

Risk and Ratepayers: Merchant Plants and Price Takers – Hydro's Preferred Development Plan

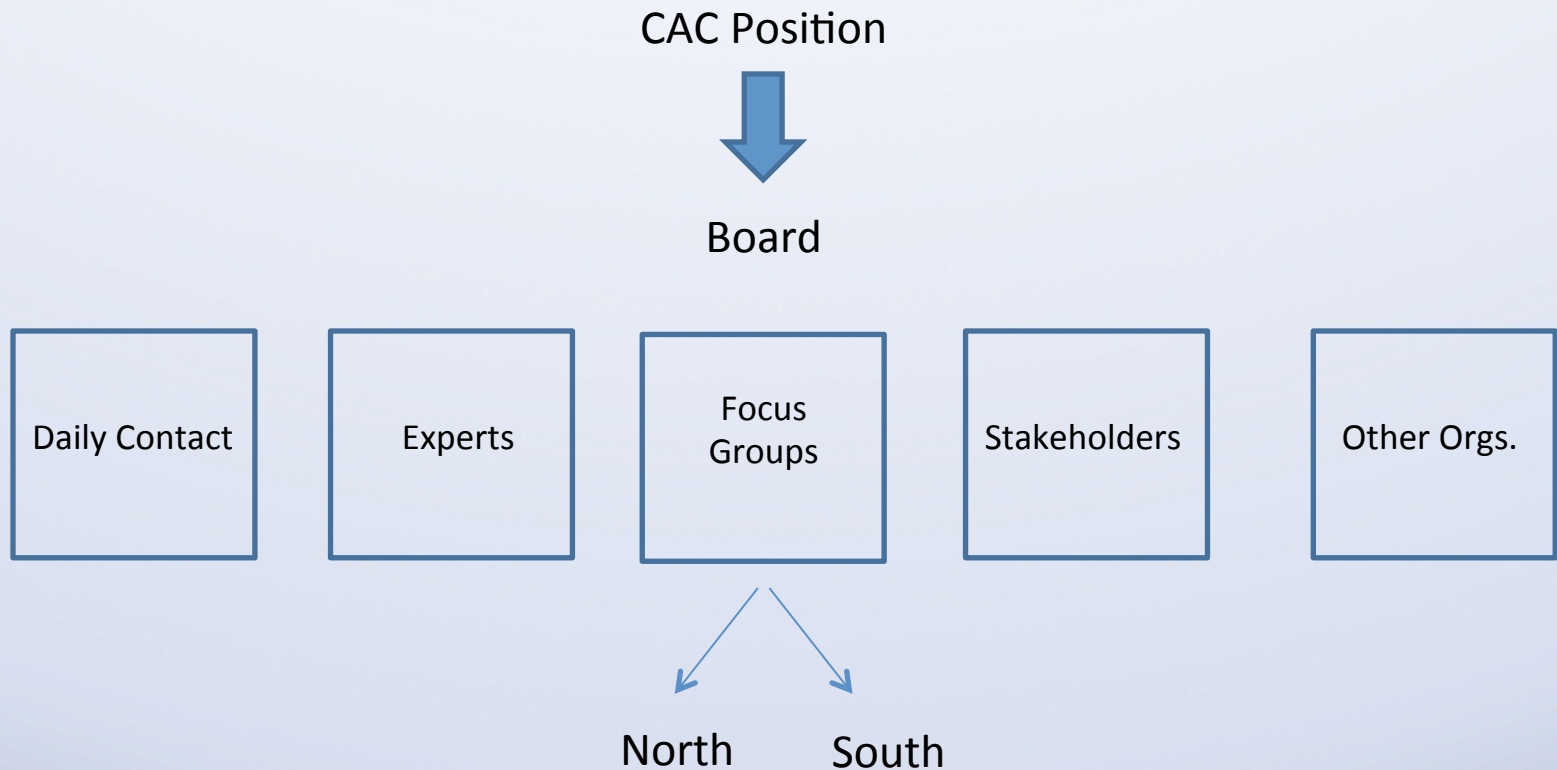
CAC Manitoba

May 20, 2014

CAC Manitoba

- The right to satisfaction of basic needs
- The right to be heard
- The right to consumer education
- The right to a healthy environment

The Development of CAC Manitoba's Position



It's fair to say we're advocating a position

- Mr. Scott Thompson, President and CEO, Manitoba Hydro, NFAT transcript p 211

I dream about Pathway 5

- Mr. Ed Wojczynski, Manitoba Hydro, NFAT transcript p 4239

Integrated Resource Planning “on the Fly”

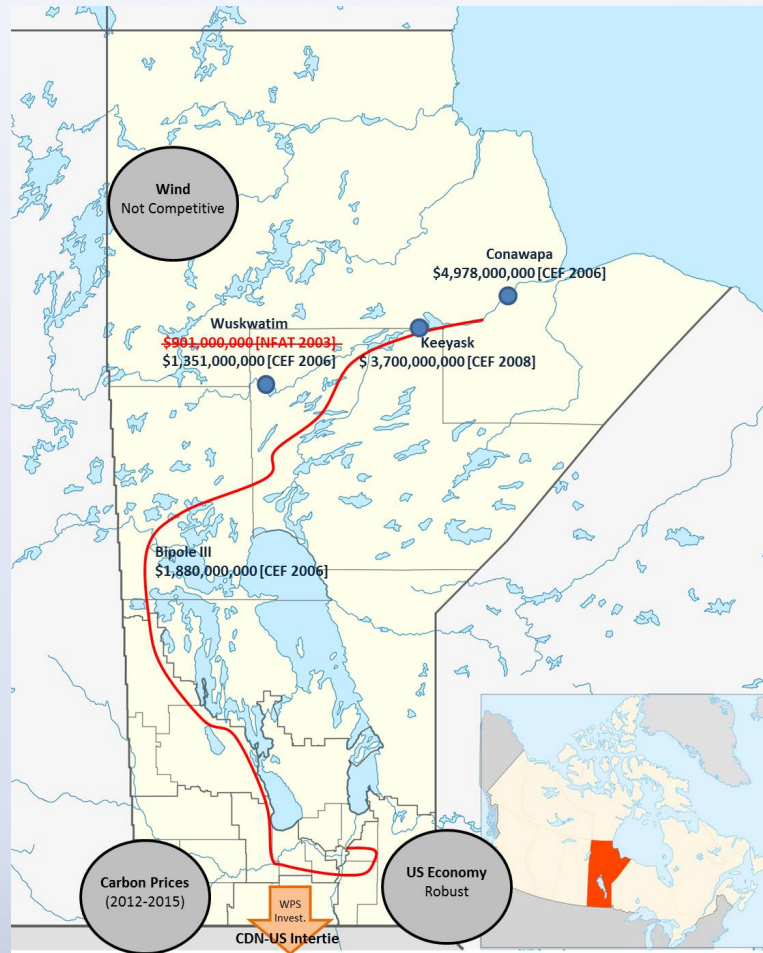
- Is the record sufficiently robust to make a judgement call on the merits of leading alternatives to the preferred plan?
- If so, is there a clearly preferable pathway taking into account existing economic projections, alleged ratepayer impacts as well as macro-environmental and socio-economic considerations?
- Given the demonstrated challenges in Hydro's planning practice, how can we best protect Manitoba Hydro ratepayers and the Province?

I think it is good for us, as a consumer to know what is the basis of the rate increases, what is the plan or what is the rate they are going to impose. And I think what it really affects not only to the consumers, but also in the environment, I think.

- Ms. Jacqueline Salamisan

“Win/Win/Win”

Northern Vision



A Decade of Return

Risk and Ratepayer – Merchant Plants and Price Takers

- *Structuring the Preferred Development Plan to be exposed to export price risks and export volume risks is not a traditional or typical way of constructing the economic relationship of a ratepayer to a monopoly utility provider.
(Morrison Park)*

Risk and Ratepayer – Merchant Plants and Price Takers

- *Manitoba Hydro is fundamentally producing a different product... but getting prices that are essentially structured to compensate a gas fired developer for the kinds of risks that they take. Manitoba Hydro is simply taking those contracts because those are the contracts that are available. (Morrison Park)*

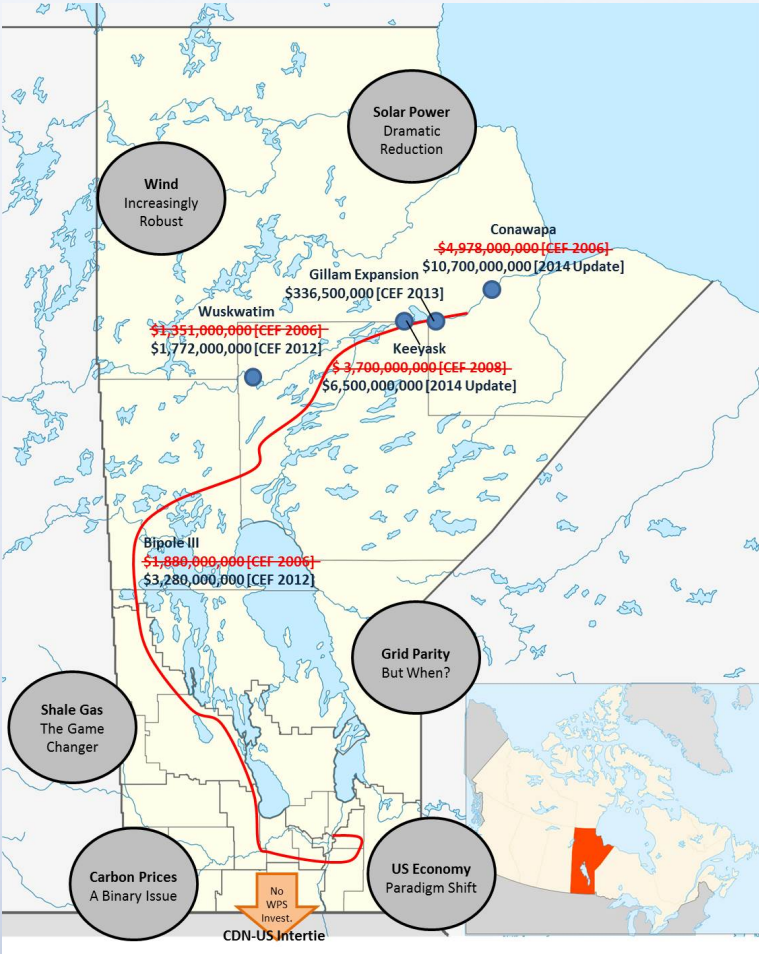
Recent Challenges to the Northern Vision

- Export prices and revenues significantly lower
- Adverse developments capital costs
- Day to day costs
- \$3 billion Bipole
- \$1.6 billion to preserve Keeyask and Conawapa dates

Betting on Export Revenue

| Year | Wuskwatim Low Price Scenario (NEAT) | IFF 2013 |
|-------------|--|-----------------|
| 12/13 | \$577 M | \$353 M (A) |
| 13/14 | \$575 M | \$408 M |
| 14/15 | \$577 M | \$383 M |
| 15/16 | \$588 M | \$362 M |

The Evisceration of the “Decade of Returns”



Where are the Good Alternatives?

Projected Even Annual Rate Increases 2015/16 through 20131/32 (DSM Scenario 2)

| Plan 1 | Plan 5 | Plan 6 | Plan 14 |
|--------|--------|--------|---------|
| 3.36% | 3.74% | 3.75% | 4.27% |

The Financial Implications of the Northern Vision

Critical Elements of the Northern Vision carried against All Plans

| | |
|------------------------------------|-----------------|
| Sunk Costs Keeyask and Conawapa | \$1.58 Billion |
| Bipole III | \$3.28 Billion |
| Gillam Expansion | \$366.5 Million |

Conclusions

- Rate pressures are intimately connected to Manitoba Hydro's Northern Vision
- Is Hydro's fidelity to its Preferred Development Plan linked to the very significant expenditures that have already been committed
- A cautionary tale

Unparalleled Uncertainty

- *Recently, the future seems even more uncertain than usual* (Brattle Group)

Unparalleled Uncertainty

- *There is a significant danger in assuming that a view of the future from the perspective of today will be very accurate. All such assumptions should be approached with humility and treated with respect as the best available basis for decision making, but without claiming them to be more than what they are. (Morrison Park)*

Dr. Murphy

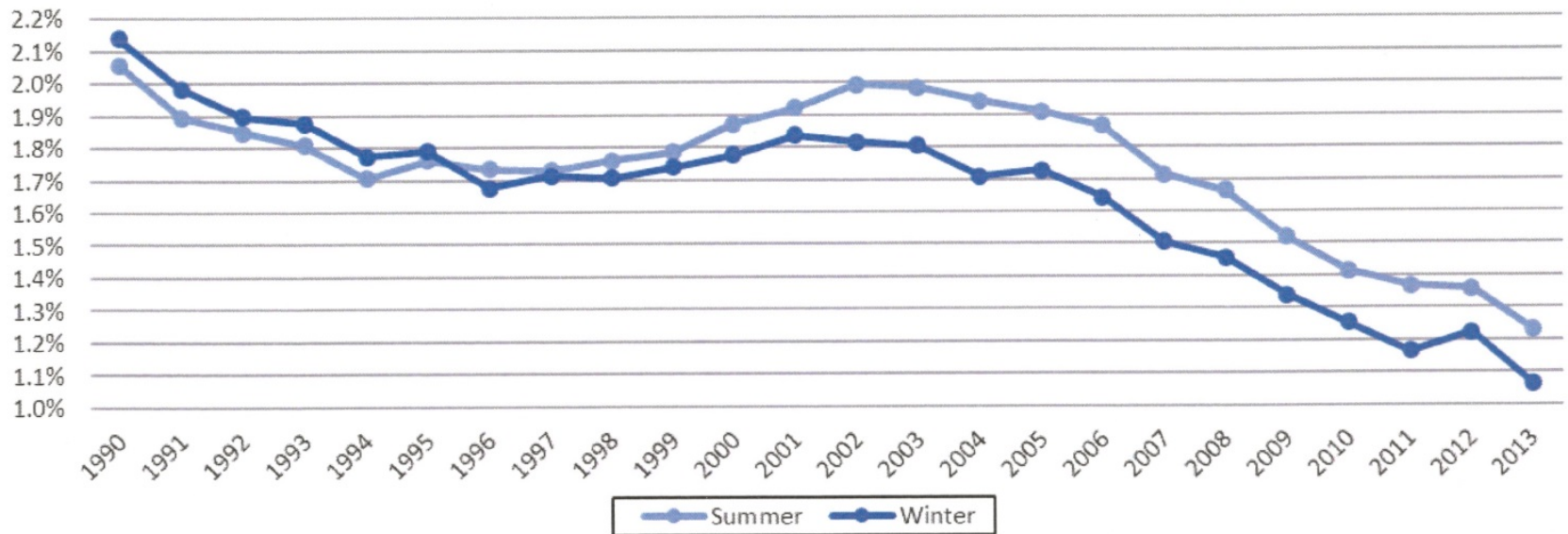
- Uncertainty in terms of long-run environmental policies
- Uncertainty related to the evolution of low-carbon generation technologies including wind and solar power
- Uncertainty associated with the long run price effects of unconventional gas
- Uncertainty in the pace and the magnitude of coal plant retirements due to new EPA

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- Uncertainty associated with the very long forecast period
- Uncertainty associated with the paradigm shift in the Midwest US economy
- Uncertainty associated with US regulatory policy
- Uncertainty associated with dramatic developments in the marketplace

The Paradigm Shift?

Figure 4: NERC-Wide 10-Year Compound Annual Growth Rate



The Paradigm Shift?

- *Right now, we are coming out of a period of high energy prices followed by a very significant recession, and I think we're -- we're in the middle of that paradigm shift. So the next question is: Where is the new normal? And we're getting to the point where we're coming out of the recession. We may have some -- a -- a better idea than we would have two (2) years ago, but there's still significant uncertainty in terms of what the new normal is for load growth and that relationship between economic growth and load growth.*

- Dr. Douglas Gotham [emphasis added]

A Binary Question

- *Well, . . . I would say, from my perspective, the carbon pricing issue is -- is kind of a -- a 'yes' or 'no' question. And so there's almost a step there that you take. It's on or off. It will happen or it doesn't happen. And so there's that to be considered, that it's -- I'm showing my engineering background, but a binary decision: It's either on or it's off. And. . . there's . . . you know, a significant amount of difference between one (1) state and the other.*

- Dr. Douglas Gotham

The Risk of Structural Change

- *There's a school of thought which is becoming increasingly strong, I'm certainly a member of it, that says this transformation in the industry will happen. The only uncertainty is -- is when (Elenchus) [emphasis added]*

The Risk of Structural Change

- *Take these four point together: cheaper solar power, cheaper energy storage, more internet-connected devices, and low voltage DC power-networks offering alternative ways to distribute your home-grown energy sources to devices in your home. Somehow, this is all starting to feel like very fundamental change across our sector.*

- (Bruce Campbell, CEO Independent Electricity System Operator, Ontario) [emphasis added]

Merchant Investment Risks

- *[I]f you're looking at this as... merchant investments, the value is heavily dependent on some really big risk factors. Notably -- I'll throw out three (3) of them that... for me are the biggest: How will natural gas prices evolve; I think it's a very significant wild card. How quickly will solar PV costs continue to decline will significantly impact export prices. And whether, and to what extent, the US will adopt more aggressive carbon reduction requirements is a big one as well.*

- Mr. Philippe Dunsky

Sustainable and Robust Resource Planning in the Face of Uncertainty

- The careful assessment of need to avoid the planning perils associated with a material overstatement of demand
- Consideration of a wide scope of potential resource solutions including aggressive demand-side programs and emerging renewable generation, in addition to conventional supply options
- The application of an optimized portfolio approach that allows for positive synergies and ensures that viable alternatives are not screened out prematurely
- Avoidance of undue lock in by allowing for flexibility and allowing the various aspects of the portfolio to meet the needs

The Perils of Over Forecasting Demand

- *Overstating future demand has led to a perceived need for . . . a large incremental response to meet rapidly growing needs. In many circumstances, this is militated against a gradual approach of adopting smaller, non-structural options, and has pushed decision makers into adopting large-scale dam projects because they seem to be the only adequate response to the large gap between existing supply and forecast demand.*

- The World Commission on Dams

Lock-In

- *One important theme worth touching on when considering alternatives is that of lock-in. There is tremendous uncertainty about the future, both regarding our energy systems and more broadly in society. Flexibility is required, and undesirable lock-in must be avoided. And there's several considerations regarding lock-in. It's important to allow for technological development in fertile areas*

- Dr. Kyrke Gaudreau

Lock-In

- *Large resource projects, such as hydro dams, can lock out other options by diverting resources, altering planning horizons, and excluding options that may be able to deliver benefits more quickly*

- Dr. Kyrke Gaudreau

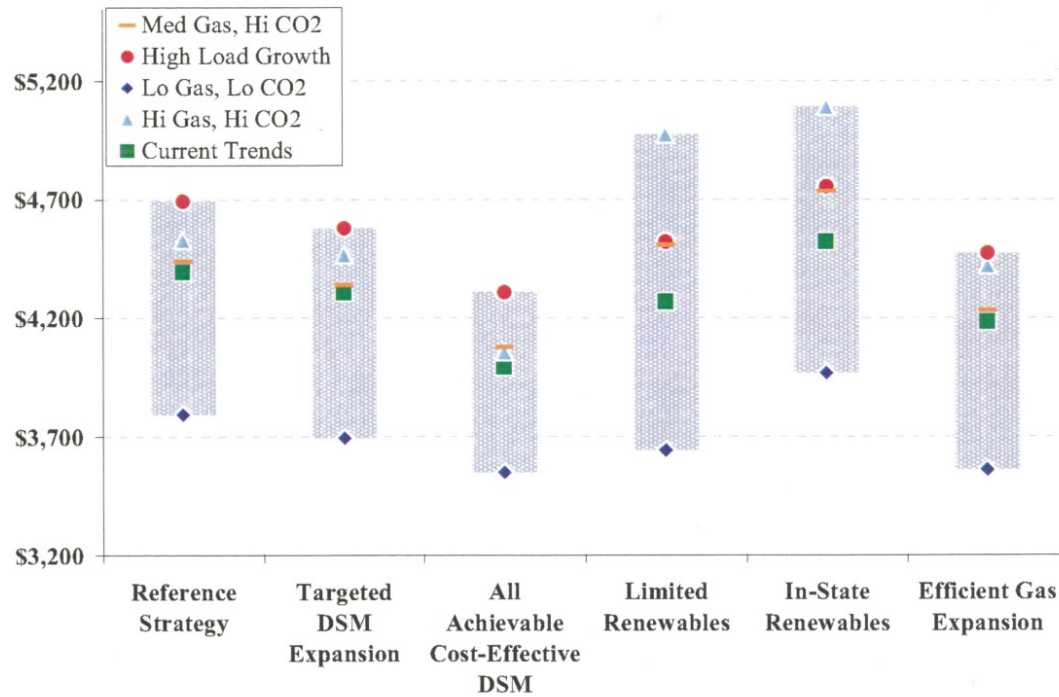
You're no Jack Kennedy

- *Senator, I served with Jack Kennedy. I knew Jack Kennedy. Jack Kennedy was a friend of mine. **Senator, you're no Jack Kennedy.***

- (Senator Bentsen, 1988 US Vice Presidential Debates)

What Might Be Done

Figure 29
Connecticut Customers' Annual Power Supply-Related Costs in 2020 (2010 \$Mill)



What should not be done

- MB Hydro did not develop assumptions and parameters for additional DSM in its original business case and did not incorporate additional DSM into any of the alternative DSM development plans

The Missed Opportunity

- *Not only could increased levels of DSM postpone the need date for new generation resources, they can also create an opportunity for other options or . . . plans to be brought into consideration.*
- *By increased levels of DSM and delaying the need date, it would increase Manitoba Hydro's flexibility to consider such alternatives in the future, whereas early construction of large-scale resources could well crowd out... consideration of such options [wind and solar] as we move into the future.*

- Mr. Bill Harper [emphasis added]

A Significant Error

MR. BYRON WILLIAMS:... *In the initial business plan, would it be fair to describe . . . the failure to contemplate... alternative DSM scenarios as having a material impact, both on the need determination and the alternative analysis?*

MR. DANIEL PEACO: *Yes, I think. . . the -- the change in the year of need by implementing this level of DSM effectively moving it the better part of a decade is... a significant timing change. And given that some of the plans are moving relative to one another by \$300 million when we're looking at plans with benefits of, you know, in . . . in the range of, you know, several hundred million dollars to a little over a billion dollars, . . . that's a fairly significant ratio of those overall benefit values. So it...[in]...some cases it changes the rank, depending on how you look at the DSM. [Emphasis added]*

What Has Not Been Done

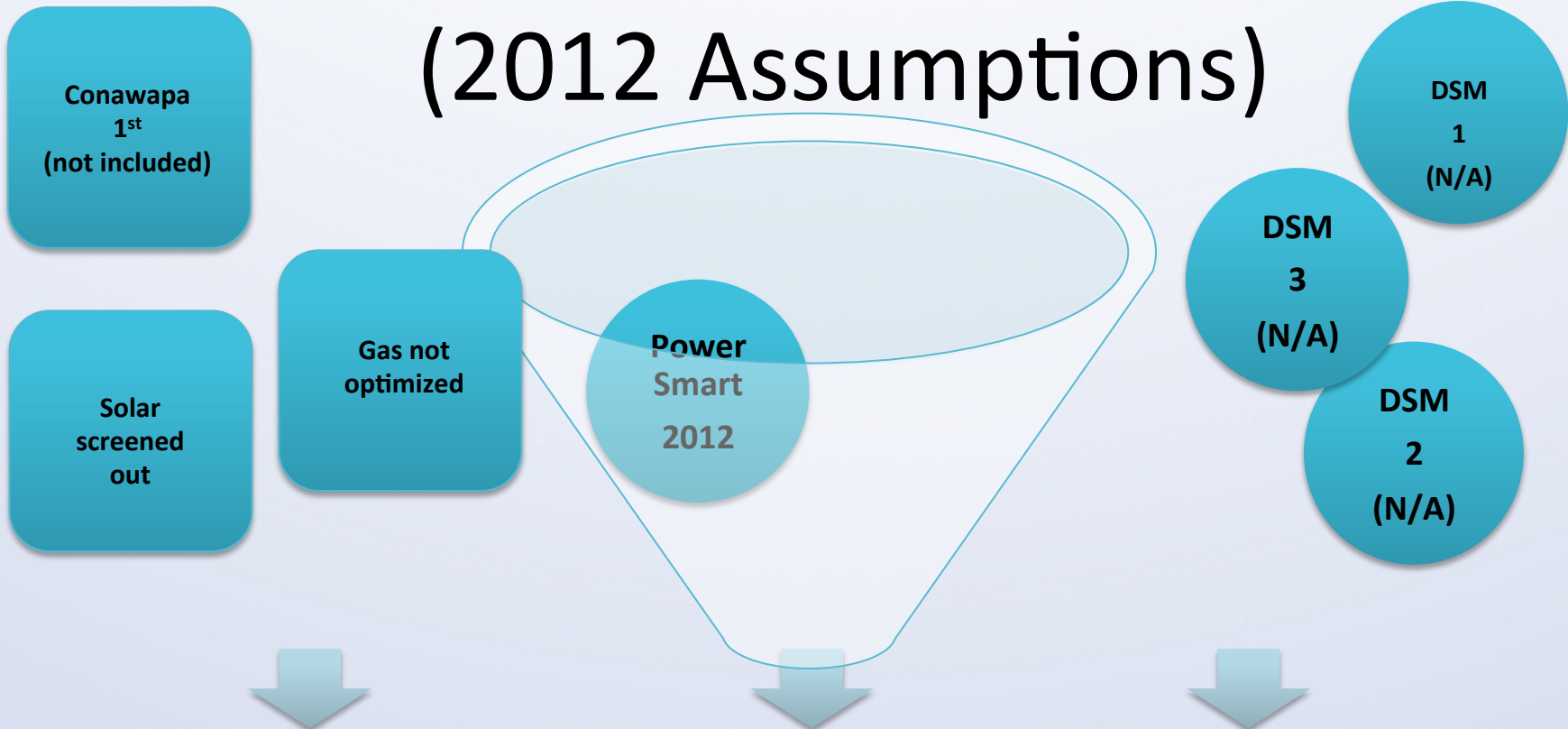
- *What this doesn't do . . . and I - I want to be careful. We didn't have something where we -- we could look at a higher DSM level and push things back five (5) years, and start analyzing those things. That was not analyzed in the . . . original submission context . . .*

- Mr. Ed Wojczynski

Disadvantaged Alternatives

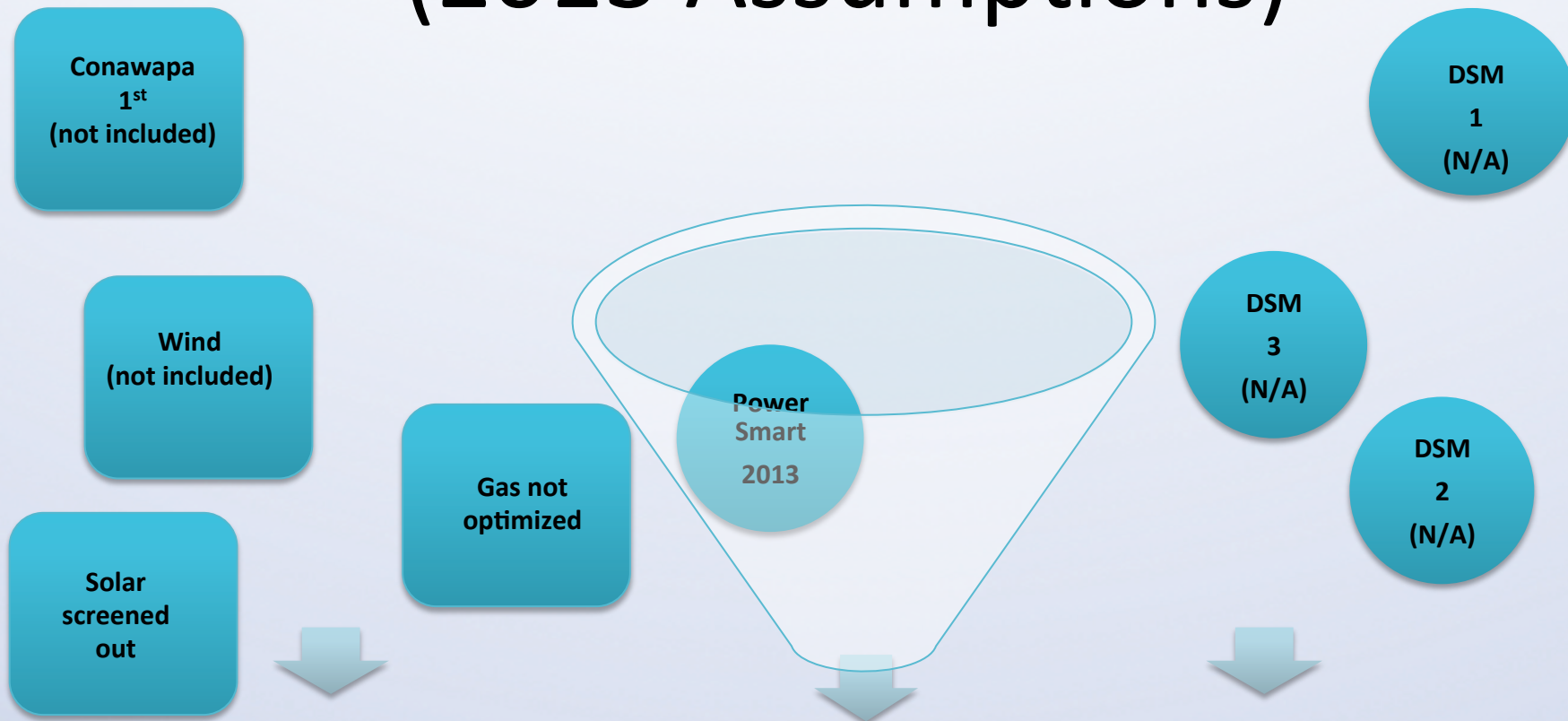
- The failure to optimize the All Gas portfolio
- The failure to take into account current and prospective costs for wind
- The premature screening out of solar

2012 Base Case (2012 Assumptions)



| Domestic Need (no new inter) | Advance Keyask 250 MW | Advance Keyask 750 MW |
|---|------------------------------|---|
| Plan 1 Plan 2 Plan 3 Plan 7 Plan 8 Plan 9 Plan 10 | Plan 13 Plan 4 Plan 11 | Plan 5 Plan 6 Plan 12 Plan 14 Plan 15 |

2013 Update (2013 Assumptions)



| Domestic Need (no new inter) | Advance Keyask 250 MW | Advance Keyask 750 MW |
|------------------------------|-----------------------|-----------------------|
| Plan 1 Plan 2 | Plan 4 | Plan 12 Plan 14 |

The “Mad Scramble” – Resource Planning “on the Fly”

- The collapse in the relative economic value of the preferred plan under the weight of new planning assumptions
- The designation of the most economically attractive alternative Plan 4 as hypothetical and not viable
- The demotion and exclusion of other leading plans such as plans 2, 6 and 12 from the updated Manitoba Hydro economic analysis of March 10, 2014
- The sudden adoption of a hybrid plan 5 as a leading alternative despite the fact that plan 5 was not analyzed in the 2013 business case update undertaken by Hydro
- The initial exclusion of plan 5 from the updated MABCA analysis despite its inclusion as a leading contender in Hydro's economic analysis
- The restriction of the initial updated financial analysis of Manitoba Hydro to plans 1, 5 and 14

The “Mad Scramble” – Resource Planning “on the Fly”

- The suggestion by Manitoba Hydro that it did not intend to produce updated financial evaluations for plans 2, 4 and 6
- The necessity of the PUB directing updated analysis of a series of plans including plans 2, 4, 6 and 12
- The exclusion of plans with wind components from updated DSM Scenario 2 analysis
- A significant shift in the need date identified by Hydro along with the suggestion that Hydro was not equipped to analyze a deferral option because that was not analyzed in the original submission

What we Don't Know – Major Uncertainties

- Is the 250MW intertie truly not viable?
- The highly uncertain carbon pricing issue which is heavily dependent upon guesswork about the US political system and which is facing resistance from many quarters
- The analysis of the implications of a no carbon scenario upon plans 5 and 6 given the significant adverse results of no carbon scenarios upon plan 14
- The absence of expected values based upon 2013 planning assumptions taking into account the updated capital cost and economic DSM
- The lack of transparency in terms of the Manitoba Hydro export revenue forecasts which leaves the generally lower assumptions of Potomac as the only transparent and publicly reliable source of export price information

What we Don't Know – Major Uncertainties

- The failure to analyze the macro-economic impacts of rate increases upon the Manitoba economy especially in light of the growing gap between Plan 14 and other plans over the short and medium term as well as some evidence on the record suggesting a positive economic effect from lower energy bills
- The absence of an economic and financial analysis of new generation deferral scenario or a “no build” scenario
- The absence of an updated analysis of an economic DSM/other renewable portfolio taking into account current planning assumptions

What we Don't Know – Major Uncertainties

- The outcome of the Regional Cumulative Effects Assessment recommended by the Clean Environment Commission in both its Bipole III recommendations and its Keeyask Report
- Will the construction of Keeyask effectively “crowd out” the opportunity for other renewables including wind?
- Is the construction of Keeyask a true condition precedent to the Minnesota Power Sale?

Key Conclusions Related to Risk and Economic and Financial Perspective

- Ratepayers are the primary risk bearers with regard to Hydro's merchant plant ventures
- DSM is an essential, economic and reliable element of modern resource planning
- The economic and risk analysis strongly suggest the preferred plan should be expressly rejected
- There is some economic support for plans with Keeyask and interconnections but little support for the WPS sale
- Over the foreseeable future, there is evidence to suggest that Manitoba ratepayer impacts will be somewhat minimized under Plan 1

Key Conclusions Relating to Macro-Environmental and Socio - Economic Considerations

- From a sustainability perspective, DSM is likely to be the preferred choice;
- In terms of generation sources, there is a general preference for renewables followed by transition fuels
- There is mixed evidence on the relative ranking of the renewables
- There is ongoing uncertainty about the Regional Cumulative Effects of Hydro-Electric Development on the Nelson River
- Like any other generation options, hydro-electricity has significant environmental consequences
- In terms of potentially significant adverse effects flowing from the Keeyask Hydro-electric Generating Station, the Clean Environment Commission has identified potentially adverse effects upon sturgeon and boreal woodland caribou

Key Conclusions Relating to Macro-Environmental and Socio - Economic Considerations

- From a social economic perspective, Manitoba Hydro chose to optimize only hydro plans
- Like any major resource project, hydro-electric development on the Nelson River System offers both socio-economic opportunities and risks
- There are many unexplored opportunities to utilize energy resource planning in ways that could benefit Northern and aboriginal communities
- Analytic restrictions have limited the otherwise valuable insight of MABCA
- Sustainability Analysis used in conjunction with MABCA is a useful analytic approach
- Based on current planning assumptions, the Provincial Government would receive by far the largest share of benefits under the Preferred Development Plan

The CEC: Key Conclusions Relating to Macro-Environmental and Socio - Economic Considerations

- In its Keeyask Decision, the Clean Environment Commission found that “The Keeyask hearing reinforces the conclusion that a regional CEA needs to be carried out.” (p. 140) The Panel had recommended a regional CEA in the Bipole III proceeding.
- The CEC held that “there is the potential for the combination of past, present and future projects to have a significant cumulative effect. This is especially the case if the mitigation measures for sturgeon are not successful. For caribou, until the ‘summer resident’ herd and its range can be better defined, the degree of uncertainty about effects or mitigation will be great.” (page 138)

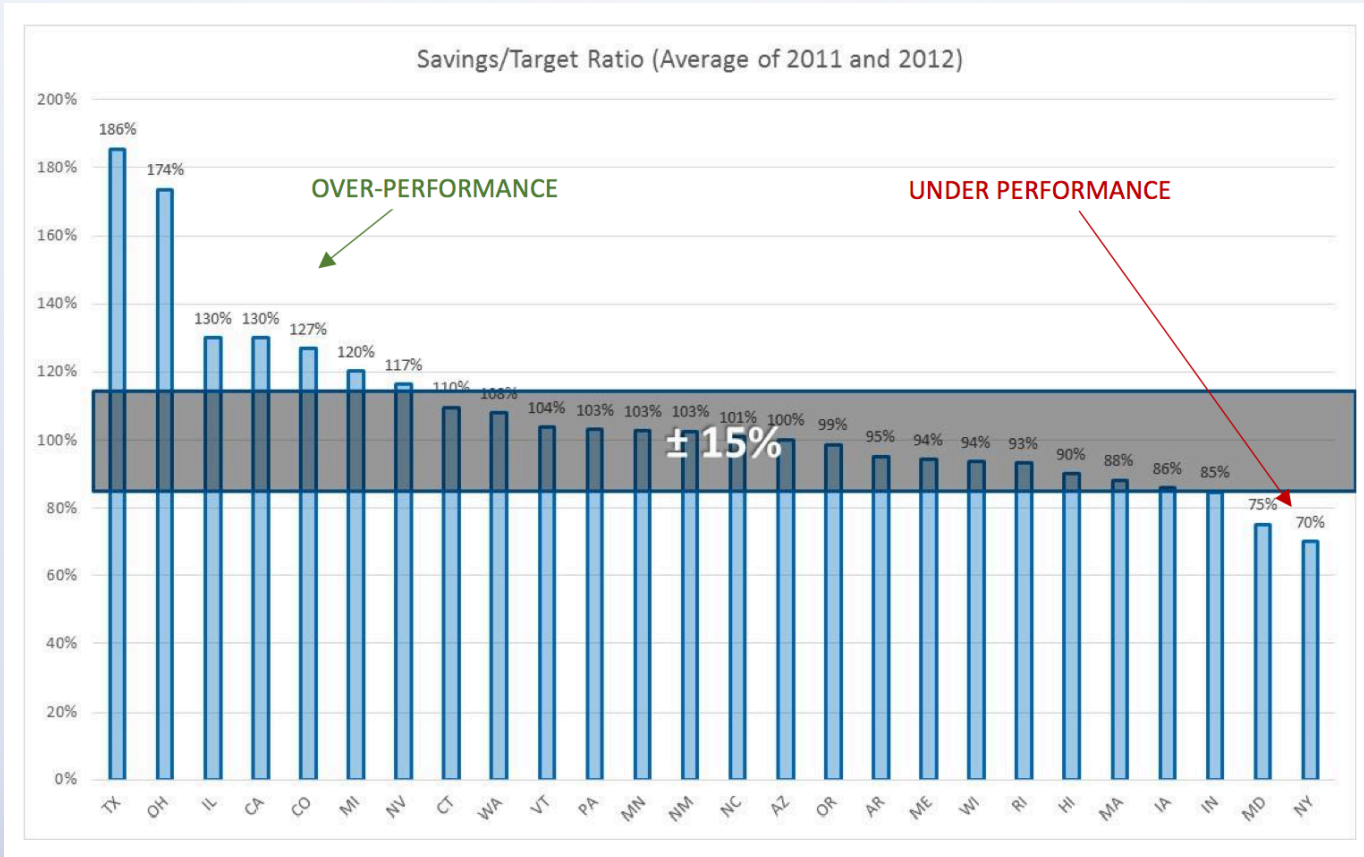
The Human Element – Affordability and Barriers to Energy Efficiency

- One of the potential consequences of Hydro's preferred plan and its alternatives is a “perfect storm with regard to the lack of affordability of... hydroelectricity” (Dr. Melanie O’Gorman) in Northern Manitoba where temperatures are relatively colder and a higher portion of the population is low-income

The Human Element – Affordability and Barriers to Energy Efficiency

- There is significant evidence to conclude that rate increases at double the rate of inflation are likely to adversely affect consumers
- Low income consumers and persons living in remote communities face many barriers in accessing low income energy efficiency programming

DSM is Economic, Reliable and Integral to Modern Resource Planning

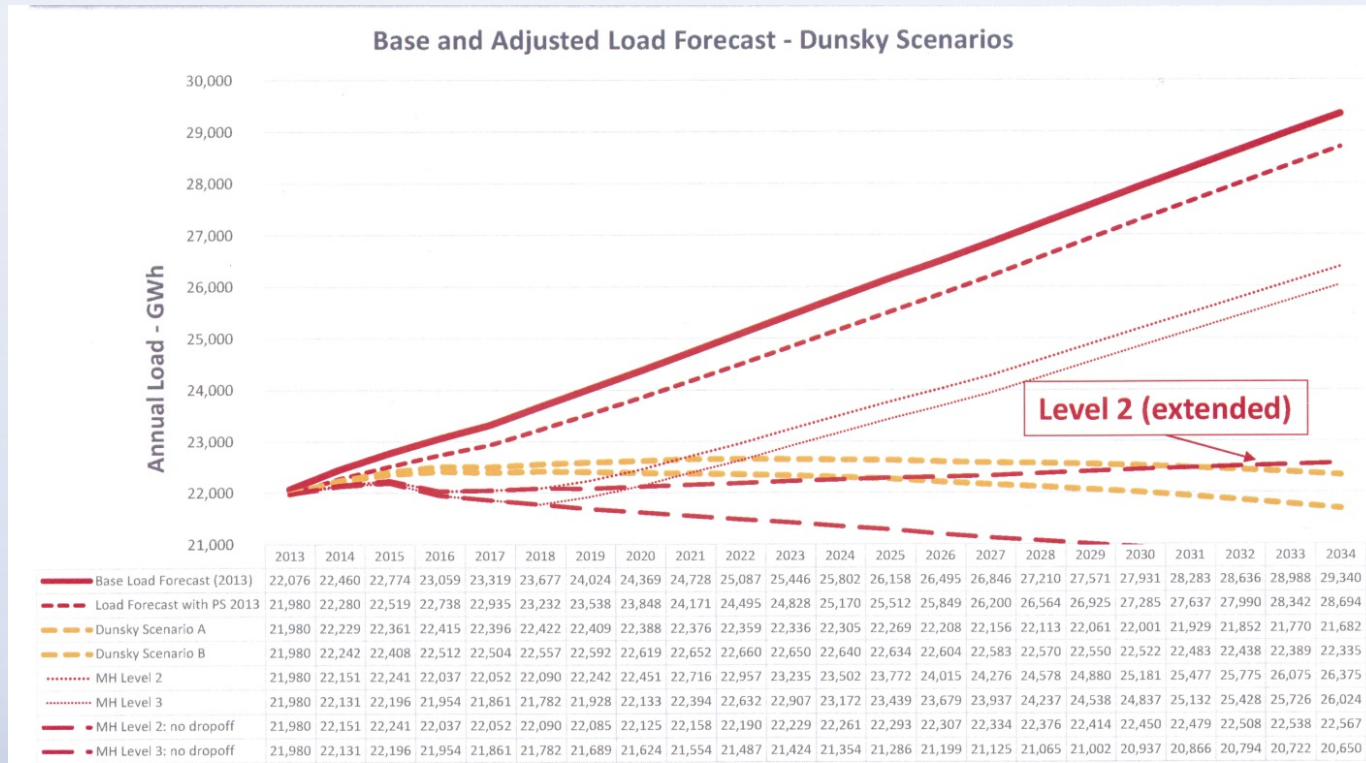


CAC Exhibit #90

Mr. Dunsky / Dr. Higgin

- Aggressive DSM should be applied to reduce electricity bills
- Need to pay particular attention to ensure that it reaches low-income / vulnerable consumers
 - Needs to be pushed
 - Need to have appropriate eligibility criteria
- DSM needs to be pushed and promoted. You cannot wait for people to come to you
- There needs to be an oversight mechanism to ensure DSM targets are met

Impact on Load Forecast (to 2034)



CAC Exhibit #62, Slide 58

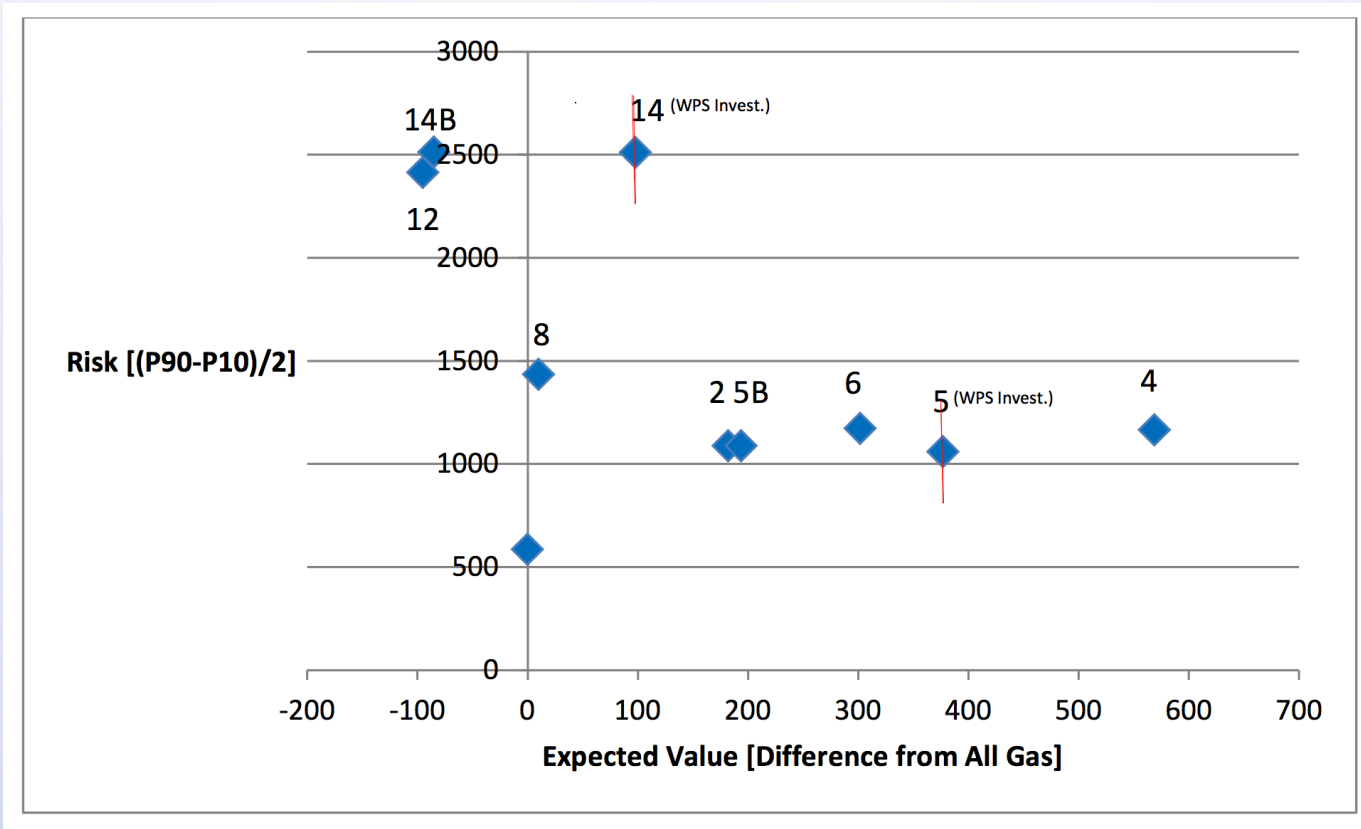
The Struggles of the Preferred Development Plan

| PLAN | MILLIONS 2014\$ -NPV – RELATIVE TO ALL GAS | | | | |
|-------------|---|---|---|--|--|
| | 2013 UPDATE NFAT SUBM BASE DSM (5.40%) | 2013 UPDATE BASE DSM NEW CAPITAL (5.40%) | 2013 UPDATE BASE DSM NEW CAPITAL (5.55%) | 2013 UPDATE DSM 2 NEW CAPITAL (5.40%) | 2013 UPDATE DSM 2 NEW CAPITAL (5.55%) |
| 2 | \$728 | \$111 (\$164) | \$26 | -\$197 (-\$38) | ? |
| 6 | ? | ? | ? | \$386 | \$262 |
| 5 – No Inv | ? | \$377 | \$256 | \$410 | \$285 |
| 12 | \$1,204 | ? | ? | -\$18 | ? |
| 14 – No Inv | \$1,245 | \$374 | \$123 | \$45 | -\$169 |
| Source | NFAT Table 12.4 | MH 104-15 | ECS Calculation | MH 104-15 | ECS Calculation |

The Struggles (continued)

| Development Plan | 14 | 5 | 4 | 1 | 2 | 8 | 14B | 5B | 12 | 6 |
|------------------|--|---|----------------------------|------------------|------------------|--------------------|---|---|--------------------------|---------------------------|
| | Plan 14 - K19/C25 /750MW (WPS Sale &Inv) | Plan 5 - K19/Gas 25/750M W (WPS Sale & INV) | Plan 4 - K19/Gas 24/250M W | Plan 1 - All Gas | Plan 2 - K22/Gas | Plan 8 - CCGT/C2 6 | Plan 14b - K19/C25 /750MW (WPS Sale & no WPS Inv) | Plan 5b - K19/Gas 25/750M W (WPS Sale & no WPS Inv) | Plan 12 - K19/C31/ 750MW | Plan 6 - K19/Gas3 1/750MW |
| 10th Percentile | -2105 | -630 | -500 | -645 | -826 | -1267 | -2290 | -845 | -2215 | -786 |
| 25th Percentile | -1596 | -316 | -415 | -436 | -725 | -1115 | -1802 | -499 | -1644 | -684 |
| 75th Percentile | 1005 | 658 | 908 | 164 | 499 | 310 | 790 | 503 | 892 | 656 |
| 90th Percentile | 2914 | 1486 | 1830 | 525 | 1348 | 1602 | 2734 | 1329 | 2611 | 1559 |
| Expected Value | 56 | 335 | 527 | -42 | 140 | -32 | -127 | 152 | -137 | 260 |
| Ref-Ref-Ref NPV | 524 | 542 | 785 | 0 | 380 | 255 | 343 | 360 | 306 | 531 |
| 50th Percentile | 499 | 524 | 759 | 3 | 346 | 226 | 315 | 341 | 279 | 499 |
| | | | | | | | | | | |

The Struggles Part III



CAC Exhibit #78

What do we know about Ratepayer Impacts?

Projected Even Annual Rate Increases 2015/16 through 20131/32

| Plan 1 | Plan 5 | Plan 6 | Plan 14 |
|--------|--------|--------|---------|
| 3.36% | 3.74% | 3.75% | 4.27% |

What do we know about Ratepayer Impacts?

Consumer Revenues 20 Year NPV (5.05% real) DSM2/No Pipeline

| Plan | 1 | 5 | 6 | 14 |
|-------------|----------|----------|----------|-----------|
| Base DSM | \$24,544 | \$25,113 | N/A | \$26,336 |
| DSM 1 | \$24,275 | \$24,855 | N/A | \$25,767 |
| DSM 2 | \$23,696 | \$24,301 | \$24,323 | \$25,178 |

What do we know about the results of Multiple Account Benefit Cost Analysis?

| Plan # | 14 | 12 | 6 | 5 | 4 | 2 | 1 |
|-----------------------|---------------------|--------------------|----------------------|----------------------|-------------------|-------------|-------------|
| Account | PDP (with WPS sale) | K19/C31/ 750 MW | K19/Gas31/ 750 MW | K19/Gas25/ 750 MW | K19/G24/ 250MW | K22/Gas | All Gas |
| Market Valuation | 0 | 97 | 573 | 313 | 577 | 314 | 251 |
| Government | 0 | -117 | -367 | -358 | -365 | -407 | -687 |
| Economy | 0 | -27 | -104 | -100 | -101 | -120 | -193 |
| Environment | 0 | 1 | -129 | -95 | -217 | -181 | -334 |
| Monetized Net Benefit | 0 | -46 | -27 | -240 | -105 | -395 | -963 |

What do we know about the Rate Impacts on Vulnerable Consumers?

- *To me, I consider Manitoba Hydro an essential service. ... It has to be paid. I cannot afford to live without Hydro.*
- *Currently right now, I am pretty much to a point where every cent of income coming in is going out as fast as it's coming in, so any further increase is definitely a big problem for me.*

- Mr. Dave Mouland

What do we know about the Rate Impacts on Vulnerable Consumers?

- *As rates increased electricity's share of the low-income household's total consumption increased*
- *As rates increased, low-income households shifted their consumption away from shelter transportation, education, clothing and reading and more to the remaining consumption items*
- *As rates increased the low-income household's overall balance became more negative*

- Mr. Harvey Stevens

Northern and Aboriginal Persons

- *I was paying a Hydro bill one time, and this lady -- I know a lady from Hydro walked in there and she was complaining about her Hydro bill. And I thought, Good, there's somebody complaining. And I saw it, it was eighty-two dollars (\$82), and I'm standing there with mine, seven hundred and sixty-eight dollars (\$768). That's one (1) month. That wasn't even cold yet.*

- Mr. Ivan Moose

- *THE CHAIRPERSON: In terms of . . . rate mitigation, was it a case where people felt that they were paying more than . . . Southern consumers, Southern ratepayers, or was it a case where they felt that because they're living in the shadow of a dam, they should be paying less?*

DR. MELANIE O'GORMAN: It was both of what you just said. It was a sense of unfairness that the dams were in their area and they were paying a lot, but it was also a sense of inequity that they -- they believed they pay more than Southerners.

What do we know about the Barriers to Energy Efficiency Faced by Low Income Consumers?

- *And in that regard, the demand-side management programs that were targeted to low-income households would have the desired effect of -- of making them less -- less vulnerable to price increases of electricity. It would cushion that impact by allowing them to -- to reduce their consumption of electricity, just as an additional measure that could be looked at to. . . address the -- the impact that we've observed of increases in the price of electricity on low income households*

- Mr. Harvey Stevens

Barriers to Energy Efficiency

- Information and search costs: below average language and computation skills (illiteracy, poor math skills, English as a second language) can represent significant hurdles to both participation in DSM programs and adoption of efficiency measures
- Performance uncertainty: higher than average housing mobility adds to uncertainty regarding the economic value of long-term energy savings measures
- Transaction costs: greater difficulty in dealing with complex transactions can lead to lower measure uptake and higher dropout rates
- Financing: lack of access (or access at unreasonable cost) to capital, as well as an aversion to debt, can seriously diminish ability to pay for higher upfront costs
- Organizational practices: many contractors are unwilling to work for low-income customers, or charge a premium for the perceived risk
- Split incentives: the daunting issue of split incentives, which occurs primarily in rental markets, is a significantly greater barrier among low-income households, whose share of renters is considerably higher than average

CAC Manitoba Proposed Findings

- The resource planning approach adopted by Manitoba Hydro in its initial business case was flawed
- Manitoba Hydro should adopt a modern portfolio analysis approach which gives equal value to demand side measures and which allows for equitable treatment of other renewables including wind and solar
- Manitoba Hydro should be directed to engage in ongoing and early consultation with stakeholders aimed at developing a modern IRP consistent with best practice
- No new major generation or transmission projects should be undertaken without the review of a modern IRP in a public process which makes reasonable provision for public participation
- It is a reasonable and necessary planning assumption to anticipate an extended DSM Scenario 2 beyond 2018 as per the recommendation of Mr. Dunskey
- A mandated multi-year target of economic energy efficiency savings should be given to Manitoba Hydro consistent with North American best practice. That target to be reviewed on an annual basis by the Public Utilities Board
- There is need to remove barriers for access to DSM for low income and vulnerable consumers including those living in remote First Nation and Metis communities. Manitoba Hydro should engage in a stakeholder engagement process to address these barriers and report on its progress within six months to one year

CAC Manitoba Proposed Findings

- Based upon the existing economic and risk analysis, the Preferred Development Plan as defined in the Terms of Reference is not justified
- The expenditure of additional funds to preserve a 2026 in-service date for Conawapa is not justified
- No further expenditure of significant funds to preserve a later in service date for Conawapa should be undertaken without the express authority of the Public Utilities following an updated consideration of the Conawapa Business Case consistent with modern Integrated Resource Practice
- In the event the decision is made at any point in time to proceed with the Keeyask or Conawapa Generating stations, an enhanced effort should be made to maximize training opportunities for First Nation and Metis people including partner communities
- Expanded tie line and transmission line access to the United States and other marketplaces have the potential for significant economic and reliability benefits
- The evidence of this proceeding has not demonstrated that there will be no further opportunity to enhance tie line and transmission capacity to the US or other marketplaces
- A commitment to Keeyask as a new generation sources has the potential to “crowd out” other sources of renewable generation including wind
- The results of a Regional Cumulative Effects Assessment of the Nelson River Watershed is relevant to the determination of the macro-economic implications of both the Keeyask and Conawapa generating stations.
- Consideration has been given to three options for Phase 1:
 - Proceed with Economic DSM; No Build till Domestic Need date
 - Proceed with Economic DSM and MH Return with updated Information on outstanding questions relating to the IRP, Export Opportunities and the Regional CEA
 - Proceed with Economic DSM and Keeyask and 750 MW intertie with Conditions

CAC Manitoba Proposed Findings

- Given the many uncertainties and the flaws in the current resource planning exercise, Manitoba Hydro should be directed to proceed with an economic DSM and return with updated information on outstanding questions relating to the IRP, Export Opportunities and the Regional CEA
- A Public Review Process should be initiated to review this new information in a timely manner to preserve existing opportunities related to the sale to Minnesota Power
- It should be open following that Public Review to recommend either the No build until domestic need pathway or a pathway that allows for the sale to Minnesota Power if it is determined to be justified
- Regardless of whether Keeyask proceeds or not, consideration should be given to extended support to Hydro affected aboriginal communities in recognition both of the ongoing benefits that Manitobans derive from Hydro related projects and the ongoing impacts on affected people, lands and waters. These benefits should include consideration of water rental benefit sharing and extended support for energy efficiency initiatives in Metis and First Nation communities

CAC Manitoba Proposed Findings

- In the event that the panel recommends a staged approach of Economic DSM, Keeyask and a 750 MW intertie with Conditions, it is recommended that the following steps be taken:
 - Phase I
- **Path:** DSM for Domestic Need and Keeyask for Export Opportunity with 750 MW Intertie with certain conditions to be met in the 2015-2018 Period:
 1. DSM Program (extended savings equivalent to Level 2 but of a longer duration)
 2. Capital Cost Reporting
 3. Rate Impact Mitigation Strategy (MH and Gov't)
- **Process:**
 - Annual Review of Conditions 1 & 2 by PUB (Public Review)
 - Review of Regional Cumulative Effects Study (CEC)
 - Updated Business Case Filed prior to Keeyask ISD, including
 - Appropriate Rate Impact Mitigation Proposal(s)
 - Phase II: Post-Keeyask Plan based on Updated Business Case
 - (Comprehensive IRP Framework)

CAC Manitoba Proposed Findings

In terms of the proposed Green Energy Benefit, CAC Manitoba recommends that:

- if Keeyask proceeds a Green Energy Benefit should be provided in recognition of the merchant plant nature of the advancement and the disproportionate share of risk borne by ratepayers. After stakeholder consultation, consideration should be given to whether the benefit is targeted to persons of modest means as defined by Winnipeg Harvest in its public presentation or whether the benefit should be available to a broader spectrum of ratepayers
- In the event any Hydro Generation Project for export purposes proceeds, consideration should be given to a more equitable sharing of benefits between ratepayers and the province