

- 1 **Q. Please provide a copy of the survey provided to Newfoundland Power in September**
2 **2002 from Foster and Associates, as it is referenced in Exhibit LBB-3, page 14 of 29.**
3
4 **A. A copy of the survey provided to Newfoundland Power in September 2002 by Foster and**
5 **Associates on cost of service methodologies used by electric utilities in Canada is**
6 **provided in Attachment A.**

Foster and Associates
Cost of Service Methodologies used by Electric Utilities in Canada

Cost Functionalization, Classification and Allocation Survey

Classification Survey Responses

Company Number	COMPANY	GENERATION									
		Hydraulic		Baseload Steam		Nuclear		Baseload Combined Cycle		Combustion Turbine	
		Demand	Energy	Demand	Energy	Demand	Energy	Demand	Energy	Demand	Energy
1	ATCO Electric	%									
		Basis									
2	BC Hydro	%	50%	50%				100%	0%	100%	0%
		Basis	1 Judgmental					1,4 Judgmental, and Analysis of Purpose of Hydro Plant (e.g., reservoir, dams, classified as energy related)		1,4 Judgmental, and Analysis of Purpose of Hydro Plant (e.g., reservoir, dams, classified as energy related)	
3	Hydro Quebec	%									
		Basis	10 Other		10 Other		10 Other		10 Other		10 Other
4	Manitoba Hydro	%	22%	78%							
		Basis	2 Load Factor								
5	Newfoundland & Labrador Hydro	%	39%	61%	66%	34%				100%	0%
		Basis	2 Load Factor							7 100% to Demand	
6	Newfoundland Power	%	45%	55%						100%	0%
		Basis	2 Load Factor							7 100% to Demand	
7	Nova Scotia Power	%	37%	63%	37%	63%				100%	0%
		Basis	2 Load Factor		2 Load Factor					7 100% to Demand	
8	SaskPower	%	56%	44%	63%	37%				87%	13%
		Basis	3 Peaker Methodology		3 Peaker Methodology						

1 Judgmental

2 Load Factor (e.g., load factor as a percentage that is energy related, with remainder as demand related)

3 Peaker Methodology (e.g., if peaker cost is 40% of base-load generation cost, then 40% is classified as demand related and remainder as energy related)

4 Analysis of Purpose of Hydro Plant (e.g., reservoir, dams, classified as energy related)

5 Plant Capacity Factor (e.g., capacity factor percentage classified as energy related, remainder as demand related.)

6 Minimum Demand (e.g., minimum system demand as a percent of peak demand used to classify cost as energy related)

7 100% to Demand

8 Zero Intercept Method

9 Minimum Plant Method

10 Other (please describe on separate sheet)

Cost Functionalization, Classification and Allocation Survey

Classification Survey Responses

Company Number	COMPANY	TRANSMISSION			
		Transmission		Subtransmission	
		Demand	Energy	Demand	Energy
1	ATCO Electric	%			
	Basis				
2	BC Hydro	%		100%	0%
	Basis	7	100% to Demand	7	100% to Demand
3	Hydro Quebec	%		100%	0%
	Basis	7	100% to Demand	7	100% to Demand
4	Manitoba Hydro	%		100%	0%
	Basis	7	100% to Demand	7	100% to Demand
5	Newfoundland & Labrador Hydro	%		100%	0%
	Basis	7	100% to Demand	7	100% to Demand
6	Newfoundland Power	%		100%	0%
	Basis	7	100% to Demand	7	100% to Demand
7	Nova Scotia Power	%		37%	63%
	Basis	2	Load Factor		
8	SaskPower	%		100%	0%
	Basis	7	100% to Demand	7	100% to Demand

1 Judgmental

2 Load Factor (e.g., load factor as a percentage that is energy related, with remainder as demand related)

3 Peaker Methodology (e.g., if peaker cost is 40% of base-load generation cost, then 40% is classified as demand related and remainder as energy related)

4 Analysis of Purpose of Hydro Plant (e.g., reservoir, dams, classified as energy related)

5 Plant Capacity Factor (e.g., capacity factor percentage classified as energy related, remainder as demand related.)

6 Minimum Demand (e.g., minimum system demand as a percent of peak demand used to classify cost as energy related)

7 100% to Demand

8 Zero Intercept Method

9 Minimum Plant Method

10 Other (please describe on separate sheet)

Cost Functionalization, Classification and Allocation Survey

Classification Survey Responses

Company Number	COMPANY	DISTRIBUTION												
		Substation		Primary Lines		Line Transformer		Secondary Lines		Services		Meters		
		Demand	Customer	Demand	Customer	Demand	Customer	Demand	Customer	Demand	Customer	Demand	Customer	
1	ATCO Electric	%	100%	0%	100%	0%	20%	80%	30%	70%	0%	100%	0%	100%
		Basis	7 100% to Demand		7 100% to Demand		8,9 Zero Intercept Method, and Minimum Plant Method		8,9 Zero Intercept Method, and Minimum Plant Method		10 Customer Specific		10 Customer Specific	
2	BC Hydro	%	100%	0%	100%	0%	100%	0%	25%	75%	0%	100%	0%	100%
		Basis	7 100% to Demand		7 100% to Demand		7 100% to Demand		1 Judgmental		1 Judgmental		1 Judgmental	
3	Hydro Quebec	%	100%	0%	68%	32%	57%	43%	49%	51%	0%	100%	0%	100%
		Basis	7 100% to Demand		9 Minimum Plant Method		9 Minimum Plant Method		9 Minimum Plant Method		1 Judgmental		1 Judgmental	
4	Manitoba Hydro	%	100%	0%	74%	26%	60%	40%	60%	40%	0%	100%	0%	100%
		Basis	7 100% to Demand											
5	Newfoundland & Labrador Hydro	%	100%	0%	89%	11%	36%	64%	58%	42%	0%	100%	0%	100%
		Basis	7 100% to Demand		8 Zero Intercept Method		8 Zero Intercept Method		8 Zero Intercept Method		10 Other		10 Other	
6	Newfoundland Power	%	100%	0%	67%	33%	73%	27%	67%	33%	0%	100%	0%	100%
		Basis	7 100% to Demand		9 Minimum Plant Method		8 Zero Intercept Method		9 Minimum Plant Method		1 Judgmental		1 Judgmental	
7	Nova Scotia Power	%	100%	0%	100%	0%	100%	0%	50%	50%	0%	100%	0%	100%
		Basis	7 100% to Demand		9 Minimum Plant Method		7 100% to Demand		9 Minimum Plant Method					
8	SaskPower	%	100%	0%	100%	0%	70%	30%			0%	100%	0%	100%
		Basis	7 100% to Demand		7 100% to Demand		10 Other							

1 Judgmental

2 Load Factor (e.g., load factor as a percentage that is energy related, with remainder as demand related)

3 Peaker Methodology (e.g., if peaker cost is 40% of base-load generation cost, then 40% is classified as demand related and remainder as energy related)

4 Analysis of Purpose of Hydro Plant (e.g., reservoir, dams, classified as energy related)

5 Plant Capacity Factor (e.g., capacity factor percentage classified as energy related, remainder as demand related.)

6 Minimum Demand (e.g., minimum system demand as a percent of peak demand used to classify cost as energy related)

7 100% to Demand

8 Zero Intercept Method

9 Minimum Plant Method

10 Other (please describe on separate sheet)

Cost Functionalization, Classification and Allocation Survey Allocation Survey Responses

Company Number	COMPANY	GENERATION		TRANSMISSION	
				Transmission	
		Demand	Energy	Demand	Energy
1	ATCO Electric				
2	BC Hydro	12 Peak Responsibility – Single Coincident Peak	22 Energy Plus Losses	12 Peak Responsibility – Single Coincident Peak	
3	Hydro Quebec	24 Based on Tariff	24 Based on Tariff	12 Peak Responsibility – Single Coincident Peak	
4	Manitoba Hydro	12 Peak Responsibility – Single Coincident Peak	22 Energy Plus Losses	15 Peak Responsibility – Average of Twelve Coincident Peaks	
5	Newfoundland & Labrador Hydro	12 Peak Responsibility – Single Coincident Peak	22 Energy Plus Losses	12 Peak Responsibility – Single Coincident Peak	
6	Newfoundland Power	12 Peak Responsibility – Single Coincident Peak	22 Energy Plus Losses	12 Peak Responsibility – Single Coincident Peak	
7	Nova Scotia Power	24 Peak Responsibility – Three Coincident Peaks	22 Energy Plus Losses	24 Peak Responsibility – Three Coincident Peaks	22 Energy Plus Losses
8	SaskPower	12 Peak Responsibility – Single Coincident Peak	22 Energy Plus Losses	12 Peak Responsibility – Single Coincident Peak	

12 Peak Responsibility – Single Coincident Peak
 13 Peak Responsibility – Average of Two Coincident Peaks
 14 Peak Responsibility – Average of Four Coincident Peaks
 15 Peak Responsibility – Average of Twelve Coincident Peaks
 16 Average and Excess Demand
 17 Class Non-Coincident Demand
 18 Partial Plant Method

19 Probability of a Negative Margin (PONM) Method
 20 Customer
 21 Weighted Customer
 22 Energy Plus Losses
 23 Customer Non-Coincident Demand at Meter
 24 Other (Please describe on a separate sheet)

Cost Functionalization, Classification and Allocation Survey Allocation Survey Responses

Company Number	COMPANY	DISTRIBUTION					
		Substation		Primary Lines		Line Transformer	
		Demand	Customer	Demand	Customer	Demand	Customer
1	ATCO Electric	23 Customer Non-Coincident Demand at Meter		23 Customer Non-Coincident Demand at Meter		23 Customer Non-Coincident Demand at Meter	21 Weighted Customers
2	BC Hydro	17 Class Non-Coincident Demand		12 Peak Responsibility – Single Coincident Peak		17 Class Non-Coincident Demand	24 Other (Please describe on a separate sheet)
3	Hydro Quebec	12 Peak Responsibility – Single Coincident Peak		17 Class Non-Coincident Demand	20 Customers	17 Class Non-Coincident Demand	20 Customers
4	Manitoba Hydro	17 Class Non-Coincident Demand		17 Class Non-Coincident Demand	20 Customers	17 Class Non-Coincident Demand	20 Customers
5	Newfoundland & Labrador Hydro	12 Peak Responsibility – Single Coincident Peak		12 Peak Responsibility – Single Coincident Peak	20 Customers	12 Peak Responsibility – Single Coincident Peak	20 Customers
6	Newfoundland Power	17 Class Non-Coincident Demand		17 Class Non-Coincident Demand	20 Customers	17 Class Non-Coincident Demand	20 Customers
7	Nova Scotia Power	17 Class Non-Coincident Demand		17 Class Non-Coincident Demand	20 Customers	17 Class Non-Coincident Demand	
8	SaskPower	23 Customer Non-Coincident Demand at Meter		23 Customer Non-Coincident Demand at Meter	20 Customers	23 Customer Non-Coincident Demand at Meter	20 Customers

12 Peak Responsibility – Single Coincident Peak
 13 Peak Responsibility – Average of Two Coincident Peaks
 14 Peak Responsibility – Average of Four Coincident Peaks
 15 Peak Responsibility – Average of Twelve Coincident Peaks
 16 Average and Excess Demand
 17 Class Non-Coincident Demand
 18 Partial Plant Method

19 Probability of a Negative Margin (PONM) Method
 20 Customer
 21 Weighted Customer
 22 Energy Plus Losses
 23 Customer Non-Coincident Demand at Meter
 24 Other (Please describe on a separate sheet)

Cost Functionalization, Classification and Allocation Survey Allocation Survey Responses

Company Number	COMPANY	DISTRIBUTION					
		Secondary Lines		Services		Meters	
		Demand	Customer	Demand	Customer	Demand	Customer
1	ATCO Electric	23 Customer Non-Coincident Demand at Meter	20 Customers		21 Weighted Customers		21 Weighted Customers
2	BC Hydro	23 Customer Non-Coincident Demand at Meter	24 Other (Please describe on a separate sheet		24 Other (Please describe on a separate sheet		24 Other (Please describe on a separate sheet
3	Hydro Quebec	17 Class Non-Coincident Demand	20 Customers		20,21 Customers and Weighted Customers		21 Weighted Customers
4	Manitoba Hydro	17 Class Non-Coincident Demand	21 Weighted Customers	17 Class Non-Coincident Demand	21 Weighted Customers		21 Weighted Customers
5	Newfoundland & Labrador Hydro	12 Peak Responsibility – Single Coincident Peak	20 Customers		21 Weighted Customers		21 Weighted Customers
6	Newfoundland Power	17 Class Non-Coincident Demand	20 Customers		21 Weighted Customers		21 Weighted Customers
7	Nova Scotia Power	17 Class Non-Coincident Demand	20 Customers	17 Class Non-Coincident Demand	20 Customers		20 Customers
8	SaskPower				21 Weighted Customers		21 Weighted Customers

12 Peak Responsibility – Single Coincident Peak
 13 Peak Responsibility – Average of Two Coincident Peaks
 14 Peak Responsibility – Average of Four Coincident Peaks
 15 Peak Responsibility – Average of Twelve Coincident Peaks
 16 Average and Excess Demand
 17 Class Non-Coincident Demand
 18 Partial Plant Method

19 Probability of a Negative Margin (PONM) Method
 20 Customer
 21 Weighted Customer
 22 Energy Plus Losses
 23 Customer Non-Coincident Demand at Meter
 24 Other (Please describe on a separate sheet