

A STRANGE PARADOX: HYDRO AND CAPTIVE RATEPAYERS

Closing Submissions of the Consumers Coalition

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

Presented by: Public Interest Law Centre

June 22, 2023

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PART I THE CONSUMER PERSPECTIVE

THE CONSUMERS COALITION

Harvest Manitoba

- A provincial food bank network serving over 40,000 Manitobans every month across more than 360 food banks and agencies throughout the Province – closely attuned to the experiences of low-income households

Aboriginal Council of Winnipeg

- A community-based, membership-driven advocate for the Urban Indigenous population of Winnipeg

Consumers' Association of Canada (Manitoba)

- Experienced advocate promoting consumer rights, interests and education for the benefit of Manitoba consumers



Together, representing the interests of Manitoba Hydro's residential customers

ENGAGED WITH MANITOBA CONSUMERS

- Coalition brings diverse perspectives to the pressing issues before the PUB
- Perspectives of residential customers well-understood through:
 - Insights of staff as driven by **lived experience** of members and constituents
 - Insight from **two separate advisory panels** involving academic experts, community members, and stakeholder organizations
 - Regular **independent primary research** on consumers' experiences as energy users and utility customers

¹ See MH/Coalition I-1(c) including Attachments I-3.

THE KEYASK BURDEN IS REAL

MR. PELINO COLAIACOVO: “Manitoba Hydro ratepayers [...] have been significantly burdened over the past decade. The Bipole III and Keeyask projects that were a very, very significant feature of the past ten (10) years were completed both **late and over budget** significantly.”²

Cumulative residential rate increases from 2012-2022 are 43.43% compared to 24.63% CPI.³

² June 6, 2023 transcript, Colaiacovo at pg 3291-2

³ May 30, 2023 transcript, Klassen, Fogg at pg 2383-4

COMPOUNDING IMPACTS OF THE PANDEMIC

MR. CHRIS KLASSEN: “Manitoba Hydro would infer from this statement that the **pandemic period exacerbated financial pressures facing Manitobans**, such that many more Manitoba Hydro customers than usual were caused to fall behind on their bill payments. Is that fair?

MR. ALASTAIR FOGG: That’s a fair statement”⁴

⁴ May 30, 2023 transcript, Klassen, Fogg at pg 2375

HARD CHOICES AND COMPOUNDING BARRIERS FOR VULNERABLE CUSTOMERS

MR. JOSH BRANDON: “But, for families that are living in poverty, what it means is making critical decisions around what they can afford, whether they can afford **food**, whether they can afford to pay **their rent**, or whether they can pay their [...] **hydro bills**.”⁵

MR. AZARIAS BUTARIHO: So [**newcomer**] **families** are forced to take from the food allocation money to pay Hydro and to pay the rent. So this alone creates a lot of challenges, a lot of problems in the family.”⁶

MS. BAILEY WALL: “(**thirty-three**) **percent of our participants 5 are struggling with utility arrears** [...] applicants [...] that are struggling have utility expenses between 10 and 12 percent of their household income”⁷

MS. CODI GUENTHER: “New customers to Hydro have to pay **deposits**. And a lot of times, that's newcomers because they've never had a Hydro account before.”⁸

⁵ May 16, 2023 transcript, Brandon at pg 416

⁶ May 16, 2023 transcript, Butariho at pg 446

⁷ May 16, 2023 transcript, Wall at pg 428

⁸ May 16 2023 transcript, Guenther at pg 444

SMALL BUSINESS IS SHARING THE PAIN

On behalf of the Canadian Federation of Independent Business (CFIB) and our over 4,000 small business members in Manitoba, we are writing to urge the Manitoba government to **cancel its plans to hike Manitoba Hydro rates** by up to 4.2% for businesses (4.8% for residential customers) over the next year.

... Small business owners simply cannot afford to take on any additional cost burdens at this time.⁹

⁹ Exhibit CC-21. See also June 2, 2023 transcript Williams, Madsen at pg 2926-2930

A SKYROCKETING ENERGY BURDEN!

"The proportion of respondents reporting their household is experiencing an energy burden rose to 41% (vs. 30% range in 2021 or earlier)."¹⁰

Customers who "agreed" or "strongly agreed" with the statement that "paying my energy bill has a major impact on my finances and requires I do without things I consider necessities for myself or my household" were deemed to experience an "energy burden".¹¹

¹⁰ Exhibit MH-47, MH Undertaking 16 Attachment 1, slide 8 most recent Hydro quarterly Customer Satisfaction & Perceptions study
¹¹ (Exhibit MH-47, Response to Undertaking #35)

RATEPAYERS RELY ON THE PUB TO HOLD MANITOBA HYDRO ACCOUNTABLE

“We are here to remind you that you have **protected Manitobans from higher than necessary hydro rates** before, and we **trust that you will do it again**. You have the unique position to keep this **publicly-owned Crown corporation in check**”¹²

¹² May 16, 2023 transcript, Leighton at pg 408

PART II A STRANGE PARADOX

A STRANGE PARADOX

MH seeks to be a consumer conscious, nimble, forward-looking company.

But:

- **Business as usual** approach to expenses **during drought**;
- **Laggardly** approach to modern **asset management**, optimization, pacing and prioritization;
- O, M and A budget largely **untethered to prior PUB guidance**, concerns of Boston Consulting and Gartner Group and prior MH plans to bring efficiency and economy to staffing;
 - **Critical business cases** related to digitalization and information technology **missing in action**
- Integrated Resource Plan **still in process 9 years** after NFAT¹³
 - **three more years of study** pending
- Material **step backward** on integrated, probabilistic **uncertainty analysis**
- Rates grounded in **arbitrary financial targets**
- **Old school** approach to **consumer engagement**

¹³ May 15, 2023 transcript, Williams, Grewal at pg 287-288,

A STRANGE PARADOX

MH is making haste to Strategy 2040 while incurring substantial costs

But:

**Energy Policy, Integrated Resource Plan, Efficiency Manitoba Plan
have not been publicly reviewed or approved**

A STRANGE PARADOX

Manitoba Hydro is promising a stable and predictable rate path despite an unprecedented era of uncertainty in policy and the marketplace and despite the reality that its future proposed rate path is highly vulnerable to the vagaries of the specific composition of its Board and its relationship with government.

“So they go on in strange paradox”¹⁴

¹⁴ Winston Churchill, November 12, 1936 DEBATE ON THE ADDRESS, *HC Deb 12 November 1936 vol 317 cc1081-155*

**HYDRO CLAIMS OF STABLE, PREDICTABLE RATE PATHS
 ARE HIGHLY SUSPECT**

Fiscal Year	% change requested by MH or imposed by government	Source
2015/16	3.95%	15/16 & 16/17 GRA, Tab I, p I
2016/17	3.95%	15/16 & 16/17 GRA, Tab I, p I
2017/18	7.9%	17/18 & 18/19 GRA, Tab I, p I
2018/19	7.9%	17/18 & 18/19 GRA, Tab I, p I
2019/20	3.5%	19/20 GRA, p I
2020/21	2.9%	<i>The Budget Implementation and Tax Statutes Amendment Act, SM 2020 c 21 at s 233.</i>
2021/22	5%	21/22 Interim Rate Application at p 3
2022/23	0	N/A
2023/24 & 2024/25	3.5%	23/24 & 24/25 GRA (November 15, 2022 filing), Tab I p 2
2023/24 & 2024/25	2%	23/24 & 24/25 GRA (Amended), Tab I p 2

**PART III APPLICABLE LAW AND REGULATORY
PRINCIPLES**

**HYDRO ERRS IF IT SUGGESTS 70/30 DEBT-TO-EQUITY
TARGET MUST BE COMPLIED WITH IN THIS HEARING**

MR. ALASTAIR FOGG: “Now, moving to the 2 percent rate path, as we've outlined in our Application, the 2 percent rate path has been guided by several key priorities. [...] **One was legislative compliance** and that's compliance with the legislated rate, setting regulatory framework, that sets the maximum general rate increase at the level of inflation or 5 percent, whichever is lower, and to which the debt-to-equity targets of 80 percent, by 2035, **and 70 percent or 70/30, by 2040.**”¹⁵

¹⁵ May 29, 2023 transcript, Fogg at pg 1974. See also May 15 2023 transcript, Peters, Grewal at pg 214-9

BILL 36 RATE-SETTING FRAMEWORK IS NOT BINDING ON RATE-SETTING PRIOR TO APRIL 1, 2025

“...*The Crown Corporations Governance and Accountability Act, The Manitoba Hydro Act, and The Public Utilities Board Act* [as they read on November 2, 2022] continue to apply to the determination of electricity rates for periods before April 1, 2025.”¹⁶

For the purposes of setting final rates for 21/22, 22-23, 23-24 and 24-25, the PUB is:

- **Not bound** by Bill 36 framework **rate cap**
- Not bound by Bill 36 **financial targets**
- Not bound by Treasury Board **rubberstamp** of capital projects

This is the reality in law. It reflects the will of the legislature.

¹⁶ PUB Order 70/22 at 5. See also *The Manitoba Hydro Amendment and Public Utilities Board Amendment Act*, SM 2022 c 42 at s 65.

APPLICABLE LAW AND REGULATORY PRINCIPLES

PUB Order 5/12 ¹⁷	Statutory Mandate		
<ul style="list-style-type: none"> • Forecasts are reasonably reliable, • Actual and projected costs incurred are necessary and prudent, • The reasonable revenue needs of the Corporation in the context of its overall general health, • Appropriate allocation of costs between classes, and • Just and reasonable rates in accordance with statutory objectives 	<p><i>Hydro Act</i>, s 2(1)</p> <ul style="list-style-type: none"> • The continuance of a supply of power adequate for the needs of the province... • Engage in and promote economy and efficiency in the development, generation, transmission, distribution, supply and end-use of power... 	<p><i>PUB Act</i>, ss 77, 82(1):</p> <ul style="list-style-type: none"> • The PUB may “fix just and reasonable...rates” and “classifications” • Rates may not be “unjust or unreasonable, unjustly discriminatory or unduly preferential...” • Classifications may not be “unjust or unreasonable...” 	<p><i>CCGAA</i> s 25(4)(a), (6), as it read on November 2, 2022:</p> <ul style="list-style-type: none"> • “...sufficient funds to cover operating, maintenance and administration expenses...” • “interest and expenses on debt...” • “reserves...”¹⁸ • “liabilities for...employee benefit programs” • “payments to be made out of...revenue...” • “compelling policy considerations” • “any other factor that the Board considers relevant...”, and • Costs in respect of Efficiency Manitoba

¹⁷ Page 27

¹⁸ In addition to section 25(4)(a) of the *CCGAA*, see also Exhibit CC-31, Response to Undertaking 50 which was prepared by Mr. Darren Rainkie. See also CC-23, the slide presentation of Morrison Park Advisors at 9-17, and Exhibit MIPUG-13 from 2017/18 GRA, prepared by Mr. Patrick Bowman, at 3-6, 3-7.

PART IV FORECASTING

ARE HYDRO'S SCENARIOS REASONABLY RELIABLE FOR RATE SETTING – RECOMMENDED FINDINGS

Hydro's financial forecasts are subject to **significant overarching uncertainty and volatility related to hydrology and export prices** to the US marketplace

Beyond the immediate test years, Hydro's load, resource planning, export market and financial scenarios **are not reasonably reliable due to "unprecedented uncertainty"** related to government policy (US, Canada, Manitoba and municipal) and developments in the marketplace;

To date, it is **unclear whether this unprecedented uncertainty will be positive or negative** for MH and its ratepayers

Fundamental **sources of uncertainty** for Hydro's load, resource planning and financial scenarios include but are not limited to the outcomes of: i) the **Provincial Energy Policy**, ii) the **years of further study contemplated by Integrated Resource Planning** process, iii) the **PUB review of the Efficiency Manitoba plan** and the Manitoba **provincial election** including the future of the Bill 36 ratesetting framework;

Hydro's load scenario is reasonably reliable for the test years;

In Hydro's view, there is an **equal chance its load forecast will go up or down** after the test years;

Hydro's export market scenario is a reasonable albeit conservative for the purposes of the test years;

Daymark's findings regarding Hydro's forecasts can be generally restricted to the purposes of the test years

There appears to be general agreement between Mr. Colaiacovo, Mr. Gawne, Mr. Rainkie and Daymark that significant caution should be exercised in examining scenarios beyond the test years

HYDRO'S BUSINESS IS VOLATILE WITH WILD SWINGS IN HYDROLOGY

MR. AUREL TESS: “I think the **nature of our [...] business is [...] highly volatile [...]** We always plan for average water but, you know, it’s probably our greatest risk in terms of volatility for our forecast.”¹⁹

Annual system inflows can vary between **50% below** and **50% above** the long-term average.²⁰

DR. BYRON WILLIAMS: “in terms of variability in system inflows, **we went from bring less than 75% of the average – ‘we’ being Manitoba Hydro and [...] the consumers who rely upon it – to a high of well over 50% above the average**”.²¹

DR. BYRON WILLIAMS: “and despite that mean-reverting tendency, **we can still be subject to very wild swings just within a few years, sir.**”

MR. PATRICK BOWMAN: “Right”²²

MR. DOUGLAS SMITH: “**It's still a very fuzzy, uncertain picture.** It is [...] not something where they can easily forecast what is going to happen in any period out into the future.”²³

¹⁹ May 30 2023 transcript, Guglielmin, Tess at pg 2224.

²⁰ June 9, 2023 transcript, Williams, Bowman at pg 4037-4041

²¹ June 9, 2023 transcript, Williams, Bowman at pg 4040

²² June 9, 2023 transcript, Williams, Bowman at pg 4041

²³ May 18, 2023 transcript, Smith at pg 982-3.

**WILD SWINGS IN HYDROLOGY CAN BE COMPOUNDED BY
DRAMATIC AND UNEXPECTED SHIFTS IN EXPORT PRICES**

MS. JAY GREWAL: “When you look at last fiscal, where we had **record water levels, from a year before, where we had a drought [...]** **One of the largest variability that we’ve never seen before was what was happening in the [stock] market prices,** what was happening in the US. And that volatility – that degree to which [spot] market prices contributed to that unanticipated net income we’ve never seen before.”²⁴

Export prices and water flows, among the most variable risks experienced by Manitoba Hydro.²⁵

²⁴ May 15, 2023 transcript, Peters, Grewal at pg 204

²⁵ June 9, 2023 transcript, Williams, Bowman at pg 4046-50

AN ERA OF UNPRECEDENTED UNCERTAINTY (CONSENSUS VIEW)

MR. JOHN ATHAS: this is a period of **significant change and major uncertainty** for [...] Manitoba, for the regions close to Manitoba and [...] all of North America, if not [...] further. The **energy industry transition is being driven** and this is a very important part by, 'cause it [...] adds to the uncertainty, **by policy, economics and by the customers.**²⁶

MH describes the combined effect of policy and technology as leading to a period of “**unprecedented uncertainty** to the future electric needs of Manitoba” with “potential to **drastically change** how Manitobans utilize electricity into the future” noting that “some of **the key pieces. . . won't emerge until the 2030s.**”²⁷

²⁶ May 18, 2023 transcript, Athas at pg 906.

²⁷ Coalition/MHI-50 c; May 30, 2023 transcript, Williams, Fogg at pg 229; May 15, 2023 transcript, Grewal at pg 171.

**HYDRO'S 20-YEAR SCENARIO INHERENTLY UNRELIABLE
EVEN AS COMPARED TO OTHER LONG-TERM FORECASTS**

MR. ALASTAIR FOGG: “We've characterized it [...] **as unprecedented and the potential for drastic change** [...] or other changes, comparatively speaking, in those futures we've talked about with the IRP.”

DR. BYRON WILLIAMS: “**And recognizing that reality, that compounds the uncertainty beyond the test years, agreed, sir? How could it not?**”

MR. ALASTAIR FOGG: “Sorry, compounds it beyond the test year, you said, correct? There is **increasing uncertainty outside of the test years** as a result of those factors that you were describing.

DR. BYRON WILLIAMS: And just to be clear, sir, compared to other twenty (20) year forecasts at a different point in time, that uncertainty is compounded?”

MR. ALASTAIR FOGG: “**There is more uncertainty at this point in time compared to some of those other previous forecasts**, as you just described, yes.”²⁸

²⁸ May 30, 2023 transcript, Fogg, Williams at pg 2298

KEY DRIVERS OF UNCERTAINTY LIE AT THE FAR EXTREME OF THE FORECAST

DR. BYRON WILLIAMS: “And sir, of course, you're aware that in Hydro's current resource planning assumptions and analysis, there are some additional thermal resources being added in the last 2030s. Agreed?”

MR. PATRICK BOWMAN: “Yes. As a matter of fact, they're **probably the main defining feature about why you need the rate increase levels that are here in order to reach the 70/30 ratio.**”²⁹

MR. PELINO COLAIACOVO: in Manitoba Hydro's presentation for [...] its twenty (20) year forecast, one of the placeholder assumptions was new gas fired generation in the late '20/'30's. **And yet, we know that the federal government is pushing forward a policy that will ban new gas facilities.** [...] There are many other issues that could unfold **which cause that, so called, reference case or consensus case scenario to not really reflect reality very well.**³⁰

MR. JEFFEREY BOWER: “**even a twenty (20) year contract right now, would be risky for a utility** not knowing exactly what their needs [are going to be for] that period.”³¹

²⁹ June 9, 2023 transcript, Williams, Bowman at pg 4056-7

³⁰ June 6, 2023 transcript, Colaiacovo at pg 3295-6. See also May 15, 2023 transcript, Peters, Grewal, at pg 248-9

³¹ May 18, 2023 transcript, Bower at pg 929.

**IT IS UNCLEAR WHETHER THIS UNPRECEDENTED
UNCERTAINTY WILL BE POSITIVE OR NEGATIVE FOR MH
AND ITS RATEPAYERS**

MR. PELINO COLAIACOVO: “The global energy transition, as [...] it is so called, points to significant changes. But as of yet, **there is no clarity on how those changes are going to affect Manitoba Hydro and its ratepayers** [...] It is not clear where all of this ends up, but it is clear that this is having a profound impact on energy markets and loads, with **no stability in sight.**”³²

MR. JEFFERY BOWER: “But some of these changes could **just as easily create new or expanded opportunities for Manitoba Hydro products.**”³³

³² June 6, 2023 transcript, Colaiacovo at pg 3293-4.

³³ May 18, 2023 transcript, Bower at pg 923. See also May 18, 2023 transcript Williams, Bower at pg 1054-6; May 17, 2023 transcript, Williams, Karanwal at pg 835-8

RAPIDLY APPROACHING MANITOBA POLICY DEVELOPMENTS ARE LIKELY TO SIGNIFICANTLY IMPACT HYDRO'S FUTURE

DR. BYRON WILLIAMS: “You can have an **IRP**, but what comes out of the **Provincial energy policy will have a significant impact on the ultimate IRP outcome?**”

MR. GREGORY EPP: “Yeah [...] there's the potential that the energy policy that comes out, you know, either just before or after, we'll have something in there that wasn't contemplated or reflected [...] in the analysis that [...] the team has done and, you know, it'll be an [...] ongoing process.”³⁴

MS. JAY GREWAL: “**That being said, nothing in there (the IRP) is a decision**, is where we need to do near-term work over the **coming two (2) to three (3) years to analyze** and understand more.”³⁵

Efficiency Manitoba plan has not been reviewed by the Public Utilities Board.³⁶

³⁴ May 30, 2023 transcript, Williams, Epp at pg 2299. See also May 15, 2023 transcript, Peters, Grewal at pg 210; June 6, 2023 transcript, Colaiacovo at pg 3291-2

³⁵ May 15, 2023 transcript, Grewal at pg 293. See also May 15, 2023 transcript, Peters, Grewal at pg 109

³⁶ May 15, 2023 transcript, Williams, Grewal at pg 288-292.

MORE CONFIDENCE IN IMMEDIATE FORECAST

MR. BOB PETERS: “Would it be fair for Manitoba Hydro to suggest that the message to the Public Utilities Board **is that the Board should pay the most attention to the first two (2) to three (3) years out -- out to '24/'25 -- but after that, stay tuned for the next General Rate Application?**”

MR. AUREL TESS: “That's actually what we've stated in the application is that we have more certainty, for example, around our capital plan in the initial few years. **So that's a fair statement.**”³⁷

³⁷ May 15, 2023 transcript, Peters, Tess at pg 213. See also May 30, 2023 transcript, Williams, Fogg at pg 2291-2295

REASONABLE LOAD FORECAST FOR TEST YEARS

DR. BYRON WILLIAMS: Hydro recognizes that **external factors primarily beyond the test years could significantly impact future energy needs** of Manitobans, agreed?MR. ALASTAIR

FOGG: Agreed.

DR. BYRON WILLIAMS: And, Mr. Fogg, with reference to the term 'primarily beyond the test years', **Manitoba Hydro has a fair degree of confidence in the load scenario as it relates to '23/'24 and '24/'25**, fair, or Mr. Epp, whoever?

MR. ALASTAIR FOGG: **I would agree with that statement.**³⁸

³⁸ May 30, 2023 transcript, Williams, Fogg at 2295-6

EQUAL CHANGE HIGH OR LOW LOAD

DR. BYRON WILLIAMS: “And so when we look at the 2021 electric load forecast scenario, we should conceive of it, I'll suggest to you, as a point estimate to represent a potential future based upon what we know today in terms of both energy policy and the economics of new and emerging technology, agreed?”

MR. ALASTAIR FOGG: “Agreed [...]”

DR. BYRON WILLIAMS: “And indeed, this snapshot or point estimate scenario represents Manitoba Hydro's best projection of Manitoba's future energy needs such that **there exists an equal chance that the future energy needs will be higher or lower than projected under what we see in that -- in the 2021 scenario, agreed, sir?**”

MR. ALASTAIR FOGG: “**That's what it indicates, yes [...]** that's what it's – yes.”³⁹

³⁹ May 30, 2023 transcript, Williams, Fogg at 2295-6

DAYMARK TAKES A “GOOD ENOUGH FOR THE GRA” APPROACH

MR. JEFFREY BOWER: “**We weren't taking, as you say, a [...] critical look at their supply outlook, different plans, different, you know, not an IRP [...] type review.**”

MR. BYRON WILLIAMS: “**And analogous to that, as well, you weren't taking the critical look, and with no criticism of you, in terms of the robustness of Manitoba's Hydro's estimates, in terms of demand side management. That wasn't part of your scope of work.**”

MR. JEFFREY BOWER: “**Correct.**”⁴⁰

MR. JEFFREY BOWER: “**We did not have a specific scope item to [...] take a critical look at their resource planning assumptions in terms of capacity build-outs.**”⁴¹

MR. JEFFREY BOWER: “**So, given all this uncertainty, we essentially conclude that for the GRA, these conservative assumptions related to the opportunities for MISO sales are appropriate based on what Manitoba Hydro can know today about products and pricing.**”⁴²

⁴⁰ May 18, 2023 transcript, Williams, Bower at 1030. See also May 18, 2023 transcript, Williams, Bower, at 1059-63

⁴¹ May 18, 2023, Bower at 1029

⁴² May 18, 2023 transcript, Bower, at 924. See also May 18, 2023 transcript, Williams, Bower at 1051-2

PART V BUSINESS OPERATIONS CAPITAL

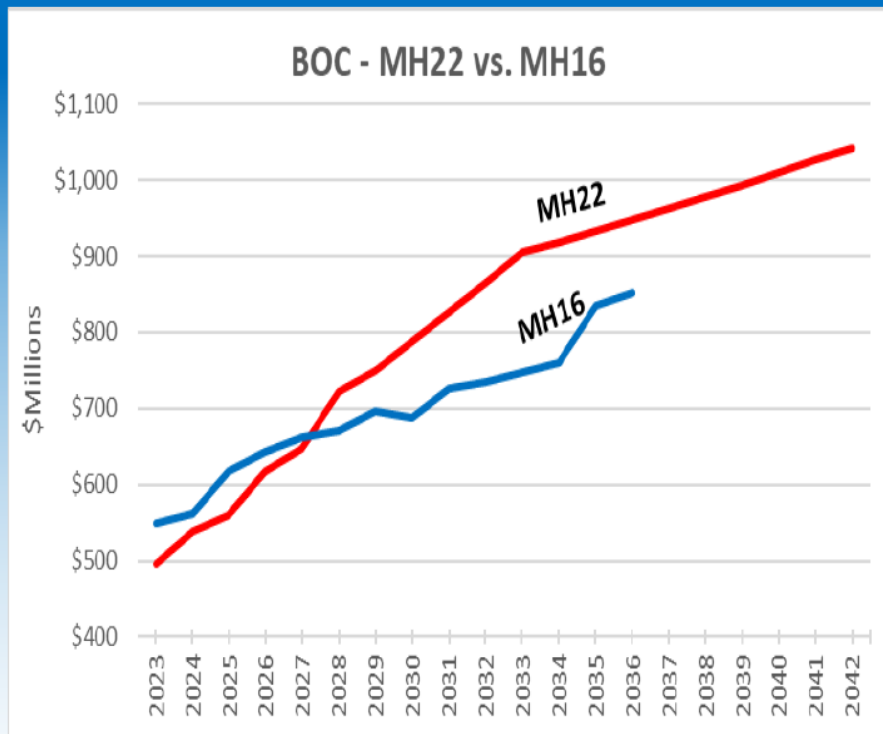
KEY FINDINGS RELATED TO WHETHER COSTS ARE PRUDENTLY AND NECESSARILY INCURRED

- Hydro has not demonstrated its proposed Business Operational Capital (BOC) expenditures are prudent and necessary
- Hydro has not demonstrated its proposed Operational, Maintenance and Administrative (O, M and A) expenditures are prudent and necessary
- Hydro has not demonstrated its proposed Finance cost expenditures are prudent and necessary
- Hydro has not demonstrated its preferred ELG procedure and disposition of assets approach to Depreciation is just and reasonable

THE BIG PICTURE CONCERN WITH BOC

BOC Forecasts (\$0.8B Increase Since Last GRA) Not Consistent With/Responsive To PUB Signaling

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- PUB Regulatory Signaling to MH in Orders 59/18 and 9/22 re: BOC Spending Levels is Generally Consistent with O&A – but Also Include Expectations on Mature Asset Management Processes
- PUB: The Need to Reduce BOC Spending Levels as a Result of Cost and Rate Pressures After In-Service of the Major Capital Projects – Consistent with MH’s Commitment Dating Back to the NFAT Proceeding
- PUB: The View that MH’s Proposed Level of BOC Spending Had Not Been Demonstrated to be Necessary or Optimized and that It Is MH’s Responsibility to Remedy this Situation Through the Development of a Mature Asset Management Process
- PUB: The View that in Times of Financial Challenges such as Drought and Lower Cash Flow, MH has the Ability to Control Levels of BOC
- MH Confirmed in its Rebuttal Evidence that BOC Reductions (Compared to Last GRA) in the Early Years of CEP22 are Generally the Deferral of Work Into Future Years. As such, these Reductions are Not a Result of MH Responding to PUB Regulatory Signaling on BOC

⁴³Slide presentation of Mr. Darren Rainkie, exhibit CC-20 at slide 27

SUSTAINMENT EXPENDITURES ARE NOT THE DRIVER OF BOC INCREASES

MR. DARREN RAINKIE: “[B]usiness operations capital is -- within the fourteen (14) year period is increasing by .8 billion since the last **GRA**. Of course, that number would be higher if, once again, we extrapolated it out for the full twenty (20) years. And **most of this increase is due to placeholders related to AMI and grid modernization which total 480 million.** [...] The total increase between the current capital forecast and the one at the last 2018/'19 General Rate Application is \$769 million or around 800 million, and \$480 million of that's related to placeholders' AMI and grid modernization [...] **in the test years, there's a fairly significant decrease in every year of sustainment capital, which is consistent with past trends.** I've seen this for -- you know, as my time of controller, CFO, and the last hearing in 2019/'20, you know, 60 million or more -- 60 to \$70 million lower. So -- so, **if you accumulate that over the -- a ten (10) period, there's actually lower sustainment spending of about \$133 million.** [...] Over the fourteen (14) period of comparison, sustainment is pretty flat at \$4 million, although I'm kind of perplexed at how they're actually going to move from a negative 133 to a plus 4 in that -- in that time period **because the trend of underspending is there.** If you went back, it's there for a long time.”⁴⁴

⁴⁴ June 1, 2023 transcript, Rainkie at 2624-2626.

MANITOBA HYDRO'S ADMISSIONS ARE CONSISTENT WITH MR. RAINKIE'S CONCLUSIONS

MR. ALASTAIR FOGG: “**BOC spending year over year is lower in the amended forecast, C23, compared to the CEF16 up to the '26/'27 time frame and over a slightly longer period on a cumulative basis until 2030/31.** It's at the point later in the forecast when we start to include those additional asset sustainment requirements that we've talked about this morning that **C23 has higher spending as compared to CEF16.**”⁴⁵

MR. ALASTAIR FOGG: “the difference in that specific year between the current forecast and the forecast as presented in the '17/'18 GRA and, in brackets, it's showing that it's less in the current forecast.”

MR. BOB PETERS: “**And, mathematically, starting in the test years, it's -- it's probably somewhere between 5 and 15 percent lower?** Are you going to accept lawyer's math, subject to check.”

MR. ALASTAIR FOGG: “Subject to check. Yeah, so I'll trust your math”⁴⁶

MR. ALASTAIR FOGG: “**It [AMI] would be incorporated within those first ten (10) years** as you've noted.”

DR. BYRON WILLIAMS: “300 million is there.”

MR. ALASTAIR FOGG: “It -- it would be accommodated within there.”

[...]

DR. BYRON WILLIAMS: “And, Mr. Fogg, in terms of the **grid modernization not approved but potentially, that \$180 million** would be in that first.”

MR. ALASTAIR FOGG: “Similar to [...] the AMI situation.”⁴⁷

⁴⁵ May 23, 2023 transcript, Fogg at 1187

⁴⁶ May 23, 2023 transcript, Peteres, Fogg, at 1245

⁴⁷ May 23, 2023 transcript, Williams, Fogg at 1451, 1453

PROPOSED KEY FINDINGS ON BOC AND ASSET MANAGEMENT

- Ratepayer surveys and comparisons to other Canadian utilities demonstrate MH has a strong record of delivering reliable service
- Specific concerns of certain large industrial consumers may be addressed through customer specific responses or through general capacity enhancements such as the Portage Extension
- The independent evidence of Midgard and AMCL and the admissions of Manitoba Hydro demonstrate that Hydro's BOC expenditures are not prudently and reasonably optimized, prioritized or paced
- Manitoba Hydro has failed to demonstrate a commitment to optimize its asset management decision making processes on a timely or prudent basis
- The claims of senior Hydro management are undermined by the evidence of independent experts and Hydro's own admissions in information responses and cross examination

THERE IS CONSENSUS THAT MODERN ASSET MANAGEMENT DELIVERS RATEPAYER VALUE

DR. BYRON WILLIAMS: “increased asset management capability will enable Manitoba Hydro to **gain more value from its capital and operational expenditures and more effectively manage its risk while maintaining current service levels**, agreed?”

MS. SARAH VINE: “Agreed.”⁴⁸

DR. BYRON WILLIAMS: “(UMS) were telling Manitoba Hydro that in ten (10) previous utility management transformations they performed, they had found [...] **significant improvements and productivity, and overall cost savings of 20 to 30 percent** over five (5) years with the application of an Asset Management System. Agreed?”

MS. KRISTA HALAYKO: “Yes, that's what it says in the report.”⁴⁹

DR. BYRON WILLIAMS: “the expectation of Manitoba Hydro is that a mature asset management system will result in lower overall cost to achieve these goals that might otherwise be needed with an immature asset management system, agreed?”

MS. KRISTA HALAYKO: “All else being equal, the equal performance and risk as we get more mature, we will be able to have lower cost, but it's a very complicated balance.”⁵⁰

⁴⁸ May 24, 2023 transcript, Williams, Vine at 1403.

⁴⁹ May 24, 2023 transcript, Williams, Halayko at 1405.

⁵⁰ May 24, 2023 transcript, Williams, Halayko at 1403.

BALANCING PERFORMANCE, COSTS, RISKS AND OPPORTUNITIES

Future Promises Are Not Today's Reality



SLIDE 19

Manitoba Hydro Goals (Re-cap):

"...reliable energy at the lowest possible cost..."

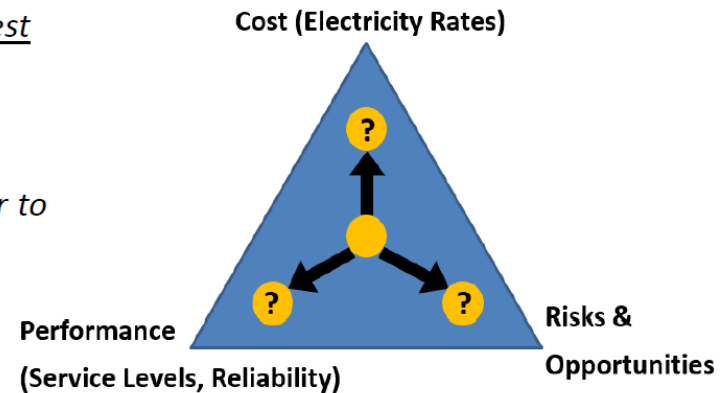
"...targeted levels of performance and risk at the lowest life cycle cost..." [emphasis added]

Asset Management:

ISO 55000: *"...managing risk and opportunity, in order to achieve the desired balance of cost, risk and performance."* [emphasis added]

BUT PUB/MH I-87a-d:

AM *"... maturity does not allow for precise mapping of capital expenditures to performance"*



MIGARD PROPOSES A MODERN, BALANCED APPROACH TO COST, PERFORMANCE AND RISK

MR. PETER HELLAND: “**We aren't suggesting that reliability should fall. We're suggesting that Manitoba Hydro should make an assessment of their system, their ratepayers desires and the constraints of cost, reliability and risk and make an appropriate and informed judgement** about where those should lie.”⁵¹

MR. CHRISTOPHER OAKLEY: “And we also don't think that it's a vanilla thing either. So, **you'll have a target reliability for the bulk of your assets and -- and the thing we talked about earlier, then you'll have a targeted program that says, I've got some worse performing feeders.** Because they're just not actually meeting anything like an acceptable standard. They may not effect my SAIDI/SAIFI numbers much, but the customers that are on those feeders are not getting good service.”⁵²

MR. CHRISTOPHER OAKLEY: “The reason we looked at the equipment trends, is we said, well, you know, that's degrading but **if the bulk of your capital spending is going to address equipment trends and you're getting a .01 outage per year improvement, because you maybe flattened that curve off, is that a prudent investment?** And are -- are people going to even notice it happened?”⁵³

⁵¹ May 25, 2023 transcript, Helland at 1830

⁵² May 25, 2023 transcript, Oakley at 1830

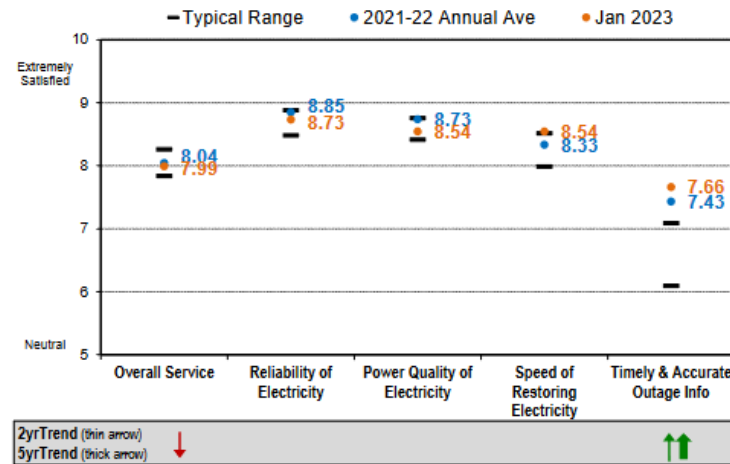
⁵³ May 25, 2023 transcript, Oakley at 1831

CUSTOMER SATISFACTION ON RELIABILITY IS HIGH, CONSISTENT WITH LONG-TERM AVERAGES⁵⁴

2023/24 & 2024/25 General Rate Application
 MH Undertaking 16 - Attachment 1
 Page 6 of 23

Satisfaction with Electric Power Service

- Very high satisfaction continues to be reported for Electric Power Reliability, Power Quality and Speed of Restoring Electricity after an outage. The latter two metrics are key drivers of perceptions of Overall Service (highly correlated to it).
- While satisfaction for Providing Timely Accurate Outage Information is more modest, it has risen significantly to well above its typical range. This may be attributed to increased awareness of outage information on MB Hydro’s website and social media, and the CSSP option to receive outage notifications.



Top Box Scores:	91%	Electric Power Reliability
(Satisfaction 7+):	88%	Electric Power Quality
	89%	Speed of Restoring Electricity
	70%	Timely Accurate Outage Info

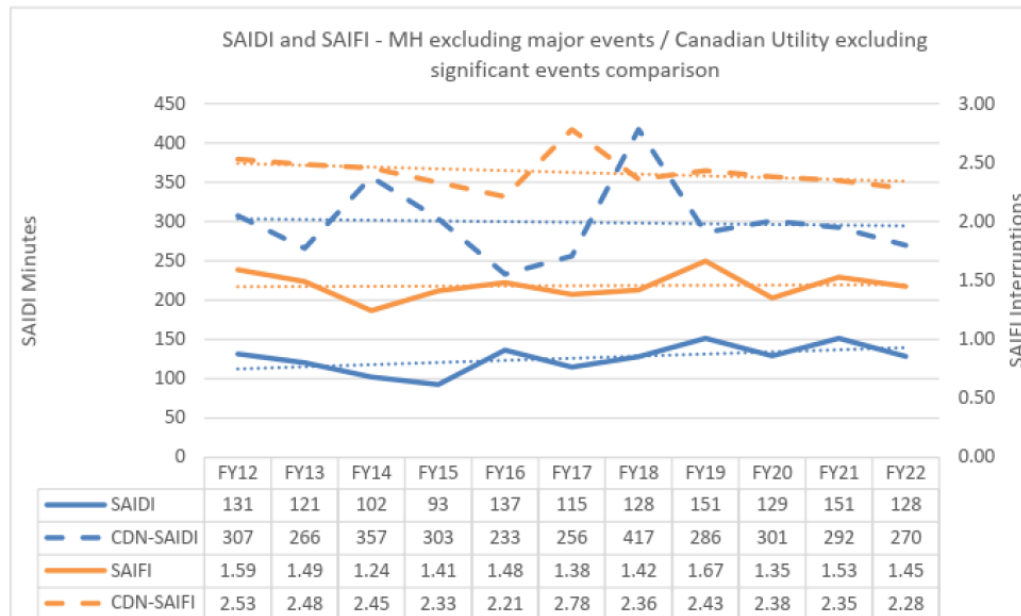
⁵⁴ MH-47, Response to Undertaking 16, Attachment 1 at 6. See also May 24, 2023 transcript, Williams, Brako at 1390-1.

HYDRO CONTINUES TO PERFORM WELL AGAINST ITS PEERS

AND: Utility Peer Context is Important...



SLIDE 12



Result: SAIDI and SAIFI superior to Canadian peers

- SAIDI: 42% of peers (approx. 2.4x Better)
- SAIFI: 60% of peers (approx. 1.7x Better)

Source: COALITION-MH I-92a-d (Updated)

Slide presentation of Migard Consulting, exhibit CC-15 at slide 12

A SYSTEM BUILT LIKE A PORSCHE

“This is an incredibly tightly interconnected well supplied system...This is why we kind of say you’ve got the Porsche system, **because we don’t often see provincial systems that perform like they’re an urban...well interconnected urban system.**”⁵⁵

⁵⁵ May 25, 2023 transcript, Oakley at 1695.

LARGE INDUSTRIAL CUSTOMERS BRING A MIX OF PERSPECTIVES ON THE RELIABILITY OF THEIR SERVICE

Maple Leaf says that **disruptions have “been few”** and mostly “weather related” due perhaps to “a dedicated line into the plant”.⁵⁶

Kraft Paper reliability has been “good for a while”, and recent outages due to weather.⁵⁷

TC energy expresses **“significant” concerns**.⁵⁸

Manitoba Hydro appears to be responding to capacity pressures in the Portage/South-west region related to exports to Saskatchewan and new large industrial load by initiating the Portage Extension project.⁵⁹

⁵⁶ May 16, 2023 transcript, Curran-Blaney at 519

⁵⁷ May 16, 2023 transcript, Hotel at 531

⁵⁸ May 16, 2023 transcript, Host, 495; May 16, 2023 transcript, Host at 499-500

⁵⁹ COALITION/MH I-85, Attachment I, p. 26 (See also May 24, 1448-1449, Williams, Fogg)

LARGE INDUSTRIAL CONCERNS MAY REQUIRE TAILORED SOLUTIONS

MR. CHRISTOPHER OAKLEY: “You would (not) want to build a large power grid that was able to serve the most sensitive industrial customer across the entire system because you're now going to -- not -- not double the cost of the system, you'll quintuple it [...] So no one would suggest typically doing that. It wouldn't be a prudent investment. **You target those solutions to the particular customer.**”⁶⁰

⁶⁰ May 24, 2023 transcript, Hacault, Sy, Oakley at 1610

HYDRO CANNOT SUPPORT ITS ASSET MANAGEMENT CLAIMS

MS. JAY GREWAL: “[...] I also want to highlight that the capital planning process and the resulting Capital Expenditure Plan follow a rigorous planning review and testing process.”⁶¹

These assertions are **inconsistent with the independent evidence of Midgard, AMCL and Hydro’s own admissions**

⁶¹ May 15, 2023 transcript, Grewal at 190-1

Poor Inputs & Processes Leads to Poor Decisions



SLIDE 49

- 1) Manitoba Hydro Asset Management Maturity at “Awareness” stage
 - a. A Journey (1.5 to 1.81 since last GRA)
 - b. Weakest: Asset Information, Risk & Review, Decision Making
- 2) Electrical System: Transitioning from Growth to Sustainment
 - a. Need to Separate Domestic from Export Requirements
 - b. Can’t grow quickly to absorb “Poor” Decisions
- 3) Consequence: Overbuilt Domestic System, Not Least Cost System

GFMAM Groups		SCORE					Company Average (Weighted)
Group	Subject	Enterprise & Support Functions	EGen	ETx	EDx	GDx	
1	Asset Management Strategy & Planning	2.05					2.05
2	Asset Management Decision Making	1.79	1.83	2.25	1.75	2.22	1.83
3	Lifecycle Delivery Activities	2.03	2.02	1.89	2.34	2.14	2.09
4	Asset Information	1.32					1.32
5	Organisation & People Enablers	2.13					2.13
6	Risk & Review	1.42	2.00	3.00	2.00	3.00	1.45
Average (Weighted)		1.75	1.98	2.00	2.20	2.17	1.81

*Slide presentation of Midgard Consulting, exhibit CC-15 at slide 49

**MIGARD'S CONCERNS ARE CONSISTENT WITH THOSE
EXPRESSED BY AMCL**

DR. BYRON WILLIAMS: “And in Manitoba Hydro's view, I'll ask you to confirm it -- **the (AMCL) report represents a sound and fair assessment of where Manitoba Hydro stood in terms of capital asset management or asset management maturity, as at the time of the writing of the report. Agreed?**”

MR. HAL TURNER: “Agreed.”⁶²

⁶² May 24, 2023 transcript, Williams, Turner at 1396-7

THE INTERDEPENDENCY OF DATA, RISK REVIEW AND DECISION MAKING

DR. BYRON WILLIAMS: One is **asset information**. The overall Company score was one-point-three-two (1.32), agreed?

MS. SARAH VINE: Agreed.

DR. BYRON WILLIAMS: And at -- for **risk and review, that score was one-point-four-five (1.45)**, correct?

MS. SARAH VINE: Yes.

DR. BYRON WILLIAMS: And for **asset management decision making**, it was one-point-eight-three (1.83), agreed?

MS. SARAH VINE: Yes, that's correct.⁶³

DR. BYRON WILLIAMS: The point that AMCL is making here under 'Priority Recommendations', you're highlighting the **interdependency in terms of maturity between asset information, risk and review, and asset management decision making**, agreed?

MS. SARAH VINE: Agreed[...]

DR. BYRON WILLIAMS: And in the view of AMCL, it would be fair to say that a complete understanding of asset-related costs, risks, and performance **is reliant on adequate asset data**, Agreed?

MS. SARAH VINE: Agreed.⁶⁴

⁶³ May 24, 2023 transcript, Williams, Vine at 1427 referring to Appendix 7.4 at 4

⁶⁴ May 24, 2023 transcript, Williams, Vine at 1428-9

HYDRO ADMITS ITS FUNDAMENTAL GAPS IN DATA

At the enterprise level, Hydro receives a Performance and health monitoring score of 1⁶⁵

DR. BYRON WILLIAMS: **eleven (11) of the twenty-eight (28)** (categories) without asset health indexes. Agreed?

19 MS. KRISTA HALAYKO: Agreed.

DR. BYRON WILLIAMS: **nineteen (19) of these twenty-eight (28)** categories where the asset health indexes are not used for decision making. Would that be fair?

MS. KRISTA HALAYKO: That's fair. [...]

DR. BYRON WILLIAMS: In terms of the asset health indexes being implemented in the CMMS, there's two (2) of them that are -- have been implemented. Agreed?

MS. KRISTA HALAYKO: Agreed.

DR. BYRON WILLIAMS: there's three (3) (AHIs) where you can say, unequivocally, they're fit for purpose. Agreed?

MS. KRISTA HALAYKO: There's three (3) yes's. Yes.

DR. BYRON WILLIAMS: And in six (6) other categories, some of the assets are fit for purpose. MS. KRISTA HALAYKO: Correct.⁶⁶

⁶⁵ May 24, 2023 transcript, Williams, Vine at 1425-6. See also May 24, 2023 transcript Williams, Vine at 1434.

⁶⁶ May 24, 2023 transcript, Williams, Halayko at 1437-40. See also COALITION/MH 1-100; May 30, 2023, Williams, Amorim Dew at 2346-7 regarding distribution data.

HYDRO RECEIVES A NUMBER OF DEVASTATING SCORES AT THE ENTERPRISE LEVEL

- Resource management maturity rating: 0.8⁶⁷
- Data and information management: 1.3⁶⁸

⁶⁷ May 24, 2023 transcript, Williams, Vine at 1420-1

⁶⁸ May 24, 2023 transcript, Williams, Vine at 1421-3

HYDRO IS STUCK IN AN ASSET APPROACH RATHER THAN A SYSTEM APPROACH

Fundamental Shift: Asset Focus to System Focus

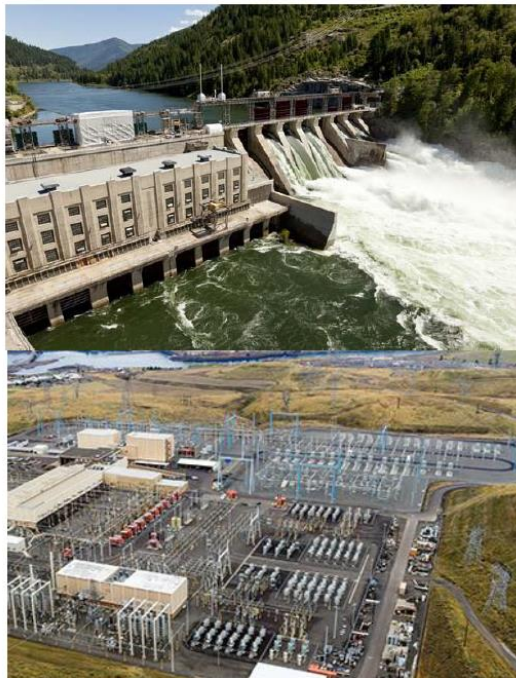


SLIDE 30

Asset Focus



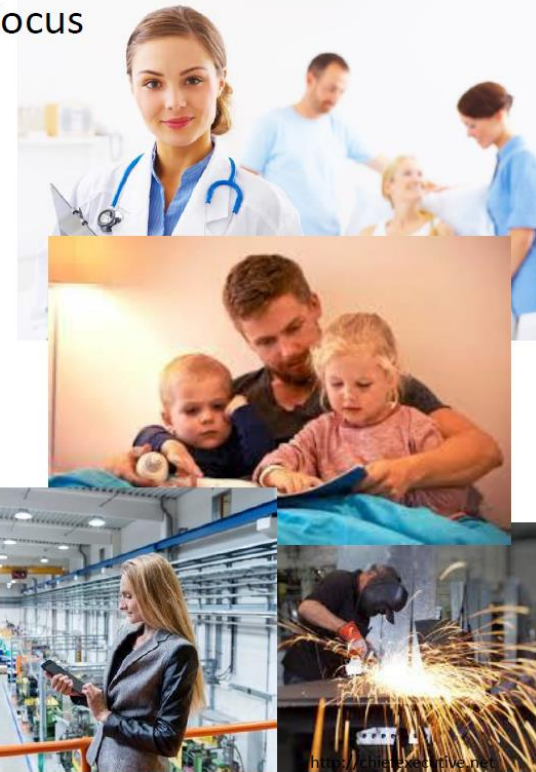
System Focus



MH AM Policy: “Focus on the system rather than the individual asset”

But AMCL: “risk management practice focuses on asset failure risk instead of system failure”

Key: Not the asset, its the value the asset provides



AMCL AND MIGARD AGREE THAT HYDRO IS STUCK IN AN ASSET FOCUS

DR. BYRON WILLIAMS: Under, "Risk assessment and management," AMCL gave Hydro a score of 1.11, agreed?

MS. SARAH VINE: Agreed. [...]

DR. BYRON WILLIAMS: Ms. Vine, AMCL observes that current energy stream risk management practice focusses on asset failure risk instead of system failure. That's the observation that AMCL made?

MS. SARAH VINE: That's correct. [...] what we need to be doing in a **more mature market is linking asset failure to service failure, so service to customers, and this is where we take a more systems approach. So, not all assets are equal in their failure.** [...] So, it's not just about the asset itself, it's its purpose.⁶⁹

⁶⁹ May 24, 2023 transcript, Williams, Vine at 1423-4

KEY ADMISSIONS DEMONSTRATE THE SYSTEM IS NOT PRUDENTLY AND REASONABLY OPTIMIZED, PRIORITIZED AND PACED

- **standardization gaps prevent comparability of key metrics** across asset classes.⁷⁰
- **making sound quantitative assessments of system performance, based on various resource inputs is, demonstrative of a higher level of asset management maturity than Hydro currently holds.**⁷¹
- **asset management maturity is not at a level where specific project consequences in relation to peak or other loading conditions can be provided.**⁷²
- **Manitoba Hydro has not evaluated alternative BOC spending scenarios** or the performance and reliability impacts of different BOC spending levels.⁷³
- **there is no cutoff or threshold Corporate Value Framework score** in order to be included in the Capital Expenditure Plan or C23.⁷⁴
- **Manitoba Hydro does not quantify the benefit to customers of saving money now compared to proceeding with a project** in its Corporate Value Framework score.⁷⁵
- **MH cannot presently asses merits of run to fail for certain assets** as it is on a 4-6 yr ‘journey’⁷⁶
- **the Overall Capital Expenditure Plan of Manitoba Hydro is not currently an enterprise optimal plan.**⁷⁷

⁷⁰ May 24, 2023 transcript, Williams, Halayko, Vine at 1431-2 (Coalition/MH I-103a)

⁷¹ May 24, 2023 transcript, Williams, Halayko at 1445 (PUB I-87 c)

⁷² May 24, 2023 transcript, Williams, Halayko at 1443-6 (Coalition/MH I-122 (d))

⁷³ Coalition/MB I-125 a-b

⁷⁴ May 23, 2023 transcript, Peters, Halayko, Turner, Pawluk at 1259-61

⁷⁵ May 23 2023 transcript,, Peters, Halayko at 1339

⁷⁶ May 23, 2023 transcript, Peters, Turner, Pawluk at 1311-13

⁷⁷ (Coalition/MHI-159 a-c). See also May 24, 2023 transcript, Williams, Halayko at 1447-8

HYDRO PRESENTS A LIST RATHER THAN A PRUDENTLY AND REASONABLY OPTIMIZED PLAN

MR. CHRISTOPHER OAKLEY: [...] The asset management linkage is not there. There's no way to clarify it [...] **There's no way to tell whether that individual project that's proposed is actually going to have any impact upon domestic customers.** It may impact export capability. But a lot of cases, you could just say, Well, we're not going to do that this year because we don't have enough money in the budget. **We're going to focus instead on doing some distribution things.**⁷⁸

MR. PETER HELLAND: [...] **Manitoba Hydro has -- has put on the record the system is not optimized and O&M versus capital, it's not traded off well. It's not -- not also done across business units. And there's a lack of system focus.**⁷⁹

MR. CHRISTOPHER OAKLEY: [...] [W]e **never actually did quite ever get the prioritized list** showing the value stream and -- and the point at which the marginal project was cut off. **What we have is a budget that has a large list of projects, which was then revised and the list changed.**⁸⁰

⁷⁸ May 25, 2023 transcript, Ghikas, Oakley, Helland at 1788

⁷⁹ May 24, 2023 transcript, Helland, at 1641

⁸⁰ May 25, 2023 transcript, Walichnowski, Oakley at 1705

MANITOBA HAS NOT DEMONSTRATED COMMITMENT TO PRUDENTLY OPTIMIZE ASSET MANAGEMENT DECISION MAKING ON A TIMELY BASIS

- recognized data gaps date back to **Order 116/'08**, Order 5/12 and Order 59/'16⁸¹
- MH has completed only 8 of 28 UMS recommendations⁸²
- UMS concerns from 2016 regarding lack of standardization, absence of corporate risk standards, UMS concerns sound much like AMCL concerns – many lost years⁸³
- MH progress since 17/18 delayed by 'reorganization' of business model, organizational structure, asset management model.⁸⁴

⁸¹ May 24, 2023 transcript, Williams, Turner at 1413-4; Exhibit CC-14

⁸² May 24, 2023 transcript, Williams, Vine, Halayko at 1411-2

⁸³ May 24, 2023 transcript, Williams, Halayko at 1406-7

⁸⁴ May 24, 2023 transcript, Reimer, Turner, Halayko at 1474-6. See also May 24, 2023 transcript Williams, Turner at 1401-2.

CORE UMS CONCERNS STILL UNRESOLVED

DR. BYRON WILLIAMS: Most **asset management efforts are focussed on capital spending with minimal attention given to optimizing, operating, and maintenance spending** which, of course, is a key part of the asset life cycle. Agreed?

MS. KRISTA HALAYKO: Agreed. [...]

DR. BYRON WILLIAMS: While there was **significant effort being made to develop and impl -- implement sophisticated tools to support asset management, there was a lack of formal data management and government processes and metrics.** Agreed?

MS. KRISTA HALAYKO: Agreed.⁸⁵

⁸⁵ May 25, 2023 transcript, Williams, Halayko at 1408-9

LAGGARDLY APPROACH

MR. BOB PETERS: Ms. Vine, **AMCL is telling the Board it should only take four (4) to five (5) years to go from one-point-five (1.5) to three-point-zero (3.0).** Correct?

MS. SARAH VINE: Empirically, yes. But that's an average figure that we've observed.⁸⁶

MR. BOB PETERS: And by my [...] math, which has been criticized on the public record by some of your panel mates, the cumulative time line from 2016 makes it a full eleven (11) years for Hydro to get to two-point-four-five (2.45). Do you agree with my math?

MS. SARAH VINE: That math sounds about right, yes.

MR. BOB PETERS: And **it'll even take longer than those eleven (11) years for Manitoba Hydro to get to level 3, correct?**

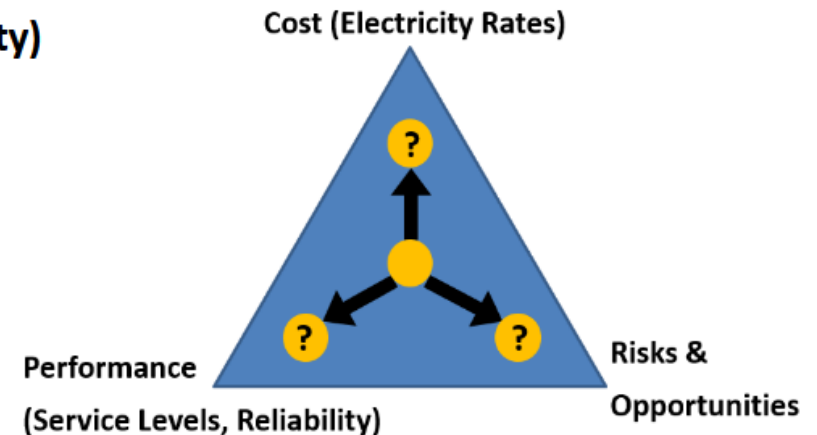
MS. SARAH VINE: **It -- it largely depends on the systems and processes they put in place and the resources they put to it.**⁸⁷

⁸⁶May 23, 2023 transcript, Peters, Vine at 1293

⁸⁷May 23, 2023 transcript, Peters, Vine at 1292

10% BOC Reduction justified for a litany of reasons...

- 1) **60 Year Investment Strategy is Outdated**
- 2) **SAIDI/SAIFI Performance is Superior**
- 3) **Ratepayers Values Rates over Other Aspects (e.g. Reliability)**
- 4) **Asset Aging As Expected**
- 5) **AM Maturity Constrained (3 Key Areas)**
 - **Asset Health Indices not fit for purpose**
- 6) **System Not Optimized**
 - **O&M vs. Capital, Across Business Lines**
- 7) **Lack of System Focus**
 - **Deferrals – Potential candidates: DC Bipoles, Pointe Du Bois, Grand Rapids Unit 4 etc.**
- 8) **Minimum System**
 - **Invest in Domestic rather than Surplus System**
- 9) **Not Least Cost System**



MR. RAINKIE RECOMMENDS 10% BOC REDUCTION FOR DIFFERENT REASONS

MR. DARREN RAINKIE: [...] following Manitoba Hydro's own evidence, they're 10 percent lower than those that are forecast in -- in the Hydro's forecast. And following the trends, I went back to my evidence from 2019/20 Rate Application, and I'd analyzed that from 2013 to 2018, Manitoba Hydro had been 9.2 percent under spent on its BOC over that -- over that period of time. So, you know, CC-10, CC-11, the levels in there are a 96 percent increase in the spending that you would see at the front end of the -- of the -- of the forecast, versus Manitoba Hydro's, which I think is 111 percent. So once again, I think I've been generous here. I don't think I've been -- there's no budget cuts to reduce safe and reliable services. It's just trying to extrapolate things out twenty (20) years and -- and also trying to be consistent with the Board's regulatory signalling on -- on business operation capital.⁸⁸

⁸⁸ June 1, 2023 transcript, Rainkie, 2630-1

KEY RECOMMENDATIONS

- For rate-setting purposes, employ 10% reduction in BOC capital expenditures;
- MHI to file business cases for AMI and Grid Modernization;

PART VI OPERATING AND ADMINISTRATIVE EXPENSES

RECOMMENDED FINDINGS (TO BE UPDATED)

- O, M and A cost have grow imprudently and unnecessarily in a manner inconsistent with prior PUB recommendations
- Significant amount of FTE growth is linked to Strategy 2040 rather than to operations
- MH Claims to be Honouring the VDP are undermined by a review of PUB/MH I-64 (a-e)
- There are grounds for material concern with the absence of an approved technology plan and approved business case analysis for key expenditures related to digitalization and technology
- Expenditures do not appear to be demonstrably linked to benefits and productivity gains
- The platitudes of MH are contradicted by the facts

ORDER 69/19

“The Board finds that Manitoba Hydro’s **2019/20 O&A target is not accepted for rate-setting purposes.**”⁸⁹

“Second, the Panel finds that, in developing the 2019/20 O&A target for rate-setting purposes, **an escalation of 1% above the 2018/19 Financial Outlook is to be used.**...In the absence of evidence demonstrating the appropriateness of a 2% escalation number, the Board finds that a 1% rate of escalation is to be used for rate setting purposes.”⁹⁰

“The Board is concerned about the lack of detailed information provided by Manitoba Hydro in evidence to support the O&A expenditures incorporated into the filing. As noted by the expert witness for the Consumers Coalition, the Voluntary Departure Program was complete approximately one year ago. It is difficult to understand why Manitoba Hydro has not yet been able to develop a detailed O&A budget. **Given the materiality of this expense in Manitoba Hydro’s revenue requirement, the Board directs Manitoba Hydro to develop and file a detailed O&A budget with the next GRA filing and provide the year over year dollar and percentage increases for the past five fiscal years. That detailed O&A budget is to include the 2019/20 year, as well as similar detail in support of any years for which Manitoba Hydro seeks a rate increase.**”⁹¹

Directive 8: “Manitoba Hydro develop and file with the next GRA a detailed Operating & Administrative expense budget. That detailed budget is to include the 2019/20 year, as well as any years for which Manitoba Hydro seeks a rate increase together with comparison of year-over-year dollar and percentage increases for the last five years.”⁹²

⁸⁹ Order 69/19 at 23.

⁹⁰ *Ibid* at 23-24.

⁹¹ *Ibid* at 24.

⁹² *Ibid* at 47.

BOSTON CONSULTING AND GARTNER GROUP PEER REVIEWS PROVIDE IMPORTANT CONTEXT FOR THE O, M AND A DISCUSSION

Benchmarking undertaken by the Boston Consulting Group which identified that Manitoba Hydro **is not generally a top quartile or second quartile performer.**⁹³

2018 Gartner Group:

- IT 17 service desk costs were 29 percent higher than peers driven primarily by higher personnel costs;
- IT service desk staffing levels were 37 percent greater than peers;
- end user computing staffing levels were 24 percent greater than peers.⁹⁴

⁹³ PUB Order 59/18 at 140. See also June 1, 2023 transcript, Rainkie at 2619.

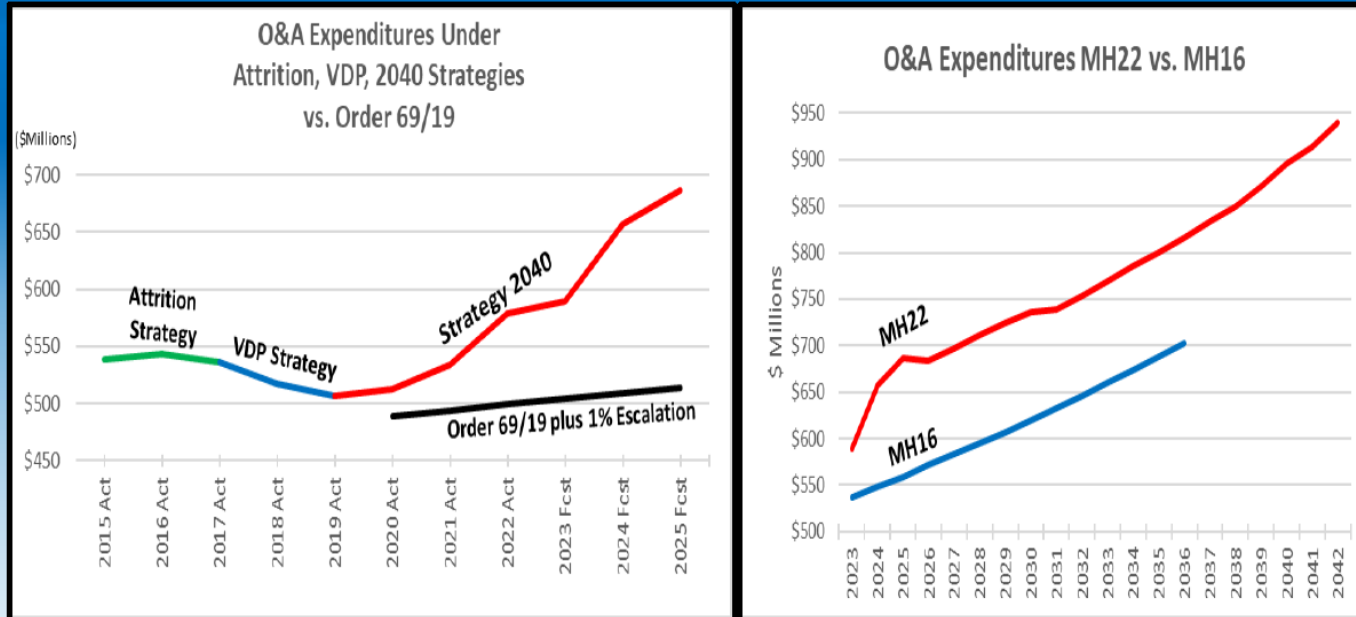
⁹⁴ May 30, 2023 transcript, Williams, Amorim Dew at 2349-50. See also GSS-GSM/MH I-6k Attachment I at 5.

STRONG REGULATORY SIGNALING ON THE NEED TO CONTROL O, M AND A

MR. DARREN RAINKIE: The Board [...] provided consistent regulatory signalling to Manitoba Hydro in the last three (3) major Orders, **59/'19, 69/'19, and -- and 9/'22**, on the need to reduce operating costs. The Board's perspective last time, at the last review -- last major GRA was, **you know, there was a further opportunity. They called it an opportunity, not a risk, to reduce staffing levels after the VDP was completed.** You know, and there was concern that the -- the savings from the VDP would be eroded through escalation in operating costs, which I think is [...] what we're seeing right now.⁹⁵

⁹⁵ June 1, 2023 transcript, Rainkie at 2620-1

O&A Projections (\$1.5B Increase Since Last GRA) - Not Consistent/Responsive To PUB Signaling



- MH Pursued a Committed Position Reduction (Attrition) Strategy (2015 to 2017) and Voluntary Departure Strategy (2017 to 2019) to Maintain O&A Increases Below Inflationary Levels and Accelerate O&A Cost Decreases
- Significant Concern/Red Flag re: MH Policy Shift Away from Costs Savings to Continuous Improvement & Taking Position it Has Little Influence Over O&A (and BOC)
- MH O&A Forecasts Are Not Consistent/Responsive To PUB Signaling and are \$173M Higher in 2025 than Rate-Setting Signaling in Order 69/19
- 20-Yr O&A Projections Primarily Based on Assumed Increases in Line with CPI at 2%/Yr and are \$1.5B Higher from 2023-2036 than Last GRA

⁹⁶ Slide presentation of Mr. Darren Rainkie, exhibit CC-20 at slide 23. Longer-term expectations of CPI are still in the 2% range based on the market expectation that the central banks will be successful in lowering inflation back down to their long-term targets - MH update for MB CPI for 2024/25 is now 2.2% (compared to 2.1%) and long-term consensus forecast of MB CPI that is 2.1% from 2027/28 onward (MFR65). Retained earnings capable of managing inflation blips (June 1, 2023 transcript, Rainkie at 2615-6) – MH performs Limited analysis of inflation – i.e. rather than year over year what is the three month measure, how much of the year over year increase is driven by gas prices.

MH HAS NOT RESPONDED TO REGULATORY SIGNALS

MR. DARREN RAINKIE: it's fair to say that Manitoba Hydro did not respond to the regulatory signalling. You know, back between 2015 and 2019, Manitoba Hydro had an actual plan to keep operating costs -- to keep that trajectory flat or [...] decreasing. And [...] if you look at the -- the green and the blue, there was actual reduction through the attrition strategy and the VDP strategy of \$26 million, or 4.8 percent, between 2015 and 2019.⁹⁷

⁹⁷ June 1, 2023 transcript, Rainkie at 2622-3

\$175M or 34% increase in O&A (2020 to 2025) Does Not Demonstrate Commitment to Cost Control

O&A by Category 2020 - 2025 (\$ Millions)	2020 Actual	2023 Forecast	2025 Forecast	2025 vs. 2020 \$ Change	2025 vs. 2020 % Change
Wages & Salaries	458	459	505	47	10.3%
Employee Benefits	124	153	166	42	33.9%
Overtime & Other	146	135	152	6	4.1%
Total Employee Related	728	747	823	95	13.1%
Less: Capitalized Costs	-287	-248	-267	20	-7.0%
Operational Related	441	499	556	115	26.1%
Consulting & Professional	13	25	51	38	292.3%
Construction & Mtnc	23	30	35	12	52.2%
Building & Property Costs	29	34	39	10	34.5%
Computer Services	2	8	15	13	650.0%
Other Ext Svcs/Materials	68	75	81	13	19.1%
Ext Svcs/Materials	135	172	221	86	63.7%
Other Costs/Recoveries	-64	-82	-90	-26	40.6%
Operational Non-Employee	71	90	131	60	84.5%
Total O&A	512	589	687	175	34.2%

- 5-Year Analysis Commences with 2020 Actual O&A as the PUB's Last Review of O&A Targets Occurred at the 2019/20 MH Rate Application (Order 69/19)
- 34.2% Increase in O&A over 5-Year Analysis Period Represents an Average Annual Growth Rate of 6.1% per Year. Main Components of this Increase are (i) Higher Wages & Salaries (ii) Higher Employee Benefits (iii) Lower Capitalized Costs and (iii) Higher Consulting & Professional and Computer Services. MB Cumulative CPI over the 5-Year Analysis Period is Forecast at 13.2% - however - the Majority of MH O&A Costs related to Employee Related Costs that are Escalating at Lower Rates than Recent MB CPI
- Pension Discount Rates Appear to be Understated from 2023 to 2025 (More Current Rates Around 5% Compared to 3.11% to 4.00% in MH22) - Could Result in Lower Employee Benefit Costs in the Order of \$37M to \$74M. MH FTE's Under Forecast by 89 to February of 2023
- It is Not Possible to Conclude that MH is Committed to Controlling O&A Costs



Slide presentation of Mr. Darren Rainkie, exhibit CC-20 at slide 19

O&A Increase of \$72M+ (2020 to 2025) in Governance & Services BU's Primarily Due to Strategy 2040

O&A by Business Unit 2020 to 2025 - \$Millions	2020 Actual	2023 Forecast	2025 Forecast	2025 vs. 2020 \$ Change	2025 vs. 2020 % Change
President & CEO	3	5	6	3	100.0%
Digital & Technology	42	52	88	46	109.5%
HR, Safety, Health & Env	18	19	24	6	33.3%
Chief Financial Officer	54	60	66	12	22.2%
External, IR. & Comm.	16	20	21	5	31.3%
Governance & Service	133	156	205	72	54.1%
Cust Solutions & Exper.	51	54	56	5	9.8%
Asset Plan & Delivery	200	179	195	-5	-2.5%
Operations	319	344	377	58	18.2%
Operational BU's	570	577	628	58	10.2%
Total Business Units	703	733	833	130	18.5%
Non-BU Adjustments	-191	-144	-146	45	-23.6%
Total O&A	512	589	687	175	34.2%

- \$175M Increase in O&A Made Up of (i) \$72M Increase in Governance & Services BU Costs (ii) \$58M Increase in Operational BU Costs and (iii) \$45M change in Non-BU Adjustments (Employee Benefits, Capitalized Costs, O&A Charged to Centra). A portion of the Non-BU Adjustment Increase of \$45M would also relate to Governance & Services BU's

- \$46M Increase in D&T BU for Additional Cloud Software, Higher Software Maintenance to Support D&T Strategy 2040 Roadmap and Higher Consulting Costs for Cloud Based Services

- \$12M Increase in CFO BU for Higher Insurance Costs, Integration of MHI Staff and Work on Strategy 2040

- \$6M Increase in HRSHE BU for Higher Wages & Salaries for Implementing Business Model Organizational Changes and External Recruitment Services

STRATEGY 2040 DRIVING FTE INCREASES

97 FTE Increase (2020 to 2025)
 Entirely in Governance & Services Business Units
 Primarily Due to Strategy 2040

Business Unit FTE's (2020 to 2025)	2020 Actual	2023 Forecast	2025 Forecast	2025 vs. 2020 Change	2025 vs. 2020 % Change
President & CEO	8	19	21	13	162.5%
Digital & Technology	249	246	273	24	9.6%
HR, Safety, Health & Environ.	159	168	209	50	31.5%
Chief Financial Officer	352	364	372	20	5.7%
External, IR. & Comm.	116	122	125	9	7.8%
Governance & Service BU's	884	919	1000	116	13.1%
Customer Solutions & Exper.	373	355	365	-8	-2.1%
Asset Planning & Delivery	1509	1272	1307	-202	-13.4%
Operations	2407	2533	2598	191	7.9%
Operational BU's	4289	4160	4270	-19	-0.4%
Total Business Units	5173	5079	5270	97	1.9%

- Total FTE's Forecast to Increase 97 over 5-Year Analysis Period made up of (i) 116 FTE Increase in Governance & Service BU's (primarily HRSHE, D&T & CFO) and (ii) 19 FTE Decrease in Operational BU's
- HRSHE BU Increase (50 FTE) Primarily Due to Supporting Strategic Initiatives Associated with Business Model Review/Alignment & Filling of Vacancies
- D&T BU Increase (24 FTE) Primarily Due to Building Out the BU to Support Strategy 2040, Execution of the D&T Roadmap and Filling of Certain Vacancies
- CFO BU Increase (20 FTE) Primarily Due to Strategy 2040 Initiatives, Filling Vacancies in Strategy & Enterprise Planning and Enterprise Risk Management and Moving MHI Staff into the BU as Part of the Business Model Review
- FTE Increases in Executive & Senior Management from 36 to 39 since last GRA and 21 Increase in Manager Positions Since 2022 (Primarily in the Governance & Service BU's as a result of Strategy 2040)

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Slide presentation of Mr. Darren Rankie, exhibit CC-20 at slide 20

STRATEGY 2040 IS ADDING ADDITIONAL LAYERS OF MANAGEMENT

MR. SVEN HOMBACH: How did Manitoba Hydro arrive at a conclusion on how much staff it would need for strategic operations? Did you just go to each business unit to ask them for a proposal? [...]

MR. AUREL TESS: But essentially, what was added here was looking out to the future and what the needs might be. And also **asking business units to identify resources in alignment with Strategy 2040**. So that was something that was fairly new to the organization, looking out that far with strategic initiatives and aligning resources with those initiatives.⁹⁸

MR. DARREN RAINKIE: So -- so Manitoba Hydro says that its **strategy positions it, you know, to be an agile company, but -- but is it really moving in that direction?** I -- I'd say no. You know, **it won't become an agile company by increasing levels of staff in the governance and services business units by that much.** You know, there are also three (3) increases in senior [...]. So, you know, **Manitoba Hydro won't become an agile company by adding back layers of executive and senior management that were delayed during the VDP.**⁹⁹

To the extent that MH is alleging operational pressures, it may wish to rethink its material additions of non-operational staff.¹⁰⁰

⁹⁸ May 29, 2023 transcript, Hombach-Tess at 2168-9

⁹⁹ June 1, 2023 transcript, Rainkie at 2617-9. See also COALITION/MH II-35 b; May 30, 2023 transcript, Williams, Amorim Dew at 2311-4; May 30, 2023 transcript, Williams, Fogg, Amorim Dew at 2302-2308.

¹⁰⁰ May 15, 2023 transcript, Grewal at 184-5.

MH CLAIMS TO BE HONOURING THE VDP ARE UNDERMINED BY A REVIEW OF PUB I-64 (A-E)¹⁰¹

PUB I-64 (a-e) removes FTEs associated with Capital Construction on Major projects, which enables appropriate comparison between 2016/17 and the present.

Compared to the equivalent figure from 2018/19, the VDP resulted in MH's FTEs (excluding major capital projects) reducing from 5453 to 4723 - a decrease of 13.4%.

In 2022/23, Manitoba Hydro's non-MCP FTEs has risen to 4978, closing the margin between 2022/23 figures and the pre-VDP from the 13.4% reduction immediately following the VDP to a 8.7% reduction from pre-VDP.

In 2024/25, the gap closes further still, as we see that MH FTEs (again, non-MCP) grow to 5261 - only 3.5% lower than the pre-VDP non-MCP FTEs from 2016/17.

¹⁰¹ May 15, 2023 transcript, Grewal at 186-7.

FTE Analysis - Post VDP & Normalize MCP (PUB/MH I-64(a-e))

CC Analysis:

	1	2	3	4	5	6 (4 - 2) Outlook vs. After-VDP FTE	7 (4 - 2) Outlook vs. After-VDP %	8 (5 - 2) Forecast vs. After-VDP FTE	9 (5 - 2) Forecast vs. After-VDP %
	Pre-VDP 2016/17	After-VDP 2018/19	COVID 2020/21	Low Outlook 2022/23	Forecast 2024/25				
Total Capital Construction	2314	1828	1535	1528	1510				
Less: MCP Construction	-748	-539	-354	-101	-9				
Non-MCP Capital Construction	1566	1289	1181	1427	1501				
Non-MCP Capital Construction	1566	1289	1181	1427	1501	138	10.7%	212	16.5%
Operations & Maintenance	2506	2264	2213	2464	2505	200	8.8%	241	10.6%
Governance, Support & Services	1381	1170	1005	1087	1255	-83	-7.1%	85	7.3%
Total Non-MCP	5453	4723	4399	4978	5261	255	5.4%	538	11.4%

Pre-VDP = Total FTE Change	-730	-1054	-475	-192
Pre-VDP = Total FTE Change %	-13.4%	-19.3%	-8.7%	-3.5%

**MH CLAIMS TO BE HONOURING THE VDP ARE
UNDERMINED BY A REVIEW OF PUB I-64 (A-E)¹⁰²**

MH has not maintained the 13.4% reduction in non-MCP FTEs as it has claimed - rather it is rebuilding its non-MCP FTEs back to levels consistent with the pre-VDP period - and using the expected reduction in MCP FTEs due to the in-service of the MCPs to mask its backsliding from reductions obtained through the VDP and adding additional layers of management as well (3 directors and 21 management positions)¹⁰³

By contrast, Manitoba Hydro's analysis of the total FTEs for each time period are calculated to include MCP FTEs. And when MCP FTEs are included, MH's Forecast 2024/25 FTEs are exactly 15.0% below pre-VDP levels.

¹⁰² May 15, 2023 transcript, Grewal at 186-7.

¹⁰³ See also June 2, 2023 transcript, Hombach, Madsen at 2976-8.

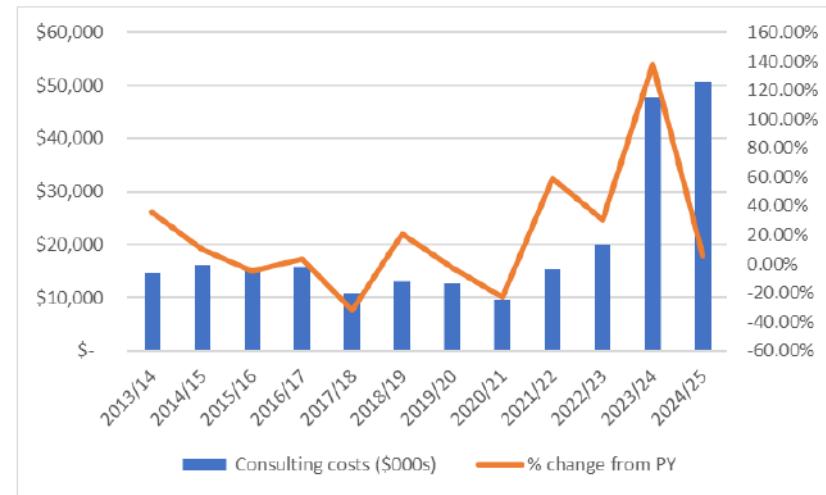
MH Analysis:

Total Non-MCP	5453	4723	4399	4978	5261
Add: MCP Capital Construction	748	539	354	101	9
Total: Including MCP	6201	5262	4753	5079	5270

Pre-VDP = Total FTE Change	-939	-1448	-1122	-931
Pre-VDP = Total FTE Change %	-15.1%	-23.4%	-18.1%	-15.0%

CONSULTING COSTS

- Actual consulting costs increased on average 0.83% per year from 2012/13 to 2020/21.
- Actual costs increased by 58.95% in 2021/22 due in part to inflationary pressures.
- Increases in 2022/23 (30.12%), 2023/24 (138.45%) and 2024/25 (5.76%)
- Costs are forecast to steadily rise from 2022/23 to 2024/25, with a portion of the increase due to SAP S/4 HANA.

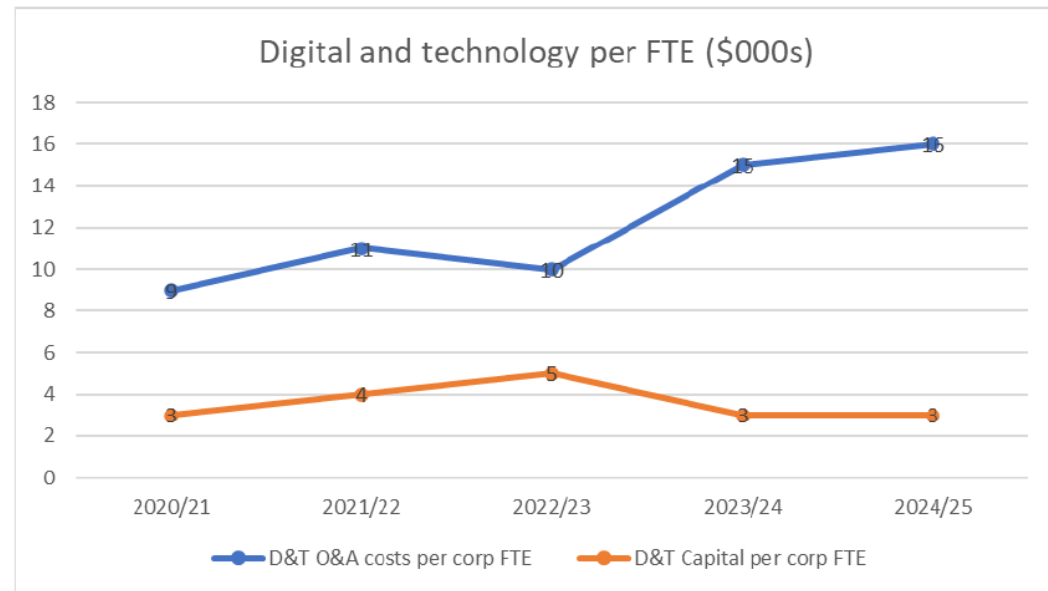


Created using Table 10 from Madsen Evidence, PDF page 83.

EMRYDIA

DIGITAL AND TECHNOLOGY COSTS

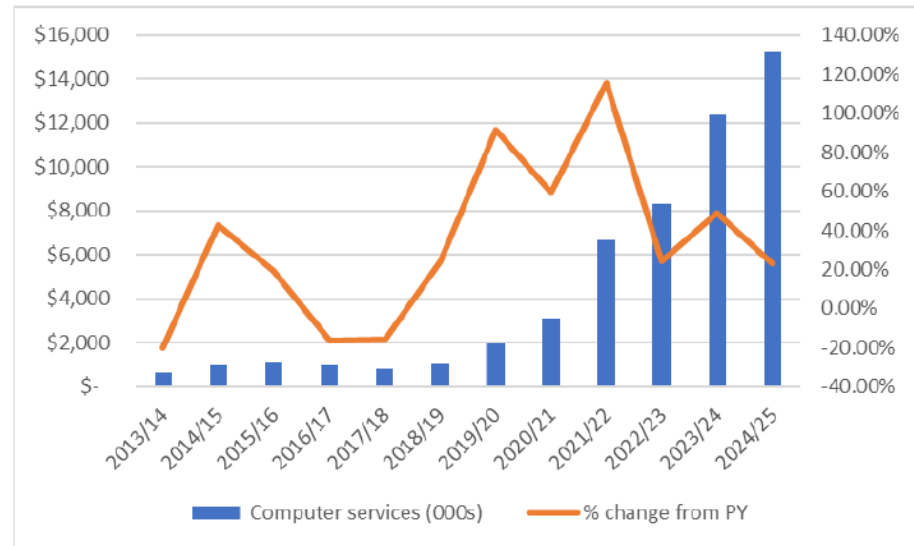
- Both consulting and D&T costs are increasing due to cloud-computing and the forecast implementation of SAP S/4HANA.
- Computer services costs are increasing from \$6.7 million in 2021/22 to \$15.2 million in 2024/25.
- Total D&T costs per FTE are increasing related to O&A and slightly decreasing for capital.
- Increasing FTEs = increasing D&T.



Created using Table 13 from Madsen Evidence, PDF page 87.

COMPUTER SERVICES

- Actual computer services costs increased on average 23.13% per year from 2012/13 to 2020/21.
- Actual costs increased by 115.60% in 2021/22 due in part to inflationary pressures.
- Increases in 2022/23 (24.31%), 2023/24 (48.98%) and 2024/25 (23.21%)
- Costs are forecast to steadily rise from 2022/23 to 2024/25, with a portion of the increase due to cloud computing arrangement costs.



Created using Table 10 from Madsen Evidence, PDF page 83.

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THERE ARE GROUNDS FOR MATERIAL CONCERN RELATED TO PROPOSED BUT NOT APPROVED DIGITIZATION AND TECHNOLOGICAL PLANS:

- Significant expenditures in 2023-24 and 2024-25 test years **lack business cases** including SAP Hana Coalition (no business case) cloud-based small software 4 systems (a number of expenditures without business case).¹⁰⁴
- MH **unable to provide Technology plan** consistent with Strategy 2040.¹⁰⁵
- MH Digital and Technology plan **still under development** and has not been reviewed by MHEB.¹⁰⁶
- SAP HANA, budget very much a placeholder. It does not include some of the other significant modules like Banner billing system, for example. (May 30, 2023, 2329-2335, Williams-Amorim Dew and Tess)
- MH asking the Public Utilities Board to set rates, taking into account **half a billion dollars nearly of proposed expenditures for AMI and SAP** for which there is no business plan.¹⁰⁷

¹⁰⁴ See Coalition/MH I-76 b; May 30, 2023 transcript, Williams, Amorim Dew at 2335-2343

¹⁰⁵ See Coalition/MHI-75 Updated; May 30, 2023 transcript, Williams, Amorim Dew, Tess at 2329-35.

¹⁰⁶ See CAC I-75 Updated; May 30, 2023 transcript, Williams, Amorim Dew, Tess at 2329-35.

¹⁰⁷ May 30, 2023 transcript, Williams, Amorim Dew, Tess at 2329-35

ABSENCE OF ALTERNATIVES AND BENEFIT ANALYSIS

- The **SAP transition is a major and potentially disruptive business decision**¹⁰⁸ which has led a least one regulator to reject a proposed an SAP ECC transition, because the utility did not adequately explored alternatives.¹⁰⁹
- **MH has not shown that is has considered alternatives** to SAP-Hana transition such as the “more pragmatic and incremental approach to IT costs” adopted by some utilities¹¹⁰ which may include continuing with current SAP but using third party contractual supports¹¹¹ as well as means to reduce customization.¹¹²
- Madsen and Rainkie agree with Rainkie that cloud-based computing costs should lead to savings¹¹³ but savings of proposed IT investment can’t presently be quantified based on the record.¹¹⁴
- Similarly, Expenditures are not linked to KPIs or to delivery of services and reliability.¹¹⁵

Consumers cannot have confidence MH has considered alternatives

Consumers cannot have confidence MH has a pragmatic, feasible plan

Consumers cannot have confidence that the benefits outweigh the costs

¹⁰⁸ June 2, 2023 transcript, Madsen, 2905-2907.

¹⁰⁹ June 2, 202 transcript, Williams, Madsen at 2937-8

¹¹⁰ (June 2, 2023 transcript, Kapitany, Madsen at 2914-5

¹¹¹ June 2, 2023 transcript, Chairperson, Madsen at 2921-2

¹¹² June 2, 2023 transcript, Czarnecki, Madsen at 2966-8.

¹¹³ June 2, 2023 transcript, Madsen at 2903.

¹¹⁴ June 2, 2023 transcript., Sy-Madsen at 2917-8.

¹¹⁵ See for example, May 15, 2023 transcript, Reimer, Grewal at 322-5

THE DIFFERENCE BETWEEN PLANS AND PLATITUDES

MR. DARREN RAINKIE: Manitoba Hydro has seemed to revert back. After six (6) or seven (7) years of Manitoba Hydro having strategies around managing operating costs, it -- it seems to have reverted back to what I call an incremental budgeting approach. There may be other names for it, but that's what I call it. You know, [...] that approach is, you know, take last year's costs plus general wage increases plus merit plus strategic initiatives funding plus other cost pressures, fuel and things like that and, you know, 'A' plus 'B' plus 'C' plus 'D' is -- is your operating cost target.

[...]

To me, that's just following the cost curve upward. **That's not a plan; that's just an equation, an Excel spreadsheet.**¹¹⁶ [...] And there's a **difference between platitudes and plans.**¹¹⁷

¹¹⁶ June 1, 2023 transcript, Rainkie at 2612

¹¹⁷ June 1, 2023 transcript, Rainkie at 2788

THE EQUATION IS MISSING PRODUCTIVITY GAINS

MR. DARREN RAINKIE: So I think the top-down portion of Manitoba Hydro's operating budgeting is missing because I think there's two (2) things missing in that equation, you know, the last year plus four (4) factors. **And that is productivity savings. We're investing a lot in IT, as you see in the material. And why do people get merit increases? [...]** Because they've been at Manitoba Hydro for twenty (20) or thirty (30) years, they're more productive. There should be an expectation as people get those merit increases that there's some offset [...] on behalf of customers, some balance.¹¹⁸

¹¹⁸ June 1, 2023 transcript, Rainkie at 2613.

PART VII FINANCIAL MANAGEMENT

RECOMMENDED FINDINGS

- MH interest rate risk materially reduced as compared to prior GRAs
- National Bank analysis demonstrated optimization of floating/fixed debt can be mechanism to optimize return at same level of risk (using a fixed rate WATM of 13 years)
- Province of MB 11% floating
- Updated National Bank analysis shows an Optimum Mix of 8 – 15% floating to fixed debt
- At 1-2% floating, MH far below National Bank Model conclusions 8 – 15 floating debt range
- BC Hydro and Hydro Quebec have materially higher ranges
- At 5 – 7% floating, short term and fixed in the test years, MH still below NBF range for floating alone for fiscal years ending March 31, 2021 through to March 31, 2026
- Well below the additive limits established in the interest rate risk policy and debt management guidelines
- Hydro's debt management strategy appears out of step:
 - With the analysis of NB
 - With the actions of MB
 - With peers like BC Hydro and Hydro Quebec
 - With the spirit and intent its debt management policy
- A more balanced approach could improve return for ratepayers and an equivalent or superior level of risk
- MB Hydro did not test Mr. Rainkie through cross examination on his evidence

MH FINANCIAL RISK IS MATERIALLY REDUCED FROM PRIOR GRAs

- **Interest rate risk in 2023 is nowhere near what it was in 2013** because we weren't entering a decade where we were going to be borrowing \$3 1/2 billion a year.¹¹⁹
- **High interest rate sensitivity: 10 year reduction in retained earnings of 462 million (current GRA), 747 million 2018/19 GRA and 1,057 billion 2015/16 GRA.**¹²⁰
- **Manitoba Hydro would view debt maturities per year of approximately 5 percent of the total debt portfolio to be a reasonable level of risk.**¹²¹
- **MB Hydro does not anticipate high levels of concentration risk.**¹²²

¹¹⁹ June 9, 2023 transcript Williams, Bowman at 4046-50

¹²⁰ Slide presentation of Darren Rainkie, exhibit CC-20 at slide 38.

¹²¹ Coalition I-45 a-b; May 30, 2023 transcript, Williams, Stephens, 2340-53.

¹²² Coalition I-45 a-b.

**NATIONAL BANK DEMONSTRATES THAT A PORTFOLIO
CAN BE OPTIMIZED FOR RISK AND RETURN USING A
MIXTURE OF FLOATING AND FIXED DEBT**

- National Bank (2009) found short-term interest rates correlated with Spot pricing, justifying higher portion of floating debt in the range of 14% to 27%.¹²³
- MB Hydro still uses National Bank Model and updates it from time to time in terms of its inputs.¹²⁴

¹²³ May 30, 2023 transcript, Williams, Stephen at 2359-60.

¹²⁴ May 30, 2023 transcript, Williams, Stephen at 2353-8

UPDATED NATIONAL BANK ANALYSIS SHOWS AN OPTIMUM MIX OF 8-15% FLOATING TO FIXED DEBT

National Bank Model Updated for 2022

DR. BYRON WILLIAMS: “Hydro updated the National Bank analysis for the fiscal 2022 data, but adjusting for normal US opportunity sales volumes. [...] And the **range flowing from the model for that was 8% to 15%.**”¹²⁵

Manitoba mistakenly alleges that National Bank model did not take into account debt maturity in its analysis but National Bank expressly indicates at p. 31 of its report that **it assumed a WATM of 15 years** for the purposes of its technical analysis.¹²⁶

¹²⁵ May 30, 2023 transcript, Williams, Stephens at 2365; Coalition 2-25 b

¹²⁶ Coalition/MH 1-44

PROVINCE OF MANITOBA AND MANITOBA HYDRO'S PEERS

DR. BYRON WILLIAMS: **Province of Manitoba's floating rate debt as of March 31st, 2022, was about 11 percent.**¹²⁷

Peer Group Historical Floating Rate Debt %

	2018	2019	2020	2021	2022
Manitoba Hydro	4%	5%	3%	1%	1%
BC Hydro	10%	13%	12%	11%	11%
SaskPower	17%	14%	13%	6%	11%
Hydro Quebec	9%	5%	7%	7%	6%
NB Power	17%	16%	13%	11%	16%
Nfld. & Labrador Hydro	2%	2%	3%	1%	n/a
Emera Inc.	14%	18%	18%	19%	n/a
Fortis Inc.	10%	13%	10%	9%	10%
Canadian Utilities Limited	11%	8%	8%	10%	n/a

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Note: Floating Rate Debt = Long Term Floating Rate Debt + Short Term Debt

Sources: Annual Reports

n/a: Reports not yet available

¹²⁷ May 30, 2023 transcript, Williams, Stephen at 2363.

¹²⁸ COALITION/MH II-25a

MH DOES NOT CONTEST CONCLUSION THAT INTEREST RATE POLICY AND DEBT GUIDELINES OPERATE ADDITIVELY TOGETHER

Hydro indicates that it wishes to cap the combination of short-term debt, floating rate long-term debt, and fixed rate debt to **less than 10 percent of the debt portfolio.**¹²⁹

Based on his extensive experience as treasurer and CFO, Mr. Rainkie observed that interest rate risk policy and debt management guidelines worked additively together **setting an upward constraint well above the artificial constraint adopted by MH management.**¹³⁰

Mr. Rainkie's observation was **not challenged in cross-examination.**

¹²⁹ May 29, 2023 transcript, Hombach, Stephen at 2132-3

¹³⁰ June 1, 2023 transcript, Rainkie at 2633-4

AN EXTREME LIMIT ON FLOATING DEBT

- Floating rate debt 1% in '21, '22, '23, '24 fiscal years
- Floating rate debt 2% in '25, '26 fiscal year
- Well below NB model optimization 8 - 15

Combined short term, floating rate and fixed renewals 5 percent for '21 and is 6 percent for '22, 7 percent '23 and 5 percent '24.

Still below NB bank model optimization recognizing that NB model does take WATM into account despite Hydro's erroneous assertion otherwise.¹³¹

DR. BYRON WILLIAMS: And similarly, **when you had the 5 percent risk profile, you'd be somewhat below that lower range**, agreed?

MS. SUSAN STEPHEN: Agreed.¹³²

¹³¹ May 30, 2023 transcript, Williams, Stephen at 2361-6; Coalition I-44 d

¹³² May 30, 2023, Williams, Stephen at 2366

HYDRO'S CHOICE LEADS TO LOWER RETURN AT A COMMENSURATE LEVEL OF RISK

Increase in floating rate debt in CCI0/CCI1 vs MH22 - from an average of 4.3% to an average of 5.4% in the first 10-years and from an average of 7.1% to 9.5% in the second 10-years - or from an average of 5.7% to 7.5% in the full 20-year period - **is quite small and is not going to materially alter the risk exposure.**

What these slightly higher levels of floating rate debt will do - is incorporate a more balanced approach to the DMS and would lower finance costs to customers - consistent with the PUB mandate - without incurring significant interest rate risk.

The additional 1.1% of floating rate debt in the first 10 years of the forecast (which MH is most concerned about) would increase the total exposure from 8.0% to 9.1% - still well within the NBF optimal range and lower than the midpoint of the NBF range of 11.5% (8% + 15%/2).

**PART VIII ISSUES RELATED TO DEPRECIATION AND
HEDGING**

RECOMMENDED DETERMINATION ON DEPRECIATION ISSUES

- Support Alternative 2 for the reasons outlined by MIPUG and GSS/GSM in PUB Exhibit 20.
- Agree with GSS/GSM that no further componentization is required and that it is appropriate to adopt the definition of “IFRS-ALG” at this time to represent the current level of componentization under Concentric’s 2019 Depreciation Study applying the ALG procedure.

ASYMETRIC RISK AND HEDGING ALTERNATIVES

“Electricity is a very volatile commodity in terms of price.”¹³³

Electrical utilities face joint price and quantity risk (ie price uncertainty and the volume uncertainty in combination is the portfolio risk)¹³⁴

MH faces asymmetrical risk in purchase/sale with disproportionately greater financial risks associated with import purchases¹³⁵

There may be benefit in MH exploring asymmetrical hedging strategies¹³⁶

MH be directed to explore hedging options that still incorporate their volume concerns and their desire to back physically but accounts for the asymmetrical risk related to purchasing¹³⁷

¹³³ May 18, 2023 transcript, Williams, Smith, 1038-1040.

¹³⁴ May 18, 2023 transcript, Williams, Smith, 1041-1042.

¹³⁵ May 18, 2023 transcript, Williams, Smith, 1042-1047.

¹³⁶ May 18, 2023 transcript, Williams, Smith 1048-1051.

¹³⁷ May 18, 2023 transcript, Williams, Smith, 1048-1051.

PART IX OVERALL HEALTH OF THE CORPORATION

RECOMMENDED FINDINGS REGARDING OVERALL HEALTH OF THE CORPORATION

- Manitoba Hydro has **experienced a material and positive change in circumstances** since the last General Rate Application
- Manitoba Hydro has a **unique mandate** among publicly owned utilities in North America which makes cookie cutter peer comparisons on financial targets challenging
- Under today's regulatory framework, the **70/30 debt-to-equity ratio is not a just and reasonable** financial target
- Independent experts have raised **serious questions about debt-to-equity targets as the primary mechanism** in setting financial targets for rate-setting
- The determination of financial targets for Manitoba Hydro would benefit **from an evidence based process involving surveys of the financial market as well as employment of the probabilistic uncertainty tool** and taking into account **management and regulatory** actions
- Mr. Collaicovo and Mr. Rainkie have significant expertise and practical insight into the financial markets. Their **evidence and recommendations on financial matters was carefully formulated, nuanced and essentially unchallenged by Manitoba Hydro**. Heavy weight should be placed on their findings.

**THE COMPLETION OF MAJOR CAPITAL PROJECTS SINCE
THE LAST RATE GENERAL RATE APPLICATION HAS MADE
A SIGNIFICANT CONTRIBUTION TO CORPORATE
RESILIENCE AND FINANCIAL HEALTH**

“And of course **MMTP changed...things dramatically. . . the thing that fundamentally changed the system was -- like doubling . . . of important capacity with the US.**”¹³⁸

Completion of MMTP has essentially doubled firm import capability **providing an important strategic backstop for drought resilience**¹³⁹

Manitoba-Minnesota transmission line completion enable MH enter into a **major 250-megawatt system power sale** to Minnesota Power¹⁴⁰

Completion of Birtle Transmission Project supports major new power sale to Saskpower providing an **important and long-term hedge against revenue uncertainty**¹⁴¹

Keeyask costs have declined by about half a billion dollars since the '17/'18 General Rate Application.¹⁴²

¹³⁸ June 9, 2023 transcript, Williams, Bowman, 4041-4045.

¹³⁹ May 17, 2023 transcript, Williams, Gawne, Karanwal, 815-823. See also Williams, Sanclemente, Gawne, 824-828; Williams, Gawne, 828-834.

¹⁴⁰ May 17, 2023 transcript, Williams, Karanwal, 818.

¹⁴¹ May 17, 2023 transcript, Williams, Gawne, Karanwal, 815-823.

¹⁴² May 24, 2023 transcript, Williams, Turner, 1400-1401.

Relative Assessment of Risks Since Last GRA Does Not Support MH Elevated Risk Assessment

Risk	Relative Assessment
Completion of Major Capital Projects	Completion of major capital projects is a material reduction to MH's financial and business risks (reputational and contractual). Risk Reductions for Bipole III, 2 New Converter Stations & New US T-Line
Drought	Consistent with past GRA's, 5-year drought reduction in retained earnings of \$1.7 billion (current GRA), \$1.4 billion (2018/19 GRA) and \$1.7 billion (2015/16 GRA)
Interest Rate	Improvement. High interest rate sensitivity 10-year reduction in retained earnings of \$462 million (current GRA), \$747 million (2018/19 GRA) and \$1.057 billion (2015/16 GRA)
Overall Financial Risk	Significant improvement. Equity ratio projected to be 18% by 2024/25 in current GRA, compared to 12% in 2018/19 GRA and 10% in 2015/16 GRA. Net debt \$2.4 billion lower than 2018/19 GRA
Disruptive Tech, Self-gen & Stranded Assets, Tech Innovation & Cyber Security	Opportunities and challenges related to decarbonization, decentralization and digitization. MH dispatchable hydro-electric system more valuable in future as world responds to climate change
Loss of Market Access	Improved as a result of push to more variable renewable resources increasing need and support to maximize interconnections and market access
Export Revenues & Price	Daymark conclusion that MH's export revenue forecasts are conservative and likely to be more opportunities for premium pricing or additional revenues
Aging Assets	Midgard conclusion: system performance continues to be stable & superior to Cdn utility peers

Slide presentation of Mr. Darren Rainkie, exhibit CC-20 at slide

THE UNIQUE MANDATE OF MANITOBA HYDRO

PRIVATE & CONFIDENTIAL

3. Manitoba Hydro Is Unique (Recap)

No North American Comparator

- Non-Share Capital Corporation, no profits paid out to equity investors
- Controlled by Provincial Government
- “Power at Cost” model, with no required return on equity
- Export Mandate (exploit provincial natural resources)

	Public Sector	Power at Cost	Export Mandate	
BC Hydro, Sask Power, NB Power	✓	✓	✗	
Hydro Quebec, Nalcor	✓	✗	✓	Hydro Quebec has “Heritage Pool”
OPG	✓	✗	✗	
Nova Scotia Power	✗	✗	✗	
US Not-for-profits (TVA, Bonneville, Long Island, etc.)	✓	✓	✗	

“Apples to Apples” comparison is critical, not “Apples to Pineapples”

**THE DETERMINATION OF FINANCIAL TARGETS IS AN
ESSENTIAL ELEMENT OF RATE SETTING**

I don't know how the Board would justify setting rates to achieve a target, if it didn't agree with the target. So, if...rate increases are -- are going to be imposed, then -- then, I think the -- the Board really does need to clarify which targets and timelines those rates are related to.¹⁴³

DR. BYRON WILLIAMS: And you also would agree that an important part of the rate-setting exercise involves a consideration of an appropriate level of reserves for rate setting?

MR. PATRICK BOWMAN: Yes.¹⁴⁴

¹⁴³ June 6, 2023 transcript, Colaiacovo, 3334.

¹⁴⁴ June 9, 2023 transcript, Williams, Bowman, 4055-4056.

**THERE IS CONSENSUS THAT INTEREST COVERAGE RATIO
IS AN IMPORTANT FINANCIAL TARGET**

Manitoba Hydro has an **interest coverage ratio target**. It is focussed on **cash flow**. **It's an important target**. **We can quibble about whether they've chosen exactly the right cash flow target, but there is no dispute that cash flow is important**. And I -- I think that **if Manitoba Hydro was at risk of breaching a critical cash flow target, we would all agree that rates should rise as a result**. **However, the reality is Manitoba Hydro is currently in no danger of breaching its cash flow targets**. . . . And, you know, I think in -- in moving forward and looking forward at rates in the near term, those cashflow targets are very legitimate concerns, but are certainly not significantly in danger at the moment.¹⁴⁵

¹⁴⁵ June 6, 2023 transcript, Colaiacovo, 3318-3321.

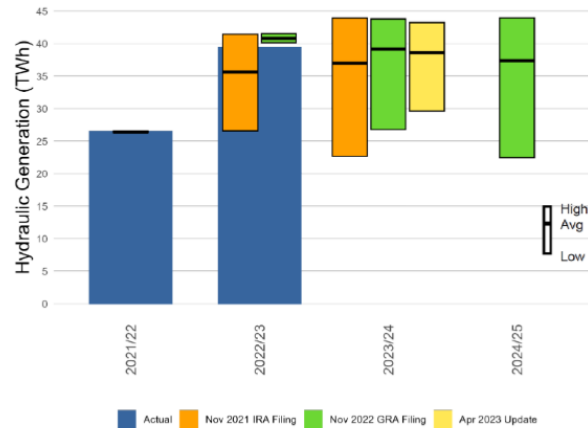
THERE APPEARS TO BE AGREEMENT THAT SOME EQUITY IS REQUIRED GIVEN HYDROLOGICAL VOLATILITY

PRIVATE & CONFIDENTIAL

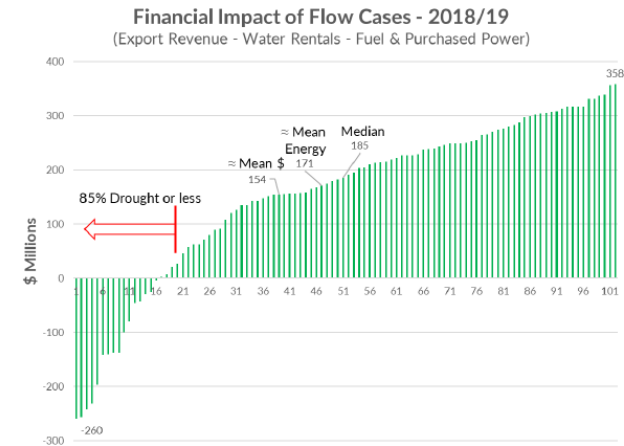
4. Capital Structure and Financial Targets (Recap)

Why Hydrology Drives Equity Requirement

- Inherent variability of hydroelectric production means available energy is naturally random from year to year
- In addition to the effects of hydrology, expected Net Export Revenue is also strongly affected by spot market energy prices (for both exports and imports), and fuel prices for backup generation required in the event of low water levels
 - Spot market energy prices and fuel prices are both related to volatile natural gas prices, to varying degrees



Conceptually
 Related



From: p. 16 of Exhibit MH-30 in the current GRA

From: p. 44 of Exhibit CC-45 of 2017/18 GRA

EQUITY AND HYDROLOGICAL RISK – THE QUESTION IS HOW MUCH

I think it's important to recognize that based on hydrological risk, there is some level of equity that is absolutely required in Manitoba Hydro. I would completely agree -- and I think any competent third-party observer would agree -- that Manitoba Hydro requires some level of equity, particularly, to manage hydrological variability and hydrological risk. In my view, that's -- that's not in contention.

The only question is what should that equity reserve, what should that equity cushion be, how big should it be, and how much should any given cohort of ratepayers contribute to achieve that equity target. And that determination was not made in -- in 59/18 and I believe it has not -- it's not made now.¹⁴⁶

¹⁴⁶ June 6, 2023 transcript, Colaiacovo, 3318-3321.

CAUTION SHOULD BE USED IN PUTTING TOO MUCH WEIGHT ON EQUITY TARGETS

And, so, like **I'm suggesting a healthy dose of management action here, before regulatory action.** But the **uncertainty analysis could help you** and that's why I -- I was really excited about that. That came together at the end of my tenure. I'm really disappointed that it hasn't continued because, you know, the question always is, like the -- I'm going to be pejorative about it but -- **but equity ratios are lazy targets,** right?¹⁴⁷

...when you set a -- an equity ratio for a government business enterprise, **you tend to take a discount off of a -- a private investor owned utility, a judgmental discount.**

Maybe -- maybe a better answer to your question, sir, is, that would be a direct way of trying to calculate appropriate levels of retained earnings as opposed to just an outcome. **The size of my balance sheet goes up \$5 billion.** Boom, I need, you know -- at 30 percent, **I need a billion and a half more of retained earnings. For what?**¹⁴⁸

MR. PATRICK BOWMAN: . . . So, mathematically, **I have trouble putting a lot of -- a lot of weight on -- on retained earnings** as -- as -- as being sort of the -- the -- the Holy Grail of -- of your -- reserves or of -- of measuring as a target. Having said that, I think we can look to both Hydro's net income and its cash flow, over time, as indicating effectively, the financial strength.

¹⁴⁷ June 1, 2023 transcript, Chairperson, Rainkie, 2679-2684.

¹⁴⁸ June 1, 2023 transcript, Chairperson, Rainkie, 2679-2684.

THERE ARE GROUNDS TO CONCLUDE THE 70/30 TARGET FOR MANITOBA HYDRO IS ARBITRARY

- Province of Manitoba continues to guarantee (and issue) Manitoba Hydro's debt
- Amount of equity is far in excess of what Manitoba Hydro requires to cushion against a length drought
- No evidence that Manitoba Hydro is experiencing challenges in affordable access to the capital markets¹⁴⁹
- Unchallenged evidence from Mr. Colaiacovo that interest coverage ratio is a critical consideration for the capital markets (based on extensive research and interviews)

¹⁴⁹ Slide presentation of Mr. Pelino Colaiacovo, exhibit CC-23 at Appendix, slide 22.

THERE ARE GROUNDS TO CONCLUDE THE 70/30 TARGET FOR MANITOBA HYDRO IS ARBITRARY

Strong and essentially unchallenged conclusions from Mr. Colaiacovo and Mr. Bowman that 70-30 debt-to-equity target are likely to lead to excessive charges to ratepayers:

Retained earnings are going to increase by approximately \$5 billion over the next 18 years, in order to try and achieve those debt-to-equity targets, setting a 70 percent target for the debt to capital -- capitalization ratio is similarly **going to lead to excessive charges to ratepayers.**¹⁵⁰

"It should also be noted that the Board has previously found that Manitoba Hydro is a pure cost recovery utility. This concept suggests limited priority should be given to building equity. The finding indicates the need for concern if Hydro is excessively growing equity or paying down debt ahead of the depreciation of the assets which underpin the debt. **This finding would further suggest a need for reconsideration of the Bill 36 financial targets**, and indicate concerns for the financial performance shown for the period after 2031/32 when net income climbs materially even at average water conditions."¹⁵¹

"It is acknowledged that the uncertainty analysis would be of even more use in a situation where it helps guide the setting of the financial target, **rather than the highly inferior approach now adopted in legislation where the target is set prescriptively by legislation without evidence in support.**"¹⁵²

...you mentioned 75/25 as wishful thinking. **I wouldn't wish for 25 either. I don't think the case has been made for achieving 25.** This Board has accept (sic) heading towards 25 by a particular date, within annual discretion, as we set rates...¹⁵³

¹⁵⁰ June 6, 2023 transcript, Colaiacovo, 3332-3333.

¹⁵¹ Written report of Mr. Patrick Bowman, exhibit MIPUG-6 at 17-18.

¹⁵² PUB/MIPUG I-5.

¹⁵³ June 9, 2023 transcript, Williams, Bowman, 4066-4067.

WHAT MIGHT AN EVIDENCE BASED PROCESS TO CONSIDER FINANCIAL TARGETS INVOLVE

- What are the primary considerations of the financial market?
- What are the implications of a lengthy drought of 5, 7 or 10 years?
- What risks are appropriately hedged?
- What challenges might be better dealt with through management or regulatory action?
- What are the probabilistic outcomes of various combinations of risks taking into management and regulatory action¹⁵⁴

¹⁵⁴ June 6, 2023, Board member Bellringer, Colaiacovo, 3337-3340; Chairperson, Colaiacovo, 3344-3349.

**THE PROBABLISTIC UNCERTAINTY ANALYSIS PROVIDES
IMPORTANT INSIGHT INTO RISK, RATE SETTING AND
FINANCIAL TARGETS**

And with that tool, I think it's possible we would have concluded that a lower rate increase may have been possible, and we'd still have a high likelihood of meeting the targets and we would be able to ascribe some likelihood to that. But we don't have that tool today, and -- and absent that, we can't draw that type of conclusion. My recommendation is Hydro would resume work on that tool, and I believe they've -- they've committed to do so.¹⁵⁵

¹⁵⁵ June 9, 2023 transcript, Bowman, 3973-3974. See also exhibit MIPUG-15 at 7.

RECOMMENDED DETERMINATIONS

- For the purpose of rate setting under the applicable regulatory framework, the primary focus should be the interest coverage rate
- For the purposes of rate setting under the applicable regulatory framework, the 70/30 debt-to-equity is unjust and unreasonable and not approved
- Resume probabilistic uncertainty analysis on a time-sensitive basis

PART X COST OF SERVICE AND RATE DESIGN

PROSPECTIVE COST OF SERVICE STUDY 2024 (PCOSS24)

- PUB: A “cost allocation method for the sharing of a utility’s approved costs among the customer classes.”¹⁵⁶
- Manitoba Hydro: A “tool” for “estimating the portion” of Hydro’s costs attributable to serving each customer class¹⁵⁷
- One tool among many considerations for setting just and reasonable rates; PUB to determine weight, if any:
 - Order 164/16: “In setting domestic electricity rates, the Board has discretion as to what, if any, use is made of the COSS.”¹⁵⁸

¹⁵⁶ Order 164/14 at 5

¹⁵⁷ June 7, 2023 transcript, Van Hussen, 3549.

¹⁵⁸ Order 164/16 at 16.

PCOSS24: HIGHLY SUSCEPTIBLE TO CIRCUMSTANCE

MR. CHRIS KLASSEN: One of the reasons that the RCCs have the potential to change between Cost of Service studies, as you acknowledged, is that the Cost of Service study is dependent, in part, on the circumstances of the test year that provided the inputs. Is that correct?

MS. MARNIE VAN HUSSEN: That's fair, yes.

MR. CHRIS KLASSEN: And -- and as a result, the Cost of Service study is vulnerable to changes in, for example, changes -- and especially nonuniform changes, in revenue and costs, correct?

MS. MARNIE VAN HUSSEN: Yeah, I don't know if I would classify it as being vulnerable, but certainly it does change as circumstances change. And as costs and loads change, the results of the cost of service will change.¹⁵⁹

¹⁵⁹ June 7, 2023 transcript, Klassen, Van Hussen, 3552-3553.

PCOSS24: HIGHLY SUSCEPTIBLE TO CIRCUMSTANCE

MS. KELLY DERKSEN: Correct. So, from a rate base perspective, generation and transmission, excluding net export revenue, has moved from about order of magnitude 70 percent to more than 80 percent. And so, it is entirely reasonable that the level of accuracy that we are placing on the results of the Cost of Service study have not gotten better. They have deteriorated because you've got this big pool of costs that everyone shares, that everyone uses, and it's now increased very dramatically in terms of magnitude of cost.¹⁶⁰

- MH relies on PCOSS24 to functionalize, classify, and fairly allocate a rate base that has more than doubled in size since PCOSS18, the growth in which has shifted costs between functions and affected RCC outputs¹⁶¹

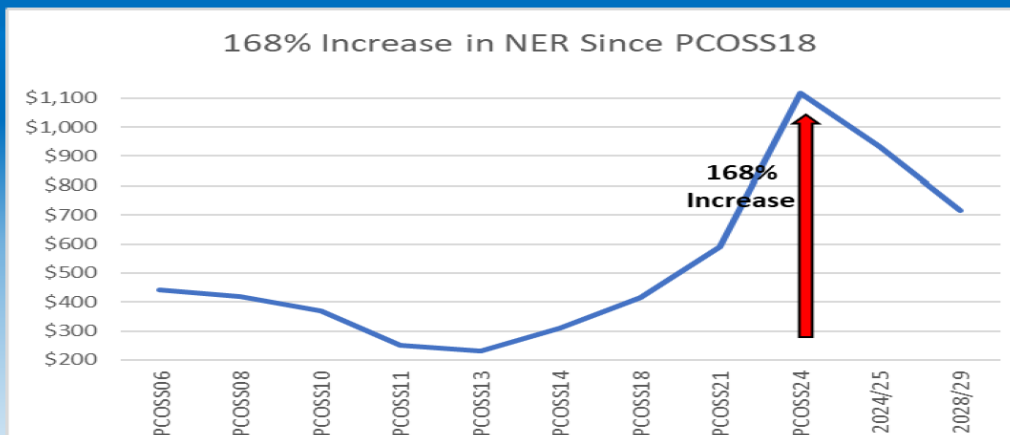
¹⁶⁰ June 8, 2023 transcript, Derksen, 3787

¹⁶¹ June 7, 2023 transcript, Klassen, Van Hussen, 3559-3561.

PCOSS24: VARIABLE WATER AND VOLATILE EXPORT REVENUES

- Manitoba Hydro’s water flow is highly variable and Export prices are volatile
- Constant and equal risk of either boom or bust, with risk of drought and opportunity for significant successes in the export market

RCCs Reflect Anomalous Record-Level of NER



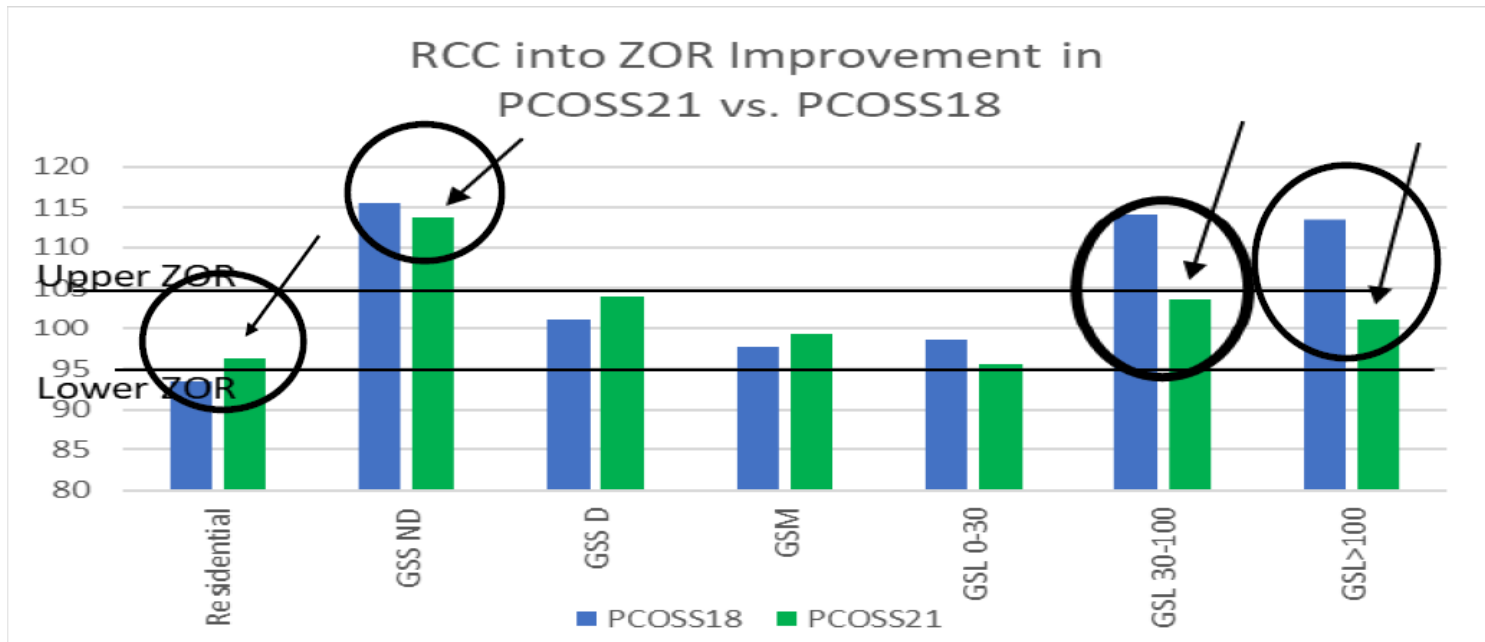
- Record Levels of Net Export Revenue impacting class RCCs
- Record Levels of NER sufficient enough to offset:
 - **38%** of total cost in 2023/24:
 - **48%** of allocated cost to GSL>100kV;
 - **35%** of allocated cost to the Residentials

(Sources: PCOSS06 pg. 15 Gross Exports less Variable, PCOSS08 pg. 11 Gross less Purchased Power; PCOSS10 pg. 3 Gross Less AEF & Purchased Power; PCOSS11 pg. 3 Gross Less AEF & Purchased Power; PCOSS13 pg. 7 Gross Exports Less AEF & Purchased Power; PCOSS14 pg. 20 Gross less AEF & Purchased Power; PCOSS18, pg. 19; PCOSS21 pg. 61)

Kelly Derksen slide presentation, exhibit CC-27 at 13.

PCOSS24: ANOMALOUS NER REFLECTED IN SKEWED RCCS

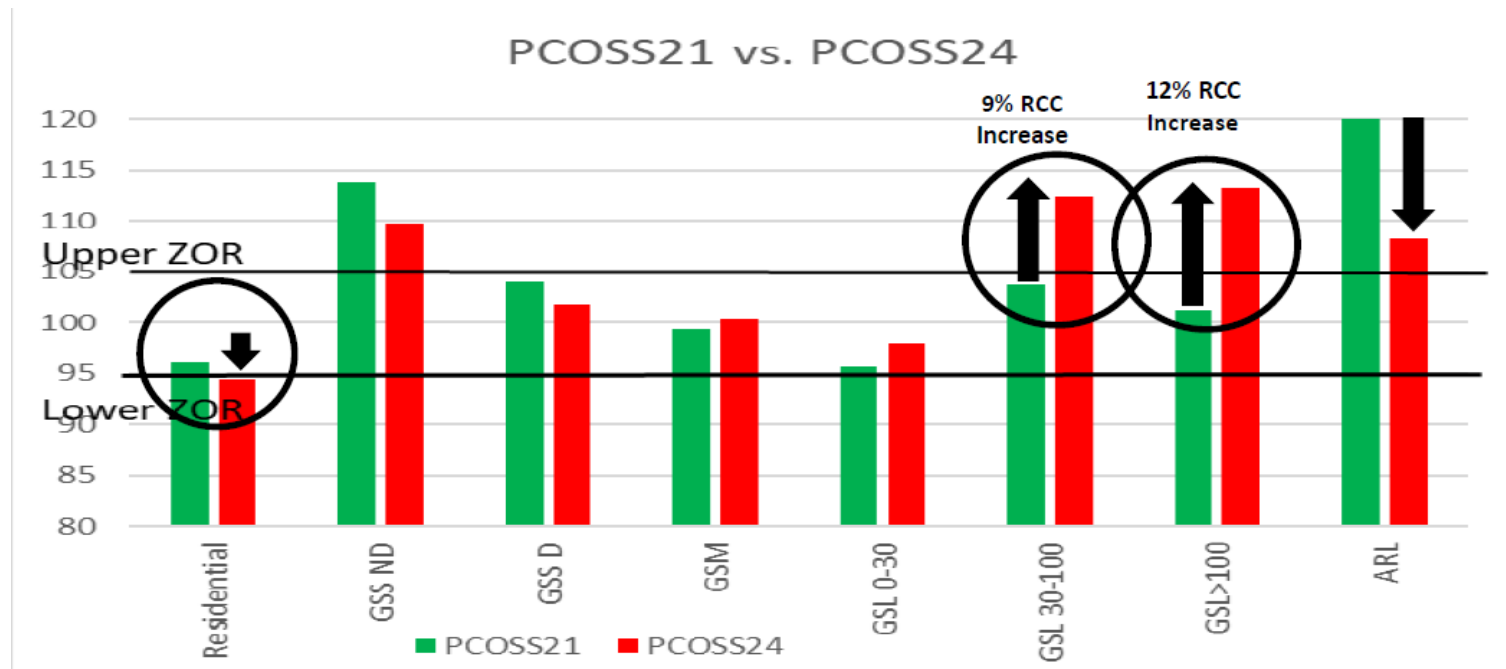
- PCOSS21 Displayed Progress Toward Unity...



Kelly Derksen slide presentation, exhibit CC-27 at 12.

PCOSS24: ANOMALOUS NER REFLECTED IN SKEWED RCCS

- ...which backslides with PCOSS24 NER



Kelly Derksen slide presentation, exhibit CC-27 at 14.

WATER VARIABILITY IS MEAN-REVERTING

However, we know that despite variability, average water flows over time will **remain relatively constant**:

DR. BYRON WILLIAMS: And, sir again, one (1) of the key points that you made at the onset, but it's worth reminding everyone, is that your observations about the **long-term trends in terms of water flow related to Manitoba Hydro is that they are mean reverting. Agreed?**

MR. PATRICK BOWMAN: Generally, yes. You know, obviously people talk about whether is a long-term trend and whether the -- the mean of the last thousand years will be the mean of the next hundred years or -- or some -- you know, climate change and those type of matters. But -- but generally, yes, this is a -- this is a -- a variable that -- that moves up and down. It's not -- it's not like some of the other things we might see like **export prices where you -- you don't rely on them moving up or down** and -- and coming back to the average. They're -- if they move up, that may be the -- the last time you ever see that -- that price. That's not the case with water.

DR. BYRON WILLIAMS: And despite that mean-reverting tendency, we can still be subject to very **wild swings** just within a few years, sir.

MR. PATRICK BOWMAN: Right.¹⁶²

¹⁶² June 9, 2023 transcript, Williams, Bowman, at 4041.

**PCOSS24: APPROPRIATELY WEIGHTED AS A VALUABLE
BUT IMPERFECT TOOL**

Ultimately, Cost of Service Studies are “approximations” that “involve judgment”¹⁶³

MR. CHRIS KLASSEN: [...] And while a prospective cost of -- of service study might appear to be arithmetically exact and a true reflection of each customer class's cost/causation, it can't be, correct?

MS. MARNIE VAN HUSSEN: I would agree with that.¹⁶⁴

¹⁶³ June 6, 2023 transcript, Van Hussen, 3395-3396.

¹⁶⁴ June 7, 2023 transcript, Klassen, Van Hussen, 3453-3454.

ORDER 164/16

Order 164/16 represents a “substantial” change to COSS methodology, but **what it doesn’t say about Rate Design is equally important.**

MR. CHRIS KLASSEN: Would you accept that one of the outcomes of Order 164 of '16 was to clarify the distinction between the Costs of Service study process and the rate design process?

[...]

MS. MARNIE VAN HUSSEN: The Order...was clear that there is a demarcation point.

MR. CHRIS KLASSEN: Thank you. And, in doing so, this Board confirmed that the Cost of Service study is to be underpinned by cost/causation and that cost/causation is paramount?

MS. MARNIE VAN HUSSEN: That was -- yes, I would agree with that.

MR. CHRIS KLASSEN: And the Board also determined that rate-making principles and goals should have no place in the Cost of Service study and that they should, instead, be considered in the rate design portion of a General Rate Application. Correct?

MS. MARNIE VAN HUSSEN: I would agree with that.

[...]

MR. CHRIS KLASSEN: And Order 164 of '16, recognizing that...it determined the distinction between the two (2) processes, it was about cost of service. It was not about rate design.

Correct?

MS. MARNIE VAN HUSSEN: I think that's fair.¹⁶⁵

¹⁶⁵ June 7, 2023 transcript, Klassen, Van Hussen, 3611-3613.

ORDER 164/16

MS. KELLY DERKSEN: ...And my concluding thoughts are that the spirit and intent of Order 164/16, as well as 59/18 and 109/22, is really that -- not to rigidly adhere to the results of the Cost of Service study or to a zone of reasonableness of ninety-five (95) to one-o-five (105). There are a number of factors that the Board must consider in arriving at rates that are deemed fair and equitable for consumers of Manitoba at the end of the day.¹⁶⁶

A COSS in which cost causation is paramount must necessarily be complemented by a rigorous, contextual application of Rate Design principles.

¹⁶⁶ June 8, 2023 transcript, Derksen, 3770.

CONSIDERATIONS IN RATE DESIGN: ZONE OF REASONABLENESS

MR. CHRIS KLASSEN:...And that the outputs of a Cost of Service study can vary widely, depending on the circumstances of the year in which it's based?

MS. MARNIE VAN HUSSEN: Confirmed.

MR. CHRIS KLASSEN: And is it fair to suggest that, to address this -- this, and other sources of imprecision in the Cost of Service study, Manitoba Hydro makes use of a zone of reasonableness?

MS. MARNIE VAN HUSSEN: Correct.¹⁶⁷

“At Manitoba Hydro if revenue to cost ratios fall within the ZOR of 95% to 105% it is deemed that a customer classes’ costs are sufficiently being recovered through rates.”¹⁶⁸

Live question before the Board whether a 95-105 ZOR inadequately accommodates the imprecision inherent in the COSS.

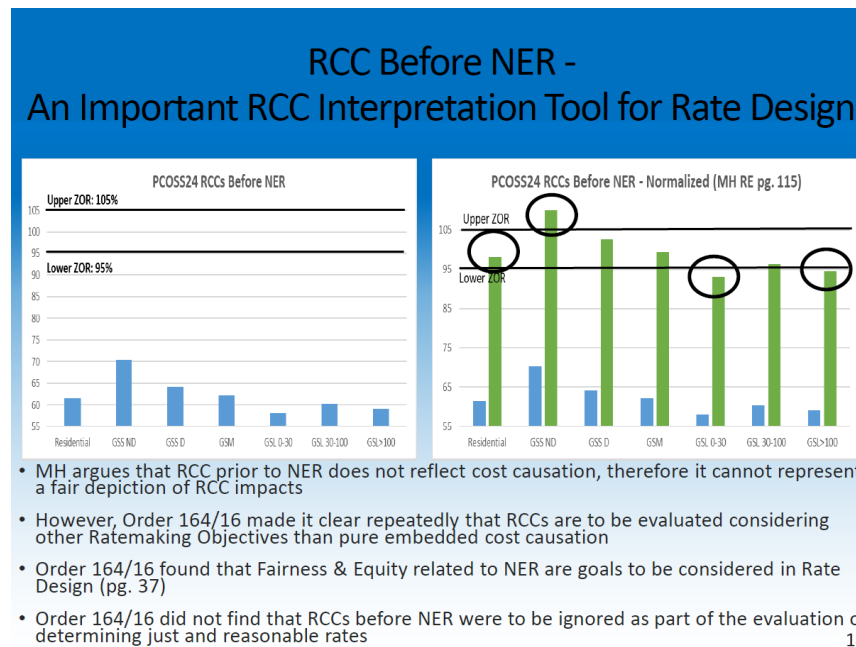
¹⁶⁷ June 7, 2023 transcript, Klassen, Van Hussen, 3610.

¹⁶⁸ COALITION/MH I-47c

CONSIDERATIONS IN RATE DESIGN: VARIABLE WATER

“Hydro’s [past practice of] crediting of export revenue on total costs is based on Manitoba Hydro’s approach of integrating ratemaking goals into the COSS. As the Board has stated above, **those goals are to be considered at the final ratemaking stage.**”¹⁶⁹

RCCs before NER are a valuable interpretive tool illustrating the effects of NER:¹⁷⁰

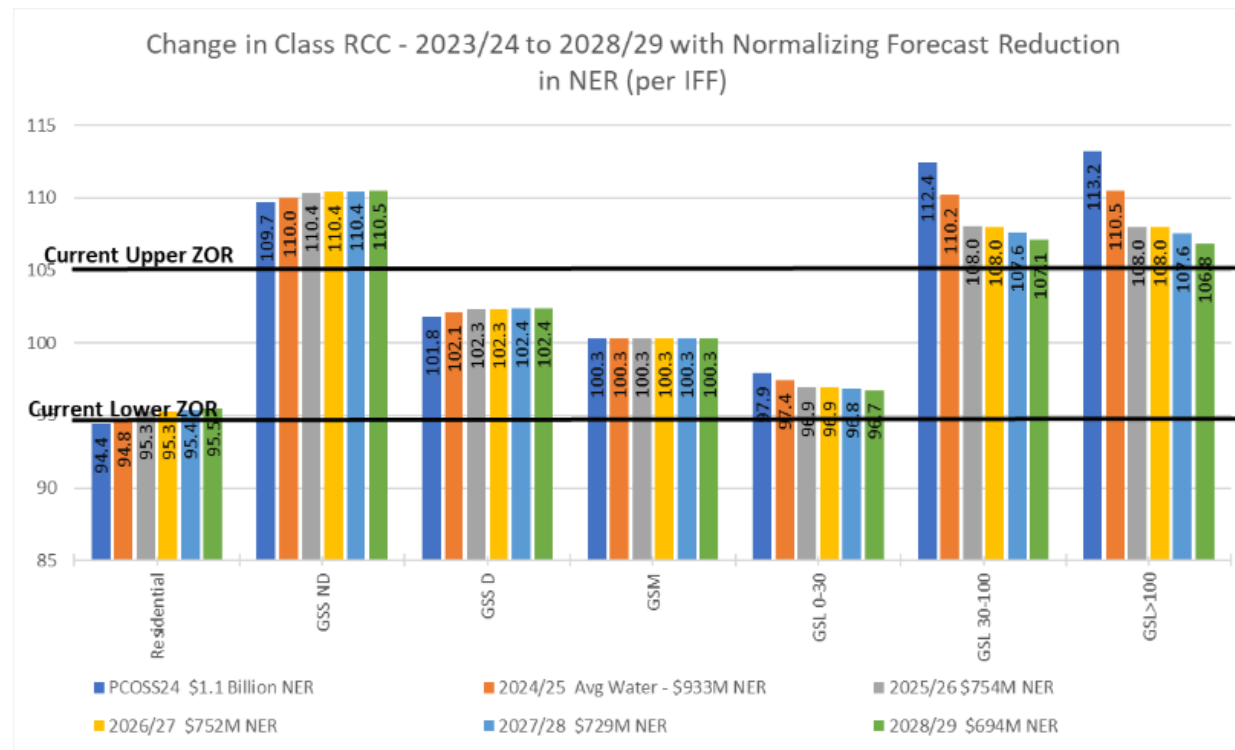


¹⁶⁹ 164/16 at 37.

¹⁷⁰ Slide presentation of Kelly Derksen, exhibit CC-27 at 18.

CONSIDERATIONS IN RATE DESIGN: VARIABLE WATER

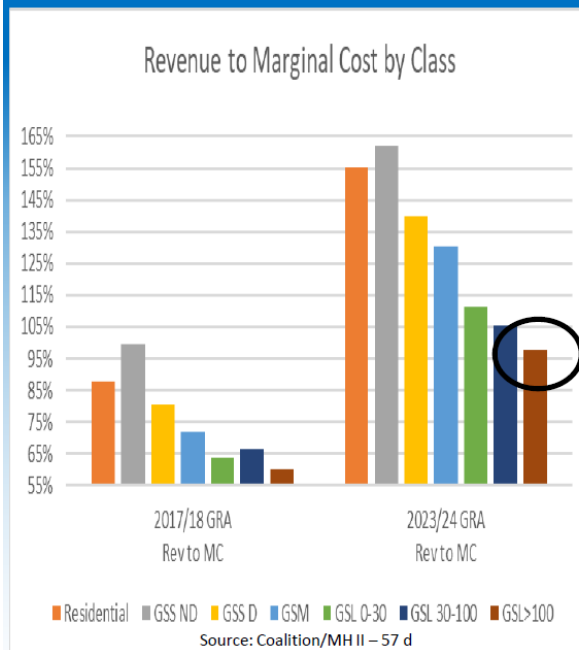
Comparing PCOSS24 to alternate flow scenarios illustrates the skewing impact of 2022/23 high water flows:¹⁷¹



¹⁷¹ CC-32, Response to Undertaking 64.

CONSIDERATIONS IN RATE DESIGN: MARGINAL COSTS

Marginal Cost Appropriately Considered for Rate Design Purposes Consistent with Order 164/16



- The Board finds that marginal cost considerations are **more appropriately addressed** in the rate design stage of ratemaking and not the COSS stage.

As articulated in the Principles section of this Order, cost causation underpins the COSS methodology, without including other ratemaking goals. **Equity and efficiency** are ratemaking goals that **should** be addressed in a rate-setting process such as a GRA. (Order 164/16, pg. 53)

- Order 164/16 concludes that Marginal Cost considerations appropriately addressed for Rate Design purposes
- MH Rate Differentiation fails to consider Marginal Cost conflicting with Order 164/16

Slide presentation of Kelly Derksen, exhibit CC-27 at 20.

CONSIDERATIONS IN RATE DESIGN: UNIFORM RATE ADJUSTMENT

MR. CHRIS KLASSEN: ...And would it be fair to say that both prior to 2001 and still today, the cost to serve a residence in Winnipeg would be different from the cost to serve a residence on a farm in rural Manitoba. Correct?

MS. MARNIE VAN HUSSEN: That's a fair assessment.

MR. CHRIS KLASSEN: And all else equal, you'd expect the cost to serve a residence in Winnipeg to be lower than the cost to serve a residence on a farm in rural Manitoba. Correct?

MS. MARNIE VAN HUSSEN: All else equal, [...] I think that's fair, yes.¹⁷²

More than the value (assessed at \$23.5M in PCOSS14), the URA in Rate Design reflects an **intentional government policy choice** that causes the residential RCC to **underrepresent** the actual individual RCCs of many class members

¹⁷² June 7, 2023 transcript, Klassen, Van Hussen, 3599.

CONSIDERATIONS IN RATE DESIGN: AFFORDABILITY

“where a discretionary administrative decision **engages the protections enumerated in the Charter** — both the *Charter’s* guarantees and the **foundational values** they reflect — the discretionary decision-maker is required to proportionately balance the *Charter* protections to ensure that they are **limited no more than is necessary given the applicable statutory objectives** that she or he is obliged to pursue.”¹⁷³

- More than mere consideration of the magnitude of differential rates, Manitoba Hydro must meaningfully consider the potential hardships its decisions will impose on its customers.
- Manitoba Hydro’s own data shows that following pandemic induced financial pressure, the burden of utility bills is becoming more difficult, rather than easier, to bear.¹⁷⁴
- Grants issued by Manitoba Hydro’s own flagship affordability program, Neighbours Helping Neighbours, in 2020/21 totalled less than half of the funds issued in any of the four prior years, just when Manitoba Hydro’s customers were in most dire need.¹⁷⁵

¹⁷³ *Loyola High School v. Quebec (Attorney General)*, 2015 SCC 12 at para 4.

¹⁷⁴ The proportion of respondents to Manitoba Hydro’s quarterly customer perceptions and satisfaction tracking survey identified as living with an “energy burden” increased from 34% of respondents in September 2022 (Coalition/MH I-126b Attachment I, page 10) to 41% in January 2023 (Attachment I to Undertaking I6).

¹⁷⁵ June 7, 2023 transcript, Klassen, Gregorashuk, 3623.

CONSIDERATIONS IN RATE DESIGN: MANITOBA HYDRO'S STATED RATE OBJECTIVES

- Key considerations conspicuously absent
- Narrow focus on cost causation fails to do justice to the spirit and intent of Order 164/16.

MS. KELLY DERKSEN: It's Manitoba Hydro's evidence, they actually state that explicitly in response to an Information Request that we posed of them. It is the Coalition/MH Round 1 142H. And in that response, they say cost -- cost of service is the primary consideration. That they also considered efficiency and if you look at their definition of 'efficiency', it means embedded cost and then rate stability was the third consideration and that is implementing the results of PCOSS24 over time. And on that basis, I conclude that cost/causation is their sole driver.¹⁷⁶

¹⁷⁶ June 8, 2023 transcript, Vice-Chair, Derksen, 3798.

COSS & RD: PATHWAYS FOR THE PUB

1. Order 164/16 envisioned a COSS driven by strict cost causation complemented by a robust consideration of policy and rate design principles.
2. Results of PCOSS24 reflect the extreme water flows and NER experienced by Hydro in 2022/23.
3. Mean-reverting tendencies in the largest source of volatility signal an opportunity to improve stability and predictability.

Confluence of High Water and Favourable Markets revealed a vulnerability in COSS methodology.

COSS & RD: PATHWAYS FOR THE PUB

1. Manitoba Hydro's differentiated rate proposal reveals an inordinate focus on achieving unity to the exclusion of nearly all else.
2. Order 164/16 envisioned a COSS driven by cost causation and rate design driven by context.

Manitoba Hydro has failed to meaningfully grapple with the task of ensuring fairness and equity between classes.

**PART XI RECOMMENDATIONS FOR JUST AND
REASONABLE RATES**

RECOMMENDED FINDINGS FOR THE DETERMINATION OF A JUST AND REASONABLE REVENUE REQUIREMENT

1. Consistent with the existing statutory framework and Order 5/12, a just and reasonable revenue requirement should:
 - be based on reasonably reliable forecasts;
 - promote economy and efficiency in MH operations (costs that are prudently and necessarily incurred); and
 - appropriately balance the interests of the captive ratepayers and the overall health of the corporation
2. In terms of reasonably reliable forecasts, place heavy weight on test years and little weight on the time period beyond the test years given Hydro's admission of "unprecedented uncertainty" and failure to acknowledge projected benefits in its forecasts given the absence of business cases for major expenditures;
3. A strong economy and efficiency signal is required given finding Hydro's challenges in demonstrating that BOC, O, M and A and Finance Costs are prudently and necessarily incurred especially at a time of acute stress for Manitoba ratepayers;

RECOMMENDED FINDINGS FOR THE DETERMINATION OF A JUST AND REASONABLE REVENUE REQUIREMENT

4. Manitoba Hydro's financial situation has materially improved since the last General Rate Application and it has not established that its risk profile is higher than at the last general rate application;
5. Acknowledge that Manitoba Hydro is significantly more resilient in the face of drought due to the MMTPL and the increased generating capacity offered by Keeyask;
6. In terms of financial targets, place significant weight on interest coverage ratios and consider net income in the test years while acknowledging progress that has been made in terms of debt-to-equity;
7. Based upon the evidence before it and the existing regulatory framework, reject 70-30 debt-equity target for Manitoba Hydro as unjust, unreasonable and unnecessary.

RECOMMENDED FINDING FOR THE DETERMINATION OF A JUST AND REASONABLE REVENUE REQUIREMENT

The Consumers Coalition unanimously rejects the 2% rate path recommended by Manitoba Hydro and Mr. Bowman on the grounds that:

- a) it is targeted to achieve an unjust and unreasonable 70/30 debt-to-equity target (as Mr. Bowmann has found);
- b) it assumes Manitoba Hydro's proposed expenditures are necessary and prudent and fails to send an economy and efficiency signal;
- c) it relies on an inherently suspect 20-year financial forecast

The Consumers Coalition does not recommend a 1.59% rate increase premised on a 75/25 debt-to-equity target on the primary grounds that it does not appear to send an economy and efficiency signal.¹⁷⁷

¹⁷⁷ June 9, 2023 transcript, Hombach, Bowman, 4101-4103.

RECOMMENDED FINDING FOR THE DETERMINATION OF A JUST AND REASONABLE REVENUE REQUIREMENT

The Consumers Coalition believes the PUB should give heavy weight to two overall rate recommendations:

- I. Mr. Rainkie's 0% rate recommendation for the 2023/24 year and 1.3% rate recommendation for the 2024/25 year which:
 - a. Places primary weight on the early years of the financial forecast;
 - b. Sends a critically important economy and efficiency signal by incorporating projected savings of BOC (10%), O, M and A and Finance Expense; and
 - c. Appropriately balances the interests of ratepayers and Manitoba Hydro by considering all 6 financial targets employed by Manitoba Hydro and is projected to achieve a near term (2028) 80/20 debt-to-equity ratio;¹⁷⁸

¹⁷⁸ June 1, 2023 transcript, Hombach, Rainkie, 2818-2822.

RECOMMENDED FINDING FOR THE DETERMINATION OF A JUST AND REASONABLE REVENUE REQUIREMENT

2. Mr. Colaiacovo's 0% rate recommendation for the 2023/24 year and 0% rate recommendation for the 2024/25 year which:
 - a. Focuses on the test years of the financial forecast;
 - b. Sends an implicit economy and efficiency signal;
 - c. Places critical weight on the interest coverage financial target which is of significant importance for the financial markets while being mindful of the necessity of Manitoba Hydro having sufficient equity to address hydrological risk;
 - d. Recognizes the ongoing burden of ratepayers related to major capital projects;¹⁷⁹ and
 - e. Has been recognized by Mr. Rainkie as reasonable rate recommendation.

¹⁷⁹ June 6, 2023 transcript, 3324-3328, Colaiacovo.

RECOMMENDED FINDING FOR THE DETERMINATION OF A JUST AND REASONABLE REVENUE REQUIREMENT

With the written consent of the Consumers Coalition:

We can indicate that Harvest Manitoba and the Aboriginal Council of Winnipeg recommend:

- 0% for the 2023/24 year and 1.3% rate recommendation for the 2024/25 year;

The Consumers Association of Canada (Manitoba) Branch recommends:

- 0% for the 2023/24 year and 0% rate recommendation for the 2024/25 year.

RECOMMENDED FINDING FOR THE DETERMINATION OF A JUST AND REASONABLE REVENUE REQUIREMENT

The Consumers Coalition acknowledge that it would be reasonable for the PUB to conclude that the 3.6% interim rate increase for the 21/22 year and 22/23 was excessive or not needed¹⁸⁰ especially considering:

- a combined Manitoba Hydro Net Income for the 2021/22 and 2022/23 of 417 million (MFR 17) and
- Manitoba Hydro's choice to operate "business as usual" during the drought with no efforts to restrain BOC or O, M and A expenditures.¹⁸¹

In the event, the PUB determines the 3.6% interim rate increase for the 21/22 year and 22/23 was excessive, it might:

- defer the \$85 million associated with the interim rate increases for those thereby implying a 1.8% increase for 2023/24 and 1.8% increase for 2024/25
- it also could defer 50% of the 3.6% for 2023/24 or another \$32 million - for a total deferral of \$117 million

The regulatory deferral account would require further consideration and amortization at the next GRA.

Other options could involve lower rate increases for the 2 forward test years (like 1.2%) and proration of the financial impacts of the 3.6% or \$64 million to add higher amounts to the deferral account for 2023/24.

¹⁸⁰ June 9, 2023 transcript, Hombach, Bowman, 4104-4105.

¹⁸¹ May 30, 2023 transcript, Williams, Tess, 2315-2320; May 23, 2023 transcript, Peters, Turner, 1255-1257.

COSS & RD RECOMMENDATIONS

1. Approve a below-average change for GSS-ND and equal changes to all other classes.
2. Provide direction to Manitoba Hydro on the rigour required in Rate Design, including consideration of the policy factors identified in Order 164/16, the failure of the 10% ZOR to accommodate imprecision in the COSS, and the potential combined effect of rate changes on financial pressures already faced by customers.
3. Direct a new COSS review process to take place approximately 10 years after Order 164/16 that can respond to the upcoming changes in Manitoba Hydro's customers energy usage and in Manitoba Hydro's usage of its assets.
4. COSS recommendations of Mr. Patrick Bowman be dismissed:
 - a. Appropriate to consider the capacity value of wind after the IRP
 - b. No reason to depart from 164/16 treatment of DSM
 - c. Winter coincident peak needs to remain sufficiently broad to capture all classes' potential contributions to system peaking, and no analysis has been done to determine how many hours, if not 50, is appropriate.

THANK YOU!