

MANITOBA HYDRO
2010/11 & 2011/12 RATE INCREASE APPLICATION

COST OF SERVICE STUDY

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MANITOBA HYDRO
2010/11 & 2011/12 GENERAL RATE APPLICATION

COST OF SERVICE STUDY

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11.0 OVERVIEW

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Tab 11 includes a summary discussion and results of Manitoba Hydro's Cost of Service Study ("COSS"). This section includes a description of the cost study filed and the methodology used to prepare the study.

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Appendix 11.1 is the Prospective Cost of Service Study for the 2009/10 fiscal year ("PCOSS10") which is based on IFF08-1.

Appendix 11.2 is the Allocation Program that provides a complete list of the allocation tables and the allocated costs for each rate class by cost component as used in PCOSS10.

Manitoba Hydro intends to file a Prospective Cost of Service Study for the 2010/11 fiscal year ("PCOSS11") as soon as it can be prepared and finalized, likely in late January, 2010.

11.1 BACKGROUND

After the 2006 Cost of Service review and the 2008 General Rate Application the Public Utilities Board ("PUB") issued Orders 117/06 and 116/08 which directed changes to the COS methodology. In March 2009, Manitoba Hydro filed a 2008 Cost of Service Study that reflected these directives. The results filed with the PUB in March are included in this Application as Appendix 11.3.

Manitoba Hydro supports most, but not all, the Cost of Service Study directives in these Orders. Manitoba Hydro continues to have concerns that the results under the directed methodology cannot be relied on as class revenue requirement benchmarks or for rate design and other internal uses of the PCOSS. The 2010 Prospective Study incorporates most but not all of the cost of service directives in Orders 117/06 and 116/08. The methodology used has varied from the PUB directives to reduce complexity and improve

1 depiction of cost causation, primarily in areas related to costs assigned to the Export
2 class.

3
4 Manitoba Hydro intends to engage external consulting services to review the Cost of
5 Service methodology for consistency with cost causation, utility economics and the range
6 of regulatory practice in North America and, pursuant to that review, to make appropriate
7 recommendations with respect to either maintaining or varying those methodologies.
8 Manitoba Hydro will file its Terms of Reference in January, 2010.

9
10 Because the current Rate Application is being filed on an across-the-board basis and
11 because the COS methodology will be subjected to an external review process, it is
12 recommended that the PCOSS10 and the PCOSS11 be accepted for information only at
13 this time.

14 15 **11.2 PCOSS10 METHODOLOGY**

16
17 The key features of the methodology used in PCOSS10 are listed below and, other than
18 the treatment of Export Revenues, are consistent with directives provided by the PUB in
19 Orders 117/06 and 116/08. Details are provided in Appendix 11.1.

- 20
21 1. Functionalization: Manitoba Hydro costs are placed into five main functions:
22 Generation; Transmission; Subtransmission; Distribution Plant; Distribution
23 Services.
24
- 25 2. Classification and Allocation of Generation Costs: Embedded Generation costs
26 are classified as Energy related and allocated among customer classes and exports
27 on the basis of Energy use weighted by time-differentiated marginal cost. Time
28 differentiated marginal cost is expressed by daily Surplus Energy Program prices
29 summarized into four seasons and three time-of-day periods.
30
- 31 3. Classification and Allocation of Transmission Costs: Transmission costs are
32 classified as demand-related and allocated on the basis of class contribution to
33 Summer Peak (top 50 hours) and Winter Peak (top 50 hours).
34
- 35 4. Classification and Allocation of Subtransmission Costs: Subtransmission costs
36 are classified as 100% demand-related and allocated on basis of Class Non-
37 Coincident Peaks.
38

- 1 5. Classification and Allocation of Distribution Plant Costs: Distribution Plant is
2 classified between customer and demand, with different classification ratios for
3 the sub-functions (e.g.: poles & wire; line transformers). Demand-related costs
4 allocated on the basis of class Non-Coincident Peak; Customer-related costs on
5 weighted customer count.
6
- 7 6. Classification and Allocation of Distribution Services Costs: Distribution
8 Services classified as Customer-related with different weightings for the
9 allocation of various sub-functions (e.g.: customer service; billing and
10 collections).
11
- 12 7. Treatment of Export Revenues and Costs: PCOSS10 includes a single export
13 class that is allocated Generation and Transmission costs on the same basis as to
14 domestic customers. Manitoba Hydro continues to believe that consideration
15 should still be given to separate Opportunity and Dependable Export classes and
16 this is one option that will be further considered in the upcoming external review
17 of the COSS.
18

19 Purchased power costs and the costs associated with securing US transmission used to
20 make opportunity export sales have been directly assigned to the Export class as directed
21 in Order 116/08. Other costs assigned to the Export class are limited to those that
22 Manitoba Hydro believes can be justified on the basis of cost causation.
23

24 Since gas-fired generation is almost never used to support exports, PCOSS10 assigns the
25 cost of gas-fired thermal plants entirely to the domestic classes who benefit from the
26 dispatchable energy provided by these plants. In PCOSS10, fuel and variable
27 maintenance costs for Brandon Unit 5, other than that related to operation necessary for
28 staff proficiency training and reliability runs, have been assigned to the Export class. The
29 remaining costs have been allocated to the domestic classes. PCOSS11 will assign all
30 costs of Brandon Unit 5 to the domestic classes to recognize the restrictions on operation
31 after December 31, 2009 as a result of Bill 15.
32

33 The 'Trading Desk', as well as MISO and MAPP memberships, provides benefits to
34 domestic customers by facilitating import purchases needed for dependable supply,
35 during periods of prolonged drought, or in the event of a major generation or
36 transmission failure. Consequently, only the portion of these costs that can be directly
37 attributed to Manitoba Hydro's export sales activities has been directly assigned to the
38 export class, with the remaining assigned to the domestic classes.

1
2 DSM costs are assigned to the customer classes benefiting from the DSM programming,
3 in the same manner as carried out prior to PCOSS08. This process reasonably assigns
4 costs in accordance with the classes which benefit from the expenditures, is relatively
5 simple to carry out, and avoids methodological complications associated with tracking
6 cumulative DSM energy and capacity savings as directed in Order 116/08. The costs of
7 programs that are funded by the Affordable Energy Fund have been charged directly to
8 the Export class in this study, consistent with the PUB directives.

9
10 PCOSS10 employs Manitoba Hydro’s forecast of export prices for 2009/10 as used in its
11 Integrated Financial Forecast (“IFF”) that underlies the PCOSS, and which supports
12 Manitoba Hydro’s rate requests to the PUB. If the most recent actual export prices were
13 used as the basis for the IFF in the current year, the rate increase requirements would be
14 increased relative to using Manitoba Hydro’s forecast. Since the PCOSS is based on
15 median flows, it is incorrect to apply lower average unit prices from a year of above
16 average flows, with predominantly opportunity sales, against sales volumes under median
17 flow conditions.

18 19 **11.3 PCOSS10 RESULTS AND COMPARISON TO PCOSS08**

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21 Table 11.1 summarizes the Revenue Cost Ratio (“RCC”) results of the 2009/10
22 Prospective Cost of Service Study for the major rate classes in the context of current
23 rates.
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**Table 11.1 - Results of Prospective 2009/10 Cost of Service Study
Class RCC Ratios**

Class	PCOSS10 RCC	PCOSS10 RCC (Pre-Exports)¹	PCOSS08 RCC (116/08)²
Residential	96.4%	86.7%	96.2%
General Service:			
Small Non-Demand	105.7%	96.3%	101.4%
Small Demand	102.8%	93.4%	107.8%
Medium	101.3%	91.9%	100.2%
Large < 30 kV	92.3%	82.9%	89.9%
Large 30-100 kV	106.8%	97.1%	108.4%
Large >100 kV	109.2%	99.6%	112.0%
Area and Roadway Lighting	100.0%	96.8%	102.4%

4

1 RCC shown is prior to the allocation of Net Export Revenue

2 Version of PCOSS08 reflects Cost of Service related Directives per Orders 116/08 and 117/06, as submitted to the PUB in March, 2009.