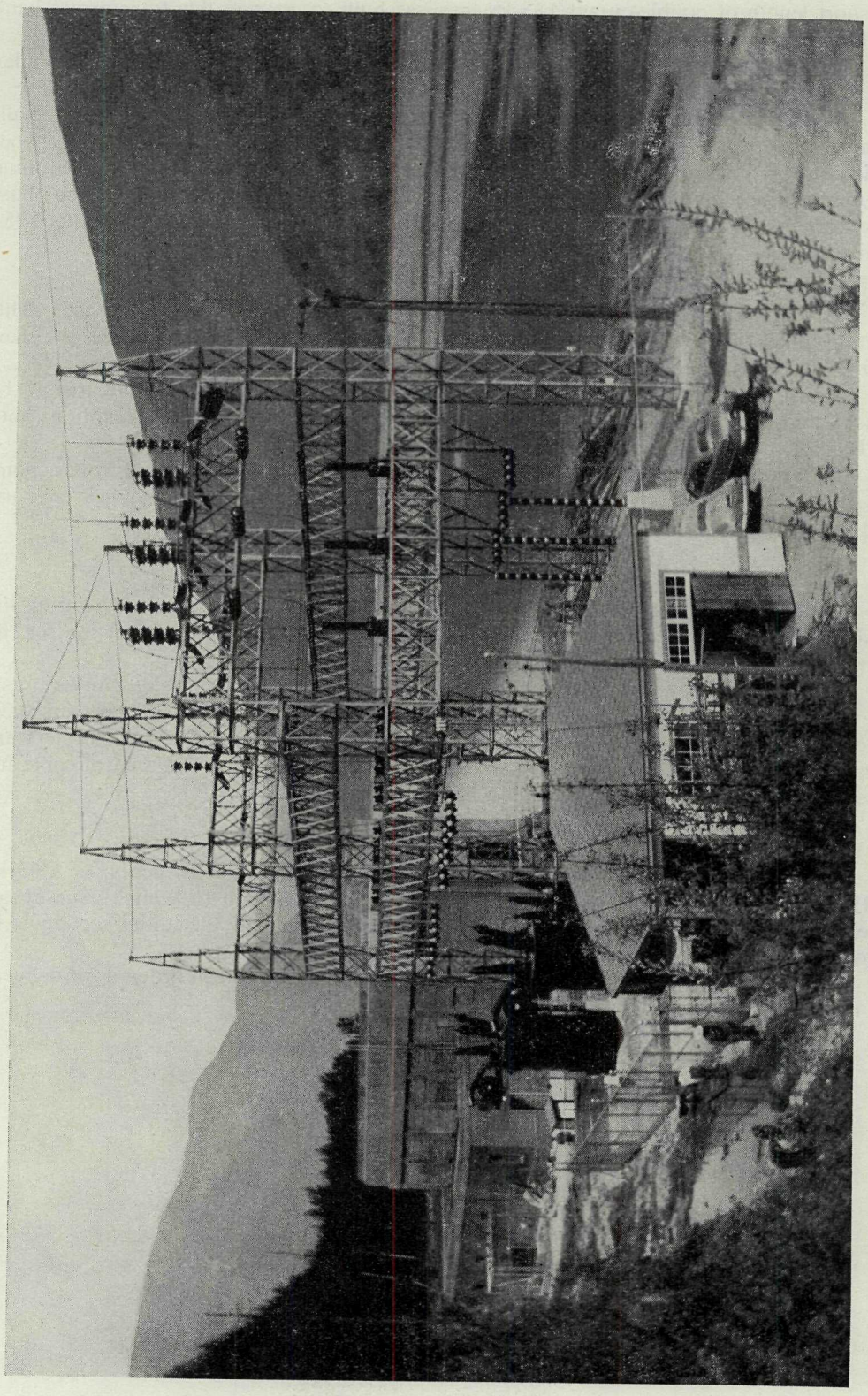
The 138-kv transmission-line from Whatshan to Vernon was completed during the year and, while not in service, was energized to provide power-factor correction for the North Okanagan system.

Minor work only remained to be carried out on the Whatshan and Vernon terminals of the line. At the Whatshan terminal two 12,500-kva three-phase transformers have been installed and at the Vernon terminal three 8,333-kva 138/63-kv transformers are ready for service, with a fourth available as a spare. Wave-traps and control cable for use with carrier-current communication have been installed.

Clowhom–Sechelt

Plans are complete and material has been ordered for the construction of a 63-kv " H-frame " transmission-line from Clowhom Falls Development to Sechelt; surveys of the required right-of-way approach completion and clearing of the initial section is in progress.

Transformers for the Clowhom and Sechelt terminals have been ordered for delivery in mid-1951.



Switching-station and power-house, Whatshan Development.

SUMMARY

The following table shows in detail the circuit-miles and voltage of the Commission's transmission-lines:—

Location	Voltage, Kv	Length in Circuit-miles		
		March, 1950	Additions	March, 1951
Vancouver Island system—				
John Hart plant to Nanaimo and Alberni	132	207.0	.....	207.0
Nanaimo to Duncan	60	32.6	.....	32.6
Nanaimo to Harmac sulphate mill	60	.....	10.0	10.0
System totals	.....	239.6	10.0	249.6
Whatshan-Vernon-Kamloops system—				
Whatshan plant to Vernon	132	.....	75.0	75.0
Shuswap plant to Winfield	63	42.7	.....	42.7
Shuswap plant to Canoe	33	61.0	.....	61.0
Barriere plant to Kamloops	45	45.0	.....	45.0
Vernon to Kamloops	63	69.5	.....	69.5
Kamloops-Vernon line to Armstrong	63	.....	6.9	6.9
System totals	.....	218.2	81.9	300.1
Grand totals	.....	457.8	91.9	549.7

All transmission-lines are single circuit on wood poles except the 207 circuit-miles from the John Hart plant to Nanaimo and Alberni, which is a double-circuit line on steel towers.

3. DISTRIBUTION PLANT

The distribution system was increased during the year by 431.2 circuit-miles, as compared with 414.1 miles in the fiscal year 1949–50.

An entirely new system was completed to serve the community of Sointula, and at the end of the year, work was in progress to provide service to the communities of Ucluelet and Tofino. Major extensions were made in the North Okanagan. The Merritt distribution system, acquired from the City of Merritt, was rebuilt. Conversion from 25 to 60 cycle proceeded in Comox Valley.

In all, new services added totalled 4,019, and 488 new street-light units were installed.

The more significant items of distribution-plant construction are described under the various power districts.

ALBERNI

A total of 13.2 miles of distribution circuits were built. Conversion of the 2.3-kv system, serving the City of Alberni, to 6.9/12.0 kv continued, and the Lake Shore Road extension was completed. One hundred and sixty-four new services and 39 new street lights were added to the system.

ALERT BAY

A submarine cable, built for 6.9/12.0-kv operation, was laid between Cormorant and Malcolm Islands to supply the newly constructed distribution system at Sointula. The system, comprising 12.6 miles of line, was energized on November 18th, 1950. In Alert Bay itself minor improvements were made. In all, 159 new services were built and 27 new street lights were installed.

BURNS LAKE

Minor additions only, totalling 0.2 mile of circuits, were built, with 90 new services connected and 14 new street lights installed.

Campbell River

Conversion from 25-cycle to 60-cycle operation was completed, and energy from Puntledge River was entirely supplanted by supply from the John Hart Development. An extension was constructed along Peterson Road and another north to Duncan Bay. In all 34.9 miles of line were built, with the addition of 155 new services and 20 new street lights.

Comox Valley

Conversion to 60-cycle supply, commenced in August, 1950, was well advanced at the end of the fiscal year, with 1,690 customers receiving 60-cycle energy and 1,300 remaining on 25-cycle supply. Twenty-eight and seven-tenths miles of new circuits were built, including a line along the Island Highway from Merville to Endall Road, an area previously without service. One hundred and twenty new services and 5 new street lights were installed.

Dawson Creek

Forty-one miles of new circuits were constructed and conversion of certain portions of the distribution system from 2.3- to 6.9/12.0-kv operation was commenced. One hundred and eighteen new services were installed.

Golden

Minor additions only were made; 0.4 mile of circuits were built and 30 new services were added.

Hazelton

Only minor additions and improvements were carried out.

Hope

Five and one-tenth miles of new circuits were built and 115 new services were run.

Houston

Minor improvements only were carried out on this new system.

Kamloops

New line-construction totalled 15.4 circuit-miles; 379 new services were installed. A 300-kva substation was constructed to serve Mission Flats area. Line-construction included the south leg of the 12-kv loop, part of a long-range plan for improved service to the area. One hundred and ten street lights in a new multiple system were installed.

Lake Cowichan

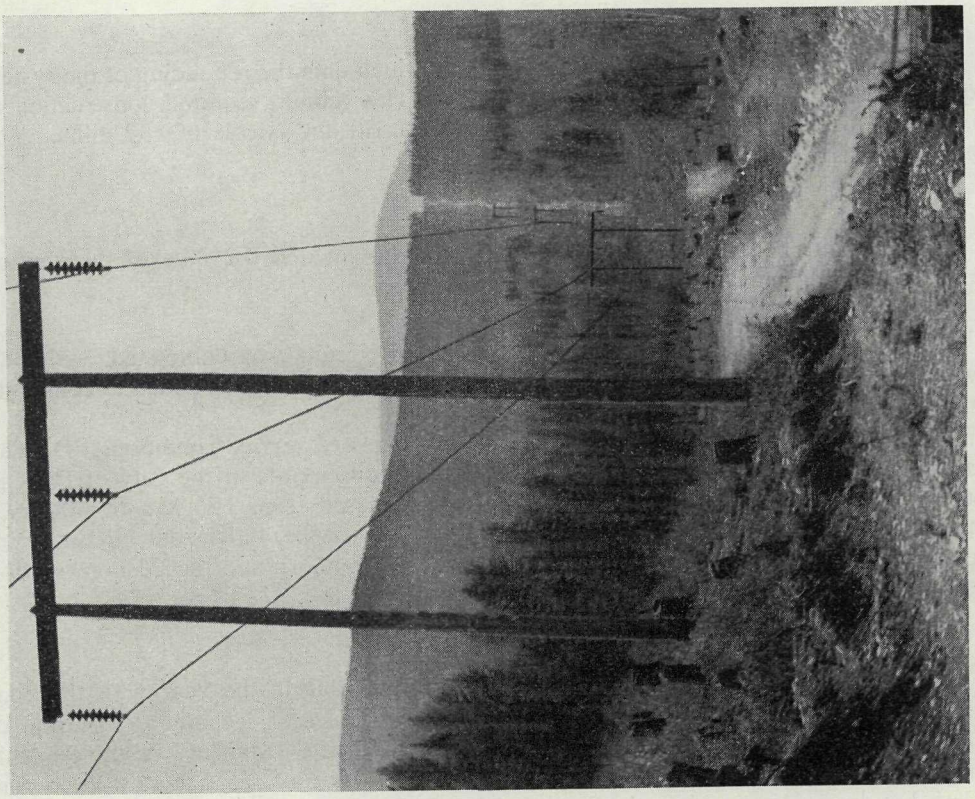
Three and one-fifth miles of new circuits were constructed and 51 new services run. A new street-light system of 19 units is now operating. At the end of the fiscal year, construction was well advanced on the projected 23-kv line and substation which, when completed early in the next fiscal year, will make energy from the John Hart Development available in this district.

Lake Windermere

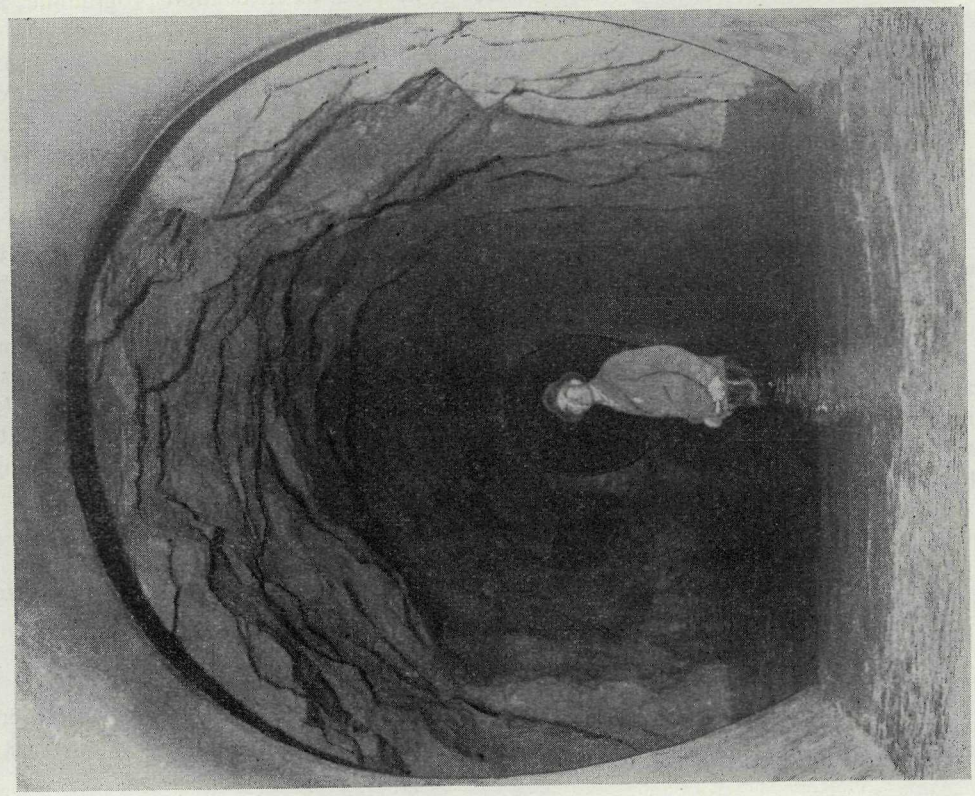
Minor line-construction only was carried out in this district, 0.3 mile of new line being built. By virtue of line-construction of the previous year, 78 new services were added. A new street-lighting system of 10 units was installed.

Lillooet

One and one-half miles of distribution circuits were built and 44 new services were installed. Two new street-light units were added.



Whatshan–Vernon transmission-line, showing cleared right-of-way.



Interior of main tunnel, Whatshan Development.

MERRITT

Operation commenced January 1st, 1951, by which date the rebuilding of the system acquired from the City of Merritt was complete. This rebuild required construction of 16.5 miles of line and street-lighting systems for Merritt and Nicola of 132 units. The rebuilt system included 476 service connections.

NAKUSP

Twenty-four new services were added to the system and 0.2 mile of distribution circuits was constructed.

NANAIMO-DUNCAN

Construction of 46.2 miles of new distribution circuits was completed, with 887 new services added to the system. A total of 75 new street lights was added to constitute the new Brechin system.

Considerable construction was carried out to improve service conditions; Duncan substation capacity was increased and some distribution circuits in the City of Duncan were rebuilt; Qualicum substation capacity was increased from 150 kva to 600 kva; a new substation of 150-kva capacity was built at Lantzville and feeder circuits were improved; circuits in Nanaimo's business section were rebuilt; and the Glenora section of the South Cowichan circuit was converted from 6.9 kv to 6.9/12.0 kv.

NORTH OKANAGAN

Rural electrification plans were further forwarded during the year with the construction of 141.5 miles of primary circuits and 26.0 miles of secondaries; a total of 167.5 miles of new line was built and 993 new services were installed. Notable in this construction programme was the completion and energizing of the 6.9/12.0-kv system serving Falkland, Westwold, and Monte Lake. The rural electrification programme, as envisaged in 1946, is now essentially complete.

Reconstruction of Enderby circuits approached completion at the end of the year. Rural lines in this area have been converted from 2.3 kv to 6.9/12.0 kv to improve service and provide capacity for load-growth.

A new street lighting system of 87 units was installed in Enderby and 49 units were added to the Vernon system.

PEACHLAND-WESTBANK

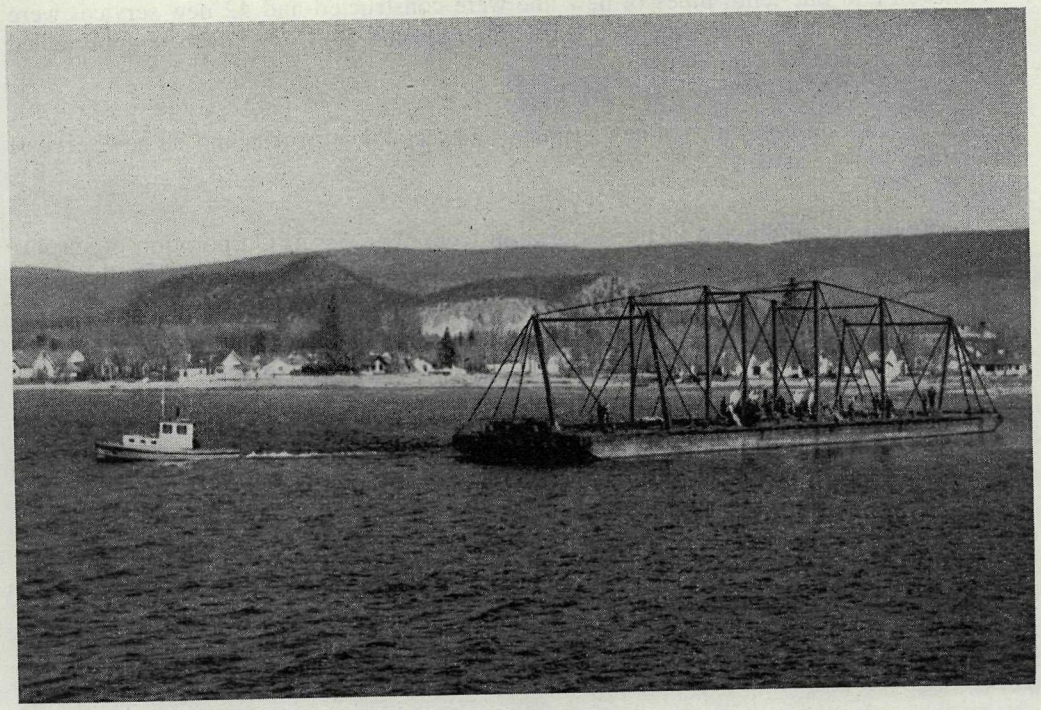
Minor line-construction resulted in 1.6 miles of new distribution circuits and 47 new services. At the close of the year work was well advanced on the construction of a 6.9/12.0-kv circuit between Westbank and the vicinity of the Kelowna ferry landing, together with the installation at Kelowna of an under-water cable. This construction, together with substations at Kelowna and Westbank, all to be completed early in the next fiscal year, will permit supplying Peachland and Westbank with hydro-electric power to be received from West Kootenay Power & Light Company, Ltd., in exchange for Whatshan power to be delivered to that company's system. The existing diesel generating units can then be released for use elsewhere.

QUESNEL

Two and four-tenths miles of line were added to the system, 166 new services were built, and 4 new street-light units were installed.

SECHELT

One hundred and fifty-nine new services were installed and 7.3 miles of distribution circuits were constructed. A new street-light system of 6 units was built at Selma Park, and 10 units were added to the system at Gibsons.



Laying of under-water cable across Okanagan Lake from Kelowna to Westbank.

SMITHERS

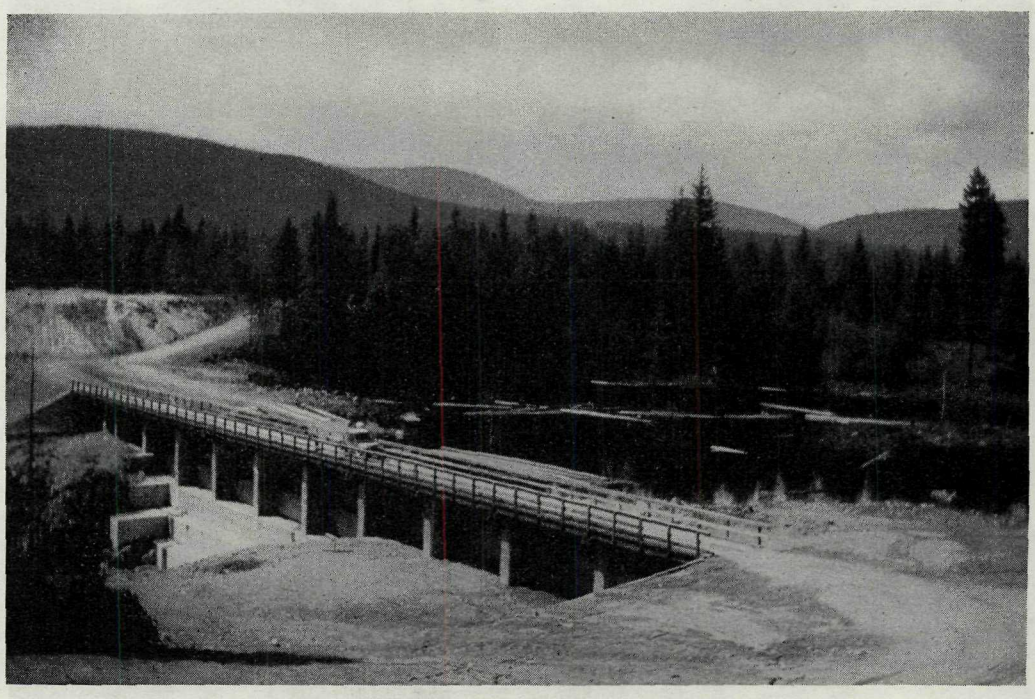
Eleven and one-tenth miles of new line were constructed and 42 new services were run. An improvement consisting of a loop circuit around Smithers Townsite approached completion at the end of the year.

TERRACE

Three and one-fifth miles of new primary and secondary circuits and 98 new services were added to the system.

UCLUELET-TOFINO

Negotiations culminated in the acquisition from War Assets Corporation of surplus distribution plant in this area. At the close of the year, construction, involving the rehabilitation of existing plant and the building of new plant, was well advanced. Service to Ucluelet, Tofino, and the area between those centres will be made available early in the next fiscal year.



Dam and storage-reservoir, Whatshan Development.

VANDERHOOF

Seventeen and nine-tenths miles of new distribution-line were built to serve the farming area north of Vanderhoof. Sixty-one new services and 6 street-light units were installed.

WILLIAMS LAKE

Construction of 0.8 mile of distribution circuits and 37 new services was completed. Five street-light units were added.

DISTRIBUTION-LINE CONSTRUCTION DURING FISCAL YEAR ENDED MARCH 31ST, 1951

Power District	Voltage, Kv	Miles of Line Added			New Services Added	Street Lights Added
		Primary	Secondary	Total		
Alberni	2.3	0.2				
	6.9/12.0	10.9				
		11.1	2.1	13.2	164	39
Alert Bay	2.3	0.3				
	6.9/12.0	8.5				
		8.8	3.8	12.6	159	27
Burns Lake	2.3/4.0	0.2	*Nil*	0.2	90	14
Campbell River	2.3	4.3				
	13.2	20.2				
		24.5	10.4	34.9	155	20
Comox Valley	2.3	7.3				
	13.2	16.9				
		24.2	4.5	28.7	120	5
Dawson Creek	6.9/12.0	41.0	*Nil*	41.0	118	*Nil*
Golden	2.3	0.2	0.2	0.4	30	*Nil*
Hazelton	2.3	*Nil*	*Nil*	*Nil*	*Nil*	*Nil*
Hope	6.9/12.0	3.6	1.5	5.1	115	*Nil*
Houston	6.9/12.0	*Nil*	*Nil*	*Nil*	*Nil*	*Nil*
Kamloops	2.3	3.3				
	11.5	10.0				
		13.3	2.1	15.4	379	110
Lake Cowichan	2.3/4.0	0.7				
	23.0	0.7				
		1.4	1.8	3.2	51	19
Lake Windermere	6.9/12.0	*Nil*	0.3	0.3	78	10
Lillooet	2.3	0.7	0.8	1.5	44	2
Merritt	2.3	9.5	7.0	16.5	2	*Nil*
Nakusp	2.3	0.2	*Nil*	0.2	24	*Nil*
Nanaimo-Duncan	2.3	26.8				
	6.9/12.0	4.1				
	23.0	2.9				
		33.8	12.4	46.2	887	75
North Okanagan	2.3	5.5				
	6.9/12.0	136.0				
		141.5	26.0	167.5	993	136
Peachland-Westbank	2.3	0.9	0.7	1.6	47	*Nil*
Quesnel	2.3/4.0	2.4	*Nil*	2.4	166	4
Sechelt	2.3	0.2				
	6.9/12.0	2.4				
		2.6	4.7	7.3	159	16
Smithers	2.3	0.2				
	6.9/12.0	8.5				
		8.7	2.4	11.1	42	*Nil*
Terrace	2.3	2.3	0.9	3.2	98	*Nil*
Ucluelet-Tofino	.....	*Nil*	*Nil*	*Nil*	.....	.....
Vanderhoof	2.3	17.0	0.9	17.9	61	6
Williams Lake	2.3	0.6	0.2	0.8	37	5
Totals	.....	348.5	82.7	431.2	4,019	488

IV. OPERATION

1. PRODUCTION

Rapid growth in many power districts, particularly Dawson Creek, Quesnel, and Smithers, led to a situation where it was no longer economically sound practice to keep adding smaller generating units to meet rapidly growing demands. Consideration, therefore, had to be given to installation of units of greater capacities. Another factor bearing on the matter was that natural gas was already available at Dawson Creek and might be available in the not too distant future at Quesnel.

It was, accordingly, decided to install at both Dawson Creek and Quesnel dual-feed engines which could be operated either by fuel-oil or natural gas. Two such units were installed at Dawson Creek during the past two years and for the last three months of the current fiscal year have been operated by natural gas. It is still too early to give definite figures regarding comparative costs, but it is known that cost per kilowatt-hour generated has been reduced considerably.

A threatened shortage of generating capacity in the North Okanagan and Kamloops Power Districts pending the completion of the Whatshan hydro-project was met by connecting all generating-stations—Shuswap Falls, Barriere, and Kamloops steam plant—and operating them in parallel. A similar connection was also maintained at all times with the West Kootenay Power & Light Company, Ltd. This method of operation proved invaluable on many occasions, not only during a temporary breakdown, but as a flexible means of providing quick relief during peak-load periods on any part of the system. A contributing factor in the threatened shortage was the long, dry period in the fall of 1950, which reduced water-storage at both Sugar Lake and the Barriere Lakes well below normal.

Purchase of blocks of power from the West Kootenay Power & Light Company, Ltd., was essential in order to build up water-storage reserves.

On Vancouver Island, purchase of power from the Hillcrest Lumber Company, Ltd., to supply the Lake Cowichan Power District was continued, pending completion of a new 60-kv transmission-line from Duncan, which will provide direct connection with the Vancouver Island transmission system.

Comox Valley and Campbell River Power Districts were partly supplied with 25-cycle power, purchased from Canadian Collieries (Dunsmuir), Limited, in progressively diminishing amounts as conversion from 25-cycle to 60-cycle frequency proceeded in these districts.

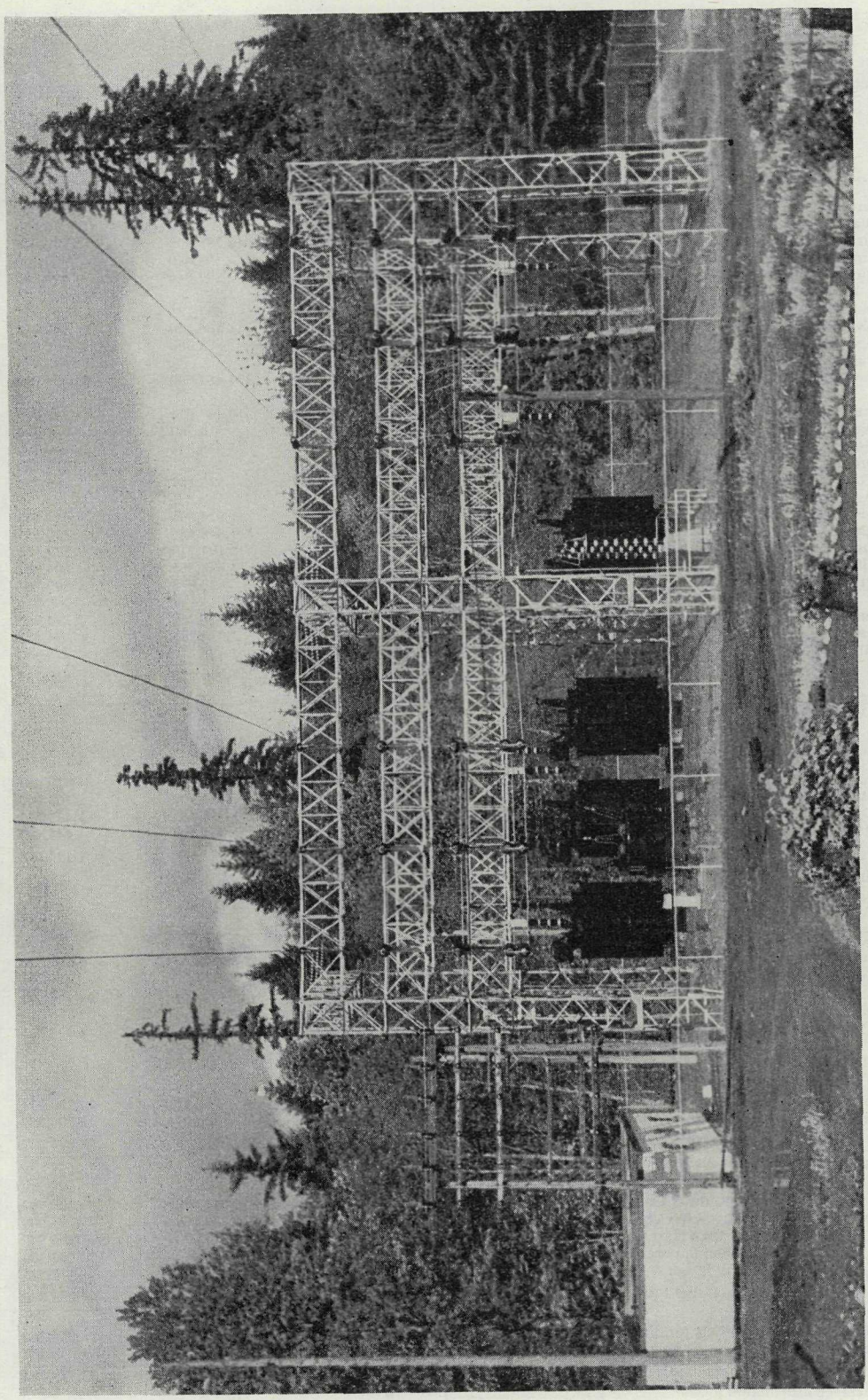
Interconnection at 138 kv with the British Columbia Electric Railway Company system was inaugurated on October 5th, 1950, and this added demand, together with that of the MacMillan mill at Cedar, increased maximum loads at the generating-station from 25,000 kw to 45,000 kw and resulted in the energy output from the John Hart generating-station being more than double that of the preceding year.

Townsite premises at the John Hart plant have been improved considerably during the year, including levelling, grading, building roads, laying lawns, and planting shrubbery. This work was carried out with the expert advice and assistance of officials of the Provincial Parks Service.

Increases in the output of other generating-stations were substantial, as can be observed by reference to the following table of power generated.

The sum of the demands upon all sources of purchased power was 4,460 kw and, accordingly, the system capacity for the past two years may be compared as follows:—

	1951, kw	1950, kw	Difference
Commission's generating capacity	100,350	97,483	2,867
Purchased power	4,460	1,932	2,528
Totals	104,810	99,415	5,395



New 60-cycle transformer substation at Courtenay, V.I.

POWER GENERATED AND PURCHASED (KWH)

I. Generated

	Fiscal Year Ended March 31st		Difference
	1951	1950	
Alert Bay	1,414,710	1,061,710	353,000
Athalmer	776,550	----------	776,550
Barriere	11,434,751	10,295,905	1,138,846
Burns Lake	900,620	398,470	502,150
Dawson Creek	3,989,820	2,299,040	1,690,780
Golden	692,510	637,185	55,325
Hazelton	405,960	106,240	299,720
Hope	7,300	668,960	*—661,660*
Houston	118,074	----------	118,074
John Hart	184,936,000	101,482,000	83,454,000
Kamloops	3,223,770	4,487,030	*—1,263,260*
Lake Cowichan	250	4,560	*—4,310*
Lillooet	588,350	538,544	49,806
Merritt	273,240	----------	273,240
Nakusp	657,708	572,157	85,551
Quesnel	2,837,930	1,824,875	1,013,055
Sechelt	1,659,188	1,348,663	310,525
Shuswap	33,774,280	26,194,710	7,579,570
Smithers	2,499,369	1,894,385	604,984
Terrace	1,412,812	822,045	590,767
Vanderhoof	911,735	616,769	294,966
Westbank	1,589,140	1,514,255	74,885
Williams Lake	1,452,150	1,178,570	273,580
Totals	255,556,217	157,946,073	97,610,144

II. Purchased

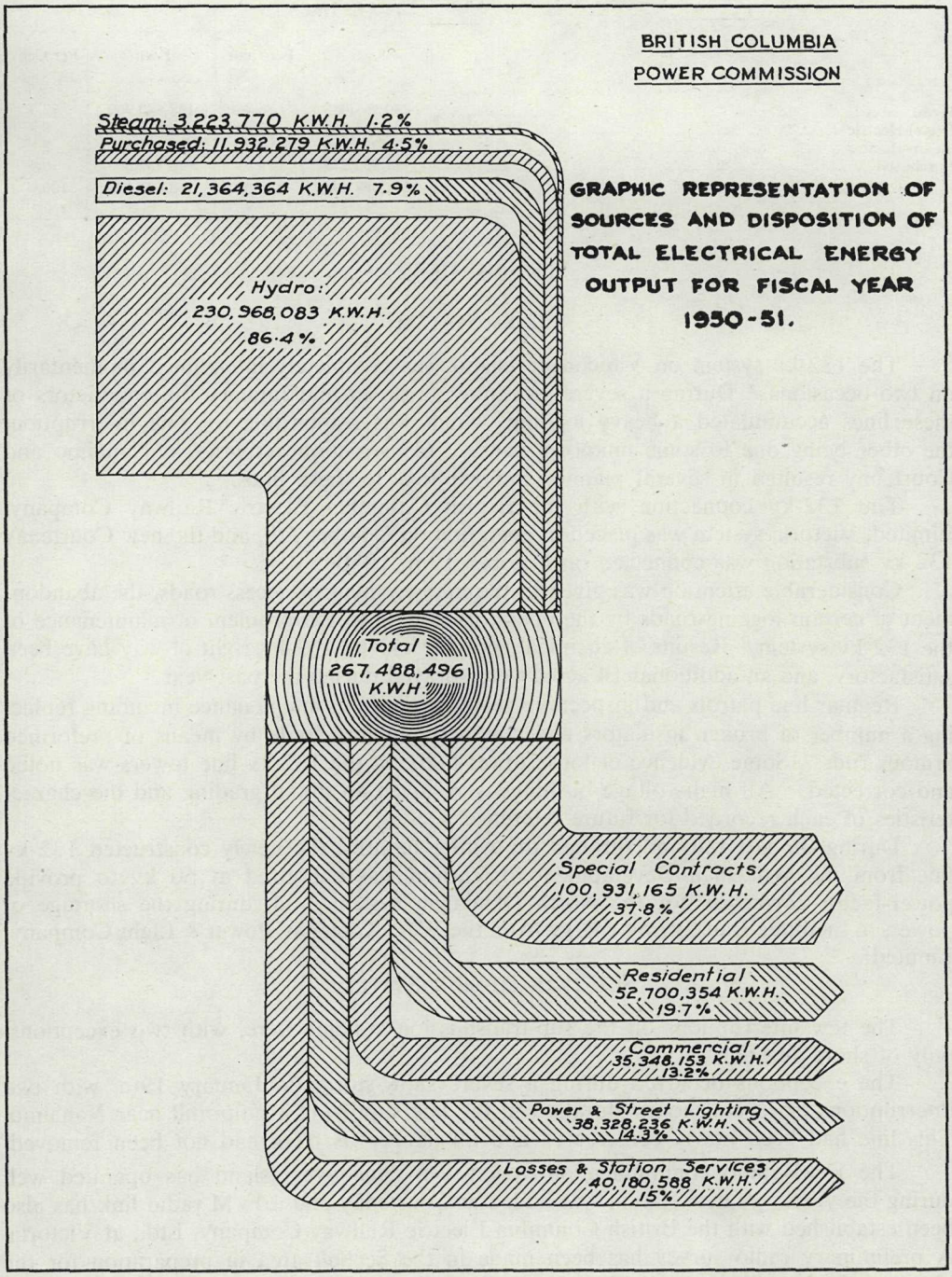
Canadian Collieries (Dunsmuir), Ltd.	5,593,119	6,422,202	*—829,083*
West Kootenay Power & Light Co., Ltd.	3,038,560	2,934,600	103,960
B.C. Electric Railway Co., Ltd.	2,591,800	1,116,543	1,475,257
Hillcrest Lumber Co., Ltd.	708,800	264,320	444,480
Totals	11,932,279	10,737,665	1,194,614

Summary

Total generated and purchased	267,488,496	168,683,738	98,804,758
Less station services	2,099,338	2,085,557	13,781
Totals	265,389,158	166,598,181	98,790,977

DISPOSITION OF POWER (KWH)

Net generated and purchased	265,389,158	166,598,181	98,790,977
Transmission and transformation losses	24,586,597	13,880,047	10,706,550
Delivered wholesale	240,802,561	152,718,134	88,084,427
Percentage transmission and transformation losses	9.3%	8.3%	
Less special-contract sales—			
B.C. Electric Railway Co., Ltd.	45,914,400	8,544,000	37,370,400
Bloedel, Stewart & Welch, Ltd.	30,678,000	26,879,000	3,799,000
Construction, John Hart Development	----------	100,040	*—100,040*
H. R. MacMillan Export Co., Ltd.	24,331,680	1,296,480	23,035,200
West Kootenay Power & Light Co., Ltd.	7,085	15,600	*—8,515*
Special-contract sales totals	100,931,165	36,835,120	64,096,045
Delivered to power districts for distribution	139,871,396	115,883,014	23,988,382
Distribution losses	13,494,653	12,036,096	1,458,557
Distribution-system sales	126,376,743	103,846,918	22,529,825
Percentage distribution losses	9.6%	10.4%	


BRITISH COLUMBIA
POWER COMMISSION
Steam: 3,223,770 K.W.H. 1.2%
Purchased: 11,932,279 K.W.H. 4.5%
Diesel: 21,364,364 K.W.H. 7.9%
Hydro:
230,968,083 K.W.H.
86.4%
GRAPHIC REPRESENTATION OF SOURCES AND DISPOSITION OF TOTAL ELECTRICAL ENERGY OUTPUT FOR FISCAL YEAR 1950-51.
Total
267,488,496
K.W.H.
Special Contracts
100,931,165 K.W.H.
37.8%
Residential
52,700,354 K.W.H.
19.7%
Commercial
35,348,153 K.W.H.
13.2%
Power & Street Lighting
38,328,236 K.W.H.
14.3%
Losses & Station Services
40,180,588 K.W.H.
15%

SOURCES OF POWER

	1951		1950	
	Kwh	Per Cent	Kwh	Per Cent
Hydro-electric	230,968,083	86.4	138,640,900	82.3
Diesel-electric	21,364,364	7.9	14,818,143	8.8
Steam-electric	3,223,770	1.2	4,487,030	2.5
Purchased	11,932,279	4.5	10,737,665	6.4
Totals	267,488,496	100.0	168,683,738	100.0

2. TRANSMISSION

132-KV SYSTEM

The 132-kv system on Vancouver Island was completely interrupted momentarily on two occasions. During a severe wet-snow storm in mid-January the conductors of these lines accumulated a heavy loading, which was responsible for one interruption, the other being due to some unknown cause. Construction activities at Nanaimo and Courtenay resulted in several planned interruptions to these lines.

The 132-kv connection with the British Columbia Electric Railway Company, Limited, Victoria system was placed in operation on October 5th, and the new Courtenay 132-kv substation was connected on October 19th, 1950.

Considerable attention was given to the improvement of access roads, the abandonment of certain logging-roads by the operators adding to the problem of maintenance of the 132-kv system. Results of chemical spraying on the 132-kv right-of-way have been satisfactory, and an additional 14 acres were sprayed during the past year.

Regular line patrols and inspections were carried out, maintenance including replacing a number of broken insulators and conductor repairs made by means of preformed armour rods. Some evidence of loose tower-bolts on the 132-kv line towers was noted and corrected. All high-voltage bushings were given an initial grading and the characteristics of each recorded for future reference.

During the late fall and through the winter months, the newly constructed 132-kv line from the Whatshan Development to Vernon was energized at 60 kv to provide power-factor correction for the North Okanagan system, and, during the shortage of power, to facilitate transferring energy from the West Kootenay Power & Light Company, Limited.

SUB-TRANSMISSION SYSTEMS

The few interruptions on the sub-transmission systems were, with two exceptions, only of short duration.

The exceptions occurred during a severe snow-storm on January 19th, with two interruptions of several hours' duration to the line supplying a pulp-mill near Nanaimo. This line had been newly constructed and all dangerous trees had not been removed.

The F/M radio communication system on Vancouver Island has operated well during the year. A new station was added at Courtenay and a F/M radio link has also been established with the British Columbia Electric Railway Company, Ltd., at Victoria. A preliminary radio survey has been made in the Sechelt area in preparation for the installation of a radio link to Clowhom Falls generating-station.

The removal of additional dangerous trees along all transmission-lines continued, and, on the older subtransmission-lines, pole stubbing and other repairs were made.

A thorough maintenance and inspection programme was carried out on all substation and switchyard equipment.

3. DISTRIBUTION

As at March 31st, 1951, twenty-five power districts were being operated by the Commission, Merritt and Houston having been added during the year. Merritt was acquired as a result of negotiations with the City Commission of Merritt. Houston was an entirely new installation by the Commission.

Loads continued to grow in every section of the Province, resulting in the necessity of increasing both transformer and conductor capacities. To meet increased demands, it was also necessary to expand distribution systems, in many instances on a fairly large scale. This was particularly true in the North Okanagan, Nanaimo-Duncan, Kamloops, Dawson Creek, Smithers, and Quesnel Power Districts.

Industrial development in the northern part of the Province, particularly activities connected with the Celanese Company at Port Edward and the Alcan hydro-project at Kitimat, is having its effect upon the economic life of many smaller towns between Prince George and Prince Rupert. The Smithers–Telkwa line was designed and constructed for ultimate 6,900/12,000-volt service, in order that anticipated future loads could be supplied from the Smithers generating-station, although initial operation was at the Smithers voltage of 2,300/4,000. With the expected development of the area materializing, conversion to the designed voltage was made necessary and effected during the year. Increasing activity, particularly in relation to forest products, indicates that further expansion of distribution systems from Terrace eastwards will be necessary in order to meet both domestic and industrial requirements.

An interesting feature of the 1950–51 operation was the frequency conversion of the Comox Valley and Campbell River systems from 25 cycle to 60 cycle. The Campbell River Power District has been completely changed to 60-cycle frequency. In the Comox Valley area, comprising the towns of Courtenay, Cumberland, Comox, and Royston, conversion was started in August, 1950, and by March 31st, 1951, a total of 1,690 services had been converted from 25- to 60-cycle power. As at the end of the fiscal year, all the above customers were being served from the John Hart generating-station, either direct or through the new 138-kv 15,000-kva transmission substation near Courtenay.

The conversion was carried out with little trouble and the least possible inconvenience to customers. This was made possible by a carefully planned programme and the use of two portable diesel-electric generating units as temporary sources of 60-cycle power. From 25 to 50 services per day were converted.

It was at first thought that all 25-cycle meters recovered under the conversion would be a total loss, as there are few systems left not operating on standard frequency. However, a number of these meters were experimentally converted to 60-cycle operation by the Commission's meter department and have been approved by the Bureau of Standards, Ottawa. This work of conversion will be continued and will lead to considerable saving.

A test laboratory for linemen's rubber gloves was set up early in the year at Nanaimo, and a schedule for routine testing of all rubber gloves is in operation.

Winter weather conditions were generally favourable and accidental interruptions were below normal.

SUMMARY OF GROWTH IN CIRCUIT-MILES OF DISTRIBUTION-LINES, TOGETHER WITH CUSTOMERS-PER-MILE AND INVESTMENT-PER-CUSTOMER AVERAGES, AT MARCH 31ST, 1951.

Power District	Mileage at March, 1950	Increased Mileage during Year	Mileage at March, 1951	Customers per Mile	Investment per Customer[1]
Alberni	93.0	13.2	106.2	38.7	$142.34
Alert Bay	4.2	12.6	16.8	25.6	89.77
Burns Lake	15.3	0.2	15.5	21.6	252.54
Campbell River	48.4	34.9	83.3	13.5	282.82
Comox Valley	98.3	28.7	127.0	24.0	146.30
Dawson Creek	66.8	41.0	107.8	13.9	129.71
Golden	10.4	0.4	10.8	24.3	212.82
Hazelton	10.9	.....	10.9	18.0	291.49
Hope	28.9	5.1	34.0	20.6	168.43
Houston	3.4	.....	3.4	24.1	309.51
Kamloops	116.1	15.4	131.5	34.5	187.32
Lake Cowichan	13.7	3.2	16.9	31.8	121.57
Lake Windermere	39.6	0.3	39.9	9.1	489.02
Lillooet	8.7	1.5	10.2	21.7	177.28
Merritt	.....	16.5	16.5	28.9	194.33
Nakusp	19.0	0.2	19.2	19.4	211.74
Nanaimo-Duncan	643.0	46.2	689.2	19.5	196.11
North Okanagan	550.9	167.5	718.4	11.6	251.70
Peachland-Westbank	32.2	1.6	33.8	14.8	263.38
Quesnel	25.9	2.4	28.3	29.9	174.76
Sechelt	41.8	7.3	49.1	23.7	208.54
Smithers	42.4	11.1	53.5	11.0	290.12
Terrace	17.7	3.2	20.9	23.6	134.51
Vanderhoof	11.7	17.9	29.6	9.1	308.07
Williams Lake	19.6	0.8	20.4	19.9	169.10
Totals	1,961.9	431.2	2,393.1	18.5	200.26

[1] Exclusive of metering equipment, which averaged $27.29 per customer.

4. RATE SCHEDULES

During the year, two far-reaching amendments to the Commission's general promotional rate structure were introduced, which had the effect of reducing monthly bills for commercial and, to a lesser extent, for residential service.

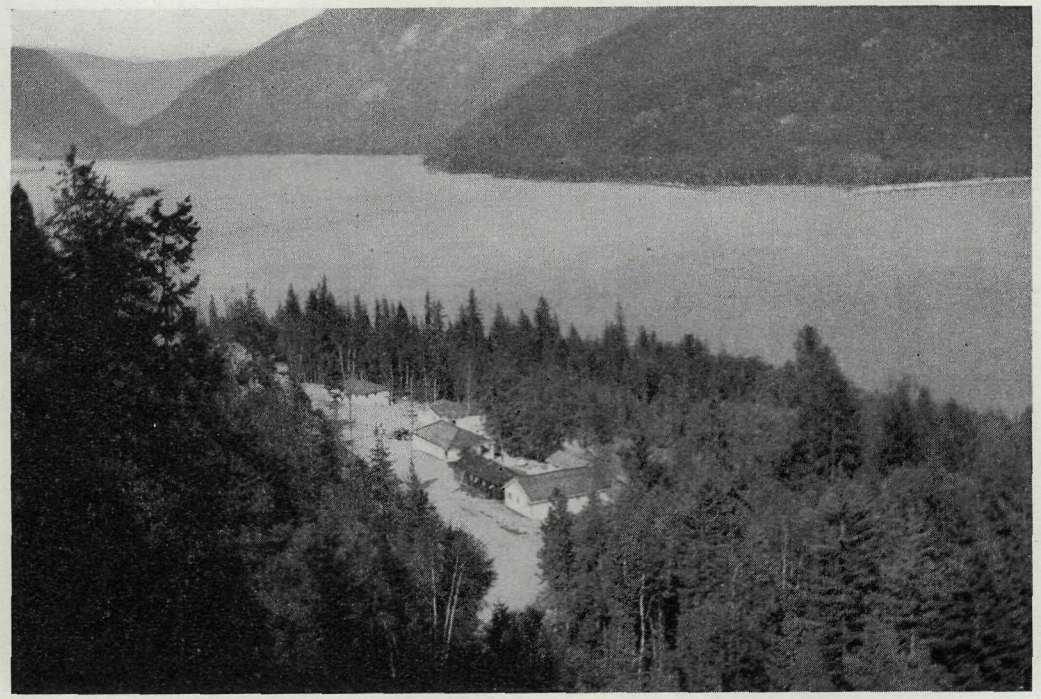
In the commercial field where the demand rating exceeds 5 kw the billing demand has been reduced to 75 per cent of the measured demand. Previously, accounts were billed on the measured demand itself so that an account previously billed at 8 kw would now pay on the basis of 6 kw. In the residential field, although households with electric ranges were normally billed on the basis of 3 kw, the Commission had the right to charge according to the actual maximum demand, a policy only adopted if considerable other equipment were added. Under the new provision, where the measured demand exceeds 8 kw the billing demand is definitely established as that maximum reading less 5 kw. It is believed such decreases will encourage further growth in these classifications despite the phenomenal record shown elsewhere in these pages.

Other decisions affecting general rates had to do with the broadening of the former summer-service classification to include any seasonal load. Service is now only limited to six consecutive months or less ending within the fiscal year. Also amended was the power-service contract, which now requires that customers for this type of service shall pay the cost beyond one span of the line required to serve them. This stipulation ensures that the Commission will not have large sums of capital employed in unremunerative extensions.

Promotional schedules were made available in the Merritt Power District, acquired during the year. In addition, the rates for the Ucluelet-Tofino Power District, where

construction was still under way at the end of the fiscal year, were also established. With the commencement of the 60-cycle conversion programme in the Comox Valley Power District, promotional rates were approved during the year, and as customers are switched over from the 25-cycle system they automatically come under the new schedules. By March 31st, 1951, 1,690 services, or 58 per cent of the 2,900 customers in the district, were operating on the new frequency.

Following the completion of the conversion programme in the Campbell River Power District, the former rates were abolished, so that on Vancouver Island all customers will be on Regulation No. 5 as soon as the present switch-over in the Comox Valley is completed.



Staff buildings, Whatshan Development, on shore of Lower Arrow Lake.

In the Interior, rate studies were made in the North Okanagan and Kamloops Power Districts, preparatory to adopting promotional schedules after the completion of the Whatshan Development. Up to the present the use of electricity in these two areas could not be encouraged by more attractive rates, since the available power was insufficient to permit such a course. However, both these power districts have extensions where Regulation No. 5 is in effect. These areas are the community of Chase, together with the line from Kamloops; all part of the Kamloops Power District; and the Falkland-Westwold-Monte Lake area of the North Okanagan Power District,

All other power districts, with the exception of Lillooet, whose sale to B.C. Electric interests is being discussed, are operating on promotional rates for all classes of service, as indicated in the following tables. Including Ucluelet-Tofino, which was not yet in operation at the close of the fiscal year, promotional rates have therefore been approved for general use in twenty-three out of twenty-six power districts.

A. Residential Service Rates

Available for residence lighting, heating, cooking, and single-phase motors individually rated at 2 horse-power or less used for domestic purposes.

Power District and Rate Zone	Monthly Minimum per Kw of Demand	Block I (First 20 Kwh per Month per Kw of Demand)	Block II (Next 60 Kwh per Month per Kw of Demand)	Block III (Balance of Monthly Consumption)
	$	Cents per Kwh	Cents per Kwh	Cents per Kwh
Alberni (Zone 1)	.55	7	2	8/10
,, (Zone 2)	1.00	8	2	8/10
Alert Bay	1.00	12	2½	8/10
Burns Lake	1.00	12	2½	8/10
Campbell River	1.00	10	2	8/10
Comox Valley (Zone 1)[1]	1.00	8	2	8/10
,, ,, (Zone 2)[1]	1.00	10	2	8/10
Dawson Creek	1.00	10	2½	8/10
Golden (Zone 1)	1.00	12	2½	8/10
,, (Zone 2)	1.50	12	2½	8/10
Hazelton	1.00	12	2½	8/10
Houston	3.00	12	2½	8/10
Hope	1.00	10	2½	8/10
Kamloops (Chase extension only)	1.00	10	2½	8/10
Lake Cowichan	1.00	10	2½	8/10
Lake Windermere	1.00	12	2½	8/10
Merritt	1.00	12	2½	8/10
Nakusp	1.00	12	2½	8/10
Nanaimo-Duncan (Zone 1)	.55	7	2	8/10
,, ,, (Zone 2)	1.00	8	2	8/10
,, ,, (Zone 3)	1.00	10	2½	8/10
North Okanagan (Falkland, etc., only)	([2])	12	2½	8/10
Peachland-Westbank	1.00[3]	10	2½	8/10
Quesnel (Zone 1)	1.00	10	2½	8/10
,, (Zone 2)	1.25	12	2½	8/10
Sechelt	1.00	12	2½	8/10
Smithers	1.00	10	2½	8/10
Terrace (Zone 1)	1.00	12	2½	8/10
,, (Zone 2)	1.25	12	2½	8/10
Ucluelet-Tofino	([4])	12	2½	8/10
Vanderhoof (Zone 1)	1.00	12	2½	8/10
,, (Zone 2)	1.25	12	2½	8/10
Williams Lake (Zone 1)	1.00	10	2½	8/10
,, ,, (Zone 2)	1.25	12	2½	8/10

[1] Available to consumers of 60-cycle power only.
[2] $5 per month or $1 per kw of demand rating, whichever is greater.
[3] $5.50 per month or $2 per kw of demand rating, whichever is greater, in the Lakeview Heights Subdivision (V.L.A.) only.
[4] $6 per month or $1 per kw of demand rating, whichever is greater.
NOTE.—Minimum demand rating, 2 kw. Discount for prompt payment, 10 per cent.

B. Seasonal Service Rates (Residential and Commercial)

Available for cottages, hotels, tourist camps, refreshment booths, and other commercial premises which normally require service for a period not exceeding six consecutive months in any fiscal year ending March 31st.

Power District and Rate Zone	Annual Fixed Charge per Kw of Demand	Block I (First 50 Kwh per Season per Kw of Demand)	Block II (Next 150 Kwh per Season per Kw of Demand)	Block III (Balance of Consumption per Season)
	$	Cents per Kwh	Cents per Kwh	Cents per Kwh
Alberni (Zone 1)	6.00	8	2	½
,, (Zone 2)	6.00	8	2	½
Alert Bay	6.00	12	2½	½
Burns Lake	6.00	12	2½	½
Campbell River	6.00	10	2	½
Comox Valley (Zone 1)[1]	6.00	8	2	½
,, ,, (Zone 2)[1]	6.00	8	2	½
Dawson Creek	6.00	10	2½	½
Golden (Zone 1)	6.00	12	2½	½
,, (Zone 2)	6.00	12	2½	½
Hazelton	6.00	12	2½	½
Houston	6.00	12	2½	½
Hope	6.00	10	2½	½
Lake Cowichan	6.00	10	2½	½
Lake Windermere	6.00	12	2½	½
Merritt	6.00	12	2½	½
Nakusp	6.00	12	2½	½
Nanaimo-Duncan (Zone 1)	6.00	8	2	½
,, ,, (Zone 2)	6.00	8	2	½
,, ,, (Zone 3)	6.00	10	2½	½
North Okanagan (Falkland, etc., only)	6.00	12	2½	½
Peachland-Westbank	6.00	10	2½	½
Quesnel (Zone 1)	6.00	10	2½	½
,, (Zone 2)	6.00	12	2½	½
Sechelt	6.00	12	2½	½
Smithers	6.00	10	2½	½
Terrace (Zone 1)	6.00	12	2½	½
,, (Zone 2)	6.00	12	2½	½
Ucluelet-Tofino[2]	6.00	12	2½	½
Vanderhoof (Zone 1)	6.00	12	2½	½
,, (Zone 2)	6.00	12	2½	½
Williams Lake (Zone 1)	6.00	10	2½	½
,, ,, (Zone 2)	6.00	12	2½	½

[1] Available to consumers of 60-cycle power only.
[2] Minimum bill for season, $27.50.
Note.—Minimum demand rating, 2 kw. Discount for prompt payment, 10 per cent.

C. Commercial Service Rates

Available for lighting, heating, cooking, and single-phase motors in business premises and any other premises used for commercial purposes.

Power District and Rate Zone	Monthly Minimum per Kw of Demand	Block I (First 30 Kwh per Month per Kw of Demand)	Block II (Next 60 Kwh per Month per Kw of Demand)	Block III (Balance of Monthly Consumption)
	$	Cents per Kwh	Cents per Kwh	Cents per Kwh
Alberni (Zone 1)	1.00	8	4	½
,, (Zone 2)	1.00	8	4	½
Alert Bay	1.00	12	4	½
Burns Lake	1.00	12	4	½
Campbell River	1.00	10	4	½
Comox Valley (Zone 1)[1]	1.00	8	4	½
,, ,, (Zone 2)[1]	1.00	8	4	½
Dawson Creek	1.00	12	4	½
Golden (Zone 1)	1.00	12	4	½
,, (Zone 2)	1.50	12	4	½
Hazelton	1.00	12	4	½
Houston	3.00	12	4	½
Hope	1.00	12	4	½
Kamloops (Chase extension only)	1.00	12	4	½
Lake Cowichan	1.00	10	4	½
Lake Windermere	1.00	12	4	½
Merritt	1.00	12	4	½
Nakusp	1.00	12	4	½
Nanaimo-Duncan (Zone 1)	1.00	8	4	½
,, ,, (Zone 2)	1.00	8	4	½
,, ,, (Zone 3)	1.00	10	4	½
North Okanagan (Falkland, etc., only)	([2])	12	4	½
Peachland-Westbank	1.00	12	4	½
Quesnel (Zone 1)	1.00	12	4	½
,, (Zone 2)	1.25	12	4	½
Sechelt	1.00	12	4	½
Smithers	1.00	12	4	½
Terrrace (Zone 1)	1.00	12	4	½
,, (Zone 2)	1.25	12	4	½
Ucluelet-Tofino	([3])	12	4	½
Vanderhoof (Zone 1)	1.00	12	4	½
,, (Zone 2)	1.25	12	4	½
Williams Lake (Zone 1)	1.00	12	4	½
,, ,, (Zone 2)	1.25	12	4	½

[1] Available to consumers of 60-cycle power only.
[2] $5 per month or $1 per kw of demand rating, whichever is greater.
[3] $6 per month or $1 per kw of demand rating, whichever is greater.
NOTE.—Minimum demand rating, 2 kw. Discount for prompt payment, 10 per cent.

D. Power Service Rates

Available for motors and other electrical equipment used for commercial, manufacturing, and processing purposes where the minimum demand is not less than 3¾ kw (5 horse-power), single- or three-phase, at available secondary voltages (550/220/110 volts).

Power District	Monthly Service Charge per Kw of Demand	Block I (First 50 Kwh per Month per Kw of Demand)	Block II (Next 50 Kwh per Month per Kw of Demand)	Block III (Balance of Monthly Consumption)
	$	Cents per Kwh	Cents per Kwh	Cents per Kwh
Alberni	1.00	3	1½	½
Alert Bay	1.00	3	1½	½
Burns Lake	1.00	3	1½	½
Campbell River	1.00	3	1½	½
Comox Valley[1]	1.00	3	1½	½
Dawson Creek	1.00	3	1½	½
Golden	1.00	3	1½	½
Hazelton[2]	1.00	5	3	1
Houston[2]	1.00	5	3	1
Hope	1.00	3	1½	½
Kamloops (Chase extension only)	1.00	3	1½	½
Lake Cowichan	1.00	3	1½	½
Lake Windermere	1.00	3	1½	½
Merritt	1.00	3	1½	½
Nakusp	1.00	3	1½	½
Nanaimo-Duncan	1.00	3	1½	½
North Okanagan (Falkland, etc., only)	1.00	3	1½	½
Peachland-Westbank	1.00	3	1½	½
Quesnel	1.00	3	1½	½
Sechelt	1.00	3	1½	½
Smithers	1.00	3	1½	½
Terrace	1.00	3	1½	½
Ucluelet-Tofino	1.00	3	1½	½
Vanderhoof	1.00	3	1½	½
Williams Lake	1.00	3	1½	½

[1] Available to consumers of 60-cycle power only.

[2] No prompt-payment discount granted in these districts.

Information regarding quantity discounts granted to large power loads served by hydro-electric plants can be obtained on application to the district managers.

Note.—Minimum demand rating, 4 kw. Discount for prompt payment, 10 per cent.

E. Primary-power Service

Available for industries, commercial establishments, institutions, and others requiring power at primary distribution voltage (2,300 volts or higher) in excess of 50 kw at a single point of delivery.

Power District	Monthly Service Charge per Kw of Demand	Block I (First 50 Kwh per Month per Kw of Demand)	Block II (Next 50 Kwh per Month per Kw of Demand)	Block III (Balance of Monthly Consumption)
	Cents	Cents per Kwh	Cents per Kwh	Cents per Kwh
Alberni	50	2½	1½	½
Alert Bay	85	3	1½	½
Burns Lake	85	3	1½	½
Campbell River	50	2½	1½	½
Comox Valley[1]	50	2½	1½	½
Dawson Creek	85	3	1½	½
Golden	85	3	1½	½
Hope	50	2½	1½	½
Lake Cowichan	85	3	1½	½
Lake Windermere	85	3	1½	½
Merritt	85	3	1½	½
Nakusp	85	3	1½	½
Nanaimo-Duncan	50	2½	1½	½
North Okanagan (Falkland, etc., only)	50	2½	1½	½
Peachland-Westbank	85	3	1½	½
Quesnel	85	3	1½	½
Sechelt	85	3	1½	½
Smithers	85	3	1½	½
Terrace	85	3	1½	½
Ucluelet-Tofino	85	3	1½	½
Vanderhoof	85	3	1½	½
Williams Lake	85	3	1½	½

[1] Available to consumers of 60-cycle power only.

Information regarding quantity discounts granted to large power loads served by hydro-electric plants can be obtained on application to the district managers.

NOTE.—Minimum demand rating, 50 kw. Discount for prompt payment, 10 per cent.

F. Street-lighting Service Rates

A uniform street-lighting schedule, based upon the capacity of the lamp ratings, is available in all power districts where Regulation No. 5 is in general use, namely: Alberni, Alert Bay, Burns Lake, Campbell River, Dawson Creek, Golden, Hazelton, Hope, Houston, Lake Cowichan, Lake Windermere, Merritt, Nakusp, Nanaimo-Duncan, Peachland-Westbank, Quesnel, Sechelt, Smithers, Terrace, Ucluelet-Tofino, Vanderhoof, and Williams Lake. In addition, several areas of the Comox Valley, Kamloops, and North Okanagan Power Districts are also being supplied under this schedule, although the districts are not yet completely operating under Regulation No. 5.

Two types of street-lighting service have been made available:—

(*a*) *Overhead.*—Under which the Commission installs, owns, operates, and maintains overhead street-lighting equipment and supplies energy for the operation of lights daily from one hour after sunset until one hour before sunrise. The customer municipality pays the actual cost of materials for renewal of lamps and glassware.

(*b*) *Ornamental.*—Under which the street-lighting equipment is owned by and maintained at the expense of the customer municipality. The Commission supplies energy for the operation daily from one hour after sunset until one hour before sunrise.

The schedule of charges under each of these types of service for various lamp capacities is as follows:—

System of Wiring	Capacity Rating of Lamp	Net Rate per Lamp per Month	
		Overhead	Ornamental
Multiple	100 watts	$1.50	$0.75
	200 watts	2.00	1.25
	300 watts	2.50	1.75
	500 watts	3.50	2.75
	1,000 watts	6.00	5.25
Series	100 candle-power	1.30	.55
	250 candle-power	1.75	1.00
	400 candle-power	2.10	1.35
	600 candle-power	2.60	1.85

Rates for traffic lights, as follows, were also approved during the year:—

$3 per month for the two-colour centre-suspension type.

$8.50 per month for the three-colour corner set of four lanterns.

G. Irrigation Service Rates

Available for motor-driven pumps used for irrigation purposes, including testing of pipe-lines.

The following rate is available in the North Okanagan and Peachland-Westbank Power Districts:—

Rate: $5 per thirty days per horse-power of maximum demand.

Minimum contract period: 90 days.

Prompt-payment discount: 10 per cent.

In the areas where a general rate revision has not yet taken place and the schedules in force at acquisition are still in effect, there is, of course, no uniformity of structure. The main schedules operative in these several power districts are summarized below:—

1. Comox Valley Power District

(Applicable to consumers of 25-cycle power only.)

	Courtenay		Cumberland	Royston
Residential	City	Outside		
First	30 kwh at 8c.	10c.	30 kwh at 10c.	30 kwh at 10c.
Next	30 kwh at 4c.	5c.	270 kwh at 4c.	----------
All over	60 kwh at 2½c.	3c.	300 kwh at 3c.	30 kwh at 3c.
Minimum	$1.25	$1.50	$1.10	$2.00
Discount	10% penalty		*Nil*	*Nil*
Meter rent	*Nil*		20c.	25c.
Flat rates for water-heater—				
750 watts	$3.00		No flat rates.	No flat rates.
1,000 watts	$4.00		No flat rates.	No flat rates.

Since the above rates practically precluded the use of electric hot-water heaters for household purposes in Cumberland and Royston, the following rate, based on Regulation No. 5, has been made available:—

First 60 kwh at	10c. per kwh
Next 180 kwh at	2½c. per kwh
Balance at	8/10c. per kwh
Monthly minimum	$3.00

The established meter rentals to apply. No prompt-payment discount.

In Cumberland and Royston the regular residential schedules described above apply to commercial service as well. There are no power-rate schedules in these areas.

For the Courtenay-Comox portion of the power district the commercial and power rates are as below:—

Commercial	City	Outside
First 100 kwh at	8c.	10c.
Next 100 kwh at	4c.	5c.
All over 200 kwh at	2½c.	3c.
Minimum—		
2 kw or less	$1.25	$1.50
Over 2 kw	3.00	3.00

Power	City	Outside
First 500 kwh at	4c.	5c.
Next 500 kwh at	3c.	4c.
All over 1,000 kwh at	2c.	3c.
Minimum—		
2 horse-power or less	$2.00	
2 to 10 horse-power	3.00	
Over 10 horse-power	5.00	

2. *Kamloops Power District*

Residential

	City	Outside
Service charge	25c.	25c.
First 12 to 40 kwh (depending on area of residence) at	7c. per kwh	9c. per kwh
Next 200 kwh at	2½c. per kwh	3c. per kwh
Balance of monthly consumption at	1½c. per kwh	1½c. per kwh
Monthly minimum charge	$0.75	$1.00
Flat rates for water-heater—		
750 watts	$3.00	
1,000 watts	4.00	

Commercial

	City	Outside
First 65 kwh per kw of demand at	7c. per kwh	9c. per kwh
Next 65 kwh per kw of demand at	5c. per kwh	7c. per kwh
Balance of monthly consumption at	3c. per kwh	5c. per kwh
Minimum—		
First kw or 2 horse-power	$1.00	
Each additional ½ kw or 1 horse-power	.50	

Power

Service charge	25c.
Demand charge	50c. per horse-power connected at 220 volts
First 50 kwh per month at	5.4c. per kwh
Next 100 kwh per month at	3.6c. per kwh
Next 1,350 kwh per month at	2.7c. per kwh
Next 1,000 kwh per month at	2.025c. per kwh
Next 4,000 kwh per month at	2.25c. per kwh
Next 5,000 kwh per month at	1.8c. per kwh
Next 10,000 kwh per month at	1.35c. per kwh
Balance of monthly consumption at	1.125c. per kwh
Monthly minimum charges—	
For 2,200-volt loads	30c. per horse-power connected, plus service charge
For 220-volt loads	50c. per horse-power connected, plus service charge

3. *Lillooet Power District*

Residential and Commercial

First 35 kwh at	15c. per kwh
Balance at	2½c. per kwh
Minimum bill	$2.00

Power

All energy at	2½c. per kwh
Minimum bill	$2.50, or $1.25 per horse-power connected

4. North Okanagan Power District

Residential

First 30 kwh at	10c. per kwh
Next 60 kwh at	3c. per kwh
Next 100 kwh at	2½c. per kwh
Balance at	1½c. per kwh
Monthly minimum	$3.00 net
Or	
First 30 kwh at	12c. per kwh
Next 30 kwh at	10c. per kwh
Balance at	5c. per kwh
Monthly minimum—	
Within city limits of Vernon, Armstrong, Enderby, or Salmon Arm	$1.00 net
Elsewhere	$2.00 net
Prompt-payment discount—	
Within City of Vernon	20%
Elsewhere	10%
Flat rates for water-heater—	
750 watts	$3.00
1,000 watts	$4.00

Commercial

Demand charge	$1.00 per kw of maximum demand
First 60 kwh at	6c. per kwh
Next 440 kwh at	5c. per kwh
Next 1,000 kwh at	4c. per kwh
Next 1,000 kwh at	3c. per kwh
Next 1,000 kwh at	2c. per kwh
Balance at	1½c. per kwh
Monthly minimum	Demand charge, but not less than $2.00
Prompt-payment discount	10%

Power

1 to 20 horse-power—	
First 200 kwh at	5c. per kwh
Next 800 kwh at	3½c. per kwh
Next 1,000 kwh at	3c. per kwh
Next 1,000 kwh at	2½c. per kwh
Balance at	1½c. per kwh
Monthly minimum	$1.00 per horse-power connected, but not less than $3.00 net
Over 20 horse-power—	
First 500 kwh at	3c. per kwh
Next 800 kwh at	2½c. per kwh
Balance at	1½c. per kwh
Monthly minmum	75c. per horse-power connected
Prompt-payment discount	10%

V. SURVEYS AND INVESTIGATIONS

1. POWER PROJECTS

A report on hydro-electric power possibilities on Quesnel River was submitted to the Government early during the fiscal year, recommending an initial development at Little Canyon, about 16 miles from Quesnel. Owing to possible interference of a power development at this location with salmon migration, certain surveys to supplement information previously obtained on the North Branch of Quesnel River were made later during the year. The results of these surveys confirmed that development on this branch would be considerably more costly per horse-power than at Little Canyon.

In accordance with the long-range programme for development of power-generation facilities on Vancouver Island, to keep pace with the expected industrial expansion up to 1960, provision for the third phase of the John Hart plant is now in the planning stage. This comprises the construction of a third pipe-line and surge-tank and installation of the two final 28,000-horsepower units (Nos. 5 and 6). It will also be necessary to provide for additional storage to ensure an adequate water-supply. The Commission's consulting engineers, H. G. Acres & Company, recommended that development of Buttle Lake as a storage-reservoir be undertaken and completed by the end of 1954. Applications were, accordingly, submitted near the close of the fiscal year to the Government requesting authorization to proceed with these developments.

Provisions for generating facilities to supply the communities at Fort St. James, at Queen Charlotte City and Skidegate, and at Atlin were investigated.

2. TRANSMISSION PROJECTS

The 60-kv transmission system on Vancouver Island, which now extends from Nanaimo southwards to Duncan, has been the subject of review. It has been decided to install a new 5,000-kva 60/23-kv substation at Ladysmith, and plans have been developed for future increases in capacity at the existing Nanaimo and Duncan substations.

General surveys were carried out covering the location of a second 60-kv circuit between Vernon and Kamloops, passing through Armstrong, Enderby, Salmon Arm, and Chase. Detailed plans were developed for the two most urgently required sections of this line; namely, a connection to Armstrong to relieve the existing load on the 33-kv transmission-line from Shuswap Falls, and the section between Monte Creek and Chase.

Means for the transmission of power from the Whatshan generating-station northward to Nakusp were investigated.

3. DISTRIBUTION PROJECTS

Surveys were made during the year for a distribution project to serve communities situated at Needles, Edgewood, and Fauquier near the Whatshan generating-plant. The area extending 12 miles southward from Revelstoke was also investigated.

Survey work was also carried out in connection with possible extensions to Gabriola and Quadra Islands, to 150-Mile House near Williams Lake, to Fort St. James, to Yahk-Kingsgate, and on the Queen Charlotte Islands. Detailed plans were made of the Ladysmith distribution system, acquired during the preceeding year, as well as of the Merritt system, recently brought under Commission operation. Designs for the complete reconstruction of these systems were also developed.

Following conclusion of a contract providing for interchange of power between the Commission and the West Kootenay Power & Light Company, Ltd., at Kelowna, a survey was made covering provision for an under-water cable across Okanagan Lake near Kelowna, together with a 6.9/12-kv distribution circuit to serve Westbank and the area between Westbank and the end of the cable-crossing. Surveys were also made in respect of a service to a " Veterans' Land Act " settlement now being developed in this area.

VI. FINANCIAL

The following statements are presented to show the financial position of the Commission at March 31st, 1951, and the result of the financial operation of the Commission for the year ended on that date. Comment is made hereafter on certain items appearing in these statements:—

Statement 1.—Balance-sheet,
Statement 2.—Financial Summary—Revenue and Expenses.
Statement 3.—Power Distribution—All Districts: Summary of Revenue and Expenses.
Statement 4.—Power Distribution by Districts:
(*a*) Revenue and Expenditure
(*b*) Stabilization Reserve.
Statement 5.—Plant and Related Reserves.
Statement 6.—Construction Work in Progress.
Statement 7.—Maintenance and Renewals Reserve.

STATEMENT 1

Capital Assets

Plant Values by functions shown on this balance-sheet are supported by details given in Statements 5 and 6.

During the past year, certain Inactive and Abandoned Plant costs were segregated from Plant in Operation and are shown separately in the balance-sheet. In addition, other costs of Abandoned Plant have been written off to the Maintenance and Renewals Reserve. These costs relate largely to the original expropriations and some further segregation remains to be completed. Retirements of a more current nature were charged to the Maintenance and Renewals Reserve in the past year.

Final settlement for the original expropriated properties was made in the past year according to the Court Awards. The estimated liability shown in previous balance-sheets has been eliminated and the required adjustments recorded in Plant in Operation and Acquisition Adjustment Account. The Acquisition Adjustment Account was charged with that portion of the amount paid by the Commission for acquired plant in excess of the Commission's estimate of plant value. Interest paid on the Court Awards has been charged to Interest and Contingency Reserves, where full provision had previously been made.

The total of plant and equipment in operation includes work in progress capitalized at March 31st, 1951, in the amount of $2,259,877.94.

Current Assets

Accounts receivable have been reduced by the reserve for bad debts which is deemed adequate in the amount of $12,182. Included in Accounts Receivable Other is the amount of $14,529.02, representing accounts which are over ninety days old.

Inventory values have increased considerably, in line with increased operating and construction requirements. Physical inventories were taken at March 31st, 1951.

Deferred Charges

The write-off of organization and preliminary expense on a ten-year basis continued as in the past years, the amount of $15,906.03 being amortized.

Bond discount was written down according to the term of each issue.

Sinking Fund

The full requirement of Sinking Fund as provided for in the "Electric Power Act" is on deposit with the Minister of Finance, Province of British Columbia. It has not been necessary to take advantage of deferments previously granted.

Long-term Liabilities

An advance of $60,000 under the "Central Interior Development Act" was received to cover costs incurred on preliminary surveys of the Quesnel River. No general advances were received from the Province of British Columbia in the year under review.

All interest and discount charges in connection with Provincial advances have been met in full. On November 1st, 1950, the Commission issued and sold a $6,000,000 3-per-cent bond issue maturing in 1968. The net amount received from this issue was used to repay temporary borrowings expended for the capital purposes of the Commission. Full provision has been made for interest and discount on such issues.

Borrowings by the Commission on both long-term and temporary bases are guaranteed as to interest and principal by the Province of British Columbia.

Current Liabilities

The major liability in this section is the bank loan and overdraft, interest being paid or accrued to March 31st, 1951.

The borrowing limitation of the Commission at March 31st, 1951, under the terms of the "Electric Power Act," was $45,000,000. This amount had not been exceeded at that date. The borrowing limitation has subsequently been increased to $60,000,000.

There has been a major reduction since April 1st, 1950, in customer deposits held. Commission policy was revised to exclude most residential consumers from deposit requirements.

Reserves

The Maintenance and Renewals Reserve has increased by $346,666.32 in the past year. Details of this reserve are shown in Statements 5 and 7.

The interest reserve shown at March 31st, 1950, after partially providing for interest on expropriation balances, was transferred to Contingencies Reserve. The balance of interest on expropriated values was provided from contingencies where provision had been made.

Stabilization Reserve

This reserve was increased during the year in the amount of $152,413.16, representing the surplus from operations as detailed in Statements 2, 3, and 4.

STATEMENT 2

This statement shows the financial results of operation for the year ended March 31st, 1951.

STATEMENT 3

This statement also shows the financial results of the year's operation, but utilizes slightly different groupings of revenue and expenditure items. This statement is directly related to Statement 4, which shows operating results by individual power districts.

The cost of power delivered to distribution systems shown in total in Statement 3 has been apportioned to power districts on Statement 4 on a monthly maximum kw demand basis.

In previous years, this cost was distributed in proportion to the quantity of kilowatt-hours supplied to each power district. The present method of cost allocation is made possible by utilization of demand-measuring apparatus in the districts.

GENERAL

The balance of the employer-employee contributory superannuation fund was $657,692.53 at March 31st, 1951, according to the records of the Superannuation Commissioner, appointed as administrator of the fund.

AUDITORS' REPORT

We have examined the balance-sheet of the British Columbia Power Commission as at March 31, 1951, and the attached statement of combined operations for the year ended on that date, and have obtained all the information and explanations we have required. In connection therewith we examined or tested accounting records of the Commission and other supporting evidence but we did not make a detailed audit of the transactions.

Proceedings under the terms of the "Electric Power Act" to determine the compensation to be paid for certain properties expropriated were completed during the year under review. The excess of the compensation awarded over the estimated liability at March 31, 1950, has been reflected in Plant in Operation and Plant Acquisition Adjustments.

Full Sinking Fund provision, in accordance with Sections 52 (1) and 53 (10) of the "Electric Power Act," has been made for the repayment of all general advances from the Government of the Province of British Columbia and bonds issued by the Commission.

Effective April 1, 1950, the method of allocating the cost of power to power districts on the basis of the number of kilowatt-hours delivered monthly was changed to the monthly maximum-demand method.

We report that, in our opinion, the attached balance-sheet and related statement of combined operations have been drawn up so as to exhibit a true and correct view of the state of the affairs of the British Columbia Power Commission as at March 31, 1951, and the results of its operations for the year ended on that date, according to the best of our information and the explanations given to us and as shown by the books of the Commission.

ISMAY, BOISTON, DUNN & CO.
Chartered Accountants.

Victoria, B.C.,
June 25th, 1951.

BALANCE-SHEET AS

ASSETS

Capital assets—		
Plant and equipment in operation at values estimated by the Commission at dates of acquisition plus additions at cost (Statement 5)—		
Generation		$18,384,773.94
Transmission		5,760,593.23
Distribution		9,208,448.86
General		736,773.89
		$34,090,589.92
Construction work in progress (Statement 6)—		
Generation	$6,551,672.94	
Transmission	2,366,952.47	
Distribution	576,064.35	
General	547,580.20	
		10,042,269.96
Inactive plant (Statement 5)		207,308.67
Total plant and equipment		$44,340,168.55
Surveys and investigations		126,577.14
Plant acquisition adjustments (Statement 5)		1,464,719.33
Abandoned plant (Statement 5)		353,169.97
		$46,284,634.99
Current assets—		
Cash on hand and in banks	$208,046.16	
Accounts receivable, *less* reserves—		
Light and power	$320,700.56	
Other	37,636.14	
	358,336.70	
Construction and operating materials and supplies	1,040,305.45	
Unexpired insurance and other prepaid items	59,229.46	
		1,665,917.77
Deferred charges, *less* amounts written off—		
Organization and preliminary expense	$111,342.19	
Bond discount	233,986.95	
		345,329.14
Sinking fund for retirement of long-term liabilities, deposited with Minister of Finance		1,379,340.27
		$49,675,222.17

AT MARCH 31ST, 1951 Statement 1

LIABILITIES

Long-term liabilities—		
Advances from the Government of the Province of British Columbia—		
General	$21,895,800.00	
"Central Interior Development Act"	60,000.00	
		$21,955,800.00
Bonds payable—		
3 per cent, due 1967	$7,000,000.00	
3 per cent, due 1968	6,000,000.00	
		13,000,000.00
Deferred agreement payable—purchased plant		236,990.13
		$35,192,790.13
Current liabilities—		
Bank loan and overdraft	$9,485,544.76	
Accounts payable and accrued charges	523,012.17	
Accrued interest on borrowings	209,018.98	
Gross revenue taxes, municipal areas	71,580.36	
Contractors' deposits and balances payable	134,823.53	
Customers' deposits	67,407.56	
		10,491,387.36
Reserves—		
Maintenance and renewals (Statement 5)	$1,026,156.66	
Gross revenue assessments, unorganized areas	122,614.29	
Contributions in aid of construction	4,286.09	
Contingencies	473,601.90	
		1,626,658.94
Stabilization reserve—		
Balance April 1st, 1950	$832,632.31	
Surplus from operations, year to March 31st, 1951 (Statement 2)	152,413.16	
		985,045.47
Sinking fund reserve (Statement 5)		1,379,340.27
		$49,675,222.17

Statement 2

COMBINED OPERATIONS: FINANCIAL SUMMARY—REVENUE AND EXPENSES—FOR THE YEAR ENDED MARCH 31ST, 1951

	Total
REVENUE—	
Power districts—	
Electrical-energy sales	$3,550,795.78
Miscellaneous revenue	43,563.40
	$3,594,359.18
Special-contract sales and related revenues	470,282.61
	$4,064,641.79

	Operating Costs			
EXPENSES—	Generation	Transmission	Distribution	
Direct—				
Labour	$317,419.64	$22,362.83	$195,252.25	$535,034.72
Fuel	376,578.03			376,578.03
Other operating expenses	88,764.64	10,158.66	59,090.90	158,014.20
Customer accounting			206,829.90	206,829.90
Gross revenue, 3% assessments			106,524.89	106,524.89
Administration and general expenses	85,996.92	5,092.07	100,842.24	191,931.23
Purchased power	99,851.41			99,851.41
	$968,610.64	$37,613.56	$668,540.18	$1,674,764.38
Interest on investment in operated plant	557,190.47	168,177.54	239,598.77	964,966.78
	$1,525,801.11	$205,791.10	$908,138.95	$2,639,731.16

OPERATING SURPLUS (excluding provision for reserves)	$1,424,910.63

Provision for reserves—				
Maintenance and renewals	$292,504.90	$109,204.61	$311,294.99	$713,004.50
Sinking fund	278,595.23	84,088.76	119,799.34	482,483.33
Contingencies			77,009.64	77,009.64
	$571,100.13	$193,293.37	$508,103.97	$1,272,497.47

NET OPERATING SURPLUS, year ended March 31st, 1951 (transferred to stabilization reserve)	$152,413.16

Statement 3

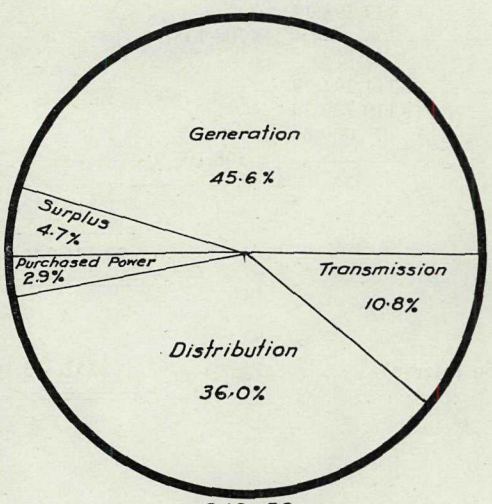
POWER DISTRIBUTION—ALL DISTRICTS: SUMMARY OF REVENUE AND EXPENSES FOR THE TWELVE-MONTH PERIOD ENDED MARCH 31ST, 1951

REVENUE—			
Electrical-energy sales			$3,550,795.78
Miscellaneous revenue			43,563.40
Total power district revenue			$3,594,359.18
EXPENSES (detailed on Statement 2)—			
Cost of power—			
Direct expenses—			
Generation	$1,525,801.11		
Transmission	205,791.10		
		$1,731,592.21	
Provision for reserves—			
Generation	$571,100.13		
Transmission	193,293.37		
		764,393.50	
		$2,495,985.71	
Less special-contract sales and related revenues		470,282.61	
Cost of power delivered to distribution systems			$2,025,703.10
Distribution services—			
Direct expenses—			
Operating and administrative	$668,540.18		
Interest on distribution plant	239,598.77		
		$908,138.95	
Provision for reserves—			
Maintenance and renewals	$311,294.99		
Sinking fund	119,799.34		
Contingencies	77,009.64		
		508,103.97	
Total distribution services			1,416,242.92
Total expenses			$3,441,946.02
NET OPERATING SURPLUS (transferred to stabilization reserve)			$152,413.16

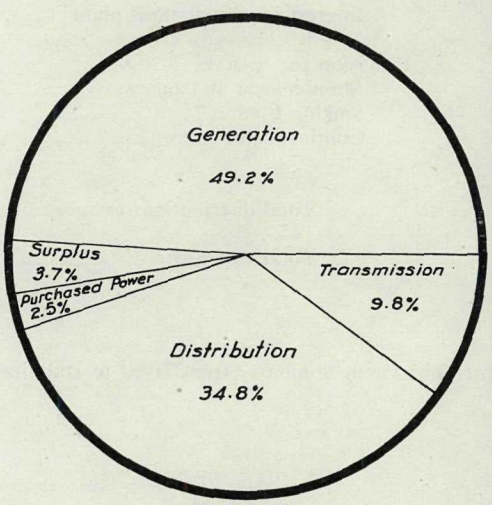
BRITISH COLUMBIA POWER COMMISSION

DISTRIBUTION OF REVENUE BY FUNCTIONS

FUNCTION	1949-50.	1950-51.
Generation	$ 1,489,031.33	$ 1,997,049.83
Transmission	354,540.41	399,084.47
Distribution	1,177,867.90	1,416,242.92
Power Purchased	93,377.51	99,851.41
Net Surplus	152,652.00	152,413.16
Total	$ 3,267,469.15	$ 4,064,641.79



1949-50.

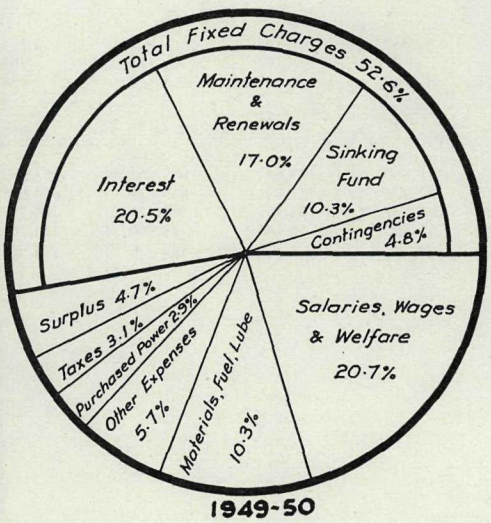


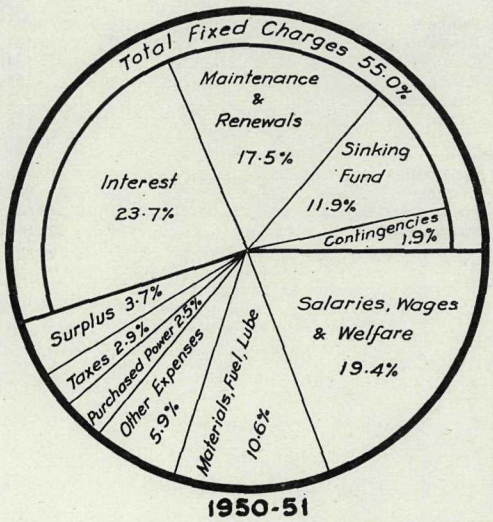
1950-51.

BRITISH COLUMBIA POWER COMMISSION

DISPOSITION OF REVENUE

	1949-50.	1950-51.
Fixed Charges:		
Maintenance & Renewals	$ 554,416.69	$ 713,004.50
Interest	670,814.45	964,966.78
Sinking Fund	335,406.29	482,483.33
Contingencies	157,484.88	77,009.64
Total	$ 1,718,122.31	$ 2,237,464.25
Salaries, Wages & Welfare	$ 676,869.06	$ 788,469.36
Materials, Fuel & Lube.	337,777.41	432,950.57
Other Expenses	186,709.57	237,032.94
Taxes	101,961.29	116,460.10
Purchased Power	93,377.51	99,851.41
Net Surplus	152,652.00	152,413.16
Total	$ 3,267,469.15	$ 4,064,641.79





POWER DISTRIBUTION

(*a*) SUMMARY OF REVENUE AND EXPENDITURE FOR THE

(*b*) ACCUMULATED STABILIZATION

	Alberni	Alert Bay	Burns Lake	Campbell River	Comox Valley
Revenue—					
Residential	$170,903.15	$15,979.11	$10,604.06	$41,010.51	$123,435.83
Commercial	87,070.95	11,364.57	11,271.61	25,729.35	66,144.69
Summer	52.45				
Power	8,349.78	4,246.50	4,067,09	7,039.79	11,406.34
Irrigation power					
Primary power	24,370.70			1,049.07	
Street-lighting	7,816.70	1,156.50	632.60	847.50	7,096.72
Sub-total	$298,568.73	$32,746.68	$26,575.36	$75,676.22	$208,083.58
Miscellaneous	4,975.33	335.19	319.57	1,173.66	2,865.27
Total revenue	$303,544.06	$33,081.87	$26,894.93	$76,849.88	$210,948.85
Expenses—					
Allocated cost of power production	$202,731.55	$18,777.59	$14,264.75	$38,160.17	$88,811.98
Distribution expenses, direct—					
Operating and administrative	48,062.90	9,026.01	7,771.59	16,598.54	43,550.94
Interest on distribution investment	18,022.15	1,262.25	1,979.76	7,515.57	12,782.10
	$268,816.60	$29,065.85	$24,016.10	$62,274.28	$145,145.02
Operating surplus before provision for distribution reserves	$34,727.46	$4,016.02	$2,878.83	$14,575.60	$65,803.83
Provision for distribution reserves—					
Maintenance and renewals	$29,660.64	$1,334.47	$2,046.95	$6,451.55	$16,917.23
Sinking fund	9,011.13	631.13	989.85	3,757.76	6,391.11
Contingencies	6,733.32	668.16	350.04	1,674.60	4,643.04
	$45,405.09	$2,633.76	$3,386.84	$11,883.91	$27,951.38
Surplus for year ended March 31st, 1951	*—$10,677.63*	$1,382.26	*—$508.01*	$2,691.69	$37,852.45
Stabilization reserve, April 1st, 1950	45,504.48	25,775.88	13,808.49	15,327.80	44,326.58
Accumulated stabilization reserve, March 31st, 1951	$34,826.85	$27,158.14	$13,300.48	$18,019.49	$82,179.03
Customers—					
Residential	3,527	330	242	922	2,511
Commercial	534	87	82	188	368
Power	55	10	10	12	38
Street-lighting	2	3	1	2	4
	4,118	430	335	1,124	2,921
Kwh—					
Residential	6,319,938	449,860	203,641	987,061	2,953,547
Commercial	3,630,063	371,979	351,894	869,279	1,884,695
Power	2,343,641	260,899	162,162	368,471	396,791
Street-lighting	205,163	55,152	25,446	43,800	214,765
	12,498,805	1,137,890	743,143	2,268,611	5,449,798

BY DISTRICTS Statement 4

TWELVE-MONTH PERIOD ENDED MARCH 31ST, 1951, AND

RESERVE AS AT THAT DATE

Dawson Creek	Golden	Hazelton	Hope	Houston	Kamloops	Lake Cowichan	Lake Windermere
$53,558.60	$10,150.39	$6,613.02	$25,597.47	$2,765.95	$175,898.82	$19,004.41	$10,585.36
45,911.80	9,261.30	5,309.95	22,372.45	1,652.71	214,193.92	9,990.24	9,322.58
46.26	461.30	----------	----------	----------	----------	----------	581.85
7,715.96	626.44	2,366.00	7,583.45	40.62	93,158.01	43.22	2,251.23
----------	----------	----------	----------	----------	17,978.89	----------	----------
6,944.25	----------	----------	863.83	----------	7,380.07	----------	166.95
2,094.00	1,320.00	119.90	1,420.00	216.00	7,319.61	248.31	123.75
$116,270.87	$21,819.43	$14,408.87	$57,837.20	$4,675.28	$515,929.32	$29,286.18	$23,031.72
1,976.33	390.44	95.57	990.58	111.85	1,175.50	742.42	326.71
$118,247.20	$22,209.87	$14,504.44	$58,827.78	$4,787.13	$517,104.82	$30,028.60	$23,358.43
$58,373.42	$10,715.21	$6,135.44	$37,463.87	$2,106.28	$256,062.42	$11,287.42	$13,531.42
23,953.58	7,174.64	3,801.42	12,840.88	1,120.06	72,975.78	7,594.55	7,601.26
5,762.30	1,805.23	1,672.48	3,902.49	392.05	24,155.06	2,172.96	2,710.19
$88,089.30	$19,695.08	$11,609.34	$54,207.24	$3,618.39	$353,193.26	$21,054.93	$23,842.87
$30,157.90	$2,514.79	$2,895.10	$4,620.54	$1,168.74	$163,911.56	$8,973.67	*—$484.44*
$7,491.11	$1,843.88	$1,673.85	$4,135.94	$421.57	$40,142.71	$3,555.93	$2,867.74
2,881.15	902.65	836.21	1,951.22	196.03	12,077.55	1,086.43	1,355.09
2,972.88	509.52	95.28	1,084.44	----------	11,034.12	452.52	----------
$13,345.14	$3,256.05	$2,605.34	$7,171.60	$617.60	$63,254.38	$5,094.88	$4,222.83
$16,812.76	*—$741.26*	$289.76	*—$2,551.06*	$551.14	$100,657.18	$3,878.79	*—$4,707.27*
58,924.00	15,244.98	*—296.58*	13,934.70	----------	236,038.21	8,205.74	----------
$75,736.76	$14,503.72	*—$6.82*	$11,383.64	$551.14	$336,695.39	$12,084.53	*—$4,707.27*
1,151	197	144	543	63	3,546	456	278
297	60	49	143	17	822	79	82
44	5	1	14	1	133	1	3
2	1	2	1	1	3	1	1
1,494	263	196	701	82	4,504	537	364
1,114,412	213,611	150,347	692,109	50,995	5,405,709	316,770	222,981
1,429,969	284,817	110,980	872,093	33,715	4,546,975	238,092	253,256
710,574	14,364	100,738	334,490	1,060	6,019,243	2	76,770
40,663	42,923	2,000	64,600	4,250	258,171	8,277	4,886
3,295,618	555,715	364,065	1,963,292	90,020	16,230,098	563,141	557,893

POWER DISTRIBUTION

(*a*) SUMMARY OF REVENUE AND EXPENDITURE FOR THE

(*b*) ACCUMULATED STABILIZATION

	Lillooet	Merritt	Nakusp	Nanaimo-Duncan	North Okanagan
Revenue—					
Residential	$9,489.21	$4,262.80	$14,956.98	$532,652.22	$363,571.94
Commercial	8,500.60	2,944.07	7,276.23	284,898.18	189,948.09
Summer	----	----	----	799.84	----
Power	2,281.59	775.71	676.49	47,243.44	157,049.68
Irrigation power	----	----	----	----	7,965.37
Primary power	----	----	----	105,859.41	6,713.32
Street-lighting	594.00	659.00	372.00	21,175.79	13,465.83
Sub-total	$20,865.40	$8,641.58	$23,281.70	$992,628.88	$738,714.23
Miscellaneous	----	59.49	347.06	15,028.27	7,965.24
Total revenue	$20,865.40	$8,701.07	$23,628.76	$1,007,657.15	$746,679.47
Expenses—					
Allocated cost of power production	$9,093.85	$3,214.57	$8,643.71	$616,916.20	$441,330.87
Distribution expenses, direct—					
Operating and administrative	7,008.81	2,537.87	8,595.19	184,791.76	122,770.15
Interest on distribution investment	1,366.85	70.03	2,507.60	72,999.74	52,350.27
	$17,469.51	$5,822.47	$19,746.50	$874,707.70	$616,451.29
Operating surplus before provision for distribution reserves	$3,395.89	$2,878.60	$3,882.26	$132,949.45	$130,228.18
Provision for distribution reserves—					
Maintenance and renewals	$1,453.92	$116.67	$2,507.21	$104,482.19	$53,166.51
Sinking fund	683.45	35.01	1,253.77	36,499.89	26,175.15
Contingencies	462.36	----	524.40	22,662.96	16,409.40
	$2,599.73	$151.68	$4,285.38	$163,645.04	$95,751.06
Surplus for year ended March 31st, 1951	$796.16	$2,726.92	*—$403.12*	*—$30,695.59*	$34,477.12
Stabilization reserve, April 1st, 1950	807.88	----	*—1,720.13*	19,730.23	234,442.35
Accumulated stabilization reserve, March 31st, 1951	$1,604.04	$2,726.92	*—$2,123.25*	*—$10,965.36*	$268,919.47
Customers—					
Residential	162	388	296	11,457	6,992
Commercial	46	80	67	1,811	1,094
Power	12	7	9	144	249
Street-lighting	1	1	1	14	8
	221	476	373	13,426	8,343
Kwh—					
Residential	113,450	60,984	347,610	18,342,407	10,892,651
Commercial	254,891	93,220	195,984	11,860,216	4,486,445
Power	104,895	54,550	18,146	13,175,567	9,029,754
Street-lighting	23,790	25,400	7,620	823,658	568,998
	497,026	234,154	569,360	44,201,848	24,977,848

BY DISTRICTS—*Continued* Statement 4—*Continued*

TWELVE-MONTH PERIOD ENDED MARCH 31ST, 1951, AND RESERVE AS AT THAT DATE—*Continued*

Peachland-Westbank	Quesnel	Sechelt	Smithers	Terrace	Vanderhoof	Williams Lake	Totals
$19,902.87	$30,936.24	$44,512.43	$25,899.71	$20,429.56	$9,628.04	$15,873.73	$1,758,227.41
8,710.20	32,168.21	13,489.84	18,996.01	12,694.89	8,889.64	20,724.82	1,128,836.90
----------	59.40	1,029.29	368.66	37.17	----------	45.04	3,481.26
7,507.11	11,093.82	3,500.17	12,506.44	3,758.56	2,188.18	3,452.08	400,927.70
2,078.80	----------	----------	----------	----------	----------	----------	28,023.06
567.81	1,384.83	----------	1,288.98	1,701.61	----------	----------	158,290.83
870.00	1,367.41	750.00	1,332.00	522.00	648.00	841.00	73,008.62
$39,636.79	$77,009.91	$63,281.73	$60,391.80	$39,143.79	$21,353.86	$40,936.67	$3,550,795.78
322.02	1,198.53	798.95	1,084.22	570.39	339.87	370.94	43,563.40
$39,958.81	$78,208.44	$64,080.68	$61,476.02	$39,714.18	$21,693.73	$41,307.61	$3,594,359.18
$29,085.22	$42,864.67	$28,421.89	$33,179.06	$19,905.96	$13,847.52	$20,778.06	$2,025,703.10
9,947.59	13,328.91	17,864.69	12,684.71	9,697.79	8,155.57	9,084.99	668,540.18
4,190.68	4,428.21	7,014.33	4,617.58	1,995.50	1,711.62	2,211.77	239,598.77
$43,223.49	$60,621.79	$53,300.91	$50,481.35	$31,599.25	$23,714.71	$32,074.82	$2,933,842.05
—$3,264.68	$17,586.65	$10,779.77	$10,994.67	$8,114.93	*—$2,020.98*	$9,232.79	$660,517.13
$4,401.36	$4,629.27	$10,923.84	$4,781.21	$2,217.11	$1,711.95	$2,360.18	$311,294.99
2,095.33	2,214.06	3,507.14	2,308.79	997.81	855.78	1,105.85	119,799.34
932.88	1,303.80	1,331.88	1,218.60	646.92	408.12	890.40	77,009.64
$7,429.57	$8,147.13	$15,762.86	$8,308.60	$3,861.84	$2,975.85	$4,356.43	$508,103.97
—$10,694.25	$9,439.52	*—$4,983.09*	$2,686.07	$4,253.09	*—$4,996.83*	$4,876.36	$152,413.16
—10,044.46	40,613.89	12,435.02	16,307.28	7,101.90	5,804.96	30,359.11	832,632.31
—$20,738.71	$50,053.41	$7,451.93	$18,993.35	$11,354.99	$808.13	$35,235.47	$985,045.47
403	647	1,005	447	381	188	272	36,548
70	171	141	118	97	72	116	6,691
24	28	13	21	15	9	17	875
2	1	3	2	1	1	1	60
499	847	1,162	588	494	270	406	44,174
494,949	691,357	719,286	827,678	431,932	263,654	433,415	52,700,354
219,192	985,701	468,241	625,436	361,448	316,218	603,354	35,348,153
548,738	604,306	88,002	655,441	384,739	66,772	161,854	35,681,969
36,090	38,162	26,683	50,800	20,030	25,100	29,840	2,646,267
1,298,969	2,319,526	1,302,212	2,159,355	1,198,149	671,744	1,228,463	126,376,743

PLANT AND RELATED RESERVES AS AT MARCH 31ST, 1951

Statement 5

Undertaking	Plant Cost							Maintenance and Renewals Reserve as at Mar. 31, 1951[1]	Sinking-fund Reserve as at Mar. 31, 1951
	Plant in Operation			Plant-acquisition Adjustments, Mar. 31, 1951	Inactive Plant as at Mar. 31, 1951	Abandoned Plant as at Mar. 31, 1951	Total Plant Cost, Mar. 31, 1951		
	Totals as at Mar. 31, 1950	Net Additions, Year Ended Mar. 31, 1951	Totals as at Mar. 31, 1951						
Generating Plant									
Alberni	$136,203.25	*—$136,203.25*	———	———	———	———	———	———	———
Alert Bay	189,918.46	*—26,980.96*	$162,937.50	$2,374.08	———	———	$165,311.58	$13,589.48	$8,501.67
Athalmer	137,230.26	3,616.04	140,846.30	———	———	———	140,846.30	5,663.04	2,064.54
Barriere	373,362.94	102.77	373,465.71	1,391.98	———	———	374,857.69	23,536.32	24,357.14
Burns Lake	111,239.34	30,451.59	141,690.93	———	———	———	141,690.93	8,877.35	2,047.14
Clowson Falls	———	4,000.00	4,000.00	———	———	———	4,000.00	———	———
Dawson Creek	206,760.44	112,509.12	319,269.56	222.47	———	———	319,492.03	15,854.44	4,825.06
Golden	138,002.34	987.09	138,989.43	6,879.26	———	———	145,868.69	12,493.49	8,469.45
Hazelton	47,762.52	585.23	48,347.75	———	———	———	48,347.75	2,208.73	775.79
Hope	87,555.83	*—6,322.12*	81,233.71	1,741.79	———	———	82,975.50	8,509.42	6,788.51
Houston	5,000.00	15,819.23	20,819.23	———	———	———	20,819.23	704.27	152.82
John Hart	13,937,736.46	291,799.30	14,229,535.76	———	———	———	14,229,535.76	91,406.08	414,322.75
Kamloops	354,598.94	*—1,381.35*	353,217.59	3,627.56	———	———	356,845.15	13,010.36	24,348.81
Lake Cowichan	8,410.71	*—945.44*	7,465.27	———	———	———	7,465.27	735.65	182.75
Lillooet	41,697.95	32,395.91	74,093.86	———	———	———	74,093.86	6,529.16	1,452.15
Merritt	———	15,197.01	15,197.01	———	———	———	15,197.01	18.72	———
Nakusp	81,470.99	303.10	81,774.09	6,309.73	———	———	88,083.82	6,809.46	3,871.30
Nanaimo	207,337.17	*—207,337.17*	———	———	———	———	———	———	———
Peachland-Westbank	144,152.14	1,746.76	145,898.90	———	———	———	145,898.90	4,266.52	6,809.74
Quesnel	192,829.64	*—39,007.09*	153,822.55	6,809.60	———	———	160,632.15	13,585.12	12,983.37
Sechelt	90,294.69	407.56	90,702.25	13,090.36	———	———	103,792.61	4,930.62	5,564.68
Shuswap	1,050,203.37	177,219.14	1,227,422.51	416,237.17	———	———	1,643,659.68	45,238.55	116,635.65
Smithers	185,036.43	2,448.84	187,485.27	6,313.89	———	———	193,799.16	13,304.82	10,196.79
Terrace	102,168.37	8,489.14	110,657.51	183.68	———	———	110,841.19	10,098.47	5,678.24
Tofino	———	30,010.00	30,010.00	———	———	———	30,010.00	———	———
Vanderhoof	137,022.30	*—3,522.90*	133,499.40	4,851.05	———	———	138,350.45	11,622.21	8,915.63
Williams Lake	115,019.30	*—2,627.45*	112,391.85	8,486.34	———	———	120,878.19	3,411.90	7,120.18
Old plant	———	———	———	68,520.47	$207,308.67	$190,402.60	466,231.74	16,035.27	37,248.51
Totals	$18,081,013.84	$303,760.10	$18,384,773.94	$547,039.43	$207,308.67	$190,402.60	$19,329,524.64	$332,439.45	$713,312.67

Transmission Plant										
Kamloops-Okanagan	$1,421,576.63	$33,002.25	$1,454,578.88	$191,264.14			$1,645,843.02	$91,983.91	$70,984.97
Vancouver Island	4,063,038.62	242,975.73	4,306,014.35	32,707.67			4,338,722.02	73,148.86	190,201.65
Totals	$5,484,615.25	$275,977.98	$5,760,593.23	$223,971.81			$5,984,565.04	$165,132.77	$261,186.62
Distribution Plant										
Alberni	$498,817.60	$78,833.33	$577,650.93	$979.21		$7,522.35	$586,152.49	$27,318.96	$29,757.64
Alert Bay	32,502.89	504.83	33,007.72	1,701.88		3,892.00	38,601.60	47.63	1,791.14
Burns Lake	34,125.67	44,575.92	78,701.59	3,898.61		2,000.00	84,600.20	3,090.21	1,386.80
Campbell River	93,429.91	154,921.21	248,351.12	34,164.69		35,373.29	317,889.10	10,180.11	6,578.01
Comox Valley	297,446.72	74,342.99	371,789.71	55,542.60			427,332.31	12,137.95	11,867.44
Dawson Creek	113,469.10	38,072.40	151,541.50	42,247.45			193,788.95	7,141.03	4,055.34
Golden	52,321.75	*—3,554.97*	48,766.78	3,218.01		3,987.81	55,972.60	2,417.96	2,894.55
Hazelton	47,850.30	6,282.45	54,132.75	3,000.00			57,132.75	1,897.71	975.73
Hope	110,587.05	83.16	110,670.21	1,845.27		5,554.40	118,069.88	6,689.88	5,346.40
Houston		25,379.71	25,379.71				25,379.71	327.49	173.88
Kamloops	613,868.76	212,437.81	826,306.57	2,289.93		15,100.85	843,697.35	35,694.49	26,958.84
Lake Cowichan	58,462.60	5,936.90	64,399.50	884.47			65,283.97	1,869.49	1,244.86
Lake Windermere		172,398.97	172,398.97	5,603.65			178,002.62	2,467.19	1,236.84
Lillooet	40,692.61	*—4,364.00*	36,328.61			2,850.00	39,178.61	1,359.54	1,157.25
Merritt		92,499.77	92,499.77				92,499.77	893.50	
Nakusp	71,347.82	*—7,029.46*	64,318.36	6,763.54		7,897.78	78,979.68	6,340.56	4,031.18
Nanaimo-Duncan	1,927,257.16	420,779.70	2,348,036.86	249,581.56		35,399.82	2,633,018.24	47,174.69	123,445.03
North Okanagan	1,424,046.87	438,769.02	1,862,815.89	237,105.36			2,099,921.25	55,817.66	91,758.35
Peachland-Westbank	125,355.96	2,914.52	128,270.48	94.90		3,061.64	131,427.02	7,253.15	6,531.76
Quesnel	126,497.59	8,011.29	134,508.88	3,051.69		10,459.20	148,019.77	6,821.07	5,229.37
Sechelt	199,009.92	10,357.00	209,366.92	15,885.80		17,071.09	242,323.81	4,580.99	10,655.92
Smithers	137,990.03	22,595.04	160,585.07	5,070.45		4,934.51	170,590.03	8,700.92	6,442.53
Terrace	53,806.43	11,415.83	65,222.26	183.68		1,040.96	66,446.90	4,076.89	2,546.14
Vanderhoof	49,447.34	24,558.98	74,006.32	3,986.55		5,184.99	83,177.86	1,015.33	2,411.51
Williams Lake	61,666.16	2,175.27	63,841.43	3,376.04		1,436.68	68,654.15	3,852.14	2,866.06
Ucluelet-Tofino		30.00	30.00				30.00		
Meters	1,012,199.78	193,321.17	1,205,520.95				1,205,520.95	63,596.27	37,071.01
Totals	$7,182,200.02	$2,026,248.84	$9,208,448.86	$680,475.34		$162,767.37	$10,051,691.57	$322,762.81	$388,413.58
General Plant										
Service buildings and equipment	$237,057.18	*—$1,949.43*	$235,107.75	$13,232.75			$248,340.50	$20,080.10	$14,084.20
Transportation equipment	282,393.94	32,493.31	314,887.25				314,887.25	141,704.07	
Tools and equipment	141,424.44	45,354.45	186,778.89				186,778.89	44,037.46	2,343.20
Totals	$660,875.56	$75,898.33	$736,773.89	$13,232.75			$750,006.64	$205,821.63	$16,427.40

[1] *See also* Statement 7.

PLANT AND RELATED RESERVES AS AT MARCH 31ST, 1951—*Continued* Statement 5—*Continued*

Undertaking	Plant Cost							Maintenance and Renewals Reserve as at Mar. 31, 1951[1]	Sinking-fund Reserve as at Mar. 31, 1951
	Plant in Operation			Plant-acquisition Adjustments, Mar. 31, 1951	Inactive Plant as at Mar. 31, 1951	Abandoned Plant as at Mar. 31, 1951	Total Plant Cost, Mar. 31, 1951		
	Totals as at Mar. 31, 1950	Net Additions, Year Ended Mar. 31, 1951	Totals as at Mar. 31, 1951						
Summary									
Generating plant	$18,081,013.84	$303,760.10	$18,384,773.94	$547,039.43	$207,308.67	$190,402.60	$19,329,524.64	$332,439.45	$713,312.67
Transmission plant	5,484,615.25	275,977.98	5,760,593.23	223,971.81	.....	.....	5,984,565.04	165,132.77	261,186.62
Distribution plant	7,182,200.02	2,026,248.84	9,208,448.86	680,475.34	.....	162,767.37	10,051,691.57	322,762.81	388,413.58
General plant	660,875.56	75,898.33	736,773.89	13,232.75	.....	.....	750,006.64	205,821.63	16,427.40
Totals	$31,408,704.67	$2,681,885.25	$34,090,589.92	$1,464,719.33	$207,308.67	$353,169.97	$36,115,787.89	$1,026,156.66	$1,379,340.27

[1] *See also* Statement 7.

Statement 6

STATEMENT OF CONSTRUCTION WORK IN PROGRESS AS AT MARCH 31ST, 1951

Generation Plant	
Burns Lake	$8,778.51
Clowhom	347,585.53
Hope	61.97
John Hart	36,150.07
Lillooet	165.39
Merritt	132,410.04
Nakusp	86.08
Quesnel	221,755.11
Sechelt	44,231.19
Shuswap Falls	255.10
Smithers	169,448.40
Terrace	5,153.03
Tofino	12,069.31
Whatshan	5,514,704.01
Williams Lake	53,451.02
Preliminary charges, surveys, and investigations, including sundry maintenance	5,368.18
Total	$6,551,672.94
Transmission Plant	
Clowhom	$19,012.72
Hope-Wahleach	326.66
Kamloops-Okanagan	175,428.05
Vancouver Island	879,629.86
Vernon-Whatshan	1,280,852.87
Preliminary charges, surveys, and investigations, including sundry maintenance	11,702.31
Total	$2,366,952.47
Distribution Plant	
Alberni	$740.06
Alert Bay	73,402.38
Campbell River	15,349.25
Comox Valley	144,631.64
Dawson Creek	28,430.08
Hope	16,455.58
Kamloops	23,294.17
Lake Cowichan	5,879.72
Lillooet	3,830.73
Merritt	1,145.44
Nanaimo-Duncan	140,605.70
North Okanagan	15.20
Peachland-Westbank	26,762.84
Ucluelet-Tofino	85,934.56
Preliminary charges, surveys, and investigations, including sundry maintenance	7,164.80
Meters, coastal region	2,422.20
Total	$576,064.35

Statement 6—*Continued*

STATEMENT OF CONSTRUCTION WORK IN PROGRESS AS AT MARCH 31ST, 1951—*Continued*

General Plant

Administration building	$528,730.25
Tools and equipment	17,886.10
Preliminary charges, surveys, and investigations	963.85
Total	$547,580.20

Summary

Generation plant	$6,551,672.94
Transmission plant	2,366,952.47
Distribution plant	576,064.35
General plant	547,580.20
Total	$10,042,269.96

Statement 7

MAINTENANCE AND RENEWALS RESERVE AS AT MARCH 31ST, 1951

Undertaking	Reserve at Apr. 1, 1950	Provisions, 1950–51	Other Credits, 1950–51	Total Credits	M. & R. Charges, 1950–51	Retirements, 1950–51	Other Debits, 1950–51	Total Debits	Reserve at Mar. 31, 1951
Generating Plant									
Alberni	$10,021.62	.....	.....	$10,021.62	.....	.....	$10,021.62	$10,021.62	.....
Alert Bay	10,131.25	$9,515.52	$885.00	20,531.77	$2,693.99	$2,548.30	1,700.00	6,942.29	$13,589.48
Athalmer	.....	6,881.64	.....	6,881.64	1,218.60	.....	.....	1,218.60	5,663.04
Barriere	14,057.50	22,401.96	.....	36,459.46	12,643.14	280.00	.....	12,923.14	23,536.32
Burns Lake	1,009.16	5,476.86	3,715.00	10,201.02	1,323.67	.....	.....	1,323.67	8,877.35
Dawson Creek	13,121.26	10,340.04	.....	23,461.30	7,606.86	.....	.....	7,606.86	15,854.44
Golden	7,728.58	6,903.60	.....	14,632.18	2,138.69	.....	.....	2,138.69	12,493.49
Hazelton	21.14	2,395.38	.....	2,416.52	207.79	.....	.....	207.79	2,208.73
Hope	5,380.36	4,359.06	175.00	9,914.42	.....	1,010.00	395.00	1,405.00	8,509.42
Houston	500.00	509.28	.....	1,009.28	305.01	.....	.....	305.01	704.27
John Hart	73,447.74	105,466.32	.....	178,914.06	87,389.15	118.83	.....	87,507.98	91,406.08
Kamloops	—*8,967.18*	26,607.60	338.00	17,978.42	4,917.71	50.35	.....	4,968.06	13,010.36
Lake Cowichan	349.35	400.74	.....	750.09	14.44	.....	.....	14.44	735.65
Lillooet	5,303.56	2,085.60	.....	7,389.16	.....	.....	860.00	860.00	6,529.16
Merritt	.....	.....	537.00	537.00	518.28	.....	.....	518.28	18.72
Nakusp	4,707.25	4,073.52	41.50	8,822.27	2,012.81	.....	.....	2,012.81	6,809.46
Nanaimo-Duncan	6,274.20	.....	.....	6,274.20	.....	200.00	6,074.20	6,274.20	.....
Peachland-Westbank	77.38	8,649.12	510.00	9,236.50	4,348.98	.....	621.00	4,969.98	4,266.52
Quesnel	16,513.32	9,579.00	300.00	26,392.32	8,085.20	.....	4,722.00	12,807.20	13,585.12
Sechelt	4,428.08	4,514.94	300.00	9,243.02	4,137.40	175.00	.....	4,312.40	4,930.62
Shuswap	34,131.68	34,152.12	14.46	68,298.26	22,894.71	.....	165.00	23,059.71	45,238.55
Smithers	7,241.21	9,261.42	.....	16,502.63	3,197.81	.....	.....	3,197.81	13,304.82
Terrace	5,917.78	5,108.40	860.00	11,886.18	1,757.71	.....	30.00	1,787.71	10,098.47
Vanderhoof	12,327.14	6,727.26	210.00	19,264.40	5,201.10	2,346.59	94.50	7,642.19	11,622.21
Williams Lake	139.56	5,751.00	.....	5,890.56	2,248.66	230.00	.....	2,478.66	3,411.90
Old plant	.....	.....	17,489.83	17,489.83	1,454.56	.....	.....	1,454.56	16,035.27
Totals	$223,861.94	$291,160.38	$25,375.79	$540,398.11	$176,316.27	$6,959.07	$24,683.32	$207,958.66	$332,439.45
Transmission Plant									
Kamloops-Okanagan	$63,129.13	$48,153.84	.....	$111,282.97	$19,299.06	.....	.....	$19,299.06	$91,983.91
Vancouver Island	41,496.17	60,898.08	$206.34	102,600.59	29,156.73	$215.00	$80.00	29,451.73	73,148.86
Totals	$104,625.30	$109,051.92	$206.34	$213,883.56	$48,455.79	$215.00	$80.00	$48,750.79	$165,132.77

Statement 7—*Continued*

MAINTENANCE AND RENEWALS RESERVE AS AT MARCH 31ST, 1951—*Continued*

Undertaking	Reserve at Apr. 1, 1950	Provisions, 1950–51	Other Credits, 1950–51	Total Credits	M. & R. Charges, 1950–51	Retirements, 1950–51	Other Debits, 1950–51	Total Debits	Reserve at Mar. 31, 1951
Distribution Plant									
Alberni	$24,050.93	$24,731.28	$7,728.15	$56,510.36	$7,479.16	$21,712.24		$29,191.40	$27,318.96
Alert Bay	2,198.40	916.74		3,115.14	1,707.51	1,360.00		3,067.51	47.63
Burns Lake	1,162.18	1,652.58	306.53	3,121.29	21.08		$10.00	31.08	3,090.21
Campbell River	2,494.42	5,153.16	4,388.73	12,036.31	981.20		875.00	1,856.20	10,180.11
Comox Valley	4,082.20	13,385.10	1,498.24	18,965.54	6,827.59			6,827.59	12,137.95
Dawson Creek	2,781.08	5,673.48	141.91	8,596.47	1,455.44			1,455.44	7,141.03
Golden	860.37	1,509.78	79.07	2,449.22	31.26			31.26	2,417.96
Hazelton	510.50	1,445.34		1,955.84	48.13		10.00	58.13	1,897.71
Hope	3,733.88	3,284.10	240.00	7,257.98		568.10		568.10	6,689.88
Houston		347.76		347.76	20.27			20.27	327.49
Kamloops	19,757.75	34,483.80	3,991.27	58,232.82	21,611.33	927.00		22,538.33	35,694.49
Lake Cowichan	468.05	2,923.08	510.73	3,901.86	1,681.32	351.05		2,032.37	1,869.49
Lake Windermere		2,473.68		2,473.68	6.49			6.49	2,467.19
Lillooet	*—21.91*	1,174.26	207.19	1,359.54					1,359.54
Merritt			893.50	893.50					893.50
Nakusp	4,906.19	2,025.72		6,931.91	591.35			591.35	6,340.56
Nanaimo-Duncan	19,382.29	88,373.82	11,869.42	119,625.53	51,532.19	20,818.65	100.00	72,450.84	47,174.69
North Okanagan	51,802.80	42,710.46	6,189.74	100,703.00	40,449.01	4,220.33	216.00	44,885.34	55,817.66
Peachland-Westbank	5,146.01	3,752.46	395.03	9,293.50	1,710.35	245.00	85.00	2,040.35	7,253.15
Quesnel	4,608.25	3,638.04	776.12	9,022.41	876.34	1,325.00		2,201.34	6,821.07
Sechelt	*—991.20*	9,523.74	315.71	8,848.25	3,945.30	321.96		4,267.26	4,580.99
Smithers	4,485.51	4,044.24	1,438.54	9,968.29	865.40	292.97	109.00	1,267.37	8,700.92
Terrace	3,000.74	1,610.22	199.25	4,810.21	461.99	271.33		733.32	4,076.89
Vanderhoof	459.79	1,406.28	69.58	1,935.65	915.67	4.65		920.32	1,015.33
Williams Lake	2,398.68	1,842.54	140.00	4,381.22	529.08			529.08	3,852.14
Meters	50,699.50	50,616.38	3,034.74	104,350.62	1,851.93	38,572.42	330.00	40,754.35	63,596.27
Totals	$207,976.41	$308,698.04	$44,413.45	$561,087.90	$145,599.39	$90,990.70	$1,735.00	$238,325.09	$322,762.81
General Plant									
Service buildings and equipment—									
The Albernis	*—$372.21*	$530.76	$60.00	$218.55	$129.66			$129.66	$88.89
Comox Valley	851.43	258.24	40.00	1,149.67	150.55			150.55	999.12
Dawson Creek		26.64		26.64					26.64
Kamloops	548.99	131.88	34.40	715.27	36.91			36.91	678.36
Nanaimo-Duncan	1,926.92	844.68		2,771.60	898.44		$360.00	1,258.44	1,513.16
North Okanagan	786.74	204.24		990.98	188.81			188.81	802.17
Sechelt	26.24	58.68		84.92					84.92

Coastal region	$6,922.64	$2,408.52	$1,130.00	$10,461.16	$1,442.43	$1,195.00	----------	$2,637.43	$7,823.73
Interior region	2,638.99	1,313.76	32.14	3,984.89	582.87	----------	$34.40	617.27	3,367.62
Head office	3,255.54	1,831.56	----------	5,087.10	1,350.55	----------	----------	1,350.55	3,736.55
Warehouse No. 1, Nanaimo	860.00	457.56	5.00	1,322.56	1,323.58	----------	----------	1,323.58	*—1.02*
Warehouse No. 2, Kamloops	523.07	472.08	----------	995.15	269.13	----------	----------	269.13	726.02
Warehouse No. 3, Vernon	165.42	68.52	----------	233.94	----------	----------	----------	----------	233.94
Totals	$18,133.77	$8,607.12	$1,301.54	$28,042.43	$6,372.93	$1,195.00	$394.40	$7,962.33	$20,080.10
Transportation equipment	$107,728.30	$50,097.96	$13,460.09	$171,286.35	----------	$29,582.28	----------	$29,582.28	$141.704.07
Tools and work equipment—									
Coastal region	*—$69.90*	$39.36	$152.00	$121.46	----------	$19.50	----------	$19.50	$101.96
Interior region	162.78	204.00	570.00	936.78	$12.88	----------	----------	12.88	923.90
Head Office Construction Division	13,659.34	15,287.66	7,200.00	36,147.00	4,805.83	----------	----------	4,805.83	31,341.17
Laboratory and test equipment	----------	1,424.25	----------	1,424.25	----------	----------	----------	----------	1,424.25
Special work equipment, John Hart Development	3,412.40	8,977.60	825.00	13,215.00	2,968.82	----------	----------	2,968.82	10,246.18
Totals	$17,164.62	$25,932.87	$8,747.00	$51,844.49	$7,787.53	$19.50	----------	$7,807.03	$44,037.46
Totals, general plant	$143,026.69	$84,637.95	$23,508.63	$251,173.27	$14,160.46	$30,796.78	$394.40	$45,351.64	$205,821.63
Summary									
Generating plant	$223,861.94	$291,160.38	$25,375.79	$540,398.11	$176,316.27	$6,959.07	$24,683.32	$207,958.66	$332,439.45
Transmission plant	104,625.30	109,051.92	206.34	213,883.56	48,455.79	215.00	80.00	48,750.79	165,132.77
Distribution plant	207,976.41	308,698.04	44,413.45	561,087.90	145,599.39	90,990.70	1,735.00	238,325.09	322,762.81
General plant	143,026.69	84,637.95	23,508.63	251,173.27	14,160.46	30,796.78	394.40	45,351.64	205,821.63
Totals	$679,490.34	$793,548.29	$93,504.21	$1,566,542.84	$384,531.91	$128,961.55	$26,892.72	$540,386.18	$1,026,156.66

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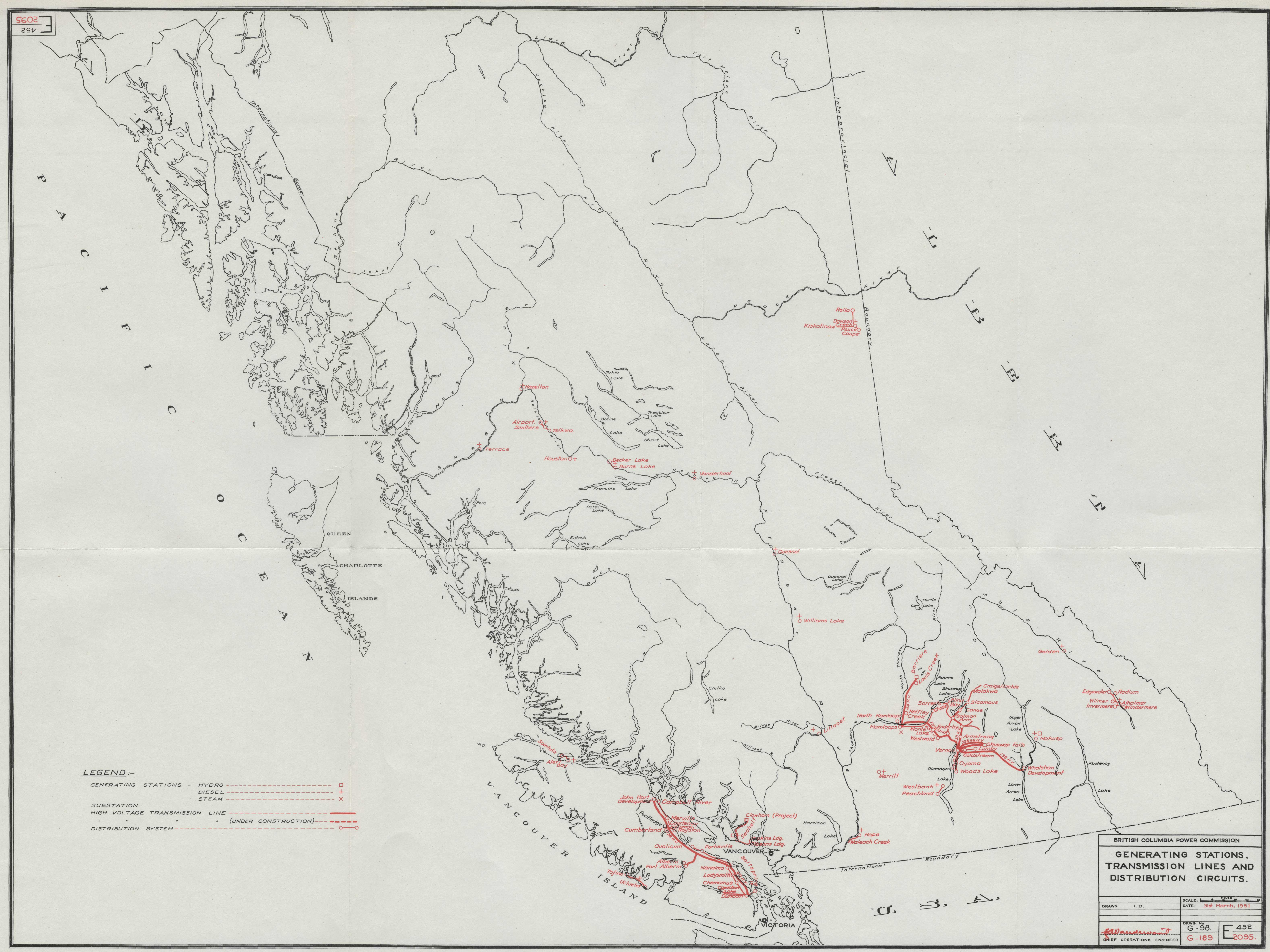
2,795-551-6699



E 452 2095
PACIFIC OCEAN
QUEEN CHARLOTTE ISLANDS
VANCOUVER ISLAND
U. S. A.
A L B E R T A
International Boundary
Interprovincial Boundary
Liard River
Peace River
Fraser River
Skeena River
Thompson R.
North Thompson
Columbia River
Kootenay Lake
Upper Arrow Lake
Lower Arrow Lake
Okanagan Lake
Adams Lake
Shuswap Lake
Murtle Lake
Quesnel Lake
Chilko Lake
Harrison Lake
Lillooet R.
Bridge River
Babine Lake
Stuart Lake
Takla Lake
Trembleur Lake
Francois Lake
Ootsa Lake
Eutsuk Lake
Rolla
Dawson Creek
Kiskatinaw
Pouce Coupe
Hazelton
Airport
Smithers
Telkwa
Terrace
Houston
Decker Lake
Burns Lake
Vanderhoof
Quesnel
Williams Lake
Lillooet
Golden
Edgewater
Radium
Wilmer
Invermere
Athalmer
Windermere
Barriere
Louis Creek
44 K.V.
Heffley Creek
North Kamloops
Kamloops
Sorrento
Blind Bay
Chase
Sicamous
Malakwa
Craigellachie
Canoe
Salmon Arm
Enderby
Falkland
60 K.V.
Monte Lake
Westwold
Armstrong
33 K.V.
33 & 66 K.V.
Shuswap Falls
Lumby
Vernon
Coldstream
138 K.V.
Oyama
Woods Lake
Whatshan Development
Nakusp
Merritt
Westbank
Peachland
Hope
Waleach Creek
Sointula
Alert Bay
John Hart Development
Campbell River
Puntledge
Merville
Courtenay
Comox
Royston
Cumberland
138 K.V.
Qualicum
Parksville
Alberni
Port Alberni
Tofino
Ucluelet
Nanaimo
Ladysmith
Chemainus
Cowichan Lake
Duncan
Saltspring
Clowhom (Project)
Sechelt
Hopkins Ldg.
Gibsons Ldg.
VANCOUVER
VICTORIA
LEGEND:-
GENERATING STATIONS - HYDRO
DIESEL
STEAM
SUBSTATION
HIGH VOLTAGE TRANSMISSION LINE
" " " " (UNDER CONSTRUCTION)
DISTRIBUTION SYSTEM
BRITISH COLUMBIA POWER COMMISSION
GENERATING STATIONS, TRANSMISSION LINES AND DISTRIBUTION CIRCUITS.
SCALE: MILES 0 10 20 30 40 50
DRAWN: I. D.
DATE: 31st March, 1951
CHIEF OPERATIONS ENGINEER.
DRWG. No. G-98.
G-189
E 452 2095.