#### **MANITOBA HYDRO**

## Corporate Risk Management Middle Office Report January 2010

#### A. MISO Market Conditions

Average prices in October and November were 20% to 30% lower than the same months in the prior year. On average load for these two months was 2% to 3% higher than the prior year, an improvement from our last report. PIRA's most recent price outlook for Minn Hub during January, February and March 2010, indicates January prices declining 23% and the remaining months flat compared to prior year.

## **B. Short Term Transactions**

The table below outlines total volumes and average price for contracts entered into by Power Trading during the period October to December 2009.

ι	Jp to the			xt March 31st			
	On-Peak			Wrap and/or 2 x 16			
MW per hour	Oct	Actual Nov	Dec	Oct	Actual Nov	Dec	
Forecast Supply 1	977	504	102	379	1,015	910	
Volume Approved for Sale	500	300	300	100	200	100	
Physical Bilateral Sales (New) Physical Bilateral Sales under	45	50	50	45	50	50	
existing Long Term Contract	150	100	150	150	100	100	
Avg Price (\$ US)	31.31	28.04	39.25	16.57	19.54	26.01	
Financial Bilateral Sales (New) Financial Sales under existing	21	29	0	21	29	29	
Long Term Contracts			100				
Avg Price (\$ US)	29.12	29.77	35.25	23.24	26.80	30.87	
Avg Index Price (\$ US)	18.80	20.27	18.78	9.08	9.30	9.47	
Remaining Surplus before sale:	434	221	100	34	121	21	

Note: On-peak cumulative quantities approved for the month of December exceeded the forecast supply. The energy quantities included all generation available (both economic and un-economic). Some of the quantities approved were to service one 50MW contract which was priced at the MHEB nodal price plus \$5/WMh. However, it should be noted that the cumulative quantities approved exceeded the 50MW contract. A profit would be realized even if the energy had to be purchased to serve the entire contract. It is not clear whether this is consistent with the intent of the Management Control Plan.

# C. Surplus Energy/Forward Position

## FORWARD POSITION REPORT January to March 2010

MWh	Jan	Feb	Mar	
Dependable Book <sup>1</sup>	211,083	209,740	239,755	
Term Book <sup>1</sup>	68,290	0	0	
	279,373	209,740	239,755	
Avg Price Dependable Book <sup>2</sup>	\$36.00	\$36.00	\$36.00	
Avg Price Term Book <sup>2</sup>	40.98			
Forecast Prices U.S. MWh <sup>3</sup>	\$39.25	\$37.00	\$32.75	

<sup>&</sup>lt;sup>1</sup> Includes On peak and Off peak

## Energy Surplus Position - Jan to Mar 2010 Surplus Quantities Approved for Sale

MW per hour	Jan	Feb	Mar
ON PE	AK		
Forecast Surplus 1			
Avg (50% Peak)	331	187	426
Peak	180	775	431
Quantitites Approved for Short Term Sales	200	150	150
New Short Term Sales Made To Date	50	0	0
Short Term Sales flowing under existing			
Long Term Contracts <sup>2</sup>	0	0	0
Remaining surplus from Quantities Approved	150	150	150
OFF PE	EAK		
Forecast Surplus 1			
Avg (off-peak)	(23)		
Quantitites Approved for Short Term Sales	50	0	o
New Short Term Sales Made To Date	50	0	0
Short Term Sales flowing under existing Long Term Contracts <sup>2</sup>			
Remaining surplus from Quantities Approved	0	0	0

<sup>&</sup>lt;sup>1</sup> Various run dates used in decision-making

<sup>&</sup>lt;sup>2</sup> Avg Price On peak

<sup>&</sup>lt;sup>3</sup> On Peak as at Dec 10, 2009

Note: MH may have to go to market over the peaks under diversity agreements to cover the positions for Jan, Feb and Mar under extreme weather conditions. It is not clear whether this is consistent with the intent of the Management Control Plan or risk tolerance levels for these winter months.

Off-peak forecast surplus for Jan. is negative. This is because the capacity report is forecasting that it will be more economic to purchase than run generation during this period. 50 MW per hour off-peak was approved for sale. This quantity will be utilized to serve a 50 MW contract that the energy price is the MHEB nodal price plus \$5/MWh realizing a profit even if the energy is purchased from MISO market.

### D. Related Merchant Transactions

## **Outstanding Issue**

In September 2009 we reported that for the two months June and July Webtrader reports showed surplus positions (more mwh purchased than sold) and a loss.

According to Power Trading, transactions had been entered into flowing in the opposite direction (Ontario to MISO). The offset position was captured in the day ahead, real time book rather than the system merchant book resulting in the issue. We were informed that deals flowing the opposite direction do not occur often but when they do the offset is captured in the day ahead, real time books.

As we mentioned in our last report we are unable to conduct risk assessment, transaction evaluation and trader compliance for day ahead and real time transactions due to the way Webtrader (the deal capture system) was set up for these transactions. Because of the way this module was designed it is difficult to determine the actual volume and price of an individual trade and who entered into the deal or policy compliance.

The following table summarizes related merchant transactions for October, November. Final December information is entered into Webtrader until the approximately the 15<sup>th</sup> of the subsequent month.

#### October to December 2009

	Oct		Nov		Dec	
	Total MWh	Total Settlement	Total MWh	Total Settlement	Total MWh	Total Settlement
US/CDN Market Purchases[1] Sales Net Position	58,428 <u>56,715</u> 1,713	1,536,042 1,831,899	56,235 56,235 0	1,327,100 1,755,601	71,885 <u>71,885</u> 0	2,042,436 2,651,126
Total Trading Gains/(Losses)[2]		295,857		428,501		608,690
Profit Share to Third Party						
Transmission & Market Costs[3]						
Net Profit/(Loss)		60,184		107,278		425,879

- [1] CDN dollar sales converted to US at Webtrader rate[2] Before transmission and market costs[3] Source: Webtrader monthly summary

# **Short Term Contracts - Related Policy**

## A. System Energy & Related Products - Management Control Plan<sup>1</sup>

"System energy products include physical bilateral contracts, day ahead market and real time market power transactions and related products. The underlying intent for these transactions is the physical delivery of power to or from Manitoba Hydro's system."

Forward sales and purchase contracts, two weeks and longer in duration are formalized in writing in accordance with the applicable Master Agreement. The power trader or marketer negotiates these forwards sales using industry pricing indicators as a guide."

## Pricing

 As a minimum, Hydro will require recovery of 110% of its incremental costs in making any short term forward sale commitment. The power trader or marketer uses this information along with industry pricing indicators to negotiate forward contracts.

#### **Transaction Limits**

 No specific limits established in the Management Control Plan for short term physical forward sales.

### B. System Financial Products

Put and call options, swaps and bilateral contracts for differences for power or natural gas for the purpose of managing the uncertainty in available generation or load forecast or fuel supplies for Hydro's power supply assets. In addition, these products may be used to enter into favorable forward sales or to minimize exposure to price volatility on power and gas purchases.

#### **Permitted Financial Products**

 Put and call options, swaps, and bilateral contracts for differences. Financial Transmission Rights, auction revenue rights, virtual bids and offers and bilateral contracts registered as financial schedules.

### **Volume Limits**

Cannot exceed the projected underlying physical position.

<sup>&</sup>lt;sup>1</sup> Approved by the Board of Directors November 22, 2007

## C. Approval Authority

Transactions from existing generation or purchase from 15 calendar days up to the later of 5 months or the next March 31<sup>st</sup>:

Power Sales & Operations Market Committee or Division Manager Power Sales & Operations for volumes for purchase or sale and,

Manager, Power Trading or Financial Trading Supervisor for transactions.

### D. Confirmation Method

Either orally or through electronic communication or approved electronic platform followed up by written confirmation. The Management Control plan states that written contracts are reviewed, approved, and signed in accordance with the approval authority requirements noted above.

## **Related Merchant Transactions - Related Policy**

## A. Merchant Transactions - Management Control Plan

Resale of power purchased from third parties and which either flows over transmission owned or reserved by/for Manitoba Hydro or was purchased for Manitoba Hydro system requirements and has subsequently been deemed surplus.

### **Transaction Limits**

- Maximum net power position of 1000 GWh
- Fixed price to fixed price transactions may be entered into only if there is a positive profit margin
- All other transactions may be entered into only if there is a positive expected value and with a term no more than three days in duration.
- Maximum duration six months

## B. Approval Authority

- Merchant Energy Products up to and including 14 calendar days in duration:
  Manager, Power Trading or Division Manager, Power Sales & Operations
- Merchant Energy Products Day Ahead: Day Ahead Power Trader or Financial Trading Supervisor
- Merchant Energy Products Real Time: Day Ahead Power Trader or Financial Trading Supervisor or Real Time Power Trader or Physical Trading Supervisor

# **Transactions Two Weeks or Less in Duration - Related Policy**

- Includes physical bilateral transactions up to two weeks and Day Ahead and Real Time market bids and offers.
- Market bids and offers are subject to minimum sell and maximum buy prices determined using short term water conditions and forecasted energy supply requirements.