

**MANITOBA HYDRO**

**2012/13 & 2013/14 ELECTRIC GENERAL RATE APPLICATION**

**UNDERTAKING PROVIDED BY: V.WARDEN**

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**Manitoba Hydro Undertaking # 41**

Determine whether the annual provision for true-up for line items 9000K (Computer Equipment) and 9000M (Hot Water Tanks) continues in each year of IFF12 and the projections.

**Response:**

For purposes of IFF12, the depreciation rates shown in Appendix 5.7, which include an annual provision for true-up, were applied to all years of the forecast. For forecast purposes, Manitoba Hydro does not attempt to calculate and apply a different set of depreciation rates for each forecast year, to reflect the expected extinguishment of individual plant account variances during the forecast period.

Depreciation expense for the two specified accounts is higher in IFF12 than it would have been had the depreciation rate had been adjusted following the true-up period. During the test years, the total difference for the two accounts is \$0 in 2013 and \$597 thousand in 2014, as shown in the following tables.

It should be noted that the accounts identified in this undertaking are two of the shortest life accounts, both of which have a large accumulated depreciation surplus. If the depreciation rate for each plant asset account was adjusted, for forecast purposes, to remove the true-up component at the end of the expected recovery period, offsetting differences would arise beginning in the 2015 fiscal year, as accounts with accumulated depreciation deficit balances begin reaching the end of their respective true-up periods.

**Manitoba Hydro**

**Depreciation Rate True-up - Impact on Specific Accounts**

(\$ 000's)

	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>
<b><u>Account 9000K: Computer Equipment</u></b>										
<b><u>Gross Plant Balances</u></b>										
Gross Cost - Beginning of Year	\$58,594	\$58,173	\$50,623	\$41,322	\$39,679	\$40,221	\$41,019	\$41,840	\$42,677	\$43,530
Additions	10,115	10,073	10,267	10,473	10,682	10,896	11,114	11,336	11,562	11,794
Retirements	(10,536)	(17,623)	(19,568)	(12,116)	(10,140)	(10,098)	(10,293)	(10,499)	(10,709)	(10,923)
Gross Cost -End of Year	<u>\$ 58,173</u>	<u>\$ 50,623</u>	<u>\$ 41,322</u>	<u>\$ 39,679</u>	<u>\$ 40,221</u>	<u>\$ 41,019</u>	<u>\$ 41,840</u>	<u>\$ 42,677</u>	<u>\$ 43,530</u>	<u>\$ 44,401</u>
<b><u>IFF12 Depreciation Calculations</u></b>										
Depreciation Rate	28.48%	28.48%	28.48%	28.48%	28.48%	28.48%	28.48%	28.48%	28.48%	28.48%
Depreciation Expense	<u>\$16,719</u>	<u>\$15,031</u>	<u>\$12,707</u>	<u>\$10,131</u>	<u>\$10,295</u>	<u>\$10,474</u>	<u>\$10,683</u>	<u>\$10,896</u>	<u>\$11,114</u>	<u>\$11,337</u>
<b><u>Alternate Depreciation Calculations *</u></b>										
Depreciation Rate	28.48%	23.96%	19.43%	19.43%	19.43%	19.43%	19.43%	19.43%	19.43%	19.43%
Depreciation Expense	<u>\$16,719</u>	<u>\$14,450</u>	<u>\$10,634</u>	<u>\$ 7,210</u>	<u>\$ 8,430</u>	<u>\$ 9,707</u>	<u>\$10,280</u>	<u>\$10,717</u>	<u>\$10,932</u>	<u>\$11,151</u>
<b>Difference - Computer Equipment</b>	<u>\$ -</u>	<u>\$ 581</u>	<u>\$ 2,073</u>	<u>\$ 2,921</u>	<u>\$ 1,865</u>	<u>\$ 767</u>	<u>\$ 403</u>	<u>\$ 179</u>	<u>\$ 182</u>	<u>\$ 186</u>

\* Using Depreciation rates adjusted to remove the true-up component following the true-up period. 2014 Depreciation Rates reflect use of the 2010 Depreciation Study rate for 1/2 of the year and the adjusted rate for 1/2 of the year as the true-up is expected to be fully amortized 2.5 years after the 2012 implementation.

**Manitoba Hydro**

**Depreciation Rate True-up - Impact on Specific Accounts**

(\$ 000's)

	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>
<b><u>Account 9000M: Hot Water Tanks</u></b>										
<b><u>Gross Plant Balances</u></b>										
Gross Cost - Beginning of Year	\$ 3,621	\$ 3,696	\$ 2,061	\$ 230	\$ 310	\$ 370	\$ 378	\$ 386	\$ 393	\$ 401
Additions	75	77	78	80	81	83	85	86	88	90
Retirements	-	(1,712)	(1,909)	-	(21)	(75)	(77)	(79)	(80)	(82)
Gross Cost -End of Year	<u>\$ 3,696</u>	<u>\$ 2,061</u>	<u>\$ 230</u>	<u>\$ 310</u>	<u>\$ 370</u>	<u>\$ 378</u>	<u>\$ 386</u>	<u>\$ 393</u>	<u>\$ 401</u>	<u>\$ 409</u>
<b><u>IFF12 Depreciation Calculations</u></b>										
Depreciation Rate	21.20%	21.20%	21.20%	21.20%	21.20%	21.20%	21.20%	21.20%	21.20%	21.20%
Depreciation Expense	<u>\$ 774</u>	<u>\$ 502</u>	<u>\$ 195</u>	<u>\$ 55</u>	<u>\$ 72</u>	<u>\$ 79</u>	<u>\$ 81</u>	<u>\$ 82</u>	<u>\$ 84</u>	<u>\$ 86</u>
<b><u>Alternate Depreciation Calculations *</u></b>										
Depreciation Rate	21.20%	6.05%	4.37%	4.37%	4.37%	4.37%	4.37%	4.37%	4.37%	4.37%
Depreciation Expense	<u>\$ 774</u>	<u>\$ 486</u>	<u>\$ 165</u>	<u>\$ 11</u>	<u>\$ 15</u>	<u>\$ 18</u>	<u>\$ 22</u>	<u>\$ 26</u>	<u>\$ 30</u>	<u>\$ 34</u>
<b>Difference - Hot Water Tanks</b>	<u>\$ -</u>	<u>\$ 16</u>	<u>\$ 30</u>	<u>\$ 44</u>	<u>\$ 57</u>	<u>\$ 61</u>	<u>\$ 59</u>	<u>\$ 56</u>	<u>\$ 54</u>	<u>\$ 52</u>
<b>Total Difference -</b>										
<b>Computer Equipment &amp; Hot Water Tanks</b>	<u>\$ -</u>	<u>\$ 597</u>	<u>\$ 2,103</u>	<u>\$ 2,965</u>	<u>\$ 1,922</u>	<u>\$ 828</u>	<u>\$ 462</u>	<u>\$ 235</u>	<u>\$ 236</u>	<u>\$ 238</u>

\* Using Depreciation rates adjusted to remove the true-up component following the true-up period. 2014 Depreciation Rates reflect use of the 2010 Depreciation Study rate for 1/10 of the year and the adjusted rate for 9/10 of the year as the true-up is expected to be fully amortized 2.1 years after the 2012 implementation.

**Manitoba Hydro**

**Depreciation Rate True-up - Impact on Specific Accounts**

(\$ 000's)

	<u>2023</u>	<u>2024</u>	<u>2025</u>	<u>2026</u>	<u>2027</u>	<u>2028</u>	<u>2029</u>	<u>2030</u>	<u>2031</u>	<u>2032</u>
<b><u>Account 9000K: Computer Equipment</u></b>										
<b><u>Gross Plant Balances</u></b>										
Gross Cost - Beginning of Year	\$44,401	\$45,289	\$46,195	\$47,119	\$48,061	\$49,023	\$50,003	\$51,003	\$52,024	\$53,065
Additions	12,030	12,271	12,516	12,766	13,022	13,282	13,548	13,819	14,095	14,377
Retirements	(11,142)	(11,365)	(11,592)	(11,824)	(12,060)	(12,302)	(12,548)	(12,798)	(13,054)	(13,316)
Gross Cost -End of Year	<u>\$ 45,289</u>	<u>\$ 46,195</u>	<u>\$ 47,119</u>	<u>\$ 48,061</u>	<u>\$ 49,023</u>	<u>\$ 50,003</u>	<u>\$ 51,003</u>	<u>\$ 52,024</u>	<u>\$ 53,065</u>	<u>\$ 54,126</u>
<b><u>IFF12 Depreciation Calculations</u></b>										
Depreciation Rate	28.48%	28.48%	28.48%	28.48%	28.48%	28.48%	28.48%	28.48%	28.48%	28.48%
Depreciation Expense	<u>\$11,563</u>	<u>\$11,795</u>	<u>\$12,031</u>	<u>\$12,271</u>	<u>\$12,517</u>	<u>\$12,767</u>	<u>\$13,022</u>	<u>\$13,283</u>	<u>\$13,548</u>	<u>\$13,819</u>
<b><u>Alternate Depreciation Calculations *</u></b>										
Depreciation Rate	19.43%	19.43%	19.43%	19.43%	19.43%	19.43%	19.43%	19.43%	19.43%	19.43%
Depreciation Expense	<u>\$11,374</u>	<u>\$11,601</u>	<u>\$11,834</u>	<u>\$12,070</u>	<u>\$12,312</u>	<u>\$12,558</u>	<u>\$12,810</u>	<u>\$13,066</u>	<u>\$13,328</u>	<u>\$13,594</u>
<b>Difference - Computer Equipment</b>	<u>\$ 189</u>	<u>\$ 194</u>	<u>\$ 197</u>	<u>\$ 201</u>	<u>\$ 205</u>	<u>\$ 209</u>	<u>\$ 212</u>	<u>\$ 217</u>	<u>\$ 220</u>	<u>\$ 225</u>

\* Using Depreciation rates adjusted to remove the true-up component following the true-up period

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**Depreciation Rate True-up - Impact on Specific Accounts**

(\$ 000's)

	<u>2023</u>	<u>2024</u>	<u>2025</u>	<u>2026</u>	<u>2027</u>	<u>2028</u>	<u>2029</u>	<u>2030</u>	<u>2031</u>	<u>2032</u>
<b><u>Account 9000M: Hot Water Tanks</u></b>										
<b><u>Gross Plant Balances</u></b>										
Gross Cost - Beginning of Year	\$ 409	\$ 417	\$ 426	\$ 434	\$ 442	\$ 451	\$ 461	\$ 470	\$ 479	\$ 489
Additions	92	94	95	97	99	102	103	105	108	110
Retirements	(84)	(85)	(87)	(89)	(90)	(92)	(94)	(96)	(98)	(100)
Gross Cost -End of Year	<u>\$ 417</u>	<u>\$ 426</u>	<u>\$ 434</u>	<u>\$ 442</u>	<u>\$ 451</u>	<u>\$ 461</u>	<u>\$ 470</u>	<u>\$ 479</u>	<u>\$ 489</u>	<u>\$ 499</u>
<b><u>IFF12 Depreciation Calculations</u></b>										
Depreciation Rate	21.20%	21.20%	21.20%	21.20%	21.20%	21.20%	21.20%	21.20%	21.20%	21.20%
Depreciation Expense	<u>\$ 87</u>	<u>\$ 89</u>	<u>\$ 91</u>	<u>\$ 93</u>	<u>\$ 95</u>	<u>\$ 96</u>	<u>\$ 98</u>	<u>\$ 100</u>	<u>\$ 102</u>	<u>\$ 104</u>
<b><u>Alternate Depreciation Calculations *</u></b>										
Depreciation Rate	4.37%	4.37%	4.37%	4.37%	4.37%	4.37%	4.37%	4.37%	4.37%	4.37%
Depreciation Expense	<u>\$ 37</u>	<u>\$ 42</u>	<u>\$ 46</u>	<u>\$ 50</u>	<u>\$ 54</u>	<u>\$ 59</u>	<u>\$ 63</u>	<u>\$ 68</u>	<u>\$ 72</u>	<u>\$ 77</u>
<b>Difference - Hot Water Tanks</b>	<u>\$ 50</u>	<u>\$ 47</u>	<u>\$ 45</u>	<u>\$ 43</u>	<u>\$ 41</u>	<u>\$ 37</u>	<u>\$ 35</u>	<u>\$ 32</u>	<u>\$ 30</u>	<u>\$ 27</u>
<b><u>Total Difference - Computer Equipment &amp; Hot Water Tanks</u></b>										
	<u>\$ 239</u>	<u>\$ 241</u>	<u>\$ 242</u>	<u>\$ 244</u>	<u>\$ 246</u>	<u>\$ 246</u>	<u>\$ 247</u>	<u>\$ 249</u>	<u>\$ 250</u>	<u>\$ 252</u>

\* Depreciation rates adjusted to remove the true-up component following the true-up period