Direct Testimony Presentation PUBLIC SESSION

SaskPower Contract Economic Review

PREPARED BY: DAYMARK ENERGY ADVISORS PREPARED FOR: MANITOBA PUBLIC UTILITIES BOARD DATE: JANUARY 2018



Presentation Objectives and Agenda

Presentation Objectives

- Understanding of the general transaction and status
- Understanding of general evaluation methodology
- Understanding of current economics

Agenda

- 1. Daymark Scope of Work
- 2. Key Concepts
- **3.** Project History and Status
- 4. 2016 Economic Analysis
- 5. 2017 Updated Analysis
- 6. Key Findings







Daymark Scope of Work Our Charge

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"Review and assess the economic justification for the SaskPower 100 MW power sale and Manitoba-Saskatchewan Transmission Project and provide an opinion on the merits of this project and whether it is in Manitoba Hydro's and ratepayers' interests to proceed."



Daymark Approach

- Reviewed MH transmission documents (CSI*)
- Reviewed MH economic evaluation documents and workpapers (CSI)
- Performed additional (limited) analysis

Daymark Materials Relevant to this Presentation

- Produced public and CSI reports (already on record)
- Responded to Information Requests (IR) related to reports (already on record)

* "CSI" stands for "Commercially-Sensitive Information."





2. Key Concepts



Key Concepts A Few Key Terms

- MHEM Manitoba Hydro Export Marketing
- MHT Manitoba Hydro Transmission
- OATT Open Access Transmission Tariff
- CPJ Capital Project Justification
- FCA Facilities Construction Agreement
- GFS Group Facilities Study
- GSIS Group System Impact Study
- Transfer Capability capacity, in MW, of a transmission intertie





3. Project History and Status



Project History and Status Existing System

Transmission System, Pre-Agreement

- 225 MW total transfer capability
- Various commitments against that capability (CSI)
- 45 MW available

Transmission System, with Project

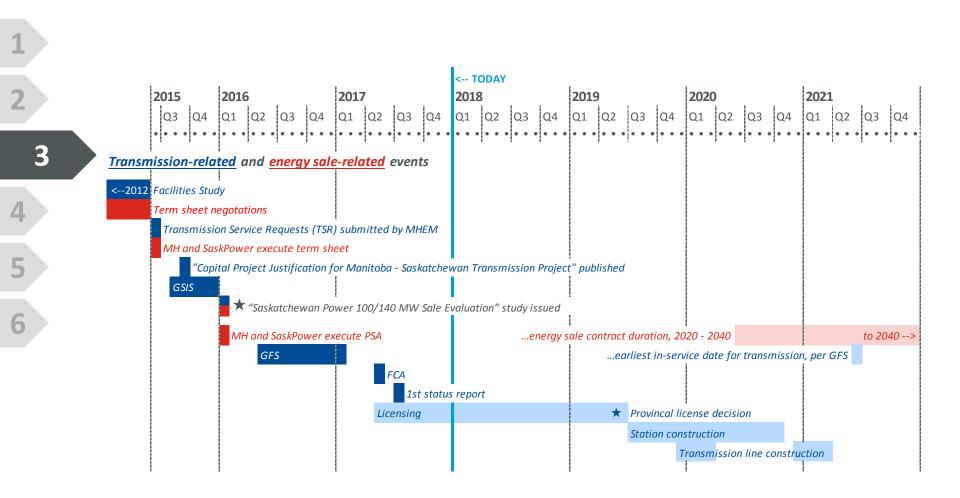
- 325 MW total transfer capability
- Retains capability to meet existing commitments (CSI)
- Allows for full amount of power sale to SaskPower



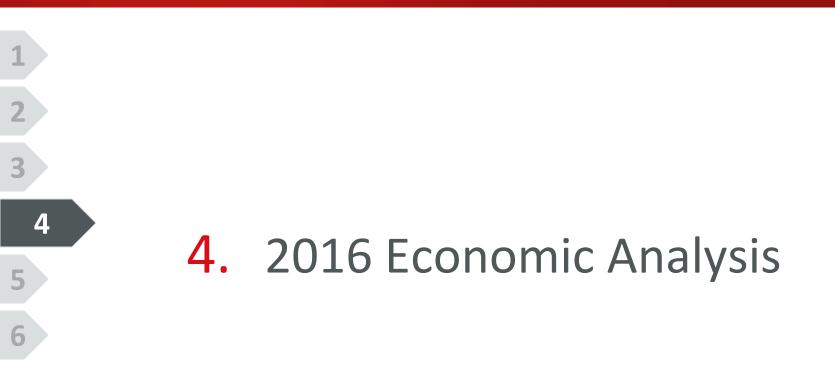
Project History and Status **Status**

- Power Sale Agreement (January 2016)
- Facilities Construction Agreement (May 2017)
- Transmission project in development
- First monthly status report for transmission reviewed (October 2017)
- Limited transmission costs incurred to date (roughly \$1.6 million)
- Further information in the CSI presentation













- Evaluation considered 100 MW sale plus potential for additional 40 MW
- Evaluation used Manitoba Hydro' long-term planning model (SPLASH)
- Base case assumed future Manitoba Hydro need would be met with new gas fired generation
- Results were expressed as net present value (NPV) of sale plus transmission versus base case
- Sensitivity analysis performed (Details in the CSI presentation)



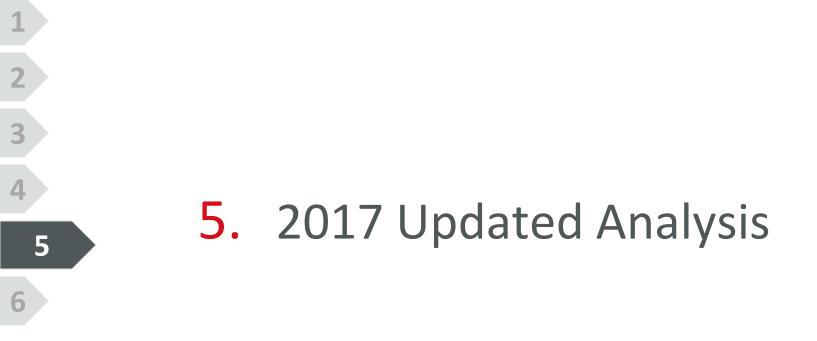
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2016 Economic Analysis Review of Key Assumptions

- In general, late 2015 planning assumptions were used
- Resource impacts of the sale were determined using the July 2015 Resource Planning Assumptions and Analysis for 2015/16 Corporate Planning Report
- Keeyask was assumed to be in-service in 2019
- New 500-kV US connection assumed to be in-service in 2020
- Manitoba-Saskatchewan transmission project costs sourced from the 2015 GSIS



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2017 Updated Analysis

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- Based on a Daymark request, Manitoba Hydro updated the analysis
 - Used Manitoba Hydro assumptions consistent with the current General Rate Application
 - Updated transmission costs based on latest information
 - Served as the starting point for Daymark analysis of key input assumptions
- Daymark sensitivity analysis
 - Goal test the current economics of the project
 - All information is commercially-sensitive





6. Key Findings



Key Findings

- Transmission project is still in the early stages of development
- Any potential delays in the transmission project do not present a significant risk to the near-term value of the power contract
- The transaction, including the transmission project, remains in the best interest of Manitoba Hydro and its ratepayers
 - Addition findings will be discussed in the CSI portion of the presentation



End of Presentation

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