

CONFIDENTIAL (Attachment Only)

1 **Request IR-157:**

2

3 **For each windfarm owned by or under contract to NSPI, for each month January 2009**
4 **through June 2011, please provide:**

5

6 **(a) Actual energy generation**

7

8 **(b) Actual wind capacity in service**

9

10 **Response IR-157:**

11

12 **(a-b) Please refer to Confidential Attachment 1.**

CONFIDENTIAL (Attachment Only)

1 **Request IR-158:**

2

3 **Please provide the current status of each renewable generation project under contract to**
4 **NSPI (e.g., permitting status, financing status, construction status).**

5

6 Response IR-158:

7

8 Please refer to Confidential Attachment 1. A complete list of renewable energy projects is
9 provided in Appendix 1 of the 2012 General Rate Application.

2012 General Rate Application (NSUARB P-892)
NSPI Responses to CA Information Requests

CONFIDENTIAL (Attachment Only)

1 **Request IR-159:**

2

3 **Please provide any reports received by NSPI since July 2010, from any renewable**
4 **generation project under contract to NSPI, regarding the status and progress of the**
5 **project.**

6

7 Response IR-159:

8

9 Please refer to Confidential Attachments 1 to 4.

2012 General Rate Application (NSUARB P-892)
NSPI Responses to CA Information Requests

NON-CONFIDENTIAL

1 **Request IR-160:**

2

3 **Please provide NSPI's current projection of RES compliance, by source by year, 2011–**
4 **2015.**

5

6 Response IR-160:

7

8 Please refer to NPB IR-117.

NON-CONFIDENTIAL

1 **Request IR-161:**

2

3 **Please provide any analyses performed by or for NSPI since 2009 regarding the feasibility**
4 **and benefits of mothballing or deactivating existing coal capacity.**

5

6 Response IR-161:

7

8 NSPI has not completed an analysis as described in this request.

NON-CONFIDENTIAL

1 **Request IR-162:**

2

3 **Please provide NSPI's current projection of load and capacity by year, through 2021.**

4

5 Response IR-162:

6

7 Please refer to CA IR-165. The information is listed under System Planning in the 10 Year
8 System Outlook 2011, as table 9, page 18 of 53.

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1 **Request IR-163:**

2
3 **For each of the following responses, for which NSPI asserts confidentiality, please provide**
4 **the basis of the assertion and explain the nature of the harm that would result from public**
5 **disclosure of the response:**

6
7 **(a) CA IR-35 Attachment 1**

8
9 **(b) CA IR-36 Attachment 1**

10
11 **(c) CA IR-43 Attachment 1**

12
13 **(d) CA IR-58 Attachment 1**

14
15 **(e) CA IR-61 Attachment 1**

16
17 **(f) Multeese IR-1 Attachment 1**

18
19 **Response IR-163:**

20
21 (a) This document is filed on a confidential basis due to system security concerns.
22 Protection of the power system preserves reliability and reduces risks associated with
23 external threats.

24
25 (b) This document is filed on a confidential basis due to system security concerns.
26 Protection of the power system preserves reliability and reduces risks associated with
27 external threats.

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1 (c) This document contains details respecting monthly energy generation and monthly peak
2 load on the plant for Nova Scotia Power's gas turbines. Nova Scotia Power procures
3 fuel, purchased power, services and capital equipment in a market that is driven by
4 competitive forces and suppliers looking to create value for themselves. The more a
5 supplier is aware of Nova Scotia Power's specific requirements, the better their ability to
6 obtain the highest price, reduce competition and ultimately increase the cost for NSPI and
7 its customers.

8
9 This information is commercially sensitive as it provides specific plant characteristics
10 which could allow suppliers to respond to Requests for Proposals at prices that could, in
11 absence of this detailed knowledge, otherwise be lower. Knowledge of these details
12 would allow a sophisticated supplier to anticipate the needs of the Company and adapt
13 bids accordingly.

14
15 (d) Upon further review, Nova Scotia Power has determined that this document is only
16 partially confidential. Page 17 is confidential as it shows critical equipment infrastructure.
17 Protection of the power system preserves reliability and reduces risks associated with
18 external threats. Nova Scotia Power has redacted and re-filed the original attachment.
19 Please refer to Partially Confidential Attachment 1.

20
21 (e) This document is filed on a confidential basis for security of the system security concerns
22 as it shows critical equipment infrastructure. Protection of the power system preserves
23 reliability and reduces risks associated with external threats.

24
25 (f) This document is the Cost of Service Study. It is filed on a confidential basis as the data
26 input tables contain commercially sensitive financial information from 2011.



LIVERPOOL AREA
DISTRIBUTION PLANNING STUDY

Report No. 265-0109-W68

Ting Zhang
January, 2009

EXECUTIVE SUMMARY

This study was initiated by the approaching capacity criteria violation at Milton substation due to planned construction of approximate 2 MVA of new commercial load in the next three years.

Transformer 50W-T53 is rated 12.5/14.8MVA. Since the load on 50W-T53 peaks in the winter time, the cold ambient temperature permits the rating to be increased to 133% of 14.8MVA which is 19.7 MVA. However, Polsky Energy (Brooklyn) has purchased 2.5 MVA capacity of this transformer for the contingency of losing their 138kV supply, there is only 17.2 MVA capacity available for other NSPI customers.

This new commercial load plus normal load growth is predicted to result in a load of 17.41 MVA on transformer 50W-T53 by the year 2020 exceeding the 17.2 MVA capacity.

25kV feeder 50W-412 is loaded to 200amps peak at present and is predicted to be loaded to 277 amps in 2011 at a growth rate of 1.5% per year as well as an additional 2 MVA new commercial load, and become 335amps if it is requested to supply 2.5 MVA reserves for Polsky Energy. However, it is still below the overload criteria for contingency. Load on feeder 412 under normal condition would exceed 300 amps in 2018.

This study recommends (1) transferring some load on Highway #3 off 50W-412 to 411 when overload criteria violation occurs on feeder 412 in 2018 and (2) replacing 50W-T53 by a larger unit (15/20/25 MVA) in 2020.

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1.0 SCOPE

This study was initiated to develop a plan to deal with the approaching capacity criteria violation at Milton sub-station with 2 MVA of new commercial load in the next three years. Transformer load is predicted to exceed 133% of its top rating by 2020 including 2.5 MVA reserves for Polsky Energy (Brooklyn). Transformer loading, feeder loading and load growth on the 25kV distribution system in Milton has been reviewed in this planning study, and feeder voltage profiles and reconfiguration have been evaluated using the CYME model. This report covers the period between 2008 and 2023.

2.0 EXISTING SYSTEMS

2.1 Sub-Transmission

The 69kV Sub-transmission System in Liverpool area is supplied via the 138kV transmission system transformers identified in table 1 below.

Sub-station Name	Transformer	Transformer Data				
		Manufacturer	kV	Rating (MVA)	IMP.	Age
50W-Milton	50W-T1	Westinghouse	138-69	30/40/50	6.40%	1965

Table 1 Liverpool Area EHV Substations

Under normal operating conditions, Milton 138kV sub-station is fed by a loop, one end from the Bridgewater substation via L-6531, L-6006 and L-6025, and the other end from Tusket and Souriquois via L-6024 and L-6020. 50W is also used to supply Polsky and Bowater Mersey substation.

The Sub-transmission System Operation Diagram for this area is shown in Appendix A.

2.2 Distribution

This study is focused on 50W Milton sub-station transformer T53 and the two 25kV distribution feeders (411 and 412). 50W-411 and 50W-412 go along Milton E Rd. until they get Potanoc St., which is about 1.5kM from the substation. 50W-412 continues to go along Milton E Rd., 50W-411 goes west along Potanoc St. till it goes to West St. and feed down to Victoria Lake and Western Head areas after passing Downtown Liverpool. 50W-412 passes Highway 103 and #3 then supplies the areas of Brooklyn, Beach Meadows, West& East Berlin, Port Medway, Mill Village, Charleston, Italy Cross and Camperdown.

The distribution sub-station supplying Liverpool area is shown in Table 2.

Milton Feeder Circuits						
Sub-station Name	Xfmr Data					Feeder Numbers
	Manufacturer	kV	Rating (MVA)	IMP.	Age	
50W-Milton	Federal Pioneer	69-26.4	12.5/14.8	6.40%	1987	50W-411, 50W-412

Table 2 Milton Distribution Feeders

The distribution system under study is shown by the distribution system operating diagram in Appendix B.

3.0 LOAD HISTORY AND FORECAST

3.1 Load History

In Liverpool area, there are two distribution substations, Waterloo St. substation (48 W) supplies 4kV load within Downtown Liverpool area, and Milton substation (50W) supplies 25kV load. During the past years, due to transformer capacity and contingency criteria issues, some of 4kV load on 48W feeders has been converted to 25kV and fed from 50W instead, therefore in this planning study the load profile of the whole Liverpool area (48W+50W) is analyzed together. Load data dating back to 1993 was obtained for Milton transformer, L-5539 (48W transformer) and distribution feeders from the PI Data combining with monthly substation meter readings. The combined 48W and 50W load growth for Liverpool is shown in Figure 1 below:

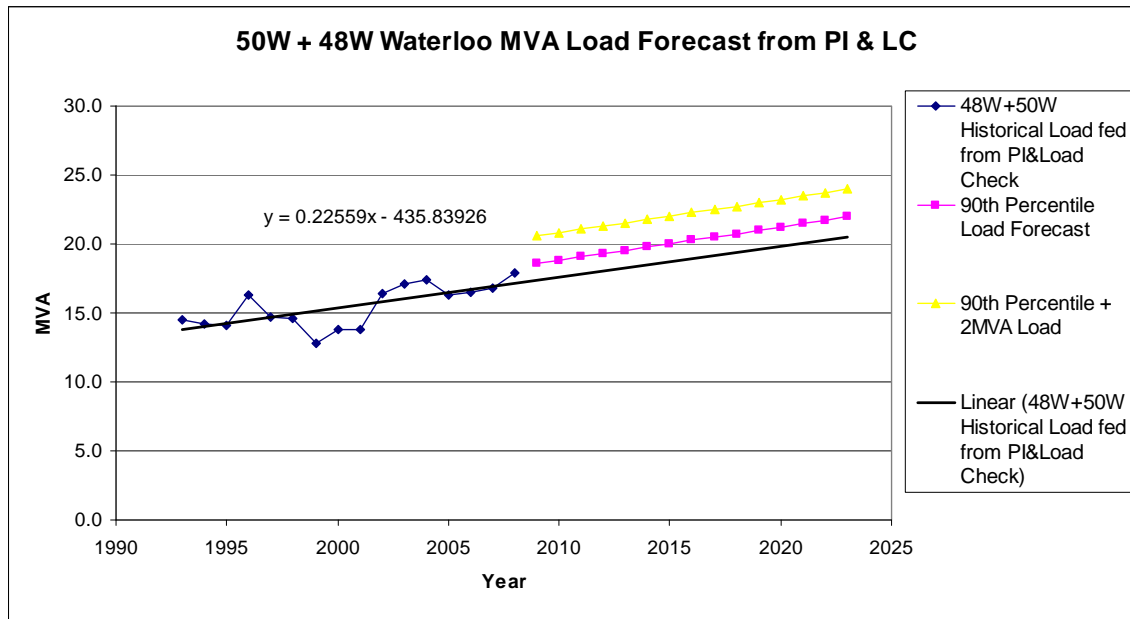


Figure 1 Historical and Forecast Annual Peak Load for Liverpool Area

3.2 Load Forecast

The load forecast will be determined by projecting with the calculated 1.5% per year growth rate. Table 3 below shows the forecasted load for the Milton and Waterloo St. Sub-station transformers if they were left in their present configuration.

Liverpool Area Distribution Planning Study

Year	48W+50W Design Forecast (MVA)	48W-T1 Design Forecast (MVA)	50W-T53 + 2MVA Design Forecast (MVA)
2008/2009	18.17	5.48	12.69
2009/2010	18.44	5.56	12.88
2010/2011	18.72	5.65	13.07
2011/2012	21.00	5.73	15.27
2012/2013	21.29	5.82	15.47
2013/2014	21.57	5.90	15.67
2014/2015	21.86	5.99	15.87
2015/2016	22.16	6.00	16.16
2016/2017	22.46	6.00	16.46
2017/2018	22.78	6.00	16.78
2018/2019	23.08	6.00	17.08
2019/2020	23.41	6.00	17.41
2020/2021	23.72	6.00	17.72
2021/2022	24.05	6.00	18.05
2022/2023	24.38	6.00	18.38

Table 3 Load Forecast – Liverpool Area

48W –T1 rated at 7.5/10MVA can only be loaded to 6MVA due to contingency violation criteria at emergency, because the top rating of the available mobile transformer at 69 to 4kV in our system (3P) is 6MVA. From Table 3 above we can see that the load of 48W-T1 is predicted to exceed 6 MVA in 2016, and we have to convert some load to 25kV and transfer it to 50W circuit.

50W-T53 rated at 14.8MVA can be loaded to 133% of its top rating during winter (19.68MVA) before being considered to be in an overloaded condition. However, since Polsky Energy (Brooklyn) has purchased 2.5 MVA capacity in the transformer for the contingency of losing their 138kV supply, there is only 17.2 MVA capacity available for other NSPI customers.

There will be a planned new-constructed 2MVA commercial load along Highway #3 between Old Fall Rd. and Old Pepsi Rd. in the next three years. This new load growth includes a hotel, school, library and some sports facilities, which mostly depends on the future development and potential profitability of Bowater Mersey Paper Company. If that happens, plus the load transferred from 48W 4kV system, the design load growth forecast for 50W-T53 predicts that load will exceed its rating by 2019/2020 winter peak with a forecast load of 17.41MVA.

4.0 Capital Criteria Violations

4.1 Overloaded Power Transformers

With the forecast load growth, overload criteria violations will occur in 2020 as shown in Table 3 above with the additional 2MVA commercial load. 50W-T53 will exceed 133% of its top nameplate rating by then (provided that load continues to grow at the forecasted rate of 1.5% per year).

4.2 Feeder Overloads

As we discussed above, an approximate 2 MVA new load might be tapped off 50W-412 during 2010 and 2011. At present the feeder is loaded at around 200amps for winter peak, and historical feeder load profile is shown as Figure 3 below.

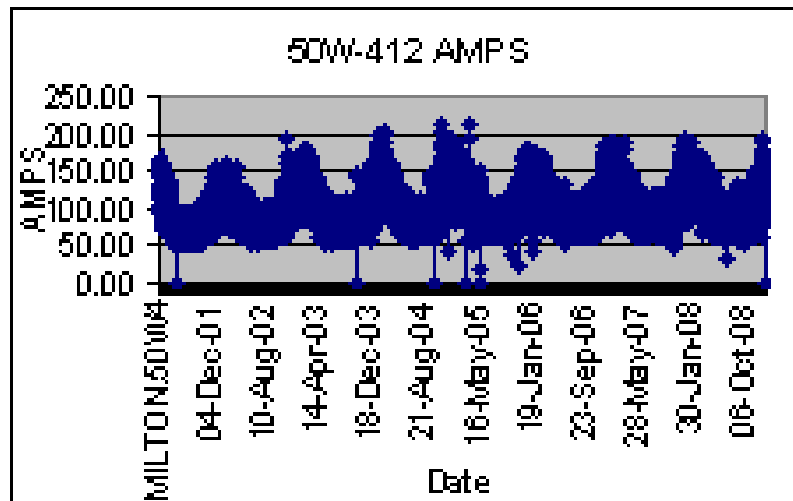


Figure 2 50W-412 Feeder Historical Load Profile

By 2011 50W-411 is predicted to be 125 amps, while 50W-412 is predicted to be loaded to 230 amps (provided that load continues to grow at the forecasted rate of 1.5% per year), and will increase to 277 amps with the inclusion of the 2 MVA of new commercial construction by 2011, which is still below 300 amps feeder capacity limit. It will be loaded up to 325 amps including Polsky reserves. However, there is no contingency violation, according to the feeder 90 percentage design forecast, a feeder can be loaded to 325 amps in the case of emergency (unless other restrictions apply such as recloser cold load pick-up, conductor capacity limits).

50W-412 is predicted to be loaded up to 302 amps under normal condition by 2018, while load on 50W-411 would be 138 amps. Load transfer from 50W-412 to 50W-411 is recommended if actual load grows as predicted.

Required work includes:

- Close switch D418-010 between 50W-411& 412 on Bristol Ave.

Liverpool Area Distribution Planning Study

- Install a new switch at the cutout to replace the fuse as shown in Figure 4
- Build a 2 km double-circuit to pick up about 2.5 MVA load from 50W-412



Figure 3 Capital Work for load transfer in 2018

Cost of the capital work as indicated above would be roughly \$240,000 at present value.

4.3 Contingency Loss of a Power Transformer

The contingency plan for loss of transformer 50W-T53 is installation of mobile transformer 5P and spare. Switching load to alternate substations is not possible in this study since there are no other 25kV circuits interconnected with 50W feeders.

4.4 Under-voltage

For 50W-412 simulation shows that low voltage may be experienced at the end of some single-phase feeder sections, which are shown in Appendix C. If the condition is verified by voltage recording in the field, single phase regulators will be required at the recommended locations which are also marked in the maps in Appendix C.

5.0 SOLUTIONS AND EVALUATION

Refer to Appendix E for relevant information on NSPI Capital Expenditure Justification Criteria.

Transformer 50W-T53 is predicted to be overloaded by 2020 if the new load growth is built as expected. Three alternatives were evaluated in this study. These included (1) the option to replace transformer 50W-T53 in 2020 by a larger unit (15/20/25 MVA) to prevent overload violation (2) the option to add a second transformer (7.5/10/12.5 MVA) in 50W substation in 2020 and (3) the option to add a new transformer (7.5/10/12.5 MVA) in 48W substation in 2020 and upgrade L-5539. Details of these options are presented as below.

Alternative 1: Replace transformer 50W-T53 in 2020 by a larger unit (15/20/25 MVA) to prevent overload violation

This option would require the replacement of existing transformer by a 15/20/25 MVA unit with OLTC. The existing Federal Pioneer transformer (12.5/14.8 MVA) can be stored as a system spare, or it can be put into other substations as required.

In addition to transformer replacement, LV bus upgrades are required. Two or three extra pole expansions will be installed to strengthen aerial conductor between the transformer and 25kV bus structure. The two spans of aerial conductor are 556 ACSR and 336 ACSR. The 336 ACSR, however, would be capable for 500 -550 Amps under summer conditions and around 750 Amps under winter conditions. Therefore, 336 ACSR would need to be replaced by then.

Alternative 2: Add a second transformer (7.5/10/12.5 MVA) in 50W substation in 2020

This option relies on installing a second transformer (7.5/10/12.5 MVA) in 50W substation with the existing 50W-T53 in service as well.

For this alternative, a transformer bay will be expanded from 69kV Bus B2, new switches and a circuit breaker at high voltage side will also be purchased at the same time. Existing LV bus has to be isolated by installing new switches for the existing two feeder exits, or a new LV bus structure would be built for one feeder or the other. System operating diagram of 50W substation is also attached in Appendix A.

Alternative 3: Add a new transformer (7.5/10/12.5 MVA) in 48W substation in 2020 and upgrade L-5539

This option includes adding a new 69 to 25kV transformer (7.5/10/12.5 MVA) in 48W substation. At present, there is only one 69 to 4kV transformer in Waterloo St. substation tapping off L-5539 and supplying downtown Liverpool area.

Liverpool Area Distribution Planning Study

In this option, a separate fence on the yard towards Waterloo St. is recommended to accommodate the second transformer to feed some of 50W load in 2016. A draft of the 48W substation layout with the new transformer is attached in Appendix D. In this alternative we need to purchase a new high voltage switch and a recloser as well as the transformer. The pole structure for 69kV before coming into the substation needs to be rebuilt for the connection of 69kV line and transformer bushing. A set of poles for the feeder exit is also part of the capital work besides three spans of pole expansions for connecting with the existing 50W feeders.

The advantage of this option is that 48W is geographically close to the heavy-loaded area fed by 50W feeders, and it has less overall system loss in this scheme. However, L-5539 is a 69kV transmission line from Milton substation to Waterloo St. This line is a wood pole structure with a distance of 8.5km. The conductor size for the first 7.7 km out of Milton is 336 ACSR and the remaining 0.8 km is 4/0. Some transmission line upgrades and maintenance work would likely be done due to the ground clearance caused by additional load tapped off L-5539 by then.

Associated work includes:

- Installing a few new line structures and repairing some existing ones
- Replacing some wood poles due to damage or deterioration

Economic Analysis

The relevant financial data, economic analysis, NPV results, and alternative summary sheets have been attached in Appendix E of this report.

Alternative 1: Replace transformer 50W-T53 in 2020 by a larger unit (15/20/25 MVA)
(NPC = \$770,510.9)

Alternative 2: Add a second transformer (7.5/10/12.5 MVA) in 50W substation in 2020
(NPC= \$ 770,420.6)

Alternative 3: Add a second transformer (7.5/10/12.5 MVA) in 48W substation in 2020 and upgrade L-5539
(NPC = \$905,879.5)

The results of the analysis show that the cost of Alternative 1, *Replace transformer 50W-T53 in 2020 by a larger unit (15/20/25 MVA)* is most economic.

Qualitative Analysis

In the course of valuating the options for Milton substation 50W-T53, the future of L-5539 and 48W substation supplying the 4kV system needs to be considered.

Transformer 48W-T1 was conducted in 1965, and it is now 43 years old and has reached 108% of the average service life for 'Transmission Plant- Station Equipment'¹. According to the IOWA State Survivor Curve R2.5, and based on an average service life of 40 years, we can estimate that 48W-T1 will reach the end of its service life in 2016.

Liverpool Area Distribution Planning Study

By this date, it will probably have to be replaced and scrapped. Besides the transformer, the 4kV switch gear is old and 4kV cables are also old. The question is, will the choice being made on the 25kV system now be impacted by the 4kV system alternatives? The three choices available for the 4kV system are:

- maintain the 69-4kV system by replacing transformer 48W-T1, switch gear and cables as they fail
- convert the 4kV system to 25kV and eliminate substation 48W or
- replace 48W-T1 with a 25-4kV transformer and maintain the substation as a step-down substation

If Alternative 3 in 50W study is chosen then there will be a long term commitment to keep L-5539 at 69kV. If Alternative 1 and 2 are chosen then the option for L-5539 would still be open.

Another option for L-5539 would be to utilize it as a future 25kV feeder from 50W, after we retire 48W substation as a 69kV-4kV source. We would also require a neutral conductor by then.

However, it was felt to be outside the scope of this study to evaluate the 4kV system options at this time. The only aspect being considered here is supplying 4kV load growth by the 25kV system to keep the load on 48W-T1 under mobile rating.

Alternative 1: Replace transformer 50W-T53 in 2020 by a larger unit (15/20/25 MVA)

This is the most economic scheme with the least capital work comparing with other solutions. The majority part of capital would be the new transformer unit. However, the existing transformer 50W-T53 is fairly new-installed (in 1987); we can put it into other substation after it is overloaded at 50W. Therefore salvage value has to be taken into account during the Economic Analysis for this alternative.

This option also has the least total system loss obtained from CYME.

Alternative 2: Add a second transformer (7.5/10/12.5 MVA) in 50W substation in 2020

This option requires a second transformer in 50W substation. In this option, each transformer supplies one feeder. Capital cost also includes a new circuit breaker and LV recloser, besides we have to build a new LV bus for the second feeder.

Total system loss obtained from CYME for this option is 69kW/year more than that of Alternative 1.

Alternative 3: Add a second transformer (7.5/10/12.5 MVA) in 48W substation in 2020 and upgrade L-5539

Liverpool Area Distribution Planning Study

This alternative is similar to Alternative 2, but instead of installing the transformer in Milton substation, we will put it into Waterloo St. substation. The only reason for this scheme is that 48W is the location relatively closer to the load center for 50W distribution circuits than 50W substation.

Comparing with Alternative 1, the total system loss for this option is 63.3kW/year more.

Besides those three alternatives stated above, there is another assumption being considered as an alternative in this study, which is to build a new substation with a 15/20/25 MVA transformer on Highway #3 tapping off L-6047&6048 near Polsky Substation. In this case distribution system has less losses and better load balance performance. 50W-T53 and two feeders could be retired by then and load could also be supplied from the new 138kV substation instead. We can also retire L-5539 by replacing 48W-T1 by a 25 to 4 kV transformer when 48W-T1 comes to the end of its life. This option will improve system performance and reliability; also minimize the cost of maintenance. However, this option turns out infeasible due to several reasons:

- This is the option with the highest capital cost.
- 50W-412 is requested to supply Polsky with 2.5 MVA reserves when they lose 138kV L-6047&6048 supply. If we feed 50W feeders by new substation, they will have the same source, and there would be contingency criteria violation.
- Bowaters would be subject to distribution faults causing voltage dips.
- Line protection on L-6047&6048 have to be revised at a high cost.

L-6047 is two-terminal differential with relays at 50W and 101W while L-6048 is three-terminal differential with relays at 50W, 101W and 104W. For load current or faults external to the line the relays on the given line will communicate to each other the magnitude and phase angle of the currents entering and leaving the line. Under normal conditions, the phasor sum should be close to zero and all relays restrained. The relay settings and characteristics will allow for a certain error to account for CT performance and possibly tapped load on the line. For a fault on the line the phasor sum of currents detected by the relays will have a net value equal to the fault current. The relays will communicate that to each other and they will trip.

If we tap new load off these two lines, L-6047&6048 relays would see the tapped load as error current (unless we tap at the 104W bus downstream of the 138 kV breaker), and of course if a fault occurred on the feeders supplied by the tap transformer this fault current would be seen as an error current by the differential relays and they would trip.

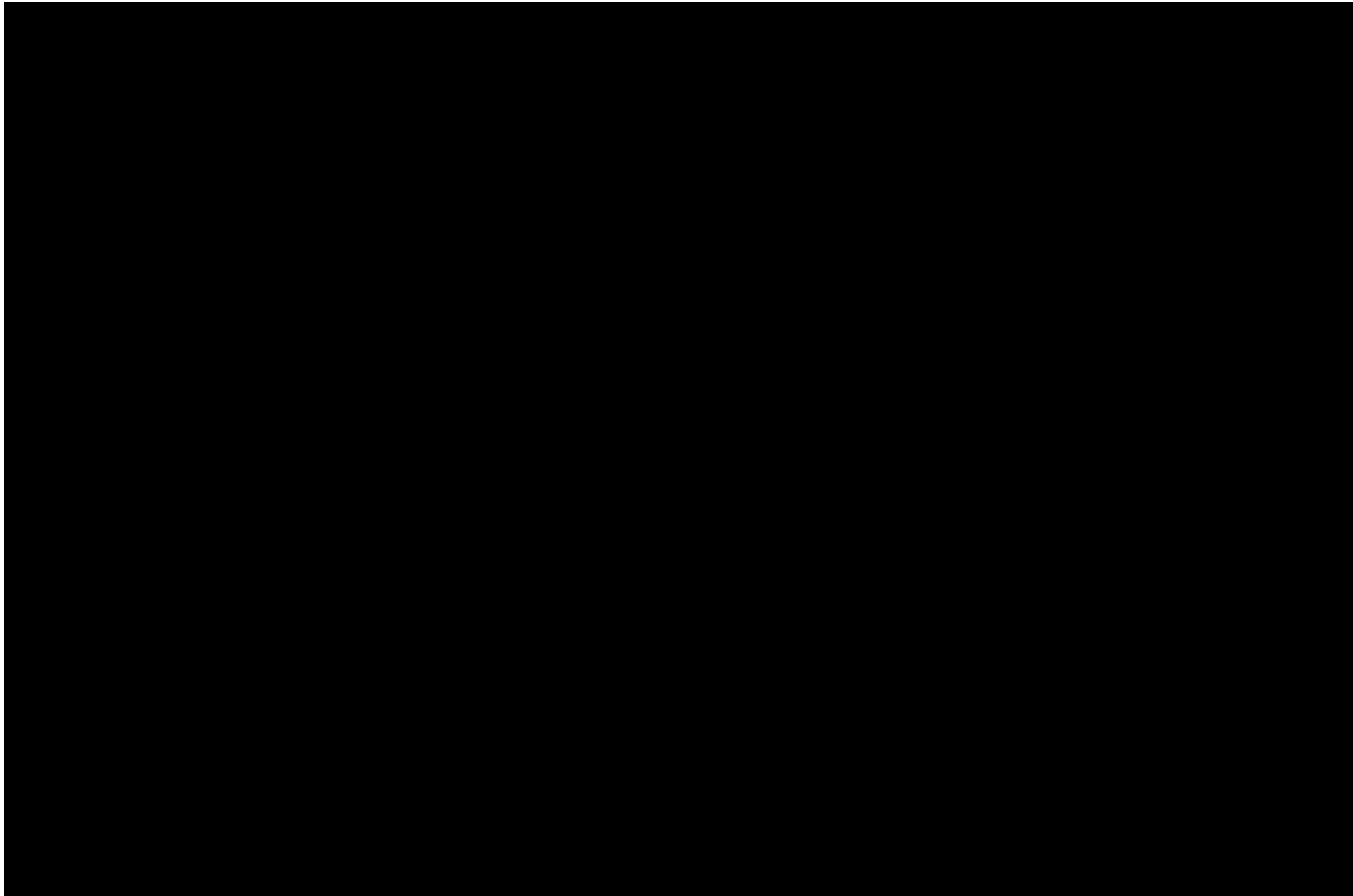
6.0 RECOMMENDATIONS

The foregoing economic analysis favours Alternative 1, which is to replace the existing transformer with a larger unit (15/20/25 MVA) in 50W substation in 2020. The capital project will solve the overload violation problems in Liverpool Area in the most economic manner over the next 15 years.

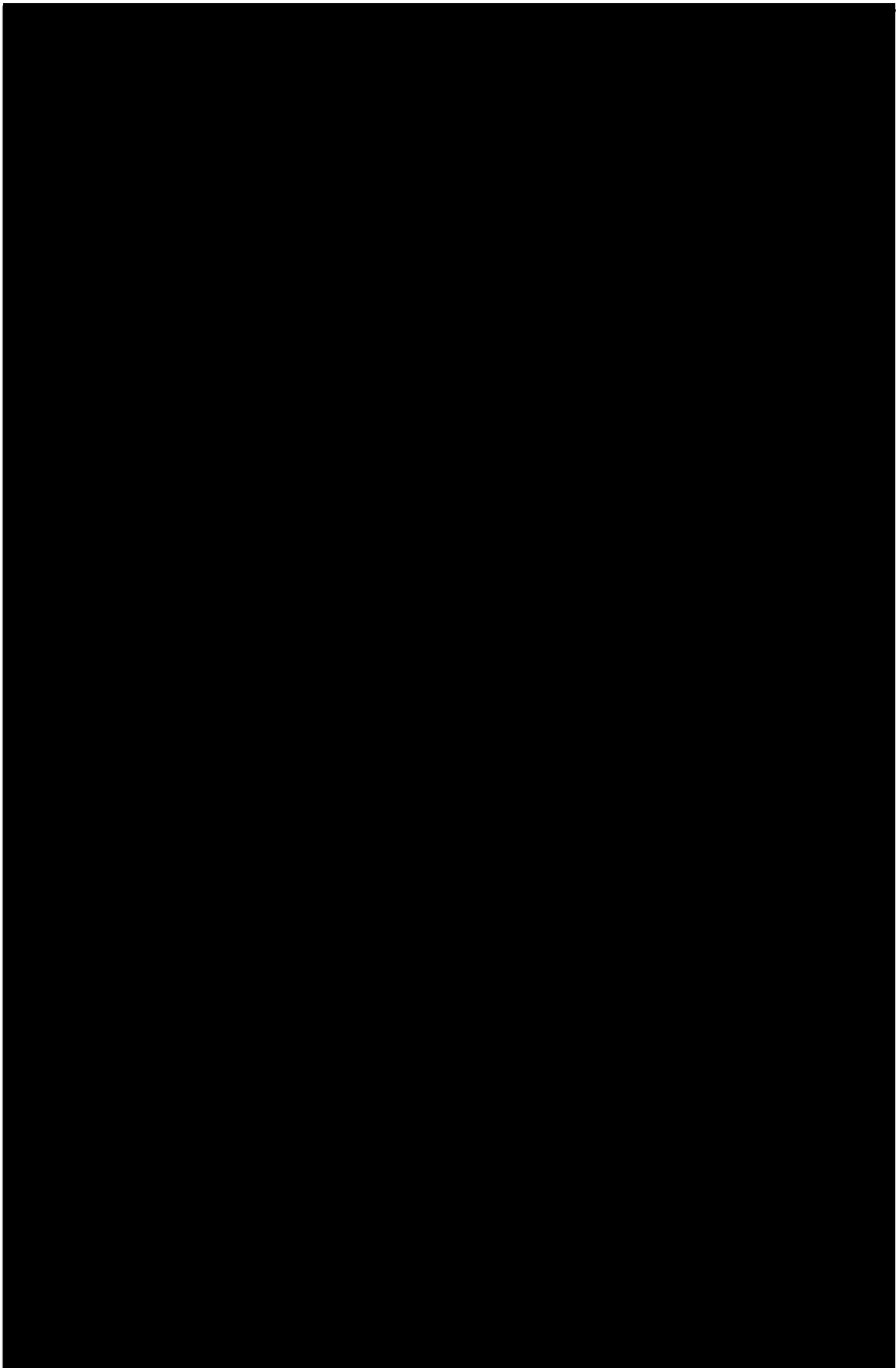
This option is recommended to replace the transformer as well as the low side switch. Two or Three pole expansions will also be required to strengthen aerial conductor between the transformer and 25kV bus structure. 336 ACSR aerial conductors would also need to be replaced by then.

Load transfer to feeder 50W-411 from 412 is recommended in 2018 when the feeder overload violation occurs on 50W-412. However, further planning study would be required to check the load profile again before implementing any recommendation within this study.

APPENDIX A
System Operating Diagram



Appendix A System Operating Diagram

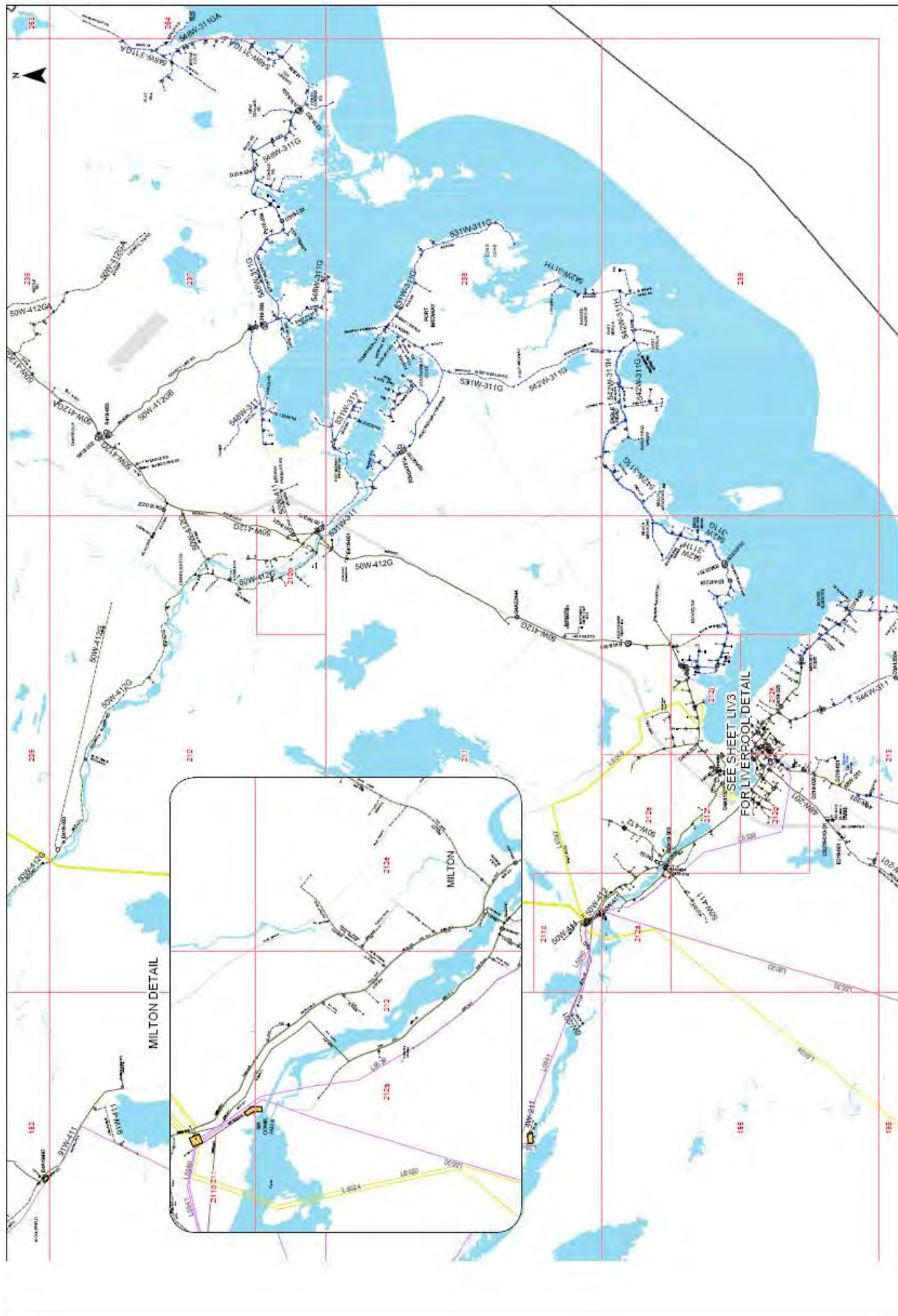


Appendix B Distribution System Operating Diagram

APPENDIX B

Distribution System Operating Diagram

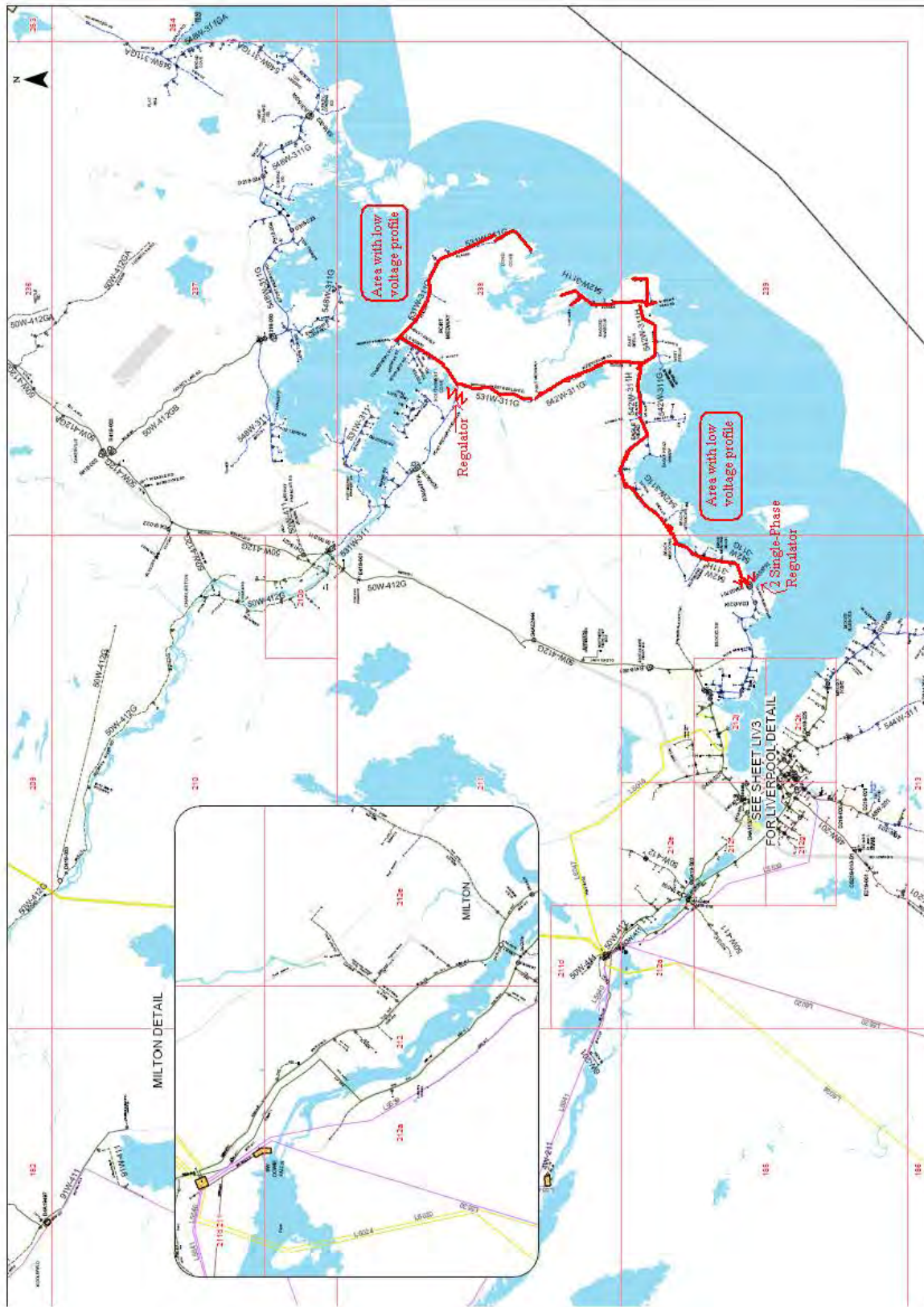
Appendix B Distribution System Operating Diagram



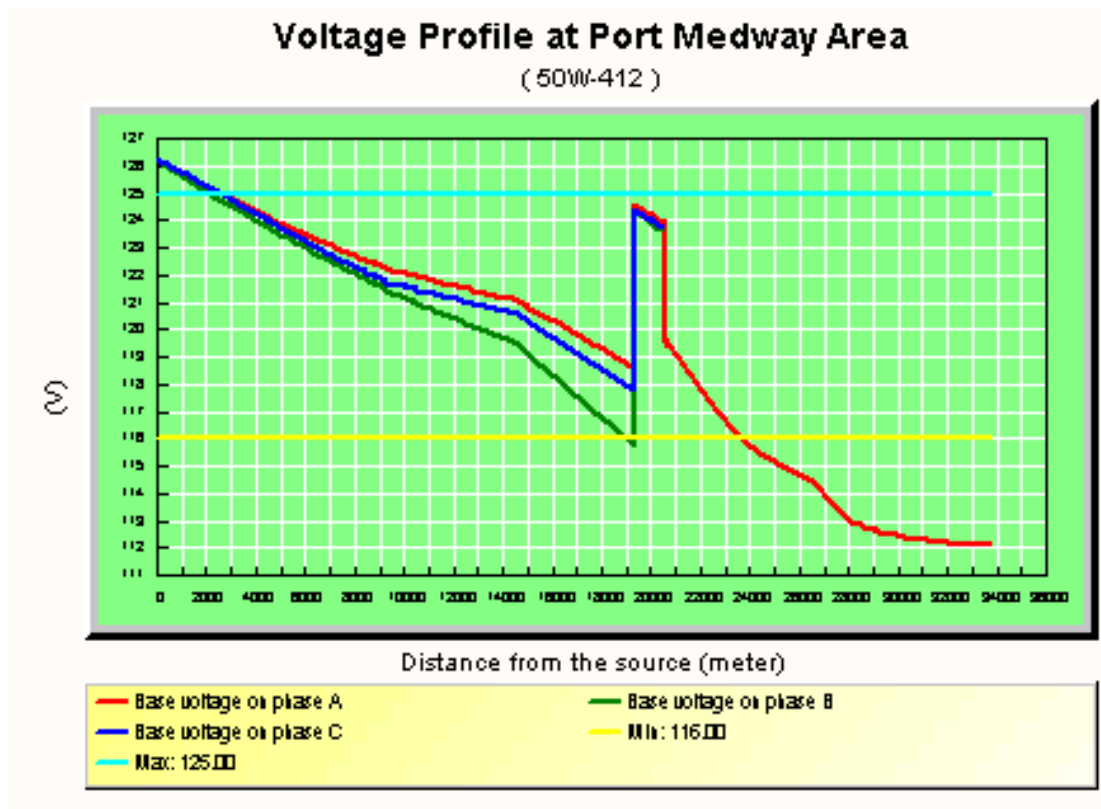
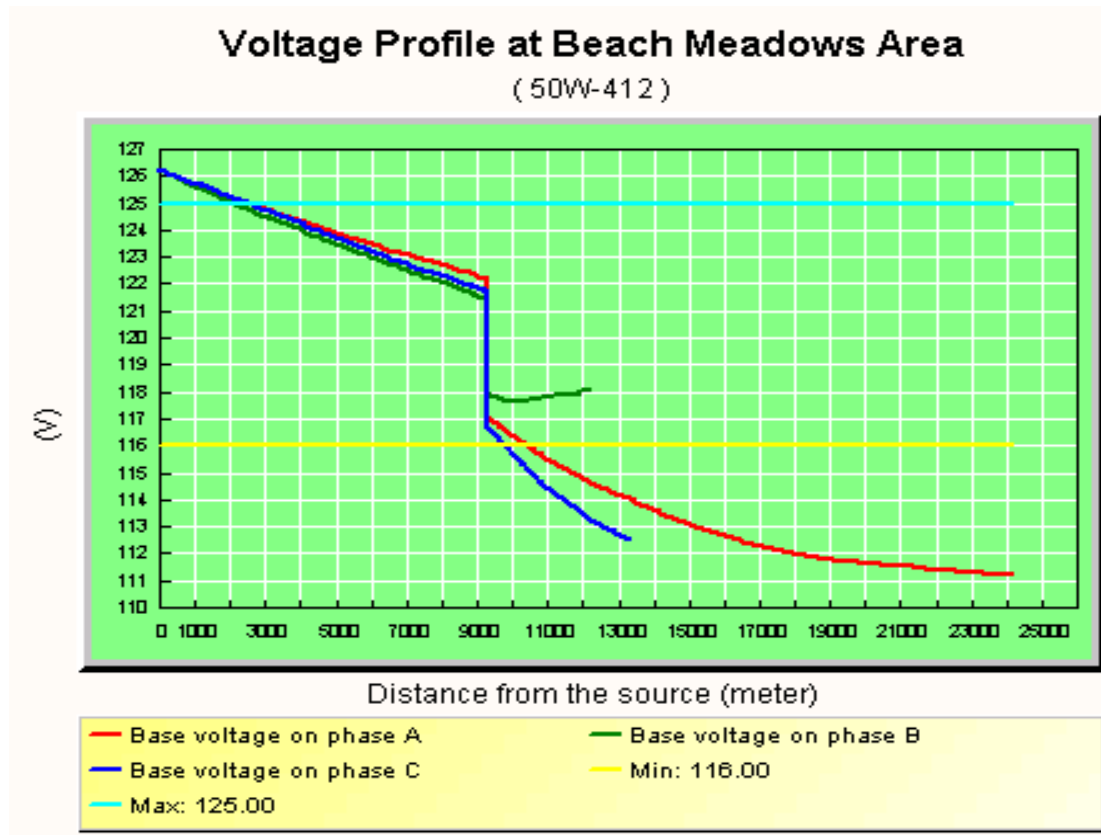
APPENDIX C

Recommendation of Voltage Regulators

Appendix C Recommendation of Voltage Regulators



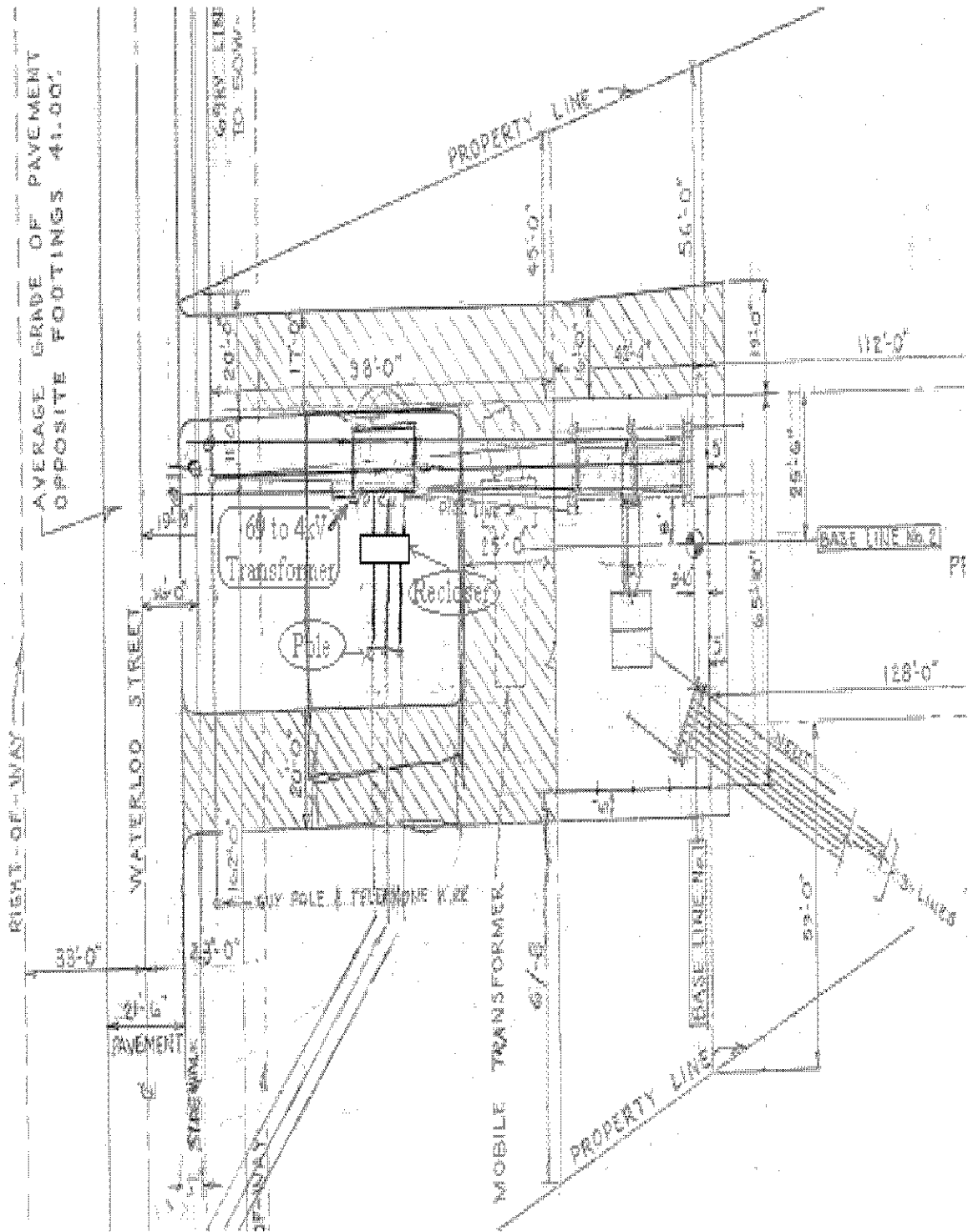
Appendix C Recommendation of Voltage Regulators



APPENDIX D

Overview of Alternative 3

Appendix D Overview of Alternative 3



APPENDIX E

Economic Analysis

Appendix E Economic Analysis



**Liverpool Area Distribution Planning Study
Summary of Alternatives**

Admin: Unlock
Admin: Lock

Budget Year : 2009
Division :
Department :
Originator :

Date : 3-Feb-09
CI Number :
Project No. :

Alternative	After Tax WACC	PV of EVA / NPV	Rank	IRR	Disc Pay
A Replace 50W-T53 with a larger unit in 2020	6.38%	-770,516	2	#NUM!	0.0 years
B Add second transformer in 50W and a new feeder bay in 2020	6.38%	-775,421	3	#NUM!	0.0 years
C Add a new transformer in 48W in 2020	6.38%	-905,880	4	#NUM!	0.0 years
D Test 4	6.38%	0	1	#NUM!	0.0 years

Recommendation :

This study recommends replacing the transformer by a larger unit as well as the low side switch in 2016 when the overload violation occurs. Two or Three pole expansions will also be required to strengthen aerial conductor between the transformer and 25kV bus structure. 336 ACSR aerial conductors would need to be replaced by then, too

Notes/Comments :

Replace 50W-T53 with a larger unit in 2020

This option would require replacing the transformer as well as the low side switch. Two or Three pole expansions will also be required to strengthen aerial conductor between the transformer and 25kV bus structure. 336 ACSR aerial conductors would need to be replaced by then, too

Add second transformer in 50W and a new feeder bay in 2020

This option relies on installing a second transformer (7.5/10/12.5 MVA) in 50W substation with the existing 50W-T53 in service as well. In this alternative, a transformer bay will be expanded from 69kV Bus B2, new switches and a circuit breaker at high voltage side will also be purchased at the same time. Existing LV bus has to be isolated by installing new switches for two feeder exits, or a new LV bus structure would be built for the second feeder.

Add a new transformer in 48W in 2020

This option includes adding a second transformer (7.5/10/12.5 MVA) in 48W substation. In this alternative we have to purchase a new high voltage switch and a recloser as well as the transformer. The pole structure for 69kV before coming into the substation needs to be rebuilt for the new transformer horizontal bushing connection; besides, a set of poles as the feeder exit is also part of the capital work as well as three spans of pole expansions. Some transmission line up-grades and maintenance work would likely be done over next few years due to the ground clearance caused by additional load tapped off L-5539.

Test 4

Appendix E Economic Analysis

Liverpool Area Distribution Planning Study Replace 50W-153 with a larger unit in 2020												
Year	Total Revenue	Operating Costs	Capital	CCA	UCC	CFBT	Applicable Taxes	CFAT	Discount Factor	PV of CF	NPV	
2009									1.000			
2010									0.940			
2011									0.884			
2012									0.831			
2013									0.781			
2014									0.734			
2015									0.690			
2016									0.649			
2017									0.610			
2018									0.573			
2019									0.539			
2020			(1,844,948.6)	73,797.9	1,771,150.7	(1,844,948.6)	22,877.4	(1,822,071.3)	0.507	(923,081.9)	(923,081.9)	
2021				141,682.1	1,629,458.6		43,924.5	43,924.5	0.476	20,918.7	(902,163.2)	
2022				130,356.7	1,499,101.9		40,410.6	40,410.6	0.448	18,091.5	(884,071.7)	
2023				119,928.2	1,379,173.8		37,177.7	37,177.7	0.421	15,646.4	(868,425.3)	
2024				110,333.9	1,269,839.9		34,203.5	34,203.5	0.396	13,531.8	(854,893.6)	
2025				101,507.2	1,167,332.7		31,467.2	31,467.2	0.372	11,702.9	(843,190.6)	
2026				93,386.6	1,073,946.1		28,949.9	28,949.9	0.350	10,121.3	(833,069.4)	
2027				85,915.7	988,030.4		26,633.9	26,633.9	0.329	8,753.4	(824,316.0)	
2028				79,042.4	908,988.0		24,503.2	24,503.2	0.309	7,570.3	(816,745.7)	
2029				72,719.0	836,268.9		22,542.9	22,542.9	0.290	6,547.2	(810,198.5)	
2030				66,901.5	769,367.4		20,739.5	20,739.5	0.273	5,662.3	(804,536.1)	
2031				61,549.4	707,818.0		19,080.3	19,080.3	0.257	4,897.1	(799,639.1)	
2032				56,625.4	651,192.6		17,553.9	17,553.9	0.241	4,235.2	(795,403.9)	
2033				52,095.4	599,097.2		16,149.6	16,149.6	0.227	3,662.8	(791,741.1)	
2034				47,927.8	551,169.4		14,857.6	14,857.6	0.213	3,167.8	(788,573.3)	
2035				44,093.6	507,075.8		13,669.0	13,669.0	0.200	2,739.7	(785,833.6)	
2036				40,566.1	466,509.8		12,575.5	12,575.5	0.188	2,369.4	(783,464.2)	
2037				37,320.8	429,189.0		11,569.4	11,569.4	0.177	2,049.2	(781,415.1)	
2038				34,335.1	394,853.9		10,643.9	10,643.9	0.167	1,772.2	(779,642.9)	
2039				31,588.3	363,265.6		9,792.4	9,792.4	0.157	1,532.7	(778,110.2)	
2040				29,061.2	334,204.3		9,009.0	9,009.0	0.147	1,325.5	(776,784.6)	
2041				26,736.3	307,468.0		8,286.3	8,286.3	0.138	1,146.4	(775,638.2)	
2042				24,597.4	282,870.5		7,625.2	7,625.2	0.130	991.5	(774,646.8)	
2043				22,629.6	260,240.9		7,015.2	7,015.2	0.122	857.5	(773,789.3)	
2044				20,819.3	239,421.6		6,454.0	6,454.0	0.115	741.6	(773,047.7)	
2045				19,153.7	220,267.9		5,937.7	5,937.7	0.108	641.4	(772,406.4)	
2046				17,621.4	202,646.5		5,462.6	5,462.6	0.102	554.7	(771,851.7)	
2047				16,211.7	186,434.7		5,025.6	5,025.6	0.095	479.7	(771,372.0)	
2048				14,914.8	171,520.0		4,623.6	4,623.6	0.090	414.9	(770,957.1)	
2049				13,721.6	157,798.4		5,230.7	5,230.7	0.084	441.2	(770,515.9)	
Total			(1,844,948.6)	1,607,150.3	20,324,702.4	(1,844,948.6)	523,993.6	(1,320,955.1)	15.4	(770,515.9)	(24,179,525.0)	

Appendix E Economic Analysis

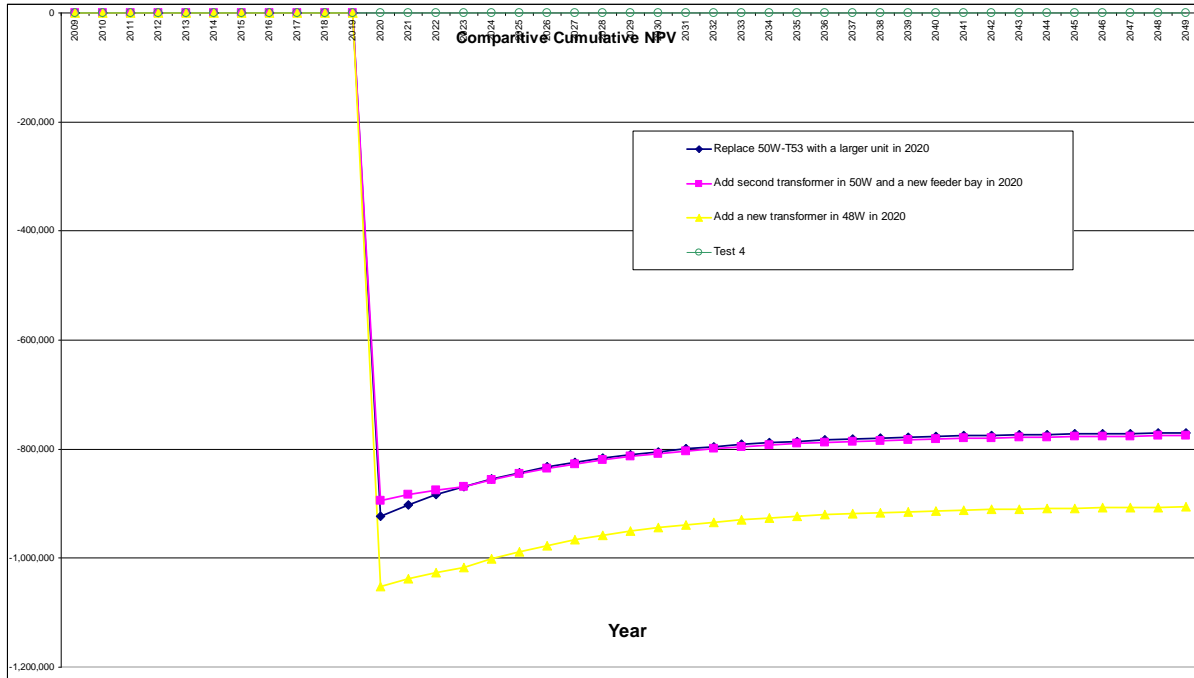
Liverpool Area Distribution Planning Study Add second transformer in 50W and a new feeder bay in 2020											
Year	Total Revenue	Operating Costs	Capital	CCA	UCC	CFBT	Applicable Taxes	CFAT	Discount Factor	PV of CF	CNPV
2009									1.000		
2010									0.940		
2011									0.884		
2012									0.831		
2013									0.781		
2014									0.734		
2015									0.690		
2016									0.649		
2017									0.610		
2018									0.573		
2019									0.539		
2020		(27,363.1)	(1,767,002.7)	70,680.1	1,696,322.6	(1,794,365.9)	30,393.4	(1,763,972.5)	0.507	(893,648.4)	(893,648.4)
2021		(28,697.2)		135,705.8	1,560,616.8	(28,697.2)	50,964.9	22,267.7	0.476	10,604.8	(883,043.6)
2022		(30,093.9)		124,849.3	1,435,767.5	(30,093.9)	48,032.4	17,938.5	0.448	8,030.9	(875,012.7)
2023		(31,565.5)		114,861.4	1,320,906.1	(31,565.5)	45,392.3	13,826.8	0.421	5,819.1	(869,193.6)
2024				105,672.5	1,215,233.6		32,758.5	32,758.5	0.396	12,960.1	(856,233.5)
2025				97,218.7	1,118,014.9		30,137.8	30,137.8	0.372	11,208.5	(845,025.0)
2026				89,441.2	1,028,573.7		27,726.8	27,726.8	0.350	9,693.7	(835,331.3)
2027				82,285.9	946,287.8		25,508.6	25,508.6	0.329	8,383.5	(826,947.8)
2028				75,703.0	870,584.8		23,467.9	23,467.9	0.309	7,250.5	(819,697.3)
2029				69,646.8	800,938.0		21,590.5	21,590.5	0.290	6,270.6	(813,426.7)
2030				64,075.0	736,863.0		19,863.3	19,863.3	0.273	5,423.1	(808,003.6)
2031				58,949.0	677,913.9		18,274.2	18,274.2	0.257	4,690.2	(803,313.4)
2032				54,233.1	623,680.8		16,812.3	16,812.3	0.241	4,056.3	(799,257.2)
2033				49,894.5	573,786.4		15,467.3	15,467.3	0.227	3,508.1	(795,749.1)
2034				45,902.9	527,883.4		14,229.9	14,229.9	0.213	3,034.0	(792,715.1)
2035				42,230.7	485,652.8		13,091.5	13,091.5	0.200	2,623.9	(790,091.2)
2036				38,852.2	446,800.5		12,044.2	12,044.2	0.188	2,269.3	(787,821.9)
2037				35,744.0	411,056.5		11,080.7	11,080.7	0.177	1,962.6	(785,859.4)
2038				32,884.5	378,172.0		10,194.2	10,194.2	0.167	1,697.3	(784,162.0)
2039				30,253.8	347,918.2		9,378.7	9,378.7	0.157	1,467.9	(782,694.1)
2040				27,833.5	320,084.8		8,628.4	8,628.4	0.147	1,269.5	(781,424.5)
2041				25,606.8	294,478.0		7,938.1	7,938.1	0.138	1,098.0	(780,326.6)
2042				23,558.2	270,919.7		7,303.1	7,303.1	0.130	949.6	(779,377.0)
2043				21,673.6	249,246.2		6,718.8	6,718.8	0.122	821.2	(778,555.7)
2044				19,939.7	229,306.5		6,181.3	6,181.3	0.115	710.2	(777,845.5)
2045				18,344.5	210,962.0		5,686.8	5,686.8	0.108	614.3	(777,231.2)
2046				16,877.0	194,085.0		5,231.9	5,231.9	0.102	531.2	(776,700.0)
2047				15,526.8	178,558.2		4,813.3	4,813.3	0.095	459.4	(776,240.6)
2048				14,284.7	164,273.5		4,428.2	4,428.2	0.090	397.3	(775,843.2)
2049				13,141.9	151,131.7		5,009.7	5,009.7	0.084	422.6	(775,420.6)
Total		(117,719.7)	(1,767,002.7)	1,615,871.1	19,466,018.9	(1,884,722.5)	538,348.9	(1,346,373.6)	15.4	(775,420.6)	(24,226,191.8)

Appendix E Economic Analysis

Liverpool Area Distribution Planning Study
Add a new transformer in 48W in 2020

Year	Total Revenue	Operating Costs	Capital	CCA	UCC	CFBT	Applicable Taxes	CFAT	Discount Factor	PV of CF	CNPV
2009									1.000		
2010									0.940		
2011									0.884		
2012									0.831		
2013									0.781		
2014									0.734		
2015									0.690		
2016									0.649		
2017									0.610		
2018									0.573		
2019									0.539		
2020		(25,333.8)	(2,086,063.8)	83,442.6	2,002,621.2	(2,111,387.6)	33,720.7	(2,077,677.0)	0.507	(1,052,574.6)	(1,052,574.6)
2021		(26,559.6)		160,209.7	1,842,411.5	(26,559.6)	57,898.5	31,338.9	0.476	14,924.9	(1,037,649.8)
2022		(27,848.2)		147,382.9	1,695,018.6	(27,848.2)	54,324.7	26,476.6	0.448	11,853.4	(1,025,796.4)
2023		(29,200.4)		135,601.5	1,559,417.1	(29,200.4)	51,088.6	21,888.2	0.421	9,211.7	(1,016,584.7)
2024				124,753.4	1,434,863.8		38,673.5	38,673.5	0.396	15,300.2	(1,001,284.5)
2025				114,773.1	1,319,890.7		35,579.7	35,579.7	0.372	13,232.4	(988,052.1)
2026				105,591.3	1,214,299.4		32,733.3	32,733.3	0.350	11,444.0	(976,608.1)
2027				97,144.0	1,117,155.4		30,114.6	30,114.6	0.329	9,897.3	(966,710.7)
2028				89,372.4	1,027,783.0		27,705.5	27,705.5	0.309	8,559.7	(958,151.0)
2029				82,222.6	945,560.4		25,489.0	25,489.0	0.290	7,402.8	(950,748.2)
2030				75,644.8	869,915.5		23,449.9	23,449.9	0.273	6,402.3	(944,345.9)
2031				69,593.2	800,322.3		21,573.9	21,573.9	0.257	5,537.1	(938,808.8)
2032				64,025.8	736,296.5		19,848.0	19,848.0	0.241	4,788.7	(934,020.1)
2033				58,903.7	677,392.8		18,260.2	18,260.2	0.227	4,141.5	(929,878.6)
2034				54,191.4	623,201.4		16,799.3	16,799.3	0.213	3,581.8	(926,296.8)
2035				49,856.1	573,345.3		15,455.4	15,455.4	0.200	3,097.7	(923,199.1)
2036				45,867.6	527,477.6		14,219.0	14,219.0	0.188	2,679.0	(920,520.1)
2037				42,198.2	485,279.4		13,081.4	13,081.4	0.177	2,317.0	(918,203.1)
2038				38,822.4	446,457.1		12,034.9	12,034.9	0.167	2,003.8	(916,199.3)
2039				35,716.6	410,740.5		11,072.1	11,072.1	0.157	1,733.0	(914,466.3)
2040				32,859.2	377,881.3		10,186.4	10,186.4	0.147	1,498.8	(912,967.5)
2041				30,230.5	347,650.8		9,371.5	9,371.5	0.138	1,296.2	(911,671.3)
2042				27,812.1	319,838.7		8,621.7	8,621.7	0.130	1,121.0	(910,550.3)
2043				25,587.1	294,251.6		7,932.0	7,932.0	0.122	969.5	(909,580.7)
2044				23,540.1	270,711.5		7,297.4	7,297.4	0.115	838.5	(908,742.2)
2045				21,656.9	249,054.6		6,713.6	6,713.6	0.108	725.2	(908,017.1)
2046				19,924.4	229,130.2		6,176.6	6,176.6	0.102	627.2	(907,389.9)
2047				18,330.4	210,799.8		5,682.4	5,682.4	0.095	542.4	(906,847.5)
2048				16,864.0	193,935.8		5,227.8	5,227.8	0.090	469.1	(906,378.4)
2049				15,514.9	178,420.9		5,914.3	5,914.3	0.084	498.9	(905,879.5)

Appendix E Economic Analysis



CONFIDENTIAL (Attachment Only)

1 **Request IR-164:**

2

3 **With regard to IR CA-25a, for each existing NSPI unit, please provide:**

4

5 **(a) The 10-minute load-following capacity provided by the unit.**

6

7 **(b) The unit's ramp rate up and ramp rate down.**

8

9 Response IR-164:

10

11 (a-b) NSPI does not distinguish between the rate of ramping up and the rate of ramping down.

12 Please refer to Confidential Attachment 1.

2012 General Rate Application (NSUARB P-892)
NSPI Responses to CA Information Requests

NON-CONFIDENTIAL

1 **Request IR-165:**

2

3 **Please provide “NSPI’s 10 Year Outlook Report.”**

4

5 Response IR-165:

6

7 The report can be found on the NSPI OASIS web site at the following link.

8

9 <http://oasis.nspower.ca/en/home/default/forecastsandassessments.aspx>

REDACTED

1 **Request IR-166:**

2
3 **Please provide all available documentation of NSPI's "wind forecasting model" (IR CA-**
4 **25h), including**

5
6 **(a) A description of the development of the model, including the names of any**
7 **contractors, the dates of contract issuance and contractor work product delivery.**

8
9 **(b) A full description of the data sources used for the model,**

10
11 **(c) All available comparisons of actual and forecast values.**

12
13 **Response IR-166:**

14
15 (a) The model was developed in-house by Nova Scotia Power. The basis of the model is
16 forecasted wind speed and wind direction as it relates to a point on the manufacture
17 supplied efficiency curve of the specified wind generator. This gives a forecast MW
18 output. Multiplying this output by the number of turbines operating at a given wind farm
19 gives a forecast in MWs for each wind farm. The model was originally built in Excel. In
20 2010, it was ported into a Java scripted program.

21
22 (b) Data sources for the model include the forecasted wind speed and wind direction. This is
23 provided by [REDACTED].

24
25 (c) Please refer to Attachment 1, filed electronically.

NON-CONFIDENTIAL

1 **Request IR-167:**

2

3 **Question CA-30 requested an explanation of why NSPI “assigned [wind assets] 30% to 3CP**
4 **demand and the remaining plant to energy.” The response simply restates the question less**
5 **clearly. Please explain why NSPI decided that 30% (and not more or less) of wind assets**
6 **should be classified to 3CP demand and 70% to energy.**

7

8 Response IR-167:

9

10 Please refer to part a of UARB IR-73 from the 2007 rate case provided in Attachment 1.

2007

NSUARB-P-886

NOVA SCOTIA UTILITY AND REVIEW BOARD

IN THE MATTER OF: The *Public Utilities Act*, R.S.N.S. 1989, c.380 as amended

IN THE MATTER OF: An Application by Nova Scotia Power Incorporated for Approval of Certain Revisions to its Rates, Charges and Regulations

RESPONSE TO INFORMATION REQUEST

TO: NSPI

FROM: UARB

Question IR-73: Appendix G

- a. **Page 5, (last line but one): Provide an explanation of why wind assets are assigned 30% to 3CP demand and the remaining plant to energy.**
- b. **Exhibit 7: Why isn't line 17 the same as Appendix A, Table 2, line 5, column 5?**
- c. **Exhibit 9A, line 8: Column 2 shows energy sales of 2,076.1 GW.h, the same value as used by NSPI in the ELIIR-2 hearing (P-883) for the cost of service study in SEB IR-1a. Column 6 shows a coincident demand of 264,400 KW versus the SEB IR-1a value of 247,000 KW. This results in a drop in customer load factor from 95.85% in SEB IR-1a to 89.64% in the present filing. Please provide an explanation for the higher peak demand forecast for this customer in the present filing while leaving energy sales constant between the two cost of service studies.**

Response IR-73: a. Wind energy is a variable resource. In Nova Scotia, the current installed wind generation has generally achieved approximately a 30 percent capacity factor, compared to nameplate rating. NSPI has used these results in the Cost of Service Study to assign 30 percent of wind assets to demand, with the remainder being assigned to energy.

2007

NSUARB-P-886

NOVA SCOTIA UTILITY AND REVIEW BOARD

IN THE MATTER OF: The *Public Utilities Act*, R.S.N.S. 1989, c.380 as amended

IN THE MATTER OF: An Application by Nova Scotia Power Incorporated for Approval of Certain Revisions to its Rates, Charges and Regulations

RESPONSE TO INFORMATION REQUEST

TO: NSPI

FROM: UARB

Response IR-73: (cont'd)

- b. The difference between Non-Rate Revenue of \$9.3 million in Exhibit 7, line 17 and Misc. Revenue of \$10.8 million in Table 2, line 5 of Appendix A is associated with \$1.5 million in Retail Sales. This Retail Sales figure when netted against Cost of Goods Sold of \$1.1 million in Table 2, line 10 of Appendix A results in a credit of \$0.4 million that is identified in Exhibit 4, Line 24 of Appendix G.
- c. The demand of 264,400 kW for 2007 is based on 2005 actual load shape information that was not available in the P-883 hearing.

REDACTED

1 **Request IR-168:**

2

3 **CA IR-35 Attachment 1 shows a number of distribution step down substations (e.g., 3C,**
4 **11C, 13C, 46C, 47C, 52V, 53V, 41V, 48V) that are not listed in CA IR-36 Attachment 1.**
5 **Please provide the data requested in CA IR-36 for each of the remaining step down**
6 **substations shown on CA IR-35 Attachment 1.**

7

8 Response IR-168:

9

10 The response to this request is confidential.

NON-CONFIDENTIAL

1 **Request IR-169:**

2
3 **In the legend of CA IR-35 Attachment 1, the thinnest gray or black lines are identified as**
4 **“26 kV & below.” Is this category the color of the lines from 85S to 94S and 95S, or the**
5 **lighter color of the numerous lines, such as those from 95S to 73S?**

6
7 **(a) If the lighter lines are not the 26 kV and below transmission, are they primary**
8 **circuits, roads, or something else?**

9
10 **(b) If the lighter lines are not transmission lines, please explain the nature of the**
11 **distribution step down substations (such as 33V, 41V, 48V, 102C, 64C, 65S, 61S,**
12 **56W, 90W and 49W) that are not shown as being connected or close to any other**
13 **lines.**

14
15 **Response IR-169:**

16
17 CA IR-35 requested a map of NSPI’s transmission system. The legend “26 kV and below” on
18 this map is to identify only facilities operating at this voltage that are classified as transmission.
19 To display only the transmission facilities, the distribution facility layer of the provincial map
20 was turned off. However, some of the distribution step-down stations - those which provide
21 transformation between two distribution voltages - and some currently retired substations did not
22 get turned off.

23
24 The lines connecting 85S to 94S and 95S are part of the Hydro Generation system in that area
25 and are classified as transmission along with 85S although they operate at 25 kV.

26
27 **(a) The lighter lines shown are roads.**
28

2012 General Rate Application (NSUARB P-892)
NSPI Responses to CA Information Requests

NON-CONFIDENTIAL

1 (b) 41V, 48V, and 102C are customer owned stations connected to NSPI's distribution
2 system and should not have appeared on this map as NSPI transmission facilities. 61S
3 and 65S are distribution step-downs that should not have appeared on the map as
4 transmission facilities and 33V, 64C, 56W, 49W, and 90W are retired substations.

NON-CONFIDENTIAL

1 **Request IR-170:**

2

3 **Exhibit 3B to the COSS shows costs of dedicated substations that are direct-assigned to**
4 **specific classes. CA IR-36 Attachment 1 states that “Dedicated customer transformers are**
5 **not included” in that attachment. Both these sources thus indicate that NSPI can identify**
6 **the dedicated substations. Yet CA IR-37 claims that NSPI does not know which substations**
7 **are dedicated, or what classes they are dedicated to. Please reconcile these statements.**

8

9 Response IR-170:

10

11 CA IR-36 references dedicated customer transformers, whereas CA IR-37 is referencing
12 dedicated substations. These are two different components of NSPI’s infrastructure. The
13 exclusion of dedicated transformers from the substation list, included in the response to CA IR-
14 36, does not imply that the list comes short of dedicated substations.

15

16 NSPI did not retrieve and repeat the basis of each of the elements of the Cost of Service Study
17 for this proceeding, many of which were approved by the Board in its 1995 Decision and have
18 since been used repeatedly in general rate applications and FAM processes. The work to
19 produce a list of dedicated customer substations and transformers and to identify customers who
20 use dedicated substations would require further data research and analysis which cannot be
21 completed in the time allotted for responding to Information Requests. This effort may be of
22 interest in a review of the Cost of Service Study in a separate proceeding, which has been
23 routinely opposed by the Consumer Advocate.

NON-CONFIDENTIAL

1 **Request IR-171:**

2

3 **CA IR-38 requested an explanation of the difference between “bulk power” and “general”**
4 **distribution substations as those terms are used in Exhibit 3B to the COSS. The response**
5 **does not explain this distinction. Please provide the requested explanation or state that the**
6 **distinction is meaningless.**

7

8 Response IR-171:

9

10 Since filing the response to CA IR-38, NSPI has retrieved archived materials from earlier
11 regulatory proceedings which contained the explanation of the difference between “bulk power”
12 and “general” distribution substations for cost of service purposes. Please refer to Attachment
13 1¹. To NSPI’s knowledge, this question has not been posed in a general rate application since
14 1989.

¹ Rate Case 1989, response to IR

NOVA SCOTIA POWER CORPORATION

RATE CASE 1989
RESPONSE TO INFORMATION REQUESTS

Question 211. Cost of Service Study

In AED-3A:

- (a) What is the difference between "Bulk Power" (columns 2 and 3) and "General" (columns 4 and 5).**
- (b) Were the totals (Line 1) obtained by analysis of asset accounts?**

Response 211. (a) Bulk Power is a substation category which represents that transformation from transmission voltage (69 kV or higher) to distribution voltage (below 69 kV).

"General" represents the substation category for transformations from one distribution voltage to a lower distribution voltage.

- (b) Yes they were.**

NON-CONFIDENTIAL

1 **Request IR-172:**

2
3 **The response to CA IR-38 says that “For the COSS purposes the rate base associated with**
4 **the distribution substations has been split among the four categories ...using the same**
5 **proration approach since the last COSS hearing was held in 1995.” Does this mean that**
6 **the approach has been applied to the actual costs of the changing mix of dedicated and**
7 **bulk distribution substations over time, that the same percentages have been used since**
8 **1995, or something else (and if so, what)?**

9
10 Response IR-172:

11
12 The estimated percentages have changed as a result of applying the following approach:

13
14 The total distribution substation plant is segregated into the following six categories:

- 15
16 • A - Distribution Bulk Power
17
18 • B - Distribution Dedicated Bulk Power
19
20 • C - Distribution Customer Own Bulk Power
21
22 • D - Distribution General
23
24 • E - Distribution Dedicated General
25
26 • F - Distribution Customer Own General
27

28 NSPI has kept the gross plant values for categories B, C, E and F at constant dollar levels since
29 1996 and calculated their annual net plant values based on periodically updated depreciation

2012 General Rate Application (NSUARB P-892)
NSPI Responses to CA Information Requests

NON-CONFIDENTIAL

1 rates. The annual net plant values of the two main categories A and D are modified to balance
2 with the total net plant book value of all distribution substations. The modifications of A and D
3 are put into effect by applying on an annual basis periodically updated depreciation rates to the
4 estimates of gross plant values of A and D whose relative shares in the total gross plant value of
5 all distribution substations, as simulated in these calculations, remain at approximately the same
6 levels of 77 percent and 16 percent, respectively.

NON-CONFIDENTIAL

1 **Request IR-173:**

2

3 **CA IR-41 asked NSPI to identify the existing transmission facilities that “are required**
4 **primarily to connect one or more generator to the transmission system, and the cost of**
5 **those facilities.” The response referred generally to the costs that might be incurred to**
6 **interconnect hypothetical future facilities. Please provide the data requested in CA IR-41.**

7

8 Response IR-173:

9

10 Please refer to CA IR-174.

NON-CONFIDENTIAL

1 **Request IR-174:**

2

3 **CA IR-42 asked NSPI to identify the existing transmission facilities “that are required**
4 **primarily to transfer power from generation in the eastern portion of the province to load**
5 **in the Halifax area, and the cost of those facilities.” The response referred generally to the**
6 **costs that might be incurred to “increase east to west energy flows.” Please provide the**
7 **data requested in CA IR-42.**

8

9 Response IR-174:

10

11 NSPI has not compiled this specific information in preparation for this Application.

12

13 The NSUARB report on the Nova Scotia Open Access Transmission Tariff (OATT) can be
14 viewed at NSPI offices. Section 5 addresses the cost allocations and revenue requirements
15 associated with the existing transmission facilities in Nova Scotia. This large attachment is
16 available electronically upon request.

2012 General Rate Application (NSUARB P-892)
NSPI Responses to CA Information Requests

NON-CONFIDENTIAL

1 **Request IR-175:**

2

3 **Please provide the exhibits cited in CA IR-45 Attachment 1.**

4

5 Response IR-175:

6

7 Please refer to Attachment 1.

NOVA SCOTIA POWER INC.
COST OF SERVICE STUDY ANALYSIS
FOR THE YEAR ENDING DECEMBER 31, 1993
REFERENCE GUIDE

	<u>EXHIBIT</u>
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ANALYSIS OF WIRE INVESTMENT	AED-3D
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ALLOCATION OF DISTRIBUTION - CUSTOMER SERVICE EXPENSES	AED-6B
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DETERMINATION OF AVERAGE AND EXCESS DEMAND ALLOCATION FACTORS	AED-9C
REVENUE TO EXPENSE COMPARISON	AED-10

NOVA SCOTIA POWER INC.
SUMMARY OF REVENUE TO EXPENSE RECOVERY
AVERAGE AND EXCESS METHODOLOGY
FOR THE YEARS AS INDICATED

EXHIBIT AED-1

	(1) ACTUAL FOR THE 12 MTHS. ENDED <u>MARCH 1992</u>	(2) PRESENT RATES FORECAST FOR THE 12 MTHS. ENDING <u>DECEMBER 1993</u>	(3) PROPOSED RATES FORECAST FOR THE 12 MTHS. ENDING <u>DECEMBER 1993</u>
(1) DOMESTIC	92	93	93
(2) SMALL GENERAL	97	101	101
(3) GENERAL	108	108	107
(4) LARGE GENERAL	103	100	100
(5) SMALL INDUSTRIAL	127	125	125
(6) MEDIUM INDUSTRIAL	119	117	117
(7) LARGE INDUSTRIAL	111	105	106
(8) INTERRUPTIBLE	105	101	101
(9) MUNICIPAL	106	103	103
(10) UNMETERED	97	102	103
(11) TOTAL COMPANY	100	100	100

NOVA SCOTIA POWER INC.

EXHIBIT AED-2

RATE BASE ANALYSISFOR THE YEAR ENDING DECEMBER 31, 1993(IN THOUSANDS OF DOLLARS)

	(1) TOTAL COMPANY	(2) UNALLOCATED	(3) TOTAL TO BE ALLOCATED
<u>PRODUCTION PLANT</u>			
(1) STEAM	\$1,095,706	\$0	\$1,095,706
(2) HYDRO	188,527	10,306	178,221
(3) GAS TURBINE	<u>9,931</u>	<u>0</u>	<u>9,931</u>
(4) TOTAL PROD. PLANT	1,294,164	10,306	1,283,858
(5) TRANSMISSION PLANT	325,208	0	325,208
<u>DISTRIBUTION PLANT</u>			
(6) LAND	1,303	0	1,303
(7) EASEMENTS & SURVEY	5,165	0	5,165
(8) OTHER	22	0	22
(9) SUBSTATIONS	58,269	0	58,269
(10) POLES & FIXTURES	155,068	0	155,068
(11) O.H. LINES	81,046	0	81,046
(12) U.G. LINES	16,918	0	16,918
(13) LINE TRANSFORMERS	117,224	0	117,224
(14) SERVICES	47,611	0	47,611
(15) METERS	21,887	0	21,887
(16) STREET LIGHTING	<u>19,582</u>	<u>0</u>	<u>19,582</u>
(17) TOTAL DIST. PLANT	524,095	0	524,095
(18) GEN. PROPERTY PLANT	<u>102,982</u>	<u>0</u>	<u>102,982</u>
(19) TOT. PLT. IN SERVICE	2,246,449	10,306	2,236,143
<u>WORKING CAPITAL</u>			
(20) CASH - FUEL	4,668	0	4,668
(21) CASH - OTHER	3,165	146	3,019
(22) MAT. & SUP. - FUEL	40,879	0	40,879
(23) MAT. & SUP. - OTHER	<u>31,553</u>	<u>0</u>	<u>31,553</u>
(24) TOT. WORKING CAPITAL	80,265	146	80,119
(25) TOTAL RATE BASE	<u>\$2,326,714</u>	<u>\$10,452</u>	<u>\$2,316,262</u>

NOVA SCOTIA POWER INC.
 ALLOCATION OF RATE BASE
 FOR THE YEAR ENDING DECEMBER 31, 1993
 (IN THOUSANDS OF DOLLARS)

	(1) TOTAL COMPANY	(2) DOMESTIC	(3) SMALL GENERAL	(4) GENERAL	(5) LARGE GENERAL	(6) SMALL INDUSTRIAL	(7) MEDIUM INDUSTRIAL	(8) LARGE INDUSTRIAL	(9) INTERRUPTIBLE	(10) MUNICIPAL	(11) UNMETERED	(12) ALLOCATION FACTOR
<u>PRODUCTION PLANT</u>												
(1) STEAM	\$1,095,706	\$517,830	\$15,340	\$318,850	\$26,626	\$18,737	\$44,924	\$41,308	\$68,701	\$29,584	\$13,806	D-3
(2) HYDRO	178,221	84,227	2,495	51,862	4,331	3,048	7,307	6,719	11,174	4,812	2,246	D-3
(3) GAS TURBINE	9,931	5,303	182	3,225	180	148	282	243	0	224	144	D-4
(4) TOTAL PROD. PLANT	1,283,858	607,360	18,017	373,937	31,137	21,933	52,513	48,270	79,875	34,620	16,196	
(5) TRANSMISSION PLANT	325,208	153,691	4,553	94,636	7,903	5,561	13,334	12,260	20,391	8,781	4,098	D-3
<u>DISTRIBUTION PLANT</u>												
(6) LAND	1,303	844	30	328	20	19	35	5	2	1	19	P-2
(7) EASEMENTS & SURVEY	5,165	3,347	120	1,300	79	75	139	19	6	6	74	P-2
(8) OTHER	22	14	1	6	0	0	1	0	0	0	0	P-2
(9) SUBSTATIONS	58,269	30,350	919	18,813	1,522	1,068	3,021	1,080	353	330	813	EXHIBIT 3A
(10) POLES & FIXTURES	155,068	105,371	3,882	36,280	1,967	2,103	3,212	0	0	0	2,253	EXHIBIT 3C
(11) O.H. LINES	81,046	55,073	2,030	18,961	1,028	1,098	1,679	0	0	0	1,177	EXHIBIT 3E
(12) U.G. LINES	16,918	11,496	423	3,959	215	230	350	0	0	0	245	P-1
(13) LINE TRANSFORMERS	117,224	70,100	2,122	40,899	0	2,227	0	0	0	0	1,876	D-1
(14) SERVICES	47,611	37,137	1,647	8,118	0	671	0	0	38	0	0	C-2
(15) METERS	21,887	18,002	799	2,574	7	278	166	11	46	4	0	EXHIBIT 3F
(16) STREET LIGHTING	19,582	0	0	0	0	0	0	0	0	0	19,582	DIRECT
(17) TOTAL DIST. PLANT	524,095	331,734	11,973	131,238	4,838	7,769	8,603	1,115	445	341	26,039	
(18) GEN. PROPERTY PLANT	102,982	52,758	1,668	28,959	2,121	1,699	3,594	2,976	4,861	2,111	2,235	P-6
(19) TOT.PLT.IN SERVICE	2,236,143	1,145,543	36,211	628,770	45,999	36,962	78,044	64,621	105,572	45,853	48,568	
<u>WORKING CAPITAL</u>												
(20) CASH - FUEL	4,668	1,993	50	1,241	135	87	235	222	512	141	52	E-1
(21) CASH - OTHER	3,019	1,676	59	725	52	46	88	69	123	49	132	O-4
(22) MAT. & SUP. - FUEL	40,879	17,448	441	10,866	1,185	764	2,060	1,942	4,480	1,235	458	E-1
(23) MAT. & SUP. - OTHER	31,553	16,164	511	8,873	650	521	1,101	912	1,489	647	685	P-6
(24) TOT.WORKING CAPITAL	80,119	37,281	1,061	21,705	2,022	1,418	3,484	3,145	6,604	2,072	1,327	
(25) TOTAL RATE BASE	<u>\$2,316,262</u>	<u>\$1,182,824</u>	<u>\$37,272</u>	<u>\$650,475</u>	<u>\$48,021</u>	<u>\$38,380</u>	<u>\$81,528</u>	<u>\$67,766</u>	<u>\$112,176</u>	<u>\$47,925</u>	<u>\$49,895</u>	

EXHIBIT AED-3

NOVA SCOTIA POWER INC.

EXHIBIT AED-3A

ANALYSIS OF DISTRIBUTION SUBSTATION PLANTFOR THE YEAR ENDING DECEMBER 31, 1993(IN THOUSANDS OF DOLLARS)

	(1) <u>TOTAL PLANT</u>	(2) <u>DISTRIBUTION BULK POWER</u>	(3) <u>DIST. DED. BULK POWER</u>	(4) <u>DISTRIBUTION GENERAL</u>	(5) <u>DIST.DED. GENERAL</u>
(1) TOT.DIST. SUBSTS.	<u>\$58,269</u>	<u>\$51,240</u>	<u>\$1,887</u>	<u>\$4,479</u>	<u>\$663</u>

ALLOCATION

(2) DOMESTIC	30,350	27,911	0	2,439	0
(3) SMALL GENERAL	919	845	0	74	0
(4) GENERAL	18,813	17,160	85	1,500	68
(5) LARGE GENERAL	1,522	1,368	0	120	34
(6) SMALL INDUSTRIAL	1,068	979	0	86	3
(7) MEDIUM INDUSTRIAL	3,021	2,229	453	195	144
(8) LARGE INDUSTRIAL	1,080	0	1,080	0	0
(9) INTERRUPTIBLE	353	0	164	0	189
(10) MUNICIPAL	330	0	105	0	225
(11) UNMETERED	<u>813</u>	<u>748</u>	<u>0</u>	<u>65</u>	<u>0</u>
(12) TOTAL	<u>\$58,269</u>	<u>\$51,240</u>	<u>\$1,887</u>	<u>\$4,479</u>	<u>\$663</u>

(13) ALLOCATION FACTOR		D-2	DIRECT	D-2	DIRECT
------------------------	--	-----	--------	-----	--------

NOVA SCOTIA POWER INC.

EXHIBIT AED-3B

ANALYSIS OF POLE INVESTMENTFOR THE YEAR ENDING DECEMBER 31, 1993(IN THOUSANDS OF DOLLARS)

	(1) TOTAL PLANT	(2) PRIMARY DEMAND	(3) PRIMARY CUSTOMER	(4) SECONDARY DEMAND	(5) SECONDARY CUSTOMER
(1) TOTAL NET POLE COST	<u>\$155,068</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>
(2) PRIMARY ONLY (30%)	46,520	46,520	0	0	0
(3) JOINT - PRI. (1)	54,274	27,137	27,137	0	0
(4) JOINT - SEC. (1)	<u>54,274</u>	<u>0</u>	<u>0</u>	<u>27,137</u>	<u>27,137</u>
(5) TOTAL	<u>\$155,068</u>	<u>\$73,657</u>	<u>\$27,137</u>	<u>\$27,137</u>	<u>\$27,137</u>

(1) DEMAND COST - 50%

CUSTOMER COST - 50%

NOVA SCOTIA POWER INC.

EXHIBIT AED-3C

ALLOCATION OF POLE INVESTMENTFOR THE YEAR ENDING DECEMBER 31, 1993(IN THOUSANDS OF DOLLARS)

	<u>(1)</u> <u>TOTAL</u> <u>PLANT</u>	<u>(2)</u> <u>PRIMARY</u> <u>DEMAND</u>	<u>(3)</u> <u>PRIMARY</u> <u>CUSTOMER</u>	<u>(4)</u> <u>SECONDARY</u> <u>DEMAND</u>	<u>(5)</u> <u>SECONDARY</u> <u>CUSTOMER</u>
(1) DOMESTIC	\$105,371	\$40,121	\$24,507	\$16,228	\$24,515
(2) SMALL GENERAL	3,882	1,215	1,088	491	1,088
(3) GENERAL	36,280	24,668	1,072	9,468	1,072
(4) LARGE GENERAL	1,967	1,967	0	0	0
(5) SMALL INDUSTRIAL	2,103	1,407	90	516	90
(6) MEDIUM INDUSTRIAL	3,212	3,204	8	0	0
(7) LARGE INDUSTRIAL	0	0	0	0	0
(8) INTERRUPTIBLE	0	0	0	0	0
(9) MUNICIPAL	0	0	0	0	0
(10) UNMETERED	<u>2,253</u>	<u>1,075</u>	<u>372</u>	<u>434</u>	<u>372</u>
(11) TOTAL	<u>\$155,068</u>	<u>\$73,657</u>	<u>\$27,137</u>	<u>\$27,137</u>	<u>\$27,137</u>
(12) ALLOCATION FACTOR		D-2	C-5	D-1	C-4

NOVA SCOTIA POWER INC.

EXHIBIT AED-3D

ANALYSIS OF WIRE INVESTMENTFOR THE YEAR ENDING DECEMBER 31, 1993(IN THOUSANDS OF DOLLARS)

	<u>(1)</u> <u>TOTAL</u> <u>PLANT</u>	<u>(2)</u> <u>PRIMARY</u> <u>DEMAND</u>	<u>(3)</u> <u>PRIMARY</u> <u>CUSTOMER</u>	<u>(4)</u> <u>SECONDARY</u> <u>DEMAND</u>	<u>(5)</u> <u>SECONDARY</u> <u>CUSTOMER</u>
(1) TOTAL NET WIRE COST	<u>\$81,046</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>
(2) PRIMARY ONLY (30%)	24,314	24,314	0	0	0
(3) JOINT - PRI. (1)	28,366	14,183	14,183	0	0
(4) JOINT - SEC. (1)	<u>28,366</u>	<u>0</u>	<u>0</u>	<u>14,183</u>	<u>14,183</u>
(5) TOTAL	<u>\$81,046</u>	<u>\$38,497</u>	<u>\$14,183</u>	<u>\$14,183</u>	<u>\$14,183</u>

(1) DEMAND COST - 50%

CUSTOMER COST - 50%

NOVA SCOTIA POWER INC.

EXHIBIT AED-3E

ALLOCATION OF WIRE INVESTMENTFOR THE YEAR ENDING DECEMBER 31, 1993(IN THOUSANDS OF DOLLARS)

	<u>(1)</u> <u>TOTAL</u> <u>PLANT</u>	<u>(2)</u> <u>PRIMARY</u> <u>DEMAND</u>	<u>(3)</u> <u>PRIMARY</u> <u>CUSTOMER</u>	<u>(4)</u> <u>SECONDARY</u> <u>DEMAND</u>	<u>(5)</u> <u>SECONDARY</u> <u>CUSTOMER</u>
(1) DOMESTIC	\$55,073	\$20,969	\$12,809	\$8,482	\$12,813
(2) SMALL GENERAL	2,030	635	569	257	569
(3) GENERAL	18,961	12,893	560	4,948	560
(4) LARGE GENERAL	1,028	1,028	0	0	0
(5) SMALL INDUSTRIAL	1,098	735	47	269	47
(6) MEDIUM INDUSTRIAL	1,679	1,675	4	0	0
(7) LARGE INDUSTRIAL	0	0	0	0	0
(8) INTERRUPTIBLE	0	0	0	0	0
(9) MUNICIPAL	0	0	0	0	0
(10) UNMETERED	<u>1,177</u>	<u>562</u>	<u>194</u>	<u>227</u>	<u>194</u>
(11) TOTAL	<u>\$81,046</u>	<u>\$38,497</u>	<u>\$14,183</u>	<u>\$14,183</u>	<u>\$14,183</u>
(12) ALLOCATION FACTOR		D-2	C-5	D-1	C-4

NOVA SCOTIA POWER INC.

EXHIBIT AED-3F

ANALYSIS OF METER INVESTMENTFOR THE YEAR ENDING DECEMBER 31, 1993

	<u>(1)</u> <u>TOTAL</u> <u>CUSTOMERS</u>	<u>(2)</u> <u>UNIT METER</u> <u>COST</u>	<u>(3)</u> <u>TOTAL</u> <u>COST</u>	<u>(4)</u> <u>PERCENT</u>	<u>(5)</u> <u>METER COST</u> <u>(\$000)</u>
(1) DOMESTIC	370,315	\$34	\$12,590,710	82.25	\$18,002
(2) SMALL GENERAL	16,424	34	558,416	3.65	799
(3) GENERAL	16,213	111	1,799,643	11.76	2,574
(4) LARGE GENERAL	8	657	5,256	0.03	7
(5) SMALL INDUSTRIAL	1,342	145	194,590	1.27	278
(6) MEDIUM INDUSTRIAL	178	657	116,946	0.76	166
(7) LARGE INDUSTRIAL	6	1,338	8,028	0.05	11
(8) INTERRUPTIBLE	24	1,338	32,112	0.21	46
(9) MUNICIPAL	7	520	3,640	0.02	4
(10) UNMETERED	<u>5,607</u>	N/A	<u>0</u>	<u>0.00</u>	<u>0</u>
(11) TOTAL	<u>410,124</u>		<u>\$15,309,341</u>	<u>100.00</u>	<u>\$21,887</u>

NOVA SCOTIA POWER INC.

EXHIBIT AED-4

FUNCTIONALIZATION OF OPERATING EXPENSES

FOR THE YEAR ENDING DECEMBER 31, 1993

(IN THOUSANDS OF DOLLARS)

	(1) TOTAL EXPENSES	(2) PRODUCTION EXPENSES	(3) TRANS. EXPENSES	(4) DIST. EXPENSES	(5) ADMIN. & GEN. EXPENSES	(6) OTHER EXPENSES
<u>THERMAL PRODUCTION</u>						
(1) FUEL	\$243,390	\$243,390	\$0	\$0	\$0	\$0
(2) OPERATING & MAINT.	52,222	52,222	0	0	0	0
(3) PURCHASED POWER	8,956	8,956	0	0	0	0
<u>SYSTEM OPERATIONS</u>						
(4) HYDRO PLTS. O & M.	7,256	7,256	0	0	0	0
(5) OTHER	4,012	1,579	1,708	313	412	0
<u>OTHER OPERATING</u>						
(6) ENGINEERING	1,384	573	555	124	132	0
(7) TRANSMISSION & DIST.	44,988	0	7,611	37,377	0	0
(8) CUSTOMER FUNCTIONS	6,104	0	0	0	6,104	0
(9) PERSONNEL	6,093	1,923	706	2,273	1,191	0
(10) INDUST. RELATIONS	2,714	0	0	0	2,714	0
(11) FIN. PLAN. & OPER.	2,843	213	100	365	2,165	0
(12) TREASURER	1,059	0	0	0	1,059	0
(13) MGT. INFO. SERVICES	8,044	902	737	1,436	4,969	0
(14) GENERAL MANAGEMENT	2,359	0	0	0	2,359	0
(15) SYSTEM PLANNING	2,021	562	577	49	833	0
(16) SEC. & GEN. COUNSEL	3,638	1,657	120	431	1,430	0
(17) CORPORATE SERVICES	5,314	0	0	0	5,314	0
(18) CORPORATE ACCOUNTING	690	0	0	0	690	0
(19) ORGANIZATION & EFFECT.	1,150	363	134	429	224	0
(20) INTERNAL AUDIT	391	0	0	0	391	0
(21) ENVIRONMENT	946	0	0	0	946	0
(22) PREMISES MANAGEMENT	4,099	0	0	0	4,099	0
(23) PUBLIC AFFAIRS	1,099	0	0	0	1,099	0
(24) CORPORATE EFFICIENCIES	(2,000)	0	0	0	(2,000)	0
(25) GRANTS IN LIEU	5,088	0	0	0	0	5,088
(26) DEPRECIATION	76,036	0	0	0	0	76,036
(27) PR.DIV.;INT.&TAX NET	<u>131,806</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>131,806</u>
(28) TOTAL	<u>\$621,702</u>	<u>\$319,596</u>	<u>\$12,248</u>	<u>\$42,797</u>	<u>\$34,131</u>	<u>\$212,930</u>

NOVA SCOTIA POWER INC.

EXHIBIT AED-5

CLASSIFICATION OF OPERATING EXPENSES

FOR THE YEAR ENDING DECEMBER 31, 1993

(IN THOUSANDS OF DOLLARS)

	(1) TOTAL COMPANY	(2) DEMAND EXPENSES	(3) ENERGY EXPENSES	(4) CUSTOMER EXPENSES	(5) OTHER EXPENSES	(6) DIRECT EXPENSES
<u>PRODUCTION</u>						
(1) FUEL	\$243,390	\$0	\$226,081	\$0	\$0	\$17,309
(2) PURCH. POWER- FIXED	0	0	0	0	0	0
(3) PURCH. POWER- VAR.	8,956	0	8,956	0	0	0
(4) OPERATING & MAINT.	<u>67,250</u>	<u>50,105</u>	<u>9,544</u>	<u>0</u>	<u>0</u>	<u>7,601</u>
(5) TOTAL PRODUCTION	319,596	50,105	244,581	0	0	24,910
(6) TRANSMISSION	12,248	12,116	0	0	0	132
<u>DISTRIBUTION</u>						
(7) SUBSTATIONS	2,149	2,149	0	0	0	0
(8) OVERHEAD LINES	18,497	12,024	0	6,473	0	0
(9) UNDERGROUND LINES	657	427	0	230	0	0
(10) LINE TRANSFORMERS	302	302	0	0	0	0
(11) METERS	4,548	0	0	4,548	0	0
(12) COMMUNICATIONS	421	421	0	0	0	0
(13) STREET LIGHTING	3,311	3,311	0	0	0	0
(14) CUSTOMER SERVICE	<u>12,912</u>	<u>0</u>	<u>0</u>	<u>12,912</u>	<u>0</u>	<u>0</u>
(15) TOTAL DISTRIBUTION	42,797	18,634	0	24,163	0	0
<u>ADMINISTRATION & GENERAL</u>						
(16) BILLING & RECEIPTS	4,133	0	0	4,133	0	0
(17) CUSTOMER SERVICE	3,289	0	0	3,289	0	0
(18) CREDIT & COLLECTION	2,200	0	0	2,200	0	0
(19) OTHER	<u>24,509</u>	<u>13,612</u>	<u>1,608</u>	<u>5,690</u>	<u>0</u>	<u>3,599</u>
(20) TOT. ADMIN. & GEN.	34,131	13,612	1,608	15,312	0	3,599
<u>OTHER OPERATING</u>						
(21) GRANTS IN LIEU	5,088	0	0	0	5,088	0
(22) DEPRECIATION	76,036	0	0	0	75,986	50
(23) PR.DIV.;INT.&TAX NET	<u>131,806</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>126,797</u>	<u>5,009</u>
(24) TOTAL OTHER OPER.	212,930	0	0	0	207,871	5,059
(25) TOTAL EXPENSES	<u>\$621,702</u>	<u>\$94,467</u>	<u>\$246,189</u>	<u>\$39,475</u>	<u>\$207,871</u>	<u>\$33,700</u>

NOVA SCOTIA POWER INC.
 ALLOCATION OF OPERATING EXPENSES
 FOR THE YEAR ENDING DECEMBER 31, 1993
 (IN THOUSANDS OF DOLLARS)

	(1) TOTAL COMPANY	(2) DOMESTIC	(3) SMALL GENERAL	(4) GENERAL	(5) LARGE GENERAL	(6) SMALL INDUSTRIAL	(7) MEDIUM INDUSTRIAL	(8) LARGE INDUSTRIAL	(9) INTERRUPTIBLE	(10) MUNICIPAL	(11) UNMETERED	(12) ALLOCATION FACTOR
DEMAND												
(1) PRODUCTION O & M	\$50,105	\$23,679	\$701	\$14,581	\$1,218	\$857	\$2,054	\$1,889	\$3,142	\$1,353	\$631	D-3
(2) TRANSMISSION	12,116	5,725	170	3,526	294	207	497	457	760	327	153	D-3
(3) DISTRIBUTION	18,634	9,990	358	3,854	225	223	387	40	13	12	3,532	EXHIBIT 6A
(4) PURCH. POWER- FIXED	0	0	0	0	0	0	0	0	0	0	0	D-3
(5) ADMIN. & GEN.	<u>13,612</u>	<u>6,633</u>	<u>207</u>	<u>3,697</u>	<u>293</u>	<u>216</u>	<u>494</u>	<u>402</u>	<u>659</u>	<u>284</u>	<u>727</u>	O-1
(6) TOTAL	94,467	46,027	1,436	25,658	2,030	1,503	3,432	2,788	4,574	1,976	5,043	
ENERGY												
(7) PRODUCTION - FUEL	226,081	96,492	2,442	60,092	6,556	4,228	11,394	10,739	24,778	6,828	2,532	E-1
(8) PURCH. POWER- VAR.	8,956	3,823	97	2,381	260	167	451	425	982	270	100	E-1
(9) PRODUCTION O & M	9,544	4,074	103	2,537	277	178	481	453	1,046	288	107	E-1
(10) ADMIN. & GEN.	<u>1,608</u>	<u>687</u>	<u>17</u>	<u>427</u>	<u>47</u>	<u>30</u>	<u>81</u>	<u>76</u>	<u>176</u>	<u>49</u>	<u>18</u>	O-2
(11) TOTAL	246,189	105,076	2,659	65,437	7,140	4,603	12,407	11,693	26,982	7,435	2,757	
CUSTOMER												
(12) DISTRIBUTION	24,163	18,383	781	3,757	96	286	196	12	49	12	591	EXHIBIT 6A
(13) BILLING & RECEIPTS	4,133	3,012	133	659	5	55	11	5	19	6	228	C-3
(14) CUSTOMER SERVICE	3,289	2,396	106	525	4	43	9	4	15	5	182	C-3
(15) CREDIT & COLLECTION	2,200	1,724	56	379	0	28	0	0	0	0	13	EXHIBIT 6C
(16) ADMIN. & GEN.	<u>5,690</u>	<u>4,298</u>	<u>181</u>	<u>896</u>	<u>18</u>	<u>69</u>	<u>36</u>	<u>3</u>	<u>14</u>	<u>4</u>	<u>171</u>	O-3
(17) TOTAL	39,475	29,813	1,257	6,216	123	481	252	24	97	27	1,185	
OTHER												
(18) DEPRECIATION	75,986	40,294	1,305	21,029	1,434	1,237	2,443	1,892	3,052	1,336	1,964	EXHIBIT 6D
(19) GRANTS IN LIEU	5,088	2,607	82	1,431	105	84	178	147	240	104	110	P-6
(20) PR.DIV.;INT.&TAX NET	<u>126,797</u>	<u>64,755</u>	<u>2,041</u>	<u>35,605</u>	<u>2,625</u>	<u>2,105</u>	<u>4,463</u>	<u>3,715</u>	<u>6,137</u>	<u>2,625</u>	<u>2,726</u>	P-7
(21) TOTAL	207,871	107,656	3,428	58,065	4,164	3,426	7,084	5,754	9,429	4,065	4,800	
(22) TOTAL OPER. EXPENSES	588,002	288,572	8,780	155,376	13,457	10,013	23,175	20,259	41,082	13,503	13,785	
(23) NON-OPER. REVENUE	(9,445)	(6,225)	(233)	(1,990)	(73)	(155)	(259)	(112)	(233)	(74)	(91)	EXHIBIT 7
(24) ALLOC.OF PROFIT/LOSS	<u>98,021</u>	<u>50,061</u>	<u>1,578</u>	<u>27,524</u>	<u>2,029</u>	<u>1,627</u>	<u>3,450</u>	<u>2,872</u>	<u>4,744</u>	<u>2,029</u>	<u>2,107</u>	P-7
(25) NET OPER. EXPENSES	<u>\$676,578</u>	<u>\$332,408</u>	<u>\$10,125</u>	<u>\$180,910</u>	<u>\$15,413</u>	<u>\$11,485</u>	<u>\$26,366</u>	<u>\$23,019</u>	<u>\$45,593</u>	<u>\$15,458</u>	<u>\$15,801</u>	

EXHIBIT AED-6

NOVA SCOTIA POWER INC.
ALLOCATION OF DISTRIBUTION OPERATING EXPENSES
FOR THE YEAR ENDING DECEMBER 31, 1993
(IN THOUSANDS OF DOLLARS)

	(1) <u>TOTAL</u> <u>COMPANY</u>	(2) <u>DOMESTIC</u>	(3) <u>SMALL</u> <u>GENERAL</u>	(4) <u>GENERAL</u>	(5) <u>LARGE</u> <u>GENERAL</u>	(6) <u>SMALL</u> <u>INDUSTRIAL</u>	(7) <u>MEDIUM</u> <u>INDUSTRIAL</u>	(8) <u>LARGE</u> <u>INDUSTRIAL</u>	(9) <u>INTERRUPTIBLE</u>	(10) <u>MUNICIPAL</u>	(11) <u>UNMETERED</u>	(12) <u>ALLOCATION</u> <u>FACTOR</u>
<u>DEMAND</u>												
(1) SUBSTATIONS	\$2,149	\$1,120	\$34	\$694	\$56	\$39	\$111	\$40	\$13	\$12	\$30	P-3
(2) OVERHEAD LINES	12,024	8,169	301	2,814	153	164	249	0	0	0	174	P-1
(3) UNDERGROUND LINES	427	290	11	100	5	6	9	0	0	0	6	P-1
(4) LINE TRANSFORMERS	302	181	5	105	0	6	0	0	0	0	5	D-1
(5) METERS	0	0	0	0	0	0	0	0	0	0	0	---
(6) COMMUNICATIONS	421	230	7	141	11	8	18	0	0	0	6	D-2
(7) STREET LIGHTING	3,311	0	0	0	0	0	0	0	0	0	3,311	DIRECT
(8) CUSTOMER SERVICE	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	---
(9) TOTAL DEMAND	18,634	9,990	358	3,854	225	223	387	40	13	12	3,532	
<u>CUSTOMER</u>												
(10) SUBSTATIONS	0	0	0	0	0	0	0	0	0	0	0	---
(11) OVERHEAD LINES	6,473	4,398	162	1,515	82	88	134	0	0	0	94	P-1
(12) UNDERGROUND LINES	230	156	6	54	3	3	5	0	0	0	3	P-1
(13) LINE TRANSFORMERS	0	0	0	0	0	0	0	0	0	0	0	---
(14) METERS	4,548	3,740	166	535	1	58	35	2	10	1	0	P-4
(15) COMMUNICATIONS	0	0	0	0	0	0	0	0	0	0	0	---
(16) STREET LIGHTING	0	0	0	0	0	0	0	0	0	0	0	---
(17) CUSTOMER SERVICE	<u>12,912</u>	<u>10,089</u>	<u>447</u>	<u>1,653</u>	<u>10</u>	<u>137</u>	<u>22</u>	<u>10</u>	<u>39</u>	<u>11</u>	<u>494</u>	EXHIBIT 6B
(18) TOTAL CUSTOMER	24,163	18,383	781	3,757	96	286	196	12	49	12	591	
<u>SUMMARY</u>												
(19) SUBSTATIONS	2,149	1,120	34	694	56	39	111	40	13	12	30	P-3
(20) OVERHEAD LINES	18,497	12,567	463	4,329	235	252	383	0	0	0	268	P-1
(21) UNDERGROUND LINES	657	446	17	154	8	9	14	0	0	0	9	P-1
(22) LINE TRANSFORMERS	302	181	5	105	0	6	0	0	0	0	5	D-1
(23) METERS	4,548	3,740	166	535	1	58	35	2	10	1	0	P-4
(24) COMMUNICATIONS	421	230	7	141	11	8	18	0	0	0	6	D-2
(25) STREET LIGHTING	3,311	0	0	0	0	0	0	0	0	0	3,311	DIRECT
(26) CUSTOMER SERVICE	<u>12,912</u>	<u>10,089</u>	<u>447</u>	<u>1,653</u>	<u>10</u>	<u>137</u>	<u>22</u>	<u>10</u>	<u>39</u>	<u>11</u>	<u>494</u>	EXHIBIT 6B
(27) TOTAL DISTRIBUTION	<u>\$42,797</u>	<u>\$28,373</u>	<u>\$1,139</u>	<u>\$7,611</u>	<u>\$321</u>	<u>\$509</u>	<u>\$583</u>	<u>\$52</u>	<u>\$62</u>	<u>\$24</u>	<u>\$4,123</u>	

EXHIBIT AED-6A

NOVA SCOTIA POWER INC.

EXHIBIT AED-6B

ALLOCATION OF DISTRIBUTION - CUSTOMER SERVICE EXPENSESFOR THE YEAR ENDING DECEMBER 31, 1993(IN THOUSANDS OF DOLLARS)

	(1) <u>TOTAL COMPANY</u>	(2) <u>BILLING & RECEIPTS</u>	(3) <u>CUSTOMER SERVICE</u>	(4) <u>CREDIT & COLLECTION</u>	(5) <u>TREASURY FUNCTION</u>
(1) DOMESTIC	\$10,089	\$3,553	\$2,336	\$1,028	\$3,172
(2) SMALL GENERAL	447	157	104	46	140
(3) GENERAL	1,653	778	511	225	139
(4) LARGE GENERAL	10	6	4	0	0
(5) SMALL INDUSTRIAL	137	64	42	19	12
(6) MEDIUM INDUSTRIAL	22	13	8	0	1
(7) LARGE INDUSTRIAL	10	6	4	0	0
(8) INTERRUPTIBLE	39	23	15	1	0
(9) MUNICIPAL	11	7	4	0	0
(10) UNMETERED	<u>494</u>	<u>269</u>	<u>177</u>	<u>0</u>	<u>48</u>
(11) TOTAL	<u>\$12,912</u>	<u>\$4,876</u>	<u>\$3,205</u>	<u>\$1,319</u>	<u>\$3,512</u>
(12) ALLOCATION FACTOR		C-3	C-3	C-2	C-1

NOVA SCOTIA POWER INC.

EXHIBIT AED-6C

ALLOCATION OF CREDIT & COLLECTION EXPENSEFOR THE YEAR ENDING DECEMBER 31, 1993(IN THOUSANDS OF DOLLARS)

	(1) -----BAD DEBT EXPENSE----- <u>DIRECT</u>	(2) <u>TO BE ALLOC.</u>	(3) <u>TOTAL</u>	(4) <u>OTHER</u>	(5) <u>TOTAL</u>
(1) DOMESTIC	\$854	\$0	\$854	\$870	\$1,724
(2) SMALL GENERAL	0	18	18	38	56
(3) GENERAL	0	341	341	38	379
(4) LARGE GENERAL	0	0	0	0	0
(5) SMALL INDUSTRIAL	0	25	25	3	28
(6) MEDIUM INDUSTRIAL	0	0	0	0	0
(7) LARGE INDUSTRIAL	0	0	0	0	0
(8) INTERRUPTIBLE	0	0	0	0	0
(9) MUNICIPAL	0	0	0	0	0
(10) UNMETERED	0	0	0	13	13
(11) TOTAL	<u>\$854</u>	<u>\$384</u>	<u>\$1,238</u>	<u>\$962</u>	<u>\$2,200</u>
(12) ALLOCATION FACTOR	DIRECT	R-1		C-1	

NOVA SCOTIA POWER INC.ALLOCATION OF DEPRECIATION EXPENSEFOR THE YEAR ENDING DECEMBER 31, 1993(IN THOUSANDS OF DOLLARS)

	<u>(1)</u> <u>TOTAL</u> <u>COMPANY</u>	<u>(2)</u> <u>PRODUCTION</u>	<u>(3)</u> <u>HYDRO</u>	<u>(4)</u> <u>GAS</u> <u>TURBINE</u>	<u>(5)</u> <u>TRANSMISSION</u>	<u>(6)</u> <u>DISTRIBUTION</u>	<u>(7)</u> <u>GENERAL</u> <u>PROPERTY</u>
(1) DOMESTIC	\$40,294	\$13,240	\$1,571	\$276	\$5,931	\$16,244	\$3,032
(2) SMALL GENERAL	1,305	392	47	9	176	585	96
(3) GENERAL	21,029	8,152	967	169	3,652	6,425	1,664
(4) LARGE GENERAL	1,434	681	81	9	305	236	122
(5) SMALL INDUSTRIAL	1,237	479	57	8	215	380	98
(6) MEDIUM INDUSTRIAL	2,443	1,149	136	15	515	421	207
(7) LARGE INDUSTRIAL	1,892	1,056	125	13	473	54	171
(8) INTERRUPTIBLE	3,052	1,757	208	0	787	21	279
(9) MUNICIPAL	1,336	756	90	12	339	18	121
(10) UNMETERED	<u>1,964</u>	<u>353</u>	<u>42</u>	<u>8</u>	<u>158</u>	<u>1,275</u>	<u>128</u>
(11) TOTAL	<u>\$75,986</u>	<u>\$28,015</u>	<u>\$3,324</u>	<u>\$519</u>	<u>\$12,551</u>	<u>\$25,659</u>	<u>\$5,918</u>
(12) ALLOCATION FACTOR		D-3	D-3	D-4	D-3	P-5	P-6

EXHIBIT AED-6D

NOVA SCOTIA POWER INC.

EXHIBIT AED-7

REVENUE ANALYSIS

FOR THE YEAR ENDING DECEMBER 31, 1993

(IN THOUSANDS OF DOLLARS)

	(1)	(2)	(3)	(4)	(5)	(6)
	TOTAL RATE REVENUE	GRID SALES	LATE PAYMENT CHARGE	MISC. CUSTOMER REVENUE	OTHER REVENUE	TOTAL NON-OPER. REVENUE
<u>ELECTRIC REVENUE</u>						
(1) DOMESTIC	\$308,623	\$144	\$3,052	\$1,670	\$1,359	\$6,225
(2) SMALL GENERAL	10,212	4	94	94	41	233
(3) GENERAL	194,301	90	1,148	20	732	1,990
(4) LARGE GENERAL	15,411	10	0	0	63	73
(5) SMALL INDUSTRIAL	14,323	6	101	1	47	155
(6) MEDIUM INDUSTRIAL	30,901	17	133	0	109	259
(7) LARGE INDUSTRIAL	24,331	16	0	0	96	112
(8) INTERRUPTIBLE	46,264	37	2	0	194	233
(9) MUNICIPAL	15,959	10	0	0	64	74
(10) UNMETERED	<u>16,253</u>	<u>4</u>	<u>16</u>	<u>6</u>	<u>65</u>	<u>91</u>
(11) SUB-TOTAL	<u>\$676,578</u>	<u>\$338</u>	<u>\$4,546</u>	<u>\$1,791</u>	<u>\$2,770</u>	<u>\$9,445</u>
(12) GRID SALES	<u>338</u>					
(13) TOTAL ELECT. REVENUE	676,916					
<u>NON-RATE REVENUE</u>						
(14) LATE PAYMENT CHARGE	4,546					
(15) MISC. CUST. REVENUE	1,791					
(16) OTHER	<u>2,770</u>					
(17) TOTAL	9,107					
<u>DIRECT REVENUE</u>						
(18) BOW. MERSEY-ELECT.	25,236					
(19) GEN. REPL./LOAD FOLL	<u>8,625</u>					
(20) TOTAL	33,861					
(21) TRANSFER FROM (TO) RETAINED EARNINGS	<u>(98,182)</u>					
(22) TOTAL REVENUE	<u>\$621,702</u>					
(23) ALLOCATION FACTOR		E-1	DIRECT	DIRECT	0-5	COLS. 2-5

NOVA SCOTIA POWER INC.
 DEVELOPMENT OF ALLOCATION FACTORS
 FOR THE YEAR ENDING DECEMBER 31, 1993

	(1) TOTAL COMPANY	(2) DOMESTIC	(3) SMALL GENERAL	(4) GENERAL	(5) LARGE GENERAL	(6) SMALL INDUSTRIAL	(7) MEDIUM INDUSTRIAL	(8) LARGE INDUSTRIAL	(9) INTERRUPTIBLE	(10) MUNICIPAL	(11) UNMETERED	(12) ALLOCATION FACTOR
(1) N.C. DEMAND SEC.	1,496,042	894,630	27,070	521,926	0	28,416	0	0	0	0	24,000	
(2) % RESPONSIBILITY	100.00	59.80	1.81	34.89	0.00	1.90	0.00	0.00	0.00	0.00	1.60	D-1
(3) N.C. DEMAND PRIMARY	1,707,790	930,415	28,153	571,908	45,572	32,545	74,237	0	0	0	24,960	
(4) % RESPONSIBILITY	100.00	54.47	1.65	33.49	2.67	1.91	4.35	0.00	0.00	0.00	1.46	D-2
(5) AVE. AND EXCESS DMD.	10,000	4,726	140	2,910	243	171	410	377	627	270	126	
(6) % RESPONSIBILITY	100.00	47.26	1.40	29.10	2.43	1.71	4.10	3.77	6.27	2.70	1.26	D-3
(7) EXCESS DEMAND	10,000	5,340	183	3,247	181	149	284	245	0	226	145	
(8) % RESPONSIBILITY	100.00	53.40	1.83	32.47	1.81	1.49	2.84	2.45	0.00	2.26	1.45	D-4
(9) MW.h GEN. & PURCH.	8,785,157	3,748,232	94,729	2,334,862	254,440	164,698	443,108	417,620	963,213	265,509	98,746	
(10) % RESPONSIBILITY	100.00	42.68	1.08	26.58	2.90	1.87	5.04	4.75	10.96	3.02	1.12	E-1
(11) AVERAGE CUSTOMERS	410,124	370,315	16,424	16,213	8	1,342	178	6	24	7	5,607	
(12) % RESPONSIBILITY	100.00	90.30	4.00	3.95	0.00	0.33	0.04	0.00	0.01	0.00	1.37	C-1
(13) SEC. CUSTOMERS	404,276	370,315	16,424	16,193	0	1,340	0	0	4	0	0	
(14) WEIGHTING FACTOR		1.00	1.00	5.00	75.00	5.00	7.50	100.00	100.00	100.00	5.00	
(15) WEIGHTED TOTAL	474,804	370,315	16,424	80,965	0	6,700	0	0	400	0	0	
(16) % RESPONSIBILITY	100.00	78.00	3.46	17.05	0.00	1.41	0.00	0.00	0.08	0.00	0.00	C-2
(17) WEIGHTED CUSTOMERS	410,124	370,315	16,424	16,213	8	1,342	178	6	24	7	5,607	
(18) WEIGHTING FACTOR		1.00	1.00	5.00	75.00	5.00	7.50	100.00	100.00	100.00	5.00	
(19) WEIGHTED TOTAL	508,184	370,315	16,424	81,065	600	6,710	1,335	600	2,400	700	28,035	
(20) % RESPONSIBILITY	100.00	72.87	3.23	15.95	0.12	1.32	0.26	0.12	0.47	0.14	5.52	C-3
(21) CUSTOMER SECONDARY	409,883	370,315	16,424	16,193	0	1,340	0	0	4	0	5,607	
(22) % RESPONSIBILITY	100.00	90.34	4.01	3.95	0.00	0.33	0.00	0.00	0.00	0.00	1.37	C-4
(23) CUSTOMER PRIMARY	410,062	370,315	16,424	16,213	8	1,342	134	3	10	6	5,607	
(24) % RESPONSIBILITY	100.00	90.31	4.01	3.95	0.00	0.33	0.03	0.00	0.00	0.00	1.37	C-5

EXHIBIT AED-8A

NOVA SCOTIA POWER INC.
DEVELOPMENT OF ALLOCATION FACTORS
FOR THE YEAR ENDING DECEMBER 31, 1993

	(1) TOTAL COMPANY	(2) DOMESTIC	(3) SMALL GENERAL	(4) GENERAL	(5) LARGE GENERAL	(6) SMALL INDUSTRIAL	(7) MEDIUM INDUSTRIAL	(8) LARGE INDUSTRIAL	(9) INTERRUPTIBLE	(10) MUNICIPAL	(11) UNMETERED	(12) ALLOCATION FACTOR
(1) POLE & WIRE INVEST.	\$236,114	\$160,444	\$5,912	\$55,241	\$2,995	\$3,201	\$4,891	\$0	\$0	\$0	\$3,430	
(2) % RESPONSIBILITY	100.00	67.95	2.50	23.40	1.27	1.36	2.07	0.00	0.00	0.00	1.45	P-1
(3) SUB.,POLE &WIRE INV.	\$294,383	\$190,794	\$6,831	\$74,054	\$4,517	\$4,269	\$7,912	\$1,080	\$353	\$330	\$4,243	
(4) % RESPONSIBILITY	100.00	64.81	2.32	25.16	1.53	1.45	2.69	0.37	0.12	0.11	1.44	P-2
(5) SUBSTATION INVEST.	\$58,269	\$30,350	\$919	\$18,813	\$1,522	\$1,068	\$3,021	\$1,080	\$353	\$330	\$813	
(6) % RESPONSIBILITY	100.00	52.08	1.58	32.29	2.61	1.83	5.18	1.85	0.61	0.57	1.40	P-3
(7) METER INVESTMENT	\$21,887	\$18,002	\$799	\$2,574	\$7	\$278	\$166	\$11	\$46	\$4	\$0	
(8) % RESPONSIBILITY	100.00	82.25	3.65	11.76	0.03	1.27	0.76	0.05	0.21	0.02	0.00	P-4
(9) DISTRIBUTION PLANT	\$524,095	\$331,734	\$11,973	\$131,238	\$4,838	\$7,769	\$8,603	\$1,115	\$445	\$341	\$26,039	
(10) % RESPONSIBILITY	100.00	63.31	2.28	25.04	0.92	1.48	1.64	0.21	0.08	0.07	4.97	P-5
(11) PROD.,TRANS.&DIST.	\$2,133,161	\$1,092,785	\$34,543	\$599,811	\$43,878	\$35,263	\$74,450	\$61,645	\$100,711	\$43,742	\$46,333	
(12) % RESPONSIBILITY	100.00	51.23	1.62	28.12	2.06	1.65	3.49	2.89	4.72	2.05	2.17	P-6
(13) TOTAL RATE BASE	\$2,316,262	\$1,182,824	\$37,272	\$650,475	\$48,021	\$38,380	\$81,528	\$67,766	\$112,176	\$47,925	\$49,895	
(14) % RESPONSIBILITY	100.00	51.07	1.61	28.08	2.07	1.66	3.52	2.93	4.84	2.07	2.15	P-7
(15) DEMAND OPER. EXP.	\$80,855	\$39,394	\$1,229	\$21,961	\$1,737	\$1,287	\$2,938	\$2,386	\$3,915	\$1,692	\$4,316	
(16) % RESPONSIBILITY	100.00	48.73	1.52	27.16	2.15	1.59	3.63	2.95	4.84	2.09	5.34	O-1
(17) ENERGY OPER. EXP.	\$9,544	\$4,074	\$103	\$2,537	\$277	\$178	\$481	\$453	\$1,046	\$288	\$107	
(18) % RESPONSIBILITY	100.00	42.68	1.08	26.58	2.90	1.87	5.04	4.75	10.96	3.02	1.12	O-2
(19) CUSTOMER OPER. EXP.	\$33,785	\$25,515	\$1,076	\$5,320	\$105	\$412	\$216	\$21	\$83	\$23	\$1,014	
(20) % RESPONSIBILITY	100.00	75.52	3.18	15.75	0.31	1.22	0.64	0.06	0.25	0.07	3.00	O-3
(21) TOT. D/E/C EXPENSES	\$124,184	\$68,983	\$2,408	\$29,818	\$2,119	\$1,877	\$3,635	\$2,860	\$5,044	\$2,003	\$5,437	
(22) % RESPONSIBILITY	100.00	55.55	1.94	24.01	1.71	1.51	2.93	2.30	4.06	1.61	4.38	O-4
(23) TOT.EXPENSES + INT.	\$588,002	\$288,572	\$8,780	\$155,376	\$13,457	\$10,013	\$23,175	\$20,259	\$41,082	\$13,503	\$13,785	
(24) % RESPONSIBILITY	100.00	49.08	1.49	26.42	2.29	1.70	3.94	3.45	6.99	2.30	2.34	O-5
(25) SEC. CUST. REVENUE	\$218,836	\$0	\$10,212	\$194,301	\$0	\$14,323	\$0	\$0	\$0	\$0	\$0	
(26) % RESPONSIBILITY	100.00	0.00	4.66	88.79	0.00	6.55	0.00	0.00	0.00	0.00	0.00	R-1

EXHIBIT AED-88

NOVA SCOTIA POWER INC.

SALES, GENERATION AND DEMAND ANALYSIS

FOR THE YEAR ENDING DECEMBER 31, 1993

	(1) MW.h <u>SALES</u>	(2) ENERGY LINE <u>LOSSES</u>	(3) MW.h <u>GENERATED</u>	(4) CLASS NON- COINCIDENT <u>DMD. (kW)</u>	(5) SYSTEM COINCIDENT <u>FACTOR</u>	(6) SYSTEM COINCIDENT <u>DMD. (kW)</u>	(7) DEMAND LINE <u>LOSSES</u>	(8) SYSTEM COIN. PEAK <u>DMD. (kW)</u>	(9) SYSTEM COINCIDENT <u>LOAD FACTOR</u>
(1) DOMESTIC	3,365,294	11.38%	3,748,232	852,029	81.9%	697,737	20.54%	841,033	50.88%
(2) SMALL GENERAL	85,000	11.45%	94,729	25,781	59.8%	15,403	20.53%	18,565	58.25%
(3) GENERAL	2,098,025	11.29%	2,334,862	525,058	79.7%	418,334	20.16%	502,670	53.02%
(4) LARGE GENERAL	237,400	7.18%	254,440	43,819	84.8%	37,163	12.45%	41,790	69.50%
(5) SMALL INDUSTRIAL	148,242	11.10%	164,698	29,940	55.1%	16,483	19.61%	19,715	95.36%
(6) MEDIUM INDUSTRIAL	413,461	7.17%	443,108	73,385	66.0%	48,407	12.45%	54,434	92.93%
(7) LARGE INDUSTRIAL	402,100	3.86%	417,620	69,674	80.8%	56,278	6.38%	59,869	79.63%
(8) INTERRUPTIBLE	928,000	3.79%	963,213	257,400	51.7%	132,999	6.38%	141,484	77.72%
(9) MUNICIPAL	255,800	3.80%	265,509	51,077	96.4%	49,237	6.38%	52,378	57.87%
(10) UNMETERED	<u>88,488</u>	11.59%	<u>98,746</u>	<u>22,857</u>	72.1%	<u>16,474</u>	20.53%	<u>19,856</u>	56.77%
(11) SUB-TOTAL	8,021,810	9.52%	8,785,157	1,951,020	76.3%	1,488,515	17.69%	1,751,794	57.25%
(12) BOWATER MERSEY	582,000	1.40%	590,148	93,000	100.0%	93,000	1.87%	94,739	71.11%
(13) GEN.REPL./LOAD FOLL	235,000	3.87%	244,095	31,000	74.2%	23,000	6.38%	24,467	113.89%
(14) N.B.E.P.C.	<u>8,000</u>	10.00%	<u>8,800</u>	<u>0</u>	N/A	<u>0</u>	N/A	<u>0</u>	N/A
(15) TOTAL	<u>8,846,810</u>	8.83%	<u>9,628,200</u>	<u>2,075,020</u>	77.4%	<u>1,604,515</u>	16.61%	<u>1,871,000</u>	58.74%

EXHIBIT AED-9A

NOVA SCOTIA POWER INC.

DETERMINATION OF CLASS NON-COIN. kW DEMAND BY VOLTAGE LEVELFOR THE YEAR ENDING DECEMBER 31, 1993

	(1) TOTAL COMPANY	(2) DOMESTIC	(3) SMALL GENERAL	(4) GENERAL	(5) LARGE GENERAL	(6) SMALL INDUSTRIAL	(7) MEDIUM INDUSTRIAL	(8) LARGE INDUSTRIAL	(9) INTERRUPTIBLE	(10) MUNICIPAL	(11) UNMETERED
(1) NON-COIN. kW SEC.	1,424,802	852,029	25,781	497,072	0	27,063	0	0	0	0	22,857
(2) LOSSES 5.00%	<u>71,240</u>	<u>42,601</u>	<u>1,289</u>	<u>24,854</u>	<u>0</u>	<u>1,353</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>1,143</u>
(3) SUB-TOTAL	1,496,042	894,630	27,070	521,926	0	28,416	0	0	0	0	24,000
(4) NON-COIN. kW PRI.	1,642,106	894,630	27,070	549,912	43,819	31,293	71,382	0	0	0	24,000
(5) LOSSES 4.00%	<u>65,684</u>	<u>35,785</u>	<u>1,083</u>	<u>21,996</u>	<u>1,753</u>	<u>1,252</u>	<u>2,855</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>960</u>
(6) SUB-TOTAL	1,707,790	930,415	28,153	571,908	45,572	32,545	74,237	0	0	0	24,960
(7) NON-COIN. kW TRANS.	2,087,944	930,415	28,153	571,908	45,572	32,545	76,240	69,674	257,400	51,077	24,960
(8) LOSSES 3.90%	<u>81,428</u>	<u>36,286</u>	<u>1,098</u>	<u>22,304</u>	<u>1,777</u>	<u>1,269</u>	<u>2,973</u>	<u>2,717</u>	<u>10,039</u>	<u>1,992</u>	<u>973</u>
(9) TOTAL	<u>2,169,372</u>	<u>966,701</u>	<u>29,251</u>	<u>594,212</u>	<u>47,349</u>	<u>33,814</u>	<u>79,213</u>	<u>72,391</u>	<u>267,439</u>	<u>53,069</u>	<u>25,933</u>

EXHIBIT AED-98

NOVA SCOTIA POWER INC.

DETERMINATION OF AVERAGE AND EXCESS DEMAND ALLOCATION FACTORS

FOR THE YEAR ENDING DECEMBER 31, 1993

	(1) TOTAL COMPANY	(2) DOMESTIC	(3) SMALL GENERAL	(4) GENERAL	(5) LARGE GENERAL	(6) SMALL INDUSTRIAL	(7) MEDIUM INDUSTRIAL	(8) LARGE INDUSTRIAL	(9) INTERRUPTIBLE	(10) MUNICIPAL	(11) UNMETERED
GENERATION LEVEL											
(1) NON - COIN. KW DMD.	2,169,372	966,701	29,251	594,212	47,349	33,814	79,213	72,391	267,439	53,069	25,933
(2) AVERAGE DEMAND	1,002,872	427,880	10,814	266,537	29,046	18,801	50,583	47,674	109,956	30,309	11,272
(3) PERCENT OF TOTAL	100.00%	42.68%	1.08%	26.58%	2.90%	1.87%	5.04%	4.75%	10.96%	3.02%	1.12%
(4) EXCESS DEMAND	1,166,500	538,821	18,437	327,675	18,303	15,013	28,630	24,717	157,483	22,760	14,661
(5) INTERRUPTIBLE ADJ.	<u>(157,483)</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>(157,483)</u>	<u>0</u>	<u>0</u>
(6) REVISED EXCESS DMD.	1,009,017	538,821	18,437	327,675	18,303	15,013	28,630	24,717	0	22,760	14,661
(7) PERCENT OF TOTAL	<u>100.00%</u>	<u>53.40%</u>	<u>1.83%</u>	<u>32.47%</u>	<u>1.81%</u>	<u>1.49%</u>	<u>2.84%</u>	<u>2.45%</u>	<u>0.00%</u>	<u>2.26%</u>	<u>1.45%</u>
(8) AVG. & EXCESS DMD.	<u>100.00%</u>	<u>47.26%</u>	<u>1.40%</u>	<u>29.10%</u>	<u>2.43%</u>	<u>1.71%</u>	<u>4.10%</u>	<u>3.77%</u>	<u>6.27%</u>	<u>2.70%</u>	<u>1.26%</u>
(9) SYSTEM PEAK DEMAND LOAD FACTOR		$\frac{8,785,157 \text{ MW.h} \times 1000}{1,751,794 \text{ kW} \times 8760 \text{ hrs.}}$		=	<u>57.25%</u>						
(10) CALCULATION OF AVG. & EXCESS DMD. ALLOCATOR		$57.25\% \times \text{LINE 3} + 42.75\% \times \text{LINE 7}$									

NOVA SCOTIA POWER INC.

EXHIBIT AED-10

REVENUE TO EXPENSE COMPARISONFOR THE YEAR ENDING DECEMBER 31, 1993(IN THOUSANDS OF DOLLARS)

	(1) TOTAL OPER. <u>EXPENSES</u>	(2) TOTAL RATE <u>REVENUE</u>	(3) % REVENUE <u>TO EXPENSES</u>
(1) DOMESTIC	\$332,408	\$308,623	93
(2) SMALL GENERAL	10,125	10,212	101
(3) GENERAL	180,910	194,301	107
(4) LARGE GENERAL	15,413	15,411	100
(5) SMALL INDUSTRIAL	11,485	14,323	125
(6) MEDIUM INDUSTRIAL	26,366	30,901	117
(7) LARGE INDUSTRIAL	23,019	24,331	106
(8) INTERRUPTIBLE	45,593	46,264	101
(9) MUNICIPAL	15,458	15,959	103
(10) UNMETERED	<u>15,801</u>	<u>16,253</u>	103
(11) SUB-TOTAL	\$676,578	\$676,578	100
(12) DIR. CUST.EXP./REV.	33,700	33,861	N/A
(13) EXCESS DIR.CUST.REV	<u>161</u>	<u>0</u>	N/A
(14) TOTAL	<u>\$710,439</u>	<u>\$710,439</u>	100

2012 General Rate Application (NSUARB P-892)
NSPI Responses to CA Information Requests

NON-CONFIDENTIAL

1 **Request IR-176:**

2

3 **Please provide all Area Distribution Planning Studies (of the type provided in CA IR-58**
4 **Attachment 1) prepared since 2000.**

5

6 Response IR-176:

7

8 Please refer to Confidential Attachments 1 through 22, available for viewing at NSPI offices.

NON-CONFIDENTIAL

1 **Request IR-177:**

2

3 **Please provide the “construction and engineering estimates” on which NSPI determined**
4 **that “30% of the poles were estimated to be primary.” (CA IR-45 Attachment 1 Page 6).**

5

6 Response IR-177:

7

8 This principle has been in use as early as the 1980 rate case. Please refer to Attachment 1¹
9 (Section 8 – Poles, original page 8, paragraph 1). NSPI has not been able to retrieve the
10 “construction and engineering estimates” on which the allocation was based.

¹ NSPI 1980 Rate Case, Board of Commissioners of Public Utilities, E-100bg, June 18, 1979, page 10 (Section 8 – Poles).

APPENDIX

COST OF SERVICE STUDY SUBMITTED BY THE
NOVA SCOTIA POWER CORPORATION FOR THE YEAR
ENDING MARCH 31, 1980, BASED UPON THE AL-
LOCATION OF PRODUCTION AND DISTRIBUTION
PLANT ON THE BASIS OF COINCIDENT PEAK AND
AVERAGE DEMAND, AND DISTRIBUTION PLANT ON
THE BASIS OF CLASS NON-COINCIDENT DEMAND

- 1 -

RATE DESIGN OBJECTIVES

The Applicant's ultimate objective in setting rates is stated to be the providing of service at rates that distribute cost of an equitable basis, recognizing usage characteristics and cost causation. With ever changing conditions, data rate design will be an ongoing evolutionary process.

COST OF SERVICE ANALYSIS

The Applicant's proposed rates are based upon an analysis of its estimated rate base, also hereinafter referred to as "plant investments", and operating expenses, also hereinafter referred to as "operating costs", for the year ending March 31, 1980, and their subsequent allocation to the various customer classes. The Applicant analysed plant investments and operating costs in three stages:

- (a) Functionalization, i.e. the plant investments and operating costs were functionalized according to the utility's functions of production, transmission, distribution, general or other;
- (b) Classification, i.e. operating costs as functionalized were classified according to the system's demands, energy and customer responsibilities;
- (c) Allocation, i.e. the plant investments and operating costs, as functionalized and classified, were then allocated to the customer classes.

ANALYSIS OF RATE BASE

The estimated Rate Base of the Applicant for the fiscal year ending March 31, 1980, amounting to \$829,387,000 after the deduction of that portion of

- 2 -

the rate base dedicated to specialized sales and services relating to combined steam and electric service, steam service, and the Mersey System totalling \$29,459,000, was analysed as follows:

RATE BASE ANALYSIS
FOR THE YEAR ENDING MARCH 31, 1980
(\$000)

	<u>TOTAL COMPANY</u>	<u>UNALLOCATED</u>	<u>TOTAL TO BE ALLOCATED</u>
<u>Production Plant</u>			
(1) Steam	\$249,979	\$ 19,029	\$230,950
(2) Hyaro	167,404	3,471	163,933
(3) Gas Turbine	19,165	-	19,165
(4) TOTAL PRODUCTION PLANT	<u>436,548</u>	<u>22,500</u>	<u>414,048</u>
(5) <u>Transmission Plant</u>	130,883	-	130,883
<u>Distribution Plant</u>			
(6) Substations	26,576	163	26,413
(7) Other	199,188	-	199,188
(8) TOTAL DISTRIBUTION	<u>225,764</u>	<u>163</u>	<u>225,601</u>
(9) General Property and Intangibles	15,928	-	15,928
(10) Total Plant In Service	809,123	22,663	786,460
<u>Working Capital</u>			
(11) Cash - Fuel	16,670	3,756	12,914
(12) Cash - Other	5,463	610	4,853
(13) Materials & Supplies - Fuel	13,305	1,118	12,127
(14) Materials & Supplies - Other	14,285	1,312	12,973
(15) TOTAL WORK CAPITAL	<u>49,723</u>	<u>6,796</u>	<u>42,927</u>
TOTAL RATE BASE	<u>\$858,846</u>	<u>\$ 29,459</u>	<u>\$829,387</u>

FUNCTIONALIZATION OF RATE BASE

The Applicant functionalized the net Rate Base of \$829,387,000 through the use of its plant records; as follows:

RATE BASE ALLOCATION FACTORS

The above allocation of the Applicant's rate base to the customer classifications was based on the use of the factors that follow each item of rate base. An explanation of the factors is as follows:

PRODUCTION PLANT

(1) Steam (DØ-1)

The steam plant, which is designed to meet base load, is allocated on the basis of system peak and average demand. The demand represents the sum of the system's coincident peak and average hourly consumption. Power supplied to Bowater Mersey and AECL Point Tupper was deducted in both cases. The average hourly demand was determined by dividing the net MWH by 8760 hours.

The Applicant first projected its energy sales, for fiscal year 1980, and the quantity of power generated and purchased before line losses, by classes. The load factors developed by the 1978 Ernst and Ernst study were adjusted for 1980 in accordance with overall system load factor and used to arrive at each class demand. The following are the results of the Applicant's calculations,

System and Generation Analysis
For the Year Ending March 31, 1980

	MWh Sales	Losses	MWh Generated	System Coincidence Load Factor	System Coincidence Peak Demand	Coincident Demand	System Coincidence Factor	Diversified Class Demand
(1) Domestic	1,769,241	9.35	1,911,768	55.55	413	374	0.925	452
(2) Salt General	67,666	9.35	73,659	89.01	10	9	0.023	29
(3) General Service Demand	1,010,714	9.35	1,148,048	55.52	237	214	0.900	233
(4) General Service All-Electric	299,700	0.69	320,209	46.03	00	73	0.225	72
(5) General Service Large	110,200	7.84	120,262	77.06	12	13	0.275	21
(6) General Service Small	34,500	7.34	37,437	55.61	12	11	0.275	13
(7) Industrial to 249 MW	325,700	6.66	350,065	58.57	68	63	0.275	72
(8) Industrial Large	1,091,600	4.13	1,130,600	99.99	130	125	0.650	147
(9) Intercolumbia	101,100	4.13	201,626					40
(10) Bowater Mersey	200,000	4.13	209,624	20.54	40	38	0.900	40
(11) AES, Pt. Tupper	182,000	4.13	189,864	77.40	23	27	0.275	27
(12) Municipal	213,200	4.13	251,607	59.10	40	47	0.925	51
(13) Unmetered	70,000	9.35	70,101	44.58	20	18	1.000	22
(14) Other								
(15) TOTAL	5,677,541	7.41	6,077,600		1,106	1,017		1,212
Deduct								
(10) Bowater Mersey	200,000	4.13	209,624	59.54	40	38	0.900	40
(11) AES, Pt. Tupper	182,000	4.13	189,864	77.40	23	27	0.275	27
NOTE	5,245,441	7.56	5,678,238		1,038	942		1,142

CALCULATION OF SYSTEM PEAK & AVERAGE DEMAND

Net System Coincident Peak MW Demand 1038
 Average Consumption 5,679,128 649
 System Peak & Average Demand (MW) 1687
 for Corporation

The Applicant's system peak and average demand of 1687 MW was allocated by the Applicant between its customer classes as follows:

Allocation of Allocation Factors For Jan. Peak Load March 31, 1969																
Total Customer	Residual	General	Small General	General All Other	General	Industrial	Industrial	Industrial	Industrial	Industrial	Industrial	Transmission	Additional	Transmission	Residual	Total
1,687	635	117	24	117	24	108	308	308	260	260	260	23	74	23	74	1,687
5,679,128	27,641	24,841	2,402	6,938	2,402	6,400	19,441	19,441	16,841	16,841	16,841	1,436	4,428	1,436	4,428	5,679,128

The percentages, so derived, were used in the following allocation of the Steam Plant, valued at \$230,950,000 to the various customer classifications:

Allocation of Allocation Factors For Jan. Peak Load March 31, 1969 (Cont.)																
Total Customer	Residual	General	Small General	General All Other	General	Industrial	Industrial	Industrial	Industrial	Industrial	Industrial	Transmission	Additional	Transmission	Residual	Total
1,687	635	117	24	117	24	108	308	308	260	260	260	23	74	23	74	1,687
5,679,128	27,641	24,841	2,402	6,938	2,402	6,400	19,441	19,441	16,841	16,841	16,841	1,436	4,428	1,436	4,428	5,679,128

PRODUCTION PLANT

- (2) Hydro (DØ-6)
- (3) Gas Turbine (DØ-6)

Hydro and gas turbine plants are designed to meet peaks and are allocated on the basis of system coincident peak that was determined by the following sales and generation analysis, shown above,

The Applicant's system coincident peak of 1038 MWH as so determined was allocated by the Applicant between the customer classes as follows:

Allocation of Allocation Factors For Jan. Peak Load March 31, 1969																
Total Customer	Residual	General	Small General	General All Other	General	Industrial	Industrial	Industrial	Industrial	Industrial	Industrial	Transmission	Additional	Transmission	Residual	Total
1,038	413	80	16	80	16	74	219	219	184	184	184	16	49	16	49	1,038
5,679,128	27,641	24,841	2,402	6,938	2,402	6,400	19,441	19,441	16,841	16,841	16,841	1,436	4,428	1,436	4,428	5,679,128

The hydro plant of \$163,933,000 and Gas Turbine Plant of \$19,165,000 was next allocated to the customer classifications by the use of the above percentages, as follows:

Allocation of Pole Line
For the Year Ending March 31, 1989
(1989)

Domestic	Small General Service Demand	General All-Service Demand	Industrial General Demand	Industrial All-Service Demand	Industrial Intersectable Demand	Industrial Non-Intersectable Demand	Total
45,779	27,426	12,677	10,778	20,574	7,378	3,174	103,873
1,628	4,371	1,471	1,493	3,372	211	729	12,103
1,920	31,797	14,148	12,271	23,946	7,589	3,903	115,920
15	1	1	1	1	1	1	6
							14
							14

(5) Transmission (DØ-1)

As the transmission system is designed to meet the demand, the Applicant allocated this portion of the plant investment on system peak and average demand. The total Applicant's system peak and average was determined, as noted above under Production (1) Steam (DØ-1), at 1687 MW. These were allocated as follows:

Distribution of Allocation Factors
For the Year Ending March 31, 1989

Total General Demand	Small General Demand	General All-Service Demand	Industrial General Demand	Industrial All-Service Demand	Industrial Intersectable Demand	Industrial Non-Intersectable Demand	Total
1,687	10	24	16	308	210	75	2,316
100.00	0.6	1.4	0.9	18.4	13.4	4.6	100.0

Percentages so derived were used by the Applicant in allocating the Transmission Plant investment, valued at \$130,883,000, between the various customer classifications as follows:

Allocation of Pole Line
For the Year Ending March 31, 1989
(1989)

Domestic	Small General Service Demand	General All-Service Demand	Industrial General Demand	Industrial All-Service Demand	Industrial Intersectable Demand	Industrial Non-Intersectable Demand	Total
49,264	25,946	9,405	2,464	4,377	1,788	6,249	119,483

DISTRIBUTION PLANT

(6) Land (PØ-2)

Investment in land was allocated by the Applicant on the basis of substation, pole and wire investment as follows:

Distribution of Allocation Factors
For the Year Ending March 31, 1989

Total General Demand	Small General Demand	General All-Service Demand	Industrial General Demand	Industrial All-Service Demand	Industrial Intersectable Demand	Industrial Non-Intersectable Demand	Total
\$ 142,071	\$ 4,569	\$ 20,512	\$ 5,465	\$ 1,187	\$ 4,266	\$ 1,963	\$ 172,033
100.00	3.25	14.44	3.85	0.84	3.00	1.38	100.00

The determination of these allocations are

dealt with below in more detail, under Distribution (7) Substations (Schedule 3a), Distribution, Poles (Schedule 3c), and Demand (9) Wire Overhead (Schedule 3e).

The percentages derived from the Substation Pole and Wire Investment, were used by the Applicant in the allocation of Distribution - Land, Plant amounting to \$2,716,000 as follows:

Allocation of Distribution
For the Year Ending March 31, 1980
(\$000)

Substation	General		Industrial		Intermediate		Total
	Land	Plant	Land	Plant	Land	Plant	
Land	1,000	200	24	22	28	23	1,775
Plant							1,000
Total	1,000	200	24	22	28	23	2,775

DISTRIBUTION PLANT

(7) Substations (Schedule 3a)

Substation investments were allocated by the Applicant to customer classes as noted below, with the amounts invested in facilities dedicated to individual customer's uses being identified and directly allocated to the customer's respective class.

ANALYSIS OF DISTRIBUTION SUBSTATIONS COSTS
FOR THE YEAR ENDING MARCH 31, 1980

(\$000)

(1) Total Dist. Substations	DISTRIBUTION BULK POWER		DIST. CUST. BULK POW.		DISTRIBUTION GENERAL		DIST. CUST. DED. GEN.		TOTAL COST
	\$20,143	\$ 782	\$ 22	\$ 4,547	\$ 826	\$ 23	\$26,413		
<u>ALLOCATION</u>									
(2) Domestic	\$ 9,620	\$ -	\$ -	\$ 2,172	\$ -	\$ -	\$ -	\$ -	\$11,792
(3) Small General	222	-	-	50	-	-	-	-	272
(4) General	5,040	-	-	1,138	65	-	-	-	6,243
(5) General All Electric	1,686	-	-	381	89	-	-	-	2,156
(6) General Large	441	-	-	99	93	-	-	-	633
(7) Industrial to 249 KVA	302	2	-	68	6	-	-	-	378
(8) Industrial 250-3999 KVA	1,426	107	1	322	321	23	-	-	2,200
(9) Industrial Large	542	396	11	122	108	-	-	-	1,179
(10) Intermittible	-	-	10	-	7	-	-	-	17
(11) Municipal	461	277	-	104	207	-	-	-	1,049
(12) Unmetered	403	-	-	91	-	-	-	-	494
(13) TOTAL	\$20,143	\$ 782	\$ 22	\$ 4,547	\$ 896	\$ 23	\$ 23	\$ 23	\$26,413
Allocation Factor	DP-3*	Direct	Direct	DP-3*	Direct	Direct	Direct	Direct	

The non-dedicated substation investments were allocated on the basis of percentages derived from class non-coincident primary demand. Details are as follows:

Allocation of Allocation Factors
For the Year Ending March 31, 1980

Total Expense	Demand	Small		General		Industrial		Commercial		Agricultural		Miscellaneous	
		General	Special	General	Special	General	Special	General	Special	General	Special	General	Special
1,003	47%	11	23	4	22	13	71	27	23	20	20	20	20
300.00	47%	1.30	25.00	4.77	2.15	1.50	7.00	2.00	2.29	2.00	2.00	2.00	2.00

The resulting allocation of Substation Plant,

valued at \$26,413,000, was as follows:

Allocation of Allocation Factors
For the Year Ending March 31, 1980

Allocation	Demand	Small		General		Industrial		Commercial		Agricultural		Miscellaneous	
		General	Special	General	Special	General	Special	General	Special	General	Special	General	Special
11,772	37%	6,343	4,156	493	278	3,200	1,179	37	1,000	400	400	400	400

DISTRIBUTION PLANT

(8) Poles (Schedule 3c)

Based upon construction and engineering estimates, the Applicant proposes that 30% of the poles be treated as primary while the balance be split 50% primary and 50% secondary.

Subsequently, the totals were split 63% to customer responsibility and 37% to demand responsibility. The split is based on the concept that 30 and 35 foot poles are the minimum size poles required to service all customers. Weighting 30 feet poles at 2, and 35 feet poles at 1, the average weighted cost of 30 and 35 foot poles was \$104.10. This amount multiplied by the total number of poles equals 63% of the total pole investment, which was accordingly allocated 63% to customer responsibility, and 37% to demand responsibility.

ANALYSIS OF POLE INVESTMENT
FOR THE YEAR ENDING MARCH 31, 1980
(\$000)

	TOTAL COST	PRIMARY DEMAND (37%)	PRIMARY CUSTOMER (63%)	SECONDARY DEMAND (37%)	SECONDARY CUSTOMER (63%)
(1) Total Net Pole Cost	\$74,833				
(2) Primary Only (30%)	22,450	\$8,307	\$14,143	\$ -	\$ -
(3) 50% Joint-Primary	26,192	9,691	16,501	-	-
(4) 50% Joint-Secondary	26,191	-	-	9,691	16,500
(5) TOTAL	\$74,833	\$17,998	\$30,644	\$9,691	\$16,500

DISTRIBUTION PLANT

(9) Wire-Overhead (Schedule 3e)

The wire investment of the Applicant amounting to \$41,825,000 was split by the Applicant on construction and engineering estimates on the basis of 30% to primary and the balance, 50% primary and 50% secondary.

The customer demand split was made on the basis of minimum wire size of #1/0 copper and #2/0 aluminum wire required to service each customer. The installed costs of these two types of wire is \$131.38/1000 feet. The total cost of these wires when compared with the total of the wire investment, establishes that 59% of the wire investment is customer related and 41% demand related. The final analysis of wire investment is as follows:

ANALYSIS OF WIRE INVESTMENT
FOR THE YEAR ENDING MARCH 31, 1980
 (\$000)

	TOTAL COST	PRIMARY DEMAND (41%)	PRIMARY CUSTOMER (59%)	SECONDARY DEMAND (41%)	SECONDARY CUSTOMER (59%)
(1) TOTAL NET WIRE COST	\$41,825				
(2) Primary Only (30%)	12,548	\$ 5,145	\$ 7,403	\$ -	\$ -
(3) 50% Joint - Primary	14,639	6,002	8,637	-	-
(4) 50% Joint - Secondary	14,638	-	-	6,002	8,636
(5) TOTAL	\$41,825	\$11,147	\$16,040	\$6,002	\$8,636

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The Applicant then allocated the wire investment to the various customer classifications on the same allocation factors (DØ-3, CØ-5, DØ-2 and CØ-5) set out above under Distribution (8) Poles.

ALLOCATION OF WIRE INVESTMENT
FOR THE YEAR ENDING MARCH 31, 1980

(\$000)

	TOTAL COST	PRIMARY DEMAND	PRIMARY CUSTOMER	SECONDARY DEMAND	SECONDARY CUSTOMER
(1) Domestic	\$30,889	\$ 5,324	\$14,381	\$ 3,416	\$ 7,748
(2) Small General	1,496	123	845	73	455
(3) General Service	5,359	2,789	568	1,697	305
(4) General All-Electric	1,634	933	79	580	42
(5) General Large	244	244	-	-	-
(6) Industrial to 249 KVA	305	167	27	96	15
(7) Industrial 250-3,999 KVA	797	789	8	-	-
(8) Industrial Large	300	300	-	-	-
(9) Interruptible	-	-	-	-	-
(10) Municipal	255	255	-	-	-
(11) Unmetered	566	223	132	140	71
(12) TOTAL	\$41,825	\$11,147	\$16,040	\$ 6,002	\$ 8,636
(13) Allocation Factor		DØ-3	CØ-5	DØ-2	CØ-4

As a result of these calculations, the Applicant then allocated Distribution - Wires Overhead plant, valued at \$41,825,000, as follows:

- KVA-ZONAL WIRE RESPONSIBILITY ALLOCATION OF WIRE -
FOR THE YEAR ENDING MARCH 31, 1980

Domestic	Small General	General Service	General All-Electric	Industrial		Interruptible	Municipal	Unmetered	Total	
				Large	Small					
21,809	1,496	5,359	1,634	244	305	797	300	255	566	41,825

DISTRIBUTION PLANT

(10) Underground (PØ-1)

Underground facilities were allocated by the Applicant on the totals of pole and wire investments, as follows:

- KVA-ZONAL WIRE RESPONSIBILITY ALLOCATION OF WIRE -
FOR THE YEAR ENDING MARCH 31, 1980

Total Customer	Township	Small General	General Service	General All-Electric	Industrial		Interruptible	Municipal	Unmetered	Total
					Large	Small				
\$ 116,658	\$ 87,261	\$ 4,297	\$ 4,299	\$ 4,348	\$ 2,046	\$ 764	\$ 607	\$ 1,538	\$ 1,538	\$ 116,658
300.00	74.80	3.69	12.23	11.55	1.79	.67	.57	1.32	1.32	300.00

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The pole and wire investment allocations were as shown above under Distribution (8) Poles and (9) Wire.

Based upon the above approach, the Applicant allocated Distribution - Underground Plant, valued at \$5,944,000, as follows:

Allocation of Distribution
For the Year Ending March 31, 1982
(KWH)

Allocation	General Service		Industrial		Intermittent-Industrial		Municipal		Total
	General	Industrial	General	Industrial	General	Industrial	General	Industrial	
4,446	219	727	319	41	40	34	39	3,024	

DISTRIBUTION PLANT

(11) Line Transformers (DØ-2)

Line transformers, being used in the secondary system, were allocated by the Applicant on secondary class non-coincident demands as follows:

Determination of Class Non-Coincident Demand by Voltage Level
For the Year Ending March 31, 1982

Total Demand	Small		General		Industrial		Intermittent		Municipal		Unallocated
	General	Industrial	General	Industrial	General	Industrial	General	Industrial	General	Industrial	
817	452	10	225	77	13	13	18	19	18	19	
817	465	10	231	79	13	13	18	19	18	19	

Percentage of Allocation Factors
For the Year Ending March 31, 1982

Total Demand	Small		General		Industrial		Intermittent		Municipal		Unallocated
	General	Industrial	General	Industrial	General	Industrial	General	Industrial	General	Industrial	
817	465	10	271	79	13	13	19	19	18	19	
100.00	56.92	1.22	28.27	9.67	1.59	1.59	2.33	2.33	2.33	2.33	

Using the percentages so derived, the Applicant allocated plant described as Distribution - Line Transformers as follows:

Percentage of Allocation Factors
For the Year Ending March 31, 1982

Total Demand	Small		General		Industrial		Intermittent		Municipal		Unallocated
	General	Industrial	General	Industrial	General	Industrial	General	Industrial	General	Industrial	
312,387	280,061	1.0	11,043	1,565	149	74	7	4	2,661	2,661	
312,387	280,061	1.0	11,043	1,565	149	74	7	4	2,661	2,661	

DISTRIBUTION PLANT

(12) Services (CØ-3)

Services were spread by the Applicant on a weighted customer basis as follows:

Percentage of Allocation Factors
For the Year Ending March 31, 1982

Total Demand	Small		General		Industrial		Intermittent		Municipal		Unallocated
	General	Industrial	General	Industrial	General	Industrial	General	Industrial	General	Industrial	
312,387	280,061	1.0	11,043	1,565	149	74	7	4	2,661	2,661	
312,387	280,061	1.0	11,043	1,565	149	74	7	4	2,661	2,661	

The Applicant allocated the Distribution Plant - Services, valued at \$19,518,000 on the basis of the above percentages, as follows:

Allocation of Meters					
For the Year Ending March 31, 1980					
	(000)		(000)		(000)
Line Transformers	19,179	410	9,899	3,359	197
Small General Service					
General Service					
Industrial Service					
Interruptible Service					
Municipal Service					
Unmetered Service					
Total					197

DISTRIBUTION PLANT

(13) Meters (Schedule 3f)

Meter investment for each class of customer was determined by multiplying the unit cost of installing the type of meter used by each class by the number of customers in the class, as follows:

ANALYSIS OF METER INVESTMENT
FOR THE YEAR ENDING MARCH 31, 1980

CUSTOMERS	UNIT METER COST	TOTAL COST	%	METER COST (\$000)
(1) Domestic	\$ 34.00	\$9,522,074	81.09	\$ 8,561
(2) Small General	34.00	559,300	4.76	502
(3) General Service	111.00	1,225,773	10.44	1,102
(4) General All-Electric	145.00	224,170	1.91	202
(5) General Large	657.00	1,971	.02	2
(6) Industrial to 249 KVA	145.00	79,025	.67	71
(7) Industrial 250-3,999 KVA	657.00	97,893	.83	88
(8) Industrial Large	1,338.00	18,732	.16	17
(9) Interruptible	1,338.00	9,366	.08	8
(10) Municipal	520.00	4,160	.04	4
(11) Unmetered				
(12) TOTAL		\$11,742,464	100.00	\$10,557

The Distribution Plant - Meters, valued at \$10,557,000 was allocated by the Applicant on the above determination as follows:

Allocation of Allocation Factors					
For the Year Ending March 31, 1980					
	General Service	Industrial Service	Interruptible Service	Municipal Service	Unmetered Service
Total Meters	280,061	16,450	11,043	1,546	3
Allocation Factor	34.00	34.00	111.00	145.00	657.00
Value	\$9,522,074	\$559,300	\$1,225,773	\$224,170	\$1,971
Percentage	81.09%	4.76%	10.44%	1.91%	.02%

DISTRIBUTION PLANT

(14) Other (PØ-2)

Other distribution costs were allocated between customer classifications on the basis of the following substation, pole and wire investment percentages determined as shown under Distribution Plant (6) Land, above.

Development of Allocation Factors For the Year Ending March 31, 1959											
Total Spokane	General Demand	Small General	General All-Classes	Industrial All-Classes	Industrial General	Industrial Large	Industrial Large	Industrial Large	Industrial Large	Industrial Large	Unmetered Excess
Total & Wire Responsibility	\$ 143,071	\$ 99,053	\$ 4,569	\$ 39,312	\$ 6,665	\$ 1,271	\$ 1,187	\$ 4,246	\$ 1,983	\$ 1,716	\$ 2,072
	100.00	69.23	3.19	27.48	4.54	.89	.83	3.00	1.38	1.20	1.44

This plant valued at \$917,000 was allocated by the Applicant on the basis of the PØ2 percentages as follows:

Allocation of Excess Lines For the Year Ending March 31, 1959											
Distribution Class	General	Small General	General All-Classes	General All-Classes	Industrial All-Classes	Industrial General	Industrial Large	Industrial Large	Industrial Large	Industrial Large	Unmetered Excess
Other	57%	2%	4%	4%	8%	8%	13%	11%	13%	13%	17%

DISTRIBUTION PLANT

(15) Street Lighting

The Street Lighting Plant, valued at \$9,254,000 was assigned directly to the unmetered class.

(17) General and Intangible (PØ-3)

The general and intangible plant investment was allocated to the customer classification on the basis of percentages of all other plant investment, namely, Production, Transmission and Distribution Plant investment as follows:

NEW SPOTTA POWER CONSTRUCTION Development of Allocation Factors For the Year Ending March 31, 1959											
Total Source	General All-Classes	Small General	General All-Classes	General All-Classes	Industrial All-Classes	Industrial General	Industrial Large	Industrial Large	Industrial Large	Industrial Large	Unmetered Excess
Production, Trans & Distribution & Responsibility	\$ 779,528	\$ 397,520	\$ 12,548	\$ 135,973	\$ 49,938	\$ 1,598	\$ 6,418	\$ 29,618	\$ 29,738	\$ 27,165	\$ 22,293
	100.00	46.00	1.60	17.40	6.40	.20	0.80	3.70	3.80	3.50	2.80

These percentages were then used by the Applicant in allocating the General and Intangible Plant to customer classifications as follows:

Allocation of Excess Lines For the Year Ending March 31, 1959											
Distribution Class	General	Small General	General All-Classes	General All-Classes	Industrial All-Classes	Industrial General	Industrial Large	Industrial Large	Industrial Large	Industrial Large	Unmetered Excess
(17) General & Intangible	1,701	2%	1,428	2%	1,648	2%	1,648	2%	1,648	2%	1,648

WORKING CAPITAL

(19) Cash - Fuel (EØ-1)

The Cash-Fuel item of Working Capital was allocated to customer classes on percentages determined as follows:

Total Economy	Development of Allocation Factors For the Year Ending March 31, 1959											
	Small Domestic	Small General Domestic	General Domestic	All Electric	General All Electric	Industrial All Electric	General Industrial	Industrial General	Industrial Industrial	Industrial Municipal	Industrial Unmetered	Industrial Zoned
\$,679,128	1,941,766	74,658	1,116,049	328,209	128,264	37,437	349,465	1,138,609	201,426	253,687	78,101	
100.00	24.19	1.11	20.21	5.78	2.28	0.66	6.14	20.05	3.55	4.47	1.34	12-1

Working Capital - Cash-Fuel, valued at \$12,914,000 was allocated by the Applicant on the above percentages as follows:

Working Capital Cash-Fuel	Allocation of Cash-Fuel For the Year Ending March 31, 1959 (1958)											
	Small Domestic	Small General Domestic	General Domestic	All Electric	General All Electric	Industrial All Electric	General Industrial	Industrial General	Industrial Industrial	Industrial Municipal	Industrial Unmetered	Industrial Zoned
1,415	100	2,610	97	192	85	71	2,509	497	377	174	12,914	

WORKING CAPITAL

(20) Cash-Other (OØ-3)

The Working Capital representing Cash-Other was allocated between the customer classification on the basis of percentages of the total operating costs determined as follows:

Total Economy	Development of Allocation Factors For the Year Ending March 31, 1959											
	Small Domestic	Small General Domestic	General Domestic	All Electric	General All Electric	Industrial All Electric	General Industrial	Industrial General	Industrial Industrial	Industrial Municipal	Industrial Unmetered	Industrial Zoned
\$,555	25,073	1,097	9,228	2,079	701	446	2,278	4,762	410	1,620	2,471	
100.00	49.41	2.05	18.48	5.45	1.36	.86	4.12	9.24	.77	2.95	4.59	06-3

Working Capital--Cash-Other, valued at \$4,853,000 was allocated by the Applicant on the above percentages as follows:

Working Capital Cash-Other	Allocation of Cash-Other For the Year Ending March 31, 1959 (1958)											
	Small Domestic	Small General Domestic	General Domestic	All Electric	General All Electric	Industrial All Electric	General Industrial	Industrial General	Industrial Industrial	Industrial Municipal	Industrial Unmetered	Industrial Zoned
2,778	100	297	365	65	24	118	118	34	113	242	1,453	

WORKING CAPITAL

(21) Inventories - Fuel (EØ-1)

Inventories-Fuel were allocated to the customer classes on the basis of percentages derived from MWH Generated and Purchased, as

Distribution of Allocation Factors For Fuel Inventory March 31, 1959										
Total Fuel Inventory Responsibility	Small General		General Industrial		Industrial Industrial		Intermittent		Unallocated	
	Account	Balance	Account	Balance	Account	Balance	Account	Balance	Account	Balance
\$,679,128	1,941,746	74,698	1,246,048	27,437	248,865	1,128,179	201,216	853,687	78,101	1,174
100.00	34.39	1.21	20.31	0.56	8.34	20.05	3.35	4.47	1.34	0.1

The percentages so derived enabled the Applicant to allocate the Working Capital. Inventories - Fuel valued at \$12,187,000, between the Customer Classification as follows:

Allocation of Inventory For the Year Ending March 31, 1959 (1959)										
Inventory	Small General		General Industrial		Industrial Industrial		Intermittent		Unallocated	
	Account	Balance	Account	Balance	Account	Balance	Account	Balance	Account	Balance
\$,187,000	100	2,403	74	279	89	244	43	243	16	12,187

WORKING CAPITAL

(22) Inventories - Other (PØ-3)

Inventories - Other were distributed among the customer classifications on percentages based upon the allocations of production, transmission and distribution plant as shown above.

Production, Transmission & Distribution Plant For the Year Ending March 31, 1959 (1959)										
Production, Transmission & Distribution Plant Responsibility	Small General		General Industrial		Industrial Industrial		Intermittent		Unallocated	
	Account	Balance	Account	Balance	Account	Balance	Account	Balance	Account	Balance
100.00	100	1,000	100	1,000	100	1,000	100	1,000	100	1,000

The percentages were then used by the Applicant to allocate the Inventories - Other, amounting to \$12,973,000 among the customer classifications, as follows:

Allocation of Inventory For the Year Ending March 31, 1959 (1959)										
Inventory	Small General		General Industrial		Industrial Industrial		Intermittent		Unallocated	
	Account	Balance	Account	Balance	Account	Balance	Account	Balance	Account	Balance
\$,12,973,000	100	1,000	100	1,000	100	1,000	100	1,000	100	1,000

II

OPERATING EXPENSES

The Operating Expenses (Operating Costs) of the Applicant were processed as follows before being allocated to the various customer classifications,

- (a) Functionalization into Production, Transmission, Distribution, Administration and General and Other Costs;
- (b) Classification into Demand, Energy, Customer, Other and Direct;
- (c) Allocation to Customer Classifications.

FUNCTIONALIZATION OF COSTS

The total Operating Costs of the Applicant amounting to \$334,839,000 for the year ending March 31, 1980 were functionalized by the Applicant as follows:

FUNCTIONALIZATION OF COSTS
FOR THE YEAR ENDING MARCH 31, 1980
(\$600)

	PRODUCTION COSTS	TRANSMISSION COSTS	DISTRIBUTION COSTS	ADMIN. & GEN. COSTS	OTHER	TOTAL
(1) Thermal	\$164,658	-	-	-	-	\$164,658
(2) System Planning & Operations	7,615	1,252	95	211	-	9,173
(3) Design & Construction	247	362	-	25	-	634
(4) Distribution	-	1,365	13,383	-	-	14,748
(5) Customer Services	-	-	-	1,455	-	1,455
(6) Personnel Planning & Operations	1,590	448	1,224	2,062	-	5,324
(7) Treasury	22	5	63	988	-	1,078
(8) Secretary & General Counsel	1,141	132	237	4,050	-	4,050
(9) Information Processing	-	-	-	349	-	1,859
(10) General Administration	-	-	-	2,912	-	2,912
(11) Public Utility Board Assessment	-	27	240	2,366	-	2,633
(12) Grants In Lieu of Taxes	-	-	-	-	4,002	4,002
(13) Depreciation	-	-	-	-	32,341	32,341
(14) Labour Adjustment	-	-	-	-	120	120
(15) Contributed Capital	-	-	-	-	695	695
(16) Wreck Cove Deferral	-	-	-	-	1,068	1,068
(17) Sub-Total-Operating	1,318	-	-	-	-	-
(18) Return on Rate Base	176,591	3,591	15,242	15,263	37,411	248,098
(19) Miscellaneous Revenue	-	-	-	-	89,756	89,756
(20) Miscellaneous Revenue	-	-	-	-	(3,015)	(3,015)
(21) TOTAL	\$176,591	\$3,591	\$15,242	\$15,263	\$124,152	\$334,839

In distributing the costs between functions, the Applicant notes that the Corporation's accounts are kept on a divisional basis, and divisional costs may or may not be related to different functions. As a comparison, the Thermal Division costs are all production related, whereas the System Planning and Operations Division costs are related to Production, Transmission, Distribution and Administration and General. The Distribution Division incurs expenses relating to Transmission as well as Distribution.

CLASSIFICATION

The Operating Costs, as functionalized, have been classified into Demand, Energy, Customer, Other and Direct as follows:

		Classification of Costs For the Year Ending March 31, 1980 (\$000)					Total
<u>PRODUCTION</u>		Demand	Energy	Customer	Other	Direct	
(1)	Fuel	-	\$102,321	-	-	\$ 37,669	\$ 139,990
(2)	Purchased Power	973	-	-	-	-	3,477
(3)	Operating and Maintenance	26,220	2,504	-	-	5,586	31,806
(4)	Muck Cove Deferral	1,318	-	-	-	-	1,318
(5)	TOTAL PRODUCTION	28,511	104,825	-	-	43,255	176,591
(6)	Transmission	3,581	-	-	-	10	3,591
<u>DISTRIBUTION</u>							
(7)	Land	632	-	-	-	-	1,270
(8)	Substations	2,437	-	638	-	83	2,520
(9)	Overhead Lines	1,030	-	1,649	-	-	2,679
(10)	Underground Lines	53	-	84	-	-	137
(11)	Line Transformers	917	-	-	-	-	917
(12)	Services	-	-	1,413	-	-	1,413
(13)	Meters	-	-	1,043	-	-	1,043
(14)	Customer Service and Contracts	-	-	1,570	-	-	1,570
(15)	Customer Premise Expense	648	-	900	-	-	1,548
(16)	Communications	1,823	-	-	-	-	1,823
(17)	Street Lighting	-	-	322	-	-	322
(18)	Meter Testing	7,540	-	7,619	-	83	15,242
(19)	TOTAL DISTRIBUTION	-	-	-	-	-	-
<u>ADMINISTRATION AND GENERAL</u>							
(20)	Billing and Meter Reading	-	-	4,018	-	-	4,018
(21)	Customer Service	-	-	1,537	-	-	1,537
(22)	Credit and Collection	-	-	1,840	-	-	1,840
(23)	Other	4,998	-	1,203	-	1,767	8,568
(24)	TOTAL ADMINISTRATION AND GENERAL	4,998	-	8,498	-	1,767	15,263
(25)	Grants in Lieu of Taxes	-	-	-	3,822	-	3,822
(26)	Depreciation	-	-	-	30,960	150	32,341
(27)	Contributed Capital	-	-	-	1,068	1,381	2,449
(28)	TOTAL OPERATING	44,630	104,825	16,117	46,646	3,031	215,051
(29)	Return on Rate Base	-	-	-	86,725	-	86,725
(30)	Miscellaneous Revenue	-	-	-	(3,019)	-	(3,019)
(31)	TOTAL	\$ 44,630	\$ 104,825	\$ 16,117	\$ 119,590	\$ 3,031	\$ 331,839

ALLOCATION OF OPERATING EXPENSES TO CUSTOMER CLASSIFICATIONS

The Operating Costs of the Applicant, as functionalized and later classified into the functions of Demand, Energy, Customer, Other and Direct, were allocated to the Customer Classifications as follows:

ALLOCATION OF OPERATING COSTS FOR THE YEAR ENDING MARCH 31, 1980 (\$'000)

Demand	Small General		Industrial		Industrial		Industrial		Municipal		Unmetered		Total	Factor
	General	All Other	General	Industrial	General	Industrial	General	Industrial	General	Industrial	General	Industrial		
1) Prod O & M	\$ 9,659	\$ 296	\$ 5,719	\$ 530	\$ 249	\$ 1,678	\$ 4,000	\$ 357	\$ 1,211	\$ 451	\$ 26,230		10-1	
2) Transmission	1,348	40	781	72	31	228	123	29	165	27	2,271		10-1	
3) Distribution	3,166	103	1,222	410	84	287	123	2	126	1,926	1,926		Schedule 6a	
4) Wreck Cove Deferral	15	15	287	91	13	86	203	18	61	23	1,314		Schedule 6a	
5) Prod. - Purch. - Other	366	7	216	68	20	48	150	13	45	17	773		10-1	
6) A & C	1,525	53	1,024	333	44	204	574	54	201	2,005	2,005		10-1	
7) Total	17,170	519	9,259	2,970	421	2,634	5,722	451	1,809	3,805	44,030			
8) Prod. - Fuel	24,094	1,200	20,699	5,914	2,313	675	6,283	20,515	3,632	4,574	1,412	102,721	5-1	
9) Prod. - Purch. Power	856	32	506	143	36	154	402	82	112	35	2,074		10-1	
10) Total	35,820	1,372	21,185	6,059	2,370	6,437	21,017	3,721	4,686	1,427	104,795			
11) Distribution	6,160	349	755	162	15	62	24	24	1	17	32	7,619	Schedule 6a	
12) Billing & Meter Read.	3,078	178	299	94	-	16	6	2	1	1	69	4,018	10-3	
13) Customer Service	1,792	46	223	42	-	6	6	1	-	-	27	1,537	10-3	
14) A & C	1,165	81	213	44	-	11	1	-	-	-	4	1,060	Schedule 6a	
15) Total	12,575	701	2,048	374	17	104	31	31	2	20	138	1,193	10-2	
16) Depreciation	14,861	522	6,482	2,075	500	314	1,656	3,356	205	1,131	926	32,028	10-2	
17) Grants in Lieu	1,787	63	700	269	38	107	408	25	126	111	1,111	3,452	10-2	
18) Total Operating Cost	32,233	3,177	29,754	11,727	3,772	1,971	11,021	20,330	4,416	7,722	5,429	24,452		
19) Misc Rev.	(1,025)	(39)	(507)	(125)	(23)	(1)	(23)	(66)	(31)	(119)	(120)	(3,015)		
20) Sub. Total	30,738	3,138	29,247	11,602	3,749	10,944	20,944	20,944	4,412	7,603	5,299	19,437		
21) Return	24,010	1,421	28,425	6,133	1,356	1,001	4,324	11,229	1,532	2,324	2,724	16,725		
22) Required Rate Return	105,218	44,529	47,022	18,135	5,105	8,258	15,024	41,233	5,944	10,047	8,513	25,172		
23) Return	6,444	10,297	16,94	12,21	10,37	12,42	11,59	13,16	25,26	8,10	11,48	10,47		
24) Return	6,444	101,05	161,95	116,73	99,14	119,02	110,80	125,81	24,149	77,44	107,75	102,01		
25) Total	6,444	101,05	161,95	116,73	99,14	119,02	110,80	125,81	24,149	77,44	107,75	102,01		

In allocating the Operating Costs for the year ending March 31, 1980 to the various customer classifications, the Applicant used various factors that will be dealt with individually,

DEMAND

- (1) Production - Operating and Maintenance (DØ-1)
- (2) Transmission (DØ-1)
- (4) Wreck Cove Deferral (DØ-1)
- (5) Production, Purchased Power and Other (DØ-1)

The above Operating Costs relating to the Demand functions were allocated by the Applicant on the basis of System Peak and Average Demand.

The appropriate allocation percentages, DØ-1 were discussed above under Production Plant (1) Steam, (DØ-1), and the following percentages were derived in the allocation to customer classifications:

The percentages, so derived, were used in the allocations to Customer Classifications of the following Operating Costs,

- (i) Production - Operating and Maintenance \$26,220,000
- (ii) Transmission \$3,581,000
- (iii) Wireless Deferral \$1,318,000
- (iv) Production - Purchased Power and Other \$973,000

ALLOCATION OF OPERATING COSTS FOR THE YEAR ENDING MARCH 31, 1990 (\$'000)

Domestic	Small General		General All Electric		General Industrial To 249KVA		Industrial 250-3924		Industrial Large		Municipal	Unmetered	Total
	General	Industrial	General	Industrial	General	Industrial	General	Industrial	General	Industrial			
O & M	\$ 296	\$ 5,719	\$ 1,820	\$ 530	\$ 249	\$ 1,678	\$ 4,040	\$ 357	\$ 1,211	\$ 451	\$ 26,220		
Transmission	40	781	249	72	34	229	552	49	165	62	3,581		
Wireless Deferral	15	287	91	27	13	84	203	18	61	23	1,318		
Production - Other	7	216	68	20	9	62	150	13	45	17	973		

DEMAND

(3) Distribution (Schedule 6a)

The Distribution Operating Costs were allocated by the Applicant to the customer classifications as follows:

Demand	Small General		General All Electric		General Industrial To 249KVA		Industrial 250-3924		Industrial Large		Municipal	Unmetered	Total	Percent
	General	Industrial	General	Industrial	General	Industrial	General	Industrial	General	Industrial				
14) Line	\$ 20	\$ 91	\$ 22	\$ 6	\$ 5	\$ 29	\$ 9	\$ 9	\$ 9	\$ 9	\$ 9	\$ 9	\$ 9	14.2
15) Substation	27	176	175	19	29	107	107	107	107	107	107	107	107	14.1
16) Transformer	10	166	166	16	16	16	16	16	16	16	16	16	16	14.1
17) Pole & Hardware	11	246	246	24	24	24	24	24	24	24	24	24	24	17.2
18) Wire	-	-	-	-	-	-	-	-	-	-	-	-	-	17.2
19) Service	-	-	-	-	-	-	-	-	-	-	-	-	-	17.2
20) Meter	-	-	-	-	-	-	-	-	-	-	-	-	-	17.2
21) Pole, Saw & Cement	-	-	-	-	-	-	-	-	-	-	-	-	-	17.2
22) Transformer	-	-	-	-	-	-	-	-	-	-	-	-	-	17.2
23) Communications	-	-	-	-	-	-	-	-	-	-	-	-	-	17.2
24) Street Lighting	-	-	-	-	-	-	-	-	-	-	-	-	-	17.2
25) Other	-	-	-	-	-	-	-	-	-	-	-	-	-	17.2
26) Total	\$ 103	\$ 2,022	\$ 1,420	\$ 441	\$ 731	\$ 3,207	\$ 5,422	\$ 1,126	\$ 1,928	\$ 2,250	\$ 2,250	\$ 2,250	\$ 2,250	

The Applicant allocated the Demand Operating Costs in the same manner as their Rate Base counterparts. Land was allocated on the basis of substation, pole and wire investment. Substation costs were spread according to substation investment. Overhead and underground expenses were assigned in relation to the pole and wire investments. Line transformers are secondary demand related. Services

expense was allocated to secondary customers. Meter and meter testing expenses were spread according to the meter investment per class. Communications is related to primary demands and street lighting was again assigned directly to the unmetered class.

DEMAND

(6) Administration and General (EØ-1)

The Administration and General Operating Costs were allocated by the Applicant on the basis of other Demand Operating Costs, as follows,

Total Demand Operating Costs 1994	Domestic General \$ 37,343 \$ 300,000 \$ 337,343	Redistribution of Allocation Factors For the Year Ending March 31, 1994								
		Small General \$ 14,393 \$ 34,525	General Residual \$ 7,792 \$ 644	Industrial All Areas \$ 2,079 \$ 4,841	Industrial 250-399 KVA \$ 2,154 \$ 5,681	Industrial 400-999 KVA \$ 4,725 \$ 12,241	Industrial 1000-9999 KVA \$ 408 \$ 1,079	Municipal \$ 1,202 \$ 4,623	Unmetered Demand \$ 2,437 \$ 6,633	Total Demand \$ 337,343 \$ 994
		2.1%	2.3%	0.6%	0.6%	1.4%	1.2%	0.4%	0.7%	3.1%

The Administration and General Operating

Costs, amounting to \$4,998,000 were allocated by the Applicant by using the above percentages as follows:

ALLOCATION OF OPERATING COSTS
FOR THE YEAR ENDING MARCH 31, 1993
(\$200)

Demand A & G	Domestic General	Small	General	General	Industrial All Areas	Industrial 250-399 KVA	Industrial 400-999 KVA	Industrial 1000-9999 KVA	Inter- municipal	Municipal	Unmetered	Total
		59	1,034	232	92	48	224	634	54	201	144	4,773
		1.9%	3.3%	0.6%	0.3%	0.1%	0.6%	1.6%	0.1%	0.6%	0.4%	14.3%

ENERGY

(8) Production - Fuel (EØ-1)
(9) Production - Purchased Power (EØ-1)

Fuel costs and purchased power were both allocated by the Applicant on percentages based upon MWH generated and purchased as follows:

Total System 1993	Domestic General \$ 1,077,328 \$ 3,000,000 \$ 4,077,328	Redistribution of Allocation Factors For the Year Ending March 31, 1993								
		Small General \$ 468,766 \$ 1,313,000	General Residual \$ 184,018 \$ 528	Industrial All Areas \$ 126,934 \$ 2,841	Industrial 250-399 KVA \$ 34,465 \$ 834	Industrial 400-999 KVA \$ 119,609 \$ 2,809	Industrial 1000-9999 KVA \$ 20,428 \$ 535	Municipal \$ 251,647 \$ 647	Unmetered Demand \$ 78,301 \$ 204	Total Demand \$ 4,077,328 \$ 994
		11.5%	0.0%	0.3%	0.3%	0.3%	0.5%	0.6%	0.6%	1.9%

The Applicant allocated the Production - Fuel Operating Costs, amounting to \$102,321,000, and Production - Purchased Power Costs amounting to \$2,504,000 on the basis of the above percentages, as follows:

ALLOCATION OF OPERATING COSTS FOR THE YEAR ENDING MARCH 31, 1989 (\$000)

Domestic Energy Prod. - Fuel	Small General	General All Elec	General Large	Industrial To 29KVA	Industrial Large	Industrial Large	Industrial Large	Industrial Large	Industrial Large	Intra-Local	Municipal	Unmetered	Total
34,984	1,340	20,679	5,914	2,313	675	6,283	20,515	3,632	4,574	1,412	102,321		
856	32	406	145	57	16	154	502	89	112	35	2,504		

CUSTOMER

(11) Distribution (Schedule 6a)

The Customer Distribution Operating Expenses

were allocated by the Applicant as follows:

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
(1) Total	\$ 441	\$ 20	\$ 62	\$ 29	\$ 6	\$ 5	\$ 19	\$ 9	\$ 9	\$ 17	\$ 12	\$ 2,419	
(2) Fuel	1,233	61	202	5	3	11	20	11	11	24	1	1,616	194-2
(3) Distribution	53	3	11	3	-	-	-	-	-	-	-	1,616	194-1
(4) Fuel	1,075	46	189	28	-	11	19	11	11	24	-	1,413	194-2
(5) Distribution	46	3	11	3	-	-	-	-	-	-	-	1,413	Schedule 2 of Schedule 6a
(6) Fuel	1,413	87	35	5	-	2	-	-	-	-	-	1,505	Schedule 2 of Schedule 6a
(7) Distribution	87	3	11	3	-	-	-	-	-	-	-	1,505	Schedule 2 of Schedule 6a
(8) Fuel	261	15	3	-	-	-	-	-	-	-	-	279	Schedule 2 of Schedule 6a
(9) Total	\$ 441	\$ 20	\$ 62	\$ 29	\$ 6	\$ 5	\$ 19	\$ 9	\$ 9	\$ 17	\$ 12	\$ 2,419	

The allocation of these operating costs was made in the same manner as their Rate Base counterparts (Rates - Distribution Plant, supra).

CUSTOMER

(12) Billing and Meter Reading (CØ-3)
(13) Customer Service (CØ-3)

The Billing and Meter Reading Costs of \$4,018,000 and Customer Service Costs of \$1,537,000 were allocated by the Applicant on the basis of percentages derived from total weighted customers, as follows:

Total Customer	Billing	Customer Service	Percentage of Allocation Factors For the Year Ending March 31, 1989							
			General All Elec	General Large	Industrial Large	Industrial Large	Industrial Large	Industrial Large	Industrial Large	Industrial Large
21) Total Customer	212,347	88,003	31,003	3	245	189	10.7	4	3,901	
22) Weighted Total	270,279	109,003	31,233	1.8	5.8	10.0	10.0	14.8	2.5	
23) % Responsibility	100.00	75.00	11.25	1.00	1.74	3.19	9.82	3.68	0.64	

The resulting division of the costs were as follows:

The Credit and Collection Expenses of \$486,000 were distributed above using percentages derived on the basis of total customers as follows:

Total Customer Responsibility	Total Revenue	Small General	Small Recitable	General All-Indus.	General All-Indus. & Rec.	Industrial To 249KVA	Industrial To 249KVA & Rec.	Industrial Recitable	Industrial Recitable	Industrial Recitable	Industrial Recitable	Total
	\$12,257	16,450	11,003	1,545	345	349	11	11	7	6	2,344	2,344
	100.00	89.65	64.27	12.53	2.80	2.87	0.08	0.08	0.47	0.48	99.82	99.82

As a result of the above calculations, Credit and Collection costs of \$1,040,000 were distributed by the Applicant between the various customer classifications as follows:

ALLOCATION OF OPERATING COSTS FOR THE YEAR ENDING MARCH 31, 1980 (\$'000)

Domestic	Small General	General All-Indus.	General All-Indus. & Rec.	Industrial To 249KVA	Industrial To 249KVA & Rec.	Industrial Recitable	Industrial Recitable	Total
730	23	223	52	8	2	2	4	1,140
edit & Collection								

CUSTOMER

(15) Administration and General (PØ-2)

Customer-related Administration and General

Costs were distributed by the Applicant on percentages based on Customer Operating Costs as follows:

Total Customer Operating Costs	Small General	Small Recitable	General All-Indus.	General All-Indus. & Rec.	Industrial To 249KVA	Industrial To 249KVA & Rec.	Industrial Recitable	Industrial Recitable	Total
113	418	1,100	1,296	1,871	42	42	27	15	6,454
100.00	64.78	17.06	19.85	29.15	0.65	0.65	0.42	0.23	100.00

Using the percentages so derived, the Admin-

istration and General Costs amounting to \$1,903,000 were allocated to customer classifications as follows:

ALLOCATION OF OPERATING COSTS FOR THE YEAR ENDING MARCH 31, 1980 (\$'000)

Domestic	Small General	General All-Indus.	General All-Indus. & Rec.	Industrial To 249KVA	Industrial To 249KVA & Rec.	Industrial Recitable	Industrial Recitable	Total
1,485	81	243	44	2	11	4	18	1,903
Factor								0.2

(17) Depreciation (PØ-3)

(18) Grants in Lieu of Taxes (PØ-3)

Depreciation and Grants in Lieu of Taxes were allocated by the Applicant on the basis of Production, Transmission and Distribution Plant, with the following percentages,

ROYA CONSULTING CORPORATION
 Reconciliation of Allocation by Class
 For the Year Ended March 31, 1990
 (\$'000)

Total Customer Responsibility	Small General		General All Elec.		Industrial Large		Industrial Large		Industrial Large		Industrial Large	
	Responsible	General	All Elec.	Large	Large	Large	Large	Large	Large	Large	Large	Large
\$70,512	\$397,320	\$12,215	\$135,973	\$19,928	\$11,928	\$ 7,851	\$ 7,851	\$ 7,851	\$ 7,851	\$ 7,851	\$ 7,851	\$ 7,851
100.00	16.48	1.65	20.24	2.81	1.34	1.11	1.11	1.11	1.11	1.11	1.11	1.11

The Applicant used these percentages and allocated Depreciation, amounting to \$32,028,000 and Grants in Lieu of Taxes amounting to \$3,852,000, to the Customer Classifications as follows:

ALLOCATION OF OPERATING COSTS
 FOR THE YEAR ENDING MARCH 31, 1990
 (\$'000)

Domestic	Small General		General All Elec.		Industrial Large		Industrial Large		Industrial Large		Industrial Large		Total
	General	Responsible	All Elec.	Large	Large	Large	Large	Large	Large	Large	Large	Large	
14,861	522	6,482	2,075	500	314	1,656	3,356	205	1,131	926	32,028		
1,787	63	780	249	60	38	199	404	25	136	111	3,852		

NON-CONFIDENTIAL

1 **Request IR-178:**

2

3 **With regard to CA IR-61 Attachment 1,**

4

5 **(a) Please explain the meaning of a CADPAD Load Point.**

6

7 **(b) Please explain the meaning of a CADPAD Primary Service.**

8

9 **(c) Please explain the difference between the solid blue line and the dashed blue lines,**
10 **both of which appear to refer to 7200/12470 primary distribution.**

11

12 **(d) Please explain the meaning of the asterisk symbols shown along certain of the**
13 **distribution lines, such as at the intersection of Murray Rd. and Highway 6.**

14

15 **(e) Please explain why only one distribution transformer is shown in this entire area (on**
16 **Pleasure Cove Rd.).**

17

18 **(f) Please provide a distribution diagram for this area, showing all transformers.**

19

20 **Response IR-178:**

21

22 **(a) A CADPAD Load Point is an estimated location for the load on a feeder section. These**
23 **would be in place to simulate transformer loading for an area and would generally**
24 **represent a number of local distribution transformers. We are currently collecting the**
25 **individual transformer locations as part of a three year GIS data collection project.**

26

27 **(b) A CADPAD Primary Service typically identifies the location a three phase customer who**
28 **has a dedicated primary service fed from equipment such as a pad mounted transformer**

NON-CONFIDENTIAL

- 1 or transformers in a vault. A CADPAD Primary Service can also represent the location
2 of a single phase pad mounted transformer.
- 3
- 4 (c) The solid blue line represents a three phase distribution line, while a dashed line
5 represents a single phase line. Although none are indicated on this part of the system, a
6 dashed line with dots would represent two phase distribution lines.
- 7
- 8 (d) These asterisks denote a conductor tap point. Not every tap location has been updated to
9 be identified in this manner.
- 10
- 11 (e) Only one distribution transformer has been identified on this map as this area has not
12 been collected as part of the GIS Data Collection project referenced in part (a) above.
13 This individual transformer was a more recent addition to the system and was added prior
14 to the start of the GIS Data Collection project.
- 15
- 16 (f) Such a distribution diagram does not exist at this time.

CONFIDENTIAL (Attachment Only)

1 **Request IR-179:**

2

3 **Please provide diagrams similar to CA IR-61 Attachment 1, but including all transformers**
4 **and (if possible) customer locations, for**

5

6 **(a) Purcells Cove Rd., Halifax**

7

8 **(b) Fraser St., Halifax**

9

10 **(c) Upper Partridge River Road, East Preston**

11

12 **Response IR-179:**

13

14 **(a) Please refer to Confidential Attachment 2.**

15

16 **(b) Please refer to Confidential Attachment 1.**

17

18 **(c) Please refer to Confidential Attachment 3.**

2012 General Rate Application (NSUARB P-892)
NSPI Responses to CA Information Requests

NON-CONFIDENTIAL

1 **Request IR-180:**

2

3 **Please explain the difference between the “SUB” and “UG” types in CA IR-70 Attachment**

4 **1.**

5

6 Response IR-180:

7

8 “SUB” would represent submarine cable while “UG” would represent regular underground cable

9 buried on land.

NON-CONFIDENTIAL

1 **Request IR-181:**

2

3 **CA IR-72 requested “the analysis of weighted service costs, with all supporting documents**
4 **and analysis.” The response consisted of a reference to the 1993 COSS, which stated that**
5 **such an analysis was conducted.**

6

7 **(a) Please provide the analysis described in SR-01 Attachment 1 Page 9, or state that**
8 **NSPI has no such analysis for the current 2010 COSS.**

9

10 **(b) Please provide the analysis described in CA IR-45 Attachment 9, Page 6, or state**
11 **that NSPI has no such analysis for the 1993 COSS.**

12

13 **Response IR-181:**

14

15 (a) NSPI has not attempted to retrieve and repeat the basis of this principle in this
16 proceeding. Please refer to CA IR-170.

17

18 (b) Weighted services costs have been applied in all NSPI cost of service filings since, at
19 least, 1980. Please refer to page 13 (Section 12) of Attachment 1 to CA IR-177 for the
20 illustration on how services were spread on a weighted customer basis.

NON-CONFIDENTIAL

1 **Request IR-182:**

2

3 **Please explain how “Using historical trends, NSPI is able to take into consideration any**
4 **customer classes that share a service drop.” (CA IR-73)**

5

6 **(a) Please provide all data and computations regarding the sharing of services between**
7 **customers in multi-family housing.**

8

9 Response IR-182:

10

11 The analysis of service costs is based on the number of customer accounts. Therefore, if one
12 account serves multiple families, they are not accounted for in the weighted service costs.

13 However, if a multi-family unit has multiple accounts (that is, each unit has its own meter), these
14 customers would be accounted for in the analysis of service costs.

15

16 (a) NSPI does not track services shared by customers in multi-family housing.

NON-CONFIDENTIAL

1 **Request IR-183:**

2
3 **CA IR-74 requested “the derivation of ‘The average unit cost of installing a meter for each**
4 **class.’” The response consisted of a reference to the 1993 COSS, which stated that such an**
5 **analysis was conducted.**

6
7 **(a) Please provide the meter cost analysis described in SR-01 Attachment 1 Page 9, or**
8 **state that NSPI has no such analysis for the current 2010 COSS.**

9
10 **(b) Please provide the meter cost analysis described in CA IR-45 Attachment 9, Page 6,**
11 **or state that NSPI has no such analysis for the 1993 COSS.**

12
13 **Response IR-183:**

14
15 (a) NSPI has not attempted to retrieve and repeat the basis of this principle in this
16 proceeding. Please refer to CA IR-45.

17
18 (b) The average unit costs of installing a meter have been applied consistently in all NSPI
19 filings since at least 1993. Please refer to the following attachments for the foundational
20 background behind current Cost of Service Studies.

21
22 a. Attachment 1 (regulatory record from the 1989 GRA regarding examination of
23 meter installation cost analysis)

24 b. Attachment 2: Cost of Service Studies Volume 1 prepared by Ernst & Ernst for
25 the years ended March 31st, 1977 and March 31st, 1978 (page 31 of 62, lines 4 to
26 14).

27 c. Attachment 3: Cost of Service Studies Volume 2 prepared by Ernst & Ernst for
28 the years ended March 31, 1977 and March 31, 1978 (Schedule 15, page 73 of
29 89).

NSPC
(RC378I0007)

RATE CASE #030
DEC 1988 - NSPC APPLICATION TO REVISE RATES AND REGULATIONS

DATE: 900906
PAGE: 9

DATE	EXHIB	QUES	WITNESS /	REQ	TRANS	
VL SL FILED	NUM	NUM	REQUESTED BY	REQUESTED OF	DATE	REF PG DESCRIPTION
06.58	890223		NDP	A.E. DOMINIE	890124	FILE COPIES OF VOLUME 1 AND 2 OF THE COST OF SERVICE STUDIES FOR THE YEARS ENDED MARCH 31/77 AND MARCH 31/78.

COMMISSIONERS:

J.S. DRURY, Q.C., CHAIRMAN
R.A. ROBERTSON, F.C.A., VICE CHAIRMAN
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C.J. McMANUS, P. ENG.
ALLAN GREEN, Q.C.
L. ROWE, P. ENG.
I. NICKERSON, Q.C.



PROVINCE OF NOVA SCOTIA

Board of Commissioners of Public Utilities

1526 DRESDEN ROW
P.O. BOX 3058
HALIFAX SOUTH POSTAL STATION
Halifax, N.S.
B3J 3G7

PLEASE ADDRESS ALL COMMUNICATIONS
TO THE BOARD

CLERK A.B. DEMPSEY

~~copy to
Swidley Dean
8910127 for
investigation~~

TELEPHONE (902) 424-4448
FACSIMILE (902) 424-3919

January 24, 1989

Mr. Maurice MacDonald,
Manager, Corporate Relations,
18th Floor,
1930 Barrington Street,
P.O. Box 910,
Halifax, Nova Scotia
B3J 2W5

Re: Cost of Service Studies

Dear Mr. MacDonald:

The Board has received a request from Mr. Ian Johnson, Researcher with the Nova Scotia NDP Caucus Office that copies of Volumes 1 and 2 of the Cost of Service Studies for the years ending March 31, 1977 and March 31, 1978 be made available to him.

We would ask that you provide these items to Mr. Johnson as quickly as possible.

Yours very truly,

A.B. Dempsey
A.B. Dempsey,
Clerk

/abd

cc: Mr. Ian Johnson
cc: Mr. Peter G. Gurnham

030.06.58

nova scotia power corporation



BY COURIER

1989 01 31

Mr. Ian Johnson
Researcher
Nova Scotia NDP Caucus Office
1657 Barrington St.
HALIFAX, N.S.

Dear Mr. Johnson:

Re: Cost of Service Studies

Further to your request which we received from the Board of Commissioners of Public Utilities, enclosed please find a copy of the Cost of Service Studies for the Years Ended March 31, 1977 and March 31, 1978 Volumes 1 and 2.

We trust the attached is satisfactory.

Yours very truly,

Edith Lilly
M.F. MacDonald
Manager, Corporation Relations

Encl.

C: A.B. Dempsey
P.W. Gurnham
File
C.L./Circ. File

Ernst & Ernst

Cost of Service Studies for the
Years Ended March 31, 1977 and
March 31, 1978

Volume 1

Prepared for
Nova Scotia Power Corporation

December 1978

1 In its Order of May 11, 1977, the Nova Scotia Board of
2 Commissioners of Public Utilities ordered the Nova Scotia Power
3 Corporation to complete a historical cost of service study. Per the
4 Order, the attached report presents such a cost analysis for two
5 historical time periods. These periods are the fiscal years ending
6 March, 31, 1977 and March, 31, 1978.

7 It was further ordered that a historical cost of service study be
8 completed on a seasonal and time of day basis.

9 Because of the complexity of allocation of costs on a seasonal and
10 time-of-day basis, we have not been able to address that issue in this
11 report.

12 This aspect of the study has been viewed as forming part of the
13 Peak Load Pricing Study. This study is presently getting under way
14 and it is difficult to say, at this time, when the Corporation may be
15 able to report on these specific issues.

16 The scope of the project detailed in this report was to measure
17 the cost effectiveness of the rates ordered by the Board which became
18 effective March 2, 1977. In order to measure the cost effectiveness,
19 the revenue for the fiscal year 1977 was pro-formed at rates effective

1 March 2, 1977. Thus, the results of the rate schedule can be
2 measured, over time, at comparable revenue levels.

3 The bench mark used for measuring cost effectiveness is return on
4 rate base. Thus interest costs are not allocated to the classes of
5 service but are recovered in the return provided by each class. From
6 the two yearly analyses, each rate schedule can then be compared as to
7 its relationship to overall Corporation rate of return. What this
8 comparison does is measure each rate schedules rate of return as a
9 percent of the overall return.

1 Illustratively, the comparison can be viewed as follows:

	<u>Return on Rate Base</u>	
	<u>Fiscal 1977</u>	<u>Fiscal 1978</u>
4 Overall Corporation return	20%	10%
5 Rate schedule XYZ	12%	4%

6 This comparison tells us that in 1977 Rate XYZ was earning 60% of
7 the overall rate of return in 1977 based upon 1978 rate levels.
8 However, in 1978, the rate was earning 40% of the overall return at
9 the same rate level. Thus, as cost increased from 1977 to 1978, the
10 rate did not respond to cost increases and its relationship to overall
11 return declined.

12 It is critical to remember in this type of analysis that revenues
13 have been set at comparable levels and that costs are on an as
14 incurred basis. Thus, true measurement of a rates response to cost
15 can be measured. In the above example, the return declined by 50% for
16 the overall company whereas the return for rate XYZ declined 66.7%.
17 Thus the cost response of the rate was less than that of system
18 total.

19 In responding to the Board's Order we have prepared three cost

1 studies for each time period. Study number 1 allocates production and
2 transmission plant on the basis of coincident peak and distribution
3 plant on the basis of customer non-coincident demand. Study number 2
4 allocates production and transmission
5 plant on the basis of coincident peak and average demand and
6 distribution plant on the basis of class non-coincident demand. Study
7 number 3 allocates production and transmission plant as well as
8 distribution plant on the basis of class non-coincident demand.

9 Although the Board in its Order specified only the concepts used
10 in study number 1, the other studies were utilized to show the cost
11 patterns under various methods, also, the original cost study
12 presented by NSPC in the 1976-77 rate case was based upon the
13 methodology set forth in study 3. Thus the Board can at this time
14 review the historical results of three standard cost allocation
15 methodologies.

16 These cost studies are conducted on historical periods. Thus they
17 measure the performance of a set of rates against past costs rather
18 than future costs. Cost of service studies conducted on historical
19 data provide apportioned costs which are useful as approximations or

1 guidelines as to the reasonableness of rates. This statement is
2 predicated on the assumption that rate relationships should depend
3 entirely on cost relationships. This concept thus excludes all
4 non-cost factors such as political or social considerations, statutory
5 mandate, value of service, past commission practice and orders and
6 vested interest. While it can be argued that all of these factors
7 have a place in rate design, their recognition is beyond the purview
8 of the cost analyst when evaluating rate level on a pure cost
9 comparison basis. Thus cost of service or cost apportionment studies
10 are designed to reflect relative differentials in cost.

11 A cost of service study consists of an allocation to the various
12 classifications of utility customers of all costs relative to the
13 furnishing of electric service by a utility. This includes the
14 appropriate assignment of operating and maintenance expenses,
15 depreciation, grants in lieu of taxes and the resultant determination
16 of earned return on those elements of electric utility rate base in
17 service necessary to provide electric service. All of these costs are
18 allocated to those groups of customers which either cause or use the

1 cost as incurred by the utility.

2 Where possible costs were assigned directly to classes of service
3 based upon details derived from the books and records of the
4 Corporation or by special analysis and studies.

5 Cost not directly assigned were analyzed by functional
6 responsibility and groupings of accounts, such as production,
7 transmission and distribution. These costs are then allocated to the
8 various classes of service on the basis of the respective demands,
9 energy use, number of customers and revenues associated with the
10 functional responsibility appropriate for each class of service.

1 In general, demand components of cost are those items which are
2 incurred in order to attain and maintain the ability to delivery
3 electric energy to customers as called for by them, and are associated
4 with meeting the class peak and the class demand at the time of the
5 system peak. The energy use components of cost are those items which
6 vary with the volume of energy supplied to the various classes of
7 service as provided by the utility. The customer components of cost
8 are those items which vary with the number of customers served and
9 revenue related costs are those items which vary with the dollars of
10 revenue received.

11 Costs which vary in accordance with the above description can be
12 described on an example basis using some of the more obvious cost
13 types. It is well established that large demands for electric energy
14 requires the use of production and transmission facilities to meet
15 these demands. Plant investment increases as such units and
16 facilities are enlarged to meet these demands. Consequently, those
17 production and transmission facilities are allocated upon a firm
18 system peak demand responsibility recognizing the cost causation and

1 utilization of these facilities by the various classes of service.

2 The same concept is used in the distribution system where it is
3 necessary to recognize customers served on the system.

4 An example of energy costs, costs which vary with the volume of
5 kWh supplied, would be fuel cost. This cost increases as the quantity
6 of fuel required to meet an increased output at the transmission and
7 distribution level is increased.

8 A readily identifiable example of customer cost is that for
9 customer accounting, including meter reading costs. In terms of
10 plant, meter cost and service cost are readily identifiable as
11 customer costs.

12 Conducting a cost of service study of the type presented in this
13 analysis is based upon extensive use of Corporation records,
14 comparative data of other utilities and a degree of informed judgement
15 concerning those areas where hard empirical data is not available.
16 Our initial action was to review the entire filing in the NSPC
17 1976-1977 rate case, the Boards Order in that case, the 1978 rate
18 filing and related decisions. Following and concurrent with this

1 review detailed examination was made of the Corporation's books
2 covering plant in service, billing determinants, actual metered data,
3 and operating costs. Detailed review of this data was also completed
4 through discussion with Corporation personnel so as to derive as much
5 data as possible on an actual basis.

6 Consequently, three studies were done for each of the fiscal years
7 1977 and 1978. The studies utilize load data for each year, where
8 available, and combination data from the two years where single year
9 data was unavailable. Sales volumes and revenue are stated as booked
10 with one exception. Revenue for 1977 has been restated at rates
11 ordered into effect March 2, 1977. This was done so that the cost
12 responsiveness of these rates could be measured against total cost
13 changes as well as on a class by class comparative basis.

14 The cost studies presented here are done on a step by step basis.

15 Briefly the steps are as follows:

- 16 - Determination of demand, energy and customer allocation
17 factors
- 18 - Separation of steam and dedicated Mersey River System
19 sales

1 - Classification of Plant and Working Capital.

2 - Allocation of Rate Base.

3 - Determination of Revenues.

4 - Classification of Operating Cost.

5 - Allocation of Operating Cost.

6 - Development of Return on Rate Base.

7 - Comparison of relative class returns.

8 Before going into each of the above in detail, let us review the
9 results of the studies first. Thus we can proceed with an
10 understanding of the answer as we review the detail of how that result
11 was determined. The results of the studies immediately follow this
12 narrative under the tab "Results". This one page document shows the
13 measurement of each rate schedules rate of return as compared to the
14 overall earned return of NSPC.

15 For each study, total Corporation earned return is represented as
16 100 percent. Each class of services earned return is then measured as
17 its percent of the overall return. For example, if the earned return

1 of the Corporation is 10%, then a class earning an 8% return would be
2 shown on the summary schedule at 80% of system average. The same
3 would be true for a class earning 12%. This class would show on the
4 summary schedule that it was at a level of 120% of system average.
5 Thus we can observe each class of services relationship to the overall
6 system as well as the inter class relationships.

7 For purposes of this presentation, return has been defined as
8 that income available after reducing revenue by the following costs:

- 9 - Operating and Maintenance expense including fuel costs
- 10 - Customer accounting costs
- 11 - Customer Relations and Information costs
- 12 - Administrative and General costs
- 13 - Depreciation costs
- 14 - Grants in Lieu of Taxes costs

15 Thus the remaining revenues must meet the capital recovery cost
16 including interest expense, principal repayment and contingency costs.
17 The most important point to be emphasized at this time is that the
18 studies measure the relative cost relationship of each class of
19 service. Argument and debate over what is to be included in return or

1 capital recovery do not change the relative results of
2 this measurement. This is due to the simple concept that earned
3 results are being studied at an earned level. Thus the study does not
4 attempt to measure the propriety of those earnings either in total or
5 for each class of service. The sole measurement is the relative
6 returns of each rate schedule over cost changes at a constant rate
7 schedule. Thus we are able to evaluate the performance of a rate
8 schedule relative to the total Corporation and all other rate
9 schedules without clouding the argument with debate over the propriety
10 of the revenue level.

11 Based on the following table, which is a recasting of the Summary
12 of Results, we can review the rate schedule relationships for the two
13 years. These relationships represent the final results of the
14 studies. For both years, total Corporation earned return is expressed
15 as 100%. Each rate schedules relationship to this is expressed as to
16 the return ranges based on three different primary allocation
17 methods:

1	<u>Rate Schedule</u>	<u>1977</u>	<u>1978</u>
2	Total Company	100%	100%
3	Domestic	59%- 65%	48%- 55%
4	General Connected Load	89%-104%	111%-132%
5	General Demand	159%-163%	173%-184%
6	General All-Electric	101%-106%	119%-129%
7	General Large	99%-120%	97%-108%
8	Industrial to 249 KVA	121%-136%	115%-141%
9	Industrial 250 KVA-3999 KVA	100%-105%	95%-102%
10	Industrial Large	151%-196%	150%-199%
11	Municipal	100%-118%	86%-101%
12	Unmetered	79%- 83%	94%-106%

13 Analytically these results tell us the response of each rate
14 schedule to changes in cost. From this we can then measure the
15 relative need in terms of a requirement to spread future rate
16 increases. Once a future test years costs have been allocated on a
17 comparable basis, comparison of those results to those of the
18 historical periods form the parameters for the distribution of future

1 rate increases.

2 From the above table we can see that the Domestic rate has not
3 responded in a positive direction as compared to system cost
4 increases. The relative return level fell from a high of 65% of
5 average to 55% of average and the low from 59% to 48%. As a
6 comparison, the Industrial Large rate remained relatively static over
7 the period. This is observed by relating the change in relative
8 return of a low range of 151%-150% of average and a high of 196%-199%
9 of average.

10 Conversely, the Unmetered rate schedule shows an improvement as
11 compared with the changes in cost. This is seen in the change from
12 79% to 94% of the overall return at the low range to a high of 83% to
13 106% in the high range. Thus the rate responded in a positive
14 direction as compared to Domestic's negative response and Industrial
15 Large's static response. A similar comparison can be made for each
16 rate schedule and an appropriate observation of the rate schedules
17 performance can be evaluated

18 I have intentionally omitted the Interruptible rate schedules
19 results from the table. Depending on the allocation method used, the

1 results for this type of rate schedule vary dramatically.
2 Interruptible service is substantially different than firm service
3 from a conceptual viewpoint and also must be evaluated in terms of the
4 utilities current and long term power planning concepts. Thus,
5 Interruptible service should be evaluated on its own merits and in
6 terms of the value and use of such load on the system.

7 Thus we have now reviewed, in general terms, the answers provided
8 by the studies. Keeping in mind that we are measuring historical
9 results or performance of a rate schedule, we can now review the
10 detailed calculations which developed these results.

11 Volume II of this report sets forth the base working papers which
12 developed the results of the study. We will review the study in the
13 order in which it was conducted. Schedule 1 of Volume II is the
14 summary of results for 1977 and 1978 which has been previously
15 discussed.

16 Schedule 2 sets forth the development of each rate schedules
17 customer and class non-coincident demand as well as the class
18 contribution to the system peak demand. As the Board is well aware,
19 NSPC has no recording demand meters on its system. Thus coincident

1 demands and class non-coincident demands which require time
2 determination are based upon mathematical evaluations using NSPC data
3 and data from comparable type loads from various studies conducted in
4 the United States. Thus all time required demand data is based upon
5 calculation rather than actual meter readings. For those classes
6 where indicating demand metering is available, these demands were used
7 as a starting point. Thus there is a basic metered foundation for the
8 demand responsibility of all classes except Domestic, General
9 Connected Load, and Unmetered service.

10 These calculations are predicated upon the data submitted in the
11 testimony of W. L. Fraser, H. J. VanderVeen and G. Baker in the 1977
12 rate case and the testimony of W. L. Fraser and G. Baker in the 1978
13 rate case. In all cases, H. J. VanderVeen of Ernst & Ernst has
14 reviewed the 1977 and 1978 demand calculations with both Mr. Fraser
15 and Mr. Baker. It can best be said that the data presented on
16 Schedule 2 represents the concepts and criteria used by the above
17 parties in NSPC's last two rate case proceedings. Substantial
18 testimony has been given before this Board as to the strengths and

1 weaknesses of this data.

2 For purposes of this report, the data can be said to be the best
3 that is currently available and further debate will only lead us to
4 the conclusion reached in 1977 that load research is definitely
5 needed. To this extent, NSPC has received the funding to conduct such
6 studies and their implementation is currently in progress. In the
7 future, the preparation of cost of service studies will be based upon
8 metered data.

9 For those rate schedules which have indicating demand meters such
10 as General Service Demand, the following description is representative
11 of the methods used in determining class non-coincident and coincident
12 demands.

13 From the indicating demand meters, the class non-diversified
14 demands could be determined for the month of December. This data
15 provided a non-diversified class load factor. This load factor was
16 then compared to similar type customers for which load studies have
17 been conducted in the U.S. From this load factor class coincidence
18 factors were determined on a judgemental and experience basis for the
19 month of December. This provided a class diversified non-coincident

1 demand and load factor.

2 A system coincidence factor was developed from load studies on
3 comparable type loads as served by other utilities and informed
4 judgement as presented in NSPC's last two rate cases. This coincidence
5 factor then established each class's contribution to system peak.
6 This methodology was utilized for each class of service which had
7 indicating demand meters. The coincidence factors developed were then
8 checked against scatter diagrams for each class as developed by NSPC.
9 These diagrams show the relationship of each customers demand in the
10 class thus providing the classes maximum demand as compared to the
11 same data for the month of December. Load factor relationships can
12 also be observed from this analysis. This cross check was then used
13 as a fine tuning mechanism for the demand metered classes.

14 Unmetered service was based on approximately 4,000 hours of use
15 per month. This reflects the average burning hours of street and
16 outdoor lighting as well as other types of load served under this
17 schedule.

18 General Service-Connected Load was based upon certain connected

1 load data available from the Corporation records and analysis of
2 comparable customers on other systems. Although the non-diversified
3 and diversified class load factors seemed unusually high on an annual
4 basis, they were accepted on the basis that in December many of the
5 rates seasonal customers are not on line thus providing annual KWH and
6 winter KW, thus high load factors based upon December demands which
7 would be lower than the summer demand.

8 The next step was to calculate each rate schedules contribution to
9 system peak except for Domestic. By subtraction, the Domestic
10 contribution could be determined. Acceptance of the calculations were
11 based upon the following conditions:

- 12 - Annual Domestic non-diversified load factor on December's
- 13 demand should be 30-35% -Class coincidence factor 70-75%
- 14 -System coincidence factor 80-85%

15 These conditions were met for 1977. As a check, the calculations
16 for 1978 were based on the 1977 results for all classes except
17 Domestic. Domestic coincident demand was again determined by
18 subtraction, using load factors and coincident factors from 1977

1 applied to 1978. The results, for Domestic for 1978, fell within the
2 1977 parameters. At this point, it was felt that sufficient checks
3 and balances had been employed and the data was accepted for
4 utilization in the studies.

5 Following the determination of class coincident demands, kWh
6 sales were analyzed so as to determine energy sales at generation.
7 This study involves the determination of loss factors over the various
8 voltage levels of the NSPC system. Schedule 3 sets forth the energy
9 sales by class and the resultant generation requirement. Schedule 2
10 shows the loss factor used for each class. These factors recognize
11 the various voltage levels at which customers are served based upon
12 common loss factors on electric systems. Determination of the
13 voltage level loss factors is predicated on the data submitted in the
14 Corporation's 1977 rate case.

15 For purposes of allocating the demand cost portion of the
16 distribution system, it is necessary to develop customer and class
17 non-coincident demands. Customer non-coincident demand is the sum of
18 the maximum demands of all customers in the class. Class
19 non-coincident demand is the greatest demand the class places on the

1 system.

2 These demands were developed for each class, in total, on
3 Schedule 2. However, since many customers have dedicated plant such
4 as substations, which are classified as a demand cost, it is necessary
5 to develop these demands on a voltage level basis. It is also
6 required to recognize the difference in primary and secondary voltage
7 level demand costs. A customer served at the primary level should not
8 be allocated any of the secondary costs, thus the use of voltage level
9 demand factors provide a proper recognition of cost causation and
10 utilization. Schedules 4 and 5 show the determination of each classes
11 non-coincident demands for 1977 and 1978. Schedule 4 is for customer
12 non-coincident demand and Schedule 5 is for class non-coincident
13 demand. For those customers where there are dedicated substation
14 investment or customer owned facilities, which provide a determination
15 of the service voltage, December demands were determined. These
16 demands were then subtracted from total non-coincident demand to
17 arrive at each classes demand at the lowest common voltage level.
18 Identified demands are then added in by voltage level to provide each
19 classes non-coincident demand at the highest common voltage level.

1 Losses are also added at each voltage level so as to provide the total
2 demand at each voltage level.

3 This process completes that portion of the study necessary to
4 develop the demand and energy allocation factors used to allocate
5 costs to the classes of service. All of the allocation factors used
6 are set forth in Schedule 46 for both 1977 and 1978 for all three
7 studies. In each case, the factors are numbered sequentially.
8 Following the determination of the demand and energy allocation
9 factors, the process of allocating costs to the classes can begin.

10 The first step in the study is the allocation of rate base. From
11 the Corporation's books and records, plant in service by primary
12 account is determined. Schedules 6 and 26 summarize this data in
13 total for 1977 and 1978 respectively. Schedule numbering for Schedule
14 6 through 45 are set up on a plus twenty basis. Thus Schedule 6, is
15 for 1977 and Schedule 26 is for 1978. This concept applies throughout
16 the presentation. Thus Schedule 19 would be a 1977 schedule and 39
17 would be the exact same schedule only for 1978. In review, Schedule 1
18 is the summary, 2-5 are the demand and energy data for 1977 and 1978,
19 6-25 are all of the detailed schedules for the 1977 cost allocation,

1 26-45 are the same as 6-25 only for 1978 and Schedule 46 sets forth
2 all allocation factors used for both years. Thus for purposes of
3 explanation, this report will describe 1977 in detail with reference
4 to the appropriate schedule for 1978. All allocations for each of the
5 three studies done for 1977 are repeated for 1978.

6 The purpose of the cost studies is to evaluate the rate schedules
7 as approved in the 1977 rate case. For purposes of this evaluation it
8 was necessary to remove the steam sale at Glace Bay to AECL, the steam
9 and electric sale at Point Tupper to AECL and the sale of electricity
10 dedicated to Bowaters from the Mersey Hydro system. These sales
11 represent rates for dedicated facilities for specialized sales and
12 type of service. Thus, the cost associated with these sales are based
13 upon formulae developed through hearings before this Board and
14 represent fixed cost determination methodologies. Consequently, on
15 Schedule 6, plant in service for each of these sales is deducted from
16 total plant to arrive at plant in service which is applicable to
17 electric sales which are covered by the base rate schedules for 1977.
18 The same process is applied on Schedule 26 to arrive at plant in

1 service for 1978. Plant in service is stated at net depreciated value
2 for each of the years. As previously stated, net plant was determined
3 from direct analysis of the Corporation's books and records showing
4 gross plant and accumulated reserve for depreciation.

5 The next step in the cost study is to classify plant in service
6 in working capital by primary cost causation and utilization.

7 Schedule 8, page 1 sets forth the classification of rate base for
8 1977. Since 3 studies were prepared using different allocation
9 responsibilities for production and transmission plant, Schedule 8
10 shows these facilities being classified under all three methods.

11 These are all demand classifications and are as follows:

- 12 - Peak responsibility
- 13 - Peak and average responsibility
- 14 - Class non-coincident responsibility

15 Thus, production and transmission plant are classified as a
16 demand cost and allocated to the classes based upon the class
17 responsibility for each of the above demand factors. Directly
18 classified production and transmission plant are those facilities

1 which are dedicated to serving the AECL load at Glace Bay and the
2 dedicated Mersey River System serving Bowaters.

3 Distribution plant is likewise classified between demand,
4 customer, direct and other. There are two demand classifications for
5 distribution plant. In the study where production and transmission
6 plant is classified and allocated on the basis of coincident peak,
7 distribution costs that are classified as demand related are allocated
8 on the basis of the customer non-coincident demand. In the other two
9 studies, distribution demand costs classified as demand related are
10 allocated on the basis of class non-coincident demand.

11 Distribution substations are classified demand and direct. Where
12 a substation can be identified as serving only one customer, the
13 station costs are analyzed and directly assigned to the class of
14 service which the station served. Page 2 of Schedule 8 summarizes
15 this analysis. Substations were analyzed by the following functions:

- 16 - Distribution bulk power
- 17 - Distribution dedicated bulk power
- 18 - Distribution bulk power customer owned
- 19 - Distribution general

1 - Distribution dedicated general

2 - Distribution general customer owned

3 Based upon this review, approximately \$1.9 million of direct
4 substation costs were determined by class of service. The remaining
5 distribution substation costs were then classified as demand related
6 costs.

7 Page 3 of Schedule 8 summarizes the classification of
8 distribution pole investment. Average historical cost for various
9 size poles was determined from the books and records of the
10 Corporation. Using the base system concept, 30 and 35 foot poles were
11 determined to be the minimum size required to provide each customer
12 with the pole facilities to take service. Under this concept, this
13 would be the minimum size pole installed just to physically connect
14 all customers to the system. The average weighted cost of 30 and 35
15 foot poles, weighting 30 foot poles at 2 and 35 foot at 1, was
16 \$104.10. Total number of poles multiplied by this cost equated to 63%
17 of the total investment in poles. Thus, 63% of the pole investment
18 was classified as customer cost and the remaining 37% as demand cost.

1 This separation then recognizes the base component, that is needed to
2 provide service to all customers on the distribution system, and the
3 demand component, that cost component which is over the base or that
4 required to serve the demands for electricity placed on the system.
5 Based upon engineering and construction estimates, 30% of the poles
6 were then functionalized as primary only and the remaining 70% was
7 functionalized 50% primary - 50% secondary. These costs were then
8 classified 63% customer - 37% demand. Page 3 of Schedule 8 sets forth
9 the results of this analysis for 1977 as does page 3 of Schedule 28
10 for 1978.

11 The same type of base system analysis was also made for
12 distribution wire investment. Minimum size wire was based upon the
13 same concepts used in the pole analysis. Number 1/0 copper and number
14 2-8 aluminum were deemed to be the minimum wire sizes required to
15 provide the ability for the customers to take service from the
16 distribution system. Based upon sample review of the installed cost
17 of this wire, 59% was deemed to be required for base system purposes.
18 This was predicated on a weighted cost per foot weighing #6 wire twice

1 transmission costs and customer non-coincident demand for the
2 allocation of the demand portion of cost incurred in the distribution
3 system. The schedule shows each allocation in detail and the factor
4 used in the allocation is noted in the right hand column. Thus by
5 referring to Schedule 46, each allocation can be determined. As an
6 example, production plant is allocated on factor D-1. Turning to
7 Schedule 46, page 1, the D-1 factor can be observed.

8 Following production plant, transmission plant is also allocated
9 on the D-1 factor. Each of the distribution accounts are separately
10 allocated. Distribution land is basically substation and right-of-way
11 land. This is allocated on the basis of the customer non-coincident
12 demand. The allocation of distribution substations is shown in total
13 on Schedules 9, 10, and 11. Schedule 12 shows the detailed allocation
14 of the distribution substations. Page 1 of Schedule 12 shows the
15 allocation based upon customer non-coincident demand and is used in
16 conjunction with the coincident peak demand responsibility method.
17 Page 2 of Schedule 12 sets forth the allocation of substations based
18 on the class non-coincident demand responsibility and is used with the
19 coincident peak and average and the class non-coincident allocations

1 of production and transmission plant. Schedule 32 shows the same data
2 for 1978. Schedules 13 and 33 are the distribution substation
3 analysis by customer by rate schedule. This schedule provides the
4 required base data for the determination of dedicated substation
5 investment and the associated demands and energy requirements of the
6 customers served by the particular station.

7 Distribution pole and wire are shown in total on Schedules 9, 10,
8 and 11 for 1977. The detail of the allocation is shown on Schedule 14
9 for 1977 and 34 for 1978. As with substations, page 1 of Schedule 14,
10 shows the allocation as based on customer non-coincident demand, page
11 2 shows the allocation based on class non-coincident demand.

12 Returning to Schedule 9, underground investment is allocated on
13 the basis of pole and wire investment. Book details as to installed
14 cost of underground distribution facilities by type, underground
15 domestic distribution, commercial, and Industrial, are currently
16 unavailable. Consequently, it was assumed to be installed pro-rata to
17 the overhead system.

18 Line transformers are allocated based upon each class's demand
19 responsibility at the secondary level based upon either the customer

1 or class non-coincident demand. This allocation recognizes that line
2 transformers are only applicable to those customers who take secondary
3 service.

4 Meters are allocated directly. Schedules 9, 10, and 11 show the
5 allocation in total for 1977. Schedule 15 shows the detail of the
6 allocation for 1977 and Schedule 35 for 1978. Meter cost by type and
7 size of meter was analyzed based upon the books and records of the
8 Corporation. From this study, the unit meter costs were determined
9 for each class of service based upon the most common metering
10 components to the class. Thus small watt hour meters were assigned to
11 domestic while large demand and watt hour meters including current and
12 potential transformers were assigned to the Large Industrial
13 customers. Thus the substantial cost differentials for meters are
14 recognized through this direct assignment of costs. Street lighting
15 costs are directly assigned to the unmetered class of service.

16 The allocation of working capital follows on the same basis.
17 That portion of working capital related to fuel is allocated on an
18 energy basis. The portion of cash related to the financing of
19 Operating & Maintenance cost is allocated to the classes based upon

1 each class's responsibility for the Operating & Maintenance expense
2 excluding fuel costs. Materials and supplies held as spare parts are
3 allocated to the classes on the basis of allocated production,
4 transmission and distribution plant.

5 Reviewing the allocation of rate base, the 1977 study is
6 presented under three different primary allocation factors. Schedule
7 9 shows the allocation of production and transmission on the basis of
8 coincident peak responsibility, Schedule 10, on coincident peak and
9 average and Schedule 11 shows it under the class non-coincident demand
10 basis. Schedule 29, 30, and 31 show the same data for 1978.
11 Following the allocation of rate base, the next step is the analysis
12 of revenue.

1 The analyses to determine the revenues applicable to each class of
2 service are shown in Schedules 16 and 36 for 1977 and 1978
3 respectively. The first step is to extract the revenue from steam and
4 joint operations. Then, the revenue collected for each class of
5 service is determined. The classwise revenues for 1978 are actual
6 amounts while the revenue for 1977 has been pro-formed to reflect the
7 rates put into effect on March 2, 1977. This adjustment has been made
8 in order to make the studies for each year comparable. The revenues
9 remaining are miscellaneous revenues to be allocated to each class.

10 As stated above, the electric revenues are assigned directly to
11 each class of service. The forfeited discount revenue for 1978 is
12 allocated direct since these records were available in 1978. These
13 amounts are then used to calculate an allocation factor to be used for
14 the 1977 analysis since the 1977 records did not permit direct
15 classwise identification of forfeited discounts. After a pro forma
16 adjustment to 1977 revenue for the use of March 2, 1977 rates, the
17 allocation factor described above is used to distribute the 1977
18 discounts. The electric and forfeited discount revenues by class are
19 added together. These subtotals form the basis for allocating the

1 remaining miscellaneous revenue. For each class, the sum of electric,
2 discount and miscellaneous revenue represents that classes total share
3 of revenue to be used in conjunction with the cost allocations to
4 follow, in order to arrive at classwise rates of return.

5 Following the analysis and allocation of revenues, the next step
6 in the preparation of a fully allocated cost of service study is to
7 classify and allocate expenses in a manner which will best identify
8 the classwise cost responsibilities. This analysis is similar to that
9 for rate base since most expense components are closely aligned with
10 the rate base accounts. A detailed description of the classification
11 and allocation philosophies follows.

12 First, as with rate base, the operating costs which are not
13 directly associated with the Corporation's electric business are
14 removed. Schedule 17 details this analysis for 1977 and Schedule 27
15 shows the results for 1978. The operating costs to be removed come
16 mainly from the production costs. In 1977, a total of \$20,721,000 is
17 removed from the production operating costs for the dedicated portion
18 of the Mersey system, AECL portion of Point Tupper #1 and the AECL
19 steam portion of Glace Bay. In 1978, the figure is \$23,740,000. In

1 1978, an additional \$45,000 is removed from customer accounting since
2 this is a directly assignable uncollectible to A.E.C.L. The final
3 column of these schedules show the common electric operating costs
4 which are to be allocated over the classes of service.

5 Schedule 18 details the classification of the operating costs
6 according to the cost causation categories to be used in the various
7 studies. The common production and transmission expenses are
8 classified in accordance with the three studies performed, coincident
9 peak responsibility, coincident peak and average responsibility and
10 class non-coincident peak responsibility. The amounts removed from
11 the analysis as described above are classified direct while fuel and
12 purchased power-fuel are classified as energy related expenses for all
13 studies. Under distribution expenses, land, substations, overhead
14 lines and underground lines are classified as other. These expenses
15 are related to various plant components and are therefore to be
16 allocated in accordance with those plant items. Line transformers are
17 demand related and are classified as customer non-coincident peak
18 related for the coincident peak study and class non-coincident peak
19 related for the coincident peak and

1 average and class non-coincident peak studies. Meters are classified
2 direct since these costs are directly related to meter investment.
3 Customer services and contracts and customer premise expense are split
4 between direct and customer. A portion of these costs have directly
5 identifiable class responsibilities and, therefore, are classified
6 direct. The remaining amounts are classified as customer related
7 expenses. Communication operating costs are demand related and are
8 classified as class non-coincident peak and customer non-coincident
9 peak as were line transformers. Street lighting costs are directly
10 assignable to the unmetered customers.

11 Under customer accounting, all billing, a portion of customer
12 service and a portion of credit and collection are classified as
13 customer. Those amounts assignable to a particular class are
14 classified direct.

15 Customer relations and information expenses are customer related.
16 Administration and General expenses are classified as other since they
17 relate to the levels of the other allocable expenses. Finally
18 depreciation and grants in lieu of taxes are plant in service rate
19 base related and are also classified as other.

1 These classifications are used to determine the amounts allocated
2 under the various cost causation philosophies. The classification of
3 1978 operating costs is the same and is detailed in Schedule 38.

4 Allocation of the operating costs is accomplished by using the
5 appropriate allocation factors, direct assignments and other analyses
6 as required by the cost causation and utilization philosophy
7 applicable to each cost category and study. The allocations for 1977
8 are shown in Schedules 19, 20 and 21. The 1978 analyses are shown in
9 Schedules 39, 40 and 41. The results for the coincident peak
10 responsibility study are in Schedules 19 and 39. The coincident peak
11 and average studies are detailed in Schedules 20 and 40 and the class
12 non-coincident peak allocations are in Schedules 21 and 41. A general
13 discussion of the allocations for each study follows. Again, the
14 analyses for both 1977 and 1978 are parallel.

15 As stated earlier, the major difference in the three studies is
16 the method by which demand related items are allocated. In the
17 coincident peak responsibility study, the basis for demand related
18 production and transmission is a classwise coincident peak factor.
19 This factor is used to allocate all transmission expenses and

1 non-energy related production costs, i.e. operating and purchased
2 power - other. Fuel and purchased power-fuel are allocated on the
3 basis of each classes responsibility for mWh generated and purchased.

4 Under distribution operating costs, land is allocated on the
5 basis of substations and pole and wire investment as contained in
6 therate base analyses for the same study. Substation expenses are
7 spread in accordance with the comparable plant category. Overhead and
8 underground lines expense is allocated as the pole and wire
9 investment. Line transformers are allocated as customer
10 non-coincident demand at the secondary level for the coincident peak
11 study. Communications is the same except the primary level demands
12 are used. The other two studies use class non-coincident demand. A
13 weighted secondary customer factor is used to allocate the services
14 costs. This factor is designed to recognize the higher expenses
15 associated with larger customers. Since meter operating costs are
16 related to the number and size of the meters, these costs were
17 allocated as meter investment from Schedule 15. Customer service and
18 contracts as well as customer premise expenses are allocated partially
19 direct and partially customer.

1 Investigation by the Corporation showed that 90% of these expenses are
2 attributable to domestic service. The remainder is allocated to
3 secondary customers. The detailed allocations can be found in
4 Schedules 22 and 23 for 1977 and Schedules 42 and 43 for 1978. Street
5 lighting costs are assigned directly to the unmetered class.

6 The billing expense component of the customer accounting costs is
7 allocated on the basis of a weighted customer count. The weights
8 reflect the higher expenses associated with generating hand bills and
9 the additional detail involved in billing large customers. Customer
10 service costs are composed of meter testing, record keeping and other
11 customer related activities. The meter testing portion is assigned as
12 meter investment and the remainder is allocated using the weighted
13 customer count. The details are found in Schedule 24 for 1977 and 44
14 for 1978. Finally, the credit and collections component is allocated
15 as shown in Schedules 25 and 45 for 1977 and 1978 respectively.
16 First, identifiable bad debts are assigned. The remaining bad debt
17 expense is then allocated on the basis of revenue and finally the
18 collections costs are spread in accordance with the number of
19 customers.

1 Customer relations and information expenses, which are monies
2 spent for conservation and other consulting activities, is assigned to
3 the classes on the basis of number of customers. Administrative and
4 general costs are spread in proportion to the allocation of all other
5 operating costs excluding fuel costs. Depreciation and grants in lieu
6 of taxes are allocated in proportion to the classwise assignments of
7 production, transmission and distribution plant from the related rate
8 base allocation schedules for each study.

9 At this point, all operating costs for each class of service
10 under each study method are known. These are compared with classwise
11 revenues to determine the return for each class. These returns
12 divided by the associated rate base totals provide the rate of return
13 for each class of service.

14 The operating cost analyses for the other two studies are
15 similar. The changes occur in demand related components of production
16 and transmission costs. The distribution categories are essentially
17 similar except for demand and plant related allocations. For demand,
18 class non-coincident peak factors are used. Plant related allocations

1 use the same categories which are derived from the rate base
2 allocations.

3 Schedule 46 details the allocation factors used throughout the
4 six studies of this report. Page 1 contains the demand allocation
5 factors used in the demand related allocations of the studies. The
6 factors represent the percentage by which a particular class demand
7 level bears to the total. A factor is presented for each definition
8 of demand used in the studies. Page 2 shows the factors for energy
9 related allocations. Page 3 contains the customer related
10 allocation factors. Where a weighted customer measure is used, the
11 weights are also shown. The demand, energy and customer factors are
12 all derived from company records and are exogenous to the study. The
13 plant factors, however, are generated from other allocations and
14 direct assignments in the studies. These factors are detailed on page
15 4. The operating cost factors on page 5 are also generated by using
16 previous allocations and direct assignments. Page 6 details the
17 revenue factors which are derived from the revenue analysis.

18 This completes the overview of the cost studies. Returning to
19 Schedule 1, a review of the results of the three studies can be made

1 in light of the range of returns. For purpose of evaluation, a
2 reasonable range in returns should be in the area of 20%. In other
3 words, if the overall company return is stated as 100% then all class
4 returns should be in the 80%-120% range.

5 This range provides the degree of flexibility that is required in
6 these times of rate change and rate increases. Due to the complexity
7 of rate design and when related to the many other important factors
8 which should be incorporated, including past considerations, more
9 emphasis on cost and price elasticity, a range of this magnitude is
10 required in the transition period. It is also very important to
11 recognize in the range that, at this time, NSPC does not have time of
12 day metering, thus all demand data is based on research from other
13 utilities. Upon completion of its load research project, the range
14 can be narrowed to 10-15%. As can be seen from the studies, 5 of the
15 11 classes of service do not fall within the range in 1977 and 1978.

16 Thus there still remains the need for additional rate review and
17 cost analysis. The cost of service studies presented in this report
18 are based upon allocation methodologies commonly used before various

1 regulatory bodies in North America. The results provide a guideline
2 as to the direction in which rate design or revenue to be derived by
3 class should move from the average rate increase. These types of
4 studies provide guidelines to determine this direction, but in no way
5 set forth a definitive measurement for the determination of revenue
6 assignment when evaluating increases in rate structures. The
7 evaluation of the amount of increase to be assigned to each class of
8 service should be based not only upon the direction indicated by the
9 cost of service study, but upon many other factors including
10 competitive conditions, alternative fuel capability, historical
11 acceptance of rate structures in the past and the inclusion of those
12 historical considerations of this Board that are incorporated in the
13 current rate structure. Value of service, political and economic
14 considerations are also part of the real world of rate design and rate
15 level. Thus the cost study is a guideline or indicator as to
16 appropriate rate level not the dictator of the required revenue.

17 As can be seen from Schedule 1, there is still need to adjust
18 certain rates in future cases.

19 Summarizing the study, the following comments

1 briefly describe the results of the study by rate class.

2 - Domestic - as cost increased from 1977 to 1978 the rate did not
3 match the cost rise. In fact, in relationship to overall
4 return, the decline was approximately 20%.

5 - General Connected Load - as cost increased from 1977 to 1978
6 the rate responded quite favorably. The range of return went
7 from a level of approximately 96% to the high end of the
8 range.

9 - General - the level of return was substantially above the upper
10 limits of the range for both 1977 and 1978.

11 - General All-Electric - the rate responded very well to the cost
12 increase from 1977 to 1978 as is evident in the return going
13 from approximately 105% of average to more than 120% of
14 average.

15 - General Large - there was a slight decline in the overall
16 average return, however, the rate is well within the defined
17 range of reasonableness.

18 - Industrial to 249 KVA - The rate approximately matched the
19 cost and provided an overall return above the 20% range.

1 - Industrial 250-3,999 KVA - Overall this class provides a
2 return in both years that is equal to the overall return.

3 - Industrial Large - This rate provides a return that is
4 substantially above the defined range of reasonableness.
5 However, the rate tracked the cost increase quite well as
6 the relative level of return remained unchanged.

7 - Interruptible - As previously mentioned, returns on this
8 type of service are very volatile and interruptible rates
9 are more value-of-service oriented than cost related.

10 - Unmetered - The rate responded to cost in a very positive
11 manner and a marked improvement in overall return can be
12 seen.

13 In conclusion, we would strongly recommend that comparable
14 studies be completed on fiscal 1979. This would provide an evaluation
15 of the last rate change and provide both the Board and the Corporation
16 the ability to assess the distribution of future rate increases. In
17 completing this study, substantial work has been done in reviewing and
18 evaluating the Corporation's records and data bases. The primary
19 conclusion is that this information is adequate, however, additional

1 detailed information should be developed for future cost analysis.
2 Refinements in record maintenance and detail would facilitate an
3 improvement in the overall quality of future cost studies. In our
4 opinion, the conclusions and recommendations reached in this report
5 fairly and objectively evaluate the performance of the rate schedules
6 ordered by the Board in its Order of May 11, 1977.

GLOSSARY OF TERMINOLOGY

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1. Customer Non-Coincident Demand

- sum of the maximum demand, regardless of time, of each customer in a class. This demand represents the sum total of each customers maximum demand within the class.

2. Class Non-Coincident Demand

- the maximum demand of the class at a given point in time. This is the classes maximum demand and is time related to a fixed point representing a class maximum. This demand must be equal to or less than the customer non-coincident demand.

3. Coincident Demand

- the class demand at the time of the system peak. This is based on the fixed hour of the system peak. It must be equal to or less than the class non-coincident demand.

1 4. Average Demand

2 - the average demand is the annual kWh generated for each class
3 divided by the number of hours in the year.

4 5. Bulk Power Distribution Substation

5 - a substation which has an incoming voltage of 69 kv or
6 greater and transforms to a lower voltage providing service
7 to the distribution system.

8 6. Bulk Power Dedicated Substation

9 - a substation, as in 5 above, dedicated to serving a specific
10 customer.

11 7. Bulk Power Distribution Substation Customer Owned

12 - a substation, as in 5 above, owned by the customer where the
13 Corporation may have a limited investment in protective or
14 other minor equipment

15 8. General Distribution Substation

16 - a substation which has an incoming voltage of less than 69 kv
17 and transforms to another primary voltage serving the
18 distribution system. Primary voltage is defined as less than

1 69 kv but more than 600 v.

2 9. General Dedicated Distribution Substation

3 - a substation, as in 8 above, but dedicated to serving a
4 specific customer. In this case, it may transform at 600 v
5 or less.

6 10. General Distribution Substation Customer Owned

7 - a substation, as in 8 above, owned by the customer where the
8 Corporation may have a limited investment in protective or
9 other minor equipment.

NOVA SCOTIA POWER CORPORATIONCost of Service Study SummariesFor the Years Ended March 31, 1977 and 1978Percentage Relationship of Class Return to Average Return

	Total Company Less Steam And Joint (1)	Domestic (2)	General Comm. Load (3)	General (4)	General All Electric (5)	General Large (6)	Industrial To 249 KVA (7)	Industrial 250-3,999 KVA (8)	Industrial Large (9)	Interruptible Service (10)	Municipal (11)	Unmetered (12)
<u>Year Ended March 31, 1977</u>												
1) Coincident Peak	100.00	59.0	99.3	161.5	101.4	115.4	125.7	104.5	190.9	4,796.8	105.5	78.8
2) Coincident Peak and Average	100.00	65.0	88.6	158.9	105.1	99.1	136.4	99.5	150.6	326.2	107.6	79.9
3) Class Non Coincident Peak	100.00	60.2	104.0	163.4	106.4	119.6	121.1	104.6	195.6	66.1	116.4	83.4
<u>Year Ended March 31, 1978</u>												
4) Coincident Peak	100.00	48.0	124.3	175.1	119.0	97.4	127.7	101.6	196.0	2,611.5	85.7	93.6
5) Coincident Peak and Average	100.00	55.2	111.0	173.0	122.1	86.3	140.8	100.1	149.8	388.1	83.5	97.2
6) Class Non Coincident Peak	100.00	49.6	131.8	183.5	128.7	107.5	114.6	94.9	198.7	7.6	100.6	106.2

NOVA SCOTIA POWER CORPORATION

Allocation of Rate Base

For the Year Ended March 31, 1977

Coincident Peak Responsibility

	(\$000)												Allocation Factors (13)
	Total Co. Less Steam and Joint (1)	Domestic (2)	General Conn. Load (3)	General (4)	General All Electric (5)	General Large (6)	Industrial To 249 KVA (7)	Industrial 250-3,999 KVA (8)	Industrial Large (9)	Interruptible Service (10)	Municipal (11)	Unmetered (12)	
1) <u>Production Plant</u>	\$ 173,951	\$ 71,998	\$ 1,235	\$ 38,356	\$ 14,890	\$ 3,148	\$ 1,235	\$ 10,333	\$ 21,553	\$ -	\$ 8,228	\$ 2,975	D-1
2) <u>Transmission Plant</u>	\$ 74,568	\$ 30,864	\$ 529	\$ 16,442	\$ 6,383	\$ 1,350	\$ 529	\$ 4,430	\$ 9,239	\$ -	\$ 3,527	\$ 1,275	D-1
<u>Distribution Plant</u>													
3) Land	\$ 2,505	\$ 1,803	\$ 52	\$ 341	\$ 112	\$ 21	\$ 11	\$ 72	\$ 31	\$ 1	\$ 32	\$ 29	P-3
4) Substations	22,941	11,951	134	4,500	1,749	484	166	1,748	954	19	940	296	Sched. 12 Pg 1
5) Poles	51,376	40,146	1,322	5,979	1,785	224	165	735	216	-	231	573	Sched. 14 Pg 1
6) Wire - O. H.	27,759	21,368	681	3,407	1,049	134	96	440	129	-	138	317	Sched. 14 Pg 1
7) Underground	4,246	3,200	107	504	152	19	14	63	19	-	20	48	P-1
8) Line Transformers	26,562	17,334	197	6,062	2,332	-	207	-	-	-	-	430	D-9
9) Services	14,217	10,107	419	3,253	405	-	33	-	-	-	-	-	C-9
10) Meters	9,200	7,066	293	1,488	242	2	19	65	15	6	4	-	Sched. 15
11) Other	67	48	1	9	3	1	-	2	1	-	1	1	P-3
12) Street Lighting	8,000	-	-	-	-	-	-	-	-	-	-	8,000	Direct
13) <u>Total</u>	<u>\$166,873</u>	<u>\$113,123</u>	<u>\$ 3,206</u>	<u>\$ 25,543</u>	<u>\$ 7,829</u>	<u>\$ 885</u>	<u>\$ 711</u>	<u>\$ 3,125</u>	<u>\$ 1,365</u>	<u>\$ 26</u>	<u>\$ 1,366</u>	<u>\$ 9,694</u>	
14) <u>General, Intangible & Future Use</u>	<u>\$ 5,945</u>	<u>\$ 3,091</u>	<u>\$ 71</u>	<u>\$ 1,150</u>	<u>\$ 416</u>	<u>\$ 77</u>	<u>\$ 36</u>	<u>\$ 256</u>	<u>\$ 460</u>	<u>\$ 1</u>	<u>\$ 188</u>	<u>\$ 199</u>	P-5
15) <u>Total Plant in Service</u>	<u>\$421,337</u>	<u>\$219,076</u>	<u>\$ 5,041</u>	<u>\$ 81,491</u>	<u>\$ 29,518</u>	<u>\$ 5,460</u>	<u>\$ 2,511</u>	<u>\$ 18,144</u>	<u>\$ 32,617</u>	<u>\$ 27</u>	<u>\$ 13,309</u>	<u>\$ 14,143</u>	
<u>Working Capital</u>													
16) Cash-Fuel	\$ 3,042	\$ 1,114	\$ 30	\$ 609	\$ 197	\$ 69	\$ 13	\$ 175	\$ 586	\$ 74	\$ 137	\$ 38	E-1
17) Cash	3,358	1,737	45	654	219	41	19	137	252	-	102	152	O-1
18) Mat. & Supp. - Fuel	3,674	1,345	37	735	238	83	16	212	708	89	165	46	E-1
19) Mat. & Supp. - Other	11,054	5,747	133	2,138	774	144	66	475	856	1	349	371	P-5
20) <u>Total</u>	<u>\$ 21,128</u>	<u>\$ 9,943</u>	<u>\$ 245</u>	<u>\$ 4,136</u>	<u>\$ 1,428</u>	<u>\$ 337</u>	<u>\$ 114</u>	<u>\$ 999</u>	<u>\$ 2,402</u>	<u>\$ 164</u>	<u>\$ 753</u>	<u>\$ 607</u>	
21) <u>Total Rate Base</u>	<u>\$442,465</u>	<u>\$229,019</u>	<u>\$ 5,286</u>	<u>\$ 85,627</u>	<u>\$ 30,946</u>	<u>\$ 5,797</u>	<u>\$ 2,625</u>	<u>\$ 19,143</u>	<u>\$ 35,019</u>	<u>\$ 191</u>	<u>\$ 14,062</u>	<u>\$ 14,750</u>	

NOVA SCOTIA POWER CORPORATION

Allocation of Rate Base For The Year Ended March 31, 1977

Coincident Peak and Average Responsibility

(\$000)

	Total Company Less Steam and Joint (1)	Domestic (2)	General Conn. Load (3)	General (4)	General All Electric (5)	General Large (6)	Industrial To 249 KVA (7)	Industrial 250-3,999 KVA (8)	Industrial Large (9)	Interruptible Service (10)	Municipal (11)	Unmetered (12)	Factor (13)
Production Plant													
1) Steam	\$131,085	\$ 51,765	\$ 1,062	\$ 27,803	\$ 10,185	\$ 2,609	\$ 813	\$ 7,904	\$ 19,650	\$ 1,219	\$ 6,030	\$ 2,045	D-3
2) Hydro	19,677	8,144	140	4,339	1,684	356	140	1,169	2,438	-	931	336	D-1
3) Gas Turbine	23,189	9,598	165	5,113	1,985	420	165	1,377	2,873	-	1,097	396	D-1
4) Total	\$173,951	\$ 69,507	\$ 1,367	\$ 37,255	\$ 13,854	\$ 3,385	\$ 1,118	\$ 10,450	\$ 24,961	\$ 1,219	\$ 8,058	\$ 2,777	
5) Transmission Plant	\$ 74,568	\$ 29,447	\$ 604	\$ 15,816	\$ 5,794	\$ 1,484	\$ 462	\$ 4,496	\$ 11,178	\$ 694	\$ 3,430	\$ 1,163	D-3
Distribution Plant													
6) Land	\$ 2,505	\$ 1,717	\$ 54	\$ 385	\$ 132	\$ 23	\$ 12	\$ 79	\$ 33	\$ 1	\$ 36	\$ 33	P-4
7) Substations	22,941	10,526	155	5,203	2,060	532	187	1,905	979	19	1,014	361	Sched. 12 Pg. 2
8) Poles	51,376	38,866	1,343	6,669	2,091	252	185	828	231	-	274	637	Sched. 14 Pg. 2
9) Wire-O.H.	27,759	20,601	695	3,820	1,232	151	108	495	138	-	164	355	Sched. 14 Pg. 2
10) Underground	4,246	3,190	110	563	178	22	16	71	20	-	23	53	P-2
11) Line Transformers	26,562	15,565	231	7,164	2,829	-	239	-	-	-	-	534	D-11
12) Services	14,217	10,107	419	3,253	405	-	33	-	-	-	-	-	C-9
13) Meters	9,200	7,066	293	1,488	242	2	19	65	15	6	4	-	Schedule 15
14) Other	67	46	1	10	4	1	20	2	1	-	1	71	P-4
15) Street Lighting	8,000	-	-	-	-	-	-	-	-	-	-	8,000	Direct
16) Total	\$166,873	\$107,684	\$ 3,301	\$ 28,555	\$ 9,173	\$ 983	\$ 801	\$ 3,444	\$ 1,417	\$ 26	\$ 1,516	\$ 9,973	
17) Gen., Intan. and Future Plant	\$ 5,945	\$ 2,957	\$ 76	\$ 1,168	\$ 413	\$ 84	\$ 34	\$ 263	\$ 537	\$ 28	\$ 186	\$ 199	P-6
18) Total Plant In Service	\$421,337	\$209,595	\$ 5,348	\$ 82,794	\$ 29,234	\$ 5,936	\$ 2,415	\$ 18,653	\$ 38,093	\$ 1,967	\$ 13,190	\$ 14,112	
Working Capital													
19) Cash Fuel	\$ 3,042	\$ 1,114	\$ 30	\$ 609	\$ 197	\$ 69	\$ 13	\$ 175	\$ 586	\$ 74	\$ 137	\$ 38	E-2
20) Cash-Other	3,358	1,675	47	651	209	45	181	141	303	187	100	151	O-2
21) Mat. & Supp.-Fuel	3,674	1,345	37	735	238	83	16	212	708	89	165	46	E-1
22) Mat. & Supp.-Other	11,054	5,499	140	2,172	767	156	63	490	959	52	346	370	P-6
23) Total	\$ 21,128	\$ 9,633	\$ 254	\$ 4,167	\$ 1,411	\$ 353	\$ 110	\$ 1,018	\$ 2,596	\$ 233	\$ 748	\$ 605	
24) Total Rate Base	\$442,465	\$219,228	\$ 5,602	\$ 86,961	\$ 30,645	\$ 6,289	\$ 2,525	\$ 19,671	\$ 40,689	\$ 2,200	\$ 13,938	\$ 14,717	

NOVA SCOTIA POWER CORPORATION

Allocation of Rate Base

For The Year Ending March 31, 1977

Class Non-Coincident Responsibility

(\$000)

	Total Company Less Steam And Joint	Domestic	General Conn. Load	General	General All Electric	General Large	Industrial To 249 KVA	Industrial 250-3,999 KVA	Industrial Large	Industrial Service	Municipal	Unmetered	Factor
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1) <u>Production Plant</u>	\$173,951	\$ 73,807	\$ 1,096	\$ 36,025	\$ 13,429	\$ 3,009	\$ 1,218	\$ 10,072	\$ 21,309	\$ 3,949	\$ 7,497	\$ 2,540	D-17
2) <u>Transmission Plant</u>	\$ 74,568	\$ 31,639	\$ 470	\$ 15,443	\$ 5,757	\$ 1,290	\$ 522	\$ 4,317	\$ 9,134	\$ 1,693	\$ 3,214	\$ 1,089	D-17
<u>Distribution Plant</u>													
3) Land	\$ 2,505	\$ 1,717	\$ 54	\$ 385	\$ 132	\$ 23	\$ 12	\$ 79	\$ 33	\$ 1	\$ 36	\$ 33	P-4
4) Substations	22,941	10,526	155	5,203	2,060	532	187	1,905	979	19	1,014	361	Sched 12 Pg 2
5) Poles	51,376	38,866	1,343	6,669	2,091	252	185	828	231	-	274	637	Sched 14 Pg 2
6) Wire - O.H.	27,759	20,601	695	3,820	1,232	151	108	495	138	-	164	355	Sched 14 Pg 2
7) Underground	4,246	3,190	110	563	178	22	16	71	20	-	23	53	P-2
8) Line Transformers	26,562	15,565	231	7,164	2,829	-	239	-	-	-	-	534	D-11
9) Services	14,217	10,107	419	3,253	405	-	33	-	-	-	-	-	C-9
10) Meters	9,200	7,066	293	1,488	242	2	19	65	15	6	4	-	Sched 15
11) Other	67	46	1	10	4	1	2	1	1	-	1	-	P-4
12) Street Lighting	8,000	-	-	-	-	-	-	-	-	-	-	8,000	Direct
13) Total	\$166,873	\$107,684	\$ 3,301	\$ 28,555	\$ 9,173	\$ 983	\$ 801	\$ 3,444	\$ 1,417	\$ 26	\$ 1,516	\$ 9,973	
14) <u>General Intangible & Future Use</u>	\$ 5,945	\$ 3,050	\$ 70	\$ 1,146	\$ 406	\$ 76	\$ 36	\$ 255	\$ 456	\$ 81	\$ 175	\$ 194	P-7
15) <u>Total Plant In Service</u>	\$421,337	\$216,180	\$ 4,937	\$ 81,169	\$ 28,765	\$ 5,358	\$ 2,577	\$ 18,088	\$ 32,316	\$ 5,749	\$ 12,402	\$ 13,796	
<u>Working Capital</u>													
16) Cash - Fuel	\$ 3,042	\$ 1,114	\$ 30	\$ 609	\$ 197	\$ 69	\$ 13	\$ 175	\$ 586	\$ 74	\$ 137	\$ 38	E-1
17) Cash - Other	3,358	1,735	43	642	212	40	19	139	239	45	96	149	O-1
18) Mat. & Supp. - Fuel	3,674	1,345	37	735	238	83	16	212	708	89	165	46	E-1
19) Mat. & Supp. - Other	11,054	5,672	129	2,130	755	140	67	474	848	152	325	362	P-7
20) Total	\$ 21,128	\$ 9,866	\$ 239	\$ 4,116	\$ 1,402	\$ 332	\$ 115	\$ 999	\$ 2,381	\$ 360	\$ 723	\$ 595	
21) <u>Total Rate Base</u>	\$442,465	\$226,046	\$ 5,176	\$ 85,285	\$ 30,167	\$ 5,690	\$ 2,692	\$ 19,087	\$ 34,697	\$ 6,109	\$ 13,125	\$ 14,391	

NOVA SCOTIA POWER CORPORATION

Allocation of Operating Costs

For the Year Ended March 31, 1977

Coincident Peak Responsibility

(\$000)

	Total Company Less Steam and Joint (1)	Domestic (2)	General Conn. Load (3)	General (4)	General All Electric (5)	General Large (6)	Industrial To 249 KVA (7)	Industrial 250-3,999 KVA (8)	Industrial Large (9)	Interruptible Service (10)	Municipal (11)	Unmetered (12)	Factor (13)
Production Cost													
1) Fuel	\$ 59,329	\$ 21,726	\$ 593	\$ 11,872	\$ 3,838	\$ 1,347	\$ 261	\$ 3,417	\$ 11,427	\$ 1,442	\$ 2,664	\$ 742	E-1
2) Operating	19,035	7,879	135	4,197	1,629	345	135	1,131	2,358	-	900	326	D-1
3) Purchased Power - Fuel	1,807	662	18	362	117	41	8	104	348	44	81	22	E-1
4) Purchased Power - Other	3,421	1,416	24	754	293	62	24	203	424	-	162	59	D-1
5) Total Production	\$ 83,592	\$ 31,683	\$ 770	\$ 17,185	\$ 5,877	\$ 1,795	\$ 428	\$ 4,855	\$ 14,557	\$ 1,486	\$ 3,807	\$ 1,149	
Transmission Operating Cost													
6) Transmission Operating Cost	\$ 2,051	\$ 849	\$ 15	\$ 452	\$ 175	\$ 37	\$ 15	\$ 122	\$ 254	\$ -	\$ 97	\$ 35	D-1
Distribution Operating Cost													
7) Land	\$ 1,135	\$ 817	\$ 24	\$ 154	\$ 51	\$ 9	\$ 5	\$ 33	\$ 14	\$ -	\$ 15	\$ 13	P-3
8) Substations	1,872	975	11	367	143	40	13	143	78	1	77	24	P-8
9) Overhead Lines	2,403	1,868	61	285	86	11	8	36	10	-	11	27	P-1
10) U. G. Lines	133	103	3	16	5	1	-	2	1	-	1	1	P-1
11) Line Transformers	812	530	6	185	71	-	7	-	-	-	-	13	D-5
12) Services	1,249	888	37	286	35	-	3	-	-	-	-	-	C-9
13) Meters	767	589	24	124	20	-	2	5	1	1	1	-	Schedule 15
14) Customer Service & Contracts	926	833	34	52	6	-	1	-	-	-	-	-	Schedule 22
15) Customer Premise	806	725	29	46	6	-	-	-	-	-	-	-	Schedule 23
16) Communications	502	286	3	188	39	9	4	30	9	-	9	7	D-7
17) Street Light	1,325	-	-	-	-	-	-	-	-	-	-	1,325	Direct
18) Total Distribution	\$ 11,930	\$ 7,614	\$ 232	\$ 1,621	\$ 462	\$ 70	\$ 43	\$ 249	\$ 113	\$ 2	\$ 114	\$ 1,410	
Customer Accounting													
19) Billing	\$ 3,178	\$ 2,213	\$ 87	\$ 713	\$ 89	\$ -	\$ 7	\$ 10	\$ 1	\$ 1	\$ 1	\$ 56	C-10
20) Customer Service	1,026	737	30	210	28	-	3	4	1	-	-	13	Schedule 24
21) Credit & Collection	868	562	20	218	58	-	7	-	-	-	-	3	Schedule 25
22) Total Customer Accounting	\$ 5,072	\$ 3,512	\$ 137	\$ 1,141	\$ 175	\$ -	\$ 17	\$ 14	\$ 2	\$ 1	\$ 1	\$ 72	
Customer Relations & Information													
23) Customer Relations & Information	\$ 546	\$ 485	\$ 20	\$ 31	\$ 4	\$ -	\$ 1	\$ -	\$ -	\$ -	\$ -	\$ 5	C-1
Administrative & General													
24) Administrative & General	\$ 3,805	\$ 1,968	\$ 51	\$ 742	\$ 248	\$ 46	\$ 21	\$ 156	\$ 285	\$ 1	\$ 115	\$ 172	O-1
Depreciation													
25) Depreciation	\$ 18,079	\$ 9,399	\$ 217	\$ 3,497	\$ 1,266	\$ 235	\$ 109	\$ 777	\$ 1,399	\$ 2	\$ 371	\$ 607	P-5
Grants in Lieu of Taxes													
26) Grants in Lieu of Taxes	\$ 2,954	\$ 1,536	\$ 35	\$ 571	\$ 207	\$ 39	\$ 18	\$ 127	\$ 229	\$ -	\$ 93	\$ 99	P-5
27) Total Cost	\$128,029	\$ 57,046	\$ 1,477	\$ 25,240	\$ 8,414	\$ 2,222	\$ 652	\$ 6,300	\$ 16,839	\$ 1,492	\$ 4,798	\$ 3,549	
28) Total Revenue	\$205,087	\$ 80,560	\$ 2,391	\$ 49,332	\$ 13,880	\$ 3,387	\$ 1,227	\$ 9,784	\$ 28,483	\$ 3,088	\$ 7,382	\$ 5,573	Schedule 16
29) Return	\$ 77,058	\$ 23,514	\$ 914	\$ 24,092	\$ 5,466	\$ 1,165	\$ 575	\$ 3,484	\$ 11,644	\$ 1,596	\$ 2,584	\$ 2,024	
30) Rate of Return	17.42	10.27	17.29	28.14	17.55	20.10	21.90	18.20	33.25	835.60	18.38	13.72	
31) Percentage of Average	4.54	6.30	7.17	13.86	12	18.84	8.76	13.59	5.01	659.16	6.62	3.06	
	100.00	58.96	99.25	161.54	101.38	115.39	125.72	104.48	190.87	4,796.79	105.51	78.75	
		(6.61)	157.93	305.29	15.86	414.98	192.95	299.34	110.35	14,518.94	145.81	67.40	

NOVA SCOTIA POWER CORPORATION
Allocation of Operating Cost
For the Year Ended March 31, 1977
Coincident Peak and Average
(\$000)

	Total Company Less Steam and Joint (1)	Domestic (2)	General Conn. Load (3)	General (4)	General All Electric (5)	General Large (6)	Industrial To 249 KVA (7)	Industrial 250-3,999 KVA (8)	Industrial Large (9)	Interruptible Service (10)	Municipal (11)	Unmetered (12)	Factor (13)
<u>Production Cost</u>													
1) Fuel	\$ 59,329	\$ 21,726	\$ 593	\$ 11,872	\$ 3,838	\$ 1,347	\$ 261	\$ 3,417	\$ 11,427	\$ 1,442	\$ 2,664	\$ 742	E-1
2) Operating	19,035	7,517	154	4,037	1,479	379	118	1,148	2,853	177	876	297	D-3
3) Purchased Power - Fuel	1,807	662	18	362	117	41	8	104	348	44	81	22	E-1
4) Purchased Power - Other	3,421	1,351	28	726	266	68	21	206	513	32	157	53	D-3
5) Total Production	\$ 83,592	\$ 31,256	\$ 793	\$ 16,997	\$ 5,700	\$ 1,835	\$ 408	\$ 4,875	\$ 15,141	\$ 1,695	\$ 3,778	\$ 1,114	
6) <u>Transmission Operating Cost</u>	\$ 2,051	\$ 810	\$ 17	\$ 435	\$ 159	\$ 41	\$ 13	\$ 124	\$ 307	\$ 19	\$ 94	\$ 32	D-3
<u>Distribution Operating Cost</u>													
7) Land	\$ 1,135	\$ 778	\$ 24	\$ 175	\$ 60	\$ 11	\$ 5	\$ 36	\$ 15	\$ -	\$ 16	\$ 15	P-4
8) Substations	1,872	859	13	425	168	43	15	155	80	2	83	29	pe9
9) Overhead Lines	2,403	1,807	62	318	101	12	9	40	11	-	13	30	P-2
10) U. G. Lines	133	99	3	18	6	1	2	1	-	-	1	2	P-2
11) Line Transformers	812	476	7	219	87	-	7	-	-	-	-	16	D-11
12) Services	1,249	887	37	286	36	-	3	-	-	-	-	-	C-9
13) Meters	767	589	24	124	20	-	2	5	1	1	1	-	Schedule 15
14) Customer Serv. & Cont.	926	833	34	52	6	-	1	-	-	-	-	-	Schedule 22
15) Customer Premise	806	725	29	46	6	-	-	-	-	-	-	-	Schedule 23
16) Communications	502	252	4	123	47	10	4	33	9	-	11	9	D-13
17) Street Lights	1,325	-	-	-	-	-	-	-	-	-	-	1,325	Direct
18) Total Distribution	\$ 11,930	\$ 7,305	\$ 237	\$ 1,786	\$ 537	\$ 77	\$ 48	\$ 270	\$ 116	\$ 3	\$ 125	\$ 1,426	
<u>Customer Accounting</u>													
19) Billing	\$ 3,178	\$ 2,213	\$ 87	\$ 713	\$ 89	\$ -	\$ 7	\$ 10	\$ 1	\$ 1	\$ 1	\$ 56	C-10
20) Customer Service	1,026	737	30	210	28	-	3	4	1	-	-	13	Schedule 24
21) Credit & Collection	868	562	20	218	58	-	7	-	-	-	-	3	Schedule 25
22) Total Customer Accounting	\$ 5,072	\$ 3,512	\$ 137	\$ 1,141	\$ 175	\$ -	\$ 17	\$ 14	\$ 2	\$ 1	\$ 1	\$ 72	
23) <u>Customer Relations & Information</u>	\$ 546	\$ 485	\$ 20	\$ 31	\$ 4	\$ -	\$ 1	\$ -	\$ -	\$ -	\$ -	\$ 5	C-1
24) <u>Administrative & General</u>	\$ 3,805	\$ 1,898	\$ 54	\$ 738	\$ 237	\$ 51	\$ 20	\$ 160	\$ 343	\$ 21	\$ 113	\$ 170	O-2
25) <u>Depreciation</u>	\$ 18,079	\$ 8,992	\$ 230	\$ 3,552	\$ 1,255	\$ 255	\$ 103	\$ 801	\$ 1,634	\$ 85	\$ 566	\$ 606	P-6
26) <u>Grants in Lieu of Taxes</u>	\$ 2,954	\$ 1,469	\$ 38	\$ 580	\$ 205	\$ 42	\$ 17	\$ 131	\$ 267	\$ 14	\$ 92	\$ 99	P-6
27) <u>Total Cost</u>	\$128,029	\$ 55,727	\$ 1,526	\$ 25,260	\$ 8,272	\$ 2,301	\$ 627	\$ 6,375	\$ 17,810	\$ 1,838	\$ 4,769	\$ 1,524	
28) <u>Total Revenue</u>	\$205,087	\$ 80,560	\$ 2,391	\$ 49,332	\$ 13,880	\$ 3,387	\$ 1,227	\$ 9,764	\$ 28,483	\$ 3,088	\$ 7,382	\$ 5,573	Schedule 14
29) <u>Return</u>	\$ 77,058	\$ 24,833	\$ 865	\$ 24,072	\$ 5,608	\$ 1,086	\$ 600	\$ 3,409	\$ 10,673	\$ 1,250	\$ 2,613	\$ 2,049	
30) Rate of Return	17.42	11.33	15.44	27.68	18.30	17.27	23.76	17.33	26.23	56.82	18.75	13.92	
31) Percentage of Average	100.00	65.04	88.63	158.90	105.05	99.14	136.40	99.48	150.57	326.18	107.64	79.91	

NOVA SCOTIA POWER CORPORATION

Allocation of Operating Costs

For the Year Ended March 31, 1977

Class Non-Coincident Peak Responsibility

(\$000)

	Total Company Less Steam and Joint (1)	Domestic (2)	General Conn. Load (3)	General (4)	General All Electric (5)	General (6)	Industrial To 249 KVA (7)	Industrial 250-3,999 KVA (8)	Industrial Large (9)	Interruptible Service (10)	Municipal (11)	Unmetered (12)	Factor (13)
Production Cost													
1) Fuel	\$ 59,329	\$ 21,726	\$ 593	\$ 11,872	\$ 3,838	\$ 1,347	\$ 261	\$ 3,417	\$ 11,427	\$ 1,442	\$ 2,664	\$ 742	E-1
2) Operating	19,035	8,094	120	3,946	1,509	329	137	1,119	2,235	432	836	278	D-17
3) Purchased Power - Fuel	1,807	662	18	362	117	41	8	104	348	44	81	22	E-1
4) Purchased Power - Other	3,421	1,455	21	709	271	59	25	201	402	78	150	50	D-17
5) Total Production	\$ 83,592	\$ 31,937	\$ 752	\$ 16,889	\$ 5,735	\$ 1,776	\$ 431	\$ 4,841	\$ 14,412	\$ 1,996	\$ 3,731	\$ 1,092	
6) Transmission Operating Cost	\$ 2,051	\$ 872	\$ 13	\$ 425	\$ 163	\$ 35	\$ 15	\$ 121	\$ 241	\$ 46	\$ 90	\$ 30	D-17
Distribution Operating Cost													
7) Land	\$ 1,135	\$ 778	\$ 24	\$ 175	\$ 60	\$ 11	\$ 5	\$ 36	\$ 15	\$ -	\$ 16	\$ 15	P-4
8) Substations	1,872	859	13	425	168	43	15	155	80	2	83	29	P-9
9) Overhead Lines	2,403	1,806	62	319	101	12	9	40	11	-	13	30	P-2
10) U. G. Lines	133	100	3	18	5	1	-	2	1	-	1	2	P-2
11) Line Transformers	812	476	7	219	87	-	7	-	-	-	-	16	D-11
12) Services	1,249	888	37	286	35	-	3	-	-	-	-	-	C-9
13) Meters	767	589	24	124	20	-	2	5	1	1	1	-	Schedule 15
14) Customer Service & Contracts	926	833	34	52	6	1	-	-	-	-	-	-	Schedule 22
15) Customer Premise	806	725	29	46	6	-	-	-	-	-	-	-	Schedule 23
16) Communications	502	252	4	123	47	10	4	33	9	-	11	9	D-13
17) Street Lights	1,325	-	-	-	-	-	-	-	-	-	-	1,325	Direct
18) Total Distribution	\$ 11,930	\$ 7,306	\$ 237	\$ 1,787	\$ 535	\$ 78	\$ 45	\$ 271	\$ 117	\$ 3	\$ 125	\$ 1,426	
Customer Accounting													
19) Billing	\$ 3,178	\$ 2,213	\$ 87	\$ 713	\$ 89	\$ -	\$ 7	\$ 10	\$ 1	\$ 1	\$ 1	\$ 56	C-10
20) Customer Service	1,026	737	30	210	28	-	3	4	1	-	-	13	Schedule 24
21) Credit & Collection	868	562	20	218	58	-	7	-	-	-	-	3	Schedule 25
22) Total Customer Accounting	\$ 5,072	\$ 3,512	\$ 137	\$ 1,141	\$ 175	\$ -	\$ 17	\$ 14	\$ 2	\$ 1	\$ 1	\$ 72	
23) Customer Relations & Information	\$ 546	\$ 485	\$ 20	\$ 31	\$ 4	\$ -	\$ 1	\$ -	\$ -	\$ -	\$ -	\$ 5	C-1
24) Administrative & General	\$ 3,805	\$ 1,956	\$ 49	\$ 727	\$ 240	\$ 45	\$ 22	\$ 156	\$ 271	\$ 51	\$ 109	\$ 169	O-3
25) Depreciation	\$ 18,079	\$ 9,276	\$ 211	\$ 3,484	\$ 1,235	\$ 230	\$ 110	\$ 776	\$ 1,387	\$ 248	\$ 531	\$ 591	P-7
26) Grants in Lieu of Taxes	\$ 2,954	\$ 1,516	\$ 34	\$ 569	\$ 202	\$ 37	\$ 18	\$ 127	\$ 227	\$ 40	\$ 87	\$ 97	P-7
27) Total Cost	\$128,029	\$ 56,870	\$ 1,453	\$ 25,053	\$ 8,289	\$ 2,201	\$ 659	\$ 6,306	\$ 16,657	\$ 2,385	\$ 4,674	\$ 3,482	
28) Total Revenue	\$205,087	\$ 80,560	\$ 2,391	\$ 49,332	\$ 13,880	\$ 3,387	\$ 1,227	\$ 9,784	\$ 28,483	\$ 3,088	\$ 7,382	\$ 5,573	Schedule 15
29) Return	\$ 77,058	\$ 23,690	\$ 938	\$ 24,279	\$ 5,591	\$ 1,186	\$ 568	\$ 3,478	\$ 11,826	\$ 703	\$ 2,708	\$ 2,091	
30) Rate of Return	17.42 4.54	10.48 (1.22)	18.12 7.79	28.47 14.14	18.53 1.15	20.84 17.56	21.10 8.28	18.22 13.60	24.08 5.58	11.51 5.99	20.63 2.04	14.53 3.61	
31) Percentage of Return	100.00	60.16 (4.85)	104.02 171.59	163.43 311.45	106.37 25.33	119.63 430.84	121.13 182.38	104.59 299.56	195.64 122.91	66.07 131.44	118.43 177.09	83.41 79.52	

NOVA SCOTIA POWER CORPORATION

Allocation of Rate Base

For the Year Ended March 31, 1978

Coincident Peak Responsibility

(\$000)

	Total Company Less Steam and Joint		General Conn. Load	General	General	General	Industrial	Industrial	Industrial	Industrial	Industrial	Industrial	Factors
	(1)	Domestic (2)	(3)	(4)	All Electric (5)	Large (6)	to 249 KVA (7)	250 to 3,999 KVA (8)	Large (9)	Service (10)	Municipal (11)	Unmetered (12)	(13)
1) <u>Production Plant</u>	\$311,415	\$131,108	\$ 2,273	\$ 70,909	\$ 24,913	\$ 6,166	\$ 3,239	\$ 20,055	\$ 32,699	\$ -	\$ 14,232	\$ 5,824	D-2
2) <u>Transmission Plant</u>	\$ 85,815	\$ 36,128	\$ 626	\$ 19,540	\$ 6,865	\$ 1,699	\$ 892	\$ 5,527	\$ 9,011	\$ -	\$ 3,922	\$ 1,605	D-2
<u>Distribution Plant</u>													
3) Land	\$ 2,508	\$ 1,822	\$ 50	\$ 342	\$ 100	\$ 21	\$ 15	\$ 72	\$ 30	\$ -	\$ 27	\$ 29	F-12
4) Substations	23,184	12,080	141	4,607	1,620	507	247	1,826	951	18	871	316	Sched 32 Pg. 1
5) Poles	58,390	45,757	1,376	6,879	1,833	268	274	887	257	-	228	631	Sched 34 Pg. 1
6) Wire-C.H.	31,507	24,316	709	3,915	1,076	160	160	531	154	-	136	350	Sched 34 Pg. 2
7) Underground	4,849	3,780	113	582	157	23	23	77	22	-	19	53	P-10
8) Line Transformers	29,154	19,008	225	6,743	2,332	-	350	-	-	-	-	496	D-6
9) Services	15,870	11,333	424	3,685	382	-	46	-	-	-	-	-	C-11
10) Meters	9,556	7,379	275	1,568	213	2	36	68	15	7	3	-	Schedule 35
11) Other	278	202	6	38	11	2	2	8	3	-	3	3	P-12
12) Street Lighting	8,253	-	-	-	-	-	-	-	-	-	-	8,253	Direct
13) <u>Total Distribution Plant</u>	<u>\$183,549</u>	<u>\$125,677</u>	<u>\$ 3,319</u>	<u>\$ 28,359</u>	<u>\$ 7,724</u>	<u>\$ 983</u>	<u>\$ 1,143</u>	<u>\$ 3,469</u>	<u>\$ 1,432</u>	<u>\$ 25</u>	<u>\$ 1,287</u>	<u>\$ 10,131</u>	
14) <u>General Plant, Intangible, and Future Use</u>	<u>\$ 6,142</u>	<u>\$ 3,097</u>	<u>\$ 66</u>	<u>\$ 1,257</u>	<u>\$ 418</u>	<u>\$ 93</u>	<u>\$ 56</u>	<u>\$ 307</u>	<u>\$ 456</u>	<u>\$ 1</u>	<u>\$ 206</u>	<u>\$ 185</u>	P-14
<u>Working Capital</u>													
15) Cash Fuel	\$ 8,528	\$ 3,102	\$ 83	\$ 1,756	\$ 544	\$ 199	\$ 51	\$ 519	\$ 1,538	\$ 229	\$ 395	\$ 112	E-2
16) Cash	4,361	1,838	47	883	271	85	29	237	608	73	173	117	C-4
17) Mat. Supp. - Fuel	7,266	2,643	71	1,496	464	169	44	142	1,310	195	336	96	E-2
18) Mat. Supp. - Other	11,266	5,601	121	2,305	766	171	103	563	837	1	378	340	P-14
19) <u>Total Working Capital</u>	<u>\$ 31,421</u>	<u>\$ 13,264</u>	<u>\$ 322</u>	<u>\$ 6,440</u>	<u>\$ 2,645</u>	<u>\$ 624</u>	<u>\$ 227</u>	<u>\$ 1,761</u>	<u>\$ 4,293</u>	<u>\$ 498</u>	<u>\$ 1,282</u>	<u>\$ 665</u>	
20) <u>Total Rate Base</u>	<u>\$618,342</u>	<u>\$309,271</u>	<u>\$ 6,506</u>	<u>\$126,505</u>	<u>\$ 41,965</u>	<u>\$ 9,563</u>	<u>\$ 5,557</u>	<u>\$ 31,119</u>	<u>\$ 47,891</u>	<u>\$ 524</u>	<u>\$ 20,929</u>	<u>\$ 18,410</u>	

NOVA SCOTIA POWER CORPORATION

Allocation Of Rate Base

For The Year Ended March 31, 1978

Coincident Peak And Average Responsibility

(\$000)

	Total Company Less Steam And Joint (1)	Domestic (2)	General Conn. Load (3)	General (4)	General All Electric (5)	General Large (6)	Industrial To 249 KVA (7)	Industrial 250-3,999 KVA (8)	Industrial Large (9)	Interruptible Service (10)	Municipal (11)	Unmetered (12)	Factors (13)
Production Plant													
1) Steam	\$126,727	\$ 50,526	\$ 1,052	\$ 27,778	\$ 9,314	\$ 2,674	\$ 1,128	\$ 8,022	\$ 17,007	\$ 1,293	\$ 5,829	\$ 2,104	D-4
2) Hydro	162,797	68,538	1,188	37,069	13,024	3,223	1,693	10,484	17,094	-	7,440	3,044	D-2
3) Gas Turbine	21,891	9,216	160	4,985	1,751	433	228	1,410	2,299	-	1,000	409	D-2
4) Total	<u>\$311,415</u>	<u>\$128,280</u>	<u>\$ 2,400</u>	<u>\$ 69,832</u>	<u>\$ 24,089</u>	<u>\$ 6,330</u>	<u>\$ 3,049</u>	<u>\$ 19,916</u>	<u>\$ 36,400</u>	<u>\$ 1,293</u>	<u>\$ 14,269</u>	<u>\$ 5,557</u>	
5) Transmission Plant	\$ 85,815	\$ 34,214	\$ 712	\$ 18,811	\$ 6,307	\$ 1,811	\$ 764	\$ 5,432	\$ 11,516	\$ 875	\$ 3,948	\$ 1,425	D-4
Distribution Plant													
6) Land	\$ 2,508	\$ 1,737	\$ 51	\$ 385	\$ 118	\$ 23	\$ 17	\$ 82	\$ 31	\$ 1	\$ 30	\$ 33	D-13
7) Substations	23,184	10,603	164	5,311	1,903	559	277	2,054	977	18	934	384	Sched 32 Pg 2
9) Poles	58,390	44,282	1,401	7,660	2,149	302	308	1,038	274	-	269	707	Sched 34 Pg 2
9) Wire - O.H.	31,507	23,434	725	4,362	1,265	180	180	620	164	-	161	396	Sched 34 Pg 2
10) Underground	4,849	3,653	115	649	184	26	26	89	24	-	23	60	P-11
11) Line Transformers	29,154	17,073	262	7,968	2,831	-	402	-	-	-	-	618	D-12
12) Services	15,870	11,333	424	3,685	382	-	46	-	-	-	-	-	C-11
13) Meters	9,556	7,379	275	1,568	213	2	26	68	15	7	3	-	Sched 35
14) Other	278	192	6	43	13	3	2	9	3	-	3	4	P-13
15) Street Lighting	8,253	-	-	-	-	-	-	-	-	-	-	8,253	Direct
16) Total	<u>\$183,549</u>	<u>\$119,686</u>	<u>\$ 3,423</u>	<u>\$ 31,651</u>	<u>\$ 9,058</u>	<u>\$ 1,095</u>	<u>\$ 1,284</u>	<u>\$ 3,960</u>	<u>\$ 1,488</u>	<u>\$ 26</u>	<u>\$ 1,423</u>	<u>\$ 10,455</u>	
17) Gen. Plant, Intangible & Future Use	\$ 6,142	\$ 2,984	\$ 69	\$ 1,272	\$ 417	\$ 98	\$ 54	\$ 310	\$ 523	\$ 23	\$ 208	\$ 184	P-15
Working Capital													
18) Cash Fuel	\$ 8,528	\$ 3,102	\$ 83	\$ 1,756	\$ 544	\$ 199	\$ 51	\$ 518	\$ 1,538	\$ 229	\$ 395	\$ 113	Z-2
19) Cash	4,361	1,805	49	881	267	86	28	237	636	83	174	115	O-5
20) Mat. & Supp. - Fuel	7,266	2,643	71	1,496	464	169	44	442	1,310	195	336	96	Z-2
21) Mat. & Supp. - Other	11,266	5,474	126	2,333	765	179	99	569	959	43	381	338	P-15
22) Total	<u>\$ 31,421</u>	<u>\$ 13,024</u>	<u>\$ 329</u>	<u>\$ 6,466</u>	<u>\$ 2,040</u>	<u>\$ 633</u>	<u>\$ 222</u>	<u>\$ 1,766</u>	<u>\$ 4,443</u>	<u>\$ 550</u>	<u>\$ 1,286</u>	<u>\$ 662</u>	
23) Total Rate Base	<u>\$618,342</u>	<u>\$298,188</u>	<u>\$ 6,933</u>	<u>\$128,032</u>	<u>\$ 41,911</u>	<u>\$ 9,967</u>	<u>\$ 5,373</u>	<u>\$ 31,384</u>	<u>\$ 54,370</u>	<u>\$ 2,767</u>	<u>\$ 21,134</u>	<u>\$ 18,283</u>	

31,421
586,921

NOVA SCOTIA POWER CORPORATION

Allocation of Rate Base

For the Year Ended March 31, 1978

Class Non-Coincident Responsibility

(\$000)

	Total Company Less Steam and Joint (1)	Domestic (2)	General Conn. Load (3)	General (4)	General All Electric (5)	General Large (6)	Industrial To 249 KVA (7)	Industrial 250-3,999 KVA (8)	Industrial Large (9)	Industrial Interruptible Service (10)	Municipal (11)	Unmetered (12)	Factor (13)
1) <u>Production Plant</u>	\$311,415	\$133,192	\$ 2,055	\$ 65,833	\$ 22,702	\$ 5,761	\$ 3,363	\$ 20,398	\$ 32,356	\$ 7,848	\$ 13,080	\$ 4,827	D-18
2) <u>Transmission Plant</u>	\$ 85,815	\$ 36,703	\$ 566	\$ 18,141	\$ 6,256	\$ 1,588	\$ 927	\$ 5,621	\$ 8,916	\$ 2,163	\$ 3,604	\$ 1,330	D-18
<u>Distribution Plant</u>													
3) Land	\$ 2,508	\$ 1,737	\$ 51	\$ 385	\$ 118	\$ 23	\$ 17	\$ 82	\$ 31	\$ 1	\$ 30	\$ 33	P-13
4) Substations	23,184	10,603	164	5,311	1,903	559	277	2,054	977	18	934	384	Sched 32 Pg 2
5) Poles	58,390	44,282	1,401	7,660	2,149	302	308	1,038	274	-	269	707	Sched 34 Pg 2
6) Wire - O.H.	31,507	23,434	725	4,382	1,265	180	180	620	164	-	161	396	Sched 34 Pg 2
7) Underground	4,849	3,653	114	649	184	26	26	89	24	-	24	60	P-11
8) Line Transformers	29,154	17,073	262	7,968	2,831	-	402	-	-	-	-	618	D-12
9) Services	15,670	11,333	424	3,685	382	-	46	-	-	-	-	-	C-11
10) Meters	9,556	7,379	275	1,568	213	2	26	68	15	7	3	-	Schedule 35
11) Other	278	192	6	43	13	2	3	9	3	-	3	4	P-13
12) Street Lighting	8,253	-	-	-	-	-	-	-	-	-	-	8,253	Direct
13) <u>Total</u>	<u>\$183,549</u>	<u>\$119,686</u>	<u>\$ 3,422</u>	<u>\$ 31,651</u>	<u>\$ 9,058</u>	<u>\$ 1,094</u>	<u>\$ 1,285</u>	<u>\$ 3,960</u>	<u>\$ 1,488</u>	<u>\$ 26</u>	<u>\$ 1,424</u>	<u>\$ 10,455</u>	
14) <u>Gen. Plant, Intan. & Future Use</u>	\$ 6,142	\$ 3,062	\$ 64	\$ 1,223	\$ 402	\$ 89	\$ 59	\$ 317	\$ 452	\$ 106	\$ 192	\$ 176	P-16
<u>Working Capital</u>													
15) Cash Fuel	\$ 8,528	\$ 3,102	\$ 83	\$ 1,756	\$ 544	\$ 199	\$ 51	\$ 519	\$ 1,538	\$ 229	\$ 395	\$ 112	E-2
16) Cash	4,361	1,832	47	874	267	84	30	239	607	97	170	114	O-6
17) Mat. & Supp. - Fuel	7,266	2,643	71	1,496	464	169	44	442	1,310	195	336	96	E-2
18) Mat. & Supp. - Other	11,256	5,617	117	2,243	738	164	108	581	829	195	352	322	P-16
19) <u>Total</u>	<u>\$ 31,421</u>	<u>\$ 13,194</u>	<u>\$ 318</u>	<u>\$ 6,369</u>	<u>\$ 2,013</u>	<u>\$ 616</u>	<u>\$ 233</u>	<u>\$ 1,781</u>	<u>\$ 4,284</u>	<u>\$ 716</u>	<u>\$ 1,253</u>	<u>\$ 644</u>	
20) <u>Total Rate Base</u>	<u>\$618,342</u>	<u>\$305,837</u>	<u>\$ 6,425</u>	<u>\$123,217</u>	<u>\$ 40,431</u>	<u>\$ 9,148</u>	<u>\$ 5,967</u>	<u>\$ 32,077</u>	<u>\$ 47,496</u>	<u>\$ 10,859</u>	<u>\$ 19,553</u>	<u>\$ 17,432</u>	

NOVA SCOTIA POWER CORPORATION
Allocation of Operating Costs
For the Year Ended March 31, 1978
Coincident Peak Responsibility
(\$000)

	Total Company Less Steam and Joint (1)	Domestic (2)	General Conn. Load (3)	General (4)	General All Electric (5)	General Large (6)	Industrial To 249 KVA (7)	Industrial 250-3,999 KVA (8)	Industrial Large (9)	Industrial Interruptible Service (10)	Municipal (11)	Unmetered (12)	Factors (13)
Production Costs													
1) Fuel	\$ 76,436	\$ 27,807	\$ 741	\$ 15,746	\$ 4,877	\$ 1,781	\$ 459	\$ 4,647	\$ 13,781	\$ 2,049	\$ 3,539	\$ 1,009	E-2
2) Operating	20,558	8,655	150	4,681	1,645	407	214	1,324	2,159	-	939	384	D-2
3) Purchased Power - Fuel	1,064	387	10	219	68	25	6	65	192	29	49	14	E-2
4) Purchased Power - Other	3,393	1,429	25	773	271	67	35	219	356	-	155	63	D-2
5) Total Production	<u>\$101,451</u>	<u>\$ 38,278</u>	<u>\$ 926</u>	<u>\$ 21,419</u>	<u>\$ 6,861</u>	<u>\$ 2,280</u>	<u>\$ 714</u>	<u>\$ 6,255</u>	<u>\$ 16,488</u>	<u>\$ 2,078</u>	<u>\$ 4,682</u>	<u>\$ 1,470</u>	
6) Transmission Operating Costs	\$ 2,708	\$ 1,140	\$ 20	\$ 616	\$ 217	\$ 54	\$ 28	\$ 174	\$ 284	\$ -	\$ 124	\$ 51	D-2
Distribution Operating Costs													
7) Land	\$ 1,067	\$ 775	\$ 21	\$ 145	\$ 43	\$ 9	\$ 6	\$ 31	\$ 13	\$ -	\$ 12	\$ 12	P-12
8) Substations	1,896	987	12	377	132	42	20	149	78	2	71	26	P-17
9) Overhead Lines	2,804	2,186	65	337	91	13	13	44	13	-	11	31	P-10
10) U. G. Lines	204	159	5	24	7	1	1	3	1	-	1	2	P-10
11) Line Transformers	866	565	7	200	69	-	10	-	-	-	-	15	D-6
12) Services	1,284	917	34	298	31	-	4	-	-	-	-	-	C-11
13) Meters	900	695	26	148	20	-	2	6	2	1	-	-	Schedule 35
14) Customer Service & Contracts	1,044	940	35	62	6	-	1	-	-	-	-	-	Schedule 42
15) Customer Premise	733	660	25	43	4	-	1	-	-	-	-	-	Schedule 43
16) Communications	507	287	3	108	36	10	6	32	9	-	8	8	D-8
17) Street Lights	1,618	-	-	-	-	-	-	-	-	-	-	1,618	Direct
18) Total Distribution	<u>\$ 12,923</u>	<u>\$ 8,171</u>	<u>\$ 233</u>	<u>\$ 1,742</u>	<u>\$ 439</u>	<u>\$ 75</u>	<u>\$ 64</u>	<u>\$ 265</u>	<u>\$ 116</u>	<u>\$ 3</u>	<u>\$ 103</u>	<u>\$ 1,712</u>	
Customer Accounting													
19) Billing	\$ 3,258	\$ 2,262	\$ 87	\$ 755	\$ 79	\$ -	\$ 9	\$ 11	\$ 1	\$ 1	\$ 1	\$ 52	C-12
20) Customer Service	1,095	784	30	233	26	-	3	5	1	-	-	13	Schedule 44
21) Credit & Collection	1,427	777	27	213	54	-	5	-	347	-	-	4	Schedule 45
22) Total Customer Accounting	<u>\$ 5,780</u>	<u>\$ 3,823</u>	<u>\$ 144</u>	<u>\$ 1,201</u>	<u>\$ 159</u>	<u>\$ -</u>	<u>\$ 17</u>	<u>\$ 16</u>	<u>\$ 349</u>	<u>\$ 1</u>	<u>\$ 1</u>	<u>\$ 69</u>	
23) Customer Relations & Info.	\$ 755	\$ 674	\$ 25	\$ 44	\$ 5	\$ -	\$ 1	\$ -	\$ -	\$ -	\$ -	\$ 6	C-2
24) Admin. & General	\$ 4,552	\$ 1,918	\$ 50	\$ 921	\$ 263	\$ 89	\$ 30	\$ 247	\$ 635	\$ 76	\$ 181	\$ 122	O-4
25) Depreciation	\$ 19,652	\$ 9,931	\$ 211	\$ 4,029	\$ 1,339	\$ 299	\$ 179	\$ 984	\$ 1,463	\$ 2	\$ 660	\$ 595	P-14
26) Grants in lieu of Taxes	\$ 3,623	\$ 1,827	\$ 39	\$ 741	\$ 246	\$ 55	\$ 33	\$ 181	\$ 269	\$ -	\$ 122	\$ 110	P-14
27) Total Cost	<u>\$151,484</u>	<u>\$ 65,762</u>	<u>\$ 1,648</u>	<u>\$ 30,713</u>	<u>\$ 9,549</u>	<u>\$ 2,852</u>	<u>\$ 1,066</u>	<u>\$ 8,122</u>	<u>\$ 19,604</u>	<u>\$ 2,160</u>	<u>\$ 5,873</u>	<u>\$ 4,135</u>	
28) Total Revenue	<u>\$204,376</u>	<u>\$ 78,440</u>	<u>\$ 2,350</u>	<u>\$ 49,645</u>	<u>\$ 13,816</u>	<u>\$ 3,649</u>	<u>\$ 1,673</u>	<u>\$ 10,827</u>	<u>\$ 27,631</u>	<u>\$ 3,330</u>	<u>\$ 7,408</u>	<u>\$ 5,607</u>	Schedule 36
29) Return	<u>\$ 52,892</u>	<u>\$ 12,678</u>	<u>\$ 702</u>	<u>\$ 18,932</u>	<u>\$ 4,267</u>	<u>\$ 797</u>	<u>\$ 607</u>	<u>\$ 2,705</u>	<u>\$ 8,027</u>	<u>\$ 1,170</u>	<u>\$ 1,535</u>	<u>\$ 1,472</u>	
30) Rate of Return	8.55	4.10	10.63	14.97	10.17	8.33	10.92	8.69	16.76	223.28	7.33	8.00	
31) Percentage of Average	100.00	47.95	124.33	175.09	118.95	97.43	127.22	101.64	186.02	2611.46	85.73	93.57	

NOVA SCOTIA POWER CORPORATION
Allocation of Operating Costs
For the Year Ended March 31, 1978
Coincident Peak & Average Responsibility
(\$000)

	Total Company Less Steam & Joint (1)	Domestic (2)	General Conn. Load (3)	General (4)	General All Electric (5)	General Large (6)	Industrial To 249 KVA (7)	Industrial 250-3,999 KVA (8)	Industrial Large (9)	Interruptible (10)	Municipal (11)	Unmetered (12)	Factor (13)
Production Costs													
1) Fuel	\$ 76,436	\$ 27,807	\$ 741	\$ 15,746	\$ 4,877	\$ 1,781	\$ 459	\$ 4,647	\$ 13,781	\$ 2,049	\$ 3,539	\$ 1,009	E-2
2) Operating	20,558	8,196	171	4,506	1,511	434	183	1,301	2,759	210	946	341	D-4
3) Purchased Power - Fuel	1,064	387	10	219	68	25	6	65	192	29	49	14	E-2
4) Purchased Power - Other	3,393	1,353	28	744	249	72	30	215	455	35	156	56	D-4
5) Total Production	<u>\$101,451</u>	<u>\$ 37,743</u>	<u>\$ 950</u>	<u>\$ 21,215</u>	<u>\$ 6,705</u>	<u>\$ 2,312</u>	<u>\$ 678</u>	<u>\$ 6,228</u>	<u>\$ 17,187</u>	<u>\$ 2,323</u>	<u>\$ 4,690</u>	<u>\$ 1,420</u>	
6) Transmission Operating Costs	\$ 2,708	\$ 1,080	\$ 22	\$ 594	\$ 199	\$ 57	\$ 24	\$ 171	\$ 363	\$ 28	\$ 125	\$ 45	D-4
Distribution Operating Costs													
7) Land	\$ 1,067	\$ 739	\$ 22	\$ 164	\$ 50	\$ 10	\$ 7	\$ 35	\$ 13	\$ -	\$ 13	\$ 14	P-13
8) Substations	1,896	867	13	434	156	46	23	168	80	2	76	31	P-18
9) Overhead Lines	2,801	2,112	66	375	107	15	15	52	14	-	13	35	P-11
10) U. G. Lines	204	154	5	27	8	1	1	4	1	-	1	2	P-11
11) Line Transformers	866	508	8	236	84	-	12	-	-	-	-	18	D-12
12) Services	1,284	917	34	298	31	-	4	-	-	-	-	-	C-11
13) Meters	900	695	26	148	20	-	2	6	2	1	-	-	Schedule 35
14) Cust. Serv. & Contracts	1,041	940	35	62	6	-	1	-	-	-	-	-	Schedule 42
15) Customer Premise	733	660	25	43	4	-	1	-	-	-	-	-	Schedule 43
16) Communications	507	252	4	125	43	11	6	37	10	-	10	9	D-14
17) Street Lighting	1,618	-	-	-	-	-	-	-	-	-	-	1,618	Direct
18) Total Distribution	<u>\$ 12,923</u>	<u>\$ 7,844</u>	<u>\$ 238</u>	<u>\$ 1,912</u>	<u>\$ 509</u>	<u>\$ 83</u>	<u>\$ 72</u>	<u>\$ 302</u>	<u>\$ 120</u>	<u>\$ 3</u>	<u>\$ 113</u>	<u>\$ 1,727</u>	
Customer Accounting													
19) Billing	\$ 3,250	\$ 2,262	\$ 87	\$ 755	\$ 79	\$ -	\$ 9	\$ 11	\$ 1	\$ 1	\$ 1	\$ 52	C-12
20) Customer Service	1,095	784	30	233	26	-	3	5	1	-	-	13	Schedule 44
21) Credit & Collection	1,427	777	27	213	54	-	5	-	347	-	-	4	Schedule 45
22) Total Customer Accounting	<u>\$ 5,780</u>	<u>\$ 3,823</u>	<u>\$ 144</u>	<u>\$ 1,201</u>	<u>\$ 159</u>	<u>\$ -</u>	<u>\$ 17</u>	<u>\$ 16</u>	<u>\$ 349</u>	<u>\$ 1</u>	<u>\$ 1</u>	<u>\$ 69</u>	
23) Customer Relations & Information	\$ 755	\$ 674	\$ 25	\$ 44	\$ 5	\$ -	\$ 1	\$ -	\$ -	\$ -	\$ -	\$ 6	C-2
24) Admin. & General	\$ 4,552	\$ 1,884	\$ 51	\$ 920	\$ 279	\$ 90	\$ 29	\$ 247	\$ 664	\$ 86	\$ 182	\$ 120	O-5
25) Depreciation	\$ 19,692	\$ 9,568	\$ 221	\$ 4,078	\$ 1,337	\$ 313	\$ 173	\$ 994	\$ 1,676	\$ 75	\$ 656	\$ 591	P-15
26) Grants In Lieu of Taxes	\$ 3,623	\$ 1,760	\$ 41	\$ 750	\$ 246	\$ 58	\$ 32	\$ 183	\$ 308	\$ 14	\$ 122	\$ 109	P-15
27) Total Cost	<u>\$151,484</u>	<u>\$ 64,376</u>	<u>\$ 1,692</u>	<u>\$ 30,714</u>	<u>\$ 9,439</u>	<u>\$ 2,913</u>	<u>\$ 1,026</u>	<u>\$ 8,141</u>	<u>\$ 20,667</u>	<u>\$ 2,530</u>	<u>\$ 5,899</u>	<u>\$ 4,087</u>	
28) Total Revenue	<u>\$204,376</u>	<u>\$ 78,440</u>	<u>\$ 2,350</u>	<u>\$ 49,645</u>	<u>\$ 13,816</u>	<u>\$ 3,649</u>	<u>\$ 1,673</u>	<u>\$ 10,827</u>	<u>\$ 27,631</u>	<u>\$ 3,330</u>	<u>\$ 7,408</u>	<u>\$ 5,607</u>	schedule 36
29) Return	<u>\$ 52,892</u>	<u>\$ 14,064</u>	<u>\$ 658</u>	<u>\$ 18,931</u>	<u>\$ 4,377</u>	<u>\$ 736</u>	<u>\$ 647</u>	<u>\$ 2,686</u>	<u>\$ 6,964</u>	<u>\$ 800</u>	<u>\$ 1,509</u>	<u>\$ 1,520</u>	
30) Rate of Return	8.55	4.72	9.49	14.79	10.44	7.38	12.04	8.56	12.81	28.91	7.14	8.31	
31) Percentage of Average	100.00	55.20	110.99	172.98	122.11	86.32	140.82	100.12	149.82	338.13	83.51	97.19	

NOVA SCOTIA POWER CORPORATION
Allocation of Operating Costs
For the Year Ended March 31, 1978
Class Non-coincident Peak Responsibility
(\$000)

	Total Company Less Steam and Joint (1)	Domestic (2)	General- Conn. Load (3)	General (4)	General All Electric (5)	General Large (6)	Industrial To 249 KVA (7)	Industrial 250-3,999 KVA (8)	Industrial Large (9)	Interruptable Service (10)	Municipal (11)	Unmetered (12)	Factor (13)
Production Costs													
1) Fuel	\$ 76,436	\$ 27,807	\$ 741	\$ 15,746	\$ 4,877	\$ 1,781	\$ 459	\$ 4,647	\$ 13,781	\$ 2,049	\$ 3,539	\$ 1,009	E-2
2) Operating	20,558	8,793	136	4,346	1,499	380	222	1,346	2,136	518	863	319	D-18
3) Purchased Power-Fuel	1,064	387	10	219	68	25	6	65	192	29	49	14	E-2
4) Purchased Power-Other	3,393	1,451	22	717	247	63	37	222	353	86	142	53	D-18
5) Total Production	\$101,451	\$ 38,438	\$ 909	\$ 21,028	\$ 6,691	\$ 2,249	\$ 724	\$ 6,280	\$ 16,462	\$ 2,682	\$ 4,593	\$ 1,395	
6) Transmission Operating Costs	\$ 2,708	\$ 1,158	\$ 18	\$ 573	\$ 198	\$ 50	\$ 29	\$ 177	\$ 281	\$ 68	\$ 114	\$ 42	D-18
Distribution Operating Costs													
7) Land	\$ 1,067	\$ 739	\$ 22	\$ 164	\$ 50	\$ 10	\$ 7	\$ 35	\$ 13	\$ -	\$ 13	\$ 14	P-13
8) Substations	1,896	867	13	434	156	46	23	168	80	2	76	31	P-18
9) Overhead Lines	2,904	2,112	66	375	107	15	15	52	14	-	13	35	P-11
10) U. Ground Lines	204	154	5	27	8	1	1	4	1	-	1	2	P-11
11) Line Transformers	866	508	8	236	84	-	12	-	-	-	-	18	D-12
12) Services	1,284	917	34	298	31	-	4	-	-	-	-	-	C-11
13) Meters	900	695	26	148	20	-	2	6	2	1	-	-	Schedule 35
14) Cust. Serv & Contracts	1,044	940	35	62	6	-	1	-	-	-	-	-	Schedule 42
15) Customer Premise	733	660	25	43	4	-	1	-	-	-	-	-	Schedule 43
16) Communications	507	252	4	125	43	11	6	37	10	-	10	9	D-14
17) St. Lighting	1,618	-	-	-	-	-	-	-	-	-	-	1,618	Direct
18) Total Distribution	\$ 12,923	\$ 7,844	\$ 238	\$ 1,912	\$ 509	\$ 83	\$ 72	\$ 302	\$ 120	\$ 3	\$ 113	\$ 1,727	
Customer Accounting													
19) Billing	\$ 3,258	\$ 2,262	\$ 87	\$ 755	\$ 79	\$ -	\$ 9	\$ 11	\$ 1	\$ 1	\$ 1	\$ 52	C-12
20) Customer Service	1,095	784	30	233	26	-	3	5	1	-	-	13	Schedule 44
21) Credit & Collection	1,427	777	27	213	54	-	5	-	347	-	-	4	Schedule 45
22) Total Customer Acc.	\$ 5,780	\$ 3,823	\$ 144	\$ 1,201	\$ 159	\$ -	\$ 17	\$ 16	\$ 349	\$ 1	\$ 1	\$ 69	
23) Customer Relations & Information	\$ 755	\$ 674	\$ 25	\$ 44	\$ 5	\$ -	\$ 1	\$ -	\$ -	\$ -	\$ -	\$ 6	C-2
24) Admin. & General	\$ 4,552	\$ 1,912	\$ 49	\$ 912	\$ 279	\$ 88	\$ 31	\$ 249	\$ 634	\$ 101	\$ 178	\$ 119	O-6
25) Depreciation	\$ 19,692	\$ 9,818	\$ 205	\$ 3,921	\$ 1,290	\$ 286	\$ 189	\$ 1,016	\$ 1,449	\$ 341	\$ 614	\$ 563	P-15
26) Grants in Lieu of Taxes	\$ 3,623	\$ 1,806	\$ 38	\$ 721	\$ 237	\$ 52	\$ 35	\$ 187	\$ 267	\$ 63	\$ 113	\$ 104	P-16
27) Total Cost	\$151,484	\$ 65,473	\$ 1,626	\$ 30,312	\$ 9,368	\$ 2,808	\$ 1,098	\$ 8,227	\$ 19,562	\$ 3,259	\$ 5,726	\$ 4,025	
28) Total Revenue	\$204,376	\$ 78,440	\$ 2,350	\$ 49,645	\$ 13,816	\$ 3,649	\$ 1,673	\$ 10,827	\$ 27,631	\$ 3,330	\$ 7,408	\$ 5,607	Schedule 38
29) Return	\$ 52,892	\$ 12,967	\$ 724	\$ 19,333	\$ 4,448	\$ 841	\$ 575	\$ 2,600	\$ 8,069	\$ 71	\$ 1,682	\$ 1,582	
30) Rate of Return	8.55	4.24	11.27	15.69	11.00	9.19	9.80	8.11	16.99	.65	8.60	9.08	
31) Percentage of Average	100.00	49.59	131.81	183.51	128.65	107.48	114.62	94.85	198.71	7.60	100.58	106.20	

Ernst & Ernst

**Cost of Service Studies for the
Years Ended March 31, 1977 and
March 31, 1978**

Volume 2

**Prepared for
Nova Scotia Power Corporation**

December 1978

SCHEDULE 1

NOVA SCOTIA POWER CORPORATION

Cost of Service Study Summaries

For the Years Ended March 31, 1977 and 1978

Percentage Relationship of Class Return to Average Return

	Total Company Less Steam And Joint (1)	Domestic (2)	General Comm. Load (3)	General				Industrial To 249 KVA (7)	Industrial 250-3,999 KVA (8)	Industrial Large (9)	Interruptible Services (10)	Municipal (11)	Unmetered (12)
				General (4)	General Large (6)	All Electric (5)	General Large (6)						
<u>Year Ended March 31, 1977</u>													
1) Coincident Peak	100.00	59.0	59.3	161.5	115.4	101.4	125.7	104.5	130.9	4,796.8	105.5	78.8	
2) Coincident Peak and Average	100.00	65.0	89.6	158.9	99.1	105.1	136.4	99.5	150.6	326.2	107.6	79.9	
3) Class Non Coincident Peak	100.00	60.2	104.0	163.4	119.6	106.4	121.1	104.6	195.6	66.1	118.4	83.4	
<u>Year Ended March 31, 1978</u>													
4) Coincident Peak	100.00	48.0	124.3	175.1	97.4	119.0	127.7	101.6	196.0	2,611.5	85.7	93.6	
5) Coincident Peak and Average	100.00	55.2	111.0	173.0	86.3	122.1	140.8	100.1	149.8	388.1	83.5	97.2	
6) Class Non Coincident Peak	100.00	49.6	131.8	183.5	107.5	128.7	114.6	94.9	198.7	7.6	100.6	106.2	

NWA SCOTIA POWER CORPORATION

Load Analysis

For the Years Ending March 31, 1977 and 1978

Class	Customers Served (1)	MWH Sales (2)	Losses (3)	MWH Generated & Purchased (4)	Non Diversified Class L.F. at Dec 31 (5)	Non Diversified Class KW Demand December (6)	Class Coincident Factor (7)	Diversified Class Load Factor (8)	Diversified Class KW Demand (9)	System Coincidence Factor (10)	Coincident KW Demand (11)	Losses (12)	System Coincident KW Demand (13)
1977													
1) Domestic	257,891	1,771,621	10.8	1,962,940	32.50	622,276	.722	45.01	449,294	.825	370,668	10.8	410,700
2) Gen. Serv. Connt. Load	10,710	48,618	10.8	53,869	78.97	7,028	.950	83.12	6,677	.900	6,009	10.8	6,658
3) Gen. Serv. Demand	16,627	968,059	10.8	1,072,669	47.86	230,906	.950	50.37	219,361	.900	197,425	10.8	218,747
4) Gen. Serv. All Electric	2,069	314,226	10.3	346,591	41.72	85,969	.975	42.79	83,820	.925	77,534	10.3	85,519
5) Gen. Serv. Large	3	111,661	9.0	121,710	62.85	20,282	.925	67.94	18,761	.875	16,416	9.0	17,893
6) Industrial to 249 KVA	166	21,399	9.0	23,325	29.63	8,245	.925	32.02	7,627	.875	6,674	9.0	7,274
7) Industrial 250-3,999 KVA	124	286,452	7.8	308,795	48.11	67,969	.925	52.01	62,871	.875	55,012	7.8	59,303
8) Industrial Large	14	985,165	4.8	1,032,453	71.88	157,558	.875	81.57	137,863	.850	117,184	4.8	122,808
9) Interruptible	6	124,277	4.8	130,242	50.00	28,373	.900	55.56	25,536	.900	23,781	4.8	39,959
10) Bowers Marsey	1	200,000	4.8	209,600	54.39	41,979	1.000	54.39	41,979	.975	22,911	4.8	24,011
11) A.E.C.L. Pt. Tupper	1	148,961	4.8	156,111	70.56	24,100	.975	72.37	23,498	.975	44,887	4.8	47,042
12) Municipal	8	229,703	4.8	240,729	52.68	49,770	.975	54.04	48,526	.925	15,421	4.8	17,066
13) Unmetered	2,623	60,456	10.8	66,985	44.75	15,421	1.000	44.75	15,421	1.000	15,421	10.8	17,066
14) N.B.E.P.C.	1	1,659	4.8	1,739									
Total	290,244	5,272,257	8.638	5,727,698		1,359,876			1,141,234		967,932	9.252	1,057,000
1978													
16) Domestic	264,465	1,741,588	10.3	1,920,889	32.20	617,087	.722	44.62	445,537	.825	367,568	10.3	405,427
17) Gen. Serv. Connt. Load	9,855	46,645	10.3	51,449	73.58	7,236	.950	77.46	6,874	.900	6,187	10.3	6,824
18) Gen. Serv. Demand	17,215	985,884	10.3	1,087,430	48.48	232,156	.950	51.03	220,548	.900	198,493	10.3	218,938
19) Gen. Serv. All Electric	1,792	307,822	9.5	337,065	45.08	77,956	.975	46.23	76,007	.925	70,307	9.5	76,986
20) Gen. Serv. Large	3	113,542	8.5	123,193	60.61	21,384	.925	58.81	19,780	.875	17,308	8.5	18,779
21) Industrial to 249 KVA	218	29,407	8.5	31,907	27.56	12,182	.925	26.74	11,268	.875	9,860	8.5	10,698
22) Industrial 250-3,999 KVA	126	299,816	7.1	321,103	47.69	71,762	.925	46.28	66,380	.875	58,082	7.1	62,206
23) Industrial Large	14	912,308	4.3	951,746	80.61	130,193	.875	82.07	113,919	.850	96,831	4.3	100,995
24) Interruptible	6	135,436	4.3	141,260	50.00	30,921	.900	49.86	27,829	.900	27,066	4.3	38,659
25) Bowers Marsey	1	200,000	4.3	208,600	56.37	42,240	.975	49.80	41,184	.975	21,645	4.3	22,576
26) A.E.C.L. Pt. Tupper	1	163,691	4.3	170,730	77.86	24,000	.925	75.55	22,200	.925	42,325	4.3	44,145
27) Municipal	8	234,154	4.3	244,223	56.96	46,930	.925	56.96	45,757	.925	16,108	4.3	17,767
28) Unmetered	2,390	63,226	10.3	69,738	44.80	16,108	1.000	44.80	16,108	1.000	16,108	10.3	17,767
29) N.B.E.P.C.	1	2,163	4.3	2,256									
Total	296,085	5,235,882	8.131	5,661,589		1,330,155			1,113,391		941,780	9.252	1,024,000

NOVA SCOTIA POWER CORPORATIONSCHEDULE 3Analysis Of MWH Sold And GeneratedFor The Years Ended March 31, 1977 And 1978

	Year Ended March 31, 1977		Year Ended March 31, 1978	
	MWH Sales (1)	MWH Generation (2)	MWH Sales (3)	MWH Generation (4)
1) Domestic	1,771,621	1,962,940	1,741,588	1,920,889
2) Gen. Conn Load	48,618	53,869	46,645	51,449
3) General	968,059	1,072,609	985,884	1,087,430
4) General All Electric	314,226	346,591	307,822	337,065
5) General Large	111,661	121,710	113,542	123,193
6) Industrial To 249 KVA	21,399	23,325	29,407	31,907
7) Industrial 250 - 3,999 KVA	286,452	308,795	299,816	321,103
8) Industrial Large	985,165	1,032,453	912,508	951,746
9) Interruptible	124,277	130,242	135,436	141,260
10) Municipal	229,703	240,729	234,154	244,223
11) Unmetered	60,456	66,985	63,226	69,738
12) Sub-Total	<u>4,921,637</u>	<u>5,360,248</u>	<u>4,870,028</u>	<u>5,280,003</u>
13) AECL Pt. Tupper	148,961	156,111	163,691	170,730
14) Bowaters Mersey	200,000	209,600	200,000	208,600
15) N.B.E.P.C.	<u>1,659</u>	<u>1,739</u>	<u>2,163</u>	<u>2,256</u>
16) <u>Total</u>	<u>5,272,257</u>	<u>5,727,698</u>	<u>5,235,882</u>	<u>5,661,589</u>

SCHEDULE 4

NOVA SCOTIA POWER CORPORATION

Determination Of Customer Non-Coincident KW By Voltage Level

For The Years Ended March 31, 1977 And 1978

	Total Company Less Steam And Joint (1)	Domestic (2)	General Conn. Load (3)	General (4)	General All Electric (5)	General Large (6)	Industrial To 249 KVA (7)	Industrial 250-3,999 KVA (8)	Industrial Large (9)	Interruptible (10)	Municipal (11)	Unmetered (12)
1) Year Ended March 31, 1977												
Non Coin. KW Secondary	953,557	622,276	7,028	217,632	83,747	-	7,453	-	-	-	-	15,421
Losses 2.6%	24,792	16,179	183	5,558	2,177	-	194	-	-	-	-	401
Sub-Total	978,349	638,455	7,211	223,290	85,924	-	7,647	-	-	-	-	15,822
Non Coin. KW Primary	1,121,639	638,455	7,211	236,564	88,146	20,282	8,439	66,113	19,637	-	20,970	15,822
Losses 3.6%	40,377	22,984	260	8,516	3,173	730	304	2,380	707	-	754	569
Sub-Total	1,162,016	661,439	7,471	245,080	91,319	21,012	8,743	68,493	20,344	-	21,724	16,391
Non Coin. KW DBPS	1,352,410	661,439	7,471	245,080	91,319	21,012	8,743	71,353	150,705	28,373	50,524	16,391
Losses 2.0%	27,048	13,229	149	4,902	1,826	420	175	1,427	3,014	568	1,010	328
Sub-Total	1,379,458	674,668	7,620	249,982	93,145	21,432	8,918	72,780	153,719	28,941	51,534	16,719
Total at Trans. Level	1,379,458	674,668	7,620	249,982	93,145	21,432	8,918	72,780	153,719	28,941	51,534	16,719
Year Ended March 31, 1978												
Non Coin. KW Secondary	946,437	617,087	7,236	218,882	75,734	-	11,390	-	-	-	-	16,108
Losses 2.6%	24,607	16,044	188	5,591	1,969	-	296	-	-	-	-	419
Sub-Total	971,044	633,131	7,424	224,573	77,703	-	11,686	-	-	-	-	16,527
Non Coin. KW Primary	1,117,310	633,131	7,424	237,847	79,925	21,384	12,478	70,005	20,459	-	18,130	16,527
Losses 3.1%	34,636	19,527	230	7,373	2,478	663	387	2,170	634	-	562	512
Sub-Total	1,151,946	652,758	7,654	245,220	82,403	22,047	12,865	72,175	21,093	-	18,692	17,039
Non Coin. KW DBPS	1,334,261	652,758	7,654	245,220	82,403	22,047	12,865	75,035	130,827	30,921	47,492	17,039
Losses 2.0%	26,485	13,055	153	4,904	1,648	441	257	1,501	2,617	618	950	341
Sub-Total	1,350,746	665,813	7,807	250,124	84,051	22,488	13,122	76,536	133,444	31,539	48,442	17,380
Total At Trans. Level	1,350,746	665,813	7,807	250,124	84,051	22,488	13,122	76,536	133,444	31,539	48,442	17,380

NOVA SCOTIA POWER CORPORATION

Determination of Class Non-Coincident Km By Volume Level
For The Years Ended March 31, 1977 And 1978

Year Ended March 31, 1977	Total Company												
	Mon Coin Kw Secondary	Less Steam And Joint	Domestic	General Conn. Load	General	General All Electric	General Large	Industrial To 249 KVA	Industrial 250-3,999 KVA	Industrial Large	Interruptible Service	Municipal	Unmetered
Losses 2.6%	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	
1) 766,691	449,294	6,677	206,751	81,654	-	6,894	-	-	-	-	-	15,421	
2) 19,934	11,682	174	5,375	2,123	-	179	-	-	-	-	-	401	
3) 786,625	460,976	6,851	212,126	83,777	-	7,073	-	-	-	-	-	15,822	
4) 919,678	460,976	6,851	224,736	85,943	18,761	7,806	61,154	17,183	-	-	20,446	15,822	
5) 33,109	16,595	247	8,090	3,094	675	281	2,202	619	-	-	736	570	
6) 952,787	477,571	7,098	232,826	89,037	19,436	8,087	63,356	17,802	-	-	21,182	16,392	
7) 1,123,115	477,571	7,098	232,826	89,037	19,436	8,087	66,002	131,868	25,536	25,536	49,262	16,392	
8) 22,461	9,551	142	4,656	1,781	389	162	1,320	2,637	510	510	985	328	
9) 1,145,576	487,122	7,240	237,482	90,816	19,825	8,249	67,322	134,505	26,046	26,046	50,247	16,720	
10) 1,145,576	487,122	7,240	237,482	90,816	19,825	8,249	67,322	134,505	26,046	26,046	50,247	16,720	
11) 29,782	12,665	188	6,174	2,361	515	214	1,750	3,497	677	677	1,306	435	
12) 1,175,358	499,787	7,428	243,656	93,179	20,340	8,463	69,072	138,002	26,723	26,723	51,553	17,155	
13) 1,175,358	499,787	7,428	243,656	93,179	20,340	8,463	69,072	138,002	26,723	26,723	51,553	17,155	
14) 760,833	445,537	6,874	207,938	73,841	-	10,535	-	-	-	-	-	16,108	
15) 19,782	11,584	179	5,406	1,920	-	274	-	-	-	-	-	419	
16) 780,615	457,121	7,053	213,344	75,761	-	10,809	-	-	-	-	-	16,527	
17) 918,952	457,121	7,053	225,954	77,927	19,780	11,542	67,469	17,902	-	-	17,677	16,527	
18) 28,489	14,171	219	7,005	2,416	613	358	2,092	555	-	-	548	512	
19) 947,441	471,292	7,272	232,959	80,343	20,393	11,900	69,561	18,457	-	-	18,225	17,039	
20) 1,102,012	471,292	7,272	232,959	80,343	20,393	11,900	72,207	114,474	27,628	27,628	46,305	17,039	
21) 23,040	9,426	145	4,659	1,607	408	238	1,444	2,289	557	557	926	341	
22) 1,124,052	480,718	7,417	237,618	81,950	20,801	12,138	73,651	116,763	28,385	28,385	47,231	17,380	
23) 1,124,052	480,718	7,417	237,618	81,950	20,801	12,138	73,651	116,763	28,385	28,385	47,231	17,380	
24) 29,227	12,499	193	6,178	2,131	541	316	1,915	3,036	738	738	1,228	452	
25) 1,153,279	493,217	7,610	243,796	84,081	21,342	12,454	75,566	119,799	29,123	29,123	48,459	17,832	
26) 1,153,279	493,217	7,610	243,796	84,081	21,342	12,454	75,566	119,799	29,123	29,123	48,459	17,832	

NOVA SCOTIA POWER CORPORATION

SCHEDULE 26

Analysis Of Plant In Service Glace Bay Steam Sales,
Point Tupper Steam Sales And Electric And Bowater Mersey Electric Sales

For The Year Ended March 31, 1978

(\$000)

	Total Company (1)	Glace Bay (2)	Point Tupper (3)	Mersey System (4)	Total (5)
<u>Production Plant</u>					
1) Steam Other	\$ 91,481	\$ -	\$ -	\$ -	\$ 91,481
2) Mersey System	4,264	-	-	4,215	49
3) Other Hydro	162,748	-	-	-	162,748
4) Gas Turbine	21,891	-	-	-	21,891
5) Pt. Tupper	13,741	-	8,328	-	5,413
6) Glace Bay	23,979	13,599	-	-	10,380
7) Water Street	19,453	-	-	-	19,453
8) Total	<u>\$337,557</u>	<u>\$ 13,599</u>	<u>\$ 8,328</u>	<u>\$ 4,215</u>	<u>\$311,415</u>
<u>Transmission Plant</u>					
9) Substations	\$ 32,103	\$ -	\$ -	\$ -	\$ 32,103
10) All Other	53,712	-	-	-	53,712
11) Total	<u>\$ 85,815</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 85,815</u>
<u>Distribution Plant</u>					
12) Land	\$ 2,508	\$ -	\$ -	\$ -	\$ 2,508
13) Substations	23,350	-	166	-	23,184
14) Poles	58,390	-	-	-	58,390
15) Wire - O.H.	31,507	-	-	-	31,507
16) Underground	4,849	-	-	-	4,849
17) Line Transformers	29,154	-	-	-	29,154
18) Services	15,870	-	-	-	15,870
19) Meters	9,556	-	-	-	9,556
20) Other	278	-	-	-	278
21) Street Lighting	8,253	-	-	-	8,253
22) Total	<u>\$183,715</u>	<u>\$ -</u>	<u>\$ 166</u>	<u>\$ -</u>	<u>\$183,549</u>
23) General Plant	\$ 5,999	\$ -	\$ -	\$ -	\$ 5,999
24) Intangible Plant	\$ 47	\$ -	\$ -	\$ -	\$ 47
25) Future Use	\$ 96	\$ -	\$ -	\$ -	\$ 96
<u>CWIP</u>					
26) Production	\$ 49,299	\$ -	\$ -	\$ -	\$ 49,299
27) Transmission	9,818	-	-	-	9,818
28) Distribution	6,069	-	-	-	6,069
29) General	5,552	-	-	-	5,552
30) Total	<u>\$ 70,738</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 70,738</u>
31) <u>Total Plant</u>	<u>\$683,967</u>	<u>\$ 13,599</u>	<u>\$ 8,494</u>	<u>\$ 4,215</u>	<u>\$657,659</u>

NOVA SCOTIA POWER CORPORATIONSCHEDULE 27

Analysis of Working Capital for Glace Bay Steam,
Point Tupper Steam & Electric and Bowaters Mersey Electric Sales

For the Year Ending March 31, 1978

(\$000)

	Total Company (1)	Glace Bay (2)	Point Tupper (3)	Mersey System (4)	Total (5)
<u>Cash</u>					
1) Fuel	\$11,592	\$ 655	\$ 1,957	\$ -	\$ 8,980
2) Purchased Power	208	-	-	-	208
3) Labour	3,525	229	127	65	3,104
4) Other	<u>3,318</u>	<u>179</u>	<u>309</u>	<u>67</u>	<u>2,763</u>
5) Sub-Total	<u>\$18,643</u>	<u>\$ 1,063</u>	<u>\$ 2,393</u>	<u>\$ 132</u>	<u>\$15,055</u>
<u>Deduct</u>					
6) Consumer Deposits	\$ (991)	\$ -	\$ -	\$ -	\$ (991)
7) Fed. Coal Subvention	(660)	-	-	-	(660)
8) Change Prov. For Nov. 1 Losses	(500)	-	-	-	(500)
9) C. & R. Bowaters Mersey	(650)	-	-	(650)	(-)
10) Refundable Cap. Cont.	<u>(15)</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>(15)</u>
11) Total Deduct	<u>\$ (2,816)</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ (650)</u>	<u>\$ (2,166)</u>
12) <u>Net Cash Work. Cap.</u>	<u>\$15,827</u>	<u>\$ 1,063</u>	<u>\$ 2,393</u>	<u>\$ (518)</u>	<u>\$12,889</u>
<u>Mat. & Supp. Inventories</u>					
13) Fuel	\$ 7,933	\$ 454	\$ 213	\$ -	\$ 7,266
14) Line Stores	8,445	-	-	-	8,445
15) Thermal	3,773	309	831	-	2,633
16) Mobile Serv.	75	-	-	-	75
17) Trans. & Subst.	<u>113</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>113</u>
18) Total Mat. & Supp.	<u>\$20,339</u>	<u>\$ 763</u>	<u>\$ 1,044</u>	<u>\$ -</u>	<u>\$18,532</u>
19) <u>Total Work. Cap.</u>	<u>\$36,166</u>	<u>\$ 1,826</u>	<u>\$ 3,437</u>	<u>\$ (518)</u>	<u>\$31,421</u>

NOVA SCOTIA POWER CORPORATION

Classification of Plant In Service

For the Year Ended March 31, 1978

(\$000)

	Total Company (1)	Coincident Peak (2)	Peak and Average (3)	Class N.C. Peak (4)	Customer N.C. Peak (5)	Energy (6)	Customer (7)	Revenue (8)	Direct (9)	As Other (10)
Production Plant										
1) Steam Other	\$ 91,481	\$ 91,481	\$ 91,481	\$ 91,481	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2) Mersey System	4,264	49	-	49	-	-	-	-	4,215	-
3) Other Hydro	162,748	162,748	-	162,748	-	-	-	-	-	-
4) Gas Turbine	21,891	21,891	-	21,891	-	-	-	-	-	-
5) Point Tupper	13,741	5,413	5,413	5,413	-	-	-	-	8,238	-
6) Glace Bay	25,301	10,952	10,952	10,952	-	-	-	-	14,349	-
7) Water Street	19,453	19,453	19,453	19,453	-	-	-	-	-	-
8) Total	\$338,879	\$311,987	\$137,299	\$311,987	\$ -	\$ -	\$ -	\$ -	\$ 26,802	\$ -
Transmission Plant										
9) Substations	\$ 32,103	\$ 32,103	\$ 32,103	\$ 32,103	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
10) All Other	53,712	53,712	53,712	53,712	-	-	-	-	-	-
11) Total	\$ 85,815	\$ 85,815	\$ 85,815	\$ 85,815	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Distribution Plant										
12) Land	\$ 2,508	\$ -	\$ -	\$ 2,508	\$ 2,508	\$ -	\$ -	\$ -	\$ -	\$ -
13) Substations	23,350	-	-	23,317	21,317	-	-	-	2,033	-
14) Poles	58,390	-	-	21,605	21,605	-	36,785	-	-	-
15) Wire - O.H.	31,507	-	-	12,917	12,917	-	18,590	-	-	-
16) Underground	4,849	-	-	-	-	-	-	-	-	4,849
17) Line Transformers	29,154	-	-	29,154	29,154	-	-	-	-	-
18) Services	15,870	-	-	-	-	-	15,870	-	9,556	-
19) Meters	9,556	-	-	-	-	-	-	-	-	278
20) Other	278	-	-	-	-	-	-	-	-	-
21) Street Lighting	8,253	-	-	-	-	-	-	-	8,253	-
22) Total	\$183,715	\$ -	\$ -	\$ 87,501	\$ 87,501	\$ -	\$ 71,245	\$ -	\$ 19,842	\$ 5,127
23) General, Intangible & Future Use	\$ 6,142	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 6,142
Working Capital										
24) Cash - Fuel	\$ 8,528	\$ -	\$ -	\$ -	\$ -	\$ 8,528	\$ -	\$ -	\$ -	\$ -
25) Cash - Other	4,361	-	-	-	-	-	-	-	-	4,361
26) Mat. & Supp. - Fuel	7,266	-	-	-	-	7,266	-	-	-	-
27) Mat. & Supp. - Other	11,266	-	-	-	-	-	-	-	-	11,266
28) Total	\$ 31,421	\$ -	\$ -	\$ -	\$ -	\$ 15,794	\$ -	\$ -	\$ -	\$ 15,627
GNIP										
29) Production - Hydro	\$ 180	\$ 180	\$ -	\$ 180	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
30) Production - Steam	49,119	49,119	49,119	49,119	-	-	-	-	-	-
31) Transmission	9,818	9,818	9,818	9,818	-	-	-	-	-	-
32) Distribution	6,069	-	-	-	-	-	-	-	-	6,069
33) General	5,552	-	-	-	-	-	-	-	-	5,552
34) Total	\$ 70,738	\$ 59,117	\$ 58,937	\$ 59,117	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 11,621
35) Total	\$710,568	\$456,919	\$272,051	\$544,420	\$ 87,801	\$ 15,794	\$ 71,245	\$ -	\$ 46,644	\$ 38,517

NOVA SCOTIA POWER CORPORATION

Analysis of Distribution Substation Costs

For The Year Ended March 31, 1978

	Distribution Bulk Power (1)	Dist. Ded. Bulk Power (2)	Dist. Cost Owned Bulk Power (3)	Distribution General (4)	Dist. Ded. General (5)	Dist. Cust. Owned Gen. (6)	Total Cost (7)
1) Total Dist. Substations - 1977	\$21,020,700	\$ 1,181,618	\$ 32,319	\$ 6,698,201	\$ 1,320,136	\$ 33,344	\$30,286,318
2) 1978 Net Additions	196,423	-	-	-	-	-	196,423
3) Total 1978	\$21,217,123	\$ 1,181,618	\$ 32,319	\$ 6,698,201	\$ 1,320,136	\$ 33,344	\$30,482,741
4) Total Net Dist. Subst. - 1977	\$15,922,562	\$ 895,041	\$ 24,481	\$ 5,073,690	\$ 999,964	\$ 25,257	\$22,940,995
5) Depreciation @ 3.5%	498,443	(41,357)	(857)	(177,579)	(34,999)	(884)	242,767
6) Total Net Dist. Subst. - 1978	\$16,421,005	\$ 853,684	\$ 23,624	\$ 4,896,111	\$ 964,965	\$ 24,373	\$23,183,762
7) Municipal		\$ 301,706			\$ 223,382		
8) Interruptible			\$ 10,303		\$ 7,581		
9) Industrial To 249 KVA		\$ 2,167			\$ 6,433		
10) Industrial 250 - 3,999 KVA		\$ 117,804	\$ 797		\$ 346,670	\$ 24,373	
11) Industrial Large		\$ 432,007	\$ 12,524		\$ 116,385		
12) General					\$ 69,002		
13) General All Electric					\$ 95,313		
14) General Large					\$ 100,199		

NOVA SCOTIA POWER CORPORATION

SCHEDULE 28
PAGE 3 OF 4

Analysis of Pole Investment

For the Year Ended March 31, 1978

(\$000)

	Total Cost (1)	Primary Demand (2)	Primary Customer (3)	Secondary Demand (4)	Secondary Customer (5)
1) Total Net Pole Cost 1978	<u>\$58,390</u>				
2) Primary Only (30%)	\$17,517	\$ 6,481	\$11,036	\$ -	\$ -
3) 50% Joint Primary	20,437	7,562	12,875	-	-
4) 50% Joint Secondary	<u>20,436</u>	<u>-</u>	<u>-</u>	<u>7,562</u>	<u>12,874</u>
5) <u>Total</u>	<u>\$58,390</u>	<u>\$14,043</u>	<u>\$23,911</u>	<u>\$ 7,562</u>	<u>\$12,874</u>

Demand Cost 37%

Customer Cost 63%

NOVA SCOTIA POWER CORPORATION

SCHEDULE 28

PAGE 4 OF 4

Analysis of Wire Investment

For the Year Ended March 31, 1978

(\$000)

	Total Cost (1)	Primary Demand (2)	Primary Customer (3)	Secondary Demand (4)	Secondary Customer (5)
1) Total Net Cost 1978	<u>\$31,507</u>				
2) Primary Only	\$ 9,452	\$ 3,875	\$ 5,577	\$ -	\$ -
3) 50% Joint Primary	11,028	4,521	6,507	-	-
4) 50% Joint Secondary	<u>11,027</u>	<u>-</u>	<u>-</u>	<u>4,521</u>	<u>6,506</u>
5) <u>Total</u>	<u>\$31,507</u>	<u>\$ 8,396</u>	<u>\$12,084</u>	<u>\$ 4,521</u>	<u>\$ 6,506</u>

Demand Cost 41%

Customer Cost 59%

NOVA SCOTIA POWER CORPORATION

Allocation of Rate Base
For the Year Ended March 31, 1978
Coincident Peak Responsibility
 (\$000)

	Total Company Less Steam and Joint (1)	Domestic (2)	General Conn. Load (3)	General (4)	General All Electric (5)	General Large (6)	General Industrial to 249 KVA (7)	Industrial 250 to 3,999 KVA (8)	Industrial Large (9)	Industrial Interruptible Service (10)	Municipal (11)	Unmetered (12)	Factors (13)
1) Production Plant	\$311,415	\$131,108	\$ 2,273	\$ 70,909	\$ 24,913	\$ 6,166	\$ 3,239	\$ 20,055	\$ 32,699	\$ -	\$ 14,232	\$ 5,824	D-2
2) Transmission Plant	\$ 85,815	\$ 36,128	\$ 626	\$ 19,540	\$ 6,965	\$ 1,699	\$ 892	\$ 5,527	\$ 9,011	\$ -	\$ 3,922	\$ 1,605	D-2
Distribution Plant													
Land	\$ 2,508	\$ 1,822	\$ 50	\$ 342	\$ 100	\$ 21	\$ 15	\$ 72	\$ 30	\$ -	\$ 27	\$ 29	P-12
4) Substations	23,184	12,080	141	4,607	1,620	507	247	1,826	951	18	871	316	Sched 32 Pg. 1
5) Poles	58,390	45,757	1,376	6,879	1,833	268	274	887	257	-	228	631	Sched 34 Pg. 1
6) Wire-O.K.	31,507	24,316	709	3,915	1,076	160	160	531	154	-	136	350	Sched 34 Pg. 2
7) Underground	4,849	3,780	113	582	157	23	23	77	22	-	19	53	P-10
8) Line Transformers	29,154	19,008	225	6,743	2,332	-	350	-	-	-	-	496	D-6
9) Services	15,870	11,333	424	3,685	382	-	46	-	-	-	-	-	C-11
10) Meters	9,556	7,379	275	1,568	213	2	26	68	15	7	3	-	Schedule 35
11) Other	278	202	6	38	11	2	2	8	3	-	3	3	P-12
12) Street Lighting	8,253	-	-	-	-	-	-	-	-	-	-	8,253	Direct
13) Total Distribution Plant	\$183,549	\$125,677	\$ 3,319	\$ 28,359	\$ 7,724	\$ 983	\$ 1,143	\$ 3,469	\$ 3,432	\$ 25	\$ 1,287	\$ 10,131	
14) General Plant, Intangible, and Future Use	\$ 6,142	\$ 3,097	\$ 66	\$ 1,257	\$ 418	\$ 93	\$ 56	\$ 307	\$ 456	\$ 1	\$ 206	\$ 185	P-14
Working Capital													
15) Cash Fuel	\$ 8,528	\$ 3,102	\$ 83	\$ 1,756	\$ 544	\$ 199	\$ 51	\$ 519	\$ 1,538	\$ 229	\$ 395	\$ 112	E-2
16) Cash	4,361	1,838	47	883	271	85	29	237	608	73	173	117	O-4
17) Mat. Supp. - Fuel	7,266	2,643	71	1,496	464	169	44	142	1,310	195	336	96	E-2
18) Mat. Supp. - Other	11,266	5,681	121	2,305	766	171	103	563	837	1	378	340	P-14
19) Total Working Capital	\$ 31,421	\$ 13,264	\$ 322	\$ 6,440	\$ 2,045	\$ 624	\$ 227	\$ 1,761	\$ 4,293	\$ 498	\$ 1,282	\$ 665	
20) Total Rate Base	\$619,342	\$309,271	\$ 6,606	\$126,505	\$ 41,965	\$ 9,565	\$ 5,557	\$ 31,119	\$ 47,691	\$ 524	\$ 20,929	\$ 18,410	

NOVA SCOTIA POWER CORPORATION

Allocation Of Rate Base

For The Year Ended March 31, 1978

Coincident Peak And Average Responsibility

(\$000)

	Total Company Less Steam And Joint (1)	Domestic (2)	General Conn. Load (3)	General All Electric (5)	General Large (6)	Industrial To 249 KVA (7)	Industrial 250-3,999 KVA (8)	Industrial Large (9)	Interruptible Service (10)	Municipal (11)	Unmetered (12)	Factors (13)
Production Plant												
1) Steam	\$126,727	\$ 50,526	\$ 1,052	\$ 9,314	\$ 2,574	\$ 1,128	\$ 8,022	\$ 17,007	\$ 1,293	\$ 5,829	\$ 2,104	D-4
2) Hydro	162,797	68,538	1,188	13,024	3,223	1,693	10,484	17,094	-	7,440	3,044	D-2
3) Gas Turbine	21,891	9,216	160	1,751	433	228	1,410	2,299	-	1,000	409	D-2
4) Total	\$311,415	\$128,280	\$ 2,400	\$ 24,089	\$ 6,330	\$ 3,049	\$ 19,916	\$ 36,400	\$ 1,293	\$ 14,269	\$ 5,557	
5) Transmission Plant	\$ 85,815	\$ 34,214	\$ 712	\$ 6,307	\$ 1,811	\$ 764	\$ 5,432	\$ 11,516	\$ 875	\$ 3,948	\$ 1,425	D-4
Distribution Plant												
6) Land	\$ 2,508	\$ 1,737	\$ 51	\$ 118	\$ 23	\$ 17	\$ 82	\$ 31	\$ 1	\$ 30	\$ 33	D-13
7) Substations	23,184	10,603	164	1,903	559	277	2,054	977	18	934	384	Sched 32 Py 2
8) Poles	58,390	44,282	1,401	2,149	302	308	1,038	274	-	269	707	Sched 34 Py 2
9) Wire - O.H.	31,507	23,434	725	1,265	180	180	620	164	-	161	396	Sched 34 Py 2
10) Underground	4,849	3,653	115	184	26	26	89	24	-	23	60	P-11
11) Line Transformers	29,154	17,073	262	2,831	-	402	-	-	-	-	618	D-12
12) Services	15,870	11,333	424	3,685	-	46	-	-	-	-	-	C-11
13) Meters	9,556	7,379	275	213	2	26	68	15	7	3	-	Sched 35
14) Other	278	192	6	13	3	2	9	3	-	3	4	P-13
15) Street Lighting	8,253	-	-	-	-	-	-	-	-	-	8,253	Direct
16) Total	\$183,549	\$119,686	\$ 3,423	\$ 9,098	\$ 1,095	\$ 1,284	\$ 3,960	\$ 1,488	\$ 26	\$ 1,423	\$ 10,455	
17) Gen. Plant, Intangibles & Future Use	\$ 6,142	\$ 2,984	\$ 69	\$ 1,272	\$ 98	\$ 54	\$ 310	\$ 523	\$ 23	\$ 208	\$ 184	P-15
Working Capital												
18) Cash Fuel	\$ 8,528	\$ 3,102	\$ 83	\$ 1,756	\$ 544	\$ 199	\$ 518	\$ 1,538	\$ 229	\$ 395	\$ 113	E-2
19) Cash	4,361	1,805	49	881	86	28	237	636	83	174	115	O-5
20) Mat. & Supp. - Fuel	7,265	2,643	71	1,496	464	169	442	1,310	195	442	336	E-2
21) Mat. & Supp. - Other	11,266	5,474	126	2,333	179	99	569	959	43	381	338	P-15
22) Total	\$ 31,421	\$ 13,024	\$ 329	\$ 6,466	\$ 2,040	\$ 633	\$ 1,766	\$ 4,443	\$ 550	\$ 1,286	\$ 662	
23) Total Rate Base	\$618,342	\$298,188	\$ 6,933	\$128,032	\$ 9,967	\$ 5,372	\$ 31,384	\$ 54,370	\$ 2,767	\$ 21,134	\$ 18,263	

NOVA SCOTIA POWER CORPORATION

Allocation of Rate Base

For the Year Ended March 31, 1978

Class Non-Coincident Responsibility
(\$000)

	Total Company Less Steam and Joint (1)	Domestic (2)	General Conn. Load (3)	General All Electric (4)	General (5)	General Large (6)	Industrial To 249 KVA (7)	Industrial 250-3,999 KVA (8)	Industrial Large (9)	Industrial Interruptible Service (10)	Municipal (11)	Unmetered (12)	Factor (13)
1) Production Plant	\$311,415	\$133,192	\$2,055	\$65,833	\$22,702	\$5,761	\$3,363	\$20,398	\$32,356	\$7,846	\$13,080	\$4,827	D-18
2) Transmission Plant	\$85,815	\$36,703	\$566	\$18,141	\$6,256	\$1,588	\$927	\$5,621	\$9,916	\$2,163	\$3,604	\$1,330	D-18
Distribution Plant													
3) Land	\$2,508	\$1,737	\$51	\$385	\$118	\$23	\$17	\$82	\$31	\$1	\$30	\$33	P-13
4) Substations	23,184	10,603	164	5,311	1,903	559	277	2,054	977	18	934	384	Sched 32 Pg 2
5) Poles	58,390	44,282	1,401	7,660	2,149	302	308	1,038	274	-	269	707	Sched 34 Pg 2
6) Wire - O.H.	31,507	23,434	725	4,382	1,265	180	180	620	164	-	161	396	Sched 34 Pg 2
7) Underground	4,849	3,653	114	649	184	26	26	89	24	-	24	60	P-11
8) Line Transformers	29,154	17,073	262	7,968	2,831	-	402	-	-	-	-	618	D-12
9) Services	15,870	11,333	424	3,685	382	-	46	-	-	-	-	-	C-11
10) Meters	9,556	7,379	275	1,568	213	2	26	68	15	7	3	-	Schedule 35
11) Other	278	192	6	43	13	2	3	9	3	-	3	4	P-13
12) Street Lighting	8,253	-	-	-	-	-	-	-	-	-	-	8,253	Direct
13) Total	\$183,549	\$119,686	\$3,422	\$31,651	\$9,058	\$1,094	\$1,285	\$3,960	\$1,489	\$26	\$1,224	\$10,455	
14) Gen. Plant, Intan. & Future Use	\$6,142	\$3,062	\$64	\$1,223	\$402	\$89	\$59	\$317	\$452	\$106	\$192	\$176	P-16
Working Capital													
15) Cash Fuel	\$8,528	\$3,102	\$83	\$1,756	\$544	\$199	\$51	\$519	\$1,538	\$229	\$395	\$112	P-2
16) Cash	4,361	1,832	47	874	267	84	30	239	607	97	170	114	O-6
17) Mat. & Supp. - Fuel	7,266	2,643	71	1,496	464	169	44	442	1,310	195	336	96	P-2
18) Mat. & Supp. - Other	11,266	5,617	117	2,243	738	164	108	581	829	195	352	322	P-16
19) Total	\$31,421	\$13,194	\$318	\$6,369	\$2,013	\$616	\$233	\$1,781	\$4,284	\$716	\$1,253	\$644	
20) Total Rate Base	\$618,342	\$305,837	\$6,425	\$123,217	\$40,431	\$9,148	\$5,967	\$32,077	\$47,496	\$10,859	\$19,553	\$17,432	

NOVA SCOTIA POWER CORPORATION

Allocation of Distribution Substation Costs

For the Year Ended March 31, 1978

Coincident Peak Responsibility

	Total Company Less Steam and Joint (1)	Domestic (2)	General Comm Load (3)	General All Electric (4)	General Large (5)	General Large (6)	Industrial To 249 KVA (7)	Industrial 250-3,999 KVA (8)	Industrial Large (9)	Industrial Interruptible Service (10)	Municipal (11)	Unmetered (12)	Factor (13)
1) Distribution Bulk Power	\$16,421,005	\$ 9,305,784	\$ 109,379	\$3,496,032	\$1,174,102	\$ 313,641	\$ 183,915	\$1,029,597	\$ 300,504	\$ -	\$ 266,020	\$ 243,031	D-8
2) Dist. Bulk Power Dedicated	853,684	-	-	-	-	-	2,167	117,804	432,007	-	301,706	-	- Sched 28 Pg 2
3) Dist. Cust. Owned Bulk Power	23,624	-	-	-	-	-	-	797	12,524	10,303	-	-	- Sched 28 Pg 2
4) Distribution General	4,896,111	2,774,626	32,314	1,042,382	350,072	93,516	54,836	306,986	89,599	-	79,317	72,463	D-8
5) Distribution Dedicated General	964,965	-	-	69,002	95,313	100,199	6,433	346,670	116,385	7,581	223,382	-	- Sched 28 Pg 2
6) Dist. Cust. Owned Gen.	24,373	-	-	-	-	-	-	24,373	-	-	-	-	- Sched 28 Pg 2
7) Total Allocated Cost	\$23,183,762	\$12,080,410	\$ 140,693	\$4,607,416	\$1,619,487	\$ 507,356	\$ 247,351	\$1,826,227	\$ 951,019	\$ 17,884	\$ 870,425	\$ 315,494	

Note: Allocations done on Customer Non-Coincident for this study.

NOVA SCOTIA POWER CORPORATION

Allocation of Distribution Substation Costs

For The Year Ended March 31, 1978

Peak & Average And Class Non-Coincident Peak Responsibility

	Total Company Less Steam And Joint (1)	Domestic (2)	General Conn. Load (3)	General All Electric (4)	General Electric (5)	General Large (6)	Industrial To 249 KVA (7)	Industrial 250-3,999 KVA (8)	Industrial Large (9)	Interruptible Service (10)	Municipal (11)	Unmetered (12)	Factor (13)
1) Distr. Bulk Power	\$16,421,005	\$ 8,167,808	\$ 126,442	\$4,037,925	\$1,392,501	\$ 353,052	\$ 206,905	\$1,205,302	\$ 320,209	\$ -	\$ 315,283	\$ 295,578	D-14
2) Dist. Bulk Power Dedicated	853,684	-	-	-	-	-	2,167	117,804	432,007	-	301,706	-	Sched 28 Pg 2
3) Dist. Cust. Owned Bulk Power	23,624	-	-	-	-	-	-	797	12,524	10,303	-	-	Sched 28 Pg 2
4) Distr. General	4,896,111	2,435,326	37,700	1,203,954	415,190	105,266	61,691	359,375	95,474	-	94,005	88,130	D-14
5) Dist. Dedicated General	964,965	-	-	69,002	95,313	100,199	6,433	346,670	116,385	7,581	223,382	-	Sched 28 Pg 2
6) Dist. Customer Owned General	24,373	-	-	-	-	-	-	24,373	-	-	-	-	Sched 28 Pg 2
7) Total Allocated Cost	\$23,183,762	\$10,603,134	\$ 164,142	\$5,310,981	\$1,903,004	\$ 558,517	\$ 277,196	\$2,054,321	\$ 976,599	\$ 17,884	\$ 934,376	\$ 383,708	

Note: Allocations done on Class Non-Coincident for these studies.

NOVA SCOTIA POWER CORPORATION

Analysis of Dedicated Facilities

For the Years Ended March 31, 1977 and 1978

Rate Schedule - General Service

Subst. (1)	Customer (2)	Code (3)	Cost (4)	1977			1978				
				Dec. KW (5)	Dec. MWH (6)	Annual KW (7)	Annual MWH (8)	Dec. KW (10)	Dec. MWH (11)	Annual KW (12)	Annual MWH (13)
1)	37 H Police Station	DD	\$25,202					148	79	154	983
2)	33 H Bank of Montreal	DD	13,170					720	250	780	2,887
3)	49 H N. S. Hospital	DD	9,607					648	311	684	3,752
4)	63 H Holiday Inn	DD	7,361					264	81	336	1,474
5)	69 H D.O.T. Marine Service	DD	4,002					560	230	864	3,061
6)	47 H Naval Arm	COD						1,152	171	1,152	2,787
7)	53 H Bedford Magazine	COD						558	213	596	1,626
8)	45 H Osborne Head	COD						120	57	120	583
9)	50 C D.O.T. Pt. Hastings	COD						104	42	106	322
10)	50-51 H CFB Shearwater	COD									
11)	12 H Statacona	COD				2,052	930	2,340			
12)	25 H Royal Bank	DD	24,253	1,404	573	1,404	7,806				
13)	46 V Stevens Lumber	DD	10,805					756	258	900	3,404
14)	41 V Minas Basin Mill	COD						114	3	144	86
15)	58 V Greenwood	COD						200	25	208	206
16)	59 V Greenwood Shopping	COD						2,240	1,106	2,320	11,040
17)	74 V Cornwallis Base	COD						134	59	185	765
18)	51 W Bowater Mill	DBPD						2,000	996	2,160	11,389
19)	60 W I.M. Matheson	COD						1	0	1	0
20)	Total DD		\$94,400	3,210	1,212	3,862	15,647				
21)	Total COD			10,064	4,915	12,463	97,743				
22)	Total DBP										

NOVA SCOTIA POWER CORPORATION

Analysis of Dedicated Facilities

For the Years Ended March 31, 1977 and 1978

Rate Schedule - General - All Electric

Subst. (1)	Customer (2)	Code (3)	Cost (4)	1977			1978			Voltage (9)	
				Dec. KW (5)	Dec. MWH (6)	Annual KW (7)	Annual MWH (8)	Dec. KW (10)	Dec. MWH (11)		Annual KW (12)
1)	38 H Citadel Inn	DD	\$ 25,202					438	182	451	2,284
2)	29 H Law Courts	DD	21,345					1,040	316	1,080	4,543
3)	36 H Young Street	DD	30,567					528	162	552	2,384
4)	74 S Keltic Lodge	DD	53,279					216	74	368	1,245
5)	Total DD		\$130,393					2,222	734	2,451	10,456

NOVA SCOTIA POWER CORPORATION

Analysis of Dedicated Facilities

For the Years Ended March 31, 1977 and 1978

Rate Schedule - General Large

Subst. (1)	Customer (2)	Code (3)	Cost (4)	1977			1978			Voltage (9)
				Dec. KW (5)	Dec. MWH (6)	Annual KW (7)	Annual MWH (8)	Dec. KW (10)	Dec. MWH (11)	
1) 11 H Dock Yard		COB	Cust.	5,054	1,752	5,054	22,346			23 KV
2) 28 H Scotia Square		DD	\$137,079	10,476	5,618	11,016	56,027			23/.6
3) 24,27,30 31,32 H Dalhousie		COB	Cust.	4,752	2,576	4,752	30,144			23 KV
4) Total DD			\$137,079	10,476	5,618	11,016	56,027			
5) Total COB				9,806	4,328	9,806	52,490			

NOVA SCOTIA POWER CORPORATION

Analysis of Dedicated Facilities

For the Years Ended March 31, 1977 and 1978

Rate Schedule-Industrial 250-3,999 KVA

Subst. (1)	Customer (2)	Code (3)	Cost (4)	1977			1978				
				Dec. KW (5)	Dec. MWH (6)	Annual KW (7)	Annual MWH (8)	Dec. KW (10)	Dec. MWH (11)	Annual KW (12)	Annual MWH (13)
75 H	Sivaco Maritime	DD \$	18,409	360	143	432	1,656	600	184	640	1,904
70 H	City of Dart.-Lake Major	DD	48,023	1,022	388	1,037	5,224	576	404	1,184	4,921
34)	Municipal Spraying-OP	DD	6,936	1,188	375	1,224	2,668	1,560	372	1,560	2,310
35)	Municipal Spraying-Asphalt	DD	7,000								
36)	Municipal Spraying-Crusher	DD	14,799								
37)	Kaizer Celestille Mine	DBPD	139,356 ✓	45	15	666	1,445				
38)	Kaizer	COBP									
39)	Dev. Co. P.C.	COD	31,844	1,685	554	1,814	7,185	1,512	511	2,016	5,825
40)	Greenwood Base Airport	COD									
41)	National Sea Prod.	DD	44,499	648	204	774	2,732				
42)	Devco Shops	COD	1,500	562	1,884	648	1,261	1,104	342	1,176	4,864
43)				25,960	10,475	29,634	103,281				
44)				3,391	1,229	4,615	14,253				
45)		Total		29,351	11,704	34,279	117,534				
46)	Total DD	\$	474,268	9,480	3,227	11,534	37,675				
47)	Total DEP	\$	186,758	2,111	1,100	3,488	13,244				
48)	Total COD	\$	33,344	17,011	7,234	19,041	65,183				
49)	Total COBP	\$	1,091	749	143	916	1,432				
		\$	731,791	29,351	11,704	34,279	117,534				

CLOSED DOWN - NOV 76

1977 Portion
1978 Portion

NOVA SCOTIA POWER CORPORATION

Analysis of Dedicated Facilities

For the Years Ended March 31, 1977 and 1978

Rate Schedule - Industrial Large

Subst. (1)	Customer (2)	Code (3)	Cost (4)	1977			1978					
				Dec. KW (5)	Dec. MWH (6)	Annual KW (7)	Annual MWH (8)	Dec. KW (10)	Dec. MWH (11)	Annual KW (12)	Annual MWH (13)	
1) 121329W	Dominion Textile	DBPD	\$113,176 ✓	3,607	1,431	3,607	17,702	69/.6	3,380	1,311	3,872	17,123
2) 26 S	Devco #26	DD	159,222	6,912	2,976	7,488	23,744	22/6.6	6,192	3,109	7,488	37,770
3) 8&J S	Sysco	DBPD	20,064 ✓	12,710	6,211	17,642	71,740	138/23	11,281	5,501	14,166	61,020
4) 80 S	Lingan Mine	DBPD	7,884	6,696	1,836	6,696	20,652	69/6.9	6,372	2,058	7,020	24,636
5) 19 S	A.E.C.L. G.B.	COBP	17,132	20,430	13,398	20,430	134,988	69	4,500	2,814	15,818	72,366
6) 74 W	Michelin BW	DBPD	73,055 ✓	6,054	3,435	6,513	43,597	138/12.5	6,468	3,692	6,738	46,401
7) 85 W	Masonite Canada	COT	-	7,560	3,480	7,776	41,232	69	5,400	2,688	8,856	37,332
8) 47 C	Nova Scotia Forest Ind.	DBPD	-	40,352	18,980	46,051	257,426	138/13.8	29,688	15,641	38,062	227,485
9) 46 C	Gulf Oil - Ft. Tupper	COBP	-	8,511	4,922	8,983	51,586	138	7,920	4,767	9,180	56,557
10) 49 N	Michelin Granton	DBPD	86,419 ✓	9,891	6,125	10,107	76,645	138/12.5	10,125	6,217	10,602	79,408
11) 52 N	Carso Chem.	DBPD	317,424	17,412	11,914	20,067	149,554	69/13.8	17,958	12,943	18,662	148,016
12) 11 N	Canada Cement	COBP	-	4,698	2,097	13,860	25,794	69	6,642	1,872	6,642	27,396
13)	Total DD		\$159,222	6,912	2,976	7,488	23,744		6,192	3,109	7,488	37,770
14)	Total DBP		\$597,958	96,722	49,932	110,683	637,316		85,272	47,363	99,122	604,089
15)	Total COB		\$-	-	-	-	-		-	-	-	-
16)	Total COBP		\$ 17,132	33,639	20,417	43,273	212,368		19,062	9,453	31,640	156,319
17)	Total COT		\$-	7,560	3,480	7,776	41,232		5,400	2,688	8,856	37,332
			\$774,312	144,833	76,805	169,220	914,660		115,926	62,433	147,106	835,510

NOVA SCOTIA POWER CORPORATION

Analysis of Dedicated Facilities

For the Years Ended March 31, 1977 and 1978

Rate Schedule - Interruptible

Subst. (1)	Customer (2)	Code (3)	Cost (4)	1977			1978			Voltage (9)	Annual KW (12)	Annual MWH (13)
				Dec. KW (5)	Dec. MWH (6)	Annual KW (7)	Annual MWH (8)	Dec. KW (10)	Dec. MWH (11)			
1) 8,9,47,48 V Minas Basin		DD	\$10,372		739		16,134					
2) 53 N Scott Paper		COBP	14,096		352		15,898					
3)	Total DD		\$10,372		739		16,134			2		15
4)	Total COBP		\$14,096		352		15,898					

NOVA SCOTIA POWER CORPORATION

Analysis of Dedicated Facilities

For the Years Ended March 31, 1977 and 1978

Rate Schedule - Municipal

Subst. (1)	Customer (2)	Code (3)	Cost (4)	1977			1978					
				Dec. KW (5)	Dec. MWH (6)	Annual KW (7)	Annual MWH (8)	Dec. KW (10)	Dec. MWH (11)	Annual KW (12)	Annual MWH (13)	
1)	52 V Town of Berwick	DBP	\$52,593 ✓	2,419 ✓	1,099	2,549	13,272	69/4.1				
2)	77 V Conway (Digby C.P.B.)	DBP	83,310 ✓	17,755 ✓	7,200	17,755	70,999	69/12.4				
3)	53 V Kentville	COD	6,624 ✓	6,624 ✓	3,456	7,704	43,688	23 KV				
4)	76 W Mahome Bay	DBP	84,172 ✓	1,275 ✓	592	1,275	5,741	69/4.1				
5)	81,82 W Lunenburg	DBP	197,528 ✓	7,351 ✓	3,391	8,168	36,998	69/12.4				
6)	67,8 C Antigonish	DD	305,601	8,911 ✓	4,422	9,130	43,879	23/4.1				
7)	Total DP		\$305,601	8,911	4,422	9,130	43,879					
8)	Total COD		\$ -	6,624	3,456	7,704	43,688					
9)	Total DBP		\$417,603	28,800	12,282	29,747	127,010					

NOVA SCOTIA POWER CORPORATIONSCHEDULE 34
PAGE 1 OF 2Allocation Of Pole & Wire InvestmentFor The Year Ended March 31, 1978Coincident Peak Responsibility

		(\$000)				
		Total Cost	Primary Demand	Primary Customers	Secondary Demand	Secondary Customers
		(1)	D-8 (2)	C-6 (3)	D-6 (4)	C-4 (5)
<u>Poles</u>						
1)	Domestic	\$45,757	\$ 7,958	\$21,362	\$ 4,930	\$11,507
2)	Gen. Conn. Load	1,376	93	796	58	429
3)	General	6,879	2,990	1,392	1,749	748
4)	General All Elec.	1,833	1,004	146	605	78
5)	General Large	268	268	-	-	-
6)	Industrial To 249 KVA	274	157	17	91	9
7)	Industrial 250-3,999 KVA	887	880	7	-	-
8)	Industrial Large	257	257	-	-	-
9)	Interruptible	-	-	-	-	-
10)	Municipal	228	228	-	-	-
11)	Unmetered	631	208	191	129	103
12)	Total Company	<u>\$58,390</u>	<u>\$14,043</u>	<u>\$23,911</u>	<u>\$ 7,562</u>	<u>\$12,874</u>
<u>Wire</u>						
13)	Domestic	\$24,316	\$ 4,758	\$10,796	\$ 2,947	\$ 5,815
14)	Gen. Conn. Load	709	55	402	35	217
15)	General	3,915	1,788	703	1,046	378
16)	General All Elec.	1,076	600	74	362	40
17)	General Large	160	160	-	-	-
18)	Industrial To 249 KVA	160	94	8	54	4
19)	Industrial 250-3,999 KVA	531	527	4	-	-
20)	Industrial Large	154	154	-	-	-
21)	Interruptible	-	-	-	-	-
22)	Municipal	136	136	-	-	-
23)	Unmetered	350	124	97	77	52
24)	Total Company	<u>\$31,507</u>	<u>\$ 8,396</u>	<u>\$12,084</u>	<u>\$ 4,521</u>	<u>\$ 6,506</u>

NOVA SCOTIA POWER CORPORATION

Allocation of Pole and Wire Investment

For the Year Ended March 31, 1978

Coincident Peak & Average & Non-Coincident Peak

(\$000)

	Total Cost	Primary Demand D-14	Primary Customers C-6	Secondary Demand D-12	Secondary Customer C-4
	(1)	(2)	(3)	(4)	(5)
<u>Pole</u>					
1) Domestic	\$ 44,282	\$ 6,985	\$ 21,362	\$ 4,428	\$ 11,507
2) Gen. Conn. Load	1,401	108	796	68	429
3) General	7,660	3,453	1,392	2,067	748
4) General All Elec.	2,149	1,191	146	734	78
5) General Large	302	302	-	-	-
6) Industrial to 249 KVA	308	177	17	105	9
7) Industrial 250-3,999 KVA	1,038	1,031	7	-	-
8) Industrial Large	274	274	-	-	-
9) Interruptible	-	-	-	-	-
10) Municipal	269	269	-	-	-
11) Unmetered	<u>707</u>	<u>253</u>	<u>191</u>	<u>160</u>	<u>103</u>
12) Total Company	<u>\$ 58,390</u>	<u>\$ 14,043</u>	<u>\$ 23,911</u>	<u>\$ 7,562</u>	<u>\$ 12,874</u>
<u>Wire</u>					
13) Domestic	\$ 23,434	\$ 4,176	\$ 10,796	\$ 2,647	\$ 5,815
14) Gen. Conn. Load	725	65	402	41	217
15) General	4,382	2,065	703	1,236	378
16) General All Elec.	1,265	712	74	439	40
17) General Large	180	180	-	-	-
18) Industrial to 249 KVA	180	106	8	62	4
19) Industrial 250-3999 KVA	620	616	4	-	-
20) Industrial Large	164	164	-	-	-
21) Interruptible	-	-	-	-	-
22) Municipal	161	161	-	-	-
23) Unmetered	<u>396</u>	<u>151</u>	<u>97</u>	<u>96</u>	<u>52</u>
24) Total Company	<u>\$ 31,507</u>	<u>\$ 8,396</u>	<u>\$ 12,084</u>	<u>\$ 4,521</u>	<u>\$ 6,506</u>

NOVA SCOTIA POWER CORPORATIONSCHEDULE 35Analysis of Meters InvestmentFor the Year Ended March 31, 1978

	Customers (1)	Unit Meter Cost (2)	Total Cost (3)	Percent (4)	Allocated Meter Cost (5)
1) Domestic	264,465	\$ 34.00	\$ 8,991,810	77.22	\$ 7,378,898
2) General Conn. Load	9,855	34.00	335,070	2.88	275,204
3) General	17,215	111.00	1,910,865	16.41	1,568,088
4) General All Electric	1,792	145.00	259,840	2.23	213,092
5) General Large	3	657.00	1,971	.02	1,911
6) Industrial to 249 KVA	218	145.00	31,610	.27	25,800
7) Industrial 250-3,999 KVA	126	657.00	82,782	.71	67,845
8) Industrial Large	14	1,338.00	18,732	.16	15,289
9) Interruptible	6	1,338.00	8,028	.07	6,689
10) Municipal	8	520.00	4,160	.03	2,867
11) Unmetered	<u>2,380</u>	-	<u>-</u>	<u>-</u>	<u>-</u>
12) <u>Total</u>	<u>296,082</u>		<u>\$11,644,868</u>	<u>100.00</u>	<u>\$ 9,555,683</u>

NOVA SCOTIA POWER CORPORATIONSCHEDULE 36Revenue AnalysisFor the Year Ended March 31, 1978

(\$000)

	Total	Discounts	Sub-Total	Percent of	Other	Total
	(1)	Direct	(3)	Total	(5)	(6)
		(2)		(4)		
1) Domestic	\$ 75,885	\$ 799	\$ 76,684	38.38	\$ 1,756	\$ 78,440
2) Gen. Conn. Load	2,227	20	2,297	1.15	53	2,350
3) General	48,390	144	48,534	24.29	1,111	49,645
4) Gen. All Electric	13,473	34	13,507	6.76	309	13,816
5) Gen. Large	3,567	-	3,567	1.79	82	3,649
6) Ind. to 249 KVA	1,634	2	1,636	.82	37	1,673
7) Ind. to 250 - 3,999 KVA	10,589	(4)	10,585	5.30	242	10,827
8) Ind. Large	26,783	229	27,012	13.52	619	27,631
9) Interruptible	3,250	5	3,255	1.63	75	3,330
10) Municipal	7,184	58	7,242	3.62	166	7,408
11) Unmetered	<u>5,479</u>	<u>3</u>	<u>5,482</u>	<u>2.74</u>	<u>125</u>	<u>5,607</u>
12) Total	<u>\$198,511</u>	<u>\$ 1,290</u>	<u>\$199,801</u>	<u>100.00</u>	<u>\$ 4,575</u>	<u>\$204,376</u>
13) Glace Bay Steam	\$ 6,508					
14) Tupper-Joint	17,952					
15) Mersey	<u>1,790</u>					
16) Total	<u>\$ 26,250</u>					
17) Discounts	\$ 1,290					
18) Point Tupper	\$ 45					
19) Grants	\$ 3,000					
20) Other	<u>\$ 1,575</u>					
21) Total	<u>\$ 4,575</u>					
22) Merchandise & Jobbing	<u>\$ 1,157</u>					
23) Total	<u>\$231,828</u>					

NOVA SCOTIA POWER CORPORATION

SCHEDULE 37

Analysis of Operating Costs For Glace Bay
and Point Tupper Steam Sale and Mersey System

For The Year Ended March 31, 1978

	(\$000)				
	Total Company (1)	Glace Bay (2)	Point Tupper (3)	Mersey System (4)	Total (5)
<u>Production Fuel</u>					
1) Mersey System	\$ 14	\$ -	\$ -	\$ 13	\$ 1
2) Other Hydro	42	-	-	-	42
3) Gas Turbines	607	-	-	-	607
4) Pt. Tupper Unit 1	15,497	-	12,320	-	3,177
5) Glace Bay	12,985	5,310	-	-	7,675
6) Water Street	9,031	-	-	-	9,031
7) Other Steam	55,903	-	-	-	55,903
8) Total Fuel	\$ 94,079	\$ 5,310	\$ 12,320	\$ 13	\$ 76,436
<u>Production Opr. Cost</u>					
9) Mersey	\$ 751	\$ -	\$ -	\$ 697	\$ 54
10) Other Hydro	2,156	-	-	-	2,156
11) Gas Turbines	538	-	-	-	538
12) Pt. Tupper Unit 1	4,234	-	3,058	-	1,176
13) Glace Bay	4,479	2,342	-	-	2,137
14) Water Street	4,434	-	-	-	4,434
15) Other Steam	10,063	-	-	-	10,063
16) Total Opr. Cost	\$ 26,655	\$ 2,342	\$ 3,058	\$ 697	\$ 20,558
<u>Purchased Power</u>					
17) Purchased Power - Fuel	\$ 1,064	\$ -	\$ -	\$ -	\$ 1,064
18) Purchased Power - Other	3,393	-	-	-	3,393
19) Total	\$ 4,457	\$ -	\$ -	\$ -	\$ 4,457
20) <u>Transmission Expense</u>	\$ 2,708	\$ -	\$ -	\$ -	\$ 2,708
<u>Distribution Expense</u>					
21) Land	\$ 1,067	\$ -	\$ -	\$ -	\$ 1,067
22) Substations	1,896	-	-	-	1,896
23) Overhead Lines	2,804	-	-	-	2,804
24) U. G. Lines	204	-	-	-	204
25) Line Transformers	866	-	-	-	866
26) Services	1,284	-	-	-	1,284
27) Meters	900	-	-	-	900
28) Cust. Serv. & Contracts	1,044	-	-	-	1,044
29) Cust. Premise	733	-	-	-	733
30) Communications	507	-	-	-	507
31) Street Light	1,618	-	-	-	1,618
32) Total Distribution	\$ 12,923	\$ -	\$ -	\$ -	\$ 12,923
<u>Customer Accounting</u>					
33) Billing	\$ 3,258	\$ -	\$ -	\$ -	\$ 3,258
34) Customer Service	1,095	-	-	-	1,095
35) Credit & Collection	1,472	-	45	-	1,427
36) Total Cust. Acct.	\$ 5,825	\$ -	\$ 45	\$ -	\$ 5,780
37) <u>Customer Relations & Information</u>	\$ 755	\$ -	\$ -	\$ -	\$ 755
38) <u>Administration & General</u>	\$ 5,748	\$ 353	\$ 501	\$ 342	\$ 4,552
39) <u>Depreciation Expense</u>	\$ 21,085	\$ 553	\$ 472	\$ 368	\$ 19,692
40) <u>Grants In Lieu of Taxes</u>	\$ 3,623	\$ -	\$ -	\$ -	\$ 3,623
41) <u>Total Cost</u>	\$ 177,858	\$ 8,558	\$ 16,396	\$ 1,420	\$ 151,484

SCHEDULE 38

NOVA SCOTIA POWER CORPORATION

Classification of Operating Expenses
For the Year Ended March 31, 1978

(\$000)

	Total Company (1)	Coincident Peak (2)	Peak and Average (3)	Class N.C. Peak (4)	Customer N.C. Peak (5)	Energy (6)	Customer (7)	Revenue (8)	Direct (9)	As Other (10)
Production Expenses										
1) Fuel	\$ 94,079	-	\$ -	-	\$ -	\$ 76,436	\$ -	\$ -	\$ 17,643	\$ -
2) Steam Operations	23,210	17,810	17,810	17,810	-	-	-	-	5,400	-
3) Hydro Operating	2,907	2,210	2,210	2,210	-	-	-	-	697	-
4) Gas Turbine Operating	538	538	538	538	-	-	-	-	-	-
5) Purchase Power - Fuel	1,064	-	-	-	-	1,064	-	-	-	-
6) Purchase Power - Other	3,393	3,393	3,393	3,393	-	-	-	-	-	-
7) Total	\$125,191	\$23,951	\$23,951	\$23,951	\$ -	\$77,500	\$ -	\$ -	\$23,740	\$ -
8) Total	\$ 2,708	\$ 2,708	\$ 2,708	\$ 2,708	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Transmission Expenses										
Distribution Expenses										
9) Land	\$ 1,067	-	\$ -	-	\$ -	-	-	-	-	\$ 1,067
10) Substations	1,895	-	-	-	-	-	-	-	-	1,895
11) Overhead Lines	2,804	-	-	-	-	-	-	-	-	2,804
12) U.G. Lines	204	-	-	-	-	-	-	-	-	204
13) Line Transformers	866	-	-	866	866	-	-	-	-	-
14) Services	1,284	-	-	-	-	-	1,284	-	-	-
15) Meters	900	-	-	-	-	-	-	-	900	-
16) Cust. Serv. & Contract	1,045	-	-	-	-	-	105	-	940	-
17) Cust. Premise	733	-	-	-	-	-	73	-	660	-
18) Communications	507	-	-	507	507	-	-	-	-	-
19) Street Lights	1,618	-	-	-	-	-	-	-	1,618	-
20) Total	\$ 12,923	\$ -	\$ -	\$ 1,373	\$ 1,373	\$ -	\$ 1,462	\$ -	\$ 4,118	\$ 5,970
Customer Accounting										
21) Billing	\$ 3,258	-	\$ -	-	\$ -	-	\$ 3,258	\$ -	\$ -	\$ -
22) Customer Service	1,095	-	-	-	-	-	789	-	306	-
23) Credit & Collections	1,472	-	-	-	-	-	539	-	933	-
24) Total	\$ 5,825	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 4,586	\$ -	\$ 1,239	\$ -
Customer Relations & Information										
25) Customer Relations & Information	\$ 755	-	\$ -	-	\$ -	-	\$ 755	\$ -	\$ -	\$ -
Administrative and General										
26) Administrative and General	\$ 5,748	-	\$ -	-	\$ -	-	-	\$ -	\$ 1,196	\$ 4,552
27) Depreciation	\$ 21,085	-	\$ -	-	\$ -	-	-	\$ -	\$ 1,393	\$ 19,692
28) Grants in Lieu of Taxes	\$ 3,623	-	\$ -	-	\$ -	-	-	\$ -	\$ -	\$ 3,623
29) Total Cost	\$17,858	\$26,659	\$26,659	\$28,032	\$ 1,373	\$77,500	\$ 6,803	\$ -	\$ 31,686	\$ 33,837
30) Total Revenue	\$201,997	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$201,997	\$ -

NOVA SCOTIA POWER CORPORATION
Allocation of Operating Costs
For the Year Ended March 31, 1978
Coincident Peak Responsibility
(#000)

	Total Company Less Steam and Joint (1)	Domestic (2)	General Coun. Load (3)	General All Electric (4)	General Large To 249 KVA (5)	General Large To 249 KVA (6)	Industrial 250-3,999 KVA (7)	Industrial Large (8)	Industrial Large (9)	Service (10)	Municipal (11)	Unmetered (12)	Factors (13)
Production Costs													
1) Fuel	\$ 76,436	\$ 27,807	\$ 741	\$ 15,746	\$ 4,877	\$ 1,781	\$ 459	\$ 4,647	\$ 13,781	\$ 2,049	\$ 3,539	\$ 1,009	E-2
2) Operating	20,558	8,655	150	4,681	1,645	407	214	1,324	2,159	-	939	384	D-2
3) Purchased Power - Fuel	1,064	387	10	219	68	25	6	65	192	29	49	14	E-2
4) Purchased Power - Other	3,393	1,429	25	773	271	67	35	219	356	-	155	63	D-2
5) Total Production	\$101,451	\$ 38,278	\$ 926	\$ 21,419	\$ 6,861	\$ 2,280	\$ 714	\$ 6,255	\$ 16,488	\$ 2,078	\$ 4,682	\$ 1,470	
6) Transmission Operating Costs	\$ 2,708	\$ 1,140	\$ 20	\$ 616	\$ 217	\$ 54	\$ 28	\$ 174	\$ 284	\$ -	\$ 124	\$ 51	D-2
Distribution Operating Costs													
7) Land	\$ 1,067	\$ 775	\$ 21	\$ 145	\$ 43	\$ 9	\$ 6	\$ 31	\$ 13	\$ -	\$ 12	\$ 12	P-12
8) Substations	1,896	987	12	377	132	42	20	149	78	2	71	26	P-17
9) Overhead Lines	2,804	2,186	65	337	91	13	13	44	13	11	11	31	P-10
10) U. G. Lines	204	159	5	24	7	1	1	3	1	-	1	2	P-10
11) Line Transformers	866	565	7	200	69	-	10	-	-	-	-	15	D-6
12) Services	1,284	917	34	298	31	-	4	-	-	-	-	-	C-11
13) Meters	900	695	26	148	20	-	2	6	2	1	-	-	Schedule 35
14) Customer Service & Contracts	1,044	940	35	62	6	-	1	-	-	-	-	-	Schedule 42
15) Customer Premises	733	660	25	43	4	-	1	-	-	-	-	-	Schedule 43
16) Communications	507	287	3	108	36	10	6	32	9	-	8	8	P-8
17) Street Lights	1,618	-	-	-	-	-	-	-	-	-	-	1,618	Direct
18) Total Distribution	\$ 12,923	\$ 8,171	\$ 233	\$ 1,742	\$ 439	\$ 75	\$ 64	\$ 265	\$ 116	\$ 3	\$ 103	\$ 1,712	
Customer Accounting													
19) Billing	\$ 3,258	\$ 2,262	\$ 87	\$ 755	\$ 79	\$ -	\$ 9	\$ 11	\$ 1	\$ 1	\$ 1	\$ 52	C-12
20) Customer Service	1,095	784	30	233	26	-	3	5	1	-	-	13	Schedule 44
21) Credit & Collection	1,427	777	27	213	54	-	5	-	347	-	-	4	Schedule 45
22) Total Customer Accounting	\$ 5,780	\$ 3,823	\$ 144	\$ 1,201	\$ 159	\$ -	\$ 17	\$ 16	\$ 349	\$ 1	\$ 1	\$ 69	
23) Customer Relations & Info.	\$ 755	\$ 674	\$ 25	\$ 44	\$ 5	\$ -	\$ 1	\$ -	\$ -	\$ -	\$ -	\$ 6	C-2
24) Admin. & General	\$ 4,552	\$ 1,918	\$ 50	\$ 921	\$ 283	\$ 89	\$ 30	\$ 247	\$ 635	\$ 76	\$ 181	\$ 122	O-4
25) Depreciation	\$ 19,692	\$ 9,931	\$ 211	\$ 4,029	\$ 1,339	\$ 299	\$ 179	\$ 984	\$ 1,463	\$ 2	\$ 660	\$ 595	P-14
26) Grants in lieu of Taxes	\$ 3,623	\$ 1,827	\$ 39	\$ 741	\$ 246	\$ 55	\$ 33	\$ 181	\$ 269	\$ -	\$ 122	\$ 110	P-14
27) Total Cost	\$151,484	\$ 65,762	\$ 1,648	\$ 30,713	\$ 9,549	\$ 2,852	\$ 1,066	\$ 8,122	\$ 19,604	\$ 2,160	\$ 5,873	\$ 4,135	
28) Total Revenue	\$204,376	\$ 78,440	\$ 2,350	\$ 49,645	\$ 13,816	\$ 3,649	\$ 1,673	\$ 10,827	\$ 27,631	\$ 3,330	\$ 7,408	\$ 5,607	Schedule 36
29) Return	\$ 52,892	\$ 12,678	\$ 702	\$ 18,932	\$ 4,267	\$ 797	\$ 607	\$ 2,705	\$ 8,027	\$ 1,170	\$ 1,535	\$ 1,472	
30) Rate of Return	8.55	4.10	10.63	14.97	10.17	8.33	10.92	8.69	16.76	223.28	7.33	8.00	
31) Percentage of Average	100.00	47.95	124.33	175.09	118.95	97.43	127.22	101.64	196.02	2611.46	85.73	93.57	

NOVA SCOTIA POWER CORPORATION
Allocation of Operating Costs

For the Year Ended March 31, 1978

Coincident Peak & Average Responsibility

(\$000)

	Total Company Less Steam & Joint	Domestic (2)	General Conn. Load (3)	General All Electric (4)	General Electric (5)	General Large (6)	Industrial To 249 KVA (7)	Industrial 250-3,999 KVA (8)	Industrial Large (9)	Interruptible (10)	Municipal (11)	Unmetered (12)	Factor (13)
Production Costs													
1) Fuel	\$ 76,436	\$ 27,807	\$ 741	\$ 15,746	\$ 4,877	\$ 1,781	\$ 459	\$ 4,647	\$ 13,781	\$ 2,049	\$ 3,539	\$ 1,009	E-2
2) Operating	20,558	8,196	171	4,506	1,511	434	183	1,301	2,759	210	946	341	D-4
3) Purchased Power - Fuel	1,064	387	10	219	68	25	6	65	192	29	49	14	E-2
4) Purchased Power - Other	3,393	1,353	28	744	249	72	30	215	455	35	156	56	D-4
5) Total Production	\$101,451	\$37,743	\$ 950	\$21,215	\$ 6,705	\$ 2,312	\$ 678	\$ 6,228	\$17,187	\$ 2,323	\$ 4,690	\$ 1,420	
6) Transmission Operating Costs	\$ 2,708	\$ 1,080	\$ 22	\$ 594	\$ 199	\$ 57	\$ 24	\$ 171	\$ 363	\$ 28	\$ 125	\$ 45	D-4
Distribution Operating Costs													
7) Land	\$ 1,067	\$ 739	\$ 22	\$ 164	\$ 50	\$ 10	\$ 7	\$ 35	\$ 13	\$ -	\$ 13	\$ 14	P-13
8) Substations	1,896	867	13	434	156	46	23	168	80	2	76	31	P-18
9) Overhead Lines	2,801	2,112	66	375	107	15	15	52	14	14	13	35	P-11
10) U. G. Lines	204	154	5	27	8	1	1	4	1	-	1	2	P-11
11) Line Transformers	866	508	8	236	84	-	12	-	-	-	-	18	D-12
12) Services	1,284	917	34	298	31	-	4	-	-	-	-	-	C-11
13) Meters	900	695	26	148	20	6	2	6	2	1	-	-	Schedule 35
14) Cust. Serv. & Contracts	1,041	940	35	62	6	-	1	-	-	-	-	-	Schedule 42
15) Customer Premise	733	660	25	43	4	-	1	-	-	-	-	-	Schedule 43
16) Communications	507	252	4	125	43	11	6	37	10	-	10	9	D-14
17) Street Lighting	1,613	-	-	-	-	-	-	-	-	-	-	1,618	Direct
18) Total Distribution	\$12,923	\$ 7,844	\$ 238	\$ 1,912	\$ 509	\$ 83	\$ 72	\$ 302	\$ 120	\$ 3	\$ 113	\$ 1,727	
Customer Accounting													
19) Billing	\$ 3,253	\$ 2,262	\$ 87	\$ 755	\$ 79	\$ -	\$ 9	\$ 11	\$ 1	\$ 1	\$ 1	\$ 52	C-12
20) Customer Service	1,095	784	30	233	26	-	3	5	1	-	-	13	Schedule 34
21) Credit & Collection	1,427	777	27	213	54	-	5	-	347	-	-	4	Schedule 35
22) Total Customer Accounting	\$ 5,780	\$ 3,823	\$ 144	\$ 1,201	\$ 159	\$ -	\$ 17	\$ 16	\$ 349	\$ 1	\$ 1	\$ 69	
23) Customer Relations & Information	\$ 755	\$ 674	\$ 25	\$ 44	\$ 5	\$ -	\$ 1	\$ -	\$ -	\$ -	\$ -	\$ 6	C-2
24) Admin. & General	\$ 4,552	\$ 1,884	\$ 51	\$ 920	\$ 279	\$ 90	\$ 29	\$ 247	\$ 664	\$ 86	\$ 182	\$ 120	O-5
25) Depreciation	\$ 19,692	\$ 9,568	\$ 221	\$ 4,078	\$ 1,337	\$ 313	\$ 173	\$ 994	\$ 1,676	\$ 75	\$ 666	\$ 591	P-15
26) Grants In Lieu of Taxes	\$ 3,623	\$ 1,760	\$ 41	\$ 750	\$ 246	\$ 58	\$ 32	\$ 183	\$ 308	\$ 14	\$ 122	\$ 109	P-15
27) Total Cost	\$151,484	\$ 64,376	\$ 1,692	\$ 30,714	\$ 9,439	\$ 2,913	\$ 1,026	\$ 8,141	\$ 20,667	\$ 2,530	\$ 5,899	\$ 4,087	
28) Total Revenue	\$204,376	\$ 78,440	\$ 2,350	\$ 49,645	\$ 13,816	\$ 3,649	\$ 1,673	\$ 10,827	\$ 27,631	\$ 3,330	\$ 7,498	\$ 5,607	Schedule 36
29) Return	\$ 52,892	\$ 14,064	\$ 658	\$ 18,931	\$ 4,377	\$ 736	\$ 647	\$ 2,686	\$ 6,964	\$ 800	\$ 1,509	\$ 1,320	
30) Rate of Return	8.55	4.72	9.49	14.79	10.44	7.38	12.04	8.56	12.81	28.91	7.14	8.31	
31) Percentage of Average	100.00	55.20	110.99	172.98	122.11	86.32	140.82	100.12	149.82	338.13	83.51	97.19	

NOVA SCOTIA POWER CORPORATION

Allocation of Operating Costs

For the Year Ended March 31, 1978

Class Non-coincident Peak Responsibility

(\$000)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
	Total Company Less Steam and Joint	Domestic	General- Comm. Load	General All Electric	General Large	Industrial To 249 KVA	Industrial 250-3,999 KVA	Industrial Large	Industrial Interruptable	Municipal	Unmetered	Factor	
Production Costs													
1) Fuel	\$ 76,436	\$ 27,807	\$ 741	\$ 15,746	\$ 4,877	\$ 1,781	\$ 459	\$ 4,647	\$ 13,781	\$ 2,049	\$ 3,539	\$ 1,009	E-2
2) Operating	20,558	8,793	136	4,346	1,499	380	222	1,346	2,136	518	863	319	D-18
3) Purchased Power-Fuel	1,064	387	10	219	68	25	6	65	192	29	49	14	E-2
4) Purchased Power-Other	3,393	1,451	22	717	247	63	37	222	353	86	142	53	D-18
5) Total Production	\$101,451	\$ 38,438	\$ 909	\$ 21,028	\$ 6,691	\$ 2,249	\$ 724	\$ 6,280	\$ 16,462	\$ 2,682	\$ 4,593	\$ 1,395	
6) Transmission Operating Costs	\$ 2,708	\$ 1,158	\$ 18	\$ 573	\$ 198	\$ 50	\$ 29	\$ 177	\$ 281	\$ 68	\$ 114	\$ 42	D-18
Distribution Operating Costs													
7) Land	\$ 1,067	\$ 739	\$ 22	\$ 164	\$ 50	\$ 10	\$ 7	\$ 35	\$ 13	\$ -	\$ 13	\$ 14	P-13
8) Substations	1,896	867	13	434	156	46	23	168	80	2	76	31	P-18
9) Overhead Lines	2,804	2,112	66	375	107	15	15	52	14	-	13	35	P-11
10) U. Ground Lines	204	154	5	27	8	1	1	4	1	-	1	2	P-11
11) Line Transformers	866	508	8	236	84	-	12	-	-	-	-	18	D-12
12) Services	1,284	917	34	298	31	-	4	-	-	-	-	-	C-11
13) Meters	900	695	26	148	20	-	2	6	2	1	-	-	Schedule 35
14) Cust. Serv. & Contracts	1,044	940	35	62	6	-	1	-	-	-	-	-	Schedule 42
15) Customer Premise	733	660	25	73	43	-	4	1	-	-	-	-	Schedule 43
16) Communications	507	252	4	125	43	11	6	37	10	-	10	9	D-14
17) St. Lighting	1,618	-	-	-	-	-	-	-	-	-	-	1,618	Direct
18) Total Distribution	\$ 12,923	\$ 7,844	\$ 238	\$ 1,912	\$ 509	\$ 83	\$ 72	\$ 302	\$ 120	\$ 3	\$ 113	\$ 1,727	
Customer Accounting													
19) Billing	\$ 3,258	\$ 2,262	\$ 87	\$ 755	\$ 79	\$ -	\$ 9	\$ 11	\$ 1	\$ 1	\$ 1	\$ 52	C-12
20) Customer Service	1,095	784	30	233	26	-	3	5	1	-	-	13	Schedule 44
21) Credit & Collection	1,427	777	27	213	54	-	5	-	347	-	-	4	Schedule 45
22) Total Customer Acc.	\$ 5,780	\$ 3,823	\$ 144	\$ 1,201	\$ 159	\$ -	\$ 17	\$ 16	\$ 349	\$ 1	\$ 1	\$ 69	
23) Customer Relations & Information	\$ 755	\$ 674	\$ 25	\$ 44	\$ 5	\$ -	\$ 1	\$ -	\$ -	\$ -	\$ -	\$ 6	C-2
24) Admin. & General	\$ 4,552	\$ 1,912	\$ 49	\$ 912	\$ 279	\$ 88	\$ 31	\$ 249	\$ 634	\$ 101	\$ 178	\$ 119	O-6
25) Depreciation	\$ 19,692	\$ 9,818	\$ 205	\$ 3,921	\$ 1,290	\$ 286	\$ 189	\$ 1,016	\$ 1,449	\$ 341	\$ 614	\$ 563	P-16
26) Grants in Lieu of Taxes	\$ 3,623	\$ 1,806	\$ 38	\$ 721	\$ 237	\$ 52	\$ 35	\$ 187	\$ 267	\$ 63	\$ 113	\$ 104	P-16
27) Total Cost	\$151,484	\$ 65,473	\$ 1,626	\$ 30,312	\$ 9,368	\$ 2,808	\$ 1,098	\$ 8,227	\$ 19,562	\$ 3,259	\$ 5,726	\$ 4,025	
28) Total Revenue	\$204,376	\$ 78,440	\$ 2,350	\$ 49,645	\$ 13,816	\$ 3,649	\$ 1,673	\$ 10,827	\$ 27,631	\$ 3,330	\$ 7,408	\$ 5,607	Schedule 36
29) Return	\$ 52,892	\$ 12,967	\$ 724	\$ 19,333	\$ 4,448	\$ 841	\$ 575	\$ 2,600	\$ 8,069	\$ 71	\$ 1,682	\$ 1,582	
30) Rate of Return	8.55	4.24	11.27	15.69	11.00	9.19	9.80	8.11	16.99	.65	8.60	9.08	
31) Percentage of Average	100.00	49.59	131.81	183.51	128.65	107.48	114.62	94.85	198.71	7.60	100.58	106.20	

NOVA SCOTIA POWER CORPORATIONSCHEDULE 42Allocation of Customer Service and ContractsFor the Year Ended March 31, 1978

(\$000)

	Direct (1)	Customers (2)	Percent (3)	Amount Allocated (4)	Total (5)
1) Domestic	\$ 940(1)	-	-	\$ -	\$ 940
2) General Conn. Load	-	9,855	33.89	35	35
3) General	-	17,215	59.20	62	62
4) General All Electric	-	1,792	6.16	6	6
5) Industrial To 249 KVA	-	218	.75	1	1
6) <u>Total</u>	<u>\$ 940</u>	<u>29,080</u>	<u>100.00</u>	<u>\$ 104</u>	<u>\$ 1,044</u>

(1) 90% Domestic

NOVA SCOTIA POWER CORPORATION

SCHEDULE 43

Allocation of Customer Premise Expense

For the Year Ended March 31, 1978

(\$000)

	Direct (1)	Customers (2)	Percent (3)	Amount Allocated (4)	Total (5)
1) Domestic	\$ 660(1)	-	-	\$ -	\$ 660
2) General Conn. Load	-	9,855	33.89	25	25
3) General	-	17,215	59.20	43	43
4) General All Electric	-	1,792	6.16	4	4
5) Industrial To 249 KVA	-	218	.75	1	1
6) <u>Total</u>	<u>\$ 660</u>	<u>29,080</u>	<u>100.00</u>	<u>\$ 73</u>	<u>\$ 733</u>

(1) 90% Domestic

NOVA SCOTIA POWER CORPORATIONSCHEDULE 44Allocation of Customer Service ExpenseFor the Year Ended March 31, 1978

(\$000)

	Total Company Less Steam and Joint (1)	Meter Test (As Meters) (2)	Other C-12 (3)
1) Domestic	\$ 784	\$ 236	\$ 548
2) General Conn. Load	30	9	21
3) General	233	50	183
4) General All Electric	26	7	19
5) General Large	-	-	-
6) Industrial to 249 KVA	3	1	2
7) Industrial 250-3,999 KVA	5	2	3
8) Industrial Large	1	1	-
9) Interruptible	-	-	-
10) Municipal	-	-	-
11) Unmetered	<u>13</u>	<u>-</u>	<u>13</u>
12) <u>Total</u>	<u>\$1,095</u>	<u>\$ 306</u>	<u>\$ 789</u>

NOVA SCOTIA POWER CORPORATIONSCHEDULE 45Allocation of Credit & Collection Expense

For the Year Ended March 31, 1978
 (\$000)

	Total	Direct Bad Debts	Other Bad Debts R-2	Collection Costs C-2
	(1)	(2)	(3)	(4)
1) Domestic	\$ 777	\$ -	\$ 295	\$ 482
2) General Conn. Load	27	-	9	18
3) General	213	-	182	31
4) General All Electric	54	-	51	3
5) General Large	-	-	-	-
6) Industrial to 249 KVA	5	-	4	1
7) Industrial 250-3,999 KVA	-	-	-	-
8) Industrial Large	347	347	-	-
9) Interruptible	-	-	-	-
10) Municipal	-	-	-	-
11) Unmetered	4	-	-	4
12) <u>Total</u>	<u>\$1,427</u>	<u>\$ 347</u>	<u>\$ 541</u>	<u>\$ 539</u>

NOVA SCOTIA POWER CORPORATION

Determination of Allocation Factors

For the Years Ended March 31, 1977 & 1978

Total Company Less Steam and Joint	Domestic (2)	General Conn. Load (3)	General All-Electric (4)	General (5)	General Large (6)	Industrial To 249 KVA (7)	Industrial 250-3,999 KVA (8)	Industrial Large (9)	Industrial Interservice (10)	Municipal (11)	Unmetered Factors (12)	
993	411	7	219	85	18	7	59	123	-	47	17	D-1
100.00	41.39	0.71	22.05	8.56	1.81	0.71	5.94	12.39	-	4.73	1.71	D-1
962	405	7	219	77	19	10	62	101	-	44	18	D-2
100.00	42.10	0.73	22.77	8.00	1.98	1.04	6.44	10.50	-	4.57	1.87	D-2
1,608	639	13	341	125	32	10	97	241	15	74	25	D-3
100.00	39.49	0.81	21.21	7.77	1.99	0.62	6.03	14.99	0.93	4.60	1.56	D-3
1,565	624	13	343	115	33	14	99	210	16	72	26	D-4
100.00	39.87	0.83	21.92	7.35	2.11	0.89	6.33	13.42	1.02	4.60	1.66	D-4
978,349	638,455	7,211	233,290	85,924	-	7,647	-	-	-	-	15,822	D-5
100.00	65.26	.74	22.82	8.78	-	.78	-	-	-	-	1.62	D-5
971,044	633,131	7,424	224,573	77,703	-	11,686	-	-	-	-	16,527	D-6
100.00	65.20	.77	23.13	8.00	-	1.20	-	-	-	-	1.70	D-6
1,162,016	661,439	7,471	245,080	91,319	21,012	8,743	68,493	20,344	-	21,724	16,391	D-7
100.00	56.92	0.64	21.09	7.86	1.81	0.75	5.90	1.75	-	1.87	1.41	D-7
1,151,946	652,758	7,654	245,220	82,403	22,047	12,865	72,175	21,093	-	18,692	17,039	D-8
100.00	56.67	.66	21.29	7.15	1.91	1.12	6.27	1.83	-	1.62	1.48	D-8
1,379,458	674,668	7,620	249,982	93,145	21,432	8,918	72,780	153,719	28,941	51,534	16,719	D-9
100.00	48.91	0.55	18.12	6.75	1.55	0.65	5.28	11.14	2.10	3.74	1.21	D-9
1,350,746	665,813	7,807	250,124	84,051	22,488	13,122	76,536	133,444	31,539	48,442	17,380	D-10
100.00	49.29	.58	18.52	6.22	1.66	.97	5.67	9.88	2.33	3.59	1.29	D-10
786,625	460,976	6,851	212,126	83,777	-	7,073	-	-	-	-	15,822	D-11
100.00	58.60	.87	26.97	10.65	-	.90	-	-	-	-	2.01	D-11
780,615	457,121	7,053	213,344	75,761	-	10,809	-	-	-	-	16,527	D-12
100.00	58.56	.90	27.33	9.71	-	1.38	-	-	-	-	2.12	D-12
952,787	477,571	7,098	232,826	89,037	19,436	8,087	63,356	17,802	-	21,182	16,392	D-13
100.00	50.13	.74	24.44	9.34	2.04	.85	6.65	1.87	-	2.22	1.72	D-13
947,441	471,292	7,272	232,959	80,343	20,393	11,900	69,561	18,457	-	18,225	17,039	D-14
100.00	49.74	.77	24.59	8.48	2.15	1.26	7.34	1.95	-	1.92	1.80	D-14
1,145,576	487,122	7,240	237,482	90,618	19,825	8,249	67,322	134,505	26,046	50,247	16,720	D-15
100.00	42.52	.63	20.73	7.93	1.73	.72	5.88	11.74	2.27	4.39	1.46	D-15
1,124,052	480,718	7,417	237,618	81,950	20,882	12,138	73,651	116,763	28,385	47,231	17,380	D-16
100.00	42.77	.66	21.14	7.29	1.85	1.08	6.55	10.39	2.52	4.20	1.55	D-16
1,175,358	499,787	7,428	243,656	93,179	20,340	8,463	69,072	138,002	26,723	51,553	17,153	D-17
100.00	42.52	.63	20.73	7.93	1.73	.72	5.88	11.74	2.27	4.39	1.46	D-17
1,153,279	493,217	7,610	243,796	84,081	21,342	12,454	75,566	119,799	29,133	48,459	17,822	D-18
100.00	42.77	.66	21.14	7.29	1.85	1.08	6.55	10.39	2.52	4.20	1.55	D-18

NOVA SCOTIA POWER CORPORATION

Determination of Allocation Factors

For the Years Ended March 31, 1977 & 1978

	Total Company Less Steam and Joint (1)	Domestic (2)	General Conn. Load (3)	General (4)	General All-Electric (5)	General Large (6)	Industrial To 249 KVA (7)	Industrial 250-3,999 KVA (8)	Industrial Large (9)	Industrial Services (10)	Municipal (11)	Unmetered (12)	Factor (13)
1) Net Gen. and Purchased - 1977	5,360,248	1,962,940	53,869	1,072,609	346,591	121,710	23,325	308,795	1,032,453	130,242	240,729	66,985	E-1
2) % Responsibility	100.00	36.62	1.00	20.01	6.47	2.27	0.44	5.76	19.26	2.43	4.49	1.25	E-1
3) Net Gen. and Purchased - 1978	5,280,003	1,920,889	51,449	1,087,430	337,065	123,193	31,907	321,103	951,746	141,260	244,223	69,738	E-2
4) % Responsibility	100.00	36.38	0.97	20.60	6.38	2.33	0.60	6.08	18.03	2.68	4.63	1.32	E-2

NOVA SCOTIA POWER CORPORATION

Determination of Allocation Factors

For the Years Ended March 31, 1977 & 1978

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
	Total Company Less Steam and Joint	Domestic	General Conn. Load	General All-Electric	General All-Electric Large	General Industrial Large To 249 KVA	Industrial 250-3,999 KVA	Industrial Large	Industrial Interruptible Service	Municipal	Unmetered Factors		
1) Customers - 1977	290,241	257,891	10,710	16,627	2,069	3	166	124	14	6	8	2,623	C-1
2) Responsibility	100.00	88.86	3.69	5.73	0.71	-	0.06	0.04	.01	-	-	0.90	C-1
3) Customers - 1978	296,082	264,465	9,855	17,215	1,792	3	218	126	14	6	8	2,380	C-2
4) Responsibility	100.00	89.32	3.33	5.82	0.61	-	0.07	.04	.01	-	-	0.80	C-2
5) Customers Secondary - 1977	290,061	257,891	10,710	16,608	2,065	-	164	-	-	-	-	2,623	C-3
6) Responsibility	100.00	88.91	3.69	5.73	.71	-	.06	-	-	-	-	.90	C-3
7) Customers Secondary - 1978	295,900	264,465	9,855	17,196	1,788	-	216	-	-	-	-	2,380	C-4
8) Responsibility	100.00	89.38	3.33	5.81	.61	-	.07	-	-	-	-	.80	C-4
9) Customers Primary - 1977	290,175	257,891	10,710	16,627	2,069	3	166	82	2	-	2	2,623	C-5
10) Responsibility	100.00	88.88	3.69	5.73	.71	-	.06	.03	-	-	-	.90	C-5
11) Customers Primary - 1978	296,016	264,465	9,855	17,215	1,792	3	218	84	2	-	2	2,380	C-6
12) Responsibility	100.00	89.34	3.33	5.82	.61	-	.07	.03	-	-	-	.80	C-6
13) Customers DBPS - 1977	290,234	257,891	10,710	16,627	2,069	3	166	118	13	6	8	2,623	C-7
14) Responsibility	100.00	88.86	3.69	5.73	.71	-	.06	.04	.01	-	-	.90	C-7
15) Customers DBPS - 1978	296,075	264,465	9,855	17,215	1,792	3	218	120	13	6	8	2,380	C-8
16) Responsibility	100.00	89.32	3.33	5.82	.61	-	.07	.04	.01	-	-	.80	C-8
17) Weighted Secondary Customers - 1977	287,438	257,891	10,710	16,608	2,065	-	164	-	-	-	-	-	C-9
18) Weighting Factor		1.00	1.00	5.0	5.0	-	5.0	-	-	-	-	-	C-9
19) Weighted Total	362,786	257,891	10,710	83,040	10,325	-	820	-	-	-	-	-	C-9
20) Responsibility	100.00	71.09	2.95	22.88	2.85	-	0.23	-	-	-	-	-	C-9
21) Weighted Secondary Customers - 1978	293,550	264,465	9,885	17,196	1,788	-	216	-	-	-	-	-	C-11
22) Weighting Factor		1.00	1.00	5.0	5.0	-	5.0	-	-	-	-	-	C-11
23) Weighted Total	370,350	264,465	9,885	85,980	8,940	-	1,080	-	-	-	-	-	C-11
24) Responsibility	100.00	71.41	2.67	23.22	2.41	-	.29	-	-	-	-	-	C-11
25) Weighted Customers - 1977	289,701	257,891	10,170	16,627	2,069	3	166	124	14	6	8	2,623	C-10
26) Weighting Factor		1.00	1.00	5.0	5.0	5.0	5.0	10.0	10.0	10.0	10.0	2.5	C-10
27) Weighted Total	370,464	257,891	10,170	83,135	10,345	15	830	1,240	140	60	80	6,558	C-10
28) Responsibility	100.00	69.63	2.74	22.44	2.79	-	0.22	0.33	0.04	0.02	0.02	1.77	C-10
29) Weighted Customers - 1978	289,538	257,891	9,885	17,215	1,792	3	218	126	14	6	8	2,380	C-12
30) Weighting Factor		1.00	1.00	5.0	5.0	5.0	5.0	10.0	10.0	10.0	10.0	2.5	C-12
31) Weighted Total	371,406	257,891	9,885	86,075	8,960	15	1,090	1,260	140	60	80	5,950	C-12
32) Responsibility	100.00	69.44	2.66	23.18	2.41	-	.29	.34	.04	.02	.02	1.60	C-12

NOVA SCOTIA POWER CORPORATION

**Determination of Allocation Factors
For the Years Ended March 31, 1977 & 1978**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
	Total Company Less Steam and Joint	Domestic Conn. Load	General Conn. Load	General All-Electric	General Large	Industrial To 249 KVA	Industrial 250-3999 KVA	Industrial Large	Industrial Interruptible Service	Municipal	Unmetered	Factors	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1) Coincident Peak Poles & Wire - 1977	79,135	61,514	2,003	9,386	2,834	358	261	1,175	345	-	369	890	P-1
2) % Responsibility	100.00	77.73	2.53	11.86	3.58	0.45	0.33	1.49	0.44	-	0.47	1.12	P-1
3) Coincident Peak Poles & Wire - 1978	89,897	70,073	2,085	10,794	2,909	428	434	1,418	411	-	364	981	P-10
4) % Responsibility	100.00	77.95	2.32	12.01	3.23	0.48	0.48	1.58	0.46	-	0.40	1.09	P-10
5) Class Non-Coincident Peak & Average Poles & Wire - 1977	79,135	59,467	2,038	10,489	3,323	403	293	1,323	369	-	438	992	P-2
6) % Responsibility	100.00	75.15	2.58	13.25	4.20	0.51	0.37	1.67	0.47	-	0.55	1.25	P-2
7) Class Non-Coincident Peak & Avg. Poles & Wire - 1978	89,897	67,716	2,126	12,042	3,414	482	488	1,658	438	-	430	1,103	P-11
8) % Responsibility	100.00	75.33	2.36	13.39	3.80	0.54	0.54	1.84	0.49	-	0.48	1.23	P-11
9) Coincident Peak Substations Poles & Wire - 1977	102,076	73,465	2,137	13,886	4,583	842	427	2,923	1,299	19	1,309	1,186	P-3
10) % Responsibility	100.00	71.97	2.09	13.60	4.49	0.83	0.42	2.87	1.27	0.02	1.28	1.16	P-3
11) Coincident Peak Substations Poles & Wire - 1978	113,081	82,153	2,226	15,401	4,529	935	681	3,244	1,362	18	1,235	1,297	P-12
12) % Responsibility	100.00	72.65	1.97	13.62	4.00	0.83	0.60	2.87	1.20	0.02	1.09	1.15	P-12
13) Class Non-Coincident Peak & Avg. Subs., Poles & Wire - 1977	103,059	69,993	2,193	15,692	5,383	935	480	3,228	1,348	19	1,475	1,353	P-4
14) % Responsibility	100.00	68.56	2.15	15.37	5.27	0.92	0.47	3.16	1.32	0.02	1.44	1.32	P-4
15) Class Non-Coincident Peak & Avg. Subs., Poles & Wire - 1978	112,081	78,319	2,290	17,353	5,317	1,041	765	3,712	1,415	18	1,364	1,487	P-13
16) % Responsibility	100.00	69.26	2.02	15.35	4.70	0.92	0.68	3.28	1.25	0.02	1.21	1.31	P-13
17) Coincident Peak P.T.D. - 1977	415,392	215,985	4,970	80,341	29,102	5,383	2,475	17,888	32,157	26	13,121	13,944	P-5
18) % Responsibility	100.00	51.99	1.20	19.34	7.00	1.30	0.60	4.30	7.74	0.01	3.16	3.36	P-5
19) Coincident Peak P.T.D. - 1978	580,779	292,910	6,278	118,808	39,502	8,848	5,274	29,051	43,142	25	19,441	17,560	P-6
20) % Responsibility	100.00	50.43	1.07	20.46	6.80	1.52	0.91	5.00	7.43	0.01	3.35	3.02	P-6
21) Coincident Peak & Avg. P.T.D. - 1977	415,392	206,638	5,272	81,626	28,821	5,852	2,381	18,390	37,556	1,939	13,004	13,913	P-6
22) % Responsibility	100.00	49.74	1.27	19.65	6.94	1.41	0.57	4.43	9.04	0.47	3.13	3.35	P-6
23) Coincident Peak & Avg. P.T.D. - 1978	580,779	282,180	6,535	120,294	39,454	9,236	5,097	29,308	49,404	2,194	19,640	17,437	P-15
24) % Responsibility	100.00	48.59	1.12	20.71	6.79	1.59	0.88	5.05	8.51	0.38	3.38	3.00	P-15
25) Class Non-Coincident P.T.D. 1977	415,392	213,130	4,867	80,023	28,359	5,282	2,541	17,833	31,860	5,668	12,227	13,602	P-7
26) % Responsibility	100.00	51.31	1.17	19.27	6.83	1.27	0.61	4.29	7.67	1.37	2.94	3.27	P-7
27) Class Non-Coincident P.T.D. - 1978	580,779	289,581	6,043	115,625	38,016	8,443	5,575	29,979	42,760	10,037	18,108	16,612	P-16
28) % Responsibility	100.00	49.86	1.04	19.91	6.55	1.45	0.96	5.16	7.36	1.73	3.12	2.86	P-16
29) Coincident Peak Substations - 1977	22,941	11,951	134	4,500	1,749	484	166	1,748	954	19	940	296	P-8
30) % Responsibility	100.00	52.10	0.58	19.62	7.62	2.11	0.72	7.62	4.16	0.08	4.10	1.29	P-8
31) Coincident Peak Substations - 1978	23,184	12,080	141	4,607	1,620	507	247	1,826	951	18	871	316	P-17
32) % Responsibility	100.00	52.10	.61	19.87	6.99	2.19	1.06	7.88	4.10	.08	3.76	1.36	P-17
33) Class Non-Coincident Peak & Avg. Substations - 1977	22,941	10,526	155	5,203	2,060	532	187	1,905	979	19	1,014	361	P-9
34) % Responsibility	100.00	45.88	.68	22.68	8.98	2.32	.82	8.30	4.27	.08	4.42	1.57	P-9
35) Class Non-Coincident Peak & Avg. Substations - 1978	23,184	10,603	164	5,311	1,903	559	277	2,054	977	18	934	364	P-18
36) % Responsibility	100.00	45.73	.71	22.91	8.21	2.41	1.19	8.86	4.21	.08	4.03	1.66	P-18

NOVA SCOTIA POWER CORPORATION

Determination of Allocation Factors

For the Years Ended March 31, 1977 & 1978

	Total Company Less Steam and Joint (1)	Domestic (2)	General Coon. Load (3)	General All-Electric (5)	General Large (6)	Industrial To 249 KVA (7)	Industrial 250-3,999 KVA (8)	Industrial Large (9)	Interruptible Service (10)	Municipal (11)	Unmetered (12)	Factors (13)
1) Coincident Peak O. & M. - 1977	\$ 42,055	\$ 21,755	\$ 563	\$ 8,196	\$ 514	\$ 235	\$ 1,719	\$ 3,151	\$ 3	\$ 1,274	\$ 1,907	0-1
2) % Responsibility	100.00	51.73	1.34	19.49	1.22	.56	4.09	7.49	.01	3.03	4.53	
3) Coincident Peak O. & M. - 1978	\$123,617	\$52,086	\$1,348	\$25,022	\$2,409	\$ 824	\$6,710	\$17,237	\$ 2,082	\$4,910	\$3,308	0-4
4) % Responsibility	100.00	42.14	1.09	20.24	1.95	.67	5.43	13.94	1.68	3.97	2.68	
5) Coincident Peak & Average O. & M. - 1977	\$ 42,055	\$20,980	\$ 593	\$ 8,156	\$ 565	\$ 218	\$1,762	\$ 3,791	\$ 232	\$1,253	\$1,885	0-2
6) % Responsibility	100.00	49.89	1.41	19.39	1.34	.52	4.19	9.02	.55	2.98	4.48	
7) Coincident Peak & Average O. & M. - 1978	\$123,617	\$51,164	\$1,379	\$7,577	\$2,452	\$ 792	\$6,717	\$18,019	\$ 2,355	\$4,929	\$3,267	0-5
8) % Responsibility	100.00	41.39	1.12	20.20	1.98	.64	5.43	14.58	1.90	3.99	2.64	
9) Class Non-Coincident Peak O. & M. - 1977	\$ 42,055	\$21,724	\$ 548	\$ 8,039	\$ 501	\$ 240	\$1,726	\$ 2,997	\$ 560	\$1,202	\$1,861	0-3
10) % Responsibility	100.00	51.66	1.30	19.12	1.19	.57	4.10	7.13	1.33	2.86	4.42	
11) Class Non-Coincident Peak O. & M. - 1978	\$123,617	\$51,937	\$1,334	\$24,758	\$2,382	\$ 843	\$6,775	\$17,212	\$ 2,754	\$ 4,821	\$3,239	0-6
12) % Responsibility	100.00	42.01	1.08	20.03	1.93	.68	5.48	13.92	2.23	3.90	2.62	

NOVA SCOTIA POWER CORPORATION

Determination of Allocation Factors

For the Years Ended March 31, 1977 & 1978

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
	Total Company Less Steam and Joint	Domestic	General Conn. Load	General	General	General	General Industrial Large To 249 KVA	Industrial 250-3,999 KVA	Industrial Large	Industrial Interruptible Service	Municipal Unmetered Factors		
1) Secondary Customer/Revenue - 1977	\$ 141,659	\$ 75,885	\$ 2,277	\$ 48,390	\$ 13,473	\$ -	\$ 1,634	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2) & Responsibility	100.00	53.57	1.61	34.16	9.51	-	1.15	-	-	-	-	-	R-1
(3) Secondary Customer/Revenue - 1978	\$ 141,564	\$ 77,108	\$ 2,293	\$ 47,582	\$ 13,394	\$ -	\$ 1,187	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
4) & Responsibility	100.00	54.47	1.62	33.61	9.46	-	.84	-	-	-	-	-	R-2
5) Discount Revenue - 1978	\$ 1,293,894	\$ 798,951	\$ 19,796	\$ 144,107	\$ 34,283	\$ 1,735	\$ -	\$ -	\$ 228,837	\$ 4,558	\$ 58,530	\$ 3,097	R-3
6) & Responsibility	100.00	61.75	1.53	11.14	2.65	.13	-	-	17.69	.35	4.52	.24	

SCHEDULE 1

NOVA SCOTIA POWER CORPORATION

Cost of Service Study Summaries

For the Years Ended March 31, 1977 and 1978

Percentage Relationship of Class Return to Average Return

	Total Company Less Steam and Joint (1)	Domestic (2)	General Comm. Load (3)	General (4)	General Electric (5)	General Large (6)	Industrial To 249 KVA (7)	Industrial 250-3,999 KVA (8)	Industrial Large (9)	Interruptible Service (10)	Municipal (11)	Unmetered (12)	Year Ended March 31, 1977		
													1)	2)	
1) Coincident Peak	100.00	59.0	99.3	161.5	101.4	115.4	125.7	104.5	190.9	4,796.8	105.5	78.8	100.00	59.0	
2) Coincident Peak and Average	100.00	65.0	88.6	158.9	105.1	99.1	136.4	99.3	150.6	326.2	107.6	79.9	100.00	65.0	
3) Class Non Coincident Peak	100.00	60.2	104.0	163.4	106.4	119.6	121.1	104.6	195.6	66.1	118.4	83.4	100.00	60.2	
														Year Ended March 31, 1978	
4) Coincident Peak	100.00	48.0	124.3	175.1	119.0	97.4	127.7	101.6	196.0	2,611.5	85.7	93.6	100.00	48.0	
5) Coincident Peak and Average	100.00	55.2	111.0	173.0	122.1	86.3	140.8	100.1	149.8	389.1	83.5	97.2	100.00	55.2	
6) Class Non Coincident Peak	100.00	49.6	131.8	183.5	126.7	107.5	114.6	94.9	198.7	7.6	100.6	106.2	100.00	49.6	

SCHEDULE 2

NOVA SCOTIA POWER CORPORATION

Load Analysis

For the Years Ending March 31, 1977 and 1978

Class	Customers Served (1)	MWh Sales (2)	Losses (3)	MWh Generated & Purchased (4)	Non Diversified Class L.F. at Dec 31 (5)	Non Diversified Class KWh Demand December (6)	Class Coincident Factor (7)	Diversified Class Load Factor (8)	Diversified Class Demand (9)	System Coincidence Factor (10)	Coincident KWh Demand (11)	Losses (12)	System Coincident KWh Demand (13)
1977													
1) Domestic	257,891	1,771,621	10.8	1,962,940	32.50	622,276	.722	45.01	449,294	.825	370,668	10.8	410,700
2) Gen. Serv. Comnt. Load	10,710	48,618	10.8	53,869	78.97	7,028	.950	83.12	6,677	.900	6,009	10.8	6,658
3) Gen. Serv. Demand	16,627	968,059	10.8	1,072,609	47.86	230,906	.950	50.37	219,361	.900	197,425	10.8	218,747
4) Gen. Serv. All Electric	2,069	314,226	10.3	346,591	41.72	85,969	.975	42.79	83,820	.925	77,534	10.3	85,519
5) Gen. Serv. Large	3	111,661	9.0	121,710	62.85	20,282	.925	67.94	18,761	.875	16,416	9.0	17,893
6) Industrial to 249 KVA	166	21,399	9.0	23,325	29.63	8,245	.925	32.02	7,627	.875	6,674	9.0	7,274
7) Industrial 250-3,999 KVA	124	286,452	7.8	308,795	48.11	67,969	.925	52.01	62,871	.875	55,012	7.8	59,303
8) Industrial Large	14	985,165	4.8	1,032,453	71.88	157,558	.875	81.57	137,863	.850	117,184	4.8	122,808
9) Interruptible	6	124,277	4.8	130,242	50.00	28,373	.900	55.56	25,536	-	-	-	-
10) Bowaters Marsey	1	200,000	4.8	209,600	54.39	41,979	1.000	54.39	41,979	.900	37,781	4.8	39,959
11) A.E.C.L. Pt. Tupper	1	148,961	4.8	156,111	70.56	24,100	.975	72.37	23,498	.975	22,911	4.8	24,011
12) Municipal	8	229,703	4.8	240,729	52.68	49,770	.975	54.04	48,526	.925	44,887	4.8	47,042
13) Unmetered	2,623	60,456	10.8	66,985	44.75	15,421	1.000	44.75	15,421	1.000	15,421	10.8	17,086
14) W.B.E.P.C.	1	1,739	4.8	1,739	-	-	-	-	-	-	-	-	-
Total	290,244	5,272,257	8.638	5,727,698		1,359,876			1,141,234		967,932	9.252	1,057,000
1978													
16) Domestic	264,465	1,741,588	10.3	1,920,889	32.20	617,087	.722	44.62	445,537	.825	367,568	10.3	405,427
17) Gen. Serv. Comnt. Load	9,855	46,645	10.3	51,449	73.58	7,236	.950	77.46	6,874	.900	6,187	10.3	6,824
18) Gen. Serv. Demand	17,215	985,884	10.3	1,087,430	48.48	232,156	.950	51.03	220,548	.900	198,493	10.3	218,938
19) Gen. Serv. All Electric	1,792	307,822	9.5	337,065	45.08	77,956	.975	46.23	76,007	.925	70,307	9.5	76,986
20) Gen. Serv. Large	3	113,542	8.5	123,193	60.61	21,384	.925	58.81	19,780	.875	17,308	8.5	18,779
21) Industrial to 249 KVA	218	29,407	8.5	31,907	27.56	12,182	.925	26.74	11,268	.875	9,850	8.5	10,698
22) Industrial 250-3,999 KVA	126	299,816	7.1	321,103	47.69	71,762	.925	46.28	66,380	.875	58,082	7.1	62,206
23) Industrial Large	14	912,508	4.3	951,746	80.91	130,193	.875	82.07	113,919	.850	96,831	4.3	100,995
24) Interruptible	6	135,436	4.3	141,260	50.00	30,921	.900	49.86	27,829	-	-	-	-
25) Bowaters Marsey	1	200,000	4.3	208,600	56.37	42,240	.975	49.80	41,184	.900	37,066	4.3	38,659
26) A.E.C.L. Pt. Tupper	1	163,691	4.3	170,730	77.86	24,000	.925	75.55	22,200	.975	21,645	4.3	22,578
27) Municipal	8	234,154	4.3	244,233	56.96	46,930	.975	54.04	45,757	.925	42,325	4.3	44,145
28) Unmetered	2,380	63,226	10.3	69,738	44.80	16,108	1.000	-	16,108	1.000	16,108	10.3	17,767
29) W.B.E.P.C.	1	2,163	4.3	2,256	-	-	-	-	-	-	-	-	-
Total	296,085	5,235,882	8.131	5,661,589		1,330,155			1,113,391		941,780		1,024,000

NOVA SCOTIA POWER CORPORATIONSCHEDULE 3Analysis Of MWH Sold And GeneratedFor The Years Ended March 31, 1977 And 1978

	Year Ended March 31, 1977		Year Ended March 31, 1978	
	MWH Sales (1)	MWH Generation (2)	MWH Sales (3)	MWH Generation (4)
1) Domestic	1,771,621	1,962,940	1,741,588	1,920,889
2) Gen. Conn Load	48,618	53,869	46,645	51,449
3) General	968,059	1,072,609	985,884	1,087,430
4) General All Electric	314,226	346,591	307,822	337,065
5) General Large	111,661	121,710	113,542	123,193
6) Industrial To 249 KVA	21,399	23,325	29,407	31,907
7) Industrial 250 - 3,999 KVA	286,452	308,795	299,816	321,103
8) Industrial Large	985,165	1,032,453	912,508	951,746
9) Interruptible	124,277	130,242	135,436	141,260
10) Municipal	229,703	240,729	234,154	244,223
11) Unmetered	60,456	66,985	63,226	69,738
12) Sub-Total	<u>4,921,637</u>	<u>5,360,248</u>	<u>4,870,028</u>	<u>5,280,003</u>
13) AECL Pt. Tupper	148,961	156,111	163,691	170,730
14) Bowaters Mersey	200,000	209,600	200,000	208,600
15) N.B.E.P.C.	<u>1,659</u>	<u>1,739</u>	<u>2,163</u>	<u>2,256</u>
16) <u>Total</u>	<u>5,272,257</u>	<u>5,727,698</u>	<u>5,235,882</u>	<u>5,661,589</u>

SCHEDULE 4

NOVA SCOTIA POWER CORPORATION

Determination Of Customer Non-Coincident KW By Voltage Level

For The Years Ended March 31, 1977 And 1978

	Total Company Less Steam And Joint (1)	Domestic (2)	General Conn. Load (3)	General (4)	General All Electric (5)	General Large (6)	Industrial To 249 KVA (7)	Industrial 250-3,999 KVA (8)	Industrial Large (9)	Interruptible (10)	Municipal (11)	Unmetered (12)
1) Year Ended March 31, 1977												
Non Coin. KW Secondary	953,557	622,276	7,028	217,632	83,747	-	7,453	-	-	-	-	15,421
Losses 2.6%	24,792	16,179	183	5,658	2,177	-	194	-	-	-	-	401
3) Sub-Total	978,349	638,455	7,211	223,290	85,924	-	7,647	-	-	-	-	15,822
4) Non Coin. KW Primary	1,121,639	638,455	7,211	236,564	88,146	20,282	8,439	66,113	19,637	-	20,970	15,822
Losses 3.6%	40,377	22,984	260	8,516	3,173	730	304	2,380	707	-	754	569
6) Sub-Total	1,162,016	661,439	7,471	245,080	91,319	21,012	8,743	68,493	20,344	-	21,724	16,391
7) Non Coin. KW DBPS	1,352,410	661,439	7,471	245,080	91,319	21,012	8,743	71,353	150,705	28,373	50,524	16,391
Losses 2.0%	27,048	13,229	149	4,902	1,826	420	175	1,427	3,014	568	1,010	328
9) Sub-Total	1,379,458	674,668	7,620	249,982	93,145	21,432	8,918	72,760	153,719	28,941	51,534	16,719
10) Total At Trans. Level	1,379,458	674,668	7,620	249,982	93,145	21,432	8,918	72,760	153,719	28,941	51,534	16,719
11) Year Ended March 31, 1978												
Non Coin. KW Secondary	946,437	617,087	7,236	218,882	75,734	-	11,390	-	-	-	-	16,108
Losses 2.6%	24,607	16,044	188	5,691	1,969	-	296	-	-	-	-	419
13) Sub-Total	971,044	633,131	7,424	224,573	77,703	-	11,686	-	-	-	-	16,527
14) Non Coin. KW Primary	1,117,310	633,131	7,424	237,847	79,925	21,384	12,478	70,005	20,459	-	18,130	16,527
Losses 3.1%	34,636	19,627	230	7,373	2,478	663	387	2,170	634	-	562	512
16) Sub-Total	1,151,946	652,758	7,654	245,220	82,403	22,047	12,865	72,175	21,093	-	18,692	17,039
17) Non Coin. KW DBPS	1,324,261	652,758	7,654	245,220	82,403	22,047	12,865	75,035	130,827	30,921	47,492	17,039
Losses 2.0%	26,485	13,055	153	4,904	1,648	441	257	1,501	2,617	618	950	341
19) Sub-Total	1,350,746	665,813	7,807	250,124	84,051	22,488	13,122	76,536	133,444	31,539	48,442	17,380
20) Total At Trans. Level	1,350,746	665,813	7,807	250,124	84,051	22,488	13,122	76,536	133,444	31,539	48,442	17,380

NOVA SCOTIA POWER CORPORATIONSCHEDULE 7Analysis of Working CapitalGlace Bay Steam Sales, Point Tupper Steam and Electric Salesand Bowaters Mersey Electric SalesFor the Year Ended March 31, 1977

(\$000)

	Total Company (1)	Glace Bay (2)	Point Tupper (3)	Mersey System (4)	Total (5)
<u>Cash</u>					
1) Fuel	\$ 4,719	\$ 576	\$ 407	\$ -	\$ 3,736
2) Purch. Power	129	-	-	-	129
3) Labour	2,573	139	96	45	2,293
4) Other	2,869	89	195	28	2,557
5) Sub-Total	<u>\$ 10,290</u>	<u>\$ 804</u>	<u>\$ 698</u>	<u>\$ 73</u>	<u>\$ 8,715</u>
<u>Deduct:</u>					
6) Consumer Deposits	\$ (732)	\$ -	\$ -	\$ -	\$ (732)
7) Fed. Coal Subvention	(823)	-	-	-	(823)
8) Prov. for Non-DB Losses	(716)	-	-	-	(716)
9) C&RR Bowaters	(650)	-	-	(650)	-
10) Ref. Cap. Cont.	(44)	-	-	-	(44)
11) Total Deduct	<u>\$ (2,965)</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ (650)</u>	<u>\$ (2,315)</u>
12) <u>Net Cashwork-Capital</u>	<u>\$ 7,325</u>	<u>\$ 804</u>	<u>\$ 698</u>	<u>\$ (577)</u>	<u>\$ 6,400</u>
<u>Mat. & Supp. Inventory</u>					
13) Fuel	\$ 4,126	\$ 346	\$ 106	\$ -	\$ 3,674
14) Linestores	11,054	-	-	-	11,054
15) Thermal	-	-	-	-	-
16) Mobile Serv.	-	-	-	-	-
17) Trans & Subst.	-	-	-	-	-
18) Total Mat. & Supp.	<u>\$ 15,180</u>	<u>\$ 346</u>	<u>\$ 106</u>	<u>\$ -</u>	<u>\$ 14,728</u>
19) <u>Total Work Capital</u>	<u>\$ 22,505</u>	<u>\$ 1,150</u>	<u>\$ 804</u>	<u>\$ (577)</u>	<u>\$ 21,128</u>

NOVA SCOTIA POWER CORPORATION

Classification of Plant in Service
 For the Year Ended March 31, 1977
 (\$000)

	Total Company (1)	Coincident Peak (2)	Peak and Average (3)	Class M.C. Peak (4)	Customer M.C. Peak (5)	Energy (6)	Customer (7)	Revenue (8)	Direct (9)	As Other (10)
Production										
1) Steam Other	\$ 95,627	\$ 95,627	\$ 95,627	\$ 95,627	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2) Hersey System	4,638	450	-	450	-	-	-	-	4,188	-
3) Other Hydro	19,227	19,227	-	19,227	-	-	-	-	-	-
4) Gas Turbine	23,189	23,189	-	23,189	-	-	-	-	8,742	-
5) Ft. Tupper	14,424	5,682	5,682	5,682	-	-	-	-	14,176	-
6) Glace Bay	24,996	10,820	10,820	10,820	-	-	-	-	-	-
7) Water Street	18,956	18,956	18,956	18,956	-	-	-	-	-	-
8) Total	\$201,057	\$173,951	\$131,085	\$173,951	\$ -	\$ -	\$ -	\$ -	\$ 27,106	\$ -
Transmission Plant										
9) Sub-Stations	\$ 26,362	\$ 26,362	\$ 26,362	\$ 26,362	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
10) All Other	48,206	48,206	48,206	48,206	-	-	-	-	-	-
11) Total	\$ 74,568	\$ 74,568	\$ 74,568	\$ 74,568	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Distribution Plant										
12) Land	\$ 2,505	\$ -	\$ -	\$ 2,505	\$ 2,505	\$ -	\$ -	\$ -	\$ -	\$ -
13) Sub-Stations	23,115	-	-	20,996	20,996	-	-	-	2,119	-
14) Poles	51,376	-	-	19,008	19,008	-	32,368	-	-	-
15) Wire-OH	27,759	-	-	11,382	11,382	-	16,377	-	-	-
16) Underground	4,246	-	-	-	-	-	-	-	-	4,246
17) Line Transformers	26,562	-	-	26,562	26,562	-	-	-	-	-
18) Services	14,217	-	-	-	-	-	14,217	-	-	-
19) Meters	9,200	-	-	-	-	-	-	-	9,200	-
20) Other	67	-	-	-	-	-	-	-	-	67
21) Street Lighting	8,000	-	-	-	-	-	-	-	8,000	-
22) Total	\$167,047	\$ -	\$ -	\$ 80,453	\$ 80,453	\$ -	\$ 82,962	\$ -	\$ 19,319	\$ 4,313
23) General Intangible & Future Use	\$ 5,945	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 5,945
Working Capital										
24) Cash - Fuel	\$ 3,042	\$ -	\$ -	\$ -	\$ -	\$ 3,042	\$ -	\$ -	\$ -	\$ -
25) Cash - Other	3,358	-	-	-	-	-	-	-	-	3,358
26) Mat. & Supp. - Fuel	3,674	-	-	-	-	3,674	-	-	-	-
27) Mat. & Supp. - Other	11,054	-	-	-	-	-	-	-	-	11,054
28) Total	\$ 21,128	\$ -	\$ -	\$ -	\$ -	\$ 6,716	\$ -	\$ -	\$ -	\$ 14,412
CWIP										
29) Production-Hydro	\$ 81,434	\$ 81,434	\$ -	\$ 81,434	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
30) Production-Steam	11,661	11,661	11,661	11,661	-	-	-	-	-	-
31) Transmission	7,005	7,005	7,005	7,005	-	-	-	-	-	-
32) Distribution	5,035	-	-	-	-	-	-	-	-	5,035
33) General	2,750	-	-	-	-	-	-	-	-	2,750
34) Total	\$107,885	\$100,100	\$ 18,666	\$100,100	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 7,785
35) Total Plant	\$577,630	\$348,619	\$234,319	\$429,072	\$ 80,453	\$ 6,716	\$ 62,962	\$ -	\$ 46,425	\$ 32,455

NOVA SCOTIA POWER CORPORATION

Analysis of Distribution Substation Costs
For the Year Ended March 31, 1977

	Distribution Bulk Power (1)	Dist. Ded. Bulk Power (2)	Dist. Cust. Owned B. P. (3)	Distribution General (4)	Dist. Ded. General (5)	Dist. Cust. Owned Gen. (6)	Total Cost (7)
1) Total Cost	\$21,020,700	\$1,411,823 (230,205)	\$32,319	\$6,518,929	\$1,499,408	\$33,344	\$30,516,523
2) AECU Pt. Tupper	-	-	-	-	-	-	-
3) Bayers Rd.	-	-	-	19,397	(19,397)	-	-
4) Reserve Mines	-	-	-	29,286	(29,286)	-	-
5) Sydney Mines	-	-	-	115,901	(115,901)	-	-
6) Canadian Liquid Air	-	-	-	14,688	(14,688)	-	-
7) Total Dist. Substations	\$21,020,700	\$1,181,618	\$32,319	\$6,698,201	\$1,320,136	\$33,344	\$30,286,318
8) Total Net Dist. Substations	\$15,922,562	\$ 895,041	\$24,481	\$5,073,690	\$ 999,964	\$25,257	\$22,940,995
9) Municipal		\$ 316,322			\$ 231,484		
10) Interruptible			\$10,677		\$ 7,856		
11) Industrial to 249 KVA		\$ 2,272			\$ 6,666		
12) Ind. 250 to 3,999 KVA		\$ 123,511	\$ 826		\$ 359,244	\$25,257	
13) Industrial Large		\$ 452,936	\$12,978		\$ 120,606		
14) General					\$ 71,505		
15) General All Electric					\$ 98,770		
16) General Large					\$ 103,833		

NOVA SCOTIA POWER CORPORATIONSCHEDULE 8
PAGE 3 OF 4Analysis of Pole InvestmentFor the Year Ended March 31, 1977

(\$000)

	Total Cost (1)	Primary Demand (2)	Primary Customer (3)	Secondary Demand (4)	Secondary Customer (5)
1) Total Net Pole Cost 1977	<u>\$51,376</u>				
2) Primary Only 30%	\$15,412	\$ 5,702	\$ 9,710	\$ -	\$ -
3) 50% Joint Primary	17,982	6,653	11,329	-	-
4) 50% Joint Secondary	<u>17,982</u>	<u>-</u>	<u>-</u>	<u>6,653</u>	<u>11,329</u>
5) <u>Total</u>	<u>\$51,376</u>	<u>\$ 12,355</u>	<u>\$ 21,039</u>	<u>\$ 6,653</u>	<u>\$11,329</u>

Demand Cost 37%

Customer Cost 63%

NOVA SCOTIA POWER CORPORATIONSCHEDULE 8PAGE 4 OF 4Analysis of Wire InvestmentFor the Year Ended March 31, 1977

(\$000)

	Total Cost (1)	Primary Demand (2)	Primary Customer (3)	Secondary Demand (4)	Secondary Customer (5)
1) Total Net Cost 1977	<u>\$27,759</u>				
2) Primary Only 30%	\$ 8,327	\$ 3,414	\$ 4,913	\$ -	\$ -
3) 50% Joint Primary	9,716	3,984	5,732	-	-
4) 50% Joint Secondary	<u>9,716</u>	-	-	<u>3,984</u>	<u>5,732</u>
5) <u>Total</u>	<u>\$27,759</u>	<u>\$ 7,398</u>	<u>\$10,645</u>	<u>\$ 3,984</u>	<u>\$ 5,732</u>

Demand Cost 41%

Customer Cost 59%

NOVA SCOTIA POWER CORPORATION

Allocation of Rate Base
 For the Year Ended March 31, 1977

Coincident Peak Responsibility

	Total Co. and Joint (1)	Domestic (2)	General Conn. Load (3)	General (4)	General All Electric (5)	General Large To 249 KVA (6)	Industrial Large (7)	Industrial 250-3,999 KVA (8)	Industrial Large (9)	Interruptible Service (10)	Municipal (11)	Unmetered (12)	Allocation Factors (13)
1) Production Plant	\$173,951	\$ 71,998	\$ 1,235	\$ 38,356	\$ 14,890	\$ 3,148	\$ 1,235	\$ 10,333	\$ 21,553	\$ -	\$ 8,228	\$ 2,975	D-1
2) Transmission Plant	\$ 74,568	\$ 30,864	\$ 529	\$ 16,442	\$ 5,383	\$ 1,350	\$ 529	\$ 4,430	\$ 9,239	\$ -	\$ 3,527	\$ 1,275	D-1
Distribution Plant													
3) Land	\$ 2,505	\$ 1,803	\$ 52	\$ 341	\$ 112	\$ 21	\$ 11	\$ 72	\$ 31	\$ 1	\$ 32	\$ 29	P-3
4) Substations	22,941	11,951	134	4,500	1,749	484	166	1,748	954	19	940	296	Sched. 12 Pg 1
5) Poles	51,376	40,146	1,322	5,979	1,785	224	165	735	216	-	231	573	Sched. 14 Pg 1
6) Wire - O. H.	27,759	21,368	681	3,407	1,049	134	96	440	129	-	138	317	Sched. 14 Pg 1
7) Underground	4,246	3,300	107	504	152	19	14	63	19	-	20	48	P-1
8) Line Transformers	26,562	17,334	197	6,062	2,332	-	207	-	-	-	-	430	D-3
9) Services	34,217	10,107	419	3,253	405	-	33	-	15	-	-	-	C-9
10) Meters	9,200	7,066	293	1,488	242	2	19	65	4	-	1	1	Sched. 15
11) Other	67	48	1	9	3	1	-	2	1	-	1	1	P-3
12) Street Lighting	8,000	-	-	-	-	-	-	-	-	-	-	8,000	Direct
13) Total	\$166,873	\$113,123	\$ 3,206	\$ 25,543	\$ 7,829	\$ 885	\$ 711	\$ 3,125	\$ 1,365	\$ 26	\$ 1,366	\$ 9,694	
14) General, Intangible & Future Use	\$ 5,945	\$ 3,091	\$ 71	\$ 1,150	\$ 416	\$ 77	\$ 36	\$ 256	\$ 460	\$ 1	\$ 188	\$ 199	P-5
15) Total Plant in Service	\$421,337	\$219,076	\$ 5,041	\$ 81,491	\$ 29,518	\$ 5,460	\$ 2,511	\$ 18,144	\$ 32,617	\$ 27	\$ 13,309	\$ 14,143	
Working Capital													
16) Cash-Fuel	\$ 3,042	\$ 1,114	\$ 30	\$ 609	\$ 197	\$ 69	\$ 13	\$ 175	\$ 586	\$ 74	\$ 137	\$ 38	E-1
17) Cash	3,358	1,737	45	654	219	41	19	137	252	-	102	152	O-1
18) Mat. & Supp. - Fuel	3,674	1,345	37	735	238	83	16	212	708	89	165	46	E-1
19) Mat. & Supp. - Other	11,054	5,747	133	2,138	774	144	66	475	856	1	349	371	P-5
20) Total	\$ 21,128	\$ 9,943	\$ 245	\$ 4,136	\$ 1,428	\$ 337	\$ 114	\$ 999	\$ 2,402	\$ 164	\$ 753	\$ 607	
21) Total Rate Base	\$442,465	\$229,019	\$ 5,286	\$ 85,627	\$ 30,946	\$ 5,797	\$ 2,625	\$ 19,143	\$ 35,019	\$ 191	\$ 14,062	\$ 14,750	

NOVA SCOTIA POWER CORPORATION

Allocation of Rate Base For The Year Ended March 31, 1977

Coincident Peak and Average Responsibility

(\$000)

	Total Company and Joint (1)	Domestic (2)	General Cons. Load (3)	General All Electric (4)	General (5)	General Large (6)	Industrial To 249 KVA (7)	Industrial 250-3,999 KVA (8)	Industrial Large (9)	Interruptible Service (10)	Municipal (11)	Unmetered (12)	Factor (13)
Production Plant													
1) Steam	\$131,085	\$ 51,765	\$ 1,062	\$ 27,803	\$ 10,185	\$ 2,609	\$ 813	\$ 7,904	\$ 19,650	\$ 1,219	\$ 6,030	\$ 2,045	D-3
2) Hydro	19,677	8,144	140	4,339	1,684	356	140	1,169	2,438	-	931	336	D-1
3) Gas Turbine	23,189	9,598	165	5,113	1,985	420	165	1,377	2,873	-	1,097	396	D-1
4) Total	\$173,951	\$ 69,507	\$ 1,367	\$ 37,255	\$ 13,854	\$ 3,385	\$ 1,118	\$ 10,450	\$ 24,961	\$ 1,219	\$ 8,058	\$ 2,777	
5) Transmission Plant	\$ 74,568	\$ 29,447	\$ 604	\$ 15,816	\$ 5,794	\$ 1,484	\$ 462	\$ 4,496	\$ 11,178	\$ 694	\$ 3,430	\$ 1,163	D-3
Distribution Plant													
6) Land	\$ 2,505	\$ 1,717	\$ 54	\$ 385	\$ 132	\$ 23	\$ 12	\$ 79	\$ 33	\$ 1	\$ 36	\$ 33	P-4
7) Substations	22,941	10,526	155	5,203	2,060	532	187	1,905	979	19	1,014	361	Sched. 12 Pg. 2
8) Poles	51,376	38,866	1,343	6,669	2,091	252	185	828	231	-	274	637	Sched. 14 Pg. 2
9) Wire-O.H.	27,759	20,601	695	3,820	1,232	151	108	495	138	-	164	355	Sched. 14 Pg. 2
10) Underground	4,246	3,190	110	563	178	22	16	71	20	-	23	53	P-2
11) Line Transformers	26,562	15,565	231	7,164	2,829	-	239	-	-	-	-	534	D-11
12) Services	14,217	10,107	419	3,253	405	-	33	-	-	-	-	-	C-9
13) Meters	9,200	7,066	293	1,488	242	2	19	65	15	6	4	-	Schedule 15
14) Other	67	46	1	10	4	1	2	1	1	-	1	-	P-4
15) Street Lighting	8,000	-	-	-	-	-	-	-	-	-	-	8,000	Direct
16) Total	\$166,873	\$107,684	\$ 3,301	\$ 28,555	\$ 9,173	\$ 983	\$ 801	\$ 3,444	\$ 1,417	\$ 26	\$ 1,516	\$ 9,973	
17) Gen., Intan. and Future Plant	\$ 5,945	\$ 2,957	\$ 76	\$ 1,168	\$ 413	\$ 84	\$ 34	\$ 263	\$ 537	\$ 28	\$ 186	\$ 199	P-6
18) Total Plant In Service	\$421,337	\$209,595	\$ 5,348	\$ 82,794	\$ 29,234	\$ 5,936	\$ 2,415	\$ 18,653	\$ 38,093	\$ 1,967	\$ 13,190	\$ 14,112	
Working Capital													
19) Cash Fuel	\$ 3,042	\$ 1,114	\$ 30	\$ 609	\$ 197	\$ 69	\$ 13	\$ 175	\$ 586	\$ 74	\$ 137	\$ 38	S-1
20) Cash-Other	3,358	1,675	47	651	209	45	18	141	303	18	100	151	O-2
21) Mat. & Supp.-Fuel	3,674	1,345	37	735	238	83	16	212	708	89	165	46	S-1
22) Mat. & Supp.-Other	11,054	5,499	140	2,172	767	156	63	490	999	52	346	370	P-6
23) Total	\$ 21,128	\$ 9,633	\$ 254	\$ 4,167	\$ 1,411	\$ 353	\$ 110	\$ 1,018	\$ 2,596	\$ 233	\$ 748	\$ 605	
24) Total Rate Base	\$442,465	\$219,228	\$ 5,602	\$ 86,961	\$ 30,645	\$ 6,289	\$ 2,525	\$ 19,671	\$ 40,689	\$ 2,200	\$ 13,938	\$ 14,717	

NOVA SCOTIA POWER CORPORATION

Allocation of Rate Base

For The Year Ending March 31, 1977

Class Non-Coincident Responsibility

(0000)

	Total Company Less Steam And Joint	Domestic (2)	General Conn. Load (3)	General (4)	General All Electric (5)	General Large (6)	Industrial To 249 KVA (7)	Industrial 250-3,999 KVA (8)	Industrial Large (9)	Industrial Service (10)	Municipal (11)	Unmetered (12)	Factor (13)
1) Production Plant	\$173,951	\$ 73,807	\$ 1,096	\$ 36,025	\$ 13,429	\$ 3,009	\$ 1,218	\$ 10,072	\$ 21,309	\$ 3,949	\$ 7,497	\$ 2,540	D-17
2) Transmission Plant	\$ 74,568	\$ 31,639	\$ 470	\$ 15,443	\$ 5,757	\$ 1,290	\$ 522	\$ 4,317	\$ 9,134	\$ 1,693	\$ 3,214	\$ 1,089	D-17
Distribution Plant													
3) Land	\$ 2,505	\$ 1,717	\$ 54	\$ 385	\$ 132	\$ 23	\$ 12	\$ 79	\$ 33	\$ 1	\$ 36	\$ 33	P-4
4) Substations	22,941	10,526	155	5,203	2,060	532	187	1,905	979	19	1,014	361	Sched 12 Pg 2
5) Poles	51,376	38,866	1,343	6,669	2,091	252	185	828	231	-	274	637	Sched 14 Pg 2
6) Wire - O.H.	27,759	20,601	695	3,820	1,232	151	108	495	138	-	164	355	Sched 14 Pg 2
7) Underground	4,246	3,190	110	563	178	22	16	71	20	-	23	53	P-2
8) Line Transformers	26,562	15,565	231	7,164	2,829	-	239	-	-	-	-	534	D-11
9) Services	14,217	10,107	419	3,253	405	-	33	-	-	-	-	-	C-9
10) Meters	9,200	7,066	293	1,488	242	2	19	65	15	6	4	-	Sched 15
11) Other	67	46	1	10	4	1	2	1	1	-	1	-	P-4
12) Street Lighting	8,000	-	-	-	-	-	-	-	-	-	-	8,000	Direct
13) Total	\$166,873	\$107,684	\$ 3,301	\$ 28,555	\$ 9,173	\$ 983	\$ 801	\$ 3,444	\$ 1,417	\$ 26	\$ 1,516	\$ 9,973	
14) General Intangible & Future Use	\$ 5,945	\$ 3,050	\$ 70	\$ 1,146	\$ 406	\$ 76	\$ 36	\$ 255	\$ 456	\$ 81	\$ 175	\$ 194	P-7
15) Total Plant In Service	\$421,337	\$216,180	\$ 4,937	\$ 81,162	\$ 28,765	\$ 5,358	\$ 2,577	\$ 18,088	\$ 32,316	\$ 5,749	\$ 12,402	\$ 13,796	
Working Capital													
16) Cash - Fuel	\$ 3,042	\$ 1,114	\$ 30	\$ 609	\$ 197	\$ 69	\$ 13	\$ 175	\$ 586	\$ 74	\$ 137	\$ 38	E-1
17) Cash - Other	3,358	1,735	43	642	212	40	19	138	239	45	96	149	O-3
18) Mat. & Supp. - Fuel	3,674	1,345	37	735	238	83	16	212	708	89	165	46	E-1
19) Mat. & Supp. - Other	11,054	5,672	129	2,130	755	140	67	474	848	152	325	362	P-7
20) Total	\$ 21,128	\$ 9,866	\$ 239	\$ 4,116	\$ 1,402	\$ 332	\$ 115	\$ 999	\$ 2,381	\$ 360	\$ 723	\$ 595	
21) Total Rate Base	\$442,465	\$226,046	\$ 5,176	\$ 85,285	\$ 30,167	\$ 5,690	\$ 2,692	\$ 19,087	\$ 34,697	\$ 6,109	\$ 13,125	\$ 14,391	

NOVA SCOTIA POWER CORPORATION

Allocation of Distribution Substation Costs
For the Year Ended March 31, 1977

Coincident Peak Responsibility

	Total Company Less Steam And Joint (1)	Domestic (2)	General Comm. Load (3)	General (4)	General All Electric (5)	General Large (6)	Industrial To 249 KVA (7)	Industrial 250-3,999 KVA (8)	Industrial Large (9)	Industrial Service (10)	Municipal (11)	Unmetered (12)	Allocation Factor (13)
1) Distribution Bulk Power	\$15,922,562	\$ 9,063,122	\$ 101,905	\$3,358,068	\$1,251,514	\$ 288,198	\$ 119,419	\$ 939,431	\$ 278,645	-	\$ 297,752	\$ 224,508	D-7
2) Distr. Bulk Power Dedicated	895,041	-	-	-	-	-	2,272	123,511	452,936	-	316,322	-	- Sched 8 Pg 2
3) Distr. Customer Owned Bulk Power	24,481	-	-	-	-	-	-	826	12,978	10,677	-	-	- Sched 8 Pg 2
4) Dist. General	5,073,690	2,887,944	32,472	1,070,041	398,792	91,834	38,053	299,348	88,789	-	94,878	71,539	D-7
5) Distr. Dedicated General	999,964	-	-	71,505	98,770	103,833	6,666	359,244	120,606	7,856	231,484	-	- Sched 8 Pg 2
6) Distr. Cust. Owned General	25,257	-	-	-	-	-	-	25,257	-	-	-	-	- Sched 8 Pg 2
7) Total Allocation Cost	\$22,940,995	\$11,951,066	\$ 134,377	\$4,499,614	\$1,749,076	\$ 483,865	\$ 166,410	\$1,747,617	\$ 953,954	\$ 18,533	\$ 940,436	\$ 296,047	

Note: Allocations done on Customer Non-Coincident for this study.

NOVA SCOTIA POWER CORPORATION

Allocation of Distribution Substation Costs

For the Year Ended March 31, 1977

Peak and Average and Class Non-Coincident Peak Responsibility

	Total Company Less Steam and Joint (1)	Domestic (2)	General Comm. Load (3)	General (4)	General All Electric (5)	General Large (6)	Industrial To 249 KVA (7)	Industrial 250-3,999 KVA (8)	Industrial Large (9)	Industrial Interruptible Service (10)	Municipal (11)	Unmetered (12)	Allocation Factor (13)
1) Distribution Bulk Power	\$15,922,562	\$ 7,961,981	\$ 117,627	\$3,691,474	\$1,467,167	\$ 324,620	\$ 135,342	\$1,058,850	\$ 297,752	-	\$ 353,481	\$ 273,866	D-13
2) Distr. Bulk Power Dedicated	895,041	-	-	-	-	-	2,272	123,511	452,936	-	316,322	-	- Sched 6 Py 2
3) Distr. Customer Owned Bulk Power	24,481	-	-	-	-	-	-	826	12,978	10,677	-	-	- Sched 6 Py 2
4) Distr. General	5,073,690	2,543,441	37,545	1,240,010	473,883	103,503	43,126	337,400	94,878	-	112,636	87,268	D-13
5) Distr. Dedicated General	999,964	-	-	71,505	98,770	103,833	6,666	359,244	120,606	7,856	231,484	-	- Sched 6 Py 2
6) Distr. Cust. Owned General	25,257	-	-	-	-	-	-	25,257	-	-	-	-	- Sched 6 Py 2
7) Total Allocated Cost	\$22,940,995	\$10,525,422	\$ 155,372	\$5,202,989	\$2,059,820	\$ 532,156	\$ 167,406	\$1,905,088	\$ 979,150	\$ 16,533	\$1,013,923	\$ 361,136	

Note: Allocations done on Class Non-Coincident for these studies.

NOVA SCOTIA POWER CORPORATION

Analysis of Dedicated Facilities

For the Years Ended March 31, 1977 and 1978

Rate Schedule - General Service

Subst. (1)	Customer (2)	Code (3)	Cost (4)	1977			1978														
				Dec. KW (5)	Dec. MWH (6)	Annual KW (7)	Annual MWH (8)	Dec. KW (10)	Dec. MWH (11)	Annual KW (12)	Annual MWH (13)										
1)	37 H	DD	\$25,202																		
2)	33 H	DD	13,170																		
3)	45 H	DD	9,607																		
4)	63 H	DD	7,361																		
5)	69 H	DD	4,002																		
6)	47 H	DD																			
7)	53 H	DD																			
8)	45 H	DD																			
9)	50 C	DD																			
10)	50-51 H	DD																			
11)	12 H	DD																			
12)	25 H	DD	24,253																		
13)	46 V	DD	10,805																		
14)	41 V	DD																			
15)	58 V	DD																			
16)	59 V	DD																			
17)	74 V	DD																			
18)	51 W	DBP																			
19)	60 W	DD																			
20)	Total DD		\$94,400	3,210	1,212	3,862	15,647														
21)	Total COD			10,064	4,915	12,463	97,743														
22)	Total DBP																				

NOVA SCOTIA POWER CORPORATION

Analysis of Dedicated Facilities

For the Years Ended March 31, 1977 and 1978

Rate Schedule - General - All Electric

Subst. (1)	Customer (2)	Code (3)	Cost (4)	1977			1978												
				Dec. KW (5)	Dec. MWH (6)	Annual KW (7)	Annual MWH (8)	Dec. KW (10)	Dec. MWH (11)	Annual KW (12)	Annual MWH (13)								
1) 38 H	Citadel Inn	DD	\$ 25,202							438	182	451	2,284						
2) 29 H	Law Courts	DD	21,345							1,040	316	1,080	4,543						
3) 36 H	Young Street	DD	30,567							528	162	552	2,384						
4) 74 S	Keltic Lodge	DD	53,279							216	74	368	1,245						
5)	Total DP		\$130,393							2,222	734	2,451	10,456						

Voltage
(9)
23/.6
23/.6
23/.6
23/.6

NOVA SCOTIA POWER CORPORATION

Analysis of Dedicated Facilities

For the Years Ended March 31, 1977 and 1978

Rate Schedule - Industrial to 249KVA

Subst. (1)	Customer (2)	Code (3)	Cost (4)	1977			1978				
				Dec. KW (5)	Dec. MWH (6)	Annual KW (7)	Annual MWH (8)	Dec. KW (10)	Dec. MWH (11)	Annual KW (12)	Annual MWH (13)
1) 44 C	Bd. of Ed. Little River DBP	DD	\$3,000	189	30	205	291	603	5	612	847
2) 24 N	C. E. Harrison's Mill	DD	8,801	189	30	205	291	603	5	612	847
3)	Total DO		\$8,801								
4)	Total DBP		\$3,000								

Voltage
(9)
69/.6
24/.6

NOVA SCOTIA POWER CORPORATION
Analysis of Dedicated Facilities
For the Years Ended March 31, 1977 and 1978
Rate Schedule - Industrial 250-3,999 KVA

Subst. (1)	Customer (2)	Code (3)	Cost (4)	1977			1978					
				Dec. KW (5)	Dec. MWH (6)	Annual KW (7)	Annual MWH (8)	Dec. KW (10)	Dec. MWH (11)	Annual KW (12)	Annual MWH (13)	
1) 18 C	Canso Seafoods	DD \$	2,000	1,584	746	1,584	8,046	23 KV	1,562	634	1,642	8,910
2) 60 C	Evans Coal	DD	5,402	252	30	252	269	25/2.3	280	26	320	352
3) 13 C	Georgia Pacific 6B	DBPD	17,473					69/.6	320	62	336	652
4) 45 C	Georgia Pacific	DD	17,472					25/.6	512	32	512	308
5) 43 C	Dept. of Environment	DBPD	6,228					69/.6	696	271	960	4,031
6) 90 W	C.O.T.C. - (Tollstake)	DD	176,265	684	344	869	4,207	24/4.16	653	344	970	4,192
7) 114 H	National Gypsum	DD	36,016					23/2.3	960	112	1,480	2,146
8) 102 H	Pockwock Pumps	DBPD						69/4.16	1,280	752	1,840	7,116
9) 13 H	Halifax Shipyard	COD	-	2,304	1,064	2,376	8,988	23	297	43	306	7,396
10) 66 N	River Herbert Coal	DD	9,004	261	49	270	586	23/2.4	1,044	118	1,158	1,318
11) 18 N	Enheat - Rolling Mill #4	COBP	1,091	749	143	916	1,432	69	551	115	583	1,341
12) 59 N	Maritime Steel	COD	-	713	113	745	985	24				
13) 63 N	Thorborn Mine	COD	-	551	95	616	239	23				
14) 23 N	Christy Crops	DD	10,805	97	54	97	750	24/.6				
15) 39 V	Fundy Gypsum - Hansport	COD	-	691	38	706	5,376	23	864	43	912	629
16) 37 V	Fundy Gypsum - W.	COD	-	1,044	188	1,116	2,440	23	1,040	64	1,680	2,928
17) 38 V	Fundy Gypsum - Man.	COD	-	576	146	648	1,660	23	720	154	800	2,140
18) 71 V	United Elastics	DD	14,254	691	131	763	2,173	23/.6	840	214	936	2,511
19) 23 V	DND Newport Corner	COD	-	846	574	972	7,439	23	1,200	708	1,280	9,840
20) 83-84 V	L.E. Shaw - Lantz	COD	-	1,123	379	1,253	3,966	23	1,368	271	1,392	4,023
21) 32-33 V	Dresser Minerals	COD	-	1,584	636	1,728	7,296	23	1,760	652	1,920	8,232
22) 18 H	National HB In Bd.	COD	-	1,584	284	2,304	4,272	23	2,080	332	2,560	4,092
23) 19 H	National HB Pin C.	COD	-	594	252	702	2,682	23	720	363	1,020	3,354
24) 26 H	Dover Mills	COD	-	792	399	846	4,413	23	1,020	361	1,020	4,571
25) 46 H	National Gypsum	COD	-	792	99	846	651	23	960	79	1,100	1,083
26) 66 H	hart. Marine Ships	COD	-	828	222	900	2,560	23	760	172	1,200	2,630
27) 61 H	Moosehead	COD	-	742	307	821	3,770	23	880	294	960	3,738
28) 55 H	City of Dartmouth	DD	16,547	497	192	508	2,890	23/.6	456	209	504	2,828
29) 67 H	Hermie Electronics	DD	14,287	108	50	324	691	23/.6	752	17	192	216
30) 74 H	Maritime Paper	DD	10,237	547	300	619	3,073	23/.6	752	286	912	3,299
31) 71 H	Phillips Cables	DD	22,313	216	17	288	256	23/.6	136	16	304	199

NOVA SCOTIA POWER CORPORATION

Analysis of Dedicated Facilities

For the Years Ended March 31, 1977 and 1978

Rate Schedule-Industrial 250-3,999 KVA

Subst. No.	Customer (2)	Code (3)	Cost (4)	1977			1978				
				Dec. KW (5)	Dec. MWH (6)	Annual KW (7)	Annual MWH (8)	Dec. KW (10)	Dec. MWH (11)	Annual KW (12)	Annual MWH (13)
22) 75 H	Sivaco Maritime	DD\$	18,409	360	143	432	1,656	600	184	640	1,904
23) 70 H	City of Dart.-Lake Major	DD	48,023	1,022	388	1,037	5,224	576	404	1,184	4,921
34) 80 H	Municipal Spraying-OP	DD	6,936	1,188	375	1,224	2,668	1,560	372	1,560	2,310
25) 81 H	Municipal Spraying-Asphalt	DD	7,000								
36) 82 H	Municipal Spraying-Crusher	DD	14,799								
37) 59 S	Kaizer Celestille Mine	DBPD	139,356	45		666	1,445				
38) 30 S	Kaizer	COBP									
39) 34 S	Dev. Co. P.C.	COD	31,844								
40) 61 V	Greenwood Base Airport	COD	-	1,685	554	1,814	7,185	1,512	511	2,016	5,825
41) 63 S	National Sea Prod.	DD	44,499	648	204	774	2,732				
42) 21 S	Devco Shops	COD	1,500	562	1,884	648	1,261	1,104	342	1,176	4,864
43)				25,960	10,475	29,634	103,281				
44)				3,391	1,229	4,615	14,253				
45)				29,351	11,704	34,279	117,534				
46)	Total DD	\$	474,268	9,480	3,227	11,534	37,675				
47)	Total DBP	\$	186,758	2,111	1,100	3,488	13,244				
48)	Total COD	\$	33,344	17,011	7,234	19,041	65,183				
49)	Total COBP	\$	1,091	749	143	916	1,432				
	Total	\$	731,791	29,351	11,704	34,279	117,534				

CLOSED DOWN - NOV 76

1977 Portion

1978 Portion

NOVA SCOTIA POWER CORPORATION

Analysis of Dedicated Facilities

For the Years Ended March 31, 1977 and 1978

Rate Schedule - Industrial Large

Subst. (1)	Customer (2)	Code (3)	Cost (4)	1977			1978					
				Dec. KW (5)	Dec. MWH (6)	Annual KW (7)	Annual MWH (8)	Dec. KW (10)	Dec. MWH (11)	Annual KW (12)	Annual MWH (13)	
1) 12129W	Dominion Textile	DBP	\$113,176	3,607	1,431	3,607	17,702	69/6	3,380	1,311	3,872	17,123
2) 26 S	Devco #26	DD	159,222	6,912	2,976	7,488	21,744	22/6.6	6,192	3,109	7,488	37,770
3) 83 S	Sysco	DBP	-	12,710	6,211	17,642	71,740	138/23	11,281	5,501	14,166	61,020
4) 60 S	Lingan Mine	DBP	7,884	6,696	1,836	6,696	20,652	69/6.9	6,372	2,058	7,020	24,636
5) 19 S	A.E.C.L. G.B.	COBP	17,132	20,430	13,398	20,430	134,988	69	4,500	2,814	15,818	72,366
6) 74 W	Michelin BW	DBP	73,055	6,054	3,435	6,513	43,597	138/12.5	6,468	3,692	6,738	46,401
7) 85 W	Masonite Canada	COT	-	7,560	3,480	7,776	41,232	69	5,400	2,688	8,856	37,332
8) 47 C	Nova Scotia Forest Ind.	DBP	-	40,352	18,980	46,051	257,426	138/13.8	29,688	15,641	38,062	227,485
9) 46 C	Gulf Oil - Pt. Tupper	COBP	-	8,511	4,922	8,983	51,586	138	7,920	4,767	9,180	56,557
10) 49 N	Michelin Granton	DBP	86,419	9,891	6,125	10,107	76,645	138/12.5	10,125	6,217	10,602	79,408
11) 52 N	Carso Chem.	DBP	317,424	17,412	11,914	20,067	149,554	69/13.8	17,958	12,943	18,662	148,016
12) 11 N	Canada Cement	COBP	-	4,698	2,097	13,860	25,794	69	6,642	1,872	6,642	27,396
13)	Total DD		\$159,222	6,912	2,976	7,488	23,744		6,192	3,109	7,488	37,770
14)	Total DBP		\$597,958	96,722	49,932	110,683	637,316		85,272	47,363	99,122	604,089
15)	Total COB		\$	-	-	-	-		-	-	-	-
16)	Total COBP		\$ 17,132	33,639	20,417	43,273	212,368		19,062	9,453	31,640	156,319
17)	Total COT		\$	7,560	3,480	7,776	41,232		5,400	2,688	8,856	37,332
			\$774,312	144,833	76,805	169,220	914,660		115,926	62,433	147,106	835,510

NOVA SCOTIA POWER CORPORATION

Analysis of Dedicated Facilities

For the Years Ended March 31, 1977 and 1978

Rate Schedule - Municipal

Subst. (1)	Customer (2)	Code (3)	Cost (4)	1977			1978			Voltage (9)			
				Dec. KW (5)	Dec. MWH (6)	Annual KW (7)	Annual MWH (8)	Dec. KW (10)	Dec. MWH (11)		Annual KW (12)	Annual MWH (13)	
1)	52 V Town of Berwick	DBP	\$52,593	2,419	1,099	2,549	13,272			69/4.1			
2)	77 V Conway (Digby C.P.B.)	DBP	83,310	17,755	7,200	17,755	70,999			69/12.4			
3)	53 V Kentville	COD	6,624	6,624	3,456	7,704	43,688			23 KV			
4)	76 W Manome Bay	DBP	84,172	1,275	592	1,275	5,741			69/4.1			
5)	81.82 W Lunenburg	DBP	197,528	7,351	3,391	8,168	36,998			69/12.4			
6)	6.7.8 C Antigonish	DD	305,601	8,911	4,422	9,130	43,879			23/4.1			
7)	Total DP		\$305,601	8,911	4,422	9,130	43,879						
8)	Total COD		\$ -	6,624	3,456	7,704	43,688						
9)	Total DBP		\$417,603	28,800	12,282	29,747	127,010						

NOVA SCOTIA POWER CORPORATION

SCHEDULE 14

PAGE 1 OF 2

Allocation of Pole and Wire InvestmentFor the Year Ended March 31, 1977Coincident Peak Responsibility

(\$000)

	Total Cost (1)	Primary Demand D-7 (2)	Primary Customers C-5 (3)	Secondary Demand D-5 (4)	Secondary Customers C-3 (5)
<u>Poles</u>					
1) Domestic	\$40,146	\$ 7,032	\$18,699	\$ 4,342	\$10,073
2) General Conn. Load	1,322	79	776	49	418
3) General	5,979	2,606	1,206	1,518	649
4) General All Electric	1,785	971	150	584	80
5) General Large	224	224	-	-	-
6) Industrial to 249 KVA	165	93	13	52	7
7) Industrial 250-3,999 KVA	735	729	6	-	-
8) Industrial Large	216	216	-	-	-
9) Interruptible	-	-	-	-	-
10) Municipal	231	231	-	-	-
11) Unmetered	573	174	189	108	102
12) Total Company	<u>\$51,376</u>	<u>\$12,355</u>	<u>\$21,039</u>	<u>\$ 6,653</u>	<u>\$11,329</u>
<u>Wire</u>					
13) Domestic	\$21,368	\$ 4,211	\$ 9,461	\$ 2,600	\$ 5,096
14) General Conn. Load	681	47	393	29	212
15) General	3,407	1,560	610	909	328
16) General All Electric	1,049	582	76	350	41
17) General Large	134	134	-	-	-
18) Industrial to 249 KVA	96	56	6	31	3
19) Industrial 250-3,999 KVA	440	437	3	-	-
20) Industrial Large	129	129	-	-	-
21) Interruptible	-	-	-	-	-
22) Municipal	138	138	-	-	-
23) Unmetered	317	104	96	65	52
24) Total Company	<u>\$27,759</u>	<u>\$ 7,398</u>	<u>\$10,645</u>	<u>\$ 3,984</u>	<u>\$ 5,732</u>

NOVA SCOTIA POWER CORPORATIONSCHEDULE 14PAGE 2 OF 2Allocation of Pole and Wire InvestmentFor the Year Ended March 31, 1977Coincident Peak and Average and Non-Coincident

(\$000)

	Total Cost (1)	Primary Demand D-13 (2)	Primary Customers C-5 (3)	Secondary Demand D-11 (4)	Secondary Customers C-3 (4)
<u>Poles</u>					
1) Domestic	\$38,866	\$ 6,194	\$18,700	\$ 3,899	\$10,073
2) Gen. Conn. Load	1,343	91	776	58	418
3) General	6,669	3,020	1,206	1,794	649
4) General All Electric	2,091	1,154	149	708	80
5) General Large	252	252	-	-	-
6) Industrial to 249 KVA	185	105	13	60	7
7) Industrial 250-3,999 KVA	828	822	6	-	-
8) Industrial Large	231	231	-	-	-
9) Interruptible	-	-	-	-	-
10) Municipal	274	274	-	-	-
11) Unmetered	<u>637</u>	<u>212</u>	<u>189</u>	<u>134</u>	<u>102</u>
12) Total Company	<u>\$51,376</u>	<u>\$12,355</u>	<u>\$21,039</u>	<u>\$ 6,653</u>	<u>\$11,329</u>
<u>Wire</u>					
13) Domestic	\$20,601	\$ 3,709	\$ 9,461	\$ 2,335	\$ 5,096
14) Gen. Conn. Load	695	55	393	35	212
15) General	3,820	1,808	610	1,074	328
16) General All Electric	1,232	691	76	424	41
17) General Large	151	151	-	-	-
18) Industrial to 249 KVA	108	63	6	36	3
19) Industrial 250-3,999 KVA	495	492	3	-	-
20) Industrial Large	138	138	-	-	-
22) Interruptible	-	-	-	-	-
23) Municipal	164	164	-	-	-
24) Unmetered	<u>355</u>	<u>127</u>	<u>96</u>	<u>80</u>	<u>52</u>
25) Total Company	<u>\$27,759</u>	<u>\$ 7,398</u>	<u>\$10,645</u>	<u>\$ 3,984</u>	<u>\$ 5,732</u>

NOVA SCOTIA POWER CORPORATIONSCHEDULE 15Analysis of Meter InvestmentFor the Year Ended March 31, 1977

	Customers (1)	Unit Meter Cost (2)	Total Cost (3)	Percent (4)	Allocated Meter Cost (5)
1) Domestic	257,891	\$ 34.00	\$ 8,768,294	76.80	\$7,065,783
2) General Conn. Load	10,710	34.00	364,140	3.19	293,488
3) General	16,627	111.00	1,845,597	16.17	1,487,678
4) General All Electric	2,069	145.00	300,005	2.63	241,966
5) General Large	3	657.00	1,971	0.02	1,840
6) Industrial To 249 KVA	166	145.00	24,070	0.21	19,321
7) Industrial 250-3,999 KVA	124	657.00	81,468	0.71	65,322
8) Industrial Large	14	1,338.00	18,732	0.16	14,720
9) Interruptible	6	1,338.00	8,028	0.07	6,440
10) Municipal	8	520.00	4,160	0.04	3,680
11) Unmetered	<u>2,623</u>	-	-	-	-
12) <u>Total</u>	<u>290,241</u>		<u>\$11,416,465</u>	<u>100.00</u>	<u>\$9,200,238</u>

NOVA SCOTIA POWER CORPORATIONSCHEDULE 16Revenue AnalysisFor the Years Ended March 31, 1977

(\$000)

	Total (1)	Discounts R-3 (2)	Sub-Total (3)	Percent of Total (4)	Other (5)	Total (6)
1) Domestic	\$ 77,108	\$ 842	\$ 77,950	39.28	\$ 2,610	\$ 80,560
2) Gen. Conn. Load	2,293	21	2,314	1.17	77	2,391
3) General	47,582	152	47,734	24.05	1,598	49,332
4) General All Electric	13,394	36	13,430	6.77	450	13,880
5) General Large	3,275	2	3,277	1.65	110	3,387
6) Ind. to 249 KVA	1,187	-	1,187	.60	40	1,227
7) Ind. 250-3,999 KVA	9,467	-	9,467	4.77	317	9,784
8) Ind. Large	27,319	241	27,560	13.89	923	28,483
9) Interruptible	2,983	5	2,988	1.50	100	3,088
10) Municipal	7,082	61	7,143	3.60	239	7,382
11) Unmetered	<u>5,390</u>	<u>3</u>	<u>5,393</u>	<u>2.72</u>	<u>180</u>	<u>5,573</u>
12) Total	<u>\$197,080</u>	<u>\$ 1,363</u>	<u>\$198,443</u>	<u>100.00</u>	<u>\$ 6,644</u>	<u>\$205,087</u>
13) Glace Bay - Steam	\$ 8,300					
14) Tupper - Joint	17,868					
15) Mersey	<u>1,476</u>					
16) Total	<u>\$ 27,644</u>					
17) Discounts	\$ 1,363					
18) Grants	\$ 5,000					
19) Other	<u>1,644</u>					
20) Total	<u>\$ 6,644</u>					
21) Merchandise & Jobbing	<u>\$ 2,149</u>					
22) Total	<u>\$234,880</u>					

NOVA SCOTIA POWER CORPORATION

SCHEDULE 17

Analysis Of Operating Cost For Glace Bay Steam,
And Point Tupper Steam And Electric And
Bowater Mersey Electric Sales
For The Year Ended March 31, 1977

(\$000)

	Total Company (1)	Glace Bay (2)	Point Tupper (3)	Bowater Mersey (4)	Total Other (5)
<u>Production Fuel</u>					
1) Mersey System	\$ 14	\$ -	\$ -	\$ 13	\$ 1
2) Other Hydro	39	-	-	-	39
3) Gas Turbines	3,918	-	-	-	3,918
4) Pt. Tupper Unit 1	6,986	-	6,456	-	530
5) Glace Bay	17,407	9,143	-	-	8,264
6) Water Street	4,288	-	-	-	4,288
7) Other Steam	42,289	-	-	-	42,289
8) Total Fuel	<u>\$ 74,941</u>	<u>\$ 9,143</u>	<u>\$ 6,456</u>	<u>\$ 13</u>	<u>\$ 59,329</u>
<u>Production Opr. Cost</u>					
9) Mersey	\$ 590	\$ -	\$ -	\$ 478	\$ 112
10) Other Hydro	2,007	-	-	-	2,007
11) Gas Turbines	472	-	-	-	472
12) Pt. Tupper Unit 1	3,344	-	2,415	-	929
13) Glace Bay	4,237	2,216	-	-	2,021
14) Water Street	2,934	-	-	-	2,934
15) Other Steam	10,560	-	-	-	10,560
16) Total Opr. Cost	<u>\$ 24,144</u>	<u>\$ 2,216</u>	<u>\$ 2,415</u>	<u>\$ 478</u>	<u>\$ 19,035</u>
17) <u>Purchased Power Fuel</u>	\$ 1,807	\$ -	\$ -	\$ -	\$ 1,807
18) <u>Purchased Power Other</u>	\$ 3,421	\$ -	\$ -	\$ -	\$ 3,421
19) <u>Transmission Expense</u>	\$ 2,051	\$ -	\$ -	\$ -	\$ 2,051
<u>Distribution Expense</u>					
20) Land	\$ 1,135	\$ -	\$ -	\$ -	\$ 1,135
21) Substations	1,872	-	-	-	1,872
22) Overhead Lines	2,403	-	-	-	2,403
23) U. G. Lines	133	-	-	-	133
24) Line Transformers	812	-	-	-	812
25) Services	1,249	-	-	-	1,249
26) Meters	767	-	-	-	767
27) Cust. Serv. & Contracts	926	-	-	-	926
28) Cust. Premise	806	-	-	-	806
29) Communications	502	-	-	-	502
30) Street Lights	1,325	-	-	-	1,325
31) Total Distribution	<u>\$ 11,930</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 11,930</u>
<u>Customer Accounting</u>					
32) Billing	\$ 3,178	\$ -	\$ -	\$ -	\$ 3,178
33) Customer Serv.	1,026	-	-	-	1,026
34) Credit & Collection	868	-	-	-	868
35) Total Cust. Acct.	<u>\$ 5,072</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ -</u>	<u>\$ 5,072</u>
36) <u>Customer Relations & Info.</u>	\$ 546	\$ -	\$ -	\$ -	\$ 546
37) <u>Administration & General</u>	\$ 4,978	\$ 250	\$ 636	\$ 287	\$ 3,805
38) <u>Depreciation Expense</u>	\$ 19,497	\$ 553	\$ 469	\$ 396	\$ 18,079
39) <u>Grants In Lieu Of Taxes</u>	\$ 2,954	\$ -	\$ -	\$ -	\$ 2,954
40) <u>Total Cost</u>	<u>\$151,341</u>	<u>\$ 12,162</u>	<u>\$ 9,976</u>	<u>\$ 1,174</u>	<u>\$128,029</u>

SCHEDULE 18

NOVA SCOTIA POWER CORPORATION
Classification of Operating Cost
For The Year Ended March 31, 1977
 (\$000)

	Total Company (1)	Coincident Peak (2)	Peak And Average (3)	Class N.C. Peak (4)	Customer N.C. Peak (5)	Energy (6)	Customer (7)	Revenue (8)	Direct (9)	As Other (10)
<u>Production Expenses</u>										
1) Fuel	\$ 74,941	\$ -	\$ -	\$ -	\$ -	\$ 59,329	\$ -	\$ -	\$ 15,612	\$ -
2) Steam Operating	21,075	16,444	16,444	16,444	-	-	-	-	4,631	-
3) Hydro Operating	2,597	2,119	-	2,119	-	-	-	-	478	-
4) Gas Turbine Operating	472	472	-	472	-	-	-	-	-	-
5) Purchase Power Fuel	1,807	-	-	-	-	1,807	-	-	-	-
6) Purchase Power Other	3,421	3,421	-	3,421	-	-	-	-	-	-
7) Total	\$104,313	\$ 22,456	\$ 19,865	\$ 22,456	\$ -	\$ 61,136	\$ -	\$ -	\$ 20,721	\$ -
<u>Transmission Expenses</u>										
8) Total	\$ 2,051	\$ 2,051	\$ 2,051	\$ 2,051	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<u>Distribution Expenses</u>										
9) Land	\$ 1,135	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,135
10) Substations	1,872	-	-	-	-	-	-	-	-	1,872
11) Overhead Lines	2,403	-	-	-	-	-	-	-	-	2,403
12) U.G. Lines	133	-	-	-	-	-	-	-	-	133
13) Line Transformers	812	-	-	812	812	-	1,249	-	-	-
14) Services	1,249	-	-	-	-	-	-	-	-	-
15) Meters	767	-	-	-	-	-	-	-	767	-
16) Cust. Serv. & Contracts	926	-	-	-	-	-	93	-	833	-
17) Cust. Premise	806	-	-	-	-	-	81	-	725	-
18) Communications	502	-	-	502	502	-	-	-	-	-
19) Street Lights	1,325	-	-	-	-	-	-	-	1,325	-
20) Total	\$ 11,930	\$ -	\$ -	\$ 1,314	\$ 1,314	\$ -	\$ 1,423	\$ -	\$ 3,650	\$ 5,543
<u>Customer Accounting</u>										
21) Billing	\$ 3,178	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,178	\$ -	\$ -	\$ -
22) Customer Service	1,026	-	-	-	-	-	710	-	316	-
23) Credit & Collections	868	-	-	-	-	-	277	-	591	-
24) Total	\$ 5,072	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 4,165	\$ -	\$ 907	\$ -
25) Customer Relations & Infor.	\$ 546	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 546	\$ -	\$ -	\$ -
26) Administrative & General	\$ 4,978	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,173	\$ 3,805
27) Depreciation	\$ 19,497	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,418	\$ 18,079
28) Grants In Lieu of Taxes	\$ 2,954	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,954
29) Total Cost	\$151,341	\$ 24,507	\$ 21,916	\$ 25,821	\$ 1,314	\$ 61,136	\$ 6,134	\$ -	\$ 27,869	\$ 30,381
30) Total Revenue	\$202,440	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 202,440	\$ -

NOVA SCOTIA POWER CORPORATION
Allocation of Operating Costs
For the Year Ended March 31, 1977
Coincident Peak Responsibility
(\$000)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
	Total Company Lease Steam and Joint	Domestic	General Comm. Load	General	General All Electric	General Large	Industrial To 249 KVA	Industrial 250-3,999 KVA	Industrial Large	Industrial Service	Municipal	Unmetered	Factor
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Production Cost													
1) Fuel	\$ 59,329	\$ 21,726	\$ 593	\$ 11,872	\$ 3,838	\$ 1,347	\$ 261	\$ 3,417	\$ 11,427	\$ 1,442	\$ 2,664	\$ 742	E-1
2) Operating	19,035	7,879	135	4,197	1,629	345	135	1,131	2,358	-	900	326	D-1
3) Purchased Power - Fuel	1,807	662	18	362	117	41	8	104	348	44	81	22	E-1
4) Purchased Power - Other	3,421	1,416	24	754	293	62	24	203	424	-	162	59	D-1
5) Total Production	\$ 83,592	\$ 31,683	\$ 770	\$ 17,185	\$ 5,877	\$ 1,795	\$ 428	\$ 4,855	\$ 14,557	\$ 1,486	\$ 3,807	\$ 1,149	
6) Transmission Operating Cost	\$ 2,051	\$ 849	\$ 15	\$ 452	\$ 175	\$ 37	\$ 15	\$ 122	\$ 254	\$ -	\$ 97	\$ 35	D-1
Distribution Operating Cost													
7) Lead	\$ 1,135	\$ 817	\$ 24	\$ 154	\$ 51	\$ 9	\$ 5	\$ 33	\$ 14	\$ -	\$ 15	\$ 13	P-3
8) Substations	1,872	975	11	367	143	40	13	143	78	1	77	24	P-8
9) Overhead Lines	2,403	1,868	61	285	86	11	8	36	10	-	11	27	P-1
10) U. G. Lines	133	103	3	16	5	1	-	2	1	-	1	1	P-1
11) Line Transformers	812	530	6	185	71	-	7	-	-	-	-	13	D-5
12) Services	1,249	888	37	286	35	-	-	-	-	-	-	-	C-9
13) Motors	767	589	24	124	20	-	2	5	1	1	1	-	Schedule 15
14) Customer Service & Contracts	926	833	34	52	6	-	1	-	-	-	-	-	Schedule 22
15) Customer Premise	806	725	29	46	6	-	-	-	-	-	-	-	Schedule 23
16) Communications	502	286	3	186	39	9	4	30	9	-	-	7	D-7
17) Street Light	1,325	-	-	-	-	-	-	-	-	-	-	1,325	Direct
18) Total Distribution	\$ 11,920	\$ 7,614	\$ 232	\$ 3,621	\$ 462	\$ 70	\$ 43	\$ 249	\$ 113	\$ 2	\$ 114	\$ 1,410	
Customer Accounting													
19) Billing	\$ 3,178	\$ 2,213	\$ 87	\$ 713	\$ 89	\$ -	\$ 7	\$ 10	\$ 1	\$ 1	\$ 1	\$ 56	C-10
20) Customer Service	1,026	737	30	210	28	-	3	4	1	-	-	13	Schedule 24
21) Credit & Collection	868	562	20	218	58	-	7	-	-	-	-	3	Schedule 25
22) Total Customer Accounting	\$ 5,072	\$ 3,512	\$ 137	\$ 1,141	\$ 175	\$ -	\$ 17	\$ 14	\$ 2	\$ 1	\$ 1	\$ 72	
23) Customer Relations & Information	\$ 546	\$ 485	\$ 20	\$ 31	\$ 4	\$ -	\$ 1	\$ -	\$ -	\$ -	\$ -	\$ 5	C-1
24) Administrative & General	\$ 3,805	\$ 1,968	\$ 51	\$ 742	\$ 248	\$ 46	\$ 21	\$ 156	\$ 285	\$ 1	\$ 115	\$ 172	O-1
25) Depreciation	\$ 16,079	\$ 9,399	\$ 217	\$ 3,497	\$ 1,266	\$ 235	\$ 109	\$ 777	\$ 1,399	\$ 2	\$ 571	\$ 607	P-5
26) Grants in Lieu of Taxes	\$ 2,954	\$ 1,536	\$ 35	\$ 571	\$ 207	\$ 39	\$ 18	\$ 127	\$ 229	\$ -	\$ 93	\$ 99	P-5
27) Total Cost	\$ 128,029	\$ 57,046	\$ 1,477	\$ 25,240	\$ 8,414	\$ 2,222	\$ 652	\$ 6,300	\$ 16,839	\$ 1,492	\$ 4,798	\$ 3,549	
28) Total Revenue	\$ 205,087	\$ 80,560	\$ 2,391	\$ 49,332	\$ 13,880	\$ 3,387	\$ 1,227	\$ 9,784	\$ 28,483	\$ 3,088	\$ 7,382	\$ 5,573	Schedule 16
29) Return	\$ 77,058	\$ 23,514	\$ 914	\$ 24,092	\$ 5,466	\$ 1,165	\$ 575	\$ 3,484	\$ 11,644	\$ 1,596	\$ 2,584	\$ 2,024	
30) Rate of Return	17.42	10.27	17.29	28.14	17.66	20.10	21.90	18.20	33.25	835.60	18.38	13.72	
31) Percentage of Average	100.00	58.96	99.25	161.54	101.38	115.39	125.72	104.48	190.87	4,796.79	105.51	76.76	

NOVA SCOTIA POWER CORPORATION
Allocation of Operating Cost
For the Year Ended March 31, 1977
Coincident Peak and Average
(\$000)

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
	Total Company Less Steam and Joint	Domestic	General Conn. Load	General All Electric	General Large	Industrial To 249 KVA	Industrial 250-3,999 KVA	Industrial Large	Service Interruptible	Municipal	Unmetered	Factor	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
Production Cost													
1) Fuel	\$ 59,329	\$ 21,726	\$ 593	\$ 11,872	\$ 3,838	\$ 1,347	\$ 261	\$ 3,417	\$ 11,427	\$ 1,442	\$ 2,564	\$ 742	E-1
2) Operating	19,035	7,517	154	4,037	1,479	379	118	1,148	2,853	177	876	297	D-3
3) Purchased Power - Fuel	1,807	662	18	362	117	41	8	104	348	44	81	22	E-1
4) Purchased Power - Other	3,421	1,351	28	725	266	68	21	206	513	32	157	53	D-3
5) Total Production	\$ 83,592	\$ 31,256	\$ 793	\$ 16,997	\$ 5,700	\$ 1,835	\$ 408	\$ 4,875	\$ 15,141	\$ 1,695	\$ 3,778	\$ 1,114	
6) Transmission Operating Cost	\$ 2,051	\$ 810	\$ 17	\$ 435	\$ 159	\$ 41	\$ 13	\$ 124	\$ 307	\$ 19	\$ 94	\$ 32	D-3
Distribution Operating Cost													
7) Land	\$ 1,135	\$ 778	\$ 24	\$ 175	\$ 60	\$ 11	\$ 5	\$ 36	\$ 15	\$ -	\$ 16	\$ 15	P-4
8) Substations	1,872	859	13	425	168	43	15	155	80	2	83	29	P-9
9) Overhead Lines	2,403	1,807	62	318	101	12	9	40	11	-	13	30	P-2
10) U. G. Lines	133	99	3	18	1	1	2	1	-	-	1	2	P-2
11) Line Transformers	812	476	7	219	87	1	7	-	-	-	-	16	D-11
12) Services	1,249	887	37	286	36	-	3	-	-	-	-	-	C-9
13) Meters	767	589	24	124	20	-	2	5	1	1	1	-	Schedule 15
14) Customer Serv. & Cont.	926	833	34	46	6	-	1	-	-	-	-	-	Schedule 22
15) Customer Premise	806	725	29	46	-	-	-	-	-	-	-	-	Schedule 23
16) Communications	502	252	4	123	47	10	4	33	9	-	11	9	D-13
17) Street Lights	1,325	-	-	-	-	-	-	-	-	-	-	1,325	Direct
18) Total Distribution	\$ 11,930	\$ 7,305	\$ 237	\$ 1,786	\$ 537	\$ 77	\$ 48	\$ 270	\$ 116	\$ 3	\$ 125	\$ 1,426	
Customer Accounting													
19) Billing	\$ 3,178	\$ 2,213	\$ 87	\$ 713	\$ 89	\$ -	\$ 7	\$ 10	\$ 1	\$ 1	\$ 1	\$ 56	C-10
20) Customer Service	1,026	737	30	210	28	-	3	4	1	-	-	13	Schedule 24
21) Credit & Collection	868	562	20	218	58	-	7	-	-	-	-	3	Schedule 25
22) Total Customer Accounting	\$ 5,072	\$ 3,512	\$ 137	\$ 1,141	\$ 175	\$ -	\$ 17	\$ 14	\$ 2	\$ 1	\$ 1	\$ 72	
23) Customer Relations & Information	\$ 546	\$ 485	\$ 20	\$ 31	\$ 4	\$ -	\$ 1	\$ -	\$ -	\$ -	\$ -	\$ 5	C-1
24) Administrative & General	\$ 3,805	\$ 1,898	\$ 54	\$ 738	\$ 237	\$ 51	\$ 20	\$ 160	\$ 343	\$ 21	\$ 113	\$ 170	O-2
25) Depreciation	\$ 18,079	\$ 8,992	\$ 230	\$ 3,552	\$ 1,255	\$ 255	\$ 103	\$ 801	\$ 1,634	\$ 85	\$ 566	\$ 606	P-6
26) Grants in Lieu of Taxes	\$ 2,954	\$ 1,469	\$ 38	\$ 580	\$ 205	\$ 42	\$ 17	\$ 131	\$ 267	\$ 14	\$ 92	\$ 99	P-6
27) Total Cost	\$ 128,029	\$ 55,727	\$ 1,526	\$ 25,260	\$ 8,272	\$ 2,301	\$ 627	\$ 6,375	\$ 17,810	\$ 1,838	\$ 4,769	\$ 3,524	
28) Total Revenue	\$ 205,087	\$ 80,560	\$ 2,391	\$ 49,332	\$ 13,880	\$ 3,387	\$ 1,227	\$ 9,784	\$ 28,483	\$ 3,088	\$ 7,382	\$ 5,573	Schedule 26
29) Return	\$ 77,058	\$ 24,833	\$ 865	\$ 24,072	\$ 5,608	\$ 1,086	\$ 600	\$ 3,409	\$ 10,673	\$ 1,250	\$ 2,613	\$ 2,049	
30) Rate of Return	17.42	11.33	15.44	27.68	18.30	17.27	23.76	17.33	26.23	56.82	18.75	13.92	
31) Percentage of Average	100.00	65.04	88.63	158.90	105.05	99.14	136.40	99.48	150.57	326.18	107.64	79.91	

NOVA SCOTIA POWER CORPORATION
Allocation of Operating Costs
For the Year Ended March 31, 1977
Class Non-Coincident Peak Responsibility
 (\$000)

	Total Company Less Steam and Joint (1)	Domestic (2)	General Conn. Load (3)	General All Electric (4)	General Large (5)	General To 249 KVA (6)	Industrial 250-3,999 KVA (7)	Industrial Large (8)	Industrial Large (9)	Service (10)	Municipal (11)	Unmatured (12)	Factor (13)
Production Cost													
1) Fuel	\$ 59,329	\$ 21,726	\$ 593	\$ 11,872	\$ 3,838	\$ 1,347	\$ 261	\$ 3,417	\$ 11,427	\$ 1,442	\$ 2,664	\$ 742	E-1
2) Operating	19,035	8,094	120	3,946	1,509	329	137	1,119	2,235	432	836	278	D-17
3) Purchased Power - Fuel	1,807	662	18	362	117	41	8	104	348	44	81	22	E-1
4) Purchased Power - Other	3,421	1,455	21	709	271	59	25	201	402	78	150	50	D-17
5) Total Production	\$ 83,592	\$ 31,937	\$ 752	\$ 16,889	\$ 5,735	\$ 1,776	\$ 431	\$ 4,841	\$ 14,412	\$ 1,996	\$ 3,731	\$ 1,092	
6) Transmission Operating Cost	\$ 2,051	\$ 872	\$ 13	\$ 425	\$ 163	\$ 35	\$ 15	\$ 121	\$ 241	\$ 46	\$ 98	\$ 30	D-17
Distribution Operating Cost													
7) Land	\$ 1,135	\$ 778	\$ 24	\$ 175	\$ 60	\$ 11	\$ 5	\$ 36	\$ 15	\$ -	\$ 16	\$ 15	P-4
8) Substations	1,872	859	13	425	168	43	15	155	80	2	83	29	P-9
9) Overhead Lines	2,403	1,806	62	319	101	12	9	40	11	-	13	30	P-2
10) U. G. Lines	133	100	3	18	5	1	-	2	1	-	1	2	P-2
11) Line Transformers	812	476	7	219	87	7	7	-	-	-	-	16	D-11
12) Services	1,249	888	37	286	35	-	3	-	-	-	-	-	C-9
13) Meters	767	589	24	124	20	-	2	5	1	1	1	-	Schedule 15
14) Customer Service & Contracts	926	833	34	52	6	-	-	-	-	-	-	-	Schedule 22
15) Customer Preaise	806	725	29	46	6	-	-	-	-	-	-	-	Schedule 23
16) Communications	502	252	4	123	47	10	4	33	9	-	11	9	D-13
17) Street Lights	1,325	-	-	-	-	-	-	-	-	-	-	1,325	Direct
18) Total Distribution	\$ 11,930	\$ 7,306	\$ 237	\$ 1,787	\$ 535	\$ 78	\$ 45	\$ 271	\$ 117	\$ 3	\$ 125	\$ 1,426	
Customer Accounting													
19) Billing	\$ 3,178	\$ 2,213	\$ 87	\$ 713	\$ 89	\$ -	\$ 7	\$ 10	\$ 1	\$ 1	\$ 1	\$ 56	C-10
20) Customer Service	1,026	737	30	210	28	-	3	4	1	-	-	13	Schedule 24
21) Credit & Collection	868	562	20	218	58	-	7	-	-	-	-	3	Schedule 25
22) Total Customer Accounting	\$ 5,072	\$ 3,512	\$ 137	\$ 1,141	\$ 175	\$ -	\$ 17	\$ 14	\$ 2	\$ 1	\$ 1	\$ 72	
23) Customer Relations & Information	\$ 546	\$ 485	\$ 20	\$ 31	\$ 4	\$ -	\$ 1	\$ -	\$ -	\$ -	\$ -	\$ 5	C-1
24) Administrative & General	\$ 3,805	\$ 1,966	\$ 49	\$ 727	\$ 240	\$ 45	\$ 22	\$ 156	\$ 271	\$ 51	\$ 109	\$ 169	O-3
25) Depreciation	\$ 18,079	\$ 9,276	\$ 211	\$ 3,484	\$ 1,235	\$ 230	\$ 110	\$ 776	\$ 1,387	\$ 248	\$ 531	\$ 591	P-7
26) Grants in Lieu of Taxes	\$ 2,954	\$ 1,516	\$ 34	\$ 569	\$ 202	\$ 37	\$ 18	\$ 127	\$ 227	\$ 40	\$ 87	\$ 97	P-7
27) Total Cost	\$ 128,029	\$ 56,870	\$ 1,453	\$ 25,053	\$ 8,289	\$ 2,201	\$ 659	\$ 6,306	\$ 16,657	\$ 2,385	\$ 4,674	\$ 3,482	
28) Total Revenue	\$ 205,087	\$ 80,560	\$ 2,391	\$ 49,332	\$ 13,880	\$ 3,387	\$ 1,227	\$ 9,784	\$ 28,483	\$ 3,088	\$ 7,382	\$ 5,571	Schedule 16
29) Return	\$ 77,058	\$ 23,690	\$ 938	\$ 24,279	\$ 5,591	\$ 1,106	\$ 568	\$ 3,478	\$ 11,826	\$ 703	\$ 2,708	\$ 2,091	
30) Rate of Return	17.42	10.48	18.12	28.47	18.53	20.84	21.10	18.22	34.08	11.51	20.63	14.53	
31) Percentage of Return	100.00	60.16	104.02	163.43	106.37	119.63	121.13	104.59	195.64	66.07	118.43	83.41	

NOVA SCOTIA POWER CORPORATION

SCHEDULE 22

Allocation of Customer Service and Contracts

For the Year Ended March 31, 1977

(\$000)

	Direct (1)	Customers (2)	Percent (3)	Amount Allocated (4)	Total (5)
1) Domestic	\$ 833(1)	-	-	\$ -	\$ 833
2) General Conn. Load	-	10,710	36.22	34	34
3) General	-	16,627	56.22	52	52
4) General All Electric	-	2,069	7.00	6	6
5) Industrial to 249 KVA	-	166	0.56	1	1
6) Total	<u>\$ 833</u>	<u>29,572</u>	<u>100.00</u>	<u>\$ 93</u>	<u>\$ 926</u>

(1) 90% Domestic

NOVA SCOTIA POWER CORPORATION

SCHEDULE 23

Allocation of Customer Premise Expense

For the Year Ended March 31, 1977

(\$000)

	Direct (1)	Customers (2)	Percent (3)	Amount Allocated (4)	Total (5)
1) Domestic	\$ 725(1)	-	-	\$ -	\$ 725
2) General Conn. Load	-	10,710	36.22	29	29
3) General	-	16,627	56.22	46	46
4) General All Electric	-	2,069	7.00	6	6
5) Industrial 249 KVA	-	166	.56	-	-
6) Totals	<u>\$ 725</u>	<u>29,572</u>	<u>100.00</u>	<u>\$ 81</u>	<u>\$ 806</u>

(1) 90% Domestic

NOVA SCOTIA POWER CORPORATIONSCHEDULE 24Allocation of Customer Service ExpenseFor the Year Ended March 31, 1977

(\$000)

	Total Co. Less St. & Joint (1)	Meter Test (As Meters) (2)	Other C-10 (3)
1) Domestic	\$ 737	\$ 243	\$ 494
2) General C.L.	30	10	20
3) General	210	51	159
4) General All Electric	28	8	20
5) General Large	-	-	-
6) Ind. to 249 KVA	3	1	2
7) Ind. 250-3999 KVA	4	2	2
8) Ind. Large	1	1	-
9) Interruptible	-	-	-
10) Municipal	-	-	-
11) Unmetered	<u>13</u>	<u>-</u>	<u>13</u>
12) Total	<u>\$ 1,026</u>	<u>\$ 316</u>	<u>\$ 710</u>

NOVA SCOTIA POWER CORPORATION

SCHEDULE 25

Allocation of Credit & Collection Expense

For the Year Ended March 31, 1977

(\$000)

	Total	Direct Bad Debts	Other Bad Debts R-1	Collection Costs C-1
	(1)	(2)	(3)	(4)
1) Domestic	\$ 562	\$ -	\$ 316	\$ 246
2) General C.L.	20	-	10	10
3) General	218	-	202	16
4) General All Electric	58	-	56	2
5) General Large	-	-	-	-
6) Ind. to 249 KVA	7	-	7	-
7) Ind. to 250-3,999 KVA	-	-	-	-
8) Ind. Large	-	-	-	-
9) Interruptible	-	-	-	-
10) Municipal	-	-	-	-
11) Unmetered	<u>3</u>	<u>-</u>	<u>-</u>	<u>3</u>
12) Total	<u>\$ 868</u>	<u>\$ -</u>	<u>\$ 591</u>	<u>\$ 277</u>

NOVA SCOTIA POWER CORPORATION

Determination of Allocation Factors

For the Years Ended March 31, 1977 & 1978

Total Company Less Steam and Joint	Domestic (2)	General Comp. Load (3)	General All-Electric (4)	General Large (6)	Industrial To 249 KVA (7)	Industrial 250-3,999 KVA (8)	Industrial Large (9)	Industrial Interruptible Service (10)	Municipal (11)	Dimetered Factors (12)	Dimetered Factors (13)
1) System Peak MW - 1977	993	7	219	85	7	59	123	-	47	17	D-1 ✓
2) % Responsibility	100.00	0.71	22.05	8.56	0.71	5.94	12.39	-	4.73	1.71	D-1 ✓
3) System Peak MW - 1978	962	7	219	77	10	62	101	-	44	18	B-2
4) % Responsibility	100.00	0.73	22.77	8.00	1.04	6.44	10.50	-	4.57	1.87	B-2
5) System Peak and Average - 1977	1,608	13	341	125	10	97	241	15	74	25	D-3 ✓
6) % Responsibility	100.00	0.81	21.21	7.77	0.62	6.03	14.99	0.93	4.60	1.56	D-3 ✓
7) System Peak and Average - 1978	1,565	13	343	115	14	99	210	16	72	26	D-4
8) % Responsibility	100.00	0.83	21.92	7.35	0.89	6.33	13.42	1.02	4.60	1.66	D-4
9) Customer Non-Coincident Demand Sec. - 1977	978,349	7,211	223,290	85,924	-	7,647	-	-	-	15,822	D-5
10) % Responsibility	100.00	0.74	22.82	8.78	-	7.8	-	-	-	1.62	D-5
11) Customer Non-Coincident Demand Sec. - 1978	971,044	7,424	224,573	77,703	-	11,686	-	-	-	16,527	D-6
12) % Responsibility	100.00	0.77	23.13	8.00	-	1.20	-	-	-	1.70	D-6
13) Customer Non-Coincident Demand Pri. - 1977	1,162,016	7,471	245,080	91,319	21,012	8,743	20,344	-	21,724	16,391	D-7
14) % Responsibility	100.00	0.64	21.09	7.86	0.75	5.90	1.75	-	1.87	1.41	D-7
15) Customer Non-Coincident Demand Pri. - 1978	1,151,946	7,654	245,220	82,403	22,047	12,865	21,093	-	18,692	17,039	D-8
16) % Responsibility	100.00	0.66	21.29	7.15	1.12	6.27	1.83	-	1.62	1.48	D-8
17) Customer Non-Coincident Demand DBPS - 1977	1,379,458	7,620	249,982	93,145	21,432	8,918	153,719	28,941	51,534	16,719	D-9
18) % Responsibility	100.00	0.55	18.12	6.75	1.55	6.75	11.14	2.10	3.74	1.21	D-9
19) Customer Non-Coincident Demand DBPS - 1978	1,350,746	7,807	250,124	84,051	22,488	13,122	133,444	31,539	48,442	17,380	D-10
20) % Responsibility	100.00	0.58	18.52	6.22	1.66	0.97	9.68	2.33	3.59	1.29	D-10
21) Class N.C. Demand Sec. - 1977	785,625	6,851	212,126	83,777	-	7,073	-	-	-	15,822	D-11
22) % Responsibility	100.00	0.87	26.37	10.55	-	0.90	-	-	-	2.01	D-11
23) Class N.C. Demand Sec. - 1978	780,615	7,053	213,344	75,761	-	10,809	-	-	-	16,527	D-12
24) % Responsibility	100.00	0.90	27.33	9.71	-	1.38	-	-	-	2.12	D-12
25) Class N.C. Demand Pri. - 1977	952,787	7,098	232,826	89,037	19,436	8,087	17,802	-	21,162	16,392	D-13
26) % Responsibility	100.00	0.74	24.44	9.34	2.04	6.65	1.87	-	2.22	1.72	D-13
27) Class N.C. Demand Pri. - 1978	947,441	7,272	232,959	80,343	20,393	11,903	18,457	-	18,225	17,039	D-14
28) % Responsibility	100.00	0.77	24.59	8.48	2.15	1.26	1.95	-	1.92	1.80	D-14
29) Class N.C. Demand DBPS - 1977	1,145,576	7,240	237,482	90,818	19,825	8,249	134,505	26,046	50,247	16,730	D-15
30) % Responsibility	100.00	0.63	20.73	7.93	1.73	0.72	11.74	2.27	4.39	1.46	D-15
31) Class N.C. Demand DBPS - 1978	1,124,052	7,417	237,618	81,950	20,801	12,138	116,763	28,385	47,231	17,380	D-16
32) % Responsibility	100.00	0.66	21.14	7.29	1.85	1.08	10.39	2.52	4.20	1.55	D-16
33) Class N.C. Demand Gen. - 1977	1,175,358	7,428	243,656	93,179	20,340	8,463	138,002	26,723	51,553	17,100	D-17
34) % Responsibility	100.00	0.63	20.73	7.93	1.73	0.72	11.74	2.27	4.39	1.46	D-17
35) Class N.C. Demand Gen. - 1978	1,153,279	7,610	243,796	84,081	21,342	12,454	119,799	29,123	48,459	17,832	D-18
36) % Responsibility	100.00	0.66	21.14	7.29	1.85	1.08	10.39	2.52	4.20	1.55	D-18

NOVA SCOTIA POWER CORPORATION

Determination of Allocation Factors

For the Years Ended March 31, 1977 & 1978

	Total Company Loss Steam and Joint (1)	Domestic (2)	General Conn. Load (3)	General (4)	General All-Electric (5)	General Large (6)	Industrial To 249 KVA (7)	Industrial 250-3,999 KVA (8)	Industrial Large (9)	Industrial Interruptible Service (10)	Municipal (11)	Unmetered (12)	Factor (13)
1) MNR Gen. and Purchased - 1977 & Responsibility	5,360,248 100.00	1,962,940 36.62	53,869 1.00	1,072,609 20.01	346,591 6.47	121,710 2.27	23,325 0.44	308,795 5.76	1,032,453 19.26	130,242 2.43	240,729 4.49	66,985 1.25	E-1 ✓ E-
3) MNR Gen. and Purchased - 1978 & Responsibility	5,230,003 100.00	1,920,889 36.38	51,449 0.97	1,087,430 20.60	337,065 6.38	123,193 2.33	31,907 0.60	321,103 6.08	931,746 18.03	141,260 2.68	244,223 4.63	69,738 1.32	E-2

NOVA SCOTIA POWER CORPORATION

Determination of Allocation Factors

For the Years Ended March 31, 1977 & 1978

Total Company

Less Steam and Joint

(1)

(2)

(3)

(4)

(5)

(6)

(7)

(8)

(9)

(10)

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C-6

X

C-7

X

C-8

X

C-9

X

C-10

X

C-11

X

C-12

X

264,465

NOVA SCOTIA POWER CORPORATION

**Determination of Allocation Factors
For the Years Ended March 31, 1977 & 1978**

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
	Total Company Less Steam and Joint	Domestic	General Conl. Load	General	General All-Electric	General Large	Industrial To 249 KVA	Industrial 250-399 KVA	Industrial Large	Industrial Interruptible Service	Municipal	Unmetered	Factors
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
1) Coincident Peak Poles & Wire - 1977	79,135	61,514	2,003	9,386	2,834	358	261	1,175	345	-	369	890	
2) % Responsibility	100.00	77.73	2.53	11.86	3.58	0.45	0.33	1.49	0.44	-	0.47	1.12	P-1
3) Coincident Peak Poles & Wire - 1978	89,897	70,073	2,085	10,794	2,909	428	434	1,418	411	-	364	981	
4) % Responsibility	100.00	77.95	2.32	12.01	3.23	0.48	0.48	1.58	0.46	-	0.40	1.09	P-10
5) Class Non-Coincident Peak & Average Poles & Wire - 1977	79,135	59,467	2,039	10,489	3,323	403	293	1,323	369	-	438	992	
6) % Responsibility	100.00	75.15	2.58	13.25	4.20	0.51	0.37	1.67	0.47	-	0.55	1.25	P-2 ✓ P-1
7) Class Non-Coincident Peak & Avg. Poles & Wire - 1978	89,897	67,716	2,125	12,042	3,414	482	488	1,658	438	-	430	1,103	
8) % Responsibility	100.00	75.33	2.36	13.39	3.80	0.54	0.54	1.84	0.49	-	0.48	1.23	P-11 X
9) Coincident Peak Substations Poles & Wire - 1977	102,076	73,465	2,137	13,886	4,583	842	427	2,923	1,299	19	1,309	1,186	
10) % Responsibility	100.00	71.97	2.09	13.60	4.49	0.83	0.42	2.87	1.27	0.02	1.28	1.16	P-3
11) Coincident Peak Substations Poles & Wire - 1978	113,081	82,153	2,226	15,401	4,529	935	681	3,244	1,362	18	1,235	1,297	
12) % Responsibility	100.00	72.65	1.97	13.62	4.00	0.83	0.60	2.87	1.20	0.02	1.09	1.15	P-12
13) Class Non-Coincident Peak & Avg. Subs., Poles & Wire - 1977	103,099	69,993	2,193	15,692	5,383	935	480	3,228	1,348	19	1,475	1,353	
14) % Responsibility	100.00	68.56	2.15	15.37	5.27	0.92	0.47	3.16	1.32	0.02	1.44	1.32	P-4 ✓ P-2
15) Class Non-Coincident Peak & Avg. Subs., Poles & Wire - 1978	112,081	78,319	2,290	17,353	5,317	1,041	765	3,712	1,415	18	1,364	1,487	
16) % Responsibility	100.00	69.26	2.02	15.35	4.70	0.92	0.68	3.28	1.25	0.02	1.21	1.31	P-13 X
17) Coincident Peak P.T.D. - 1977	415,392	215,985	4,970	80,341	29,102	5,383	2,475	17,888	32,157	26	13,121	13,944	
18) % Responsibility	100.00	51.99	1.20	19.34	7.00	1.30	0.60	4.30	7.74	0.01	3.16	3.36	P-5
19) Coincident Peak P.T.D. - 1978	583,779	292,910	6,278	118,808	39,502	8,948	5,274	29,051	43,142	25	19,441	17,560	
20) % Responsibility	100.00	50.43	1.07	20.46	6.80	1.52	0.91	5.00	7.43	0.01	3.35	3.02	P-16
21) Coincident Peak & Avg. P.T.D. - 1977	415,392	206,638	5,272	81,626	28,821	5,852	2,381	18,390	37,556	1,939	13,004	13,913	
22) % Responsibility	100.00	49.74	1.27	19.65	6.94	1.41	0.57	4.43	9.04	0.47	3.13	3.35	P-6 P-3
23) Coincident Peak & Avg. P.T.D. - 1978	580,779	282,180	6,535	120,294	39,454	9,236	5,097	29,308	49,404	2,194	19,640	17,437	
24) % Responsibility	100.00	48.59	1.12	20.71	6.79	1.59	0.88	5.05	8.51	0.38	3.38	3.00	P-15 X
25) Class Non-Coincident P.T.D. 1977	415,392	213,130	4,867	80,023	28,359	5,282	2,541	17,833	31,860	5,668	12,227	13,602	
26) % Responsibility	100.00	51.31	1.17	19.27	6.83	1.27	0.61	4.29	7.67	1.37	2.94	3.27	P-7
27) Class Non-Coincident P.T.D. - 1978	583,779	289,581	6,043	115,625	38,016	8,443	5,575	29,979	42,760	10,037	18,108	16,612	
28) % Responsibility	100.00	49.66	1.04	19.91	6.55	1.45	0.96	5.16	7.36	1.73	3.12	2.86	P-14
29) Coincident Peak Substations - 1977	22,941	11,951	134	4,500	1,749	484	166	1,748	954	19	940	296	
30) % Responsibility	100.00	52.10	0.58	19.62	7.62	2.11	0.72	7.62	4.16	0.08	4.10	1.29	P-8
31) Coincident Peak Substations - 1978	23,184	12,080	141	4,607	1,620	507	247	1,826	951	18	871	316	
32) % Responsibility	100.00	52.10	.61	19.87	6.99	2.19	1.06	7.88	4.10	.08	3.76	1.36	P-9
33) Class Non-Coincident Peak & Avg. Substations - 1977	22,941	10,526	155	5,203	2,060	532	187	1,905	979	19	1,014	361	
34) % Responsibility	100.00	45.88	.68	22.68	8.98	2.32	.82	8.30	4.27	.08	4.42	1.57	P-10 P-4
35) Class Non-Coincident Peak & Avg. Substations - 1978	23,184	10,683	164	5,311	1,903	559	277	2,054	977	18	934	384	
36) % Responsibility	100.00	45.73	.71	22.91	8.21	2.41	1.19	8.86	4.21	.08	4.03	1.66	P-11 X

NOVA SCOTIA POWER CORPORATION

Determination of Allocation Factors
For the Years Ended March 31, 1977 & 1978

	Total Company Less Steam and Joint (1)	Domestic (2)	General Comm. Load (3)	General (4)	General All-Electric (5)	General Large (6)	Industrial To 249 KVA (7)	Industrial 250-3,999 KVA (8)	Industrial Large (9)	Interruptible Service (10)	Municipal (11)	Unmetered (12)	Factors (13)
1) Coincident Peak O. & N. - 1977 % Responsibility	\$ 42,055 100.00	\$ 21,755 51.73	\$ 563 1.34	\$ 8,196 19.49	\$ 2,738 6.51	\$ 514 1.22	\$ 235 .56	\$ 1,719 4.09	\$ 3,151 7.49	\$ 3 .01	\$ 1,274 3.03	\$ 1,907 4.53	0-1
2) Coincident Peak O. & N. - 1978 % Responsibility	\$ 123,617 100.00	\$ 52,086 42.14	\$ 1,348 1.09	\$ 25,022 20.24	\$ 7,681 6.21	\$ 2,409 1.95	\$ 824 .67	\$ 6,710 5.43	\$ 17,237 13.94	\$ 2,082 1.68	\$ 4,910 3.97	\$ 3,308 2.68	0-4
3) Coincident Peak & Average O. & N. - 1977 % Responsibility	\$ 42,055 100.00	\$ 20,980 49.89	\$ 593 1.41	\$ 8,156 19.39	\$ 2,620 6.23	\$ 565 1.34	\$ 218 .52	\$ 1,762 4.19	\$ 3,791 9.02	\$ 232 .55	\$ 1,253 2.98	\$ 1,885 4.48	0-2
4) Coincident Peak & Average O. & N. - 1978 % Responsibility	\$ 123,617 100.00	\$ 51,164 41.39	\$ 1,379 1.12	\$ 24,966 20.20	\$ 7,577 6.13	\$ 2,452 1.98	\$ 792 .64	\$ 6,717 5.43	\$ 18,019 14.58	\$ 2,355 1.90	\$ 4,929 3.99	\$ 3,267 2.64	0-5
5) Class Non-Coincident Peak O. & N. - 1977 % Responsibility	\$ 42,055 100.00	\$ 21,724 51.66	\$ 548 1.30	\$ 8,039 19.12	\$ 2,657 6.32	\$ 501 1.19	\$ 240 .57	\$ 1,726 4.10	\$ 2,997 7.13	\$ 560 1.33	\$ 1,202 2.86	\$ 1,861 4.42	0-3
6) Class Non-Coincident Peak O. & N. - 1978 % Responsibility	\$ 123,617 100.00	\$ 51,937 42.01	\$ 1,334 1.08	\$ 24,758 20.03	\$ 7,562 6.12	\$ 2,382 1.93	\$ 843 .68	\$ 6,775 5.48	\$ 17,212 13.92	\$ 2,754 2.23	\$ 4,821 3.90	\$ 3,239 2.62	0-6

NOVA SCOTIA POWER CORPORATION

Determination of Allocation Factors

For the Years Ended March 31, 1977 & 1978

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
	Total Company Less Steam and Joint	Domestic	General Conn. Load	General All-Electric	General All-Electric Large To 249 KVA	General Industrial Large To 249 KVA	Industrial 250-3,999 KVA	Industrial Large	Industrial Interruption Service	Municipal	Unmetered Factors		
1) Secondary Customer/Revenue - 1977	\$ 141,659	\$ 75,885	\$ 2,277	\$ 48,390	\$ 13,473	\$ -	\$ 1,634	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
2) % Responsibility	100.00	53.57	1.61	34.16	9.51	-	1.15	-	-	-	-	-	-
3) Secondary Customer/Revenue - 1978	\$ 141,564	\$ 77,108	\$ 2,293	\$ 47,582	\$ 13,394	\$ -	\$ 1,187	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
4) % Responsibility	100.00	54.47	1.62	33.61	9.46	-	.84	-	-	-	-	-	-
5) Discount Revenue - 1978	\$1,293,894	\$786,951	\$19,796	\$144,107	\$34,283	\$1,735	\$ -	\$ -	\$ 4,558	\$58,530	\$ 3,097	\$ 3,097	\$ 3,097
6) % Responsibility	100.00	61.75	1.53	11.14	2.65	.13	-	-	.35	4.52	.24	.24	.24

R-1

R-2

R-3

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1 **Request IR-184:**

2

3 **With regard to CA IR-75,**

4

5 **(a) Please explain how, if at all, distribution poles and wires require land and**
6 **easements.**

7

8 **(b) Please provide a list of all locations at which NSPI owns land or easements for**
9 **distribution poles or wires.**

10

11 Response IR-184

12

13 (a) Property in Nova Scotia, for the most part, is held by deed. In some cases, the property
14 owner includes various levels of government. NSPI requires a grant of easement by the
15 owner, or owners, to install, replace or repair equipment (such as distribution poles and
16 wires) in order to avoid a trespass situation. NSPI easements are granted in perpetuity.

17

18 (b) NSPI has not prepared the requested information for this Proceeding. NSPI requires land
19 or easements at many locations of poles and wires. A master list of the location of all
20 poles and wires is not maintained by NSPI.

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1 **Request IR-185:**

2

3 **Does NSPI agree that all land and easements associated with distribution are required for**
4 **substations, rather than poles and wires? If not, provide the evidence that land and land**
5 **rights are required for distribution poles and wires.**

6

7 Response IR-185

8

9 Nova Scotia Power does not agree. Easements are required in order for Nova Scotia Power to
10 place any Nova Scotia Power equipment, such as poles and any other transmission or distribution
11 equipment, on the real property of a third party. Placing equipment on a third party's real
12 property without permission is considered a trespass under the law.

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1 **Request IR-186:**

2

3 **CA IR-77 asked “how land, easements and surveys used for generation and transmission**
4 **are treated in the Cost of Service Study.” The response refers to land functionalized in the**
5 **accounting system as transmission or general plant, but not generation.**

6

7 **(a) Please explain whether the accounting system functionalizes some land, easements**
8 **and surveys as generation plant, and if so, whether those costs are included in the**
9 **generation plant accounts.**

10

11 **(b) Please provide the total amount of land functionalized in the accounting system in**
12 **general plant.**

13

14 Response IR-186

15

16 (a) Land associated with generation plant is included in the generation plant accounts.

17

18 (b) The total amount of land included within generation plant is \$9,064,745.

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1 **Request IR-187:**

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3 **CA IR-83 asked for the “basis and supporting documents and computations for the**
4 **estimates by month and class in Exhibit 9A.” CA IR-84 requested “the basis and**
5 **supporting documents and computations for the estimates of class non-coincident kW**
6 **demand in Exhibit 9B.” The responses refer to some text in the 1995 COSS, to the**
7 **electronic version of Exhibit 9A and 9B, and to an input sheet that contains essentially the**
8 **same data as Exhibit 9A. Neither response provides the derivation of the various peaks**
9 **and loss factors.**

10
11 **(a) Please provide the derivation of each and every value in “Input Data Two” in**
12 **Multeese IR-1 Attachment 1.**

13
14 **(b) Please provide the date and hour for the forecast monthly coincident peak load for**
15 **each month in “Input Data Two” in Multeese IR-1 Attachment 1, or for the**
16 **historical month that was the basis of forecast.**

17
18 **(c) Please provide the historical data used to project these values for 2012.**

19
20 **(d) If any of the historical or projected values are estimated using load-research data,**
21 **please provide the load-research data and analyses used in that estimation.**

22
23 **(e) Please provide the line-loss studies or analyses used to estimate losses by class for**
24 **energy and coincident peak.**

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1 Response IR-187

2

3 (a) Please refer to NPB IR-116. It contains the estimates for sales and losses by hour for the
4 test year. From this file, all of the values in the “Input Data Two” are selected.

5

6 (b) Please find the time and date of the monthly system peak for the test year forecast.

7

Test Year Forecast Date	Hour	Hourly Demand MW
YY-01-21	1900	2308
YY-02-05	1800	2291
YY-03-18	0900	2033
YY-04-03	0900	1840
YY-05-02	0900	1630
YY-06-23	1300	1502
YY-07-15	1600	1591
YY-08-11	1800	1585
YY-09-24	2100	1498
YY-10-22	2000	1645
YY-11-23	1800	1880
YY-12-19	1800	2232

8

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1 (c) Please find the actual time and date of the monthly system peak from the base data year
2 (2008).
3

Actual Peak Date from historical base year : 2008	Hourly Demand MW
21-Jan-08 19:00	2192
11-Feb-08 19:00	1975
18-Mar-08 9:00	1991
3-Apr-08 9:00	1792
2-May-08 9:00	1597
23-Jun-08 13:00	1512
25-Jul-08 12:00	1592
7-Aug-08 12:00	1558
23-Sep-08 21:00	1519
23-Oct-08 9:00	1647
24-Nov-08 18:00	1868
19-Dec-08 18:00	2059

4
5 (d) Interval load data from meters is used to record energy patterns. Load research class
6 curves are stratified representative samples of a population. They provide the energy and
7 demand information for the particular rate class or stratum (subdivision of a class
8 depending on a particular attribute) that is being defined. The curves provide information
9 on hourly loads used to enable the analysis of historical and forecast demand peaks and
10 energy usage.

11
12 Census curves:

13
14 These are curves where all the entire population of a particular class is included as
15 contributors to the curve. Each individual customer's hourly load shape is summed to
16 provide the resulting class load profile of 8760 values (8784 hours in a leap year).

17
18 NSPI's census class curves:

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- Large General
- Large Industrial
- Large Industrial Interruptible Rider
- Generation Replacement/Load Following
- Bowater
- NewPage

Sample Curves:

These are curves where stratified samples of the population are used as contributors to the curve. The sample was designed to be representative of the entire population.

NSPI's sample class curves:

- Residential
- General Demand
- Medium Industrial
- Small Industrial
- Small General

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Please find attached the hourly meter data from both sample and census rate classes used to develop the test year estimation. Attachments 1 to 15 (filed electronically) are the load research metered data.

- (e) The line loss estimates are developed by allocating the difference between the net system requirement (generation) curve and the sum of the class load shapes. The allocation procedures involve assessing an allocation of the monthly energy losses based upon typical service voltage for customers within that class. Generally, customers served at the highest voltages incur the lowest losses because they are served from the most efficient parts of the grid. Customers served at lower voltages often generally have more transformers and higher line losses. A series of equations with linear and square terms are used to balance to the monthly losses and provide an hourly losses solution by rate class similar to previous filings and analysis.

The hourly net system requirement curve is attached. See Attachment 16, filed electronically.

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1 **Request IR-188:**

2
3 **The response to CA IR-85 provides NSPI's estimate of the time and date of the non-**
4 **coincident peak load for each class for 2008. "Input Data Two" in Multeese IR-1**
5 **Attachment 1 provides NSPI's estimate of the monthly non-coincident peak load for each**
6 **class and monthly coincident-peak contribution for each class in 2012. Yet the response to a**
7 **request for the "all load research studies relied upon by the Company in developing the**
8 **load-based allocators for its COS study" consisted of a reference back to the text of the**
9 **1993 COSS, which contains no load-research studies.**

10
11 **(a) If the response to CA IR-85 and the data in "Input Data Two" in Multeese IR-1**
12 **Attachment 1 are based on load-research data, please provide the load-research**
13 **studies.**

14
15 **(b) If NSPI derived the response to CA IR-85 and the data in "Input Data Two" in**
16 **Multeese IR-1 Attachment 1 without any load data, please explain how that was**
17 **done and provide all supporting computations, analyses and work papers.**

18
19 **Response IR-188**

20
21 **(a) The data for "input data two" is provided in CA IR-187. The load research data from**
22 **which it was developed is attached with CA IR-187 (c) and (d).**

23
24 **(b) The load research data as mentioned in part (a) has been provided.**

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1 **Request IR-189:**

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3 **The response to CA IR-85 states that “historical hourly load profiles for each class...are**
4 **scaled to the forecast class energy sales and the maximum hourly demands are selected**
5 **from the resulting load shapes.”**

6
7 **(a) Please provide these computations.**

8
9 **(b) Please explain whether the scaling process scales load in each hour using the**
10 **forecast change in monthly class energy sales or annual class energy sales.**

11
12 **(c) Please explain whether the forecast maximum hourly demand for each class and**
13 **month is always the historical maximum hourly demand times the ratio of forecast**
14 **to historical sales, and if not, why.**

15
16 **Response IR-189:**

17
18 (a) The worksheet containing the hourly sales and losses is provided in response to
19 NPB IR-116 Attachment 1.

20
21 (b) The load research sample is designed for analysis of the winter peaks and load, some
22 summer seasonal effects may not be represented. It is for this reason the hourly load
23 shapes are scaled to monthly values instead of annual.

24
25 (c) In general, the mentioned load shape characteristics are preserved in the scaling process
26 and the forecast maximum is the ratio of forecast to historical values. Exceptions may be
27 seen due to factors such as customer shutdowns, inter-class migration, or correction for
28 weather events.

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1 **Request IR-190:**

2

3 **Please provide actually weekly coincident peak loads for January 2009 through June 2011.**

4

5 Response IR-190:

6

7 The following table shows the maximum hourly system load for each week of 2009 to June 2011

8

Week Number	2009 Peak MW	2010 Peak MW	2011 Peak MW
1	1888	1872	1619
2	1861	1902	1977
3	2086	2011	1899
4	1923	1982	1982
5	2075	1991	2168
6	1943	2114	2042
7	2019	1885	1990
8	1958	1833	2024
9	1866	1858	1938
10	1928	1856	2018
11	1771	1708	1850
12	1698	1633	1853
13	1788	1775	1809
14	1611	1720	1717
15	1569	1505	1669
16	1537	1628	1649
17	1535	1655	1643
18	1510	1475	1549
19	1529	1364	1561
20	1511	1489	1544
21	1492	1463	1627
22	1492	1407	1471
23	1491	1540	1438
24	1366	1396	1429
25	1333	1412	1548
26	1379	1464	1455
27	1368	1450	1466
28	1388	1580	1500
29	1412	1563	
30	1546	1600	
31	1521	1516	

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32	1515	1537	
33	1518	1507	
34	1586	1606	
35	1529	1530	
36	1434	1598	
37	1317	1493	
38	1407	1510	
39	1414	1466	
40	1429	1528	
41	1518	1476	
42	1669	1548	
43	1629	1579	
44	1685	1626	
45	1824	1695	
46	1659	1610	
47	1752	1673	
48	1694	1761	
49	1802	1859	
50	2077	1959	
51	2092	1839	
52	2044	1930	
53	2066	1731	

1

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NSPI Responses to CA Information Requests

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1 **Request IR-191:**

2

3 **Please provide forecast weekly coincident peak loads for July 2011 through December**
4 **2012.**

5

6 Response IR-191:

7

8 NSPI does not forecast a weekly load. However system peaks can be extracted from the forecast
9 hourly load profiles used for other purposes. A forecast of weekly maximum hourly loads for
10 the requested period is shown in table below.

11

Week Number	2011F Peak MW	2012F Peak MW
1		2208
2		1895
3		2063
4		2308
5		2110
6		2291
7		1962
8		1939
9		1917
10		1902
11		1841
12		2033
13		1912
14		1840
15		1722
16		1692
17		1679
18		1630
19		1509
20		1597
21		1586
22		1483
23		1170
24		1138
25		1168
26	1457	1502

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Week Number	2011F Peak MW	2012F Peak MW
27	1426	1462
28	1467	1505
29	1545	1591
30	1489	1516
31	1458	1509
32	1462	1509
33	1518	1585
34	1467	1513
35	1491	1539
36	1432	1473
37	1427	1453
38	1441	1493
39	1465	1498
40	1440	1465
41	1508	1537
42	1484	1493
43	1599	1645
44	1524	1557
45	1676	1695
46	1668	1685
47	1826	1847
48	1834	1880
49	1848	1883
50	2076	2132
51	2191	2232
52	2075	2135
53	1905	1959

1