## AManitoba Hydro

## 20 YEAR FINANCIAL OUTLOOK

## 2010/11 - 2029/30

FINANCIAL PLANNING
CONTROLLER DIVISION
FINANCE \& ADMINISTRATION
March 2011

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### 1.0 OVERVIEW

The 20 Year Financial Outlook is an extension to the Integrated Financial Forecast IFF10 which was approved by the Manitoba Hydro-Electric Board on November 18, 2010. The 20 Year Financial Outlook depicts the long-term financial direction of Manitoba Hydro based on current assumptions of future events.

The first decade of the 20 Year Financial Outlook (the decade of investment) shows the financial impacts of major investments in new generation and transmission. Financial ratios are projected to weaken somewhat in the first decade but rebound in the second decade (the decade of returns). Domestic rate increases are projected to range from $2.9 \%$ to $3.5 \%$ per year in the first decade, and then decline to $2.0 \%$ per year in the second decade. Equity (retained earnings) is projected to remain strong throughout the period, rising from $\$ 2.4$ billion at March 31, 2011 to $\$ 10.5$ billion at the end of 20 years.

Drought remains one of the major risks with a 5 year drought projected to cost $\$ 2.1$ billion (assuming drought commencing in 2012/13). The occurrence of a 5 year drought commencing in 2012/13 would reduce retained earnings from the projected level of $\$ 2.5$ billion at March 31, 2012 to approximately $\$ 1.4$ billion at the end of the 5 year period (assuming no other action is taken to mitigate the financial consequences).

### 2.0 KEY ASSUMPTIONS

The key assumptions included in the 20 Year Financial Outlook reflect similar assumptions as the 10 year IFF and include the following:

## 1) Domestic Load Growth

Domestic electricity load will grow at an average of 1.5\% per year for net firm energy over the 20 Year Financial Outlook to 2029/30. Net total peak demand grows at an average of $1.4 \%$ per year over the 20 Year Financial Outlook to 2029/30.

Natural gas volumes are projected to decline approximately 0.4\% per year over the 20 Year Financial Outlook to 2029/30.
2) Domestic Rate Increases

The interim approved average electricity rate increase of $2.8 \%$ is included in 2010/11 and an additional 2.9\% average rate increase is projected in 2011/12 followed by $3.5 \%$ per year to 2020/21. Average electricity rate increases then
decline to 2\% per year, slightly lower than long-term projected inflation, for the last 9 years of the 20 Year Financial Outlook.

Natural gas rate increases are projected to be only the rates necessary to generate net income of approximately $\$ 3$ to $\$ 6$ million per year (rate increases average less than 1\% per year).
3) Inflation

The Manitoba Consumers Price Index is projected to increase at an average 2.1\% per year commencing in 2013/14.
4) Interest Rates

The very low current short and long-term interest rates are projected to rise gradually over the next several years with long-term rates reaching 6.60\% by 2016/17 (excluding the debt guarantee fee of $1.0 \%$ ) and then remain constant to 2029/30.

## 5) Foreign Exchange Rates

The US-Canadian exchange rate is projected to rise to 1.04 by 2012/13, 1.09 by $2014 / 15$ and 1.11 by $2015 / 16$ through to the end of the 20 year forecast.

## 6) Export Sales Contracts

The 10 year Northern States Power sale agreements of 375MW to 500MW (commencing in 2015) were signed in 2010 and are subject to regulatory approvals. The term sheets for the 500 MW Wisconsin Public Service sale and the 250 MW Minnesota Power sale are expected to be finalized into long-term contracts.
7) Capital Expenditures

Investments in new property, plant and equipment are projected to be $\$ 16.9$ billion during the first decade with major expenditures on Wuskwatim, Keeyask, a new US interconnection, Conawapa and Bipole 3. The second decade will see the completion of Conawapa with a first unit in-service of 2023/24 plus additional transmission from northern Manitoba to Winnipeg. The latter part of the 20 Year Financial Outlook also includes the proposed redevelopment of the Pointe du Bois Generating Station at a higher capability by 2030/31.

Figure 1 illustrates projected capital expenditures by major categories including major new generation \& transmission, gas and other electric capital requirements including system refurbishment and upgrades.

Figure 2 summarizes the major new generation and transmission projects included in the 20 Year Financial Outlook.

Figure 1
Projected Capital Expenditures
Major Categories
millions of dollars
$\square$ Base Capital $\square$ Gas Capital $\square$ New Major Generation \& Transmission


Figure 2
Major New Generation \& Transmission

| Project | Projected <br> Capital <br> Cost |
| :--- | ---: | ---: |
| Projected |  |
| In-Service |  | | (\$millions) |
| ---: |

### 3.0 NET INCOME AND FINANCIAL TARGETS

Projected consolidated net income, equity ratios, interest coverage ratios, and capital coverage ratios for the 20 Year Financial Outlook are depicted in Table 1 and Figures 3 to 6.

## Table 1 20 YEAR FINANCIAL OUTLOOK

| Year Ending March 31 | NET$\frac{\text { INCOME }}{\text { (Millions) }}$ | RETAINED EARNINGS | RATIOS |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Debt/Equity | Interest Coverage | Capital Coverage |
| 2010 (actual) | 163 | 2,239 | 73: 27 | 1.32 | 1.30 |
| 2011 | 158 | 2,398 | 74:26 | 1.28 | 1.50 |
| 2012 | 134 | 2,531 | 74:26 | 1.22 | 1.50 |
| 2013 | 130 | 2,658 | 76:24 | 1.20 | 1.57 |
| 2014 | 195 | 2,853 | 77:23 | 1.29 | 1.29 |
| 2015 | 152 | 3,005 | 79:21 | 1.20 | 1.34 |
| 2016 | 228 | 3,233 | 80:20 | 1.27 | 1.62 |
| 2017 | 278 | 3,511 | 80:20 | 1.29 | 1.71 |
| 2018 | 282 | 3,793 | 80: 20 | 1.27 | 1.73 |
| 2019 | 234 | 4,027 | 81 : 19 | 1.21 | 1.67 |
| 2020 | 303 | 4,331 | 81 : 19 | 1.24 | 1.83 |
| 2021 | 122 | 4,453 | 81:19 | 1.09 | 1.71 |
| 2022 | 362 | 4,816 | 81:19 | 1.26 | 2.11 |
| 2023 | 456 | 5,271 | 80: 20 | 1.32 | 2.11 |
| 2024 | 523 | 5,794 | 78:22 | 1.36 | 2.16 |
| 2025 | 642 | 6,436 | 76:24 | 1.43 | 2.25 |
| 2026 | 610 | 7,046 | 74:26 | 1.42 | 2.37 |
| 2027 | 705 | 7,751 | 72:28 | 1.49 | 2.48 |
| 2028 | 808 | 8,559 | 69:31 | 1.58 | 2.70 |
| 2029 | 919 | 9,478 | 66:34 | 1.67 | 2.74 |
| 2030 | 1,035 | 10,513 | 62:38 | 1.78 | 2.80 |

Note: Assumes 2.8\% interim approved average rate increase April 1, 2010; 2.9\% proposed average rate increase April 1, 2011; 3.5\% projected average annual rate increases from 2013 to 2021; and 2.0\% from 2022 to 2030.

Figure 3
Projected Consolidated Net Income
millions of dollars


Figure 4
Projected Consolidated Equity Ratio


Figure 5

## Projected Consolidated Interest Coverage Ratio



Figure 6
Projected Consolidated Capital Coverage Ratio


### 4.0 PROJECTED CONSOLIDATED FINANCIAL STATEMENTS

CONSOLIDATED PROJECTED OPERATING STATEMENT (IFF10)<br>(In Millions of Dollars)

| For the year ended March 31 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| REVENUES |  |  |  |  |  |  |  |  |  |  |
| General Consumers | 1,610 | 1,719 | 1,792 | 1,854 | 1,918 | 1,988 | 2,064 | 2,133 | 2,210 | 2,294 |
| Extraprovincial | 444 | 461 | 499 | 510 | 529 | 611 | 621 | 646 | 654 | 804 |
|  | 2,054 | 2,180 | 2,291 | 2,364 | 2,447 | 2,599 | 2,685 | 2,779 | 2,864 | 3,098 |
| Cost of Gas Sold | 273 | 311 | 320 | 310 | 309 | 309 | 308 | 306 | 304 | 303 |
|  | 1,781 | 1,869 | 1,971 | 2,054 | 2,138 | 2,290 | 2,378 | 2,472 | 2,559 | 2,795 |
| Other | 28 | 31 | 33 | 33 | 34 | 34 | 35 | 36 | 36 | 37 |
|  | 1,809 | 1,900 | 2,004 | 2,087 | 2,171 | 2,325 | 2,413 | 2,508 | 2,596 | 2,832 |
| EXPENSES |  |  |  |  |  |  |  |  |  |  |
| Operating and Administrative | 476 | 482 | 495 | 505 | 515 | 526 | 536 | 559 | 570 | 589 |
| Finance Expense | 430 | 449 | 512 | 496 | 563 | 587 | 582 | 608 | 678 | 746 |
| Depreciation and Amortization | 403 | 435 | 464 | 468 | 495 | 517 | 524 | 543 | 573 | 589 |
| Water Rentals and Assessments | 121 | 115 | 111 | 112 | 112 | 113 | 113 | 113 | 113 | 113 |
| Fuel and Power Purchased | 121 | 187 | 190 | 203 | 216 | 225 | 239 | 251 | 264 | 316 |
| Capital and Other Taxes | 100 | 102 | 106 | 112 | 118 | 126 | 134 | 143 | 152 | 162 |
|  | 1,650 | 1,771 | 1,879 | 1,896 | 2,020 | 2,093 | 2,128 | 2,217 | 2,349 | 2,513 |
| Non-controlling Interest | - | 4 | 6 | 4 | 0 | (4) | (7) | (9) | (12) | (15) |
| Net Income | 158 | 134 | 130 | 195 | 152 | 228 | 278 | 282 | 234 | 303 |
| Additional General Consumers Revenue |  |  |  |  |  |  |  |  |  |  |
| General electricity rate increases |  | 2.90\% | 3.50\% | 3.50\% | 3.50\% | 3.50\% | 3.50\% | 3.50\% | 3.50\% | 3.50\% |
| General gas rate increases |  | 0.00\% | 1.50\% | 1.00\% | 1.00\% | 1.00\% | 1.00\% | 0.00\% | 1.00\% | 1.00\% |
| Financial Ratios |  |  |  |  |  |  |  |  |  |  |
| Equity | 26\% | 26\% | 24\% | 23\% | 21\% | 20\% | 20\% | 20\% | 19\% | 19\% |
| Interest Coverage | 1.28 | 1.22 | 1.20 | 1.29 | 1.20 | 1.27 | 1.29 | 1.27 | 1.21 | 1.24 |
| Capital Coverage | 1.50 | 1.50 | 1.57 | 1.29 | 1.34 | 1.62 | 1.71 | 1.73 | 1.67 | 1.83 |

# CONSOLIDATED PROJECTED OPERATING STATEMENT (IFF10) <br> (In Millions of Dollars) 

## For the year ended March 31

| 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

REVENUES
General Consumers
Extraprovincial
Cost of Gas Sold
Other

|  |  |  |  |  |  |  |  |  |  |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
|  |  |  |  |  |  |  |  |  |  |
| 2,382 | 2,441 | 2,506 | 2,570 | 2,641 | 2,718 | 2,798 | 2,876 | 2,962 | 3,049 |
| 984 | 1,128 | 1,162 | 1,311 | 1,668 | 1,782 | 1,808 | 1,813 | 1,834 | 1,847 |
| 3,366 | 3,569 | 3,668 | 3,880 | 4,309 | 4,500 | 4,606 | 4,689 | 4,796 | 4,896 |
| 301 | 300 | 299 | 299 | 298 | 297 | 297 | 298 | 298 | 298 |
| 3,064 | 3,268 | 3,369 | 3,582 | 4,011 | 4,203 | 4,309 | 4,391 | 4,498 | 4,598 |
| 38 | 38 | 39 | 40 | 41 | 41 | 42 | 43 | 44 | 45 |
| 3,102 | 3,307 | 3,408 | 3,622 | 4,052 | 4,244 | 4,351 | 4,434 | 4,542 | 4,642 |

## EXPENSES

Operating and Administrative
Finance Expense
Depreciation and Amortization
Water Rentals and Assessments
Fuel and Power Purchased
Capital and Other Taxes

| 606 | 618 | 631 | 654 | 667 | 680 | 694 | 707 | 721 | 736 |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 1,114 | 1,008 | 973 | 1,057 | 1,284 | 1,428 | 1,398 | 1,346 | 1,292 | 1,229 |
| 655 | 666 | 671 | 699 | 770 | 831 | 849 | 853 | 865 | 876 |
| 121 | 127 | 128 | 135 | 147 | 151 | 153 | 153 | 153 | 154 |
| 310 | 343 | 358 | 357 | 339 | 337 | 341 | 351 | 370 | 388 |
| 149 | 156 | 163 | 168 | 172 | 173 | 175 | 177 | 179 | 180 |
| 2,955 | 2,919 | 2,924 | 3,070 | 3,379 | 3,602 | 3,610 | 3,587 | 3,581 | 3,562 |

Non-controlling Interest
Net Income
Additional General Consumers Revenue
General electricity rate increases
General gas rate increases

| $(24)$ | $(26)$ | $(28)$ | $(29)$ | $(30)$ | $(33)$ | $(36)$ | $(39)$ | $(42)$ | $(45)$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 122 | 362 | 456 | 523 | 642 | 610 | 705 | 808 | 919 | 1,035 |
|  |  |  |  |  |  |  |  |  |  |
| $3.50 \%$ | $2.00 \%$ | $2.00 \%$ | $2.00 \%$ | $2.00 \%$ | $2.00 \%$ | $2.00 \%$ | $2.00 \%$ | $2.00 \%$ | $2.00 \%$ |
| $1.00 \%$ | $0.00 \%$ | $1.00 \%$ | $0.00 \%$ | $1.00 \%$ | $1.00 \%$ | $1.00 \%$ | $0.00 \%$ | $1.00 \%$ | $1.00 \%$ |
|  |  |  |  |  |  |  |  |  |  |
| $19 \%$ | $19 \%$ | $20 \%$ | $22 \%$ | $24 \%$ | $26 \%$ | $28 \%$ | $31 \%$ | $34 \%$ | $38 \%$ |
| 1.09 | 1.26 | 1.32 | 1.36 | 1.43 | 1.42 | 1.49 | 1.58 | 1.67 | 1.78 |
| 1.71 | 2.11 | 2.11 | 2.16 | 2.25 | 2.37 | 2.48 | 2.70 | 2.74 | 2.80 |

# CONSOLIDATED PROJECTED BALANCE SHEET (IFF10) <br> (In Millions of Dollars) 

| For the year ended March 31 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ASSETS |  |  |  |  |  |  |  |  |  |  |
| Plant in Service Accumulated Depreciation | $\begin{aligned} & 13,226 \\ & (4,971) \\ & \hline \end{aligned}$ | $\begin{aligned} & 15,218 \\ & (5,350) \\ & \hline \end{aligned}$ | $\begin{gathered} 15,744 \\ (5,762) \\ \hline \end{gathered}$ | $\begin{gathered} 16,319 \\ (6,184) \\ \hline \end{gathered}$ | $\begin{aligned} & 17,485 \\ & (6,588) \\ & \hline \end{aligned}$ | $\begin{gathered} 18,051 \\ (7,033) \\ \hline \end{gathered}$ | $\begin{aligned} & 18,632 \\ & (7,509) \\ & \hline \end{aligned}$ | $\begin{gathered} 21,056 \\ (8,012) \\ \hline \end{gathered}$ | $\begin{gathered} 21,893 \\ (8,547) \\ \hline \end{gathered}$ | $\begin{gathered} 25,741 \\ (9,100) \\ \hline \end{gathered}$ |
| Net Plant in Service | 8,255 | 9,868 | 9,982 | 10,135 | 10,898 | 11,018 | 11,123 | 13,044 | 13,346 | 16,640 |
| Construction in Progress | 2,624 | 1,636 | 2,216 | 3,091 | 3,457 | 4,792 | 6,042 | 5,825 | 7,283 | 5,522 |
| Current and Other Assets | 1,409 | 1,512 | 1,307 | 1,026 | 1,166 | 1,382 | 1,581 | 1,840 | 1,615 | 1,871 |
| Goodwill and Intangible Assets | 227 | 215 | 200 | 187 | 179 | 169 | 163 | 175 | 181 | 188 |
| Regulated Assets | 307 | 321 | 332 | 335 | 331 | 318 | 300 | 279 | 256 | 234 |
|  | 12,822 | 13,552 | 14,038 | 14,774 | 16,031 | 17,679 | 19,208 | 21,163 | 22,682 | 24,455 |

## LIABILITIES AND EQUITY

Long-Term Debt
Current and Other Liabilities
Contributions in Aid of Construction
Retained Earnings
Accumulated Other Comprehensive Income

| 8,524 | 8,944 | 8,966 | 10,296 | 11,311 | 12,986 | 13,858 | 15,204 | 17,090 | 14,690 |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 1,339 | 1,516 | 2,111 | 1,378 | 1,610 | 1,448 | 1,842 | 2,189 | 1,597 | 5,476 |
| 295 | 294 | 288 | 282 | 278 | 275 | 272 | 270 | 267 | 265 |
| 2,398 | 2,531 | 2,658 | 2,853 | 3,005 | 3,233 | 3,511 | 3,793 | 4,027 | 4,331 |
| 266 | 266 | 14 | $(35)$ | $(173)$ | $(264)$ | $(275)$ | $(293)$ | $(300)$ | $(307)$ |
|  |  |  |  |  |  |  |  |  |  |
| 12,822 | 13,552 | 14,038 | 14,774 | 16,031 | 17,679 | 19,208 | 21,163 | 22,682 | 24,455 |

# CONSOLIDATED PROJECTED BALANCE SHEET (IFF10) <br> (In Millions of Dollars) 

| For the year ended March 31 | 2021 | 2022 | 2023 | 2024 | 2025 | 2026 | 2027 | 2028 | 2029 | 2030 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ASSETS |  |  |  |  |  |  |  |  |  |  |
| Plant in Service Accumulated Depreciation | $\begin{gathered} 28,546 \\ (9,720) \\ \hline \end{gathered}$ | $\begin{gathered} 29,029 \\ (10,353) \\ \hline \end{gathered}$ | $\begin{gathered} 29,550 \\ (10,996) \\ \hline \end{gathered}$ | $\begin{gathered} 34,126 \\ (11,669) \\ \hline \end{gathered}$ | $\begin{gathered} 38,248 \\ (12,420) \\ \hline \end{gathered}$ | $\begin{gathered} 39,852 \\ (13,230) \\ \hline \end{gathered}$ | $\begin{gathered} 40,468 \\ (14,058) \\ \hline \end{gathered}$ | $\begin{gathered} 41,221 \\ (14,892) \\ \hline \end{gathered}$ | $\begin{gathered} 41,917 \\ (15,739) \\ \hline \end{gathered}$ | $\begin{gathered} 42,574 \\ (16,597) \end{gathered}$ |
| Net Plant in Service | 18,826 | 18,676 | 18,554 | 22,457 | 25,829 | 26,621 | 26,410 | 26,329 | 26,178 | 25,977 |
| Construction in Progress | 4,442 | 5,716 | 6,868 | 3,752 | 1,021 | 231 | 475 | 717 | 1,189 | 1,653 |
| Current and Other Assets | 1,919 | 1,851 | 1,731 | 2,090 | 2,311 | 2,680 | 3,362 | 4,020 | 4,565 | 5,093 |
| Goodwill and Intangible Assets | 185 | 183 | 182 | 180 | 178 | 177 | 176 | 174 | 173 | 172 |
| Regulated Assets | 213 | 195 | 181 | 168 | 155 | 145 | 137 | 130 | 127 | 124 |
|  | 25,585 | 26,620 | 27,515 | 28,647 | 29,494 | 29,854 | 30,560 | 31,370 | 32,231 | 33,018 |

## LIABILITIES AND EQUITY

Long-Term Debt
Current and Other Liabilities
Contributions in Aid of Construction
Retained Earnings
Accumulated Other Comprehensive Income

| 19,167 | 20,402 | 21,003 | 21,604 | 21,355 | 21,556 | 21,556 | 21,497 | 21,247 | 21,148 |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 2,015 | 1,463 | 1,307 | 1,317 | 1,771 | 1,320 | 1,320 | 1,380 | 1,569 | 1,418 |
| 264 | 262 | 262 | 261 | 261 | 261 | 262 | 263 | 266 | 269 |
| 4,453 | 4,816 | 5,271 | 5,794 | 6,436 | 7,046 | 7,751 | 8,559 | 9,478 | 10,513 |
| $(314)$ | $(323)$ | $(329)$ | $(329)$ | $(329)$ | $(329)$ | $(329)$ | $(329)$ | $(329)$ | $(329)$ |
|  |  |  |  |  |  |  |  |  |  |
| 25,585 | 26,620 | 27,515 | 28,647 | 29,494 | 29,854 | 30,560 | 31,370 | 32,231 | 33,018 |

# CONSOLIDATED PROJECTED CASH FLOW STATEMENT (IFF10) <br> (In Millions of Dollars) 

| For the year ended March 31 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| OPERATING ACTIVITIES |  |  |  |  |  |  |  |  |  |  |
| Cash Receipts from Customers | 2,146 | 2,282 | 2,394 | 2,467 | 2,545 | 2,698 | 2,784 | 2,878 | 2,963 | 3,198 |
| Cash Paid to Suppliers and Employees | $(1,187)$ | $(1,288)$ | $(1,301)$ | $(1,328)$ | $(1,352)$ | $(1,376)$ | $(1,407)$ | $(1,451)$ | $(1,482)$ | $(1,561)$ |
| Interest Paid | (420) | (453) | (507) | (512) | (553) | (590) | (599) | (636) | (707) | (757) |
| Interest Received | 25 | 29 | 30 | 26 | 16 | 26 | 39 | 49 | 53 | 47 |
|  | 564 | 570 | 616 | 653 | 656 | 758 | 817 | 841 | 827 | 927 |
| FINANCING ACTIVITIES |  |  |  |  |  |  |  |  |  |  |
| Proceeds from Long-Term Debt | 1,000 | 600 | 800 | 1,400 | 1,200 | 1,800 | 1,400 | 2,200 | 2,200 | 1,800 |
| Sinking Fund Withdrawals | 651 | 25 | 128 | 463 |  | 8 | - | - | 444 | 167 |
| Retirement of Long-Term Debt | $(1,025)$ | (25) | (182) | (829) | (100) | (312) | (201) | (530) | (857) | (317) |
| Other | (229) | 18 | (12) | (7) | (0) | (3) | (2) | (1) | (12) | (3) |
|  | 398 | 618 | 735 | 1,027 | 1,100 | 1,494 | 1,197 | 1,669 | 1,776 | 1,647 |
| INVESting Activities |  |  |  |  |  |  |  |  |  |  |
| Property, Plant and Equipment, net of contributions | $(1,174)$ | $(1,087)$ | $(1,148)$ | $(1,476)$ | $(1,606)$ | $(1,944)$ | $(1,850)$ | $(2,235)$ | $(2,315)$ | $(2,218)$ |
| Sinking Fund Payment | (119) | (99) | (117) | (167) | (111) | (199) | (157) | (239) | (198) | (226) |
| Other | (21) | (16) | (17) | (16) | (17) | (36) | (46) | (27) | (27) | (27) |
|  | $(1,314)$ | $(1,202)$ | $(1,281)$ | $(1,659)$ | $(1,734)$ | $(2,179)$ | $(2,053)$ | $(2,501)$ | $(2,540)$ | $(2,472)$ |
| Net Increase (Decrease) in Cash | (352) | (14) | 69 | 21 | 22 | 73 | (39) | 8 | 63 | 102 |
| Cash at Beginning of Year | 158 | (193) | (207) | (139) | (117) | (95) | (23) | (62) | (53) | 10 |
| Cash at End of Year | (193) | (207) | (139) | (117) | (95) | (23) | (62) | (53) | 10 | 112 |

# CONSOLIDATED PROJECTED CASH FLOW STATEMENT (IFF10) <br> (In Millions of Dollars) 

## For the year ended March 31

## OPERATING ACTIVITIES

Cash Receipts from Customers
Cash Paid to Suppliers and Employees
Interest Paid
Interest Received

| $\mathbf{2 0 2 1}$ | $\mathbf{2 0 2 2}$ | $\mathbf{2 0 2 3}$ | $\mathbf{2 0 2 4}$ | $\mathbf{2 0 2 5}$ | $\mathbf{2 0 2 6}$ | $\mathbf{2 0 2 7}$ | $\mathbf{2 0 2 8}$ | $\mathbf{2 0 2 9}$ | $\mathbf{2 0 3 0}$ |
| ---: | :---: | ---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |  |
| 3,466 | 3,670 | 3,770 | 3,982 | 4,411 | 4,603 | 4,710 | 4,794 | 4,902 | 5,003 |
| $(1,566)$ | $(1,624)$ | $(1,659)$ | $(1,691)$ | $(1,702)$ | $(1,720)$ | $(1,740)$ | $(1,767)$ | $(1,803)$ | $(1,838)$ |
| $(1,135)$ | $(1,034)$ | $(976)$ | $(1,055)$ | $(1,297)$ | $(1,453)$ | $(1,423)$ | $(1,384)$ | $(1,343)$ | $(1,283)$ |
| 44 | 44 | 23 | 25 | 38 | 45 | 48 | 63 | 77 | 82 |
| 809 | 1,056 | 1,158 | 1,261 | 1,450 | 1,476 | 1,595 | 1,706 | 1,834 | 1,963 |

## FINANCING ACTIVITIES

Proceeds from Long-Term Debt
Sinking Fund Withdrawals
Retirement of Long-Term Debt
Other

| 1,400 | 1,400 | 600 | 600 | 200 | 200 | - | - | - | - |
| ---: | ---: | ---: | :--- | :--- | :---: | :--- | :--- | :--- | ---: |
| 278 | 722 | 167 | - | - | 339 | - | - | 60 | 250 |
| $(403)$ | $(725)$ | $(167)$ | - | - | $(450)$ | - | - | $(60)$ | $(250)$ |
| 28 | $(12)$ | $(8)$ | $(8)$ | $(9)$ | $(10)$ | $(11)$ | $(12)$ | $(12)$ | $(13)$ |
| 1,303 | 1,384 | 592 | 592 | 191 | 79 | $(11)$ | $(12)$ | $(12)$ | $(13)$ |

## INVESTING ACTIVITIES

Property, Plant and Equipment, net of contributions
Sinking Fund Payment
Other

Net Increase (Decrease) in Cash
Cash at Beginning of Year
Cash at End of Year

| $(1,807)$ | $(1,748)$ | $(1,664)$ | $(1,449)$ | $(1,375)$ | $(800)$ | $(851)$ | $(981)$ | $(1,155)$ | $(1,106)$ |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| $(299)$ | $(357)$ | $(223)$ | $(222)$ | $(236)$ | $(248)$ | $(242)$ | $(251)$ | $(261)$ | $(269)$ |
| $(32)$ | $(38)$ | $(29)$ | $(32)$ | $(29)$ | $(30)$ | $(33)$ | $(31)$ | $(32)$ | $(32)$ |
| $(2,139)$ | $(2,144)$ | $(1,915)$ | $(1,703)$ | $(1,641)$ | $(1,078)$ | $(1,125)$ | $(1,264)$ | $(1,448)$ | $(1,407)$ |
|  |  |  |  |  |  |  |  |  |  |
| $(27)$ | 297 | $(165)$ | 149 | 1 | 476 | 459 | 431 | 373 | 544 |
| 112 | 85 | 381 | 216 | 365 | 366 | 842 | 1,301 | 1,732 | 2,105 |
| 85 | 381 | 216 | 365 | 366 | 842 | 1,301 | 1,732 | 2,105 | 2,649 |

### 5.0 SENSITIVITY ANALYSIS

The 20 Year Financial Outlook includes a number of key assumptions as described in section 2.0. A change to one or more of those assumptions could have a significant impact on projected financial results. This section provides an indication of the financial impact of changes in the following assumptions:

- Domestic load growth
- Interest rates
- Foreign exchange rates
- Export prices
- Capital expenditures


### 5.1 Domestic Load Growth

The base Load Forecast is Manitoba Hydro's best estimate of future growth in domestic energy and peak demand. While current economic circumstances present a risk that the domestic load could be lower than the forecast assumed in the 20 Year Financial Outlook, higher domestic load growth poses greater financial risk to the Corporation due to the displacement of projected higher value exports sales.

The domestic load growth sensitivity, represented by the $90^{\text {th }}$ percentile forecast, includes additional load of 2611 GW.h in net firm energy and 542 MW in net total peak by 2029/30 compared to the base Load Forecast. Figure 7 shows the comparative equity ratios of the High Load Growth Forecast and the 20 Year Financial Outlook.

Figure 7
Impact on Consolidated Equity Ratio
-20 Year Outlook - High Load Growth


Projected impact on total equity:
Increase/
2029/30 (Decrease)
(\$Millions)
Base 20 Year Outlook 10513
High Load Growth 8782

### 5.2 Interest Rates

Interest rates assumed in the 20 Year Financial Outlook are projected to rise gradually over the first seven years of the forecast. This sensitivity looks at the financial effects of a prolonged increase or decrease in forecast interest rates which are applied to all new long and short-term debt issues, new sinking fund investments and all floating rate debt. Figure 8 below compares equity ratios assuming interest rates increase or decrease 1\% each year.

Figure 8


Projected impact on total equity:
Increase/
2029/30 (Decrease)
(\$Millions)
Base 20 Year Outlook 10513
Interest rates +1\% 7441
(3 072)
Interest rates -1\%
13168

### 5.3 Foreign Exchange Rates

The Canadian dollar is projected to weaken gradually over the first six years of the 20 Year Financial Outlook. This sensitivity looks at the financial effects of a prolonged weaker or stronger Canadian dollar. In the short to medium term of the 20 Year Outlook, the impacts of a weaker or stronger Canadian dollar are minimal due to the effective hedge provided by Manitoba Hydro's exposure management program. Figure 9 below compares equity ratios assuming USCanadian exchange rates $\$ 0.10$ higher or lower than the base 20 Year Financial Outlook.

Figure 9
Impact on Consolidated Equity Ratio


Projected impact on total equity:
Increase/
2029/30 (Decrease) (\$Millions)

Base 20 Year Outlook
US-Cdn exchange + \$0.10
US-Cdn exchange - \$0.10

10513
12045
9084

1532
(1 429)

### 5.4 Low and High Export Prices

The 20 Year Financial Outlook assumes export prices based on externally prepared forecasts. The Low Export Price scenario reflects the long-term impact on future energy prices due to a number of potential factors including low economic growth, aggressive energy conservation policies, low growth in energy demand, lower natural gas and coal prices and lower premiums related to emissions costs. The High Export Price scenario is characterized by high economic and energy demand growth, higher capital costs, higher natural gas and coal prices, stringent US environmental policies and higher environmental premiums. Figure 10 below compares equity ratios under the Low and High Export Price scenarios and the 20 Year Financial Outlook.

Figure 10
Impact on Consolidated Equity Ratio


Projected impact on total equity:
Increase/
2029/30 (Decrease)
(\$Millions)
Base 20 Year Outlook 10513
Low Export Prices 7753
(2 760)
High Export Prices
17513
7000

### 5.5 Capital Expenditures

The 20 Year Financial Outlook includes provisions for increases in base capital expenditures as well as specifically identified capital projects. This sensitivity reflects the financial effects of upward pressure on capital project costs and/or additional expenditures to meet reliability, safety, regulatory or customer requirements. Increases of $\$ 100$ million per year for electric and $\$ 10$ million per year for gas have been assumed for non-specified projects. Impacts on the equity ratio are shown in Figure 11 below.

Figure 11


Projected impact on total equity:

| Projected impact on total equit |  | Increase/ |
| :---: | :---: | :---: |
|  | 2029/30 | (Decrease) |
|  |  | illions) |
| Base 20 Year Outlook | 10513 | - |
| Capital Expenditures +\$100M per year | 8127 | (2 386) |

### 6.0 ALTERNATIVE SCENARIOS

### 6.1 No Sale Scenario

An alternative power resource development plan for major infrastructure and resources to meet Manitoba requirements includes Conawapa in 2022/23 and a combined cycle gas turbine in 2033/34 (referred to as the No Sale Scenario). This sequence excludes the sales related to the Wisconsin Public Service and Minnesota Power term sheets, the construction of Keeyask and the planned interconnection to the US.

Figure 12 shows that retained earnings under the No Sale Scenario are lower through the whole study period to 2042/43 compared to the Recommended Development Plan (IFF10 and 20 Year Outlook). As the benefits of hydro development and additional tie-line capability are realized, the Recommended Resource Plan provides greater retained earnings to withstand the financial impacts of adverse events.

Although the equity ratio is slightly higher in the No Sale Scenario as shown in Figure 13, the 75:25 debt/equity target is surpassed and maintained almost immediately following the in-service of the major resources under the respective development plans. The equity ratio under the Recommended Development Plan crosses over by 2037/38, and thereafter, the benefits are substantially positive for the entire life of the generation and transmission facilities. Under a high gas and export price scenario, benefits accrue earlier with the equity ratio crossing over under the Recommended Development Plan by 2031/32.

One of the major benefits of the Recommended Development Plan is that counterparties in the US will be making large investments in new transmission which will enhance reliability and provide additional export sale opportunities to Manitoba Hydro. Under the No Sale Scenario, it is unlikely that such investments in new transmission would be undertaken.

Figure 12
Incremental Impact on Retained Earnings


Figure 13
Impact on Consolidated Equity Ratio


### 6.2 Five Year Drought

The five year drought scenario shown is identical to the scenario shown in IFF10 and assumes a five year drought commencing in 2012/13. Actual impacts could be smaller or return to normal sooner due to management actions that would mitigate the financial effects of extended low water flow conditions. Figure 15 below compares equity ratios under the 5 Year Drought scenario and the 20 Year Financial Outlook.

Figure 15
Impact on Consolidated Equity Ratio


Projected impact on total equity:
Increase/
2029/30 (Decrease) (\$Millions)

Base 20 Year Outlook
5 year Drought (beginning in 2012/13)

10513
5857(4 656)

### 6.3 Other Scenarios under Consideration

(Information to follow)

