

Presentation # 17

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Title: Winnipeg's Waverley West subdivision project

Abstract

The Waverley West Subdivision is a new development located in the south-eastern part of the City of Winnipeg and is bordered by established neighborhoods. It encompasses 2600 acres and upon completion in 18 to 30 years is expected to support a population of 40,000 and contain 13,000 homes. The existing 12kV system in the area is at firm capacity and cannot handle any further load increase, new capacity must be installed. Furthermore subdivision developers and area residents will not accept the traditional station concept and want something more aesthetic.

Instead of serving this residential subdivision and associated commercial establishments with a conventional 100 MVA station, smaller discrete HV pad mounted transformers along the perimeter of the subdivision will be used. This presentation examines the merits of Manitoba Hydro's new design concept of using Distribution Supply Centers (DSC) and distributed automation to provide a cost effective solution and reliable supply to the new development. Additionally project costs and visual aspects of the traditional station and the staged capacity DSC approach are discussed.