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# **Manitoba Hydro's Prospective Cost of Service Study Methodology**

## **The Treatment of Net Export Revenue and the Allocation Thereof**

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# Allocation of NER on GT&D is Reasonable

- Generally Supportive:
  - Yes and No
  - Supportive of the general concept
  - Not supportive of simplistic details
  - Problem is the definition of “D”
    - “D” is Distribution
    - Hydro Excludes Directly Assigned Costs

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# Where do we agree and disagree?

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- AGREE:

- Seeking “reasonability”

- Seeking fairness

- DISAGREE:

- Hydro treats directly assigned costs as second class costs – they do not merit a share of Net Export Revenue (NER)

# MH Cost of Service Overview

- There is no one right answer
  - Some solutions are better than others
- Good judgment is required
  - It is difficult to get to a product that are made up of a large part, and which are invisible and travel at the speed of light
- As such, reasonability is sought, not perfection
  - Drilling down to a finite level through significant and complex analytics, if data exists, doesn't often provide a clear answer and judgment still has to prevail

**AGREE**

# Why does MH use an Export Class?

- To more fairly share Export Revenue among Manitoba customers
- No precedents in the past led to an unfair sharing of export revenue

AGREE

# Use of an Export Class is Reasonable

- A reasonable and transparent mechanism to accomplish the appropriate allocation of export revenue to the appropriate classes
  - The cost allocated to export class, reduced by the NER allocated on GT&D can reduce absolute and relative distortion of cost responsibility by class for Manitobans



## Treatment of NER in COS

- NER is viewed as a system dividend to be shared in a fair and equitable manner, and is allocated based on total allocated cost
- Majority of export revenues continue to be used to offset Generation and Transmission costs, which represent 71% of total costs
- CA supports this treatment

**AGREE ... BUT**

# NER Allocation Methodology

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The wording on Hydro's slide was:

- “NER is viewed as a system dividend to be shared in a fair and equitable manner, and is **allocated based on total allocated costs.**”

But MH Evidence Dec. 4, 2015, pp. 17-19 said:

- *Manitoba Hydro agrees with CA that the allocation of Net Export Revenue **on the basis of each class' total cost to serve** is a reasonable perspective of fairness and will continue with this allocation approach for the following reasons:*



# Hydro's First Reason

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*Weight is also given to fairness and efficiency objectives. The allocation of Net Export Revenue on the basis of total cost to serve results in an improvement in the equitable sharing of export revenue between customer classes. The export benefit provided to residential customers increases to 70% of that received by the GSL>100 class compared with 62% of that received by the GSL >100 class under the past approach.*

## Hydro's Second Reason

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*The allocation of Net Export Revenue on total cost is consistent with COS treatment of net income. As shown in the figure below, export revenues are integral to the determination of net income. Net income is allocated across all functions in COS based on total investment. Given the high correlation between net income and extraprovincial revenues, the allocation of net export revenue consistent with the allocation of net income is logical.*

# Some Confusing Definitions

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- Evidence uses the wording “total cost to serve”
- PCOSS14 (Amended) Model is not consistent:
  - Total Cost (to Serve?) Worksheet
    - Total cost = Total allocated cost + Direct cost
  - Net Export Revenue Worksheet
    - NER allocated by: Total cost – Direct cost
- There is no evidence that either MH or CA thought about the this allocation method in preparing the Cost of Service Methodology Review

# What costs are directly assigned?

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- To be directly assigned, costs that are caused exclusively by a single customer class must be separately tracked in MH's accounts, otherwise they must be allocated.
- The result is some arbitrary distinctions:
  - Derksen on Wednesday:
    - Meters and line drops are conceptually directly charged to residential customers (i.e., by the weighted customer count)
    - Same as directly assigned poles/wires to ARL

## So why is there disagreement?

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- ARL Direct Costs also include luminaires
- Luminaires are more like residential appliances than they are like meters and line drops.

### **Hence there is a dilemma:**

- Including directly assigned costs to allocate NER creates unequal treatment: luminaires would be included for ARL because MH provides them
- But excluding directly assigned costs also results in unequal treatment

### **The resolution requires reasonability, not perfection**

# MH Cost of Service Overview

- There is no one right answer
  - Some solutions are better than others
- Good judgment has to prevail
  - Trying to assign the costs to a product that are indivisible, in large part, and which are invisible and travel at the speed of light
- As such, reasonability is sought, not perfection
  - Drilling down to a finite level through significant and complex analytics, if data exists, doesn't often provide a clear answer and judgment still has to prevail

# Perfection vs. Reasonability

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- Perfection: for ARL, separate pole and wire costs from luminaire costs
- Reasonableness: pick the most reasonable simple approach - include all directly assigned costs or none

**Which approach best achieves the intended result?**

# Why does MH use an Export Class?

- To more fairly share Export Revenue among Manitoba customer classes
- No Export Class in the past led to an unfair sharing of export revenue



## Direct Costs in PCOSS14

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- A lot more than ARL poles, wires and luminaires
  - Residential \$ 6,615 6.8%
  - GSS \$10,538 10.9%
  - SEP \$ 642 0.7%
  - GSM \$ 6,429 6.6%
  - GSL \$10,226 10.5%
  - ARL \$15,331 15.8%
  - Diesel \$ 9,948 10.3%
  - Export \$37,297 38.4%
- Note: Diesel direct costs are not deducted for purposes of allocating NER

		Curtable		Ratio of Direct to Classified Costs
		Class	Total	
<b>Total Direct Costs: Total</b>				
Residential	Standard & All Electric	6,615	6,615	0.01
	Seasonal	-	-	
	Water Heating	-	-	
	Subtotal	6,615	6,615	
GSS	Non-Demand	5,060	5,060	0.04
	Demand	5,477	5,477	0.04
	Seasonal	-	-	
	Water Heating	-	-	
	Subtotal	10,538	10,538	
SEP	GSM	592	592	0.69
	GSL	49	49	0.46
	Subtotal	642	642	
Gsm		6,429	6,429	0.03
Gsl	0-30KV	3,439	3,439	0.03
	30-100KV	386	732	0.01
	>100KV	3,854	5,669	0.01
	Subtotal	4,240	5,986	10,226
Area & Roadway Lighting		15,331	15,331	0.70
Diesel		9,948	9,948	1.00
Export		37,297	37,297	0.03
Total		4,240	92,785	97,025

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# Conclusions

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1. Hydro has acknowledged throughout the Review that it has focussed its efforts on the more significant cost allocation issues
2. The inclusion/exclusion of directly assigned costs for allocating NER is not a big \$\$\$ issue for Hydro
3. Neither exclusion nor inclusion is perfect
4. Inclusion is more fair and more reasonable than exclusion for all classes
5. It matters for Diesel and is included for them
6. It matters for ARL & should be included for them