

1 **Undertaking 86**

Exhibit No. _____

2 Potomac Economics to recalculate the percentage of dependable capacity that is sold forward on
3 a firm basis under the assumption that US diversity sales do not earn the long-term firm price
4 (4686).

5

6 **RESPONSE:** In our report, we produced a statistic that indicated 91 percent of MH's
7 dependable capacity was sold under long-term firm contracts. We based our conclusion on data
8 provided by MH. Table 1 shows our calculation.

9

Table 1

Year	Original MH Data		
	Dependable Energy	Total Firm Sales	Firm Sales as a Percentage of Dependable (2)/(1)
(1)	(2)	(3)	
2008/2009	4417	4003	91%
2009/2010	3626	3580	99%
2010/2011	3090	3248	105%
2011/2012	3505	3217	92%
2012/2013	4192	3075	73%
Total	18830	17123	91%

10

11 Counsel for PUB Staff submitted a hearing exhibit showing that some of the long-term firm sales
12 are comprised of "diversity sales" which are bilateral sales between MH and counterparty
13 utilities that are based on market prices for energy and do not include a capacity charge but may
14 include an "in-kind" exchange, as explained below.

15 Table 2 shows the original MH data along with the data provided at hearing by PUB. The
16 additional data shows PUB's accounting of the long-term firm sales and diversity sales along
17 with a percentage of long-term firm (excluding diversity) relative to dependable energy.

18

Table 2

Year	Original MH Data			PUB Data			
	Dependable Energy	Total Firm Sales	Firm Sales as a Percentage of Dependable (2)/(1)	Long-Term Sales	Diversity Sales	Total (4) + (5)	PUB Long-Term as a Percentage of Dependable (4)/(1)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
2008/2009	4417	4003	91%	3197	890	4087	72%
2009/2010	3626	3580	99%	2403	860	3263	66%
2010/2011	3090	3248	105%	2517	860	3377	81%
2011/2012	3505	3217	92%	2492	1250	3742	71%
2012/2013	4192	3075	73%	2356	1280	3636	56%
19 Total	18830	17123	91%	12965	5140	18105	69%

20 In order to analyze this undertaking, we first sought to reconcile the firm sales data (columns (3)
 21 and (4), which are intended to measure the same variable. The source of the PUB data was a
 22 MH data response. We sought additional information in the diversity sales to determine whether
 23 or not they are included in the totals in the original MH data and whether or not they should be
 24 counted as "firm" sales. Second, we sought to determine the difference between the total firm
 25 sales reported by MH (column (2)) and the total arrived at by PUB (column (6)).

26 Beginning with this latter point, MH provided additional data which accounts for the difference
 27 between columns (2) and (6). First, regarding Diversity Sales, MH identified two sales, one to
 28 great River Energy (GRE) and one to Northern States Power (NSP). [REDACTED]

29 [REDACTED]
 30 [REDACTED] The table below shows the adjusted sales data if PUB were to exclude this sale.

31

Table 3: PUB Accounting Adjusted for [REDACTED]

Year	Dependable Sales In PUB Exhibit	[REDACTED]	
		(1)	(2)
2008/2009	4087	[REDACTED]	[REDACTED]
2009/2010	3263	[REDACTED]	[REDACTED]
2010/2011	3377	[REDACTED]	[REDACTED]
2011/2012	3742	[REDACTED]	[REDACTED]
2012/2013	3636	[REDACTED]	[REDACTED]
32 Total	18105	[REDACTED]	[REDACTED]

33 Column (3) in Table 3 still does not correspond with the total long-term firm sales reported by
 34 MH in column (2) of Table 2 because two additional adjustments. First, the data reported to
 35 PUB is delivered energy and does not include losses. The data should be grossed up to reflect
 36 plant-level capacity. In addition, MH also did not include a long-term 145 MW sale to St.
 37 Joseph within Manitoba. Table 4 shows the full reconciliation of the data. Column (6) of Table
 38 4 now corresponds to column (2) of Table 1 (with some rounding errors).

39 **Table 4: Reconciliation of Total Firm Sales**

Year	Dependable Sales In PUB Exhibit	(1)	(2)	(3)	Add Losses @ 10%	St. Joseph Contract	Total at Plant Level	(6)
		(1)	(2)	(3)	(4)	(5)		
2008/2009	4087					145		
2009/2010	3263					145		
2010/2011	3377					145		
2011/2012	3742					145		
2012/2013	3636					145		
40 Total	18105					725		

41 Hence, if the PUB data had [REDACTED] (2) been reported
 42 at plant level and (3) had included the 145 MW St. Joseph sale, then the total sales between the
 43 MH data and the PUB data would have matched. This is not an error by PUB, but PUB was
 44 simply working with slightly different data that required additional clarification for these
 45 purposes.

46 [REDACTED]
 47 [REDACTED] the final remaining question is how the NSP diversity sale is treated.
 48 The following table shows MH original values on which we based our conclusion (also shown in
 49 Table 1) and breaks out the NSP contract. The table shows the percentage of dependable energy
 50 that is sold on a long-term firm basis under two assumptions. Column (4) assumes the NSP
 51 diversity contract is a long-term firm sale while column (5) assumes the NSP diversity sale is not
 52 firm. Column (5) was the essential question posed by the undertaking.

Table 5: Summary of Firm Power Sales.

Year	Dependable	Total Firm Sales	NSP Diversity (at	Firm Sales as a	Firm Sales as a
	Energy	at Plant Level	Plant Level)	Percentage of (2)/(1)	Percentage (Excl NSP) ((2)-(3))/(1)
	(1)	(2)	(3)	(4)	(5)
2008/2009	4417	4003		91%	
2009/2010	3626	3579		99%	
2010/2011	3090	3247		105%	
2011/2012	3505	3216		92%	
2012/2013	4192	3074		73%	
54 Total	18830	17119		91%	

55 We believe it is important to reach further conclusion regarding whether to not the NSP diversity
 56 agreement should be classified as a long-term firm contract. The NSP contract provides an inter-
 57 seasonal capacity exchange in kind between MH and NSP. In summer, MH provide capacity
 58 under the agreement to NSP for no charge but in turn is able to receive free capacity under the
 59 agreement in the winter. Accordingly, we believe the NSP diversity agreement should be
 60 considered a firm power sale agreement because it earns the capacity price "in-kind." As a
 61 result, we believe column (4) of Table 5 is an appropriate measure of the percentage of
 62 dependable capacity that is sold as long-term firm.