

Manitoba Hydro Undertaking #3

Quantify the transmission and ancillary service costs that we put in forecast for 2020, as well as the two test years. Provide the same information for actuals in 2010.

Tables 1a, 1b and 1c attached provide a breakdown of Extraprovincial Revenue, Water Rentals & Assessments, and Fuel & Power Purchased for 2009/10 actual and IFF09 forecast 2009/10 to 2019/20.

Tables 2a, 2b and 2c attached provide a reconciliation of Extraprovincial Revenue, Water Rentals & Assessments, and Fuel & Power Purchased in IFF09 to the corresponding line item in PUB/MH II-45(a) Average Price Table.

Table 3 attached reconciles and explains the change in net export revenue between IFF09 and PUB/MH II-45(a) Average Price Table.

Table 1a
Breakdown of IFF09 Extraprovincial Revenue
(\$Millions)

	<u>2009/10</u> <u>Actual</u>	<u>2009/10</u> <u>Forecast</u>	<u>2010/11</u> <u>Forecast</u>	<u>2011/12</u> <u>Forecast</u>	<u>2012/13</u> <u>Forecast</u>	<u>2013/14</u> <u>Forecast</u>	<u>2014/15</u> <u>Forecast</u>	<u>2015/16</u> <u>Forecast</u>	<u>2016/17</u> <u>Forecast</u>	<u>2017/18</u> <u>Forecast</u>	<u>2018/19</u> <u>Forecast</u>	<u>2019/20</u> <u>Forecast</u>
Export Sales	367.6	344.9	313.1	531.2	559.6	590.5	565.1	675.0	703.0	715.3	866.8	1,065.3
Ancillary Service Market	2.0	2.6	3.0	3.4	3.4	3.6	3.7	3.8	3.9	4.0	4.1	4.1
Transmission Credits	17.7	19.9	19.5	19.6	19.6	20.7	21.2	21.8	22.4	22.8	23.3	23.7
Merchant Sales	26.1	31.6	29.9	-	-	-	-	-	-	-	-	-
Congestion Management	13.0	15.3	18.0	-	-	-	-	-	-	-	-	-
Other Export Revenue	0.2	0.1	-	-	-	-	-	-	-	-	-	-
Extraprovincial Revenue	426.6	414.5	383.5	554.2	582.6	614.7	590.1	700.7	729.3	742.1	894.1	1,093.1

Table 1b
Breakdown of IFF09 Water Rentals & Assessments
(\$Millions)

	<u>2009/10</u> <u>Actual</u>	<u>2009/10</u> <u>Forecast</u>	<u>2010/11</u> <u>Forecast</u>	<u>2011/12</u> <u>Forecast</u>	<u>2012/13</u> <u>Forecast</u>	<u>2013/14</u> <u>Forecast</u>	<u>2014/15</u> <u>Forecast</u>	<u>2015/16</u> <u>Forecast</u>	<u>2016/17</u> <u>Forecast</u>	<u>2017/18</u> <u>Forecast</u>	<u>2018/19</u> <u>Forecast</u>	<u>2019/20</u> <u>Forecast</u>
Water Rentals	114.0	111.2	102.3	100.5	102.9	103.5	103.3	103.3	103.8	102.9	102.8	112.0
Transmission Membership Costs	4.9	5.7	5.6	6.0	5.9	6.1	6.4	6.7	7.0	7.2	7.5	7.8
Other	2.1	2.6	2.3	4.3	4.3	4.4	4.4	4.5	4.5	4.6	4.7	4.7
Water Rentals & Assessments	121.0	119.6	110.3	110.7	113.1	114.0	114.1	114.5	115.4	114.8	114.9	124.5

Table 1c
Breakdown of IFF09 Fuel & Power Purchased
(\$Millions)

	<u>2009/10</u> <u>Actual</u>	<u>2009/10</u> <u>Forecast</u>	<u>2010/11</u> <u>Forecast</u>	<u>2011/12</u> <u>Forecast</u>	<u>2012/13</u> <u>Forecast</u>	<u>2013/14</u> <u>Forecast</u>	<u>2014/15</u> <u>Forecast</u>	<u>2015/16</u> <u>Forecast</u>	<u>2016/17</u> <u>Forecast</u>	<u>2017/18</u> <u>Forecast</u>	<u>2018/19</u> <u>Forecast</u>	<u>2019/20</u> <u>Forecast</u>
Imports (including wind)	34.6	30.7	50.4	164.8	166.1	171.4	177.6	188.7	198.8	209.7	281.2	255.8
Open-Access Transmission Costs	34.4	33.2	40.4	37.3	37.3	39.5	40.6	48.1	75.4	76.8	78.3	79.8
Merchant Purchases	22.7	27.2	26.1	-	-	-	-	-	-	-	-	-
Thermal Costs	7.9	8.0	8.3	41.4	41.3	43.9	45.5	54.6	61.3	70.0	75.3	76.7
Diesel & Other Purchases	4.4	4.1	6.6	4.9	5.0	5.2	5.4	5.6	5.8	6.0	6.3	6.5
IFF09 Fuel & Power Purchases	104.0	103.3	131.7	248.4	249.8	260.0	269.1	296.9	341.3	362.6	441.0	418.7

Table 2a
Reconciliation of IFF09 Extraprovincial Revenue to Average Price Table PUB/MH II-45(a)
(\$Millions)

	<u>2009/10</u> <u>Forecast</u>	<u>2010/11</u> <u>Forecast</u>	<u>2011/12</u> <u>Forecast</u>	<u>2012/13</u> <u>Forecast</u>	<u>2013/14</u> <u>Forecast</u>	<u>2014/15</u> <u>Forecast</u>	<u>2015/16</u> <u>Forecast</u>	<u>2016/17</u> <u>Forecast</u>	<u>2017/18</u> <u>Forecast</u>	<u>2018/19</u> <u>Forecast</u>	<u>2019/20</u> <u>Forecast</u>
IFF09 Extraprovincial Revenue	414.5	383.5	554.2	582.6	614.7	590.1	700.7	729.3	742.1	894.1	1,093.1
Open-Access Transmission Costs	(33.2)	(40.4)	(37.3)	(37.3)	(39.5)	(40.6)	(48.1)	(75.4)	(76.8)	(78.3)	(79.8)
Ancillary Service Market	(2.6)	(3.0)									
Merchant Sales	(31.6)	(29.9)									
Congestion Management	(15.3)	(18.0)									
Other Export Revenue	(0.1)										
PUB/MH II-45(a) Total Export Sales	331.6	292.2	516.9	545.2	575.3	549.5	652.6	653.9	665.3	815.8	1,013.4

Table 2b
Reconciliation of IFF09 Water Rentals and Assessments to Average Price Table PUB/MH II-45(a)
(\$Millions)

	<u>2009/10</u> <u>Forecast</u>	<u>2010/11</u> <u>Forecast</u>	<u>2011/12</u> <u>Forecast</u>	<u>2012/13</u> <u>Forecast</u>	<u>2013/14</u> <u>Forecast</u>	<u>2014/15</u> <u>Forecast</u>	<u>2015/16</u> <u>Forecast</u>	<u>2016/17</u> <u>Forecast</u>	<u>2017/18</u> <u>Forecast</u>	<u>2018/19</u> <u>Forecast</u>	<u>2019/20</u> <u>Forecast</u>
IFF09 Water Rentals & Assessments	119.6	110.3	110.7	113.1	114.0	114.1	114.5	115.4	114.8	114.9	124.5
Less:											
Transmission Membership Costs	(5.7)	(5.6)	(6.0)	(5.9)	(6.1)	(6.4)	(6.7)	(7.0)	(7.2)	(7.5)	(7.8)
Other Generation Costs	(2.6)	(2.3)	(4.3)	(4.3)	(4.4)	(4.4)	(4.5)	(4.5)	(4.6)	(4.7)	(4.7)
PUB/MH II-45(a) MH Hydraulic Generation	111.2	102.3	100.5	102.9	103.5	103.3	103.3	103.8	102.9	102.8	112.0

Table 2c
Reconciliation of IFF09 Fuel & Power Purchased to Average Price Table PUB/MH II-45(a)
(\$Millions)

	<u>2009/10</u> <u>Forecast</u>	<u>2010/11</u> <u>Forecast</u>	<u>2011/12</u> <u>Forecast</u>	<u>2012/13</u> <u>Forecast</u>	<u>2013/14</u> <u>Forecast</u>	<u>2014/15</u> <u>Forecast</u>	<u>2015/16</u> <u>Forecast</u>	<u>2016/17</u> <u>Forecast</u>	<u>2017/18</u> <u>Forecast</u>	<u>2018/19</u> <u>Forecast</u>	<u>2019/20</u> <u>Forecast</u>
IFF09 Fuel & Power Purchases	103.3	131.7	248.4	249.8	260.0	269.1	296.9	341.3	362.6	441.0	418.7
Less:											
Open-Access Transmission Costs	(33.2)	(40.4)	(37.3)	(37.3)	(39.5)	(40.6)	(48.1)	(75.4)	(76.8)	(78.3)	(79.8)
Merchant Purchases	(27.2)	(26.1)	-	-	-	-	-	-	-	-	-
Diesel & Other Purchases	(4.1)	(6.6)	(4.9)	(5.0)	(5.2)	(5.4)	(5.6)	(5.8)	(6.0)	(6.3)	(6.5)
Add (from Water Rentals & Assessments):											
Transmission Membership Costs	5.7	5.6	6.0	5.9	6.1	6.4	6.7	7.0	7.2	7.5	7.8
	44.5	64.3	212.2	213.4	221.4	229.5	249.9	267.1	287.0	364.0	340.3
MH Thermal Generation	8.0	8.3	41.4	41.3	43.9	45.5	54.6	61.3	70.0	75.3	76.7
Import Energy (including Wind)	36.4	56.0	170.8	172.0	177.5	184.0	195.4	205.8	217.0	288.7	263.6
PUB/MH II-45(a) MH Thermal Generation + Import Energy (including Wind)	44.5	64.3	212.2	213.4	221.4	229.5	249.9	267.1	287.0	364.0	340.3

Table 3
Comparison of IFF09 Net Revenue to Average Price Table PUB/MH II-45(a)
(\$Millions)

	<u>2009/10</u> <u>Forecast</u>	<u>2010/11</u> <u>Forecast</u>	<u>2011/12</u> <u>Forecast</u>	<u>2012/13</u> <u>Forecast</u>	<u>2013/14</u> <u>Forecast</u>	<u>2014/15</u> <u>Forecast</u>	<u>2015/16</u> <u>Forecast</u>	<u>2016/17</u> <u>Forecast</u>	<u>2017/18</u> <u>Forecast</u>	<u>2018/19</u> <u>Forecast</u>	<u>2019/20</u> <u>Forecast</u>
IFF09:											
Extraprovincial Revenue	414.5	383.5	554.2	582.6	614.7	590.1	700.7	729.3	742.1	894.1	1,093.1
Water Rentals & Assessments	(119.6)	(110.3)	(110.7)	(113.1)	(114.0)	(114.1)	(114.5)	(115.4)	(114.8)	(114.9)	(124.5)
Fuel & Power Purchased	(103.3)	(131.7)	(248.4)	(249.8)	(260.0)	(269.1)	(296.9)	(341.3)	(362.6)	(441.0)	(418.7)
Net Revenue	191.6	141.4	195.1	219.6	240.7	206.9	289.2	272.7	264.7	338.2	549.9
PUB/MH II-45(a) Average Price Table:											
Total Export Sales	331.6	292.2	516.9	545.2	575.3	549.5	652.6	653.9	665.3	815.8	1,013.4
MH Hydraulic Generation	(111.2)	(102.3)	(100.5)	(102.9)	(103.5)	(103.3)	(103.3)	(103.8)	(102.9)	(102.8)	(112.0)
MH Thermal Generation + Import Energy (including Wind)	(44.5)	(64.3)	(212.2)	(213.4)	(221.4)	(229.5)	(249.9)	(267.1)	(287.0)	(364.0)	(340.3)
Net Revenue	175.9	125.6	204.2	229.0	250.3	216.7	299.3	283.0	275.4	349.1	561.1
IFF09 Net Revenue Compared to PUB/MH II-45(a) Average Price Table	15.7	15.9	(9.1)	(9.4)	(9.6)	(9.9)	(10.1)	(10.4)	(10.6)	(10.9)	(11.2)
Ancillary Service Market	2.6	3.0	-	-	-	-	-	-	-	-	-
Merchant Sales net of Purchases	4.4	3.8	-	-	-	-	-	-	-	-	-
Congestion Management	15.3	18.0	-	-	-	-	-	-	-	-	-
Other Export Revenue	0.1	-	-	-	-	-	-	-	-	-	-
Diesel & Other Purchases	(4.1)	(6.6)	(4.9)	(5.0)	(5.2)	(5.4)	(5.6)	(5.8)	(6.0)	(6.3)	(6.5)
Other Generation Costs	(2.6)	(2.3)	(4.3)	(4.3)	(4.4)	(4.4)	(4.5)	(4.5)	(4.6)	(4.7)	(4.7)
IFF09 Net Revenue Compared to PUB/MH II-45(a) Average Price Table	15.7	15.9	(9.1)	(9.4)	(9.6)	(9.9)	(10.1)	(10.4)	(10.6)	(10.9)	(11.2)

Comparison of Net Revenue for 2019/20

