

Powering Alberta

It's easy to take electricity for granted. We flip a switch and the light goes on. Electricity is there in an instant. But how? A complex network of "highways" – electricity transmission lines – carries electricity from where it's generated to where it's used. A strong transmission grid gets electricity to where it's needed reliably and efficiently.

Albertans Need a Strong Transmission Grid

A strong transmission grid is reliable and efficient and matched to the needs of Albertans. Albertans need a strong transmission grid to power their quality of life and, ultimately to power their future – without it we limit Alberta's prosperity and the economic potential of our businesses and industries.

Our analysis indicates that Alberta will need to increase its generating capacity by approximately 50% over the next 10 years. A strong grid will facilitate investment and encourage competition because generators will be confident they can move their electricity to market. In turn, consumers can buy reliable electricity at competitive prices. Strengthening the grid is also vital to unlocking Alberta's enviable potential for environmentally friendly renewable energy.

Albertans need a strong transmission grid to not only power their quality of life, but their future. So, how do we ensure that our transmission grid can stand the test of reliability and efficiency?

AESO's Role

We're the AESO, the Alberta Electric System Operator. We're an independent, not-for-profit organization with a mandate to plan and operate the grid for the benefit of all Albertans. Our team, engineers, economists and other employees work daily on planning and operating the electricity transmission grid. We don't own or have a financial interest in any electricity facilities, and we act in the public interest.

In fact, we consult with Albertans across the province to determine your needs and expectations so we can learn how we should strengthen the grid. It is clear from these consultations that the majority of Albertans want and need adequate and reliable power to support their quality of life, jobs and economic prosperity.

Powering the Economy – The Need for Reliability, Efficiency and Certainty

Just like our streets and highways, our transmission grid has weakened under the strain of Alberta's tremendous economic growth. Our grid hasn't had a major upgrade since the early 1980s. Yet, each year between 2003 and 2007, the demand for electricity within Alberta grew by about 3% – growth that amounts to adding the electricity demands of two cities the size of Red Deer each year. Without major upgrades to strengthen the grid, the reliable and efficient delivery of electricity to all Albertans will become more difficult and the reliability we all count on may be compromised.

So What is the AESO Doing About it?

In June 2009, we released the Long-term Transmission System Plan. It's a detailed analysis of what parts of the grid must be strengthened now as Alberta continues to grow.

We've identified several critical transmission system projects that will meet Alberta's electricity needs, but four key projects have priority. Our transmission grid must be first strengthened between Edmonton and Fort McMurray; between Edmonton and the Heartland region; between Edmonton and Calgary; and inside Calgary. The need to strengthen the grid in southern Alberta to connect wind power is also urgent and this project has already been approved by the Alberta Utilities Commission.

The need for these four projects is urgent. Our Long-term Transmission System Plan, together with the Provincial Energy Strategy and proposed legislative changes put forward this spring, ensure that these projects get built in a timely way.

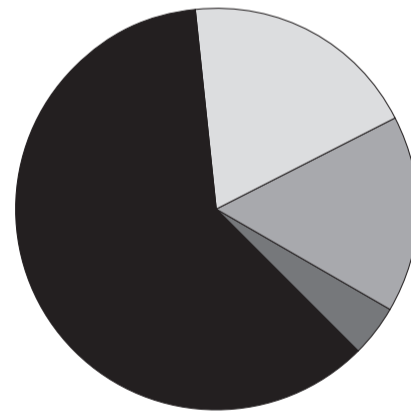
Powering Alberta's Prosperity – A Wise Investment

We have a huge job ahead of us. Once approved, an initial investment of about \$5.6 billion is required to build this first set of four critical transmission upgrades. The cost of these critical projects will be shared among consumers – residential, farm, commercial and industrial. (In Alberta, as in most jurisdictions, consumers pay for the transmission system that delivers electricity to them).

Residential consumers will end up paying about 16% of the cost to strengthen the grid; transmission charges on their monthly bill will increase incrementally as projects are completed. As a result of the four projects listed above, we estimate that residential consumers' bills will rise gradually from the current monthly transmission charge of about \$9, to less than \$15 per month by the year 2017 – about the cost of a cup of coffee a week. Industrial and commercial consumers, however, will cover the largest portion of these costs – about 80% combined – since these groups use most of the electricity moved over the grid.

More upgrades will follow. In our Long-term Transmission System Plan we identify other possible projects that will make our grid strong enough to meet Albertans' needs. For a complete breakdown of all proposed projects and costs, visit poweringalberta.com

Who pays for transmission?



- 61% Industrial
- 19% Commercial
- 16% Residential
- 4% Farm

A Strong Grid is Key to Powering Alberta

You'll be hearing a lot about Alberta's electricity transmission grid, so here's our take on it: Alberta must strengthen its grid so that it continues powering the Alberta economy well into the future and that every Albertan benefits from a robust power grid. Critical upgrades must be underway before Alberta's economy hits its full stride again. A strong transmission grid will signal that Alberta is open for business and position our province for a healthy future.

Learn more about the AESO, its public interest mandate and the proposed upgrades, including their costs and benefits, at poweringalberta.com

David Erickson
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