



talk about transmission

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Who pays for transmission?

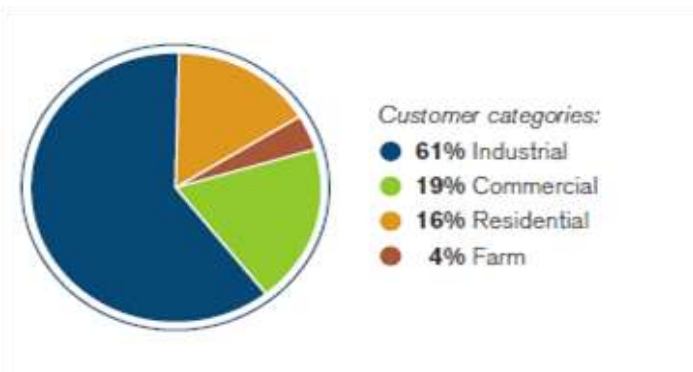
All consumers, whether industrial, commercial, residential or farm, pay for transmission, just as they always have.

The system that delivers electricity to Alberta consumers is owned, built and maintained by companies, owned by investors or municipalities, known as transmission facility owners.

The Alberta Utilities Commission regulates rates charged for transmission. The amount consumers pay for transmission is based on the amount of electricity they use.

In Alberta, the largest consumers of electricity are industrial and commercial users, who pay about 80 per cent of transmission costs.

This chart is an approximation of how transmission costs are allocated.



As transmission is built or upgraded, consumer bills will increase. Residential consumer bills are estimated to increase by about \$1 per month for every billion dollars invested in transmission. These increases will gradually appear on bills as the transmission is built.

The cost of new transmission is considered small when compared to the potential increase in energy prices if there is inadequate transmission and, consequently, inadequate electricity. Outages, as a result of inadequate transmission, can also cause severe economic and social impacts.

The Government of Alberta has established the Transmission Facility Cost Monitoring Committee to provide consumer representatives with timely information on major transmission projects costs, scope and schedule.

Are new transmission projects about exporting electricity?

No. Alberta is a net importer of power, which means over the long term, power has to be brought in from Saskatchewan and British Columbia to meet Albertans' needs.

Interties, the lines over which electricity is exchanged with our neighbours, are required for reliability. Alberta is the least interconnected jurisdiction in Canada.

Consumers pay for transmission to the extent that they use it. Exporters also pay for use of the system. If a company uses Alberta's interties with Saskatchewan or British Columbia to export power, it must pay to use the Alberta transmission system. Alberta consumers' transmission costs are offset by these payments.



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How are companies selected to build transmission lines?

As a regulated service, the companies responsible for building new transmission are assigned the responsibility in accordance with regulations. Historically, the assignment was based on geographic areas.

The Alberta Electric System Operator, Alberta's not-for-profit electric system planner and operator, is currently developing a competitive process to determine who is eligible to apply for the construction and operation of critical transmission infrastructure. The Alberta Utilities Commission must approve the competitive process before it is implemented.

Competitive procurement of critical transmission infrastructure will encourage competition for the ownership and operation of critical transmission infrastructure projects.

What technology options are there for transmission?

Overhead transmission is the prevalent means of electricity transmission in Alberta and North America today. It is less expensive to build and quicker to repair than underground transmission, but it requires wider right-of-ways.

Conventional alternating current overhead transmission is a practical technology for short and medium transmission distances and provides a good balance from a cost and technical perspective. Alternating current is easily transformed from high voltages to lower voltages for consumer use.

High voltage direct current transmission provides benefits such as requiring less right-of-way than an equivalent capacity alternating current transmission line, reduced land impact and efficient control of power.

Underground transmission, be it alternating current or direct current, is expensive but may be an option for shorter distances in areas such as densely populated urban regions where there is limited right-of-way for overhead transmission.

In planning transmission projects, the Alberta Electric System Operator recommends the technology option that best suits each application. The Alberta Utilities Commission makes the final decision on the location and configuration of transmission projects. The Alberta Utilities Commission considers the social, economic and environmental effects of projects when making its decisions.

How safe are transmission lines?

Transmission lines are designed to be safe and built and operated to be safe. For the Government of Alberta, there is no other option. Scientists at Alberta Health and Wellness monitor the current scientific literature regarding possible health effects from exposure to electromagnetic fields.

Health Canada's Consumer and Clinical Radiation Protection Bureau assesses and monitors the health and safety risks associated with radiation emitting devices such as power lines, radio and TV transmitters, and cellular phones. They also ensure that Canadians are protected under the provisions of Canadian laws.