

Direct Evidence of M. Greg Matwichuk

On Behalf of
CAC/MSOS
June 7, 2011

Regulatory CV

- Chartered Accountant
- Written and oral testimony
- MPUB and other regulators (e.g. BCUC, AUC, OEB, CRTC, NEB)
- Electricity, Gas LDC, Pipeline, Telecom

Regulatory CV

(Continued)

- MPUB Appearances – Centra GRAs, MH Status Update
- MPUB Proceedings – MH GRAs, Centra Sale, Integration, Gas Cost, PGVA, MPI, etc.
- Clients – Ontario Hydro, City of Calgary, 2 Regulators, Industrial Power Consumers, Private Industry
- 27 years – regulated utilities

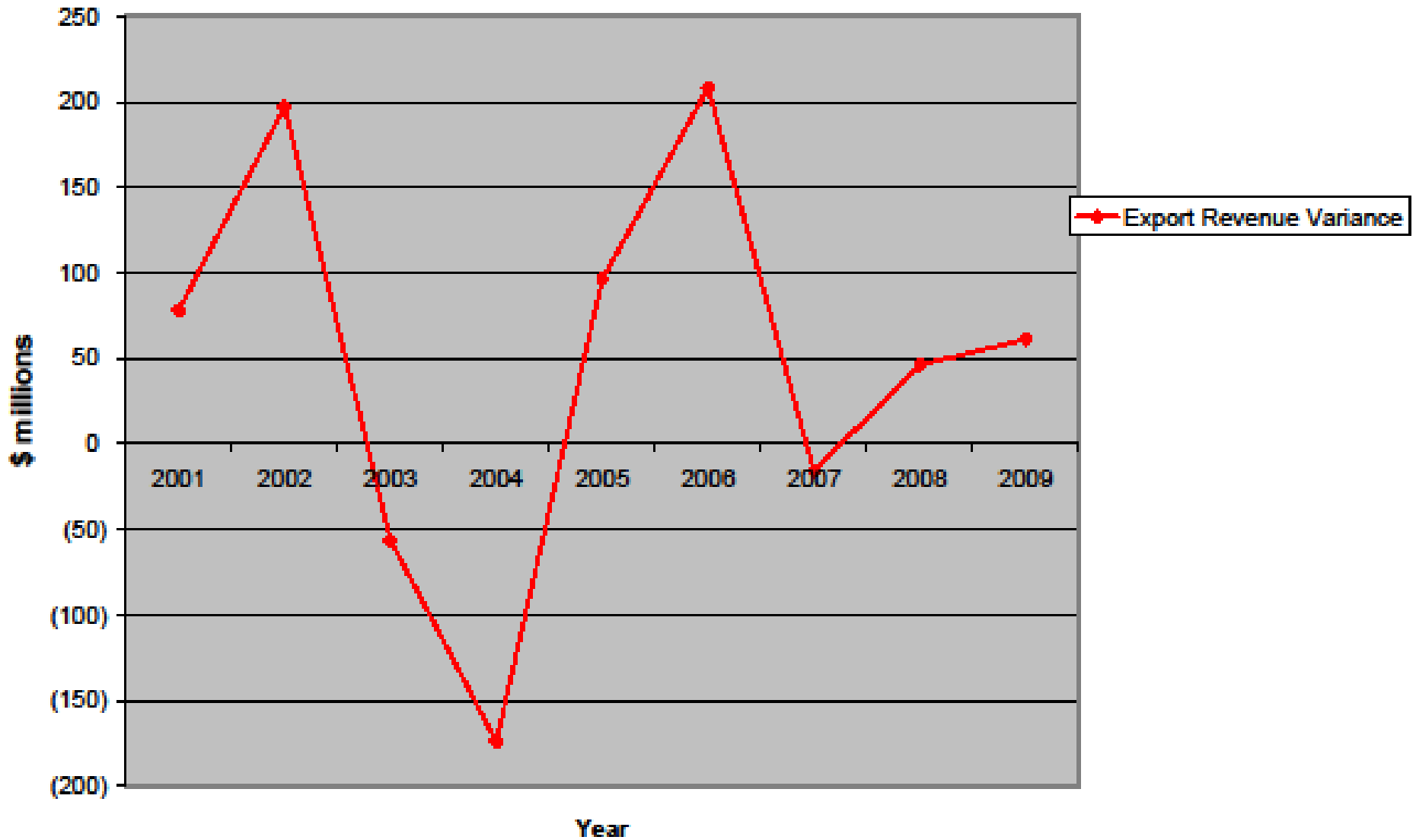
Overview

1. Domestic Ratepayers
2. Risks and Rewards
3. Rate Stabilization Mechanism (“RSM”)
4. Certain MH Financial Targets

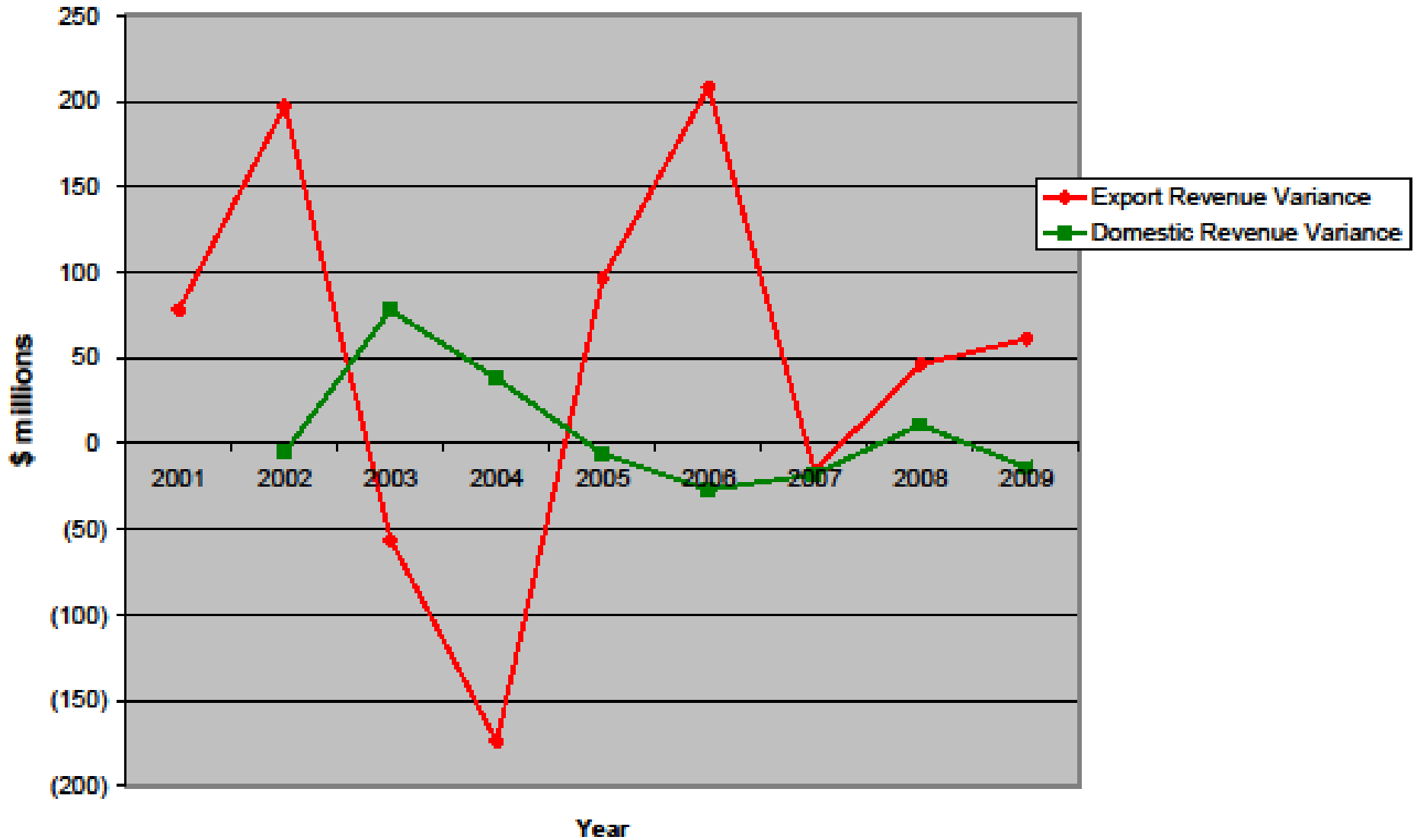
Export Revenue Forecasts & RSM

- Export forecasts
- Gaping export variances
- Power of the RSM
- Fundamentals leading to RSM

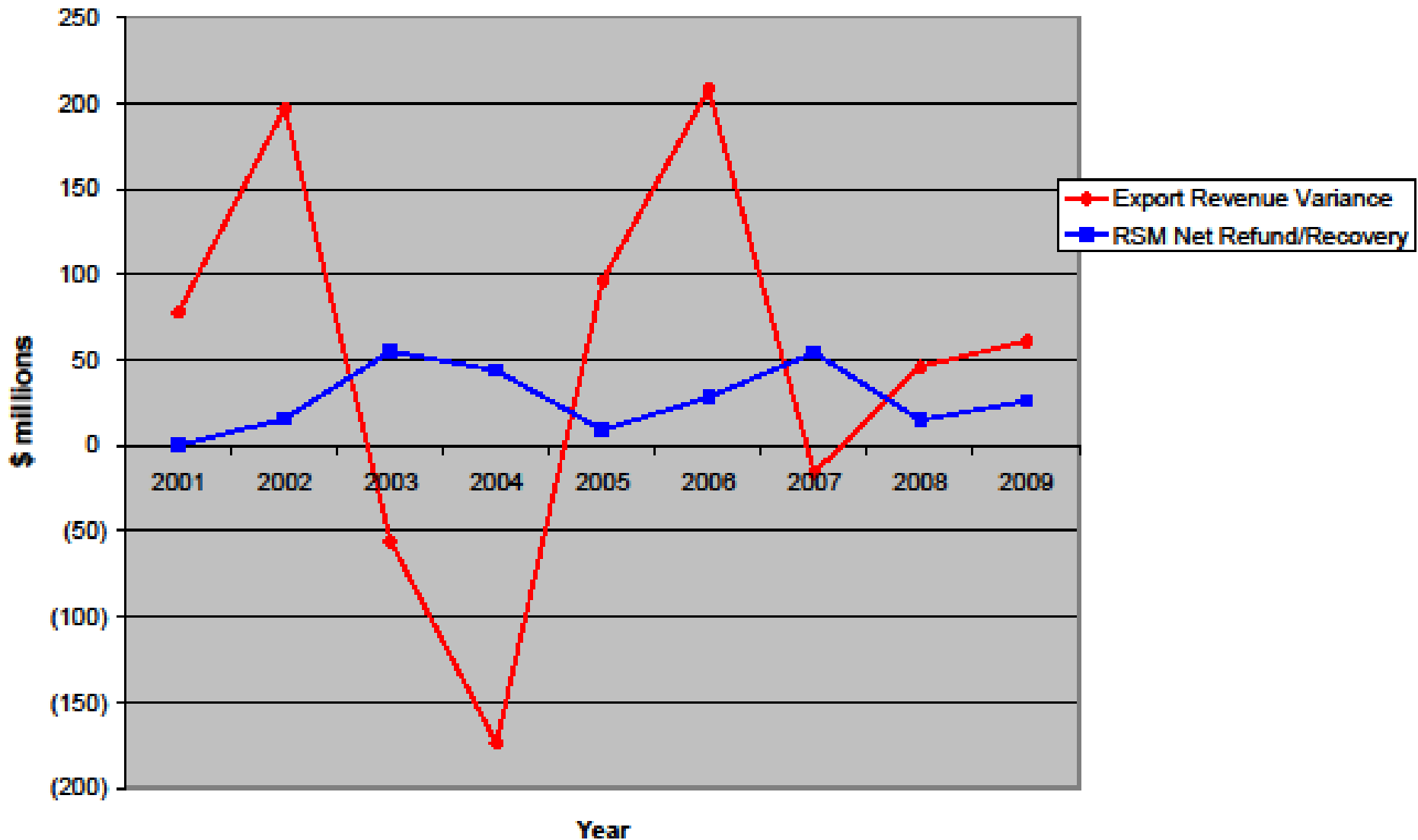
MH Export Revenue Variances 2001 - 2009



MH Export Revenue Variances & MH Domestic Revenue Variances 2001 - 2009



Compare Export Revenue Variances to Refunds/Recovery Under Recommended RSM



Domestic Ratepayers

- Who are they?
- What is their role in regulatory paradigm?
- Why relevant to this evidence?
- How RSM can assist them?

Domestic Ratepayers

- Domestic Customers
- Taxpayers/residents in the Province
- Ultimate “Owners” of MH

- “Ratepayers” = Domestic Ratepayers

Who Bear the Risks?

- IOU – shareholders bear the risk
- MH – Province is the shareholder
- Province – answers to taxpayer/resident public

Risks and Rewards

Two Key Fundamentals

- Symmetry of Risk - Downside / Upside
- Investor perspective of risk

Risk – The Two Sides

- Downside risk – possible single event outcomes with lower worth than expected
- Upside risk (opportunity) – possible single event outcomes with higher worth than expected

Risk – Manitoba Hydro

For MH

- Downside – lower than expected revenues
- Upside – higher than expected revenues
- Volatility – largely in exports

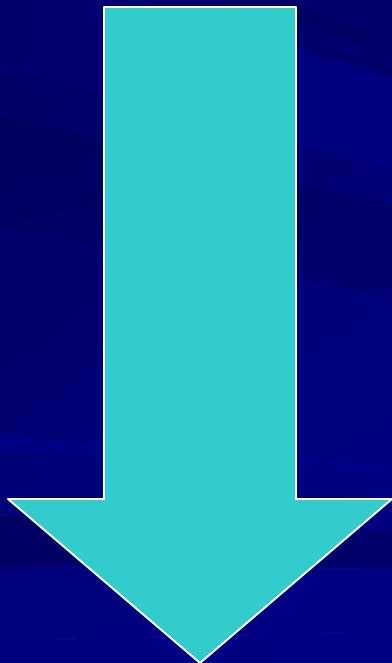
Risk in Regulatory Context

- Risk – event outcome different than expected
- MH GRA - Risk - actual result different than amount forecast for purpose of setting domestic rates
- Domestic rates – based on expectations – i.e. FORECAST

MH Risks In Export Forecasts

Downside

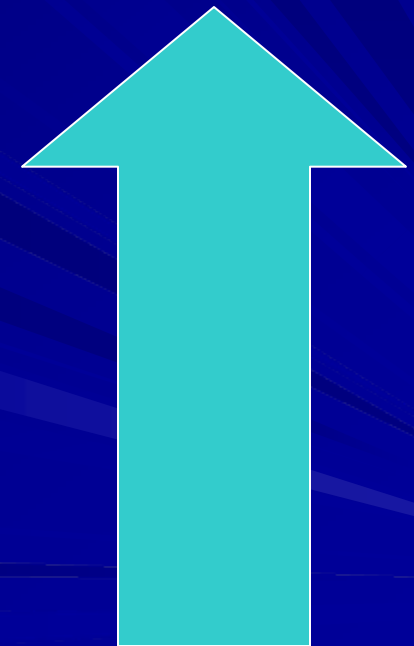
LOWER than
expected



- Water levels
- Export demand
- Export prices
- Import prices
- Etc.

Upside

HIGHER than
expected



Asymmetry of Discretion

- If domestic rates too low...
- If domestic rates too high...
- Potential of MH discretion is asymmetrical

Risk – Investor Perspective

- Any investor who has to bear a (downside) risk, should see a clear and explicit opportunity of a return (the upside)

RSM - Four Findings

- 1) Domestic ratepayers Domestic ratepayers essentially bear the risks of export revenue less than forecast
- 2) Domestic ratepayers are entitled to explicit reward for the risks they bear when export revenue is greater than forecast

RSM - Four Findings

(Continued)

- 3) Domestic ratepayers have not explicitly benefited through rates from the rewards of the export revenue risks they bear
- 4) A rate stabilization mechanism would allow domestic ratepayers to explicitly benefit from risks that they bear

Logic for an RSM

- Domestic Rates
- Actual vs. Forecast
- Revenue Volatility

Domestic Rates

- Formalized mechanism – Revenue Requirement
- Formalized mechanism – PCOSS
- MH Mandate – adequate power for domestic ratepayers
- MH not permitted to simply use its discretion

Export Revenues in Rates

- FORECAST export revenues – median water flows
- Domestic Ratepayers bear the financial consequences of forecast error

No Explicit Benefits to Ratepayers for Export Variances

- FORECAST Net Export Revenues – export revenues after deductions for certain assigned and allocated costs
- SOME of the benefit of exports go to ratepayers contained in the FORECAST
- NO explicit benefit to ratepayers for export revenues GREATER THAN FORECAST

Actual vs. Forecast

ACTUAL Export Revenues

Greater or Lower
than

FORECAST Export Revenues

Forecast – If Perfect Foresight

- Actual Export = Forecast Export
- If actual export exceeds forecast, domestic rates were too high
- If actual export is less than forecast, domestic rates were too low

Historical – Actual & Forecast

- More often actual export revenue greater than forecast
- Cumulatively, actual greater than forecast
- Perfect foresight:
If forecast of exports matched actual, domestic rates would have been lower

Financial Consequences

- Domestic Ratepayers bear all the financial consequences of risk (“FCOR”) in MH
- Domestic Ratepayers bear FCOR that actual export revenues will vary from forecast

Domestic Ratepayers Experience the Downside

- Adverse water conditions in 2004, export losses, followed by MH requested rate increase to supplement fallen R/E.
- Example of Domestic Ratepayer experiencing FCOR on downside
- “...rewards of risk-taking are internalized within MH.” K&M

Return to Risk Fundamentals

- Symmetry of risk and reward (opportunity)
 - Domestic Ratepayers should similarly benefit when actual export is ABOVE forecast

Goal of Participating in Exports

- General commitment to exporting power – how Domestic Ratepayers involved and impacted appropriately
- Goal – to provide benefits of participating to Domestic Ratepayer

Formalized Mechanism

- No formalized, explicit or immediate mechanism to adjust domestic bills when ACTUAL export revenues differs from FORECAST export revenues
- Existing Formalized Mechanisms
 - Revenue Requirement
 - PCOSS

No Explicit Benefit

- No explicit benefit to Domestic Rates from better than expected (forecast) export revenues

Volatility of Export Revenue

- Volatility of export revenue manifests through net income
- Variability of net income primarily from hydrology (NBF Report)
- Earnings from exports – critical factor influencing financial performance (ICF Report)

Underestimated Net Income & Export Revenue

■ 2005 – 2010

- ACTUAL cumulative Net Income exceeded Forecast Net Income by \$777 million

■ 2001 – 2009

- ACTUAL cumulative export revenue exceeded Forecast export revenue by \$441 million

Actual Export Revenue & Domestic Rates

- Suggests material amounts of export revenue were not contained in forecast to otherwise offset Domestic Rates
- Domestic rates – too high relative to actual export revenue

Forecasting Difficulty

- Recognize difficulty in forecasting water levels
- Long term forecasts may not be very reliable
- Promises of lower rates in 10 – 20 years, deserve healthy degree of skepticism
- Variability of water flows likely have greater financial consequences with expansion

Forecasting Difficulty

(continued)

- Future variances between forecast and actual export revenue are unlikely to be lower than current
- Expansion suggests greater risk taking
- Domestic Ratepayers do not currently have explicit formalized mechanism to obtain rewards of MH risk taking
- RSM can handle variances from risk taking

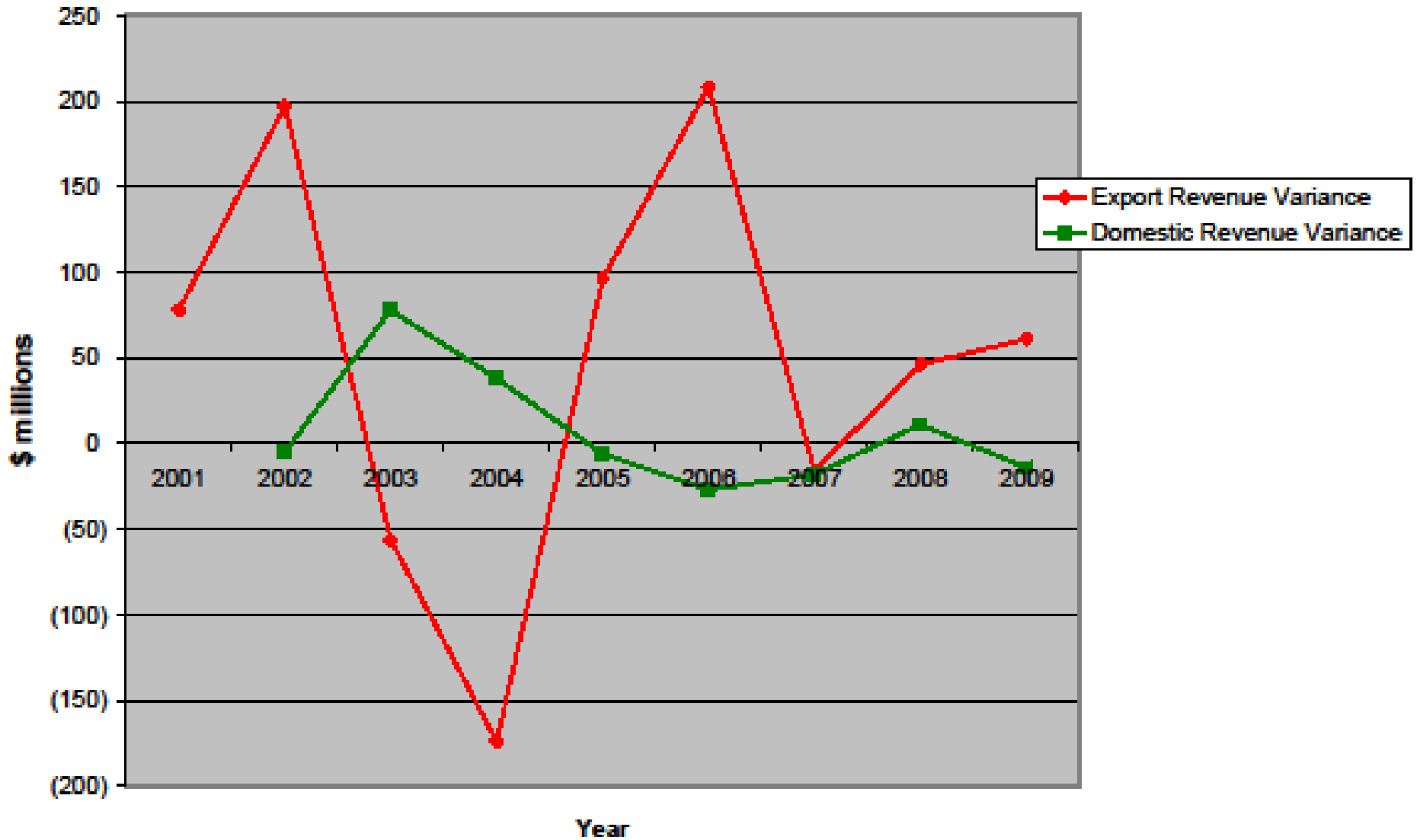
Recommended RSM

- Provides formal, explicit and immediate mechanism
- Provides benefits and costs to ratepayers when ACTUAL export revenues vary from FORECAST export revenues

MH Conditions for RSM

- Significant variances in forecasting
- Observed volatility in export revenue
- Subject to known contingencies with uncertain timing and impact

MH Export Revenue Variances & MH Domestic Revenue Variances 2001 - 2009



RSM – Overview

- Directs returns from Export Revenue Variances to Domestic Ratepayers who bear the risks of export

Retained Earnings

- Accounting number
- Historical
- Not cash
- Not designed for Domestic Ratepayer protection
- History does not show an explicit, transparent ratepayer protection

How RSM Functions

- When ACTUAL export revenue $>$ forecast, refund to ratepayers
- When ACTUAL export revenue $<$ forecast, recovery from ratepayers
- Differences amortized over period (say, 5 years) – smoothing

Recommended Rate Stabilization Reserve
Illustrative Example of RSR Mechanics
Using Variance of Actual Net Export Revenue From Forecast Net Export Revenue
Data from Table 3 of Evidence of M.G. Matwichuk

	2001	2002	2003	2004	2005	2006	2007	2008	2009
	(\$ millions)								
1 Balance beginning of year	0	78	259	148	(89)	18	197	127	158
2 Variance re Export Revenue (Actual > Forecast in Table 3)	78	197	0	0	96	208	0	46	61
3 Variance re Export Revenue (Actual < Forecast in Table 3)	0	0	(58)	(174)	0	0	(16)	0	0
4 Variance for the year	78	197	(58)	(174)	96	208	(16)	46	61
5 Balance after variance for the year	78	275	203	(28)	27	228	181	173	219
6 Annual Amortization to reduce (include in) domestic rates:									
7 Amortization of variance in 2001	0	18	18	18	18	18	0	0	0
8 Amortization of variance in 2002	0	0	39	39	39	39	39	0	0
9 Amortization of variance in 2003	0	0	0	(11)	(11)	(11)	(11)	(11)	0
10 Amortization of variance in 2004	0	0	0	0	(35)	(35)	(35)	(35)	(35)
11 Amortization of variance in 2005	0	0	0	0	0	19	19	19	19
12 Amortization of variance in 2006	0	0	0	0	0	0	42	42	42
13 Amortization of variance in 2007	0	0	0	0	0	0	0	(3)	(3)
14 Amortization of variance in 2008	0	0	0	0	0	0	0	0	9
15 Amortization of variance in 2009	0	0	0	0	0	0	0	0	0
16 Net refund to / (recovery from) domestic customers	0	18	55	44	9	28	54	15	28
17 Balance end of year	78	259	148	(89)	18	197	127	158	193

Monthly Bill Showing RSM Effect

Basic Charge	\$6.85
Energy Charge	
– 1000 kW.h @ 6.62¢ / kW.h	<u>66.20</u>
Current Month	73.05
“Export Revenue Normalization”	<u>(5.00)</u>
Net Total Monthly	<u>\$68.05</u>

Benefits & Support for Recommended RSM

1) Formalized mechanism

2) Explicit link between

i) variances from forecast export revenues
under existing rate assumptions

and,

ii) risks borne by domestic ratepayers

Benefits & Support for RSM

(continued)

- 3) Transparency
- 4) Regulatory tool
- 5) Symmetry in treatment of variances
- 6) Removes MH discretion
- 7) Avoid surcharges to set it up (vs. K&M)
- 8) Straightforward and administrative ease
- 9) No segregation of R/E

Benefits & Support for RSM

(continued)

- 10) No need to set a target or manage a fund relative to a target
- 11) No funding or additional financing required from Province
- 12) Used in other jurisdictions

Outcomes of Recommended RSM

- Matching Benefits with Risks
- Rate Smoothing of Variances
- Mitigate Potential Moral Hazard

RSMs Currently Exist

- Regulated entities – hydro electric, water utilities, gas LDCs and insurance
- Examples:
 - Gaz Metro – RSA similar to recommended
 - Seattle City & Light – target balance

Certain MH Financial Targets

- Retained Earnings (“R/E”)
- Debt Equity Ratio (“D/E ratio”)
- Interest Coverage Ratio

Retained Earnings

- R/E not necessarily a strong indicator that entity can withstand adversity
- Equity is not a pool of cash
- ENRON, PNG & others - flush with R/E, but cash flow compromised

Retained Earnings

(continued)

- No statutory requirement for MH R/E level
- No reliable or formal mechanism to use R/E as a vehicle to protect against rate increases
- MH open to allocate R/E at its discretion
- If R/E truly definitive in mitigating risk, would Province place MH at a higher risk when legislates distribution of funds?

Debt Equity Ratio

- Target WAS 75:25
- Target changed:
 - MH: 75:25 “except during years of major investment in generation and transmission system”
- No MH data or external evidence to meaningfully support 75:25, 80:20, 85:15

Debt Equity Ratio

(continued)

- Debt guarantee fee has not changed with improved D/E ratio
- Financing rates - not appear to depend on internal financing targets
- MH voluntarily moving to D/E of 80:20
- Previously “A debt ratio of 80:20 diminishes the Corporation’s ability to mitigate risks such as drought.”

Debt Equity Ratio

(continued)

- Q. Is MH D/E ratio important for its credit ratings?
- A. Not a primary driver.
 - 1) Credit ratings assess credit worthiness
 - 2) Almost all MH debt issued &/or guaranteed by Province
 - 3) Agencies are specific: ratings based primarily on relationship with Province, debt issued and guaranteed by Province

Credit Ratings

- Only DBRS rates MH Long Term Debt
- S&P and Moody's only report on short term debt
 - NOT a report on long term credit worthiness of MH

Empirical Data

- Debt component of Debt Equity Ratio varied significantly
- 1997 – 2010 Debt Ratio
 - High of 88% (i.e. 88:12) (2004 – 87:13)
 - Low of 73% (i.e. 73:27)
- During that time – credit ratings held or improved

Interest Coverage Ratio

- Target of 1.2 times
- No evidence for target
- No statutory requirement for target > 1.0
- Interest coverage slightly above 1.0 times would provide cushion to debt holder
- Guarantee fee already exists – redundancy

Financial Targets

- Interest coverage and debt equity are not determinative.

Response to MH Rebuttal

- MH rebuttal contains unreliable paraphrasing of MGM evidence
- Commend Board to original documents
- Welcome questions on original documents
- A couple issue for a response

Response to Certain MH Rebuttal Matters

- Reasons for RSM
- Benefits from RSM
- Current Uses of RSM
- RSM Mechanics
- Debt Equity ratio

MH Rebuttal - Reasons for RSM

- MH suggests RSM not needed - Disagree
- Time is right for RSM
- RSMs used where forecasting difficult
- MH Forecast export revenue variances
- Risk assessment – better understanding
- Ratepayers – bear risk, entitled to return

MH Rebuttal - Benefits of RSM

- MH – “no additional benefits” of RSM – Disagree
- Benefits & Support – Slides # 44 – 46
 - Explicit link betw variances and ratepayer risks
 - Formalized mechanism to deal w variances
 - Transparency of RSM vs black box of R/E
 - Straightforward
 - No funding or targets required
 - Etc. – see previous slides

MH Rebuttal

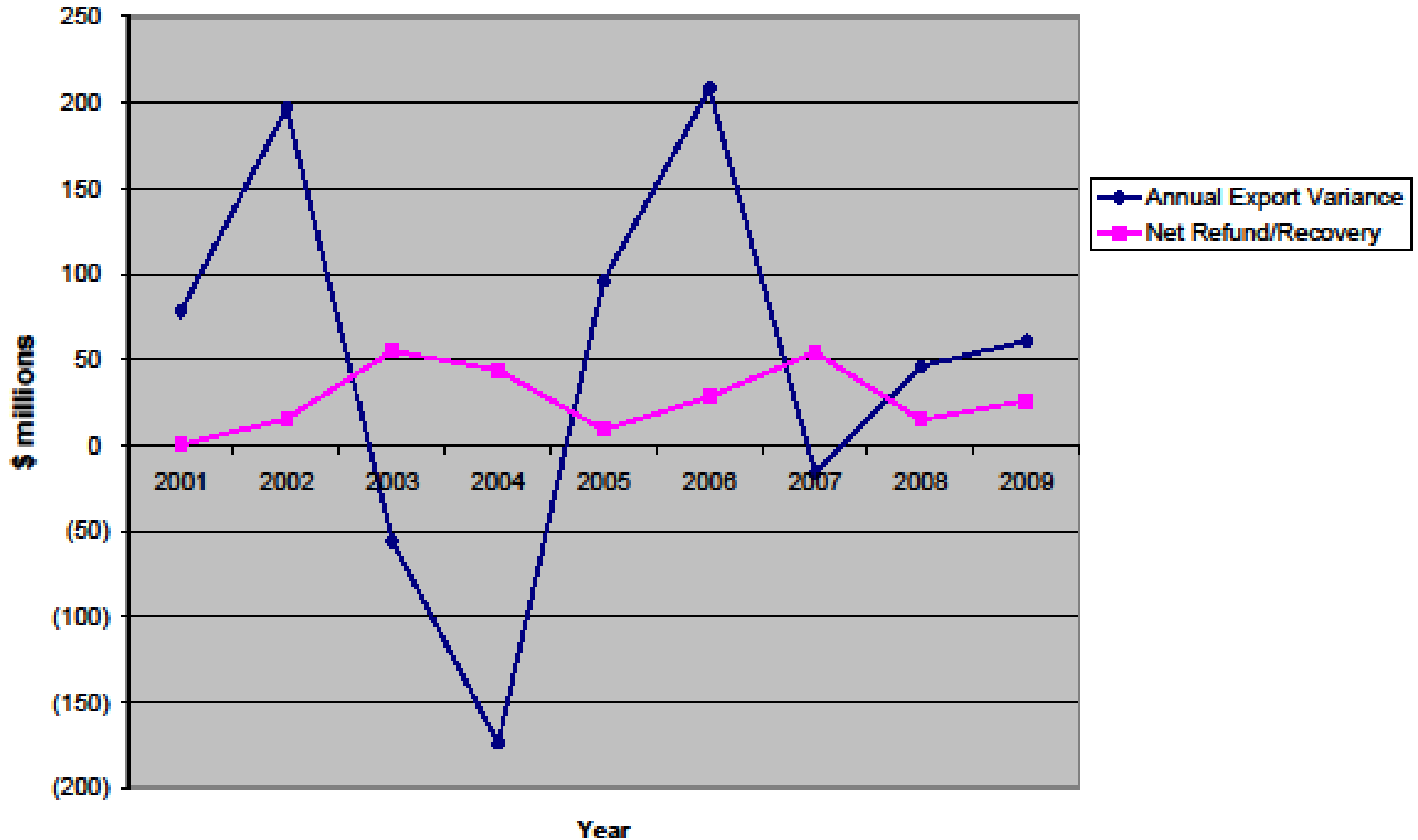
Current Uses of RSM

- MH - “archaic” and “not employed” – Disagree
- RSMs are currently used
- Hydro electric, water, gas LDC
- Newfoundland & Labrador Hydro

MH Rebuttal - RSM Mechanics

- MH – RSM “will not serve to stabilize rates in the event of a significant financial loss” - Disagree
- Unfavourable export variance → financial loss
- Explicit identification and quantification
- Amortization
- Ratepayers explicitly receive benefits of favourable variances and costs of unfavourable variances.

**Illustrative Example
to
Compare Export Revenue Variances to Refunds/Recovery
Under Recommended RSR**



MH Rebuttal – Debt Equity Ratio

- MH – “the more debt...the more financial risk” – Not observable
- Consider example – 2004 Drought

MH Rebuttal – Debt/Equity

- 2004 Drought – Financial Events
 - \$100s of millions in interest payments due
 - Cash flow from operations dried up
 - Borrowed from Province for cash
 - \$1B new proceeds from LTD
 - MH able to make interest payments to Province

MH Rebuttal – Debt/Equity

- 2004 Drought – Outcome
 - 2004 Net Loss - \$436 million
 - D/E from 77:23 in 2002 to 80:20 in 2003 to 87:13 in 2004
 - “Weakest results in Utility’s history” and “increased leverage in 2004” (DBRS)
 - Credit ratings unchanged before, during & after drought
 - No apparent compromise in borrowing power of MH or Province

Intergenerational Equity

- Fundamental regulatory principle
- Debt Equity Ratio
- RSM

Intergenerational Equity

The Principle

- Ratepayers within a given period should pay only the costs necessary to provide them with service in that period
- Should not have to pay for costs incurred to provide service to ratepayers in another period
- e.g. Infrastructure capital and construction

Intergenerational Equity & Debt Equity Ratio

- No correlation – D/E, credit ratings, financing
- IE in capital intensive utility – interest and depreciation
- Benefit from infrastructure – pay the cost
- Ratepayers who pay for equity build up – no assurance equity will be used for their benefit

Intergenerational Equity & Debt Equity Ratio (continued)

- “decade of construction”
- D/E 79:21(2015), 80:20(2016),
81:19(2019)
- Current level of D/E – not return until 2026
- Marked & prolonged divergence from
existing and long sought 75:25
- Certainty of costs vs. uncertainty of return

Intergenerational Equity & Debt Equity Ratio (continued)

- MH's assessment re 80:20
 - “diminishes the Corporation's ability to mitigate risks such as drought”
- Reasonable to expect drought before 2026 and perhaps before 2019
- Compromises intergenerational equity
 - Who built equity 2011 – not benefit 2026, later or at all
 - Later generation left to replenish equity

Intergenerational Equity & RSM

- Ratepayer benefit is clear
- Ratepayer benefit in reasonable period
- Consistent with IE – ratepayers who are responsible for gains and losses are those who benefit or bear the burden

Thank you for your time
and consideration of
this evidence.