

Presentation to Régie de l'énergie regarding Hydro Quebec R-3788-2012 Project

Notes for oral presentation:

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Régie de l'énergie
DOSSIER: R-3788-2012
DÉPOSÉE EN AUDIENCE
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1

Report key points

- Issues of Hydro Quebec solution
 - General: access, energy efficiency benefits*
 - Multi-meter rooms, Meters in kitchens*
 - Rate structures*
- Fear of Radio Frequency
 - UBCM: moratorium on wireless smart meters*
 - Vancouver: motion recognizes powerline*
 - Idaho, WEC: use powerline systems*

3

Report key points

- Problem to be solved
 - Refusal of minority of customers that have a fear of radio frequencies*
- Hydro Quebec solution
 - Non-communicating electronic meter*
 - (two other options: electro-mechanical, telephone)*

2

Report key points

- Powerline Communications
 - Turtle: slow*
 - Europe - more customers per transformer*
 - Montreal - more per transformer than Quebec*
 - Comments - bandwidth, security, hybrid*
 - Interior meters*
 - Others: Duke Energy, FortisAlberta, Pacific Gas/Electric*
- Costs
 - Hard to quantify and compare*
 - MP: \$118; Vermont: \$130*

4

Report key points

- Recommendations
 - 1) Enough information to consider powerline
 - 2) Develop Requirements
 - 3) Evaluate powerline Europe and North America
 - 4) Perform analysis
 - 5) Hydro Quebec solution sub-optimal
 - 6) Not accept, reconsider after study

5

Hydro Quebec June 13 Testimony

- Network low voltage powerline (page 239-242)
 - Customers per transformer important*
 - Europe example 33 million versus Quebec*
 - Several tens of millions of dollars*
 - My opinion: seemed high*
 - Request Echelon produce spreadsheet*

6

Echelon costs scenarios

	# of Units	TOTAL COST	COST PER CUSTOMER	METERS PER TRANSFORMER
Assumption #1 - Quebec				
Product (One-Time Costs)				
Data Concentrator (1024/1)	582,000			
DC Enclosure	582,000			
Communications Card*	582,000			
ANSI 2S Meters (integrated disconnect)	3,800,000			
One-time software fee	3,800,000			
		\$688,880,000	\$181.28	6.5
Assumption #2 - Company in Europe				
Product (One-Time Costs)				
Data Concentrator (1024/1)	740,000			
DC Enclosure	740,000			
Communications Card*	740,000			
ANSI 2S Meters (integrated disconnect)	33,000,000			
One-time software fee	33,000,000			
		\$4,256,000,000	\$128.97	44.6
Assumption #3 - Montreal more than 50 customers/transformer				
Product (One-Time Fees)				
Data Concentrator (1024/1)	2,493			
DC Enclosure	2,493			
Communications Card*	2,493			
ANSI 2S Meters (integrated disconnect)	124,650			
Software Activation	124,650			
		\$15,995,200	\$128.32	50.0

7

Echelon costs scenarios

	# of Units			
Assumption #4 - All of Montreal				
Product (One-Time Costs)				
Data Concentrator (1024/1)	26,749			
DC Enclosure	26,749			
Communications Card*	26,749			
ANSI 2S Meters (integrated disconnect)	929,111			
One-time software fee	929,111			
		\$122,192,920	\$131.52	34.7
Annual Recurring Fees				
Platinum SIP (Annual)	\$1.00	Per Meter	Software, firmware and unlimited technical support	
Silver SIP Option	\$0.20	Per Meter	Unlimited technical support	

**communications cards can cost more or less. Cellular providers may give the cards away for long term contract 5 - 10 years.*

8