

Future Generation Requirements

Alberta's current generating capacity is approximately 13,500 MW. This is comprised of mainly coal and natural gas with about 1,900 MW coming from renewable forms of energy such as wind, hydro and biomass. Our recent forecasts suggest that over the next 20 years, over 13,000 MW of new generation capacity is needed to ensure we have enough reliable power to meet the needs of Albertans.

Demand for power has increased around 30 per cent since 2000, with peak demand growth forecast to average just over three per cent over the next 20 years.

The requirement for new generation development is currently being driven by the load growth mentioned above and by the need to replace capacity of retiring generating units. Over 4,500 MW of existing generation, largely coal-fired plants, is expected to retire within 20 years. Carbon pricing, government environmental policies and other factors could increase or advance retirements.

A robust transmission system ensures adequate transmission capacity is available to support development of a fair, efficient and openly competitive electricity market. Investors must have confidence in the market and trust that the transmission system will be capable of taking their production to market.

As part of its mandate to plan transmission for future anticipated generation, the AESO continually evaluates generation announcements as well as expected changes to the generation fleet in terms of possible impacts to regional and system transmission requirements.