



talk about heartland transmission

November 2009

What you need to know about:

transmission development

Why do we need more transmission into the **Heartland? Can't the upgraders generate their own electricity?**

Alberta's transmission system needs to act as an uncongested highway, capable of delivering the electricity to the marketplace, whether it is to an upgrader in the Heartland or to the distribution system for use in homes and businesses.

We need a fully integrated transmission grid based on the entire province's electricity needs in order to provide reliable electricity service to Albertans.

While some upgraders may choose to generate their own electricity, they may also choose to buy their energy from the electricity system. Like other electricity market participants, they must be provided with access to the electricity system.

Maintaining Albertans' standard of living and economic growth requires an adequate, reliable source of competitively-priced electricity. To provide that electricity, Alberta needs more plants to generate more electricity and more transmission lines to move the power to customers.

Alberta's competitive electricity market encourages development of new generation without the need for provincial taxpayer investment.

However, without an efficient highway system in place to deliver their product (electricity) to market, investors will not invest in new generation and there will be an insufficient supply of electricity for all Albertans.

What is the status of the Heartland Transmission Development project? To date, no applications have been made to the provincial regulator (the Alberta Utilities Commission [AUC]) and **no final decision has been made on siting of the line.**

Under Bill 50, *the Electric Statutes Amendment Act, 2009*, the need for the Heartland project would be approved. Bill 50 will be debated in the current session of the Legislature. Bill 50 does not change the requirements to consult or the role of the AUC in determining siting.

Starting in **April 2007**, the Alberta Electric System Operator (AESO) met with Albertans on the subject of transmission development in the Heartland.

The AESO held open houses and meetings and received feedback related to the development of transmission facilities in the area. This feedback helped the AESO identify a short list of siting options for this project. One option under consideration is the use of the existing Transportation and Utilities Corridor (TUC) to site the line.

Is cost the main consideration in a final decision on transmission facilities? What about safety, the environment and impacts to adjacent property?

Cost and technical analysis is an important component of the decision making process for the provincial regulator. In addition, the AUC reviews a variety of issues in making its decision on transmission facilities. These include, but are not limited to, the safety of nearby residents, environmental impact of line and affect on nearby land and property owners.

Will the concerns of affected landowners be heard?

When it comes to transmission siting, landowner issues will be heard, impacts will be mitigated to the extent possible and landowners will receive fair compensation. These steps are part of the government's action to strengthen the province's transmission system, as described in the Provincial Energy Strategy.

Once the regulatory process proceeds and applications are filed for this transmission line with the AUC, an open and transparent hearing process will be conducted to make sure all affected parties have an opportunity to be heard.

**Government
of Alberta** ■



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What are electromagnetic fields (EMF)? Does exposure to EMF have an impact on the health of Albertans?

EMF are invisible lines of force that surround any electrical device.

Major sources of EMF include power lines, transformers, building wiring, house wiring and **all devices** that use electric power such as appliances like hair dryers. We are exposed to EMF whenever we use electricity.

Extensive research and scientific reviews have been conducted around the world for more than 25 years to address concerns regarding exposure to extremely low frequency EMF and potential adverse health effects. To date, no research has identified a possible mechanism that links exposure to extremely low frequency EMF and the initiation of cancer.

Issues regarding transmission developments, including concerns associated with EMF, can be raised during the AUC's public hearing process.

Previously, the AUC has made requests for transmission facility owners to monitor and provide up-to-date information on EMF and health.

For example, the AUC requested that the Montana Alberta Tie Limited company monitor the issue of EMF on an ongoing basis in relation to the AUC's decision on the Lethbridge to Great Falls 240 kilovolt (kV) transmission line. To see an example of how this information is being shared with Albertans, visit www.matl.ca.

Background on development in the Heartland Electricity is a facilitator of prosperity. It plays an essential role in the living standards of Albertans. It keeps our food cold in the fridge, turns our furnace fans on cold winter days, provides light whenever we need it and is an essential input for industry to function and prosper in our province.

Transmission is the backbone of the electric system. It is required to deliver electricity efficiently and reliably from where it is produced to where it is used. Alberta has 21,000 kilometers of transmission lines that carry electricity across the province to the distribution system, which then supplies the power to our homes, farms, business and industry.

Alberta's transmission system has not been significantly upgraded for over two decades and is working near its capacity. The existing system is congested and aging. Large system losses make it inefficient.

Alberta needs a comprehensive upgrade to its transmission system, including additional transmission to the Heartland area to facilitate sustained economic growth and future development.

Glossary

Alberta Electric System Operator (AESO): this not-for-profit plans and operates Alberta's electric system.

Alberta Utilities Commission (AUC): this quasi-judicial government body is the provincial regulator for electric transmission facilities. It is responsible for making decisions on the siting of transmission lines and towers. www.auc.ab.ca

Transmission facility owner (TFO): these private companies construct, own and operate transmission lines and towers. AltaLink: www.altalink.ca; EPCOR: www.epcor.ca

Transportation utilities corridor (TUC): The TUC program is part of the government's approach to long-term planning in order to accommodate a number of transportation and utility facilities within the same area. The TUC allows roads and utilities to coexist and helps minimize land fragmentation. Alberta Infrastructure is responsible for the TUC program. www.infrastructure.alberta.ca