

Powering our Lives Series

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Article 1

Headline: Powering our lives: *electricity - a silent partner*

Electricity – we need it for nearly everything we do and use in our society today and yet we take it for granted. We depend on electricity to help cook our meals, light our homes and power our entertainment and our education. Our homes, businesses, farms, and industry all depend on power nearly every minute of every day - in these ways, electricity is our silent partner.

Today, we're all looking for ways to use energy wisely. And to do something about it, we're replacing incandescent light bulbs with compact fluorescents, turning off electrical appliances when we're not using them and buying energy-efficient appliances and electronics.

Every year the average homeowner spends about \$40 on electricity they probably don't even realize is being used. It's called 'phantom power' and it refers to the devices that are always using power, such as garage door openers, cordless phones, televisions, computers and microwaves - even when they appear to be off, the power 'on' light glows.

The bottom line is that as our population and the economy continues to grow, the need for more power grows right along with it. Over the last five years, Alberta's load, or demand for power, has increased at a rate equivalent to adding two cities the size of Red Deer (population of about 86,000) to Alberta's power system each year.

To keep pace with this remarkable growth, Alberta will need more plants to generate more power and more transmission wires to move that power to customers.

Like any other critical infrastructure - roads, hospitals, schools - we need to make sure the power system keeps up with the needs of Albertans. In fact, planning and building infrastructure like electrical transmission has to be done ahead of the growth curve to make sure it's built and operating when it's needed to move power from where it is generated to where it's needed.

It can take between 18 months and three years to plan, acquire approvals and build some types of natural gas-fired or wind power generators. For a coal plant the time required to plan, acquire approvals and build can be between four and five years, while it would typically be 10 years or more for a large hydroelectric or nuclear power plant. But that's only one part of the story. The power needs to be transported from the power plant to customers and it can take between five and eight years to plan, acquire approvals and build a new transmission line.

Looking ahead and developing long-term plans to make sure that we can continue to depend on electricity to power our lives is a job the Alberta Electric System Operator, or AESO, takes care of on behalf of all Albertans, and it's the topic for an upcoming article in this series.

The AESO is a not-for-profit organization that doesn't own or operate any power facilities and has no commercial interest in the industry. The AESO is driven by a public interest mandate to make sure that the system for keeping the lights on serves the needs of Albertans today and in the future. You can email us at stakeholder.relations@aeso or call us toll-free at 1-888-866-2959.