



Energy Mapping: The Power of Potential Energy

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Executive Summary

For many years, the City of Edmonton has been a world leader in innovation, sustainability, economic investment, and in the creation of a culture that values its people. To continue to advance this agenda, the city introduced a sustainability strategy called *The Way We Green* in 2011, and further adopted *Edmonton's Community Energy Transition Strategy* in 2015 to advance the environmental mandate to green the city.

In support of this plan, and in partnership with the University of Alberta, a Sustainability Scholar project was initiated to determine how data collected on residential energy use (gas, power and water) in the city could be effectively applied in decision making. The project was an opportunity to use energy consumption data to inform city initiatives around sustainability, and to identify opportunities to engage citizens in ways to change how they use energy.

Goals to work toward from *The Way We Green* strategy that support this project include that:

- Edmonton's sources and uses of energy are sustainable.
- Edmonton is resilient to disturbances that could affect its energy supplies and distribution system.
- Edmonton is a carbon neutral city.

The Sustainability Scholar, along with her city mentor, identified the following objectives for this project:

- Use energy mapping data to identify and support targeted application of intervention strategies for the beneficial impact to different neighbourhoods.
- Creation of city neighbourhood profiles to identify areas for targeted interventions based on their energy use and other socioeconomic data.
- Identification of other jurisdictions that have collected and used energy consumption data.

This report provides some recommendations about how the energy data can be used, and underscores the need to have this level of detailed information to make the best possible decisions. With consistent, reliable data, the city will have a powerful tool to make recommendations, set targets, and measure change and success over time.