

Reference Addressing Options to Reduce Impacts of Muskrat Falls Project Cost on Electricity Rates

Summary of Phase Two Work and Results

September 30, 2019



Rate Mitigation Reference - - Phase 2

- ❖ Focus on two of the Reference Questions:
 - Question 1 -- cost savings from generation, transmission, distribution, sales, and marketing assets and activities of Nalcor Energy and its subsidiaries
 - Question 3 -- rate impacts of cost savings and revenue opportunities identified
- ❖ Phase 2 excluded certain financing issues under government discussion
 - We did a base analysis of them in Phase One (see Phase One Report Chapter 2)
 - That analysis continues to have merit in identifying financing-related options
- ❖ Major milestones
 - Extensive data development, work sessions with Nalcor, Hydro, Newfoundland Power
 - Meetings with Consumer Advocate, Island Industrial Customers
 - March, June, August all party conferences
- ❖ Continued the good level of cooperation from Nalcor, Hydro, and Newfoundland Power established in Phase 1

Liberty's Qualifications

- ❖ Utility Management and Operations Audits
 - Two dozen over more than 20 years for utility regulators
 - From the largest utility holding companies to statewide and municipal authorities, to large G&T entities receiving federal financial support
 - Most broadly-scoped engagements sought by regulators
 - Governance, organization structure, functional and resource organization alignment and numbers, strategic and financial planning, operations methods and practices, efficiency and effectiveness, affiliate relationships and transactions, fuel and energy management, corporate and support organizations
- ❖ Examination of Regulated/Affiliate Relationships and Transactions
 - 30 engagements, for 13 different regulators
 - Including Nova Scotia
 - Including structure, organization, resources
- ❖ Energy Markets
 - Assistance to regulatory authorities (*e.g.*, NH, DC, DE) in determining whether and how to introduce competition
 - Optimizing portfolio value and effective market participation (AZ, TX, NH)
 - Management of Competitive Supply solicitations (MD and DE)



Liberty's Qualifications

- ❖ Fuel and Energy Management and Operations
 - More than 15 over a similar period
 - For both regulators and utilities
 - Including examination of effectiveness and efficiency of off-system marketing resources and results
 - Including strategies, transaction limits, controls, risk management, and hedging
- ❖ Staffing Studies
 - Typical component of management and operations and fuel and energy audits
 - Sometimes a special focus - - Single, unified statewide study of staffing at all 15 New York State electric and gas utility operations
 - Two reviews of staffing contemporaneous with our work here - - Exelon and Southern Company
 - Expected/achieved resource changes on consolidation of utility operations in acquisitions (TX, OR, NH, VA)
- ❖ Financing and Debt Ratings
 - Common in our management audits
 - Extensive and detailed review in many acquisition proceedings and in affiliate relationship and transaction examinations



Specific Areas of Focus

- ❖ Financial Opportunities
 - Continued to assess, develop, and fine-tune the analysis of financial opportunities identified in Phase One
 - Received substantial information from Nalcor, analyzed it for completeness, credibility, analytical structure
 - Modeled revenue requirement and rate impacts
- ❖ Operational Opportunities
 - Organizational structures, resources, operations of Nalcor, Hydro, and Newfoundland Power
 - Integrating Nalcor Power Supply and Hydro under a common structure
 - Transfers of operating responsibility between Hydro and Newfoundland Power
 - LCP operations and maintenance (O&M) costs
- ❖ The Province's utility regulatory framework as it concerns our areas of focus
- ❖ Utility industry practices and approaches to the marketing of excess energy
- ❖ Incorporating results into a Revenue Requirements Mitigation Model (RRMM)



Revenue Requirements Mitigation Model

- ❖ RRMM developed to manage, organize, interpret revenue and cost data
- ❖ Built from Hydro's forecasts of unmitigated rate path
- ❖ Converts mitigation opportunities into:
 - Reductions in the annual revenue requirement in \$/year
 - ¢/kWh impacts of reductions on domestic rates
- ❖ All our quantifications are in total revenue requirements \$ and ¢/kWh
 - No segregation by customer class
- ❖ Can incorporate, reflect results of changes to:
 - Revenues
 - Expenses
 - Off-system sales and margins
 - Other



Financial Opportunities

- ❖ Emerged in Phase One as the dominant source of potential reductions
 - Confirmed through Phase Two work
 - Two dominant sources account for somewhat more than $\frac{3}{4}$ of the amounts identified as available for rate mitigation
 - ✓ LCP dividends
 - ✓ Off-system sales of Muskrat Falls Excess
- ❖ Can begin at an annual level as high as \$133 million in 2021
 - Growing to over \$331 million by 2029
 - Reaching more than \$590 million by 2039
- ❖ Together, these two opportunities alone
 - Can reduce rates by about nearly 6¢/kWh by 2030
 - Increasing to more than 9¢/kWh by 2039
 - Making them the dominant source of potential rate reductions

Implications for the Provincial Government

- ❖ The Financial Opportunities consist of
 - Primarily, funds that will become available after LCP operation
 - Secondly, funds already available to government for general use
- ❖ They have some material implications
 - Government's ability to operate without funds moved to rate mitigation
 - Avoiding or managing impact on Government's credit ratings for general financing
- ❖ Those implications depend on how many dollars government determines can be dedicated to rate mitigation
- ❖ Our scope excluded assessing/balancing rate mitigation vs. government financial impacts
- ❖ But we certainly recognize them as central, significant policy issues for government to resolve

LCP Dividends

- ❖ Derived from Hydro payments required by Purchased Power Agreement (PPA) and Transmission Funding Agreement (TFA)
- ❖ Annual contributions grow steadily
 - 2021: \$90 million
 - 2029: \$285 million
 - 2039: \$569 million
- ❖ LCP returns to Province
 - For its \$3.7 billion investment in LCP
 - ✓ 8.4% Return on Equity (ROE) for MF/LTA (backloaded)
 - ✓ 8.5% ROE for the LIL
 - PPA and TFA obligate Hydro to pay MF, LIL, and LTA costs
 - ✓ Beginning in 2021 at a level of \$726 million per year

Off-System Sales

- ❖ Net export revenues from sales of surplus from Muskrat Falls and Recapture
 - Estimated in the response to PUB-Nalcor-034
- ❖ Our mitigation calculations addressed only “Allocated to MF” (Nalcor) portion
 - Those margins are slated to accrue to Nalcor
- ❖ Synapse work added the “Allocated to NH” portion
 - Accounts for the difference between Liberty/Synapse export sales data
 - Hydro’s rate forecasts already account for the Hydro portion
 - ✓ To offset revenue requirements
 - ✓ Therefore, no further opportunity for mitigation
- ❖ Accepted regulatory principles would apply both Nalcor and Hydro margins to offset Hydro’s revenue requirement
 - Because it (and in turn its customers) bear LCP capital and operating expenses

Other Financial Mitigation Sources

- ❖ Significantly smaller than those related to LCP, but still substantial
- ❖ Hydro Equity Returns (at a 25% equity target)
 - Begin in 2025 (when equity reaches 25%) at about \$13 million
 - Potential mitigation averages \$43 million per year from 2026 through 2034
 - Become more variable thereafter
 - Between \$6 and \$83 million per year from 2035 through 2039
 - Average for the full 2026-2039 period is \$46 million per year
- ❖ Muskrat Falls and Churchill Falls payments related to water use
 - Start at \$16 million/year in 2021 for Muskrat Falls, average \$19 million
 - Average about \$6 million/year for Churchill Falls
- ❖ Churchill Falls Preferred Dividends
 - Average somewhat above \$6 million/year



Hydro Equity Returns

- ❖ Current Hydro rates to customers include an equity return
 - Standard industry approach, generally based on cost of acquiring capital
 - Set here at 8.5 percent on the equity portion of its capital
 - ✓ Not based on Hydro's costs of acquiring capital, but NP's
 - ✓ Nevertheless, typical rate for electric Canadian Crown Corporations
- ❖ Returns support production of sufficient funds from operations (FFO) to maintain Hydro's "self-sustaining" financial status
 - *i.e.*, not reliant on government support to meet its ongoing financial needs
 - Returns on equity and therefore equity levels are principal contributors to FFO
- ❖ Hydro's 25% goal fairly typical
 - Also typical that Hydro has routinely maintained a lower level (19% now)
- ❖ Applying returns above those needed to maintain (say) 20% equity
 - Produces \$111 million more for mitigation in earlier years
 - But produces lower amounts in later years of our 20-year study period
 - Over the 20-year period total amounts available for mitigation are lower

Hydro Equity - - Provincial Implications

- ❖ Loss of self-sustaining status would threaten Province's credit standing
 - With possible negative implications for the costs of all Provincial debt
- ❖ No single "right" answer to what Hydro's equity level should be
 - Depends, for example, on market view of the uncertainties and risks surrounding the security of its cash flows
 - Changes in market generally or in conditions specific to Hydro matter
- ❖ Key takeaways on targeted/required Hydro equity levels
 - 25% is a common, reasonable target
 - Others have operated at lower levels without apparent, significant implications
 - Uncertainties specific to LCP comprise material Hydro risk factors
- ❖ Province should decide whether mitigation justifies targeted level less than 25%
 - Taking into account its risk tolerance, financial goals, and tolerable overall financing costs
 - And balancing them with rate mitigation objectives

Other Considerations

❖ Depreciation

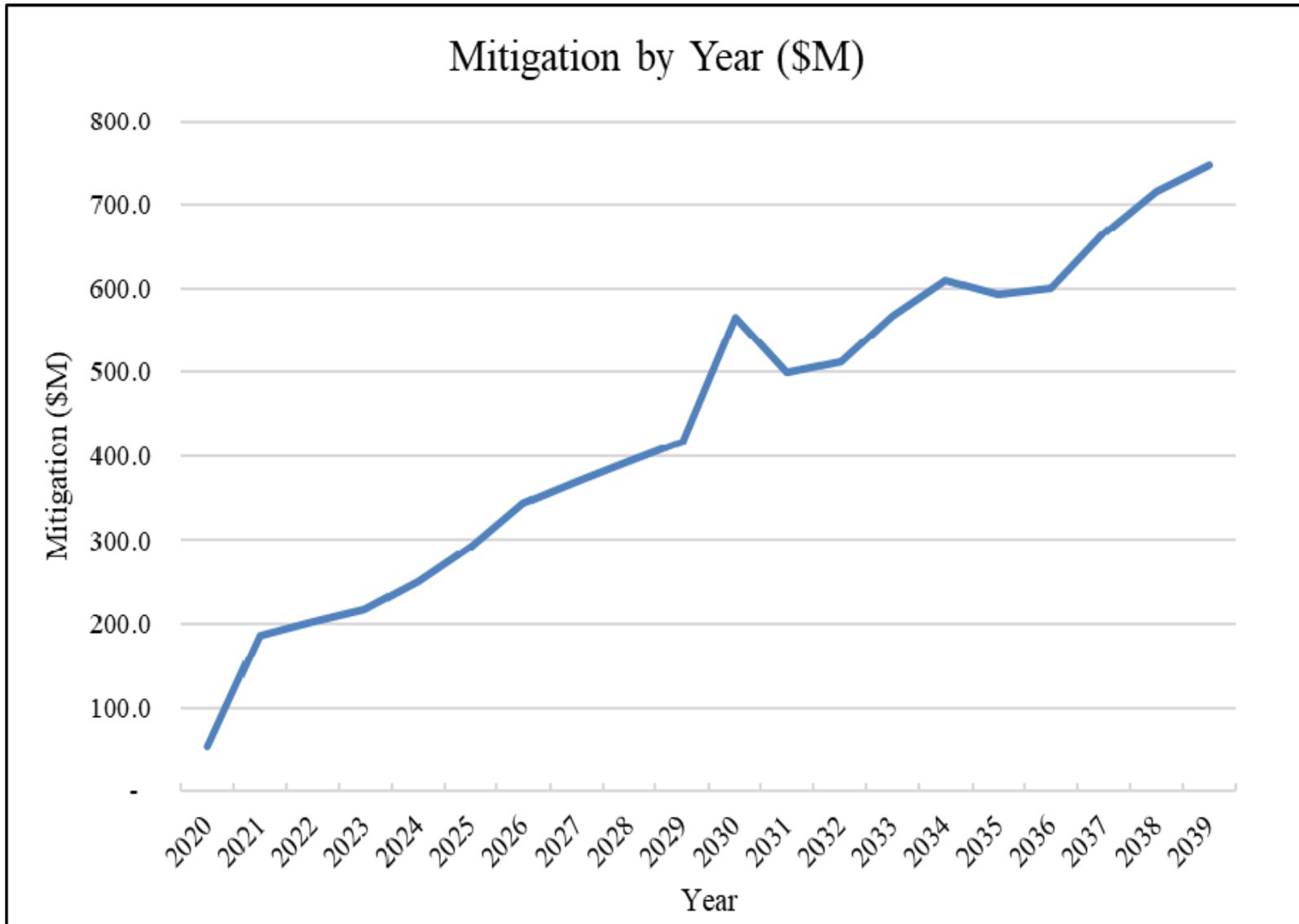
- Hydro's methods and lives recently reviewed by the Board
- Hydro's lives used now leave no substantial room for revenue requirements mitigation
- In any event, PPA and TFA fix them for determining Hydro's LCP payments
 - ✓ Requiring PPA, TFA and LCP debt document amendment for any changes

❖ Harmonized Sales Tax Payments

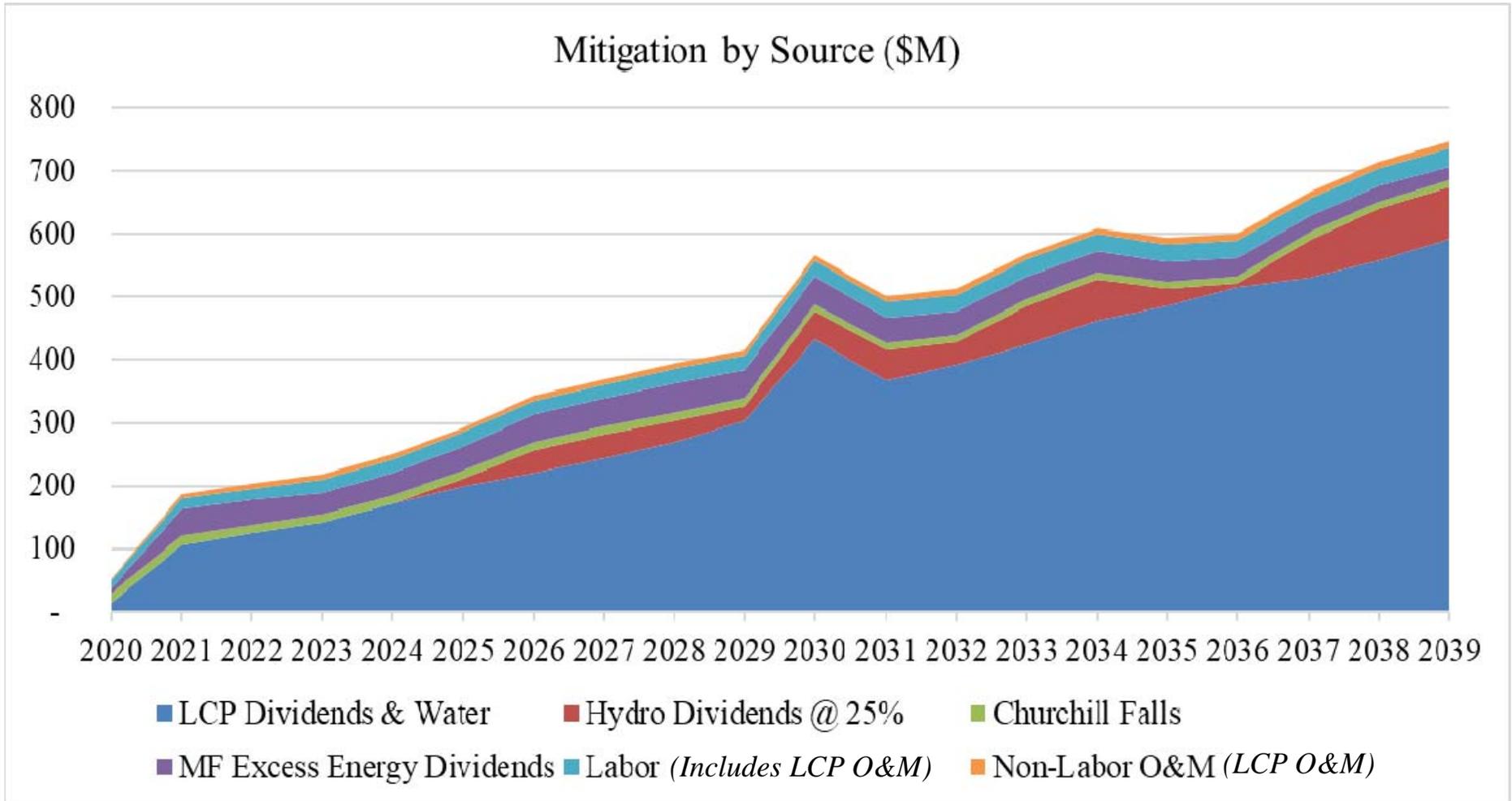
- Hydro and Newfoundland Power customers pay substantial amounts annually
- With the Provincial portion exceeding \$50 million per year for domestic customers
- Our work did not address Provincial tax policy
- But we understand that there is a precedent for rebating a portion of the HST on electricity sales for domestic customers



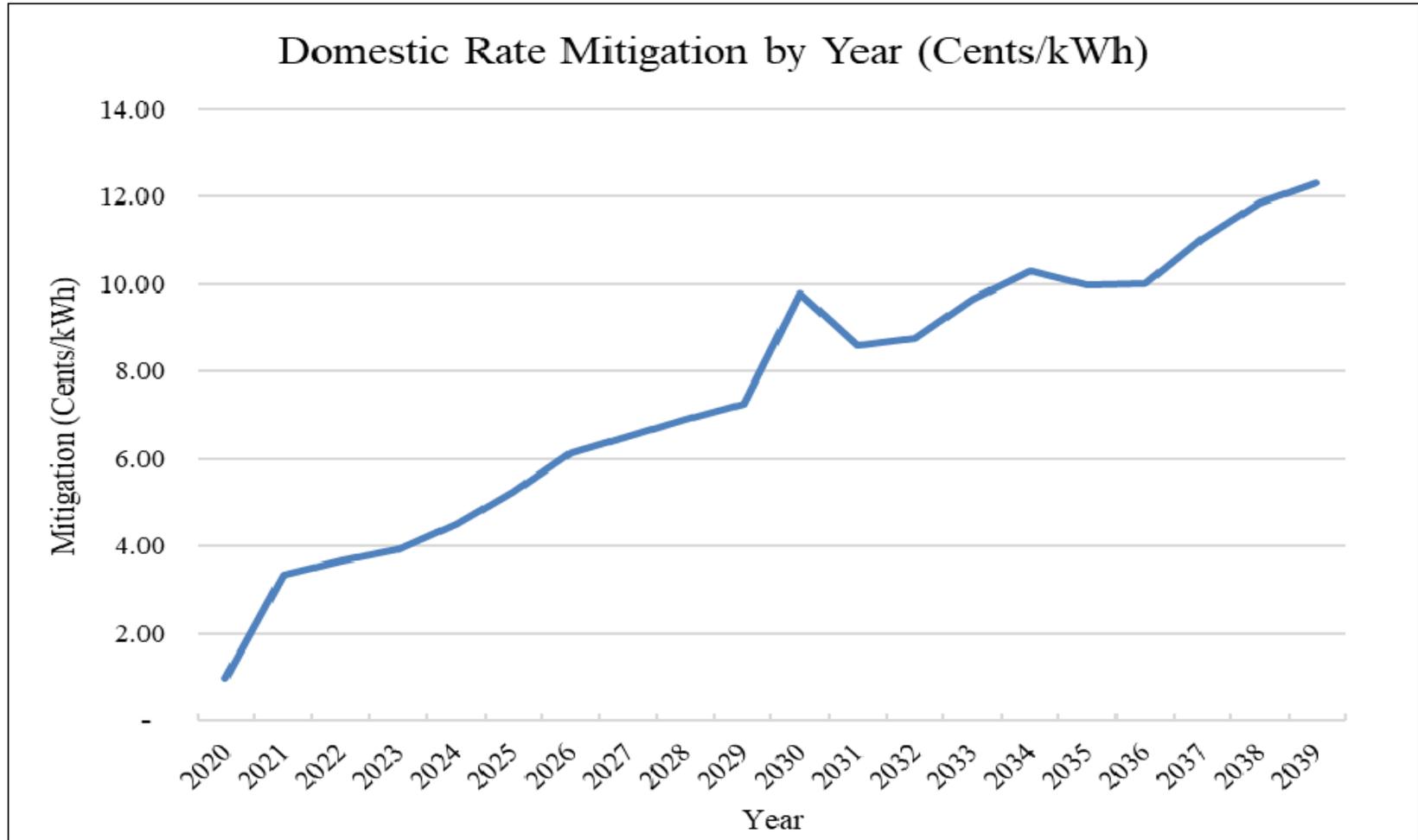
Yearly Mitigation Amounts (\$)



Summary of Mitigation Sources (\$)

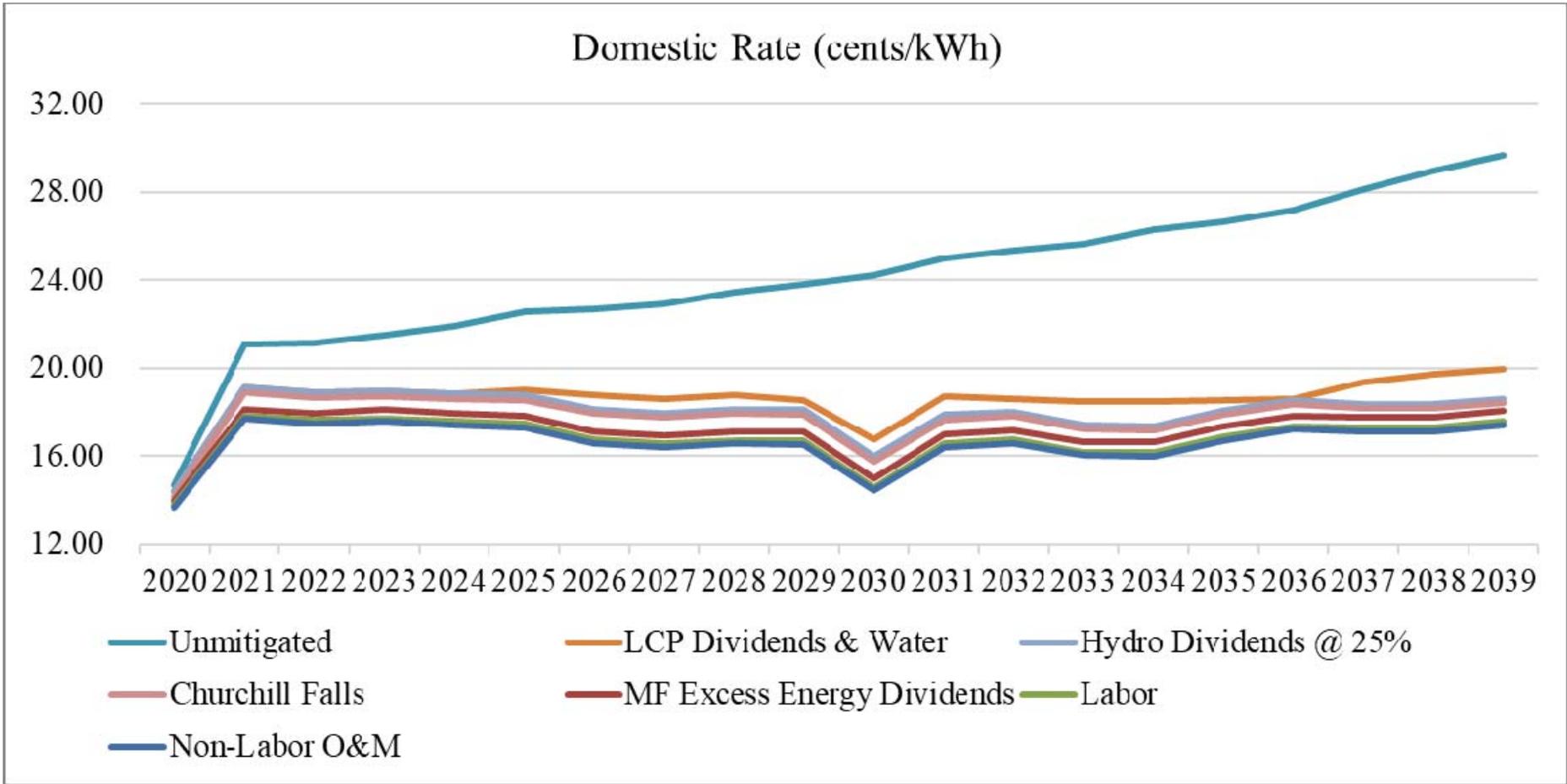


Resulting Rate Reductions (¢/kWh)



- ❖ 3.4¢/kWh domestic rate reduction from all sources in 2021 (full LCP operation)
- ❖ 7.3¢/kWh in 2029
- ❖ 12.3¢/kWh in 2039

Rate Reduction by Mitigation Source (¢/kWh)



Integrating Power Supply/Hydro Organizations

- ❖ Formed a significant portion of our Phase Two examination
 - Examined large data sets from management about organization, functions, activities, and resources
 - Tested against our experience and critical analysis of the data provided
- ❖ Effecting an essentially total integration will
 - Produce a unified, more effective operating entity
 - Create a structure much more typical of a small vertically-integrated utility
 - Eliminate duplication in technical, operating, corporate, and support organizations
 - Reduce executive positions



Integrating Nalcor Power Supply and Hydro

- ❖ 2016 major Nalcor change in organization structure
 - Produced a separate Nalcor Power Supply organization responsible for
 - ✓ LCP completion and eventual operation
 - ✓ Operation of Churchill Falls
- ❖ Not inappropriate, done by many utilities with large, troubled projects
 - But efficiently doable within a utility organization
- ❖ With LCP nearing completion future, not historical factors should drive organization
 - LCP operation will require some special skills
 - But certainly not outside the utility mainstream
 - And neither disruptive to nor dominating of management attention
- ❖ Looking ahead, Nalcor exhibits the essential characteristics of a utility that
 - Will remain vertically integrated
 - Is comparatively small by both Canadian and U.S. measures
 - Therefore would, if typical, employ a single, unified organization
- ❖ And a correspondingly modest level of resources, comparatively

Nalcor's "Regulated/Unregulated" Distinction

- ❖ Nalcor's 2016 reorganization made a distinction on the basis of separating responsibility for "regulated" assets versus those assigned to Power Supply
 - For management and operation, which it deemed "unregulated"
- ❖ It also supported LCP completion, which has presumably been beneficial
- ❖ We find the resulting structure problematic *going forward*
 - Deprives customers of what vertically-integrated Canadian utilities offer - - the benefits of revenues produced by assets whose costs are included in rates
 - It produces parallel organizations performing redundant functions
- ❖ The distinction is more a matter of "fiat" than operating reality, given who pays for the costs of LCP assets
 - The practical reality is that Nalcor has "regulated" costs (*i.e.*, assured recovery from customers) while "deregulating" their revenues from excess sales (transferring the margins they produce to ownership)
 - "Regulated" nearly universally indicates that both costs and revenues (including for off-system sales) establish pricing for captive customers
 - "Unregulated" signifies that owners get benefits of revenues because they risk recovering costs expended to produce revenues by competing for customers

Regulatory Oversight of Nalcor Power Supply

- ❖ A diametrically opposed view from Nalcor's on importance of regulatory oversight of Power Supply generation, transmission, and marketing roles
 - Nalcor and its consultant express views contrary to clearly established principles of U.S. jurisdictions (all but 19 or so) where electricity service comes from supply resources whose costs are included in rates
 - The same is true for off-system use of utility natural gas supply assets
 - There has been no weakening in either case
 - And these companies operate in highly competitive wholesale markets
 - The 31 states with vertically-integrated utilities have no competitive retail markets
- ❖ Offering mere transparency on LCP operations misses essential purpose of regulation
 - Like Hydro, Nalcor
 - ✓ Has sole authority to conduct the activities in question (marketing excess)
 - ✓ Uses assets whose costs customer rates include
 - ✓ Undertakes activities whose efficiency and effectiveness have material customer consequence
- ❖ Hydro's operations are transparent as well - - BUT REGULATED NEVERTHELESS
 - Similarly, future costs and operations of LCP generation and transmission assets and marketing of excess warrant similar regulatory oversight

Nalcor's Resource Development Mandate

- ❖ Nalcor cites future energy development potential as a basis for retaining current structure dividing regulated versus “unregulated” operations
- ❖ Doing so creates a barrier to producing the operational savings we identified
- ❖ Using utility customers as a backstop for development likely subsidizes it
 - By transferring owners’ risks to customers
 - And less transparently when making investment decisions
 - It can produce investment decisions that lead to sub-optimal choices for meeting customer electricity needs economically and reliably
- ❖ Mixing utility planning, costs, operational authorities with speculative, future development possibilities does not serve utility customer interests
 - The end of the HQ contract is 20+ years into the future
 - No clear plans exist for the next “Muskrat Falls”
 - A separate organization can address either or both effectively
 - ✓ Or any other resource or energy development role
 - Without impairing or implicating funding, management, operation, and maintenance of assets
 - ✓ Critical to utility service
 - ✓ And funded through rates



Our Approach to Cost Reduction

- ❖ We did not pursue savings at the expense of sacrificing structure or organization considerations
 - We started with sound understanding of mission, organization, resources, and activities
 - ✓ Informed by a number of years of almost continuous experience with Nalcor and Hydro in multiple contexts
- ❖ The key point is that we did not take these parameters as givens
- ❖ We find a unified Nalcor/Hydro structure is both most efficient and effective
 - Meaning most consistent with short- and long-term customer interests
- ❖ And does not adversely affect any Provincial energy development goals
 - Which can be pursued effectively through a separate structure
 - Without imposing on customers the costs of 100+ FTEs in current Nalcor structure
 - ✓ To support the next, presumably much larger development at some unknown time, under market conditions (opportunities and risks) that may differ radically in the future
 - ✓ To prepare for a Churchill Falls marketing opportunity two decades away
 - And which will have other negative consequences if Nalcor continues without regulatory oversight with respect to ongoing costs and operations of the LCP

Staffing Analysis Methods

- ❖ Standard, accepted, and reasonable utility industry approaches and techniques
 - Neither overly prescriptive nor broadly subjective
 - Together producing considered and credible analysis
- ❖ Consistent with
 - Approaches we have employed
 - Approaches used by others whose methods and results we have examined and evaluated
- ❖ Applied by 7 team members
 - Each with 30 or more years of experience
 - At, for, or in examining electric and gas utilities
- ❖ Five approaches applied
 - Position redundancy on integration
 - Existing and integrated spans of control
 - Comparative analysis
 - Consideration of work requirements
 - Liberty industry experience



The Myth of “Perfect” Information

- ❖ Organization review and position definition work do remain to tailor reductions
 - But as part of execution, adjusting final design and position changes
 - Not as a prior scoping or goal-setting effort
- ❖ Nalcor suggests examination of workload requirements, restructuring impacts, costs, and impacts on productivity must precede advancing on integration
- ❖ Nalcor also states that such matters fell outside the scope of our review
- ❖ We did consider the costs of the changes we identified
 - Position reductions will require one-time, amortizable costs typical of modest staffing reductions - - neither long lasting or substantial in the long run
 - Workload analysis add significant delay and costs, but fail to improve results
 - ✓ Positions involved here generally not those with work activities measurable in units useful for staffing analysis (*e.g.*, maintenance work units); those do need study for additional efficiency gain, as we noted
 - From a “restructuring” perspective, with transition costs low, the issue is performance impact, which will be isolated, and manageable at the execution level through identification of critical skills to be maintained
 - Intense activity - - We allowed a multi-year transition period for LCP to reach stable operation

Our Reductions are Achievable

- ❖ Our high level and macro (functional, departmental, positional) analyses support the level of reductions we consider reasonable
 - Based on analysis at or above levels we have seen employed
 - Execution may somewhat change distribution of reductions
 - But, without compromising identified overall organizational and resource changes
- ❖ Reducing resources by 5-10% for a utility organization of Nalcor's size and current conditions not surprising
 - Nor out of line with cost-reduction efforts we have seen at other utilities
- ❖ By comparison, Hydro's filing
 - Indicates a multi-year process
 - With no expectation of material change
 - Undertaken from a clear belief that both present structure and resources are at or close to optimum
- ❖ Even after changes at the levels we indicate resources will remain above those of other Crown Corporations providing vertically integrated electric utility service

Comparing Nalcor/Hydro Resources

- ❖ We used direct examination and analysis to identify resource reductions achievable through integrating Nalcor and Hydro
 - Supported by years examining Nalcor and Hydro management and operations
- ❖ Compared resources with those of similar Crown Corporations
 - Saskatchewan, New Brunswick, British Columbia, Manitoba
- ❖ Need to combine Nalcor and NP to produce a comparator
- ❖ That combination still produces the smallest member of the group
 - Less than half the customers of the median and one-third of the average
 - Even the next smallest is over 30% larger
- ❖ Comparison shows
 - Numbers of employees and particularly executives well exceed the group's comparable metrics
 - Gigawatt hours different, but dominated by comparatively outsized Churchill Falls
 - ✓ $\frac{3}{4}$ of total production
- ❖ Important to keep such benchmarks in perspective
 - A sanity check, not a decision-making basis
 - But one that did not undercut the direct analysis we performed

Net Effects of Integration

- ❖ Opportunity to reduce full-time-equivalent resource numbers by 113
 - Many at higher Nalcor and Hydro's compensation levels
 - Will take a short, but multi-year transition period to allow
 - ✓ Phase-in to steady-state LCP operation
 - ✓ Effective consideration of issues associated with personnel reductions
- ❖ Initial savings of \$12.7 million moving to \$21 million beginning in 2023
- ❖ Even with these reductions, Nalcor will remain above Crown Corporation comparators in staffing and executive numbers



Comparing Canadian Utility Executive Structures

- ❖ We used the most recent annual reports, supplemented by information available from other contemporaneous sources
- ❖ We counted vice president and above positions (including a general counsel)
 - The same definition Nalcor/Hydro accepted for examining them and NP
 - And consistent with our experience
- ❖ Our sources and the charts provided by Power Advisory produce similar numbers
 - With Nalcor so far out of the mainstream, even a handful of adjustments would not change what our comparison shows
- ❖ Only the use of other definitions offered by Power Advisory would have an impact
 - Those definitions do not conform to the 30 or more years of industry experience each of our lead team members have
 - The focus on nomenclature (“officers”) is a distraction; our use of vice president titles and above is clear and appropriate
 - We used the term interchangeably with executives, which is common in an operational context
- ❖ Other “definitional” factors cited by Power Supply (for example, location, span of control, compensation) are irrelevant in determining who provides the strategic and tactical leadership that distinguishes executives from lower management levels



Changing Hydro/NP Roles

- ❖ Hydro and Newfoundland Power both perform critical functions in serving electricity customers
- ❖ Ruled out asset transfers early in Phase Two
 - Would cost significantly more for capital costs than customers now pay in rates
 - ✓ Whether transferred from or to Hydro
 - Overtaking any potential savings introduced by potential combinations
 - Therefore, analyzed only transfers of operational responsibility
- ❖ High-level analysis showed that operational transfers might provide some savings
- ❖ But we found them subject to significant barriers
 - Very large uncertainties about acquiring entity's incremental capital costs
 - Costs of compensation to the entity assuming operational responsibility and risk
 - Demonstration of circumstances supportive of a close, cooperative relationship
- ❖ The preliminary estimates of potential operational savings did not appear substantial enough to warrant the risks imposed by such uncertainties

A Better Use of Time in Pursuing Savings

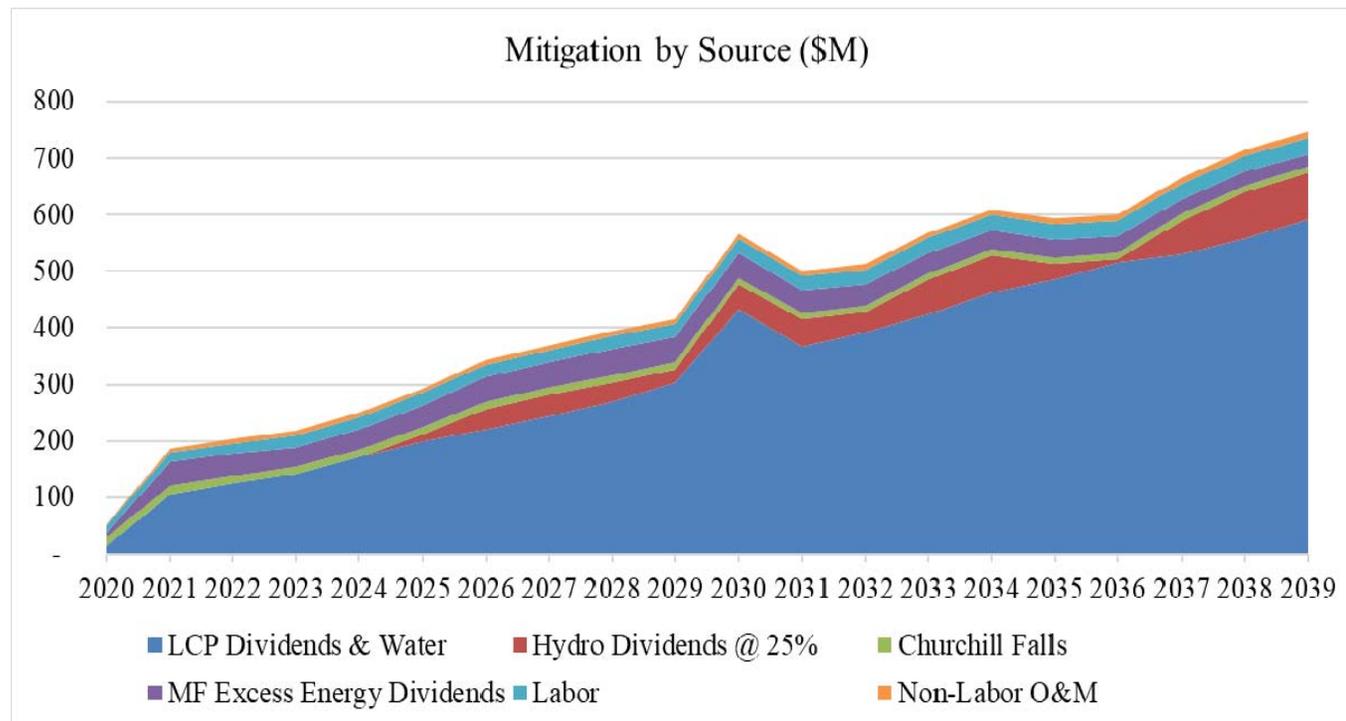
- ❖ Pursuit by Hydro of a committed and aggressive comprehensive examination of its efficiency and effectiveness
 - Conducted objectively and with a high level of transparency to the Board and stakeholders
 - If carried out under a genuine Nalcor/Hydro commitment, far more likely to produce savings beyond those identified as achievable through Hydro/Power Supply integration
- ❖ Reductions in planned capital spending
 - Nearly \$0.5 billion in combined, planned, five-year capital spending by Hydro and Newfoundland Power
 - Will have a significant impact on revenue requirements
 - Seeking reductions in those expenditures holds more promise for examination
 - The Board's existing regulatory processes provide opportunity for robust review of proposed capital spending
- ❖ Common purchasing warrants further exploration using a transparent process

LCP O&M Estimates

- ❖ Estimates of the future costs of operating the LCP have fluctuated significantly
- ❖ The latest, October 2018 estimate of \$97.4 million per year provides a sound reference point
- ❖ It correctly takes a conservative view in assessing early operating requirements
- ❖ Allowing a 2 to 3 year phase-in to steady state operation will still allow for a reduction of \$12 million per year

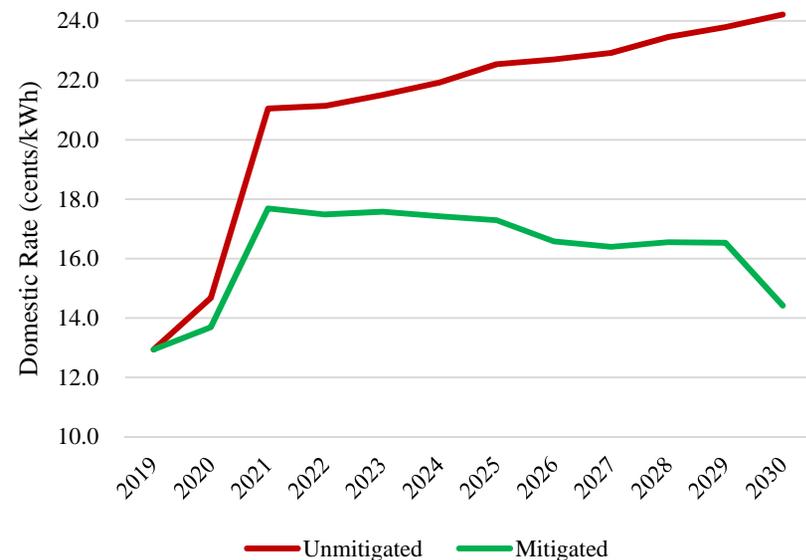
Summary of Mitigation Potential

- ❖ We looked at both
 - The 10-year period called for by the Reference
 - 10 more years
 - Anticipating that results might differ substantially between the two periods
- ❖ There is, in fact, a dramatic difference between the two



Mitigation Limits in Early Years

- ❖ A consequence of the growth in mitigation sources is higher rates in the first decade following LCP operation
 - Due primarily to the back-loaded structure of Muskrat Falls equity returns



- ❖ LCP financing requires significant payments (*e.g.*, sinking fund payments) in that first decade
- ❖ The rate path shown above underscores our reasons for examining debt-financing methods for bringing forward some of the increasing value mitigation sources provide in the second decade
 - Suspended pending continued discussions between provincial and federal authorities

The Province's Utility Regulatory Framework

- ❖ Clearly connected to the questions in the Reference
 - *e.g.*, ensuring optimum efficiency in Muskrat Falls operations and maintenance
- ❖ Ongoing LCP capital and operating expenses will have a large impact on future Hydro rates
 - The Board regulates those Hydro rates
 - But it cannot examine LCP costs, which will form a material part of rates
 - We believe the Board should have oversight of ongoing LCP capital and operating expenses
- ❖ At present, Nalcor has competing incentives that impair optimizing results for customers
 - Effective operation of Muskrat Falls for customers
 - Producing off-system sales margins
- ❖ The two are not necessarily mutually consistent
 - But would be if incentives unified as they are for vertically integrated utilities
 - ✓ By optimizing total revenue requirements
 - ✓ But only the Board can do that

Common Canadian/U.S. Approach in Vertically-Integrated Markets

- ❖ Restructuring means the following and drives pricing basis changes
 - Generation operates fully in competitive markets
 - Essentially monopolistic transmitting and distributing utilities remain
- ❖ These are not the circumstances here
 - Essentially, end user LCP pricing is priced on a cost plus return basis
 - Customers do not choose sources
- ❖ When customers pay costs of owning/operating generating units
 - Benefits from sales margins produced from those units reduce their rates
 - This approach is essentially universal in both Canada and the U.S.
- ❖ In those cases, the utility regulatory authority typically
 - Examines ongoing capital and operating costs of generation resources
 - Applies margins from off-system sales to reduce revenue requirements
 - Ensures resource planning and operation optimization considering total revenue requirements
 - As opposed to EITHER costs for system customers OR off-system revenues
 - Reviews management actions and judgments in optimizing value from off-system transactions

Best Utility Marketing Practices

- ❖ A separate entity to manage energy marketing does not require “deregulating” it
 - Wherever located, organization/function managing off-system transactions is
 - ✓ Expected to produce margins that offset revenue requirements
 - ✓ When those customers are responsible for unit capital and operating costs
- ❖ Regulators also generally hold utilities responsible for managing off-system sales effectively; *i.e.*, they are expected to act prudently in:
 - Limiting transaction types and applying controls to mitigate risk and avoid speculation
 - Ensuring that the planning of utility assets considers total revenue requirements (optimizing on- and off-system sales in a unified manner)
 - Use of utility assets to optimize customer costs on a total basis
 - We have performed dozens of audits (in the U.S. and Canada) to assist utility regulators in performing these roles
- ❖ Nalcor will be a comparatively small market operator even after Muskrat Falls
 - Such utility operators generally do not engage in high-risk market operations
 - Effective means exist for minimizing risks of market transactions
 - Smaller operations have less “scale and scope” which makes developing internal organizations comparatively more expensive

A Reason to Diverge Here??

- ❖ Nalcor’s filing cites the need to be “nimble” in operating in competitive markets
 - That does not distinguish Nalcor or Hydro
 - Or electric utilities operating in 31 U.S. states where vertically integrated electricity service remains the model
 - Or across the country for natural gas utilities
- ❖ A separate entity to manage external markets does not require “deregulating” it
- ❖ Utility marketers operate as effectively as competitive market counterparts
- ❖ “Nimble” as the filing employs the term is just a buzz word
 - It does not take meaning according to which part of Nalcor controls it
 - It may take meaning from hard-earned experience and proven performance
 - NEM may aspire to reach “world-class” status, but it is just beginning
 - ✓ And in a small way
 - ✓ And facing highly uncertain or far-off prospects for change
- ❖ NEM does not have the track record of its Canadian counterparts
 - And if it did, the same reasons that most U.S. jurisdictions regulate marketing operations have equal force here

Contracted Export Market Functions

- ❖ Entities operating in Northeast North America have
 - Far more experience than Nalcor currently has
 - No need for the learning curve that will affect Nalcor operations for some time
 - More experience than Nalcor can reasonably hope to create without significant portfolio expansion post-Muskrat Falls
- ❖ Use of asset managers to optimize the market value of utility “excess” capabilities in off-system markets is a recognized practice
- ❖ Using them can produce particular value for companies with smaller portfolios
 - Competition with larger enterprises in attracting and maintaining expertise
 - Smaller transaction value totals over which to spread operating costs
 - Career advancement and work-location differences
- ❖ Even Nalcor’s analysis shows the option a valid one to consider
 - Especially given likely circumstances for an extended period
- ❖ With Nalcor new to the market, it is difficult to determine
 - Level of interest that may exist among major, experienced industry participants
 - Added value they can extract from Nalcor’s portfolio vs. their costs for providing asset management services
- ❖ Nalcor (through Hydro preferably) should solicit market interest to determine whether soliciting formal proposals is warranted