

2.0 Project alternatives

Manitoba Hydro conducted a system planning study to look at capacity enhancement in the Steinbach area. The following sections describe the need and purpose of the Project, alternatives considered and the preferred option.

2.1 Need

The southeastern Manitoba 66 kV system has experienced a greater than average winter peak growth over the last ten years. The area includes southeast Winnipeg, Steinbach and the surrounding area. The main terminal stations affected by this growth include Hanover, Richer South, La Verendrye and St. Vital stations.

Area loading has grown at over twice the Manitoba average over the past ten years. This has led to an increase in operational difficulties in preventing customer outages. The ability to restore outages are expected to become even more difficult as area loading continues to grow at an accelerated rate, with the potential to experience rolling blackouts during equipment losses that could affect an estimated 5000 customers during cold winter peak conditions lasting for an extended period of time.

2.2 Purpose

The purpose of the Project is to address reliability, voltage and loading issues resulting from above average load growth in southeast Manitoba, including the Steinbach, Richer, and south St. Vital areas.

Future 66 kV distribution lines are being planned to utilize the new station and transfer loads off of St. Vital, Hanover, Richer South, and Letellier stations.

2.3 Alternatives

Manitoba Hydro considered two options as the possible source of new electricity supply in the Steinbach area. Option one was the construction of a new 230-66 kV station. Option two was the construction of a 230 kV transmission line to Steinbach (approximately 40 km in length) from St. Vital Station as well as a new station in the Steinbach area. A decision was made to proceed with option one since it was superior from a design perspective in

terms of reliability, would address supply requirements in the area, address loading issues at Hanover station, Richer South station and St. Vital station, requires no new 230 kv transmission line and is more economical of the two options.