



NOVEMBER 29, 2021

Northwest Integrated Regional Resource Plan (IRRP)

North of Dryden Focused Discussion

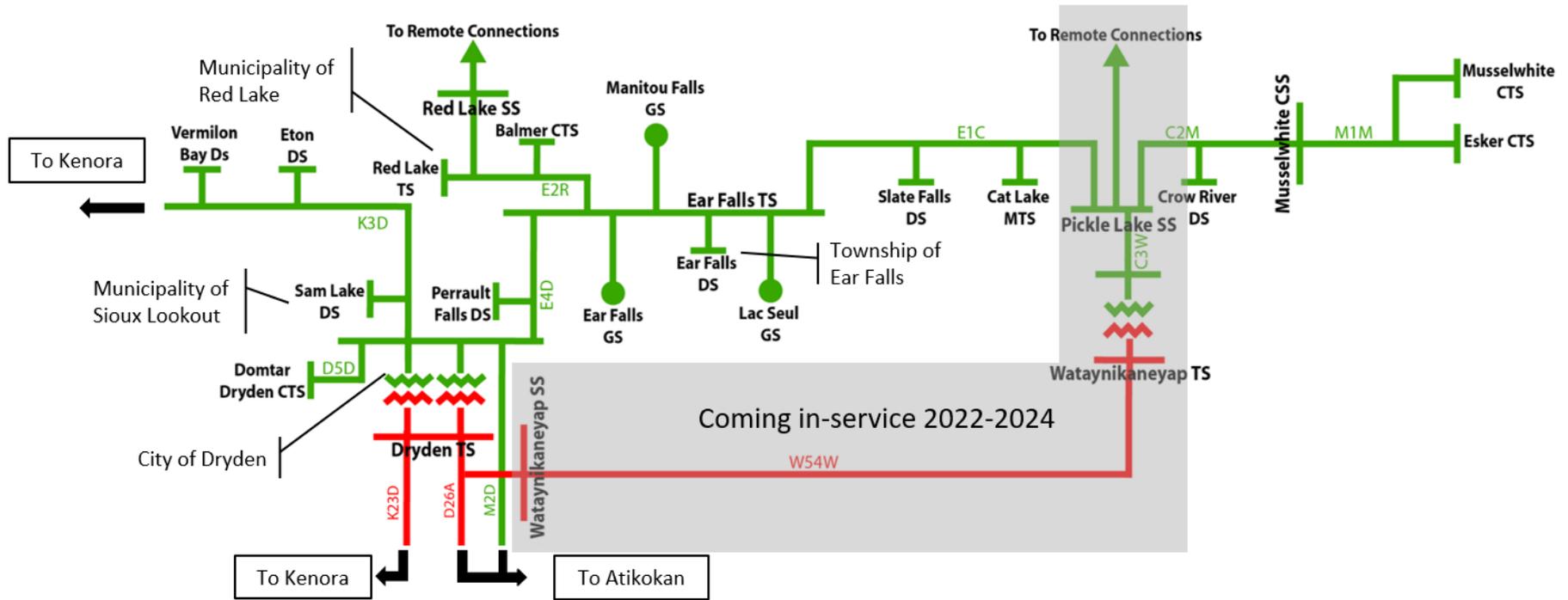
Purpose and Objectives of Today's Discussion

- Purpose: To discuss priorities and emerging needs in the North of Dryden area
- Objective: To provide an overview of the North of Dryden electricity system and provide an opportunity for stakeholders and communities to share their future electricity needs in this area

Agenda

- To get started, we will provide some background on the North of Dryden area including:
 - Overview of the transmission system
 - Recap of the 2015 North of Dryden IRRP
 - Preliminary areas of interest identified
- Group discussions on emerging electricity needs in your community and “signposts” for future growth

Overview of the Local Transmission System



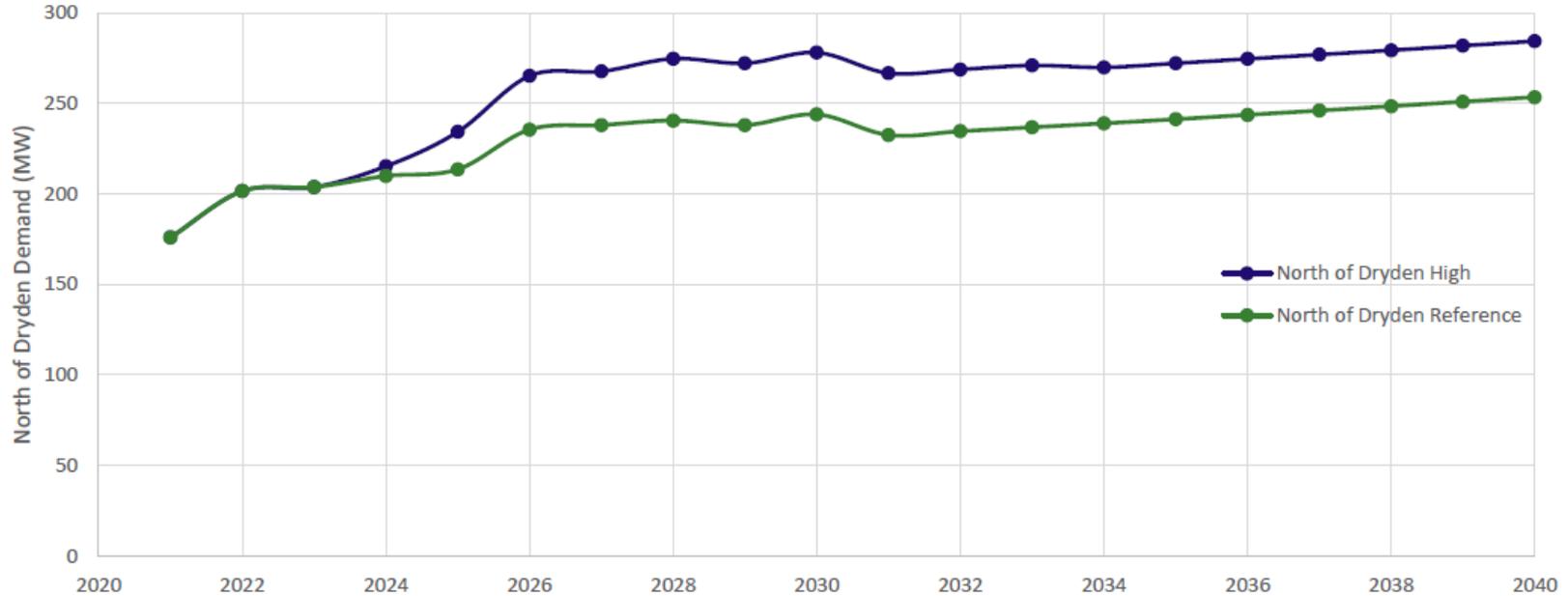
Recap: 2015 North of Dryden IRRP

- At the time, the entire North of Dryden subsystem was supplied via E4D and supported by hydroelectric generation at Ear Falls TS
- The load meeting capability (LMC) was 85MW and was fully utilized
- A 230 kV single circuit line from Dryden to Pickle Lake, now known as the Wataynikaneyap (Watay) project, was recommended to increase supply capacity
 - The 230 kV line, 115 kV remote connections, and associated station work will have staggered in-service dates from 2022-2024

2021 IRRP: Refresh Dryden Area System Capability

- Although no needs were flagged for this area in the [Needs Assessment](#), there has been significant system topology changes since the last regional planning cycle
- Additionally, this area has a high concentration of mining developments
- The IRRP will refresh previous studies to assess the capability of the existing system and potential options if future needs materialize

Demand Forecast



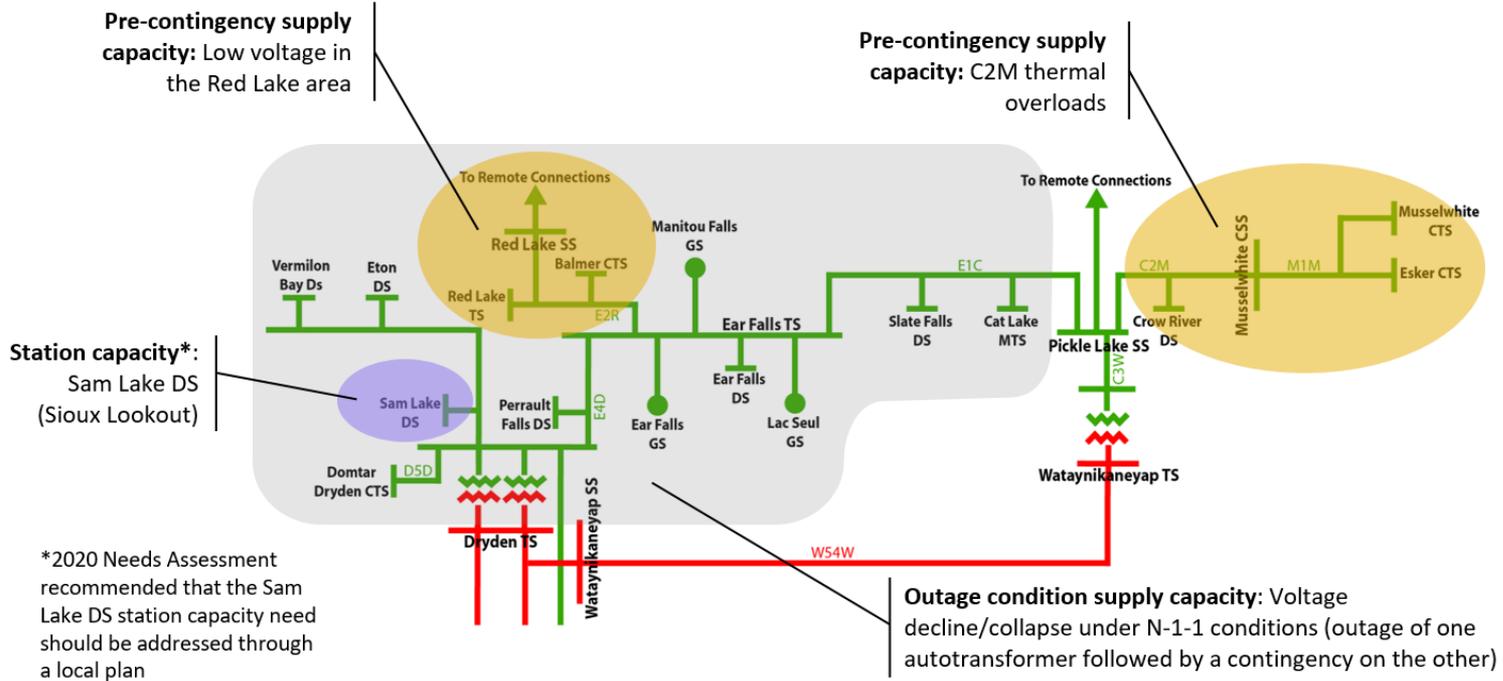
Drivers of Growth

- The IRRP forecast for the North of Dryden area includes:
 - Remote community connections and their demand growth
 - Forecasted demand from operational mines in the Red Lake and Pickle Lake areas
 - Potential new mining projects
 - Distribution system growth and spinoff effects

IRRP Areas of Interest

- The next slide outlines some "areas of interest" where supply constraints have been identified
- These are not necessarily firm "needs" at this point – if/when needs materialize will depend on the general of rate demand growth and timing of key mining developments
- Nevertheless, these areas of interest are useful indications of where and how future system limitations might appear

Areas of Interest North of Dryden



Next Steps

- Near-term:
 - Document electricity system needs (including consideration of feedback received today),
 - Refine areas of interest, and
 - Define need dates based on the demand forecast
- Options analysis will begin in Q1 2022



Discussion

Discussion Questions

1. What priorities and emerging electricity needs should be considered to inform the IRRP for the North of Dryden area?
2. Because some aspects in developing a demand forecast are inherently uncertain, what “signposts” should we watch for to determine when needs are likely to occur and to help sequence options?

Engagement Next Steps

- November: Discussion groups completed
 1. November 2: 1 to 2:30 pm - Customer reliability concerns
 2. November 18: 10 to 11:30 am – Emerging local initiatives
 3. November 29: 2 to 3:30 pm – Reliability in North of Dryden area
- Q1 2022: Engagement webinar to provide a summary of feedback heard from discussion groups and seek input on options to be considered to meet future needs

Thank You

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Appendix

Northwest Region Single Line Diagram

