

Sitka Electricity Commission

General

UNITS BOOK

FROM

NOV. 1949

TO

JUNE 1956

Energy Statistics

Total units generated	1,084,980 kWh
M.D. (1/4 Hour)	4,300 kw.
Load Factor	33.9%
Total Units Sent Out From Station	1,038,970 kWh
M.D. (1/4 Hour)	4,150 kw.
Load Factor	33.5%
Units Used by Auxiliary Plant	46,010 kWh.
6.6 k.V. Supply Ex. T/S	1,397,740 kWh
M.D. (1/4 Hour)	3,180 kw.
Load Factor	59.1%
22 k.V. Supply Ex. T/S	1,020,000 kWh
M.D. (1/4 Hour)	2,270 kw.
Load Factor	60.4%
6.6 k.V. Supply Ex. T/S	426,400 kWh.
M.D. (1/4 Hour)	1,320 kw.
Load Factor	43.4%

Analysis of Total Ballarat Supply

Total Ballarat Supply	2,844,140 kWh
M.D. (Coincident)	6,900 kw.
M.D. (Summated)	6,770 kw.
Units to Traction	109,880 kWh
M.D. (Coincident)	180 kw
Load Factor on Actual M.D. of 350 kw.	42.1%
Total Units to Distribution	2,734,260 kWh
M.D.	6,590 kw.
Load Factor	55.8%

Works Units

Offices	Units	Traction	Units
Main Office (A.C.)	666	Welders Compressor	936
Workshops A.C. = 77 D.C. = 287 Oven = 170	2	Scrubber Bar	
Garage (A.C.)	534	(Cleaning)	168
Mkrs & Tests A.C. = 150 D.C. = 191	182	(Grinding)	
Store	341		
Consumer's Engineer's Office (A.C.)	56		
	235		

Traction	109880	108,776
Less Track Maint.	1104	

3180	Power	108,776
31811	Lighting + Power for Sheds	1,888
	Tramway Kw.H.S.	110,664

Public Lighting	23,022
Domestic - General	722,464
" Farms	44,114
Industrial - General	981,718
" Farms	58,273
" Mining	43,950
Commercial	517,398

Grand Total Sales. 2,390,939

Electricity	2,933,476	Difference	344,425
Trams	110,664		
Total	2,844,140		

Total Sent out.

2,844,140

Energy Statistics

Total Units Generated	1,523,230 kWh.
M.D. (1/2 Hour)	4,500 kW
Load Factor	45.5%
Total Units Sent Out From Station	1,459,310 kWh.
M.D. (1/2 Hour)	4,350 kW
Load Factor	45.1%
Units Used by Auxiliary Plant.	63,920 kWh.
6.6KV Supply Ex. P/S	1,523,420 kWh.
M.D. (1/2 Hour)	3,260 kW
Load Factor	62.8%
22KV. Supply Ex. T/S.	2,045,000 kWh.
M.D. (1/2 Hour)	3,770 kW
Load Factor	72.9%
6.6KV Supply Ex. T/S.	3,97,000 kWh.
M.D. (1/2 Hour)	1,240 kW
Load Factor	43.0%

Analysis of Total Demand Supply

Total Demand Supply	3,965,420 kWh
M.D. (Coincident)	7,300 kW
M.D. (Summated)	8,270 kW
Units to Traction	106,600 kWh.
M.D. (Coincident)	180 kW
Load Factor on Actual M.D. of 340 kW	42.1%
Total kWh. to Distribution	3,858,820 kWh.
M.D.	8,090 kW
Load Factor	64.1%

Works Units

Office	283	Stone	10
Narris Office (Ac)	40	Petrol Pump & Stone Water (Ac)	109
Workshops Ac = 172 D.C. = 425 oven = 1423	2020	Commis Engineer's Office (Ac)	291
Garage (Ac)	106	Cottage (Ac)	719
Meter & Tests Ac = 92 D.C. = 199	291	Paint Shop (Ac)	86
Welders & Compressor	966	Traction	
		Scrambler Car (cleaning)	180

Traction	106,600	
Less Track Maint	1,146	1,05,454
Power		
Lighting & Power Car Sheds		
Tramway kWh ²		
Public Lighting		35,953.8
Domestic General		1,351,553.7
" Farms		96,136
Industrial General		1,757,109.3
" Farms		94,492
" Mining		8,790
Commercial		463,817
Grand Total Sales	3,807,850	
Electricity	3,859,966	
Trams	105,454	
	9,965,420	
Difference		52,116.3
Total Sent out		3,965,420

Energy Statistics

Total Units Generated	865700 KWH.
M.D. (1/4 Hour)	3800 Kw
Load Factor	31.6%
Total Units Sent Out From Station	824,730 KWH.
M.D. (1/4 Hour)	3650 Kw.
Load Factor	31.4%
Units Used by Auxiliary Plant.	40,970 KWH.
6.6 KV Supply & P/S.	x 1,306,530 KWH.
M.D. (1/4 Hour)	2930 Kw.
Load Factor	61.9%
22 KV Supply & P/S.	x 2,046,000 KWH.
M.D. (1/4 Hour)	4,050 Kw.
Load Factor	70.2%
6.6 KV Supply & P/S.	x 4,15,400 KWH.
M.D. (1/4 Hour)	1380 Kw.
Load Factor	41.8%
<u>Analysis of Total Ballarat Supply.</u>	
Total Ballarat Supply.	3,767,930 KWH.
M.D. (Coincident)	8,000 Kw.
M.D. (Summated)	8,360 Kw.
Unit to Traction	95,000 KWH. x
M.D. (Coincident)	260 Kw.
Load Factor on Actual M.D. of 320 Kw	41.2%
Total KWH. to Distribution	3,672,930 KWH.
M.D.	8100 Kw.
Load Factor	63.0%

Works Units.

Office	175	Store	27
Main Office (Ac.)	26	Store Water & Petrol Pump (Ac)	77
Workshop Ac. = 171 D.C. = 243 Oven = 188	602	Consumer's Engineer's Office (Ac)	318
Garage (Ac.)	104	Cottage	452
Mech. Dept. Ac. = 172 D.C. = 127	299	Paint Shop	28

AM

Traction

95000

Public Lighting	41069
Domestic General	843128
" Farms	97517
Industrial General	1637264
" Farms	130852
" Mining	11
Commercial	576737

Grand Total Sales 3326,578

Difference

346352

Electricity	3672930
Trams	95000
Total	3767930

Total Sent out.

3767930

JAN 53

Energy Statistics

Total Units Generated	1,297,400 kWh
M.D. (1/2 Hour)	3,750 kW
Load Factor	46.5%
Total Units Sent Out From Station	1,243,840 kWh
M.D. (1/2 Hour)	3,600 kW
Load Factor	46.4%
Units Used by Auxiliary Plant	53,560 kWh
6.6 kV Supply Exc. P/S.	1,354,760 kWh
M.D. (1/2 Hour)	3,300 kW
Load Factor	55.2%
22 kV Supply Exc. T/S.	1,612,000 kWh
M.D. (1/2 Hour)	4,380 kW
Load Factor	49.5%
6.6 kV Supply Exc. T/S.	390,600 kWh
M.D. (1/2 Hour)	1,320 kW
Load Factor	39.8%

Analysis of Ballard Supply

Total Ballard Supply	3,357,360 kWh
M.D. (Coincident)	8,450 kW
M.D. (Summated)	9,000 kW
Units to Traction	1,070,500 kWh
M.D. (Coincident)	220 kW
Load Factor on actual M.D. of 340 kW	42.3%
Total kWh. to Distribution	3,250,310 kWh
M.D.	8,780 kW
Load Factor	49.8%

Works Units

Offices	301	Stone	11
Main Office Ac.	22	Stone Water & Petrol Pump Ac.	89
Works Shops Ac. = 89	309	Conservation Engineer's Office Ac.	297
D.C. = 220		Cottage	601
Over = 0	134	Paint Shop	7
Garage Ac.	388		
Meter & Tests. Ac. = 300			
D.C. = 88			

[Handwritten signature]

Traction

107050

Public Lighting	30,102
Domestic - General	1,404,602
Farms	1,138,426
"	1,054,095
Industrial - General	1,163,666
Farms	215,000
"	559,590
Commercial	0

Total Sales 3,280,747

30437

Electricity	3,250,310	Difference
Traction	107,050	
Total	3,357,360	

Total sent out. 3,357,360

Energy Statistics

Total Units Generated - 'A' Station	169,5790 kWh
MD (1/2 Hour)	5800 Kw
Load Factor	40.6%
Total Units Sent Out From Station	1,632,100 kWh
MD (1/2 Hour)	5600 Kw
Load Factor	40.5%
Units Used by Auxiliary Plant	636,900 kWh
6.6KV Supply Ex. P/S	1,471,220 kWh
MD (1/2 Hour)	3340 Kw
Load Factor	61.2%
22KV Supply Ex. P/S	2,802,000 kWh
MD (1/2 Hour)	5280 Kw
Load Factor	73.8%
6.6KV Supply Ex. T/S	520,100 kWh
MD (1/2 Hour)	1880 Kw
Load Factor	38.5%

Analysis of Total Ballarat Supply

Total Ballarat Supply	4,793,320 kWh
MD (Coincident)	9900 Kw
MD (Summated)	10,500 Kw
Units to Traction	1,051,400 kWh
MD. (Coincident)	250 Kw
Load Factor on Actual MD of 340 Kw	43%
Total kWh to Distribution	4,688,180 kWh
MD	10,250 Kw
Load Factor	63.0%

Total Units Generated 'B' Station	383,000 kWh
MD (1/2 Hour)	6900 Kw
Load Factor	
Total Units Sent Out From Station	2,719,000 kWh
MD (1/2 Hour)	6500 Kw
Load Factor	
Units Used by Auxiliary Plant	111,100 kWh

Handwritten signature

SEP 53

Traction 105,140

Public Lighting	42,140
Domestic - General	1,115,262
Farms	143,046
Industrial - General	2,009,202
Farms	167,772
mining	5642
Commercial	723,091

Total Sales £206,155

	Difference	482,025
Electricity	4,688,180	
Trams	105,140	
	4,793,320	

Total sent out. 4,793,320

Energy Statistics

Total Units Generated "A" Station	905110
MD (1/4 hr)	4550
Load Factor	26.73
Total Units sent out from "A" Station	864680
MD (1/4 hr)	4400
Load Factor	26.41
Units Used by auxiliary Plant	40430
0.6 KV Supply Ex T/S.	1,576,380
MD (1/4 hr)	3390
Load Factor	62.5
22 KV Supply Ex T/S.	2,892,000
MD (1/4 hr)	5160
Load Factor	75.34
6.6 KV Supply Ex T/S	559200
MD (1/4 hr)	1820
Load Factor	41.3
<u>Analysis of Total Ballarat Supply</u>	
Total Ballarat Supply	5,027,580
MD (Coincident)	11000
MD (summed)	10370
Units to Traction	113,330
MD (Coincident)	240
Load Factor on actual MD of 420 KW	36.27
Total KW H to Distribution	4,914,250
MD	10130
Load Factor	65.21
<u>Total units Generated "B" Station</u>	
Total units Generated "B" Station	5,178,000
MD (1/4 hr)	16700
Load factor	41.68
Total units sent out from Station	4,468,000
MD (1/4 hr)	15,500
Load Factor	38.75
Units used by auxiliary Plant.	710,000

Traction

113330

Public Lighting	38792
Domestic - General	983552
Farms	148352
Industrial General	2118885
Farms	135512
Mining	8610
Commercial	632310
Total Sales	4066013

Difference

848237

Electricity	4914250
Trams	113330
	5027580

Total sent out 5,027,580

Energy Statistics.

Total Units Generated 'A' Gen.	256,210 kWh.
M.O. (1/4 hour)	4,400 kw.
Load Factor.	7.83%
Total Units Sent out 'A' Gen.	244,370 kWh.
M.O. (1/4 hour)	4,250 kw
Load Factor.	7.75%
Units used by Auxiliary Plants.	11840 kWh.
6.6 kv. Supply in 'A' Gen.	A 885,650 kWh
M.O. (1/4 hour)	3020 kw
Load Factor.	58.9%
Total Units Generated 'B' Gen.	B 6,767,000 kWh
M.O. (1/4 hour)	24,200 kw
Load Factor.	37.5%
Total Units Sent out 'B' Gen.	5,982,500 kWh
M.O. (1/4 hour)	22,500 kw
Load Factor.	35.7%
Units used by Auxiliary Plants.	784,500 kWh.
22 kv. Supply in 'B' Gen.	2,448,000 kWh
M.O. (1/4 hour)	5,800 kw.
Load Factor.	56.73%
6.6 kv. Supply in 'B' Gen.	795,000 kWh.
M.O. (1/4 hour)	2680 kw.
Load Factor.	39.8%
Analysis of Total Gallant Supply.	
Total Gallant Supply.	4,128,650 kWh.
M.O. Coincident	11500 kw.
M.O. Summated (No. chgs. 9600 load, 900 kw. other)	10500 kw. ?
Units to Traction.	96880 kw.
M.O. (coincident)	200
Load Factors and Actual M.O. of 360 kw.	3617%
Total kWh. to Distribution (9500)	4,031,770 kWh
M.O. (1/4 hr.)	10,300 kWh.
Load Factor.	52.6%

Traction 96880

Public Lighting	32,559
Domestic - General	1,686,034
Farms	152,607
Industrial - General	1,712,724
Farms	160,462
Mining	5300
Commercial	693,823

Total Sales 4,443,509

Difference 411,739

Electricity	4,031,770
Trams.	96,880
<hr/>	<hr/>
	4,128,650

Sent out 4,128,650

Energy Statistics for June 1956

Total units generated A Station	933,550 Kw/h ✓
MO $\frac{1}{4}$ hour	5,500 Kw ✓
Load Factor	23.57 % ✓
Total units send out A Station	899,150 Kw/h
MO $\frac{1}{4}$ hour	5,300 Kw ✓
Load Factor	23.56 % ✓
Units used by Auxiliary plant	34,400 Kw/h
6.6 KV Supply ex A Station	1,252,850 Kw/h
MO $\frac{1}{4}$ hour	2,645 Kw ✓
Load Factor	65.79 % ✓
Total units generated B Station	8,140,000 Kw/h
MO $\frac{1}{4}$ hour	26,000 Kw ✓
Load Factor	43.48 % ✓
Total units send out B Station	7,317,500 Kw/h
MO $\frac{1}{4}$ hour	24,300 Kw ✓
Load Factor	41.82 % ✓
Units used by Auxiliary plant	822,500 Kw/h
22 KV Supply ex B Station	4,140,000 Kw/h
MO $\frac{1}{4}$ hour	8,605 Kw ✓
Load Factor	66.82 % ✓
6.6 KV Supply ex B Station	1,425,000 Kw/h ✓
MO $\frac{1}{4}$ hour	4,400 Kw ✓
Load Factor	44.98 % ✓
<u>Analysis of Total Ballarat Supply</u>	
Total Ballarat Supply	6,817,850 Kw/h
MO [coincident]	15,600 Kw ✓
MO [summed]	15,650 Kw ✓
Units to fraction	88,860 Kw/h
MO coincident with system MO	180 Kw ✓
Load Factor on actual MO of 320 Kw	38.56 % ✓
Total Units to distribution	6,728,990 Kw/h
MO $\frac{1}{4}$ hour	15,470 Kw ✓
Load Factor	60.41 % ✓

M

JUN 56

Fraction	88860
Public Lighting	54766
Domestic - General	1482154
Farms	253524
Industrial General	2620575
Farms	207335
Mining	
Commercial	1078954
Total Sales	5697308
Difference	1031682
Electricity	
Trams	
Sent out	6817850