Manitoba Hydro
2023/24 & 2024/25
General Rate Application

Manitoba Hydro Oral Submission

June 19, 2023

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Roadmap

- General Comments
- Legislative Framework – Existing Framework and New Framework
- Finalization of 3.6%
- 2021/22 Drought
- Asset Management and Capital
- Revenue Requirement
- Depreciation
- Rates and COS

This is a Good… “Spectacular” News Story for Manitobans

- Average rates reduced from November 15, 2022 filing of 3.5% to December 9, 2022 filing of 2%
    - As a result of the reduction to water rental rates and provincial guarantee fee
- Lowest rate increases proposed since 2004/05
- Manitoba Hydro’s plan:
    - is credible and reasonable;
    - is in the best interest of customers;
    - offers stable, predictable rates;
    - ensures safe and reliable service is provided to customers; and
    - helps smooth the impact of the variability that is common in a hydrological system
- It addresses what we see coming in the near future

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Globally, the energy landscape is shifting dramatically

DIGITALIZATION

- Technology and connectivity are **growing exponentially**
- A technology-driven services market is **emerging "behind the meter"**

DECARBONIZATION

- Decarbonization is **accelerating the pace of electrification** worldwide increasing the demand for renewable energy
- Climate policy will drive pace of electrification and **opportunities for Manitobans**

DECENTRALIZATION

- New forms of **energy storage is a key uncertainty**

Energy and Climate Policy are accelerating the pace of change

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MANITOBA HYDRO 2026 ASPIRATION: “**PERFORMING WHILE TRANSFORMING**”

MANITOBA HYDRO 2026 ASPIRATION

Optimize / improve the efficiency of the current business and set the organizational foundations and capabilities to accelerate Manitoba Hydro’s transformation and journey to realize Strategy 2040

Prioritized Strategic Pillars	
1	Provide safe, reliable energy that responsibly meets the evolving needs of Manitobans
5	Keep energy prices as low as possible while providing the level of service Manitobans expect
2	Serve customers efficiently, responsively, and digitally

Prioritized Enterprise Performance Goals
Safety
Employee Experience, Culture & Inclusion
System Reliability
Employee Effort Reduction & Efficiency
Customer Experience

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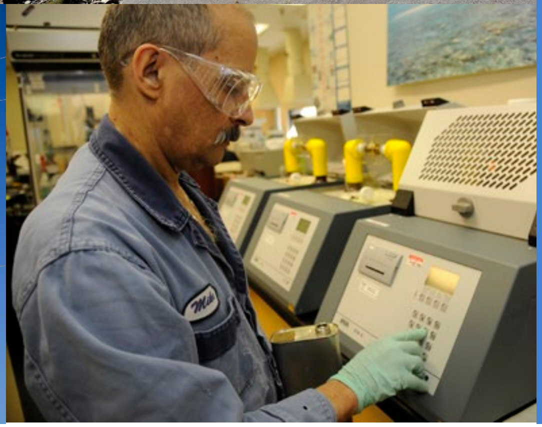
Manitoba Hydro's Mandate

Purposes and objects of Act

2(1) The purposes and objects of this Act are to provide for the continuance of a supply of power adequate for the needs of the province, and to engage in and to promote economy and efficiency in the development, generation, transmission, distribution, supply and end-use of power and, in addition, are

(a) to provide and market products, services and expertise related to the development, generation, transmission, distribution, supply and end-use of power, within and outside the province; and

(b) to market and supply power to persons outside the province on terms and conditions acceptable to the board.



Manitoba Hydro's Mission Statement

Help all Manitobans efficiently navigate the evolving energy landscape, leveraging their clean energy advantage, while ensuring safe, clean, reliable energy at the lowest possible cost

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Manitoba Hydro Panel Expertise

1) Policy Panel – 7 collective years of experience at Hydro; 45+ collective years of leadership and management experience

- *Jay Grewal - President & CEO - 4 years at Hydro, 30+ years leadership and corporate management experience*
- *Aurel Tess - Vice President & CFO - 3 years at Hydro, 18+ years executive management experience.*

2) Export, Hydrology and Drought Panel – 80 collective years of experience at Hydro

- *Hal Turner - Vice-President, Asset Planning & Delivery - 28 years at Hydro*
- *Nikhil Karanwal - Director, Energy Markets - 2 years at Hydro, 19 years of experience with volatile commodities like oil & gas, business development, risk, and strategy*
- *Kevin Gawne - Manager, Energy Operations Planning Department - 25 years at Hydro*
- *Cheryl Sanclemente - Acting Manager, Wholesale Power Trading Department - 25 years at Hydro*

3) Asset Management Panel – 126 collective years of experience at Hydro

- *Hal Turner - Vice-President, Asset Planning & Delivery - 28 years at Hydro*
- *Alastair Fogg - Corporate Controller - 14 years at Hydro*
- *Cyril Patterson - Director, Distribution Operations & Maintenance Rural - 30+ years at Hydro*
- *James ("Jim") Pawluk - Director, Asset Management - 9 years at Hydro*
- *Tanis Brako, Director - Sales/Marketing & Product Development - 17 years at Hydro*
- *Krista Halayko - Manager, Asset Management Strategy & Planning Department - 28 years at Hydro*

Sarah Vine - Director of Asset Management, AMCL - 30 years industry experience

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Manitoba Hydro Panel Expertise (Continued)

4) Revenue Requirement Panel – 93 collective years of experience at Hydro

- *Aurel Tess - Vice President & CFO - 3 years at Hydro*
- *Alastair Fogg - Corporate Controller - 14 years at Hydro*
- *Susan Stephen - Treasurer, Treasury Department - 30 years at Hydro*
- *Sandra Amorim Dew - Manager, Financial Advisory Services Department - 22 years at Hydro*
- *Greg Epp - Manager, Financial Planning Department - 24 years at Hydro*

5) Rates and Cost of Service Panel – 71 collective years of experience at Hydro

- *Shannon Gregorashuk - Director, Rates & Regulatory - 27 years at Centra/Hydro*
- *Marnie Van Hussen - Manager, Rate Analysis & Design Department - 19 years at Hydro*
- *Kevin Gawne - Manager, Energy Operations Planning Department - 25 years at Hydro*

6) Depreciation – 41 collective years of experience at Hydro

- *Alastair Fogg - Corporate Controller - 14 years at Hydro*
- *Michelle Hooper - Senior Analyst, Asset & Operations Accounting Department - 27 years at Hydro*

Dane Watson - Managing Partner, Alliance Consulting Group - 40 years industry experience

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Manitoba Hydro Expertise

- Daymark acknowledged Manitoba Hydro's expertise:

> *"And they also use weekly team meetings. We'll discuss that in a – in a minute here,* ***but they—they use a consensus building methodology to bring together various experts to – to ensure that this complex set of priorities is being managed****."* (Transcript, pg. 976)

> *"MH* ***operations are extremely complex*** *and much of the knowledge necessary to make appropriate trade-offs during adverse water operations appears to reside in the minds of* ***its many experts****."* (Daymark Report, pg. 10)

> *"That it -- it might talk about some of the other stakeholder challenges or -- or concerns that -- that have come to mind and it -- and it walks through all this in -- at considerable detail and it's provided to this broad set of -- of experts within the organization.* ***And those experts are identified*** *in the -- in the drought planning the -- the -- the organizations* ***within Manitoba Hydro are all identified within the drought planning document. And those experts come together and they build a consensus****."* (Transcript, pg. 979)

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Manitoba Hydro Expertise

- Daymark comments continued:

> *"I -- I think what we were -- what we were observing is that the process, as described to us,* ***involved a great many experts who reflect the various positions of -- of the components of Manitoba Hydro*** *and the stakeholders that they serve. And that, in the course of our interactions with the Manitoba Hydro team,* ***they were able to produce experts who could talk us through pieces of what was happening at the time, what was going on and why the -- why the team was working the way it was****."* (Transcript, pgs. 1104-1105)

> *"And so, the -- the point of this is that's always the case with an expert system, you can never capture everything that experts know structurally in documents or in -- but this might be an area in which additional investigation on the -- on the part of Manitoba Hydro to -- to look at that from a risk perspective and to see if there is more that they can do to mitigate potential risks around the -- the concept of -- of* ***expert knowledge*** *that does not exist memorialized in -- in documentation."* (Transcript, pg. 1106)

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“Existing Legislative Framework”

***Consumers’ Association of Canada (Manitoba) Inc v. Manitoba Hydro Electric Board* 2005 MBCA 55:**

65 The PUB has two concerns when dealing with a rate application; the interest of the utility’s ratepayers and the financial health of the utility. Together and in the broadest interpretation, these interests represent the general public interest.

***Manitoba (Hydro-Electric Board) v. Manitoba (Public Utilities Board) et al*, 2020 MBCA 60:**

13 […] The PUB's authority over Manitoba Hydro is limited by section 2(5) of the PUB Act, which provides, “Subject to Part 4 of the [*Crown Act*]… this Act… does not apply to Manitoba Hydro and the [PUB] has no jurisdiction or authority over Manitoba Hydro.

[…]

39 The PUB is mandated to review rates on the basis of whether they are just and reasonable. […]

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“Existing Legislative Framework” – *The Public Utilities Board Act*

The Public Utilities Board Act (as it appeared prior to November 3, 2022)

Application to Manitoba Hydro

2(5) Subject to Part 4 of *The Crown Corporations Governance and Accountability Act* and except for the purposes of conducting a public hearing in respect of an application made to the board under subsection 38(2) or 50(4) of *The Manitoba Hydro Act*, this Act, other than subsection 83(4) and the regulations under that subsection, does not apply to Manitoba Hydro and the board has no jurisdiction or authority over Manitoba Hydro.

“Existing Legislative Framework” – *The Crown Corporations and Governance and Accountability Act* (as it appeared prior to November 3, 2022)

PART 4
PUBLIC UTILITIES BOARD
REVIEW OF RATES

Hydro and MPIC rates review

25(1) Despite any other Act or law, rates for services provided by Manitoba Hydro […] shall be reviewed by The Public Utilities Board under *The Public Utilities Board Act* and no change in rates for services shall be made and no new rates for services shall be introduced without the approval of The Public Utilities Board.

Definition: "rates for services"

25(2) For the purposes of this Part, **"rates for services"** means

(a) in the case of Manitoba Hydro, prices charged by that corporation with respect to the provision of power as defined in *The Manitoba Hydro Act*; […]

Application of Public Utilities Board Act

25(3) *The Public Utilities Board Act* applies with any necessary changes to a review pursuant to this Part of rates for services.

Factors to be considered, hearings

25(4) In reaching a decision pursuant to this Part, The Public Utilities Board may

(a) take into consideration

(i) the amount required to provide sufficient funds to cover operating, maintenance and administration expenses of the corporation,

(ii) interest and expenses on debt incurred for the purposes of the corporation by the government,

(iii) interest on debt incurred by the corporation,

(iv) reserves for replacement, renewal and obsolescence of works of the corporation,

(v) any other reserves that are necessary for the maintenance, operation, and replacement of works of the corporation,

(vi) liabilities of the corporation for pension benefits and other employee benefit programs,

(vii) any other payments that are required to be made out of the revenue of the corporation,

(viii) **any compelling policy considerations that the board considers relevant to the matter**, and

(ix) **any other factors that the Board considers relevant to the matter;** and

(b) hear submissions from any persons or groups or classes of persons or groups who, in the opinion of the Board, have an interest in the matter.

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“New Legislative Framework” under *The Manitoba Hydro Amendment and Public Utilities Board Amendment Act* (Bill 36)

- *The Manitoba Hydro Amendment and Public Utilities Board Amendment Act* received royal assent in November 2022, with changes to applicable to *The Manitoba Hydro Act*, *The PUB Act*, and *The Crown Corporations Governance & Accountability Act*

- No longer a Bill – it is in force (subject to transitionary period and proclamation of certain sections)

- The new legislative framework, while not applicable to the determination of electric rates until April 1, 2025, is still a compelling policy consideration that cannot be ignored

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“New Legislative Framework” under *The Manitoba Hydro Amendment and Public Utilities Board Amendment Act* (Bill 36)

Electricity and rates policies

39.1(1) It is hereby declared to be the policy of the government that

(a) the rates charged by the corporation to each class of grid customers in Manitoba are to be based on the revenue requirements properly allocated to that class;

(b) the rates charged to a class of grid customers in Manitoba are to be the same throughout the province;

(c) subject to section 39.2 and the regulations, the rates charged by the corporation are to provide sufficient revenue

(i) to enable the corporation to achieve the following target debt-to-capitalization ratios:

(a) 80% by March 31, 2035,
(b) 70% by March 31, 2040, and

(ii) to achieve or maintain any additional financial targets established by regulation; and

(d) subject to the policy objectives set out in clauses (a) to (c) and to the extent practicable, rates or changes in rates should be stable and predictable from year to year.

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“New Legislative Framework” under *The Manitoba Hydro Amendment and Public Utilities Board Amendment Act* (Bill 36)

Classification of grid customers

39.1(2) For the purpose of subsection (1),

(a) grid customers are those who obtain power from the corporation's interconnected system for transmitting and distributing power in Manitoba;

(b) customers must not be classified based on where they are located or the population density of where they are located; and

(c) all residential grid customers are to constitute a single class of customers.

Maximum general rate increase

39.2(1) Despite sections 39 and 39.1, the general rate increase for all grid customers for any fiscal year within a rate period, expressed as a percentage increase from year to year, must not exceed the lesser of 5% and the maximum determined according to the following formula and expressed as a percentage:

$$Max = (CPI_1/CPI_2) - 1$$

In this formula,

CPI_1 is the Consumer Price Index, determined in accordance with subsection (2), for the 12-month period ending on September 30 of the calendar year immediately preceding that fiscal year;

CPI_2 is the Consumer Price Index, determined in accordance with subsection (2), for the 12-month period immediately preceding the 12-month period referred to in the description of CPI_1.

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Approvals Requested – Rate Changes

- Final approval of Rate Schedules reflecting a 3.6% overall revenue increase effective January 1, 2022 approved on an interim basis in Order 137/21.
- Approval of Rate Schedules (Appendix 8.4 and 8.7) reflecting overall revenue increases of 2% effective September 1, 2023 and April 1, 2024 to be collected through differentiated rate adjustments, sufficient to generate additional revenues of $24M in 2023/24 & $38M in 2024/25.
- Endorsement of changes to existing deferral accounts and the establishment and amortization of new regulatory deferral accounts, as discussed in Tab 4, Appendix 4.3 (Amended).
- Final approval of Light Emitting Diode (LED) rates for the Area & Roadway Lighting class approved on an interim basis in Order 150/20.
- Approval of additional Area & Roadway Lighting rates (Appendix 8.4 and 8.7).

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Approvals Requested – Identified as Out of Scope for Oral Evidence in Order 42/23

- Final approval of interim Orders related to weekly Surplus Energy Program rates and the annual reference discounts for the Curtailable Rates Program (listed in Appendix 9.1 and issued prior to the PUB's Order on this Application).

- Endorsement of modifications to the Terms and Conditions of Service for the Surplus Energy Program and the Curtailable Rates Program.

- Endorsement of change in the cost allocation methodology for the LED Roadway Lighting Conversion Program (Demand Side Management) costs.

- Approval to remove the Cooking and Heating Rates (Standard and Seasonal) from the Rate schedule which are no longer in use by Manitoba Hydro.

Finalize 3.6% Interim Rate

- Interim rate was granted pursuant to Order 137/21, with reasons provided in Order 9/22
- Important to look at the reasons for the award
    - The drought, with the forecast reduction in net extraprovincial revenues; and
    - The increase in annual expenses directly related to Bipole III, Keeyask, MMTP, GNTL and Birtle Transmission Line
- Appendix 3.1 – Manitoba Hydro-Electric Board Annual Report for the Year Ended March 31, 2022
    - **Net loss** attributable to the electric segment was **$249 million in 2021/22**
    - Loss was largely attributable to the impacts of the drought and impacts of the final 6 units of Keeyask being placed in service
    - These impacts were partially offset by higher domestic revenues attributable to rate increases
- There was no rate increase for the 2022/23 fiscal year

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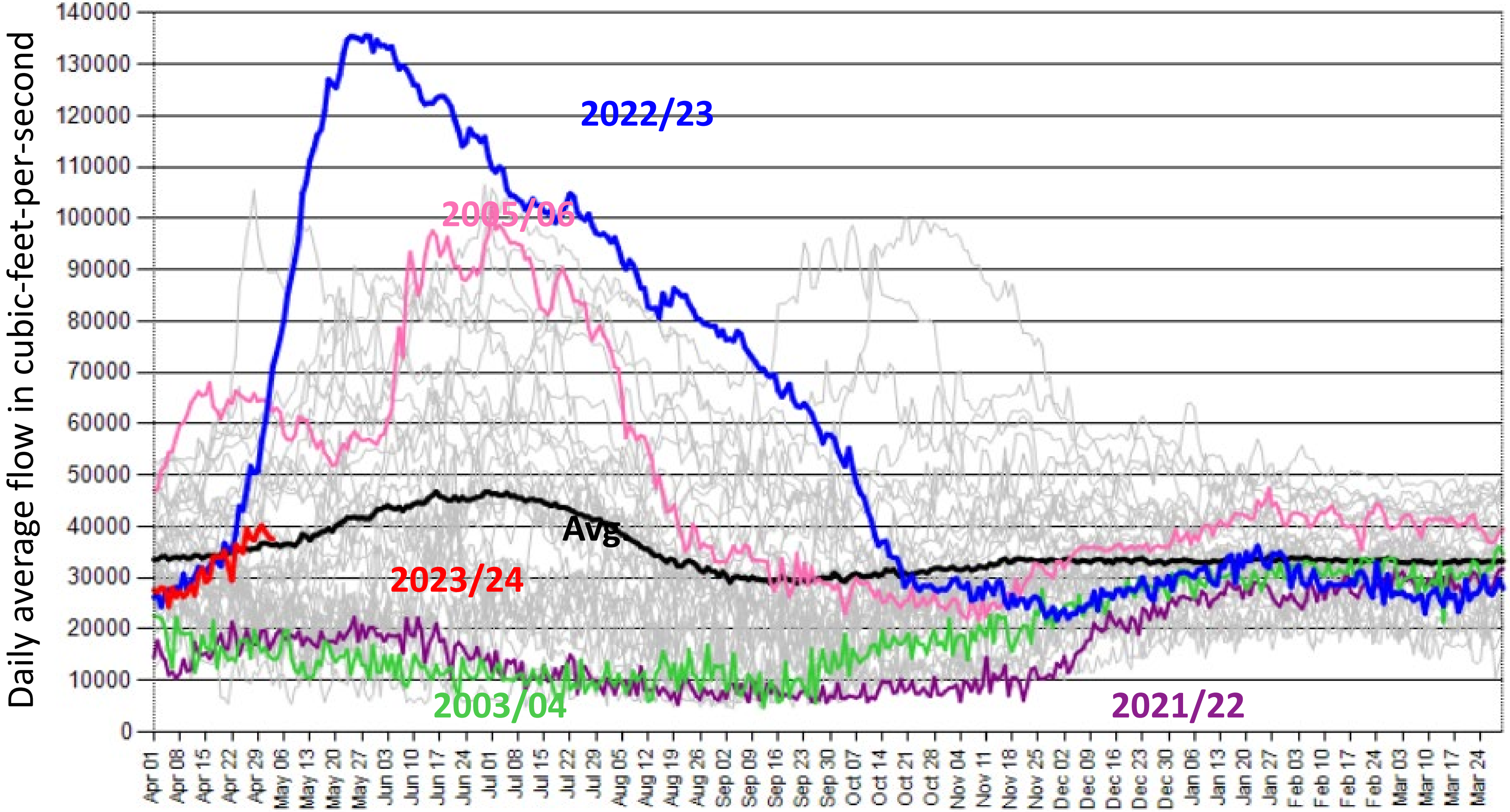
Finalize 3.6% Interim Rate

- Patrick Bowman (MIPUG) on June 9, 2023:
  - *"I've noted on slide 4 and to get it out of the way early, on the basis of my review I had concluded that **the average increases that have been proposed by Hydro in the revised filing, which is to finalize the 3.6 percent … are reasonable**…"* (Transcript, pg. 3958-3959)
  - *"… interim rates I don't think for Manitoba Hydro, for all practical purposes, are – are easily refunded."* (Transcript, pg. 4013)
  - (in response to Vice Chair Kapitany question re: in a case where there is quite a change in circumstance, does that change your view) – *"Not in respect of Manitoba because I think it goes to that image of sort of stirring* [*sic* steering] ***that supertanker**. We -- we made the turn. We may have turned a little further than we should have, **it'll correct**."* (Transcript, pg. 4014)

Drought & Hydrology

Winnipeg River flows went from extreme low to record high in less than 6 months



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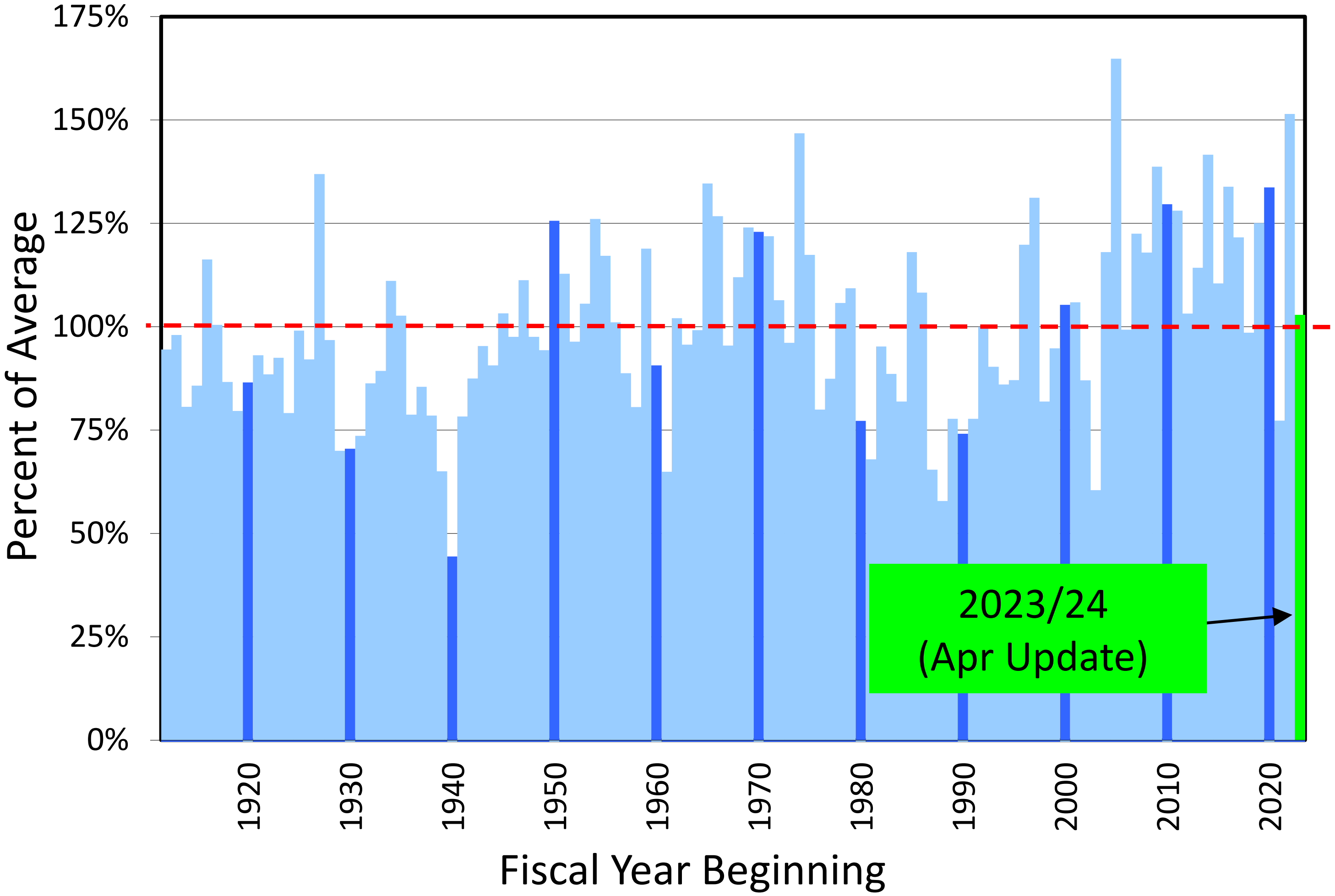
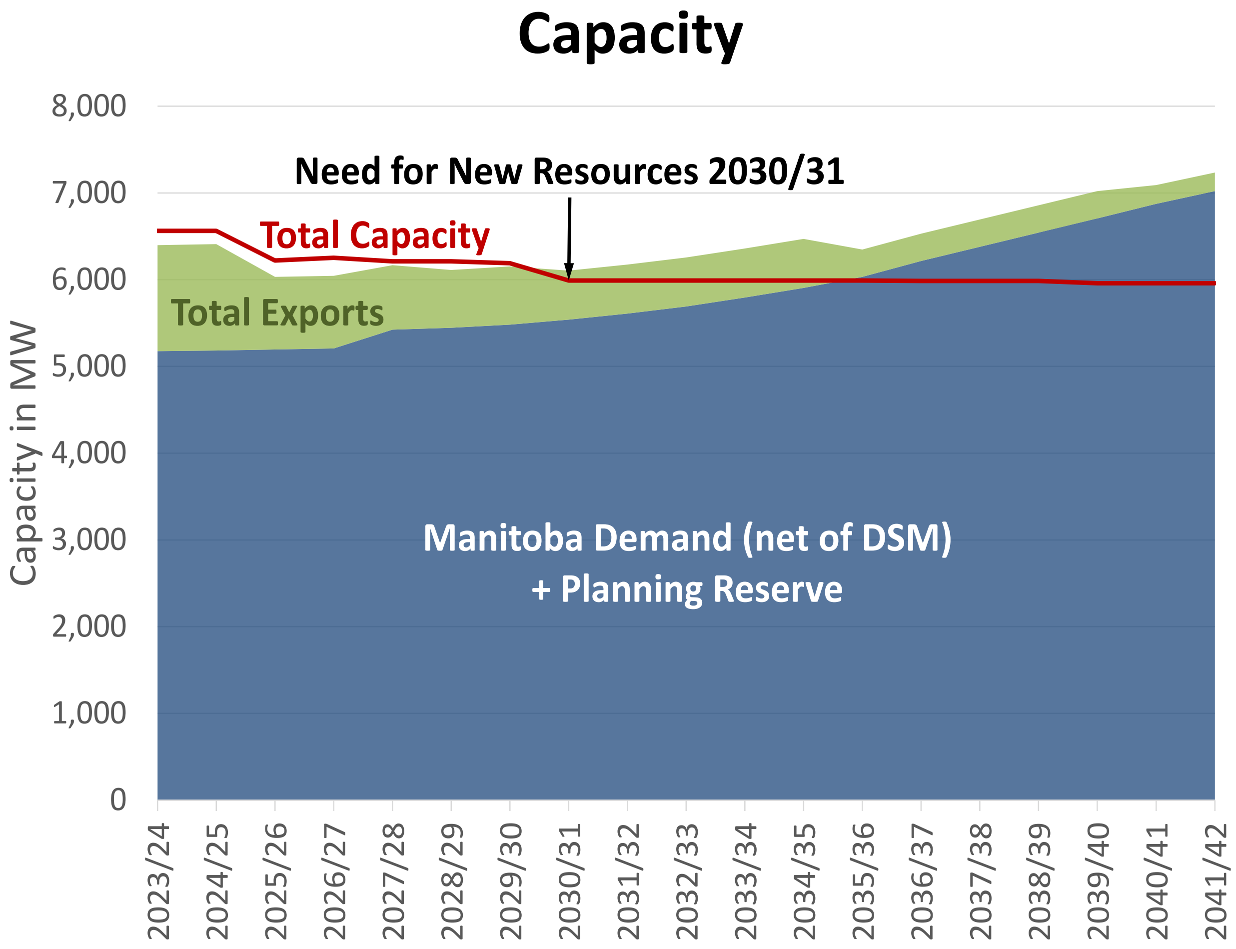
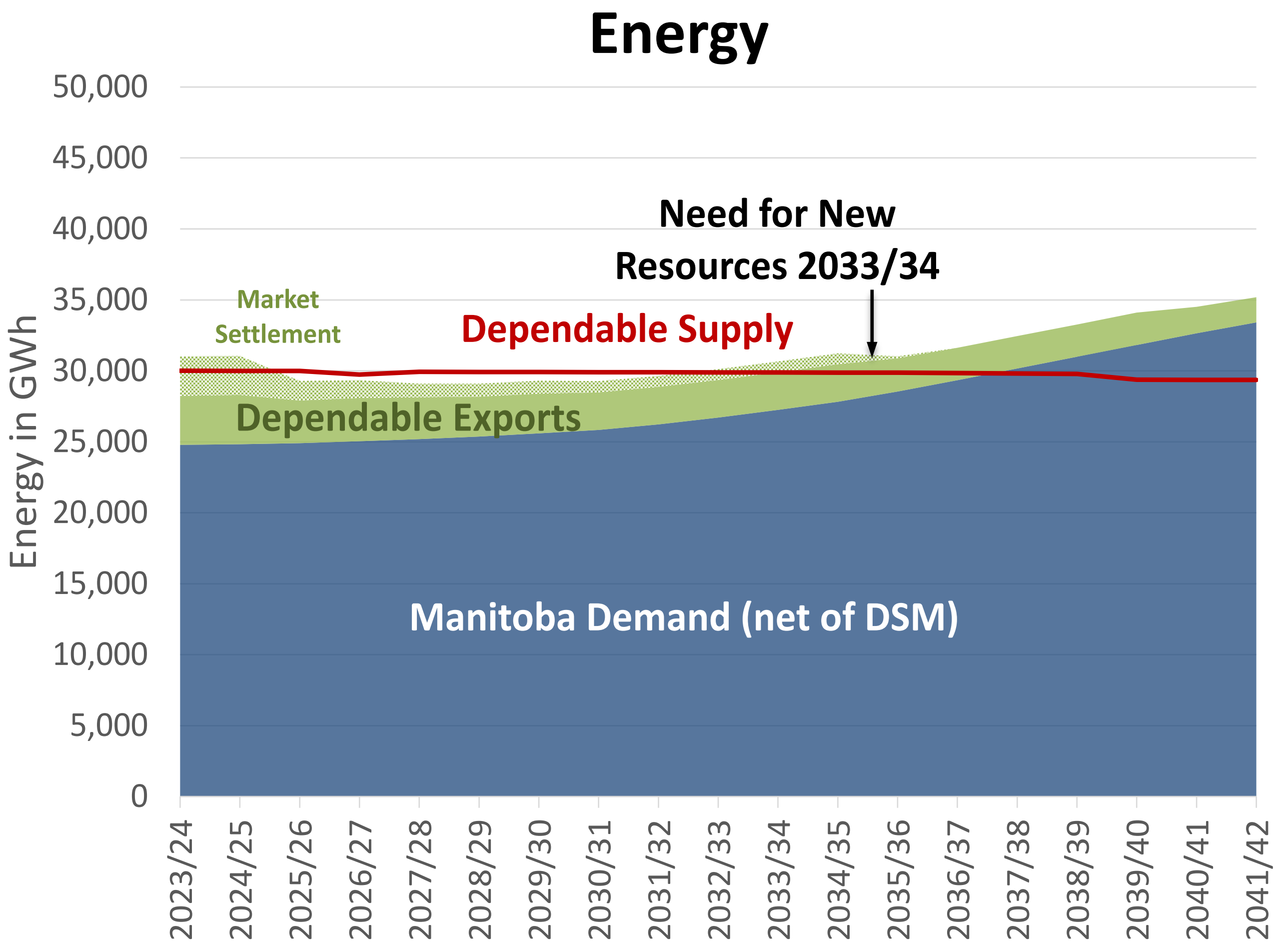
System inflows in 2023/24 will largely depend on rainfall this summer/fall



Anticipate the need for resources in early 2030s

Note: Numerous factors can and do change over time that affect supply and demand. This creates uncertainty in the need date for new resources.





reference: GRA Tab 5, MFR 46

Daymark objectives and specific review requirements

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Objective

- Determine the accuracy and reasonableness of the forecasted export energy and capacity in the net extraprovincial revenues in the GRA application.
- Determine the reasonableness of the operations performed to minimize the economic impact of the 2021/22 drought.
- Determine if MH's recently-modified modeling and hydrology practices on the impacted the ability to respond to water conditions and the accuracy of its export revenue forecast.

Specific review requirements

- Inflow forecasting and energy modeling
- MISO market overview and outlook
- Export price forecast
- Export contract review
- Export energy volume forecast
- Export capacity volume forecast
- Export revenue forecast
- Keeyask revenue scenarios
- Operations during 2021/22 drought

Daymark activities and deliverables

Daymark approach

- Reviewed MH and intervener materials
- Reviewed publicly available materials related to potential markets and counterparties
- Reviewed relevant portions of the Interim Rate Application, General Rate Application, Information Requests, Minimum Filing Requirements, and written evidence
- Met with MH staff in-person and virtually and received supplemental follow-up information
- Performed additional analysis, as needed
- Integrated the items above with Daymark's prior experience

Relevant Daymark materials

- Produced an Independent Expert Consultant report
- Responded to Information Requests related to report
- Presentation of its report for cross examination at the hearings today and tomorrow.

Daymark's findings on three key questions for GRA

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1. MH assumes export revenue from the MISO market is declining - Is that reasonable?

Daymark: "Yes. We expect that additional renewables will reduce energy market prices which will lower the energy market revenue. And that's even setting aside that Manitoba Hydro's expected load growth will reduce its potential supply of—of export energy volumes." (Transcript May 18, 2023, page 925)

2. MH does not assume that diversity arrangements for capacity will be renewed, and does not assume new future capacity sales – Is that reasonable?

Daymark: "Yes. While it is certainly possible that the market for seasonal diversity arrangements will continue, the disruption that's being caused by the seasonal capacity rules, load changes, and capacity build out and retirement means that assuming a minimum level of capacity sales would be highly uncertain." (Transcript May 18, 2023, page 925)

3. Should MH be assuming a premium for its products in the long-term forecast?

Daymark: "We agree that in -- in a world where there is a priority on a decarbonized grid, a source of clean firm supply, like Manitoba Hydro, should be valued highly, and we think that ultimately it will be valued highly. But the mechanism that will be used to value those qualities, when that value will be reflected in the market and what the dollar value of that -- that value for those -- those qualities will be is too uncertain right now to include in the forecast for the purposes of the GRA. [...]" (Transcript May 18, 2023, page 926)

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DAYMARK ENERGY ADVISORS

Other Daymark Findings

- Manitoba Hydro has made **significant advances in its inflow forecasting methodologies to improve the near-term forecasting** using the physically based inflow forecasting process (Daymark Report, pg. 21)
- Manitoba Hydro has made **significant improvements to its long-term dependable and opportunity energy modeling processes**, incorporating advancements in data and availability and transitioning to more advanced models to better reflect load shapes, transmission topology, inflow data and operational constraints (Daymark Report, pg. 21)
- On the short-term forecast, **we believe that Manitoba Hydro's methodology produces reasonable base, low and high forecasts for use in its analysis** (Daymark Report, pg. 46)
- On the long-term forecast, we similarly agree that **Manitoba Hydro's methodology produces reasonable base, low and high forecasts** (Daymark Report, pg. 46)
- Manitoba Hydro's analysis properly reflected the contract terms and prices. Regarding the opportunity export revenue, we find that **the Company's energy modeling methodology and tools are appropriate, and the Company's export price forecast is reasonable** (Daymark Report, pg. 63)

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Other Daymark Findings – Operations During the Drought

- MH **did execute additional oversight and risk management consistent with its policies** to ensure they maintained a safe and reliable system while accounting for competing operational and stakeholder priorities. (Daymark Report – pg. 9)

- MH's **move to a 40 year hydrology** (and their use of their hydrology and forecasting tools in general) **was effective and produced a measured but increasingly strong response to the risk of further drought conditions.** (Daymark Report – pg. 10)

- MH **policies are reasonable and provide appropriate oversight and approval authority guidance**. (Daymark Report pg. 10)

- "… **the rationale and process for contracting those hedges, however, remains sound**. Hedges are used to mitigate risk and provide a measure of price certainty … Given the potential for significant increases to the cost of procuring power over the winter, **it was reasonable to hedge a portion of projected purchases in the fall of 2021 to protect against such a high-cost outcome**." (Daymark Report, pg. 92)

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Hydrology and Drought Management

- Manitoba Hydro has robust operations planning processes, technology and depth of experience
- Operations are guided by long-established priorities
- Manitoba Hydro has implemented improvements related to energy operations and long-term planning
- Manitoba Hydro has made improvements to its near-term inflow forecasting system

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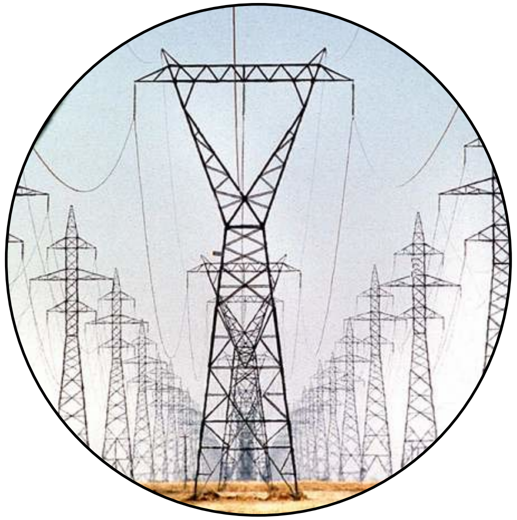
Asset Management & Capital

Manitoba Hydro's Assets

Asset Intensive Organization



- $29 Billion in assets
- Span the entire Province

Core Infrastructure & Assets are Aging

- Assets are core to our business
- Simple & complex assets
- Some over 100 years old

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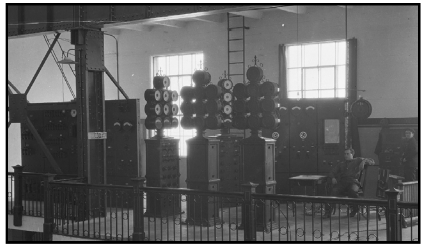

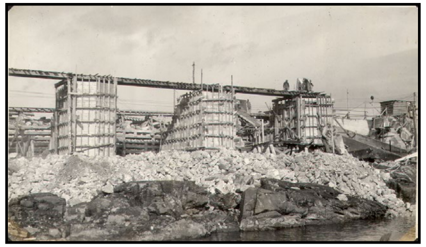

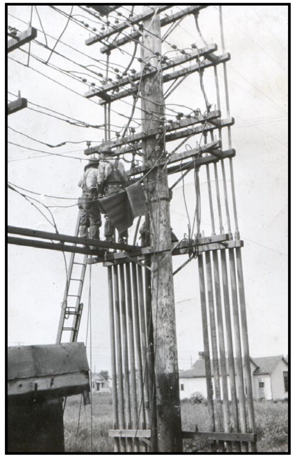

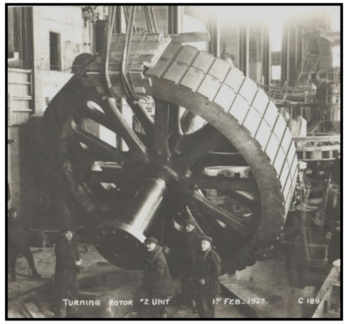

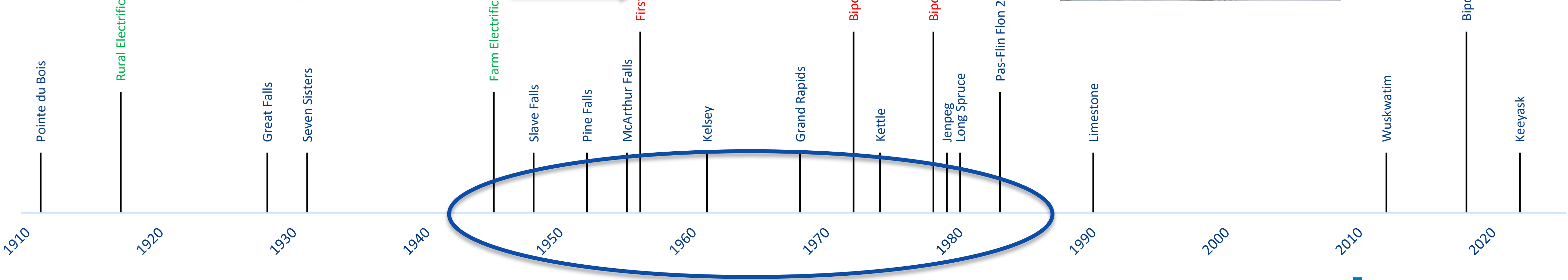

Manitoba Hydro Aging Assets

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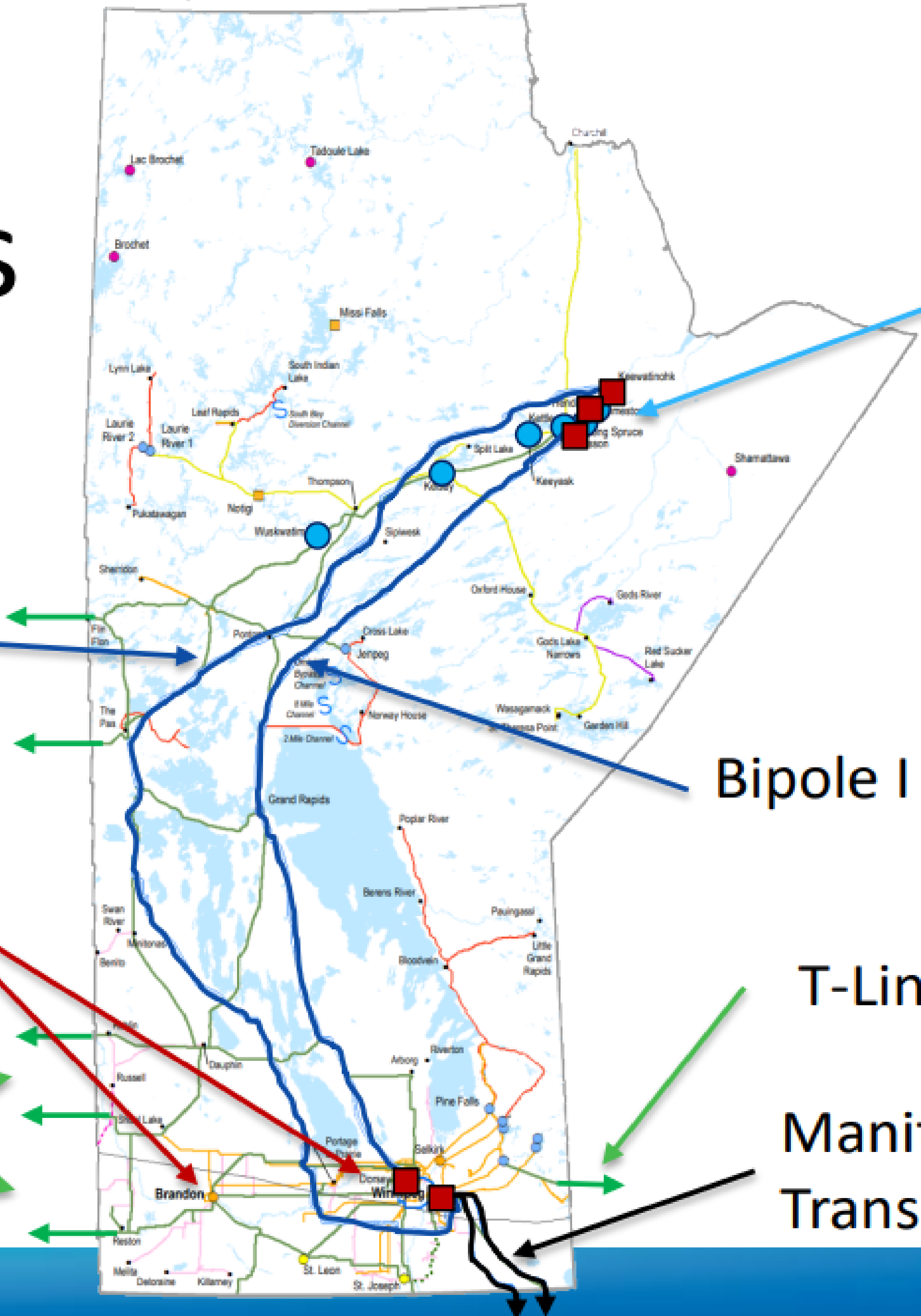
Manitoba Hydro's Assets



Northern generation accounts for >75% of MH total

Bipole III

Bipole I and II

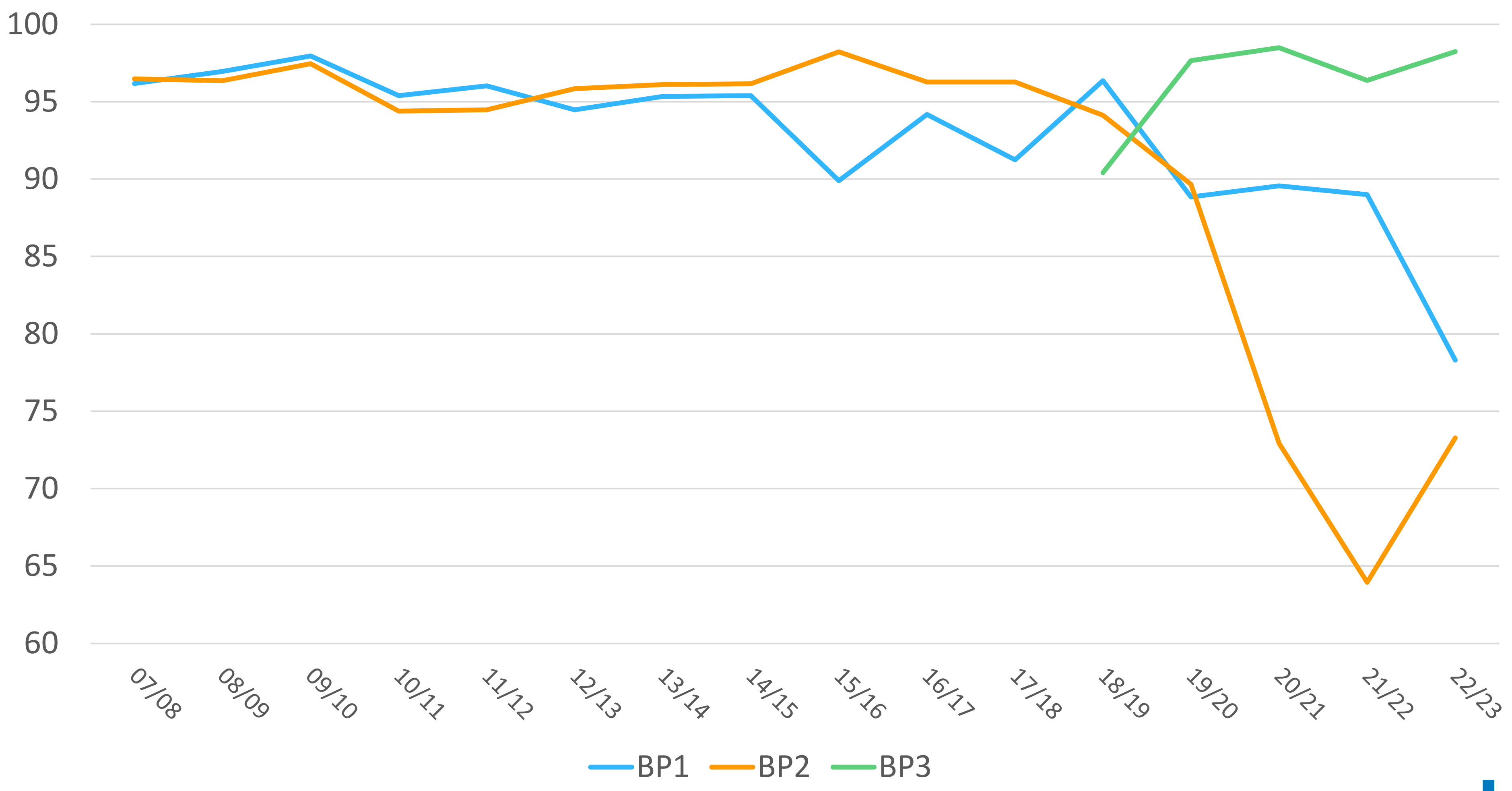
Major Customer Centres

T-Line to Ontario

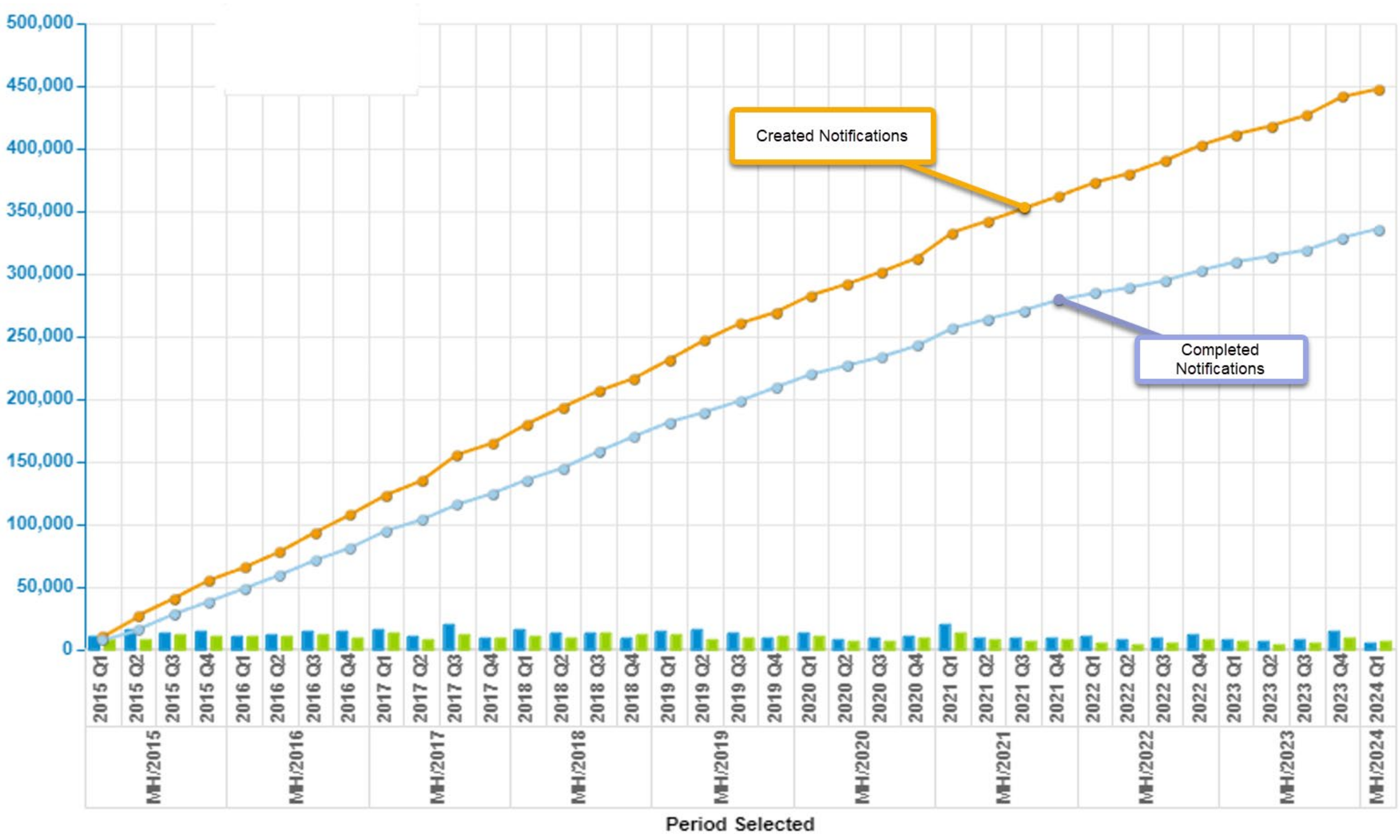
T-Lines to Saskatchewan

Manitoba Minnesota Transmission Lines

Bipole Availability



Reactive Work Notifications



Short and Long Term Planning

Short-Term:
Asset Specific 3-5 Year Outlook

Long-Term:
Population-based Intervention rates
Future risks & opportunities
20 Year Outlook

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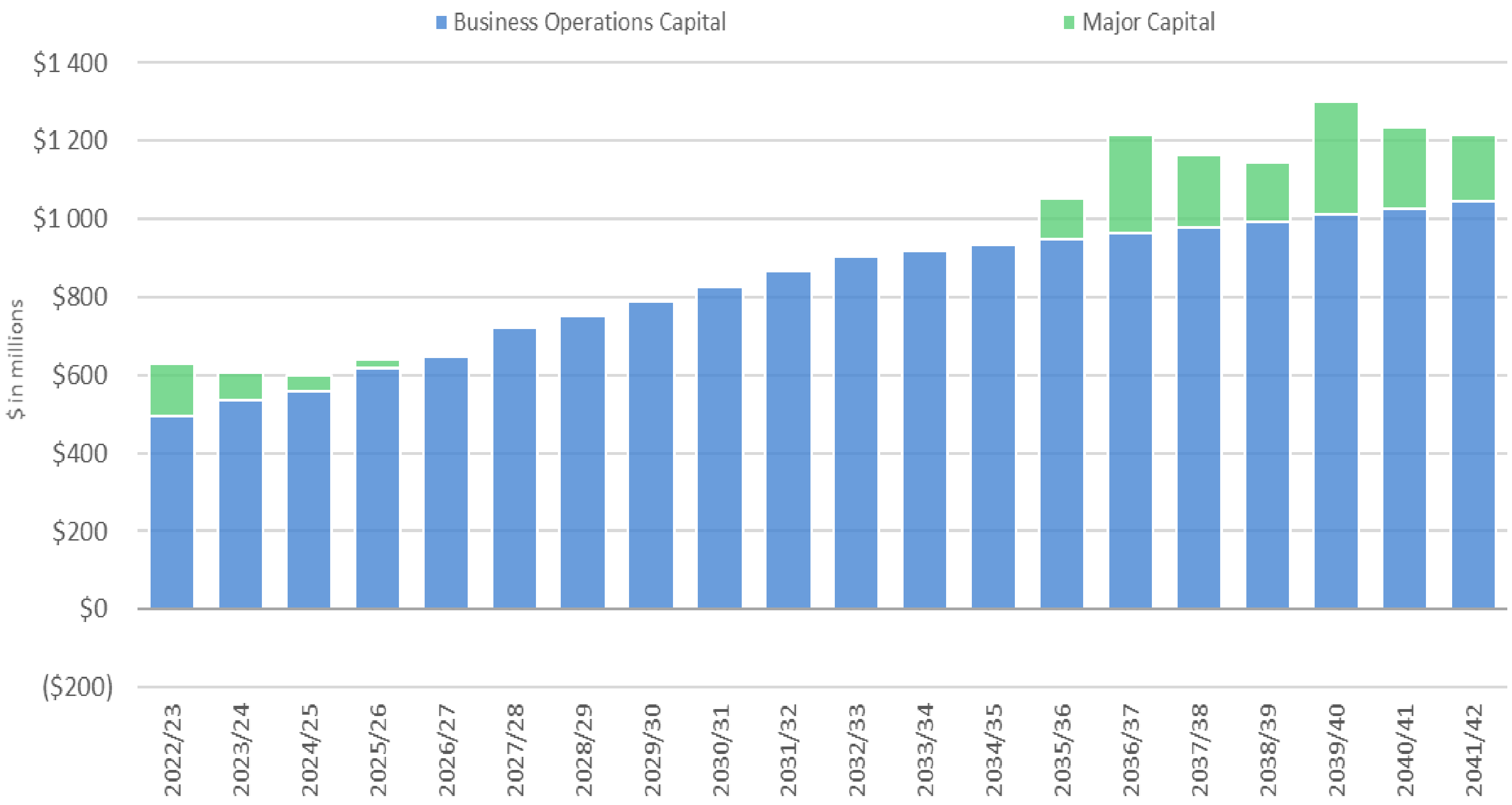
Capital Expenditure Plan (C23)

- Increased investment is required to **maintain performance** and **mitigate risks** related to safety, reliability, compliance, and the environment
- Majority (>90%) of forecasted capital expenditures are related to Business Operations Capital (BOC)
- Future resource requirements (identified as Major Capital) are forecasted in the later part of the forecast
- Capital expenditure plan is **rigorously planned, reviewed, and tested**



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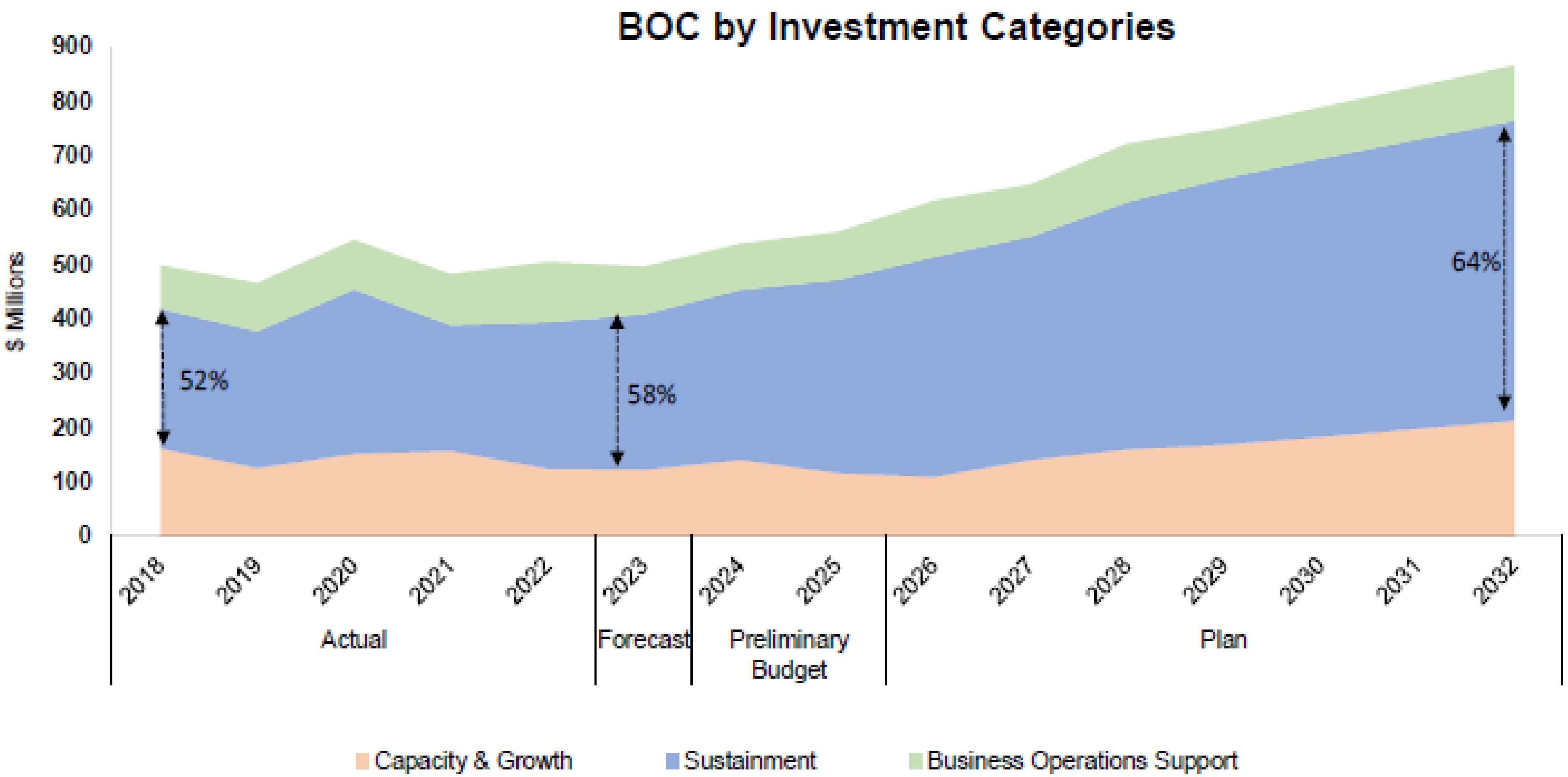
Business Operations Capital

- **Sustainment of existing assets remains the primary focus** of Manitoba Hydro's BOC expenditures
- Total BOC expenditures in C23 are necessarily higher (compared to CEF16) to address asset sustainment and capacity & growth requirements



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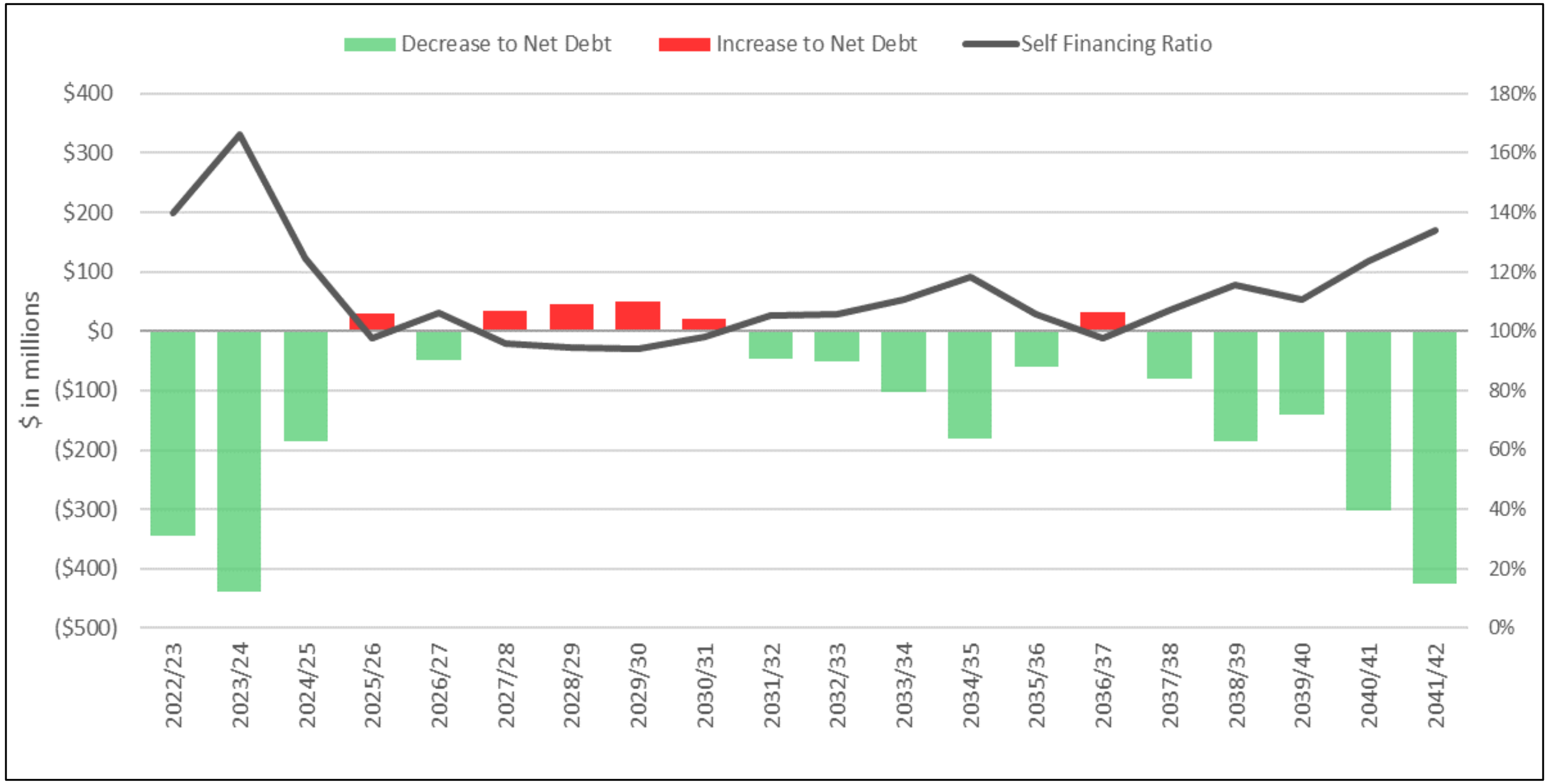
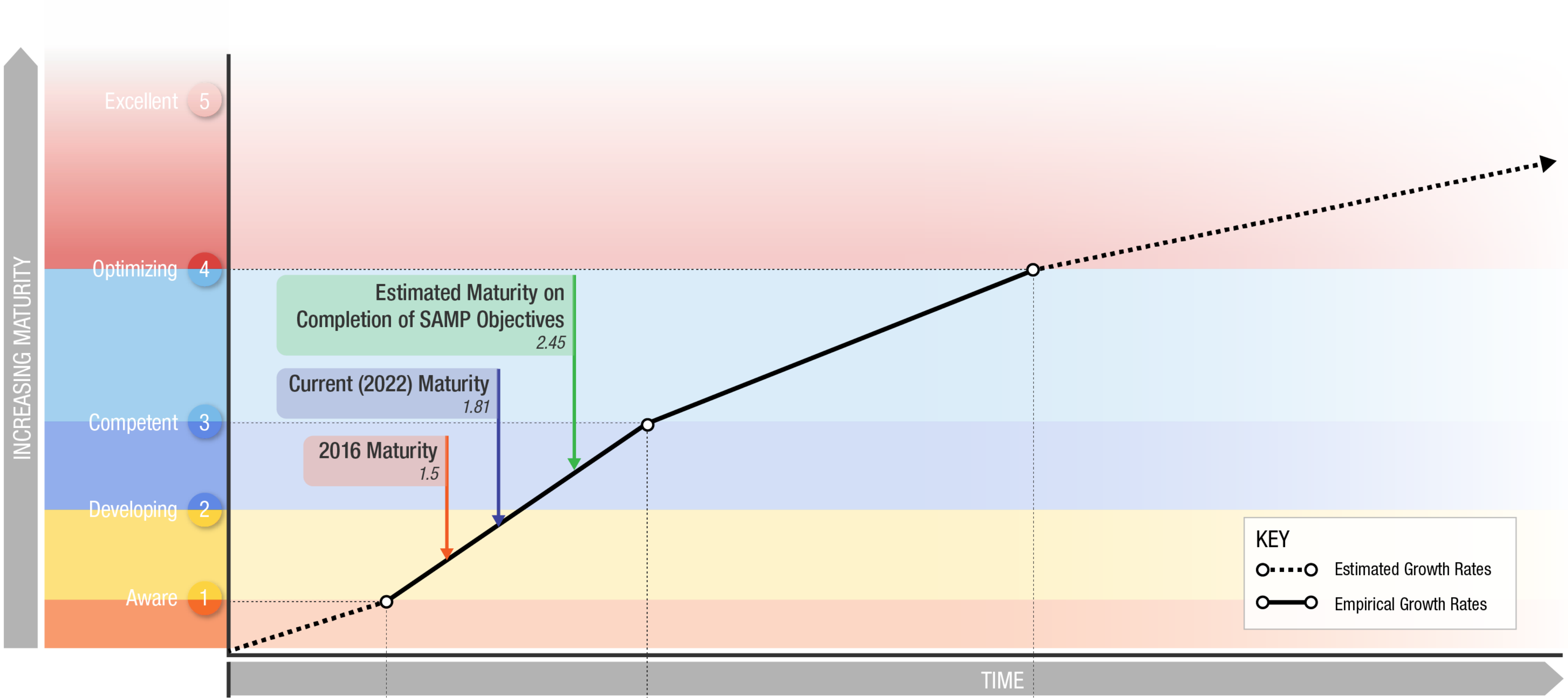
Funding Investments Using Cash from Operations



- Manitoba Hydro seeks to make BOC investments using cash from operations (or internally generated funds)
- Whether measured using a Self-Financing Ratio or a Capital Coverage Ratio, it is a long-standing financial objective to fund BOC with internally generated funds (cash)
- Proposed 2% rate path ensures BOC investments are primarily made using cash from operations

Expected Maturity on Completion of Current SAMP Objectives



Revenue Requirement

Payments to Government

COST SAVINGS

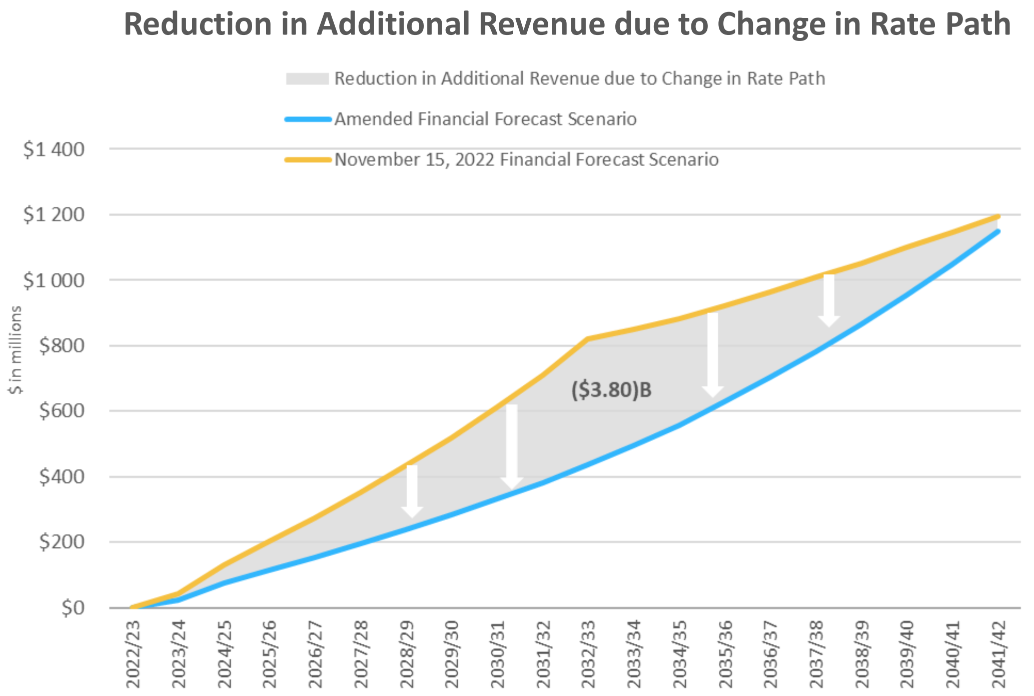
- 50% reduction to the water rental fee
- 50% reduction to the debt guarantee fee

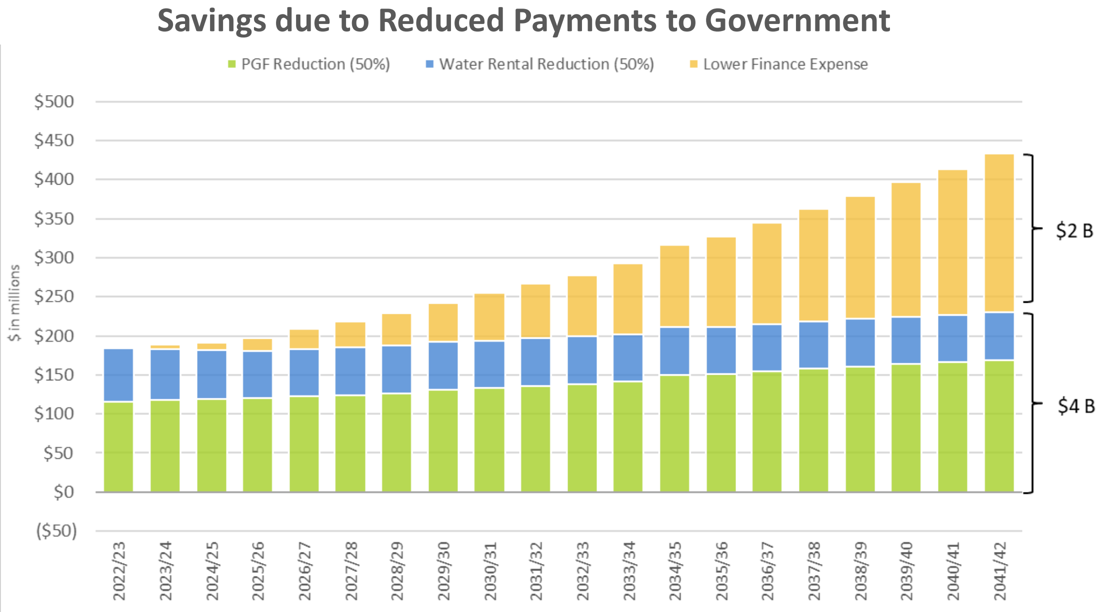
BENEFITS TO CUSTOMERS

- **$3.8 billion** less revenue estimated to be collected from customers under the 2.0% rate path vs. 3.5% rate path

RESULTS IN A MATERIAL CHANGE TO MH'S FINANCES

- Over the 20-year forecast, the direct savings from the reduction of the fees is estimated to total **$3.7 billion**.
- MH will also see savings associated with lower interest expense as a result of both debt retirement and debt avoidance.
- The $3.7 billion reduction to government fees could result in an additional **$2 billion** of savings in the form of lower finance expense had the fees not been reduced.





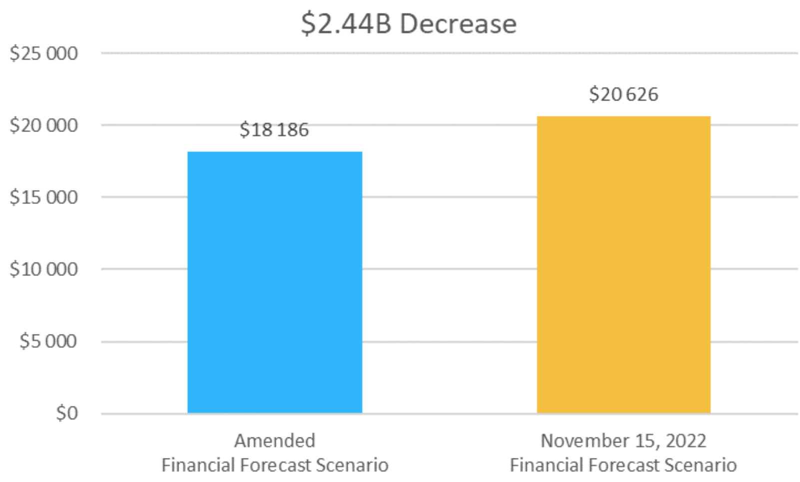
Impacts of Reduced Payments to Government

In the ***Amended Financial Forecast Scenario***, the $3.7 billion combined reduction to net finance expense and water rentals is matched by a $3.8 billion reduction to additional rate revenue by adjusting to the 2.0% rate path.

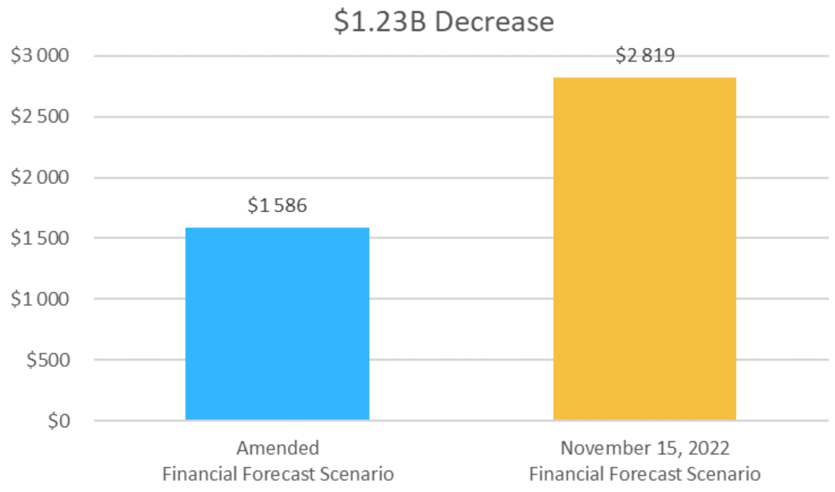
$3.7B

$3.8B

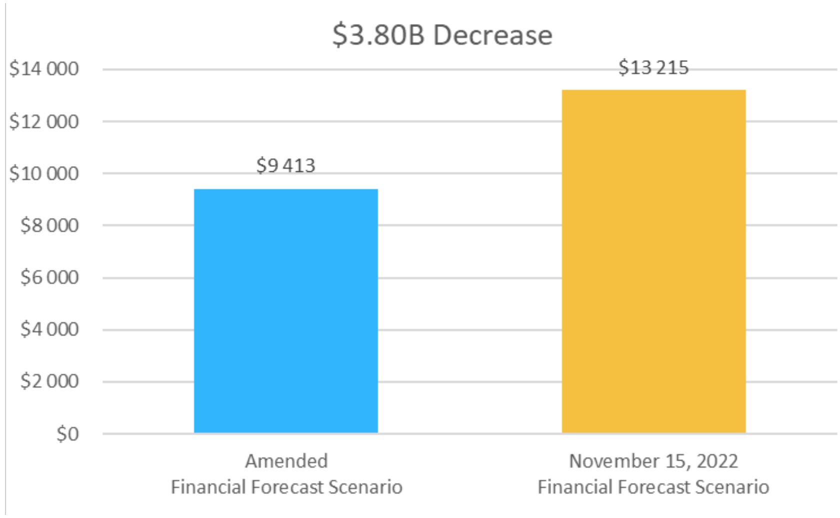
20 Year Cumulative Net Finance Expense



20 Year Cumulative Water Rentals & Assessments



20 Year Cumulative Additional Domestic Revenue

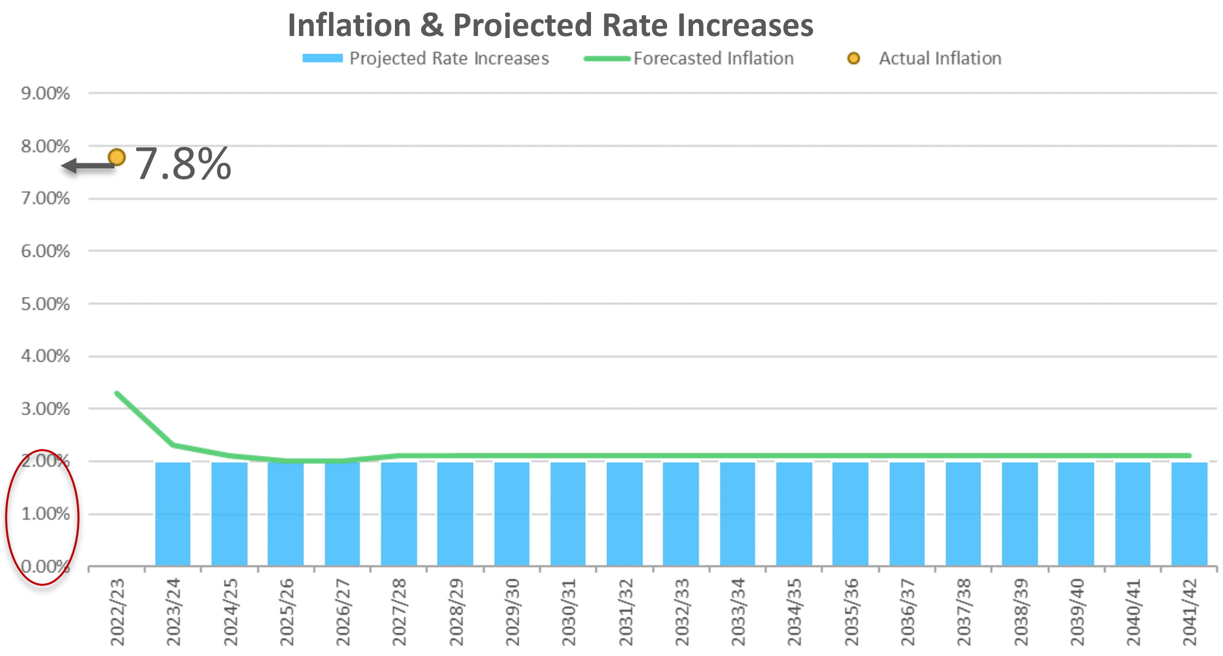


Incorporation of *The Act* into the Rate Path

Although the ***Rate Cap*** and the ***Debt Ratio Targets*** do not strictly apply to this Application, Manitoba Hydro considered the implications of both for determining the **proposed rate path**

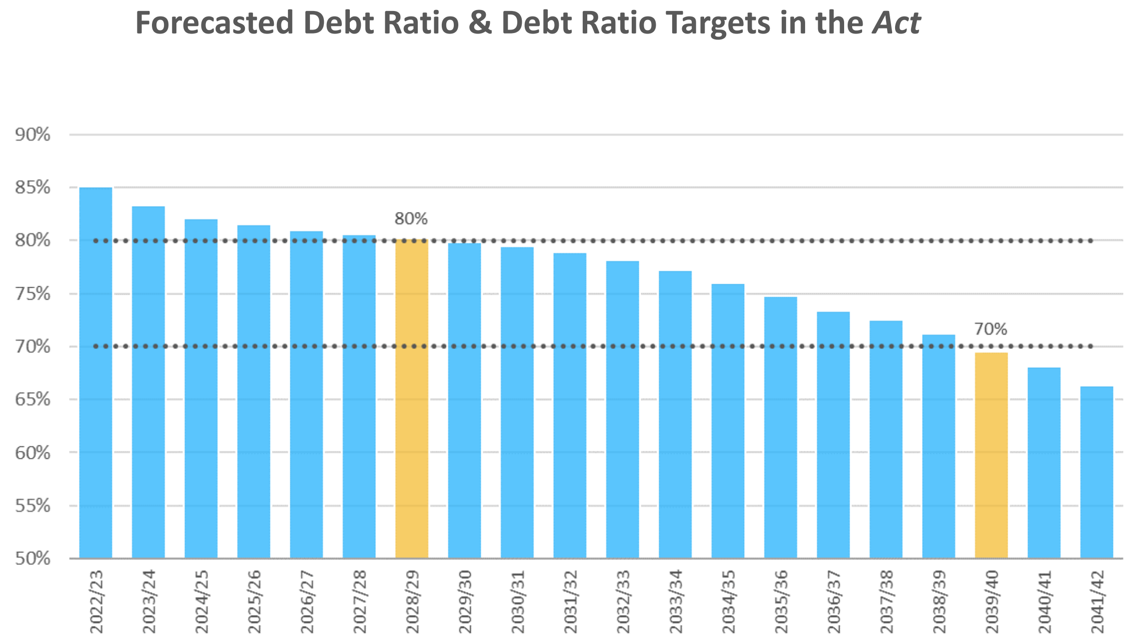
RATE INCREASES AT OR BELOW INFLATION

Rate increases are not forecasted to exceed the projected rate of inflation in any year of the forecast, including the Test Years



ACHIEVEMENT OF THE DEBT RATIO TARGETS

The current debt-to-capitalization ratio is 85:15 (Mar 31, 2023). The Debt ratio targets in the Bill are achieved on or before the target dates



2% Request for 2023/24 & 2024/25 - Use of a 20-Year Financial Forecast

Directive 4 of PUB Order 9/22 – required Manitoba Hydro to include in its 2022/23 General Rate Application its long-term financial forecast of at least 20 years together with its underlying assumptions.

Order 137/21, page 12 – the PUB recognized that a long-term financial forecast was important when considering concepts of rate smoothing and reasonable rate trajectories when balancing the interests of ratepayers with the financial health of Manitoba Hydro.

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2% Request for 2023/24 & 2024/25 - Use of a 20-Year Financial Forecast

Manitoba Hydro's Financial Forecast Scenario is not unlike any other long-term financial projections. It provides directional financial information over the planning horizon based on planning information that is available at the time the forecast is developed.

The proposed 2% rate path is representative of current assumptions and information.

As part of the forecast assumptions Manitoba Hydro included costs for potential projects that are considered likely to proceed but are not yet approved (i.e. still in the business case phase). That included costs related to the potential SAP S/4 project and the AMI project. Manitoba Hydro viewed it as appropriate and prudent to include these potential costs in the forecast in order to provide a more accurate view of potential expenses in future years.

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2% Rate Path Guided by Key Priorities

LEGISLATIVE COMPLIANCE
Compliance with legislated rate-setting regulatory framework that sets the maximum general rate increase at the level of inflation or 5%, whichever is lower, and to achieve debt-to-equity targets by 2035 and 2040

STABLE & PREDICTABLE RATES
Stable and predictable rates for customers, together with keeping rates low compared to other jurisdictions

FINANCIAL HEALTH
Gradually improving Manitoba Hydro's financial health over time

SYSTEM RELIABILITY
Ensuring system reliability and modernizing the grid through system investments funded from cash from operations where possible

THE PROPOSED 2% RATE PATH IS:

- A smoothed rate path to achieve the 70% debt ratio target and the rate cap
- Based on a balancing of the identified priorities
- Considers multiple financial metrics
- Based on average conditions

THE PROPOSED 2% RATE PATH IS NOT:

- Simply a mechanistic goal seek
- Overly focused on one priority for setting the rate path

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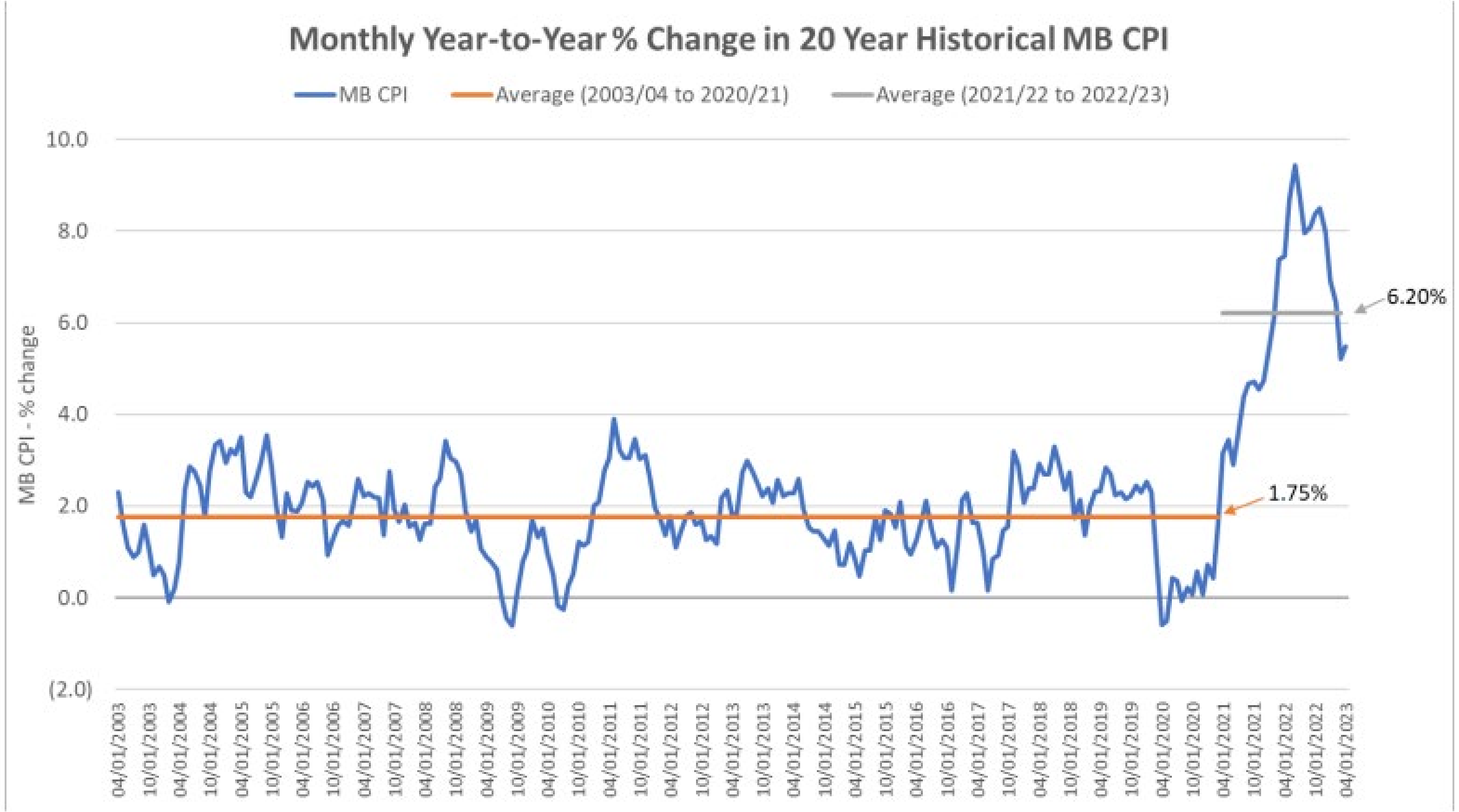
Change in 20-Year Historical MB CPI



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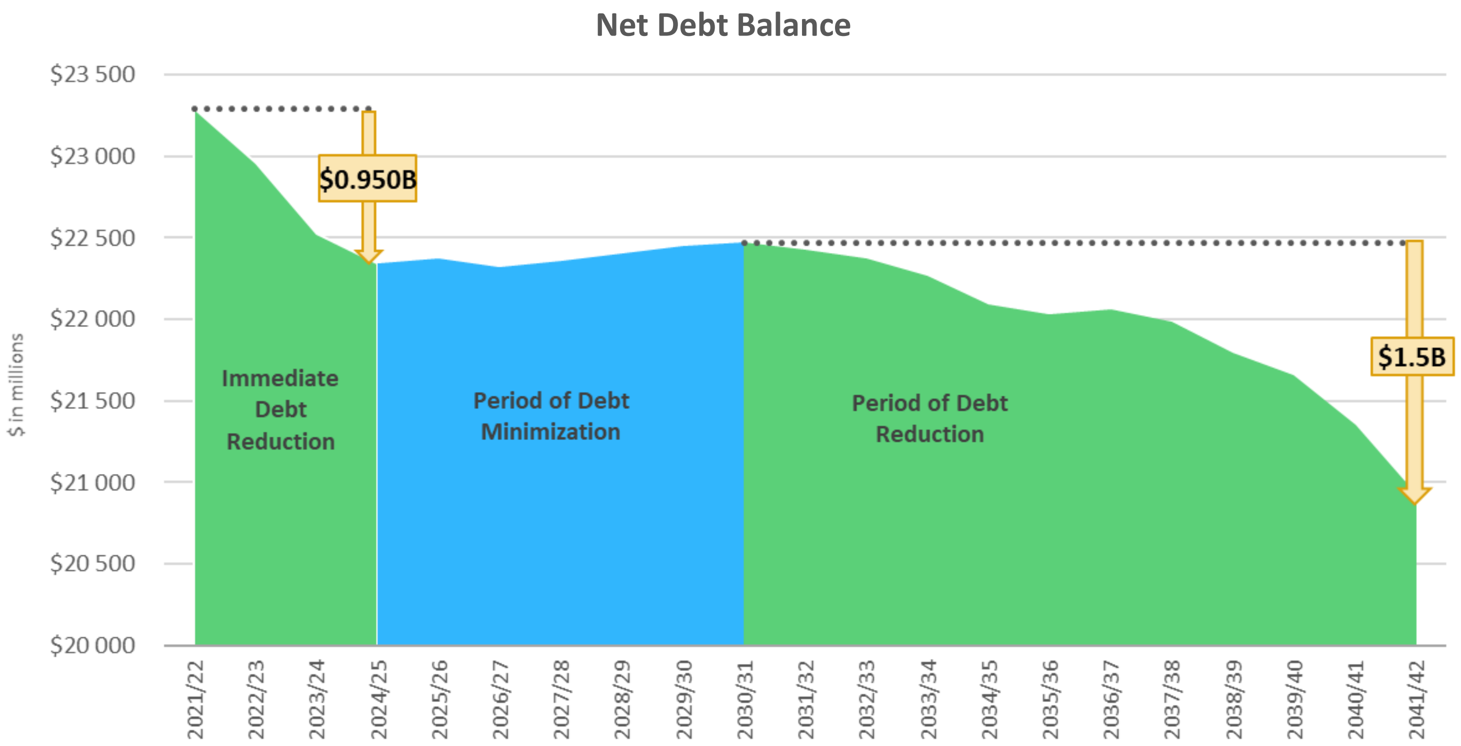
Gradually Improving Financial Health Over Time

STEADY PROGRESS TOWARDS THE TARGETS

- Progression towards the debt ratio targets outlined in *The Act* by gradually reducing debt in the capital structure and increasing retained earnings

REDUCED NET DEBT & INCREASED EQUITY

- In order to hit the debt ratio targets, MH will need to increase its equity (Retained Earnings) and decrease its levels of absolute net debt over the forecast period
- To achieve this necessary increase to retained earnings and reduction in net debt, the level of net income and cash generated from operations will need to increase



NOTE: *This was demonstrated in response to COALITION/MH I-11a-c.*

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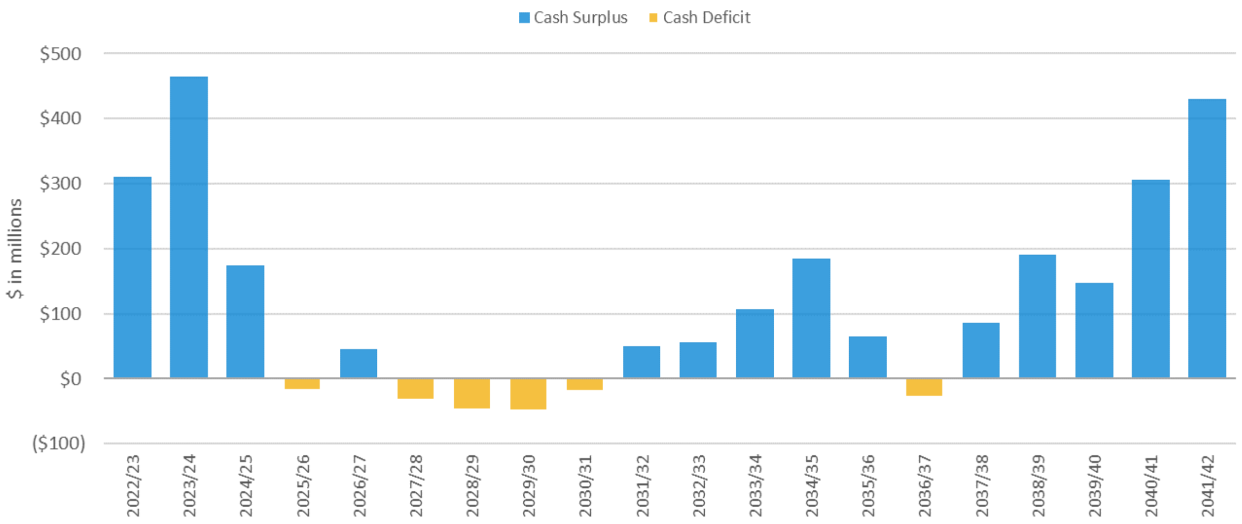
The Importance of Cash Flow & Link to CapEx

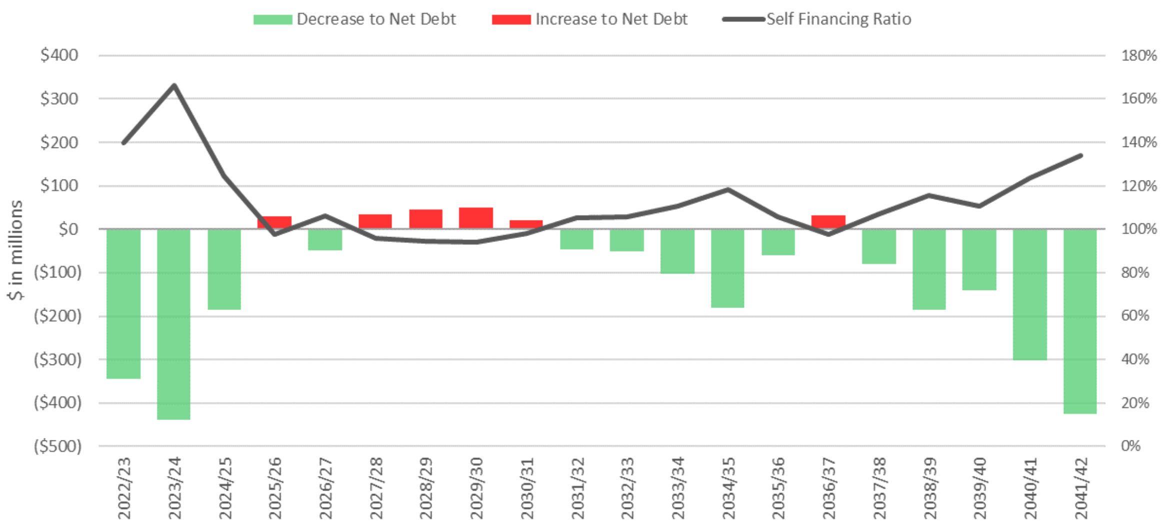
There Needs To Be A Surplus Of Cash After Investments In Order To Reduce Net Debt

- In years where there is a ***deficit*** instead of surplus, ***debt grows***
- What's important is the inflow vs. outflow of cash. That is what the Cash Flow Surplus/Deficit & the Self-Financing Ratio measure
- MH is monitoring the Self-Financing Ratio, which considers the ability to fund investments from cash from operations
- Long-standing financial objective to fund BOC with internally generated funds (i.e. cash from operations)

Projected Cash Flow Surplus/Deficit



Projected Self-Financing Ratio (%) & Annual Change to Net Debt Balance



Comparison to Previous Rate Paths (MH-93)

AVERAGE NET INCOME
$645M vs $440M

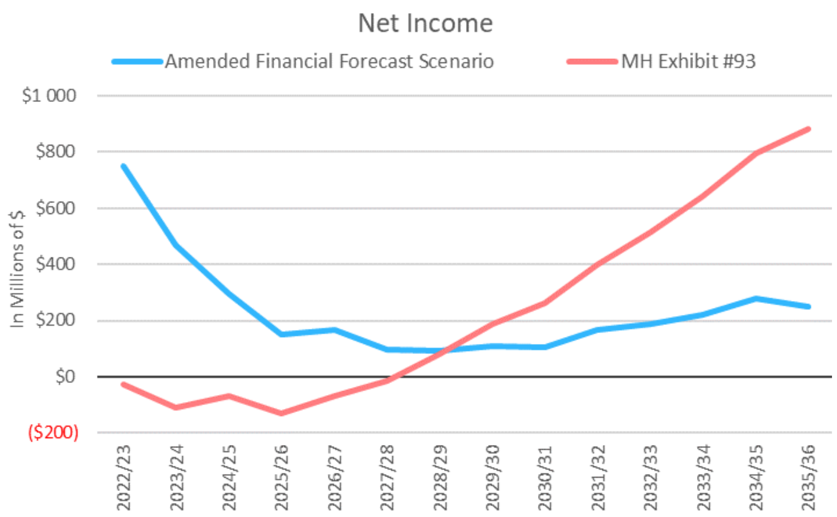
Average net income for the last five years under MH Exhibit #93 was approximately $645 million, compared to average net income of approximately $440 million in the last five years under the Amended Financial Forecast Scenario.

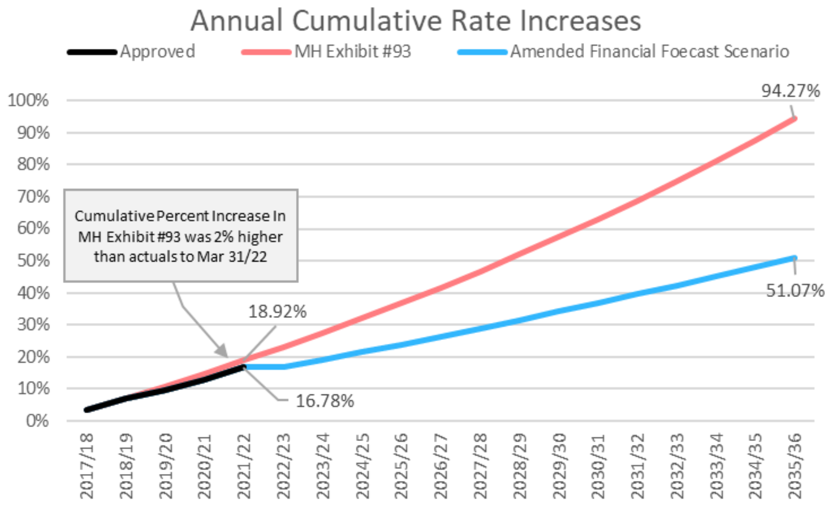
AVERAGE ANNUAL RATE INCREASE
3.57% vs 2%

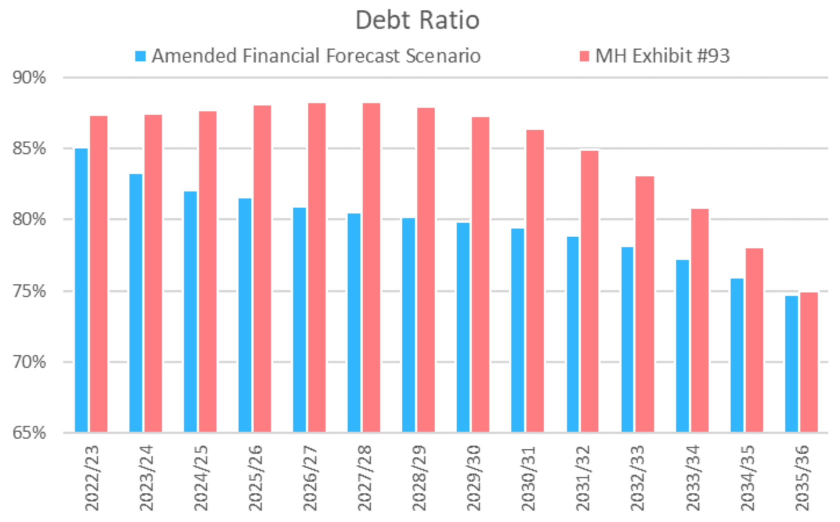
The average annual rate increase under MH Exhibit #93 was 3.57% compared to the 2% rate path under the current Amended Financial Forecast Scenario

DEBT RATIO
BOTH 75% by 2036

The debt ratio under the Amended Financial Forecast Scenario and MH Exhibit #93 both reach 75% by 2036



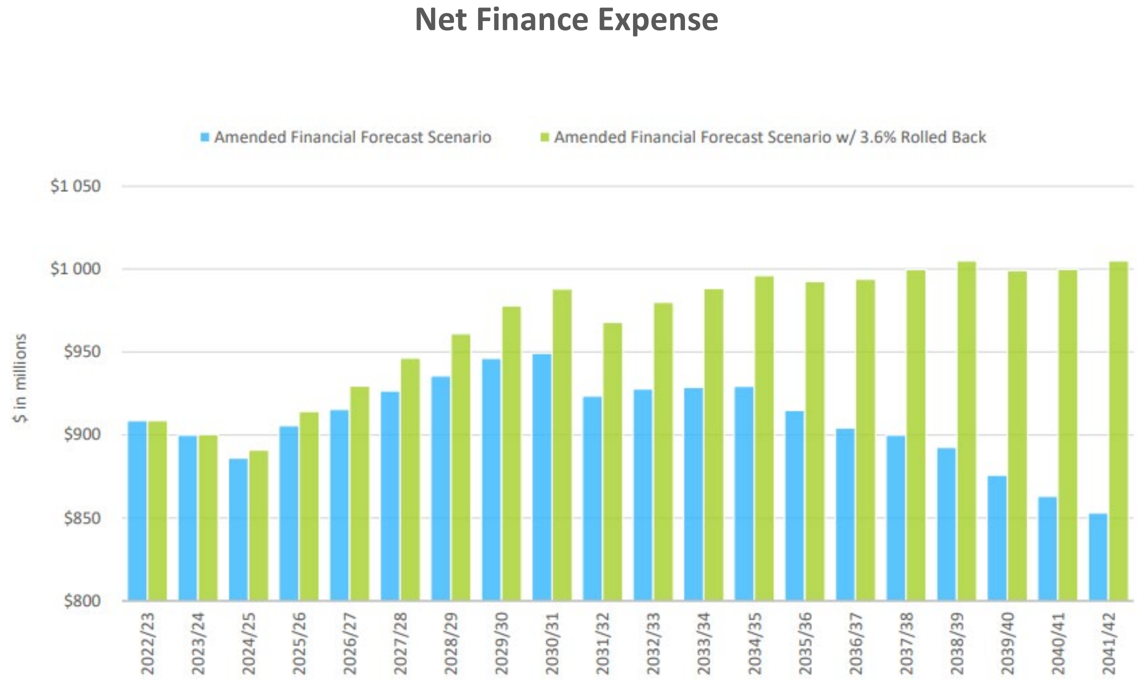


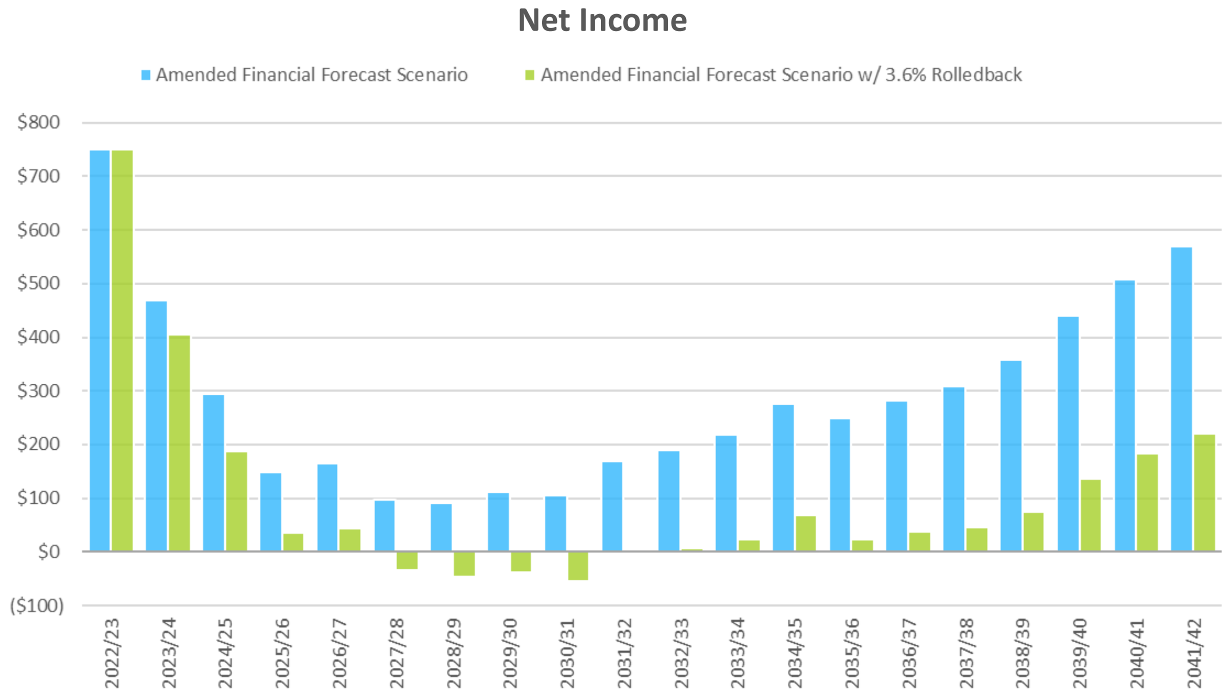


Confirmation of 3.6% interim rate increase

Confirmation of the 3.6% interim rate increase is part of the rate path & essential to improving Hydro's financial health and providing rate stability for customers

Compared to the Amended Financial Forecast Scenario, ***a scenario without confirming the 3.6% interim rate increase*** resulted in an additional $1.2 billion in finance expense and a $3.7 billion reduction in retained earnings over the 20-year forecast period.



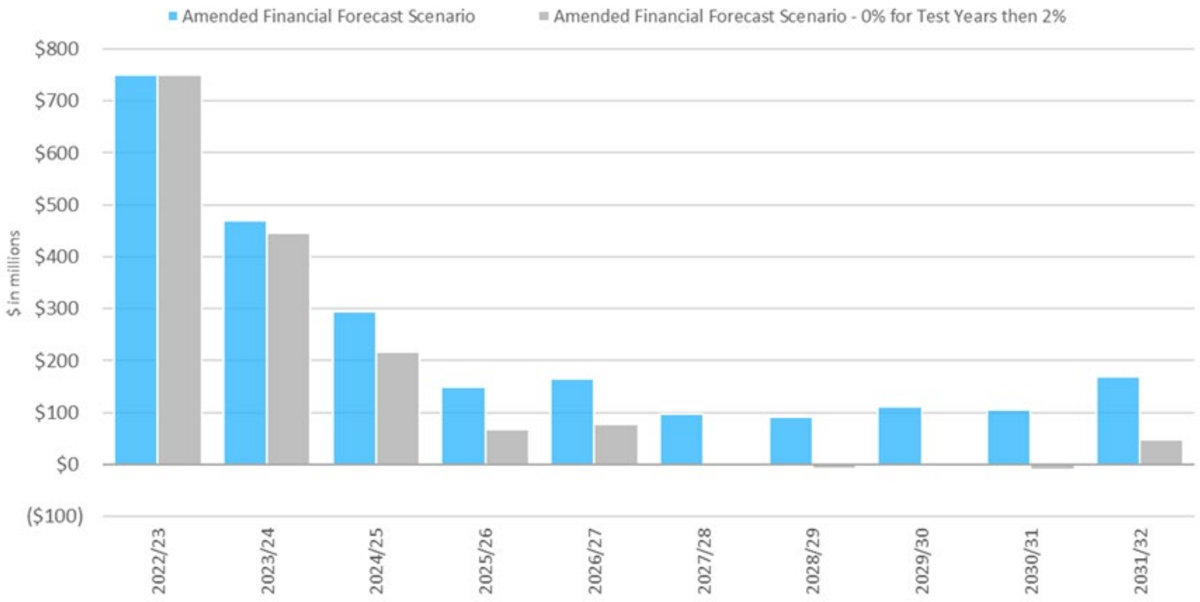


Importance of Rate Increases in 2023/24 & 2024/25

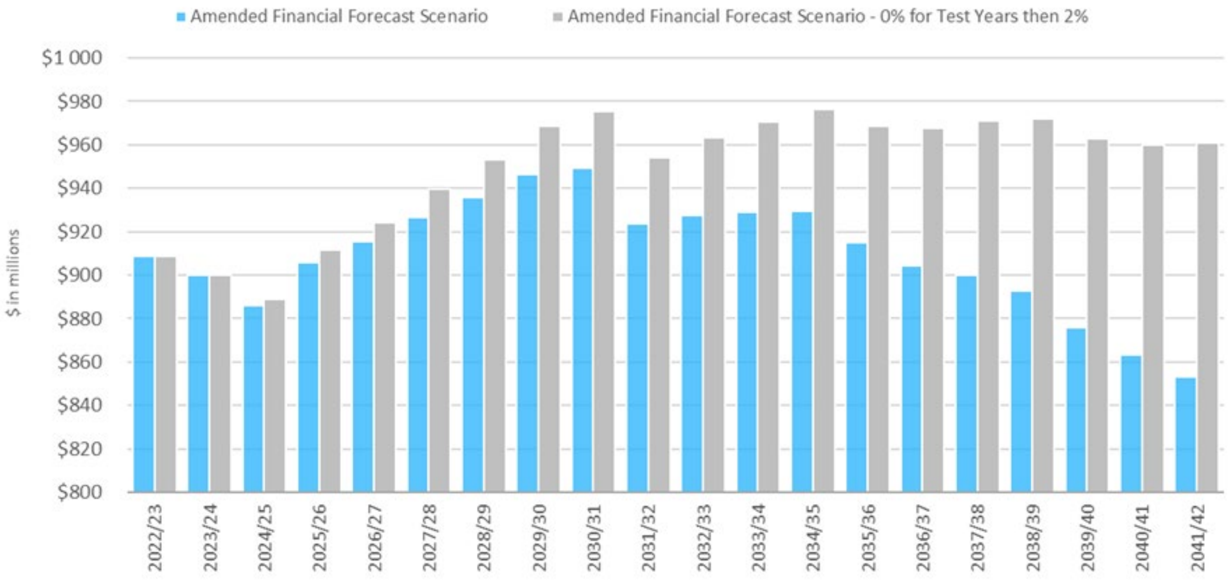
2% increases in 2023/24 & 2024/25 (with 3.6% interim) have a significant effect on results over the forecast

- Without the 2% increases in 2023/24 & 2024/25 both net income and the debt ratio are impacted
  - In certain years forecasted net income is near break-even or is a loss, and that's assuming average conditions
  - The 70% debt ratio target by 2040 is not achieved
- Finance expense remains elevated throughout the forecast period (impacting revenue requirement)

Comparison of Net Income with and without Proposed Rate Increases in 2023/24 & 2024/25



Comparison of Finance Expense Assuming 2% vs. 0% Rate Increases in 2023/24 & 2024/25



Manitoba Hydro's Budgeting Processes

Manitoba Hydro leverages top-down and bottom-up budgeting, for both O&A and capital, to validate that plans are in place to meet the needs of the business while keeping the financial health and impact on customers in focus at an enterprise level.

O&A

- Combined top-down and bottom-up approach taken
- Top-down guidelines based on enterprise approach to pace O&A and FTE growth
- Detailed budgeting developed by each business unit bottom-up
- Forecasts examined thoroughly from bottom-up exercise to understand required changes
- Senior Management review and approval of bottom-up budgets

CAPITAL

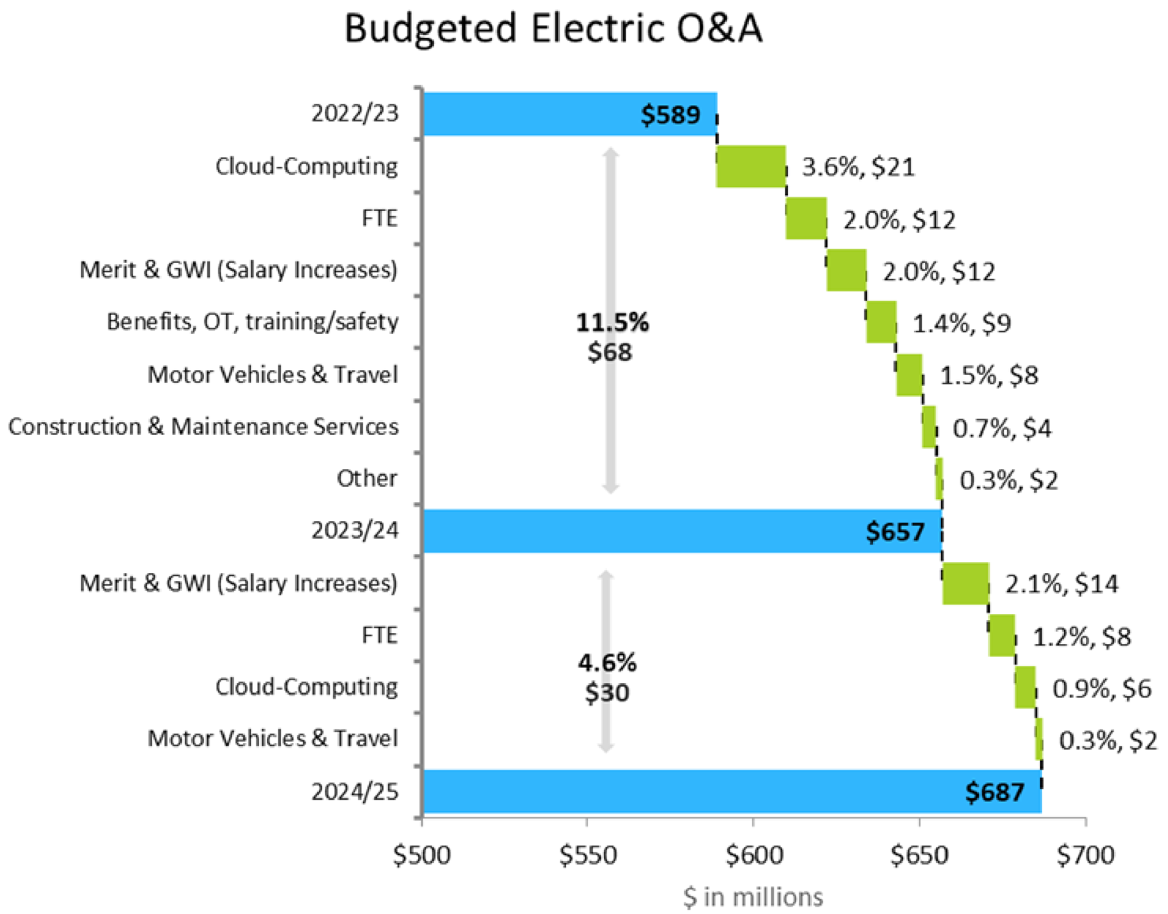
- Targets are recommended by Asset Management, Fleet, Digital & Technology and Corporate Facilities
- Targets are evaluated along with the financial forecast keeping the financial health and impact on customers in focus at an enterprise level
- Senior Management review and approval of targets
- Detailed project budgets developed; balanced to targets through portfolio adjustments

O&A Increases are Required

Operating & Administration (O&A) costs are increasing to ensure Manitoba Hydro continues to provide safe, clean, reliable energy, operating as efficiently and effectively as possible

O&A INCREASES ARE LARGLY DRIVEN BY:

- FTE & Salary Increases
- Cloud Computing
- Motor Vehicle Expenditures, including Fuel
- Inflationary Increases



IMPACT ON CUSTOMER SERVICE LEVELS

Engagement Center Experience

Average speed to answer has increased tenfold over 5 years.

2017 Average speed to answer:

1:03 min

2022 Average speed to answer:

11:14 mins

Customers are not satisfied with our responsiveness.

In 2022,

30%

calls are not being answered because customers abandoned the call.

In 2022,

Less than half

of customers indicated wait time was reasonable.

Commercial Service Connection Experience

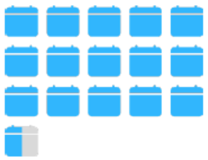
Service connections are taking over 20% longer to complete than 2019.

2019 Average project duration:

12 months

2022 Average project duration:

15.5 months



Customers are not satisfied with our responsiveness.

In 2022/23,

33%

customers indicated it was not easy to complete their project.

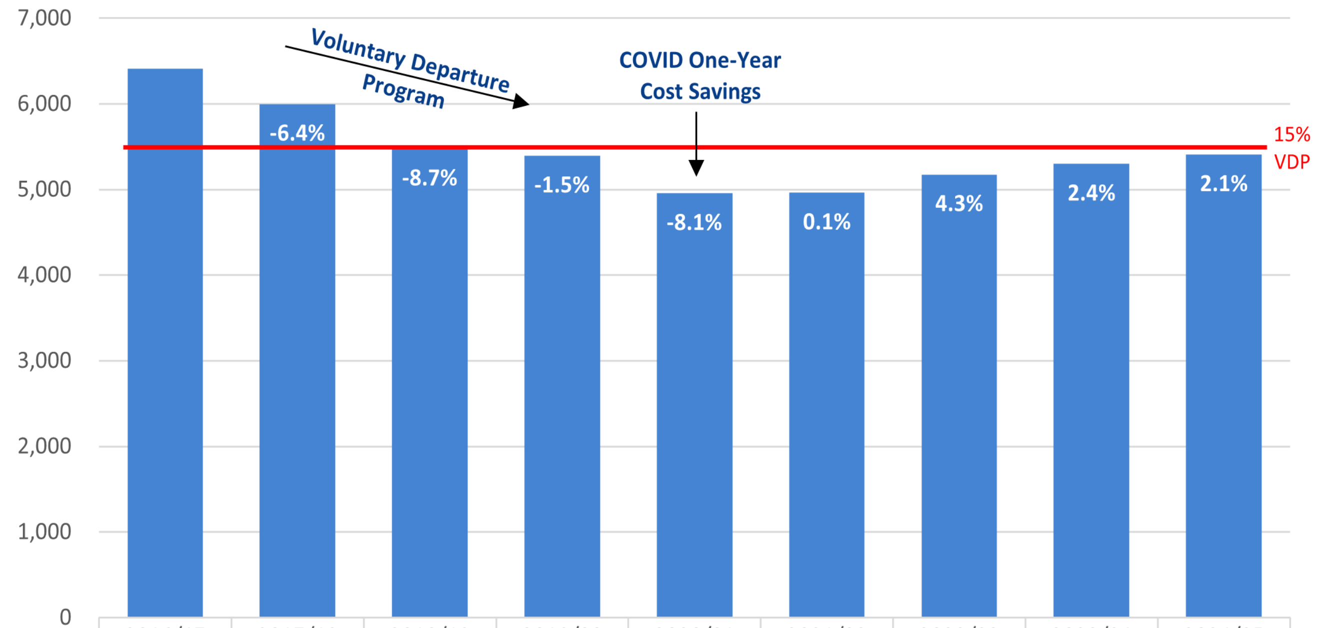
In 2022/23,

49%

customers indicated that the project was not completed in a reasonable amount of time.

Full Time Equivalents (FTEs)

Manitoba Hydro Consolidated FTE



	2016/17 Actual	2017/18 Actual	2018/19 Actual	2019/20 Actual	2020/21 Actual	2021/22 Actual	2022/23 Forecast	2023/24 Preliminary Budget	2024/25 Preliminary Budget
FTE	6,411	5,998	5,475	5,393	4,954	4,962	5,175	5,298	5,408

Note: FTEs include full time, part time, terms, seasonal, students and subsidiary (Centra, Manitoba Hydro International (MHI) and Manitoba Hydro Utility Services (MHUS)) employees.

SIGNIFICANT REDUCTION IN FTE

Manitoba Hydro has experienced almost a **25% reduction in FTEs from 2016/17 through 2021/22** – which includes:

- 15% reduction through the Voluntary Departure Program (VDP) started in 2017
- 2020/21 hiring freeze to support government cost savings initiative related to COVID-19, along with 3 unpaid days to most employees
- High levels of attrition

IMPACT ON RELIABILITY AND CUSTOMER SERVICE LEVELS

- We are falling behind on the maintenance of our aging assets, which impacts reliability
- Our ability to meet customer in-service dates (developers, large industrials, telecoms, etc.) has deteriorated

PLAN TO REBUILD TO PRE-PANDEMIC LEVELS

- Focus is on trades/technical trainees and professional trainees
- **2024/25 Preliminary Budget maintains the 15% VDP reduction**

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Focus is on Rebuilding the Core Workforce

- Manitoba Hydro is a training utility; **specialized learning and on-the-job training required for most trades' employees**, which takes 2-4 years for trainees to be deemed qualified
- **Recruitment** into trades/technical and professional trainee programs **slowed down and/or was halted** following VDP and due to years of cost reductions
- FTE increase in Test Years is required to **rebound to sustainable levels** to fill the "gap" that was created from previous years, worsened with attrition
- This increase is **necessary to ensure reliability, improve customer response times and catch up on maintenance** of Manitoba Hydro's assets

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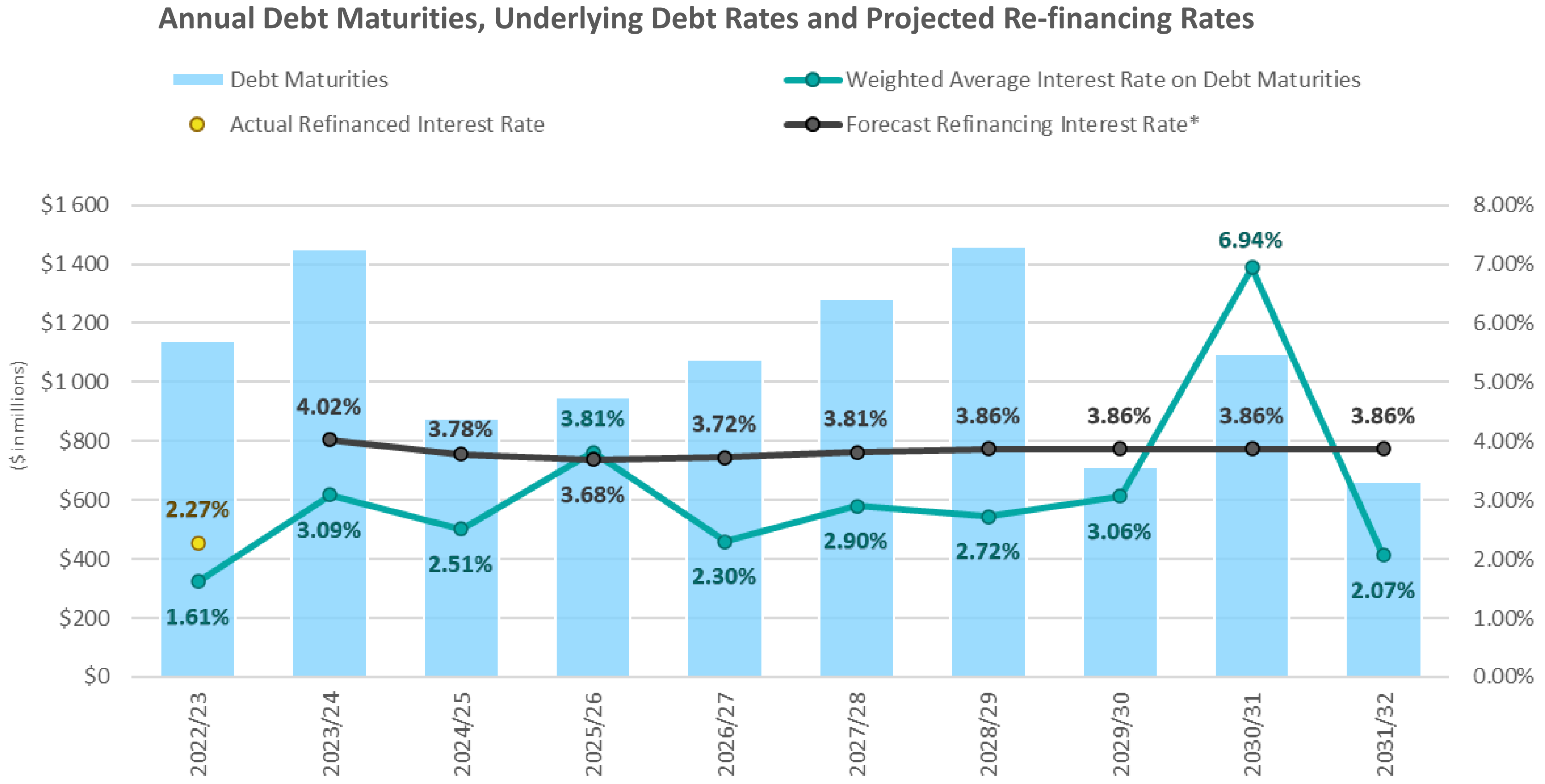
Interest Rate Risk



*Forecast rates are a blended rate of 85% fixed rate debt and 15% floating rate debt to match model assumptions on forecasting borrowings
NOTE: Interest rates presented above exclude the Provincial Guarantee Fee

RISK MITIGATION

- ✓ Target an Interest Rate Risk Profile (IRRP) **< 10%**
- ✓ Minimize addition to the refinancing schedule in the next decade
- ✓ Target to maintain longer term weighted average term to maturity (WATM) of debt portfolio.
- ✓ Manage refinancing risk by continuing to smooth the debt maturity schedule

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As part of this smoothed rate path, confirmation of the 3.6% increase and the 2% rate increases in 2023/24 & 2024/25 play a critical role, as follows:

DEBT

Minimize increases to finance expense as a result of being able to retire debt an minimize the amount of new debt.

INTEREST PAYMENTS

Reducing finance expense allows Manitoba Hydro to use more of the revenues generated from customers to fund operations versus making interest payments.

EXPORT REVENUES

Address the anticipated reduction in export revenue as dependable export contracts expire starting in 2025/26.

CAPITAL EXPENDITURES

Provide sufficient cash from operations to fund required capital expenditures and minimize the use of new debt; and Improve Manitoba Hydro's ability to mitigate the financial impact of imposed risks.

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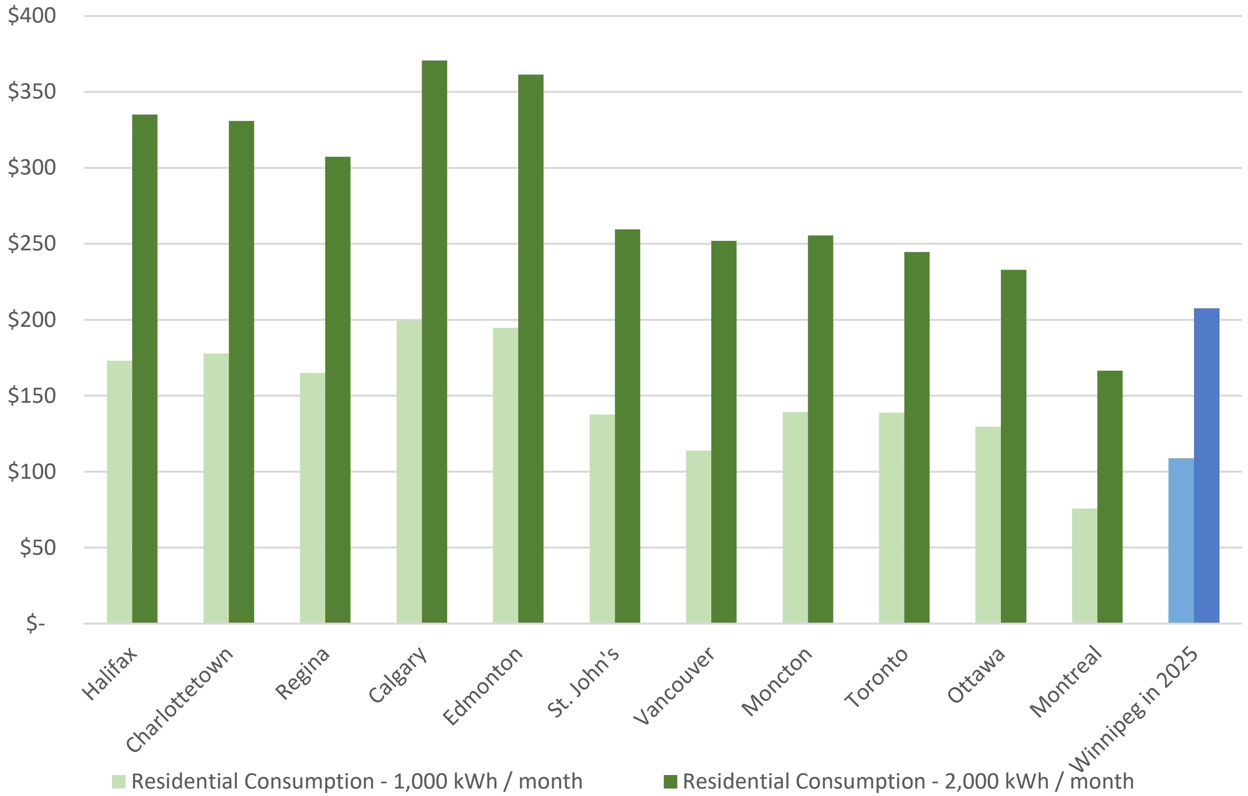
Even with the proposed 2% increase, MH's electricity rates are among lowest in Canada

This rate path is in line with inflation and continues to provide Manitoba Hydro customers with one of the lowest monthly bills in Canada

Utility Rate Increases in 2023

Nova Scotia POWER An Emera Company	6.9% February 2, 2023
Énergie NB Power	4.8% April 1, 2023
SaskPower Powering our future®	4.0% April 1, 2023
Hydro Québec	3.0% (residential) 6.5% (business) 4.2% (industrial) April 1, 2023
BC Hydro Power smart	2.0% April 1, 2023
Manitoba Hydro energy for life	2.0% September 1, 2023 *(proposed)*



The graph reflects the proposed 2% increase for Manitoba Hydro in 2023/24 and 2024/25.

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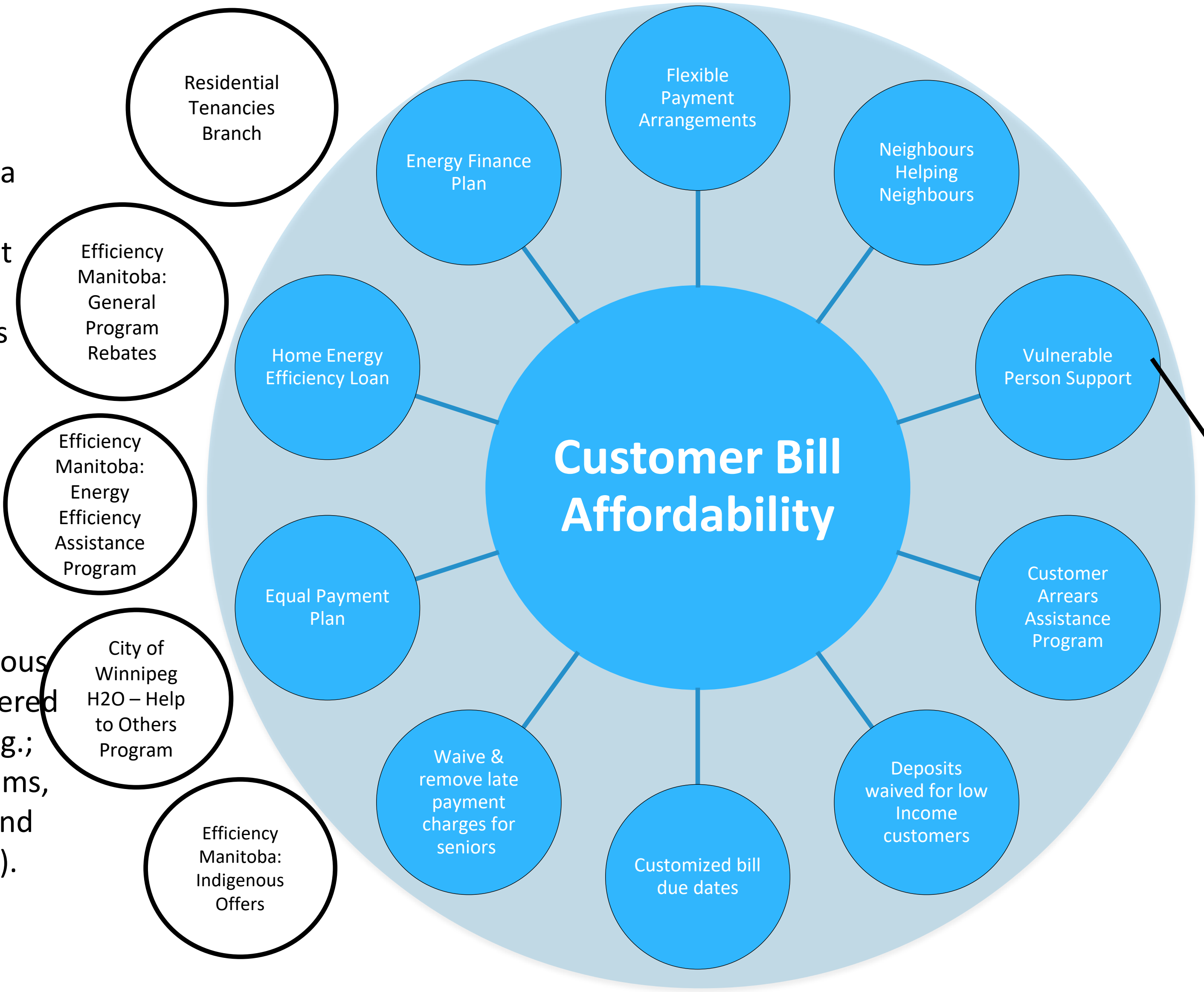
Holistic Bill Affordability

Bundling

Stacking multiple Manitoba Hydro programs to maximize customer benefit (e.g.; Flexible Payment Arrangements, Neighbours Helping Neighbours, Customer Arrears Assistance Program, Equal Payment Plan).

Referrals

Through listening to customers, referrals to various programs and supports offered within their community (e.g.; Efficiency Manitoba programs, Winnipeg Harvest, North End Community Renewal Corp.).



When speaking with struggling customers, Manitoba Hydro provides referrals to various organizations that provide the following supports: financial, housing, mental health, general health, food security, youth, and legal.

Organizations include but not limited to:

- North End Community Renewal Corp.
- Spence Neighbourhood Association
- Brandon Neighbourhood Renewal Corp.
- West Broadway Community Org.
- New Journey Housing
- Renters Rent Assist
- Manitoba Non-Profit Housing Assoc.
- Veteran Emergency Fund
- War Veterans Assistance Fund
- WRHA Crisis Response Centre
- WRHA Home Care Services
- Klinic Crisis Line
- Gambling Helpline
- Siloam Mission
- Mount Carmel Clinic
- Harvest Manitoba

Depreciation

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Manitoba Hydro’s Position on Depreciation

Key Objective:

Resolution of the depreciation matters in this proceeding, as there is sufficient information on record for the PUB to opine on depreciation matters.

1

RECOMMEND IFRS-ELG (ALTERNATIVE 1)

Can be implemented immediately, no increase in O&A expenses or resources, no negative impact on customers and allows our employees to work on value added initiatives.

2

IFRS-ASL IS VIABLE BUT NOT PREFERRED (ALTERNATIVE 2)

Resolves depreciation directive, delayed implementation due to additional work on componentization, IT system changes, training, data conversion, component implementation. There will be a permanent increase in O&A costs with no overall benefit to customers and reduced hands to tools for line staff.

3

ALTERNATIVES 3 & 4 NOT RECOMMENDED

Sufficient information on depreciation matters has been provided for the PUB to opine on ELG or ALG for rate setting purposes. Directives 8 & 9 from Order 43/13 have been satisfied.

Manitoba Hydro Recommends ELG

IMMEDIATE IMPLEMENTATION

Manitoba Hydro is already using ELG for financial reporting purposes.

Implemented immediately with no additional O&A costs or resources.

ELG IS ACCEPTABLE FOR RATE SETTING

There has been a shift in Canadian electric utility depreciation practices.

Five out of Nine Canadian electric utilities reporting under IFRS use ELG.

NO FINANCIAL IMPACTS

No material impact to the proposed rate path or differential rates.

No material impact to achievement of 70% debt ratio target by 2039/40.

PHASE-IN

Increased depreciation expense is phased-in over time to smooth the impact to revenue requirement.

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DECISION

There is enough information on record for the PUB to opine on depreciation matters.

Alternatives 3 & 4 are not recommended.

DEPRECIATION IS AN ESTIMATE

Asset service lives continuously change due to asset health, new technology and maintenance programs and depreciation ensures we recover the cost of our assets from our customers.

ALG IS VIABLE BUT NOT PREFERRED

Resolves depreciation directive but has a delayed implementation. There will be a permanent increase in O&A costs with NO overall benefit to customers in addition to reduced hands to tools for our line staff.

RECOMMEND ELG

ELG can be implemented immediately, has no impact on O&A, will allow our employees to work on value added initiatives and has NO impact on customers.

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Rates and Cost of Service

MH has followed a principled approach to rate-setting

Balances guidance from PUB, rate objectives, and professional judgment

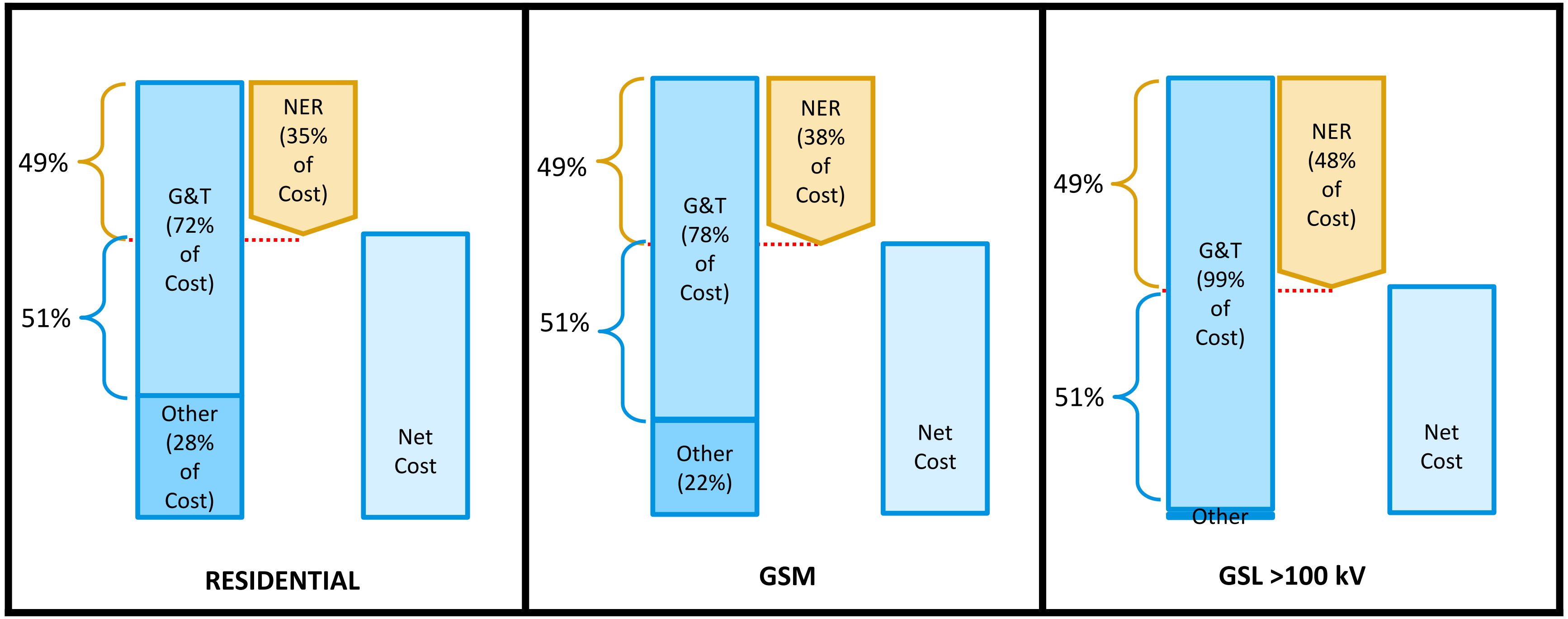
Considers traditional and new rate objectives in response to evolving energy landscape

Rate proposals reflect just and reasonable rates for all customer classes

Domestic Customers are Only Responsible for Net Costs

Export revenues reduce the total revenue requirement that needs to be recovered from domestic customers.

- Only $1.9 billion of the $3.0 billion revenue requirement needs to be recovered from domestic customers since $1.1 billion is covered by export revenue
- Breakdown of costs will vary for each class based on the specific assets and services used
- NER is used to reduce the revenue requirement of the Generation and Transmission functions that is allocated to the domestic classes

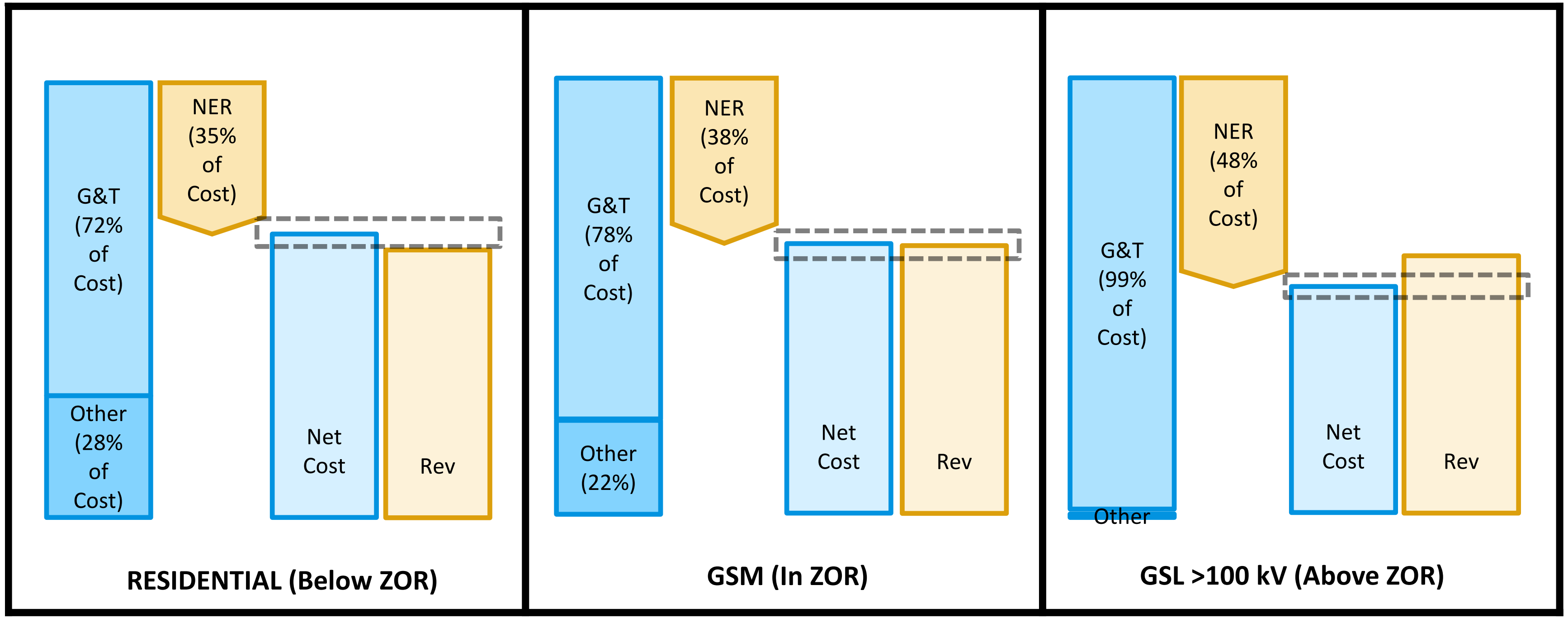


NER allocation will offset the exact same portion of the G&T costs for each class (49%)

RCC Compares Revenues to Net Costs

Revenue Cost Coverage (RCC) ratio is calculated using the revised methodology directed by the PUB

- NER is used to offset costs in the revised RCC calculation
- Due to the many judgements required to functionalize, classify, and allocate costs a **Zone of Reasonableness (ZOR) of 95%-105%** is used.
- Zone of Reasonableness is +/-5% of **Net Costs**
- Export revenue (and net costs) are influenced by water flows and external market prices and are more volatile than embedded revenue requirement



RCC = Class Revenue ÷ (Costs – NER)

Basis for Proposed Rate Increases

	PCOSS24 RCC	ZOR	Proposed Rate Increase Sep 1, 2023	Proposed Rate Increase Apr 1, 2024	
Residential	94.4%	Below	2.4%	2.4%	Residential is only class below ZOR
General Service Small Non-Demand	109.7%	Above	1.0%	1.0%	The General Service Small Non-Demand Class has been persistently above the ZOR
General Service Small Demand	101.8%	In	2.1%	2.1%	The General Service Small Demand, General Service Medium and General Service Large 750V – 30kV are within the ZOR
General Service Medium	100.3%	In	2.1%	2.1%	
General Service Large 750V-30 kV	97.9%	In	2.1%	2.1%	
General Service Large 30-100 kV	112.4%	Above	1.5%	1.5%	The General Service Large 0-30kV and >100 kV are higher in PCOSS24 compared to previous studies due to record levels of export revenue which are highly variable and expected to decline
General Service Large >100 kV	113.2%	Above	1.5%	1.5%	
Area & Roadway Lighting	108.2%	Above	1.0%	1.0%	A&RL has been persistently above the ZOR. The proposed change to DSM assignment temporarily lowers RCC.

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Conclusion

- In developing its application, Manitoba Hydro has focused on being open, transparent and helpful, aiming to build trust and confidence in the face of uncertainty. We have honored these principles throughout this review process.

- The PUB has more than enough evidence and information before it to conclude that Manitoba Hydro’s request to finalize the 3.6% interim rate awarded on January 1, 2022, and a 2% rate increase as of September 1, 2023 and April 1, 2024 as contained in the application is just, reasonable and in the public interest.

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