

# New Electricity Solutions for Guelph

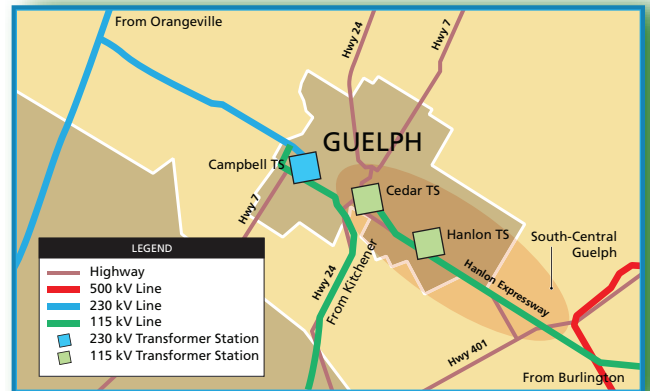
New transmission facilities are needed in Guelph to meet a growing demand for electricity in the south-central area of the city. Parts of the transmission system serving the city were built nearly 100 years old and the system frequently operates at load levels it wasn't designed to handle. Upgrading the transmission system will ensure reliable supply for years to come so the area can grow and prosper.

Guelph and the Kitchener-Waterloo Region are located in the heart of southwestern Ontario, an area of rapid increase in population and economic development in the last decade. With a 2006 population of approximately 600,000, the region is home to major automotive and related industries, "high-tech" development centres, three major universities and a number of other educational institutions. Over the past several years this region's population has grown by more than eight per cent. The region is expected to continue to grow, as identified by the Ontario Government in its 2006 'Places to Grow' document.

The area's demand has grown at double the provincial average over the past five years. In the summer of 2006 the area's electricity needs for homes, businesses and industries reached 1,400 megawatts. That's enough electricity to power 56 million 25-watt compact fluorescent light bulbs. While the growth in demand for electricity has moderated in response to the economic downturn, the area remains one of the largest electrical load centres in Ontario.

Improvements to the electricity infrastructure have not kept pace with the needs of this rapidly growing area. In 2007 the Ontario Power Authority (OPA) recommended that the area's electricity needs be addressed with an integrated plan. Similarly, in 2007, the City of Guelph, in partnership with Guelph Hydro, published a Community

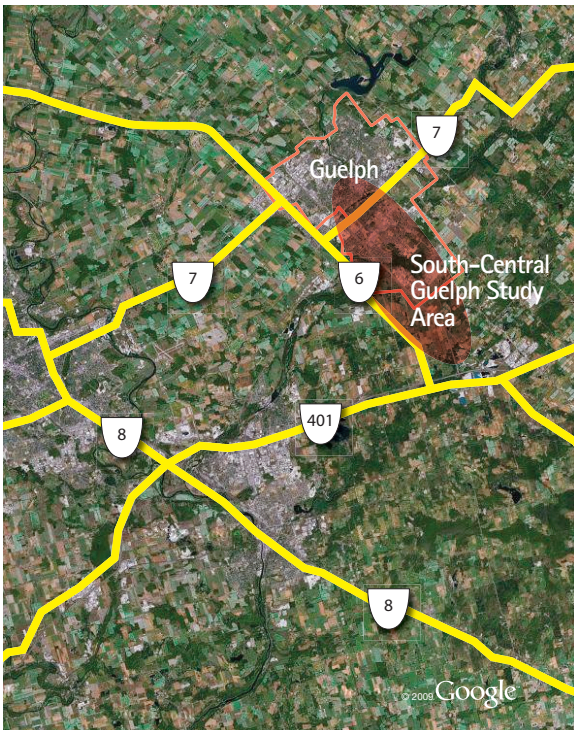
Existing Transmission System Serving Guelph



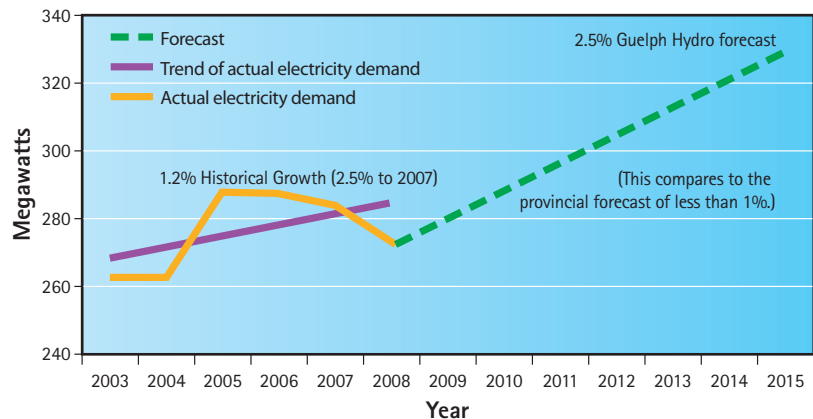
Energy Plan (CEP)

with the vision of creating a reliable and sustainable energy future. For example, the city hopes to source 25 per cent of its electricity from local renewable power sources in 15 years, and that 30 per cent of its forecast power needs will come from local co-generation sources by 2031.

In both of these plans, aggressively improving energy efficiency through conservation and demand management programs is a top priority. Also



Historical and Forecast Peak Demand in Guelph.



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included are finding opportunities to maximize small, local generation potential. The OPA will continue to work closely with both the City of Guelph and with Guelph Hydro to help achieve these goals. The recently passed Green Energy Act will also provide additional opportunities to achieve these goals.

The OPA's plan also identified the immediate need to refurbish the Guelph transmission system to provide additional supply capacity and security to south-central Guelph. This plan bridges the period until Guelph's CEP can be fully implemented and will ensure continued reliability of electricity supply.

Hydro One is now working with Guelph Hydro to manage the near-term supply until the transmission system upgrade is completed. The refurbished and more efficient transmission system is expected to be in place by 2012.

**We want to hear what you think.**

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