Alberta government shares proposed framework for geothermal energy development

October 20, 2020

On October 7, 2020, the Government of Alberta (the Government) announced its plan for geothermal energy development in the province (Setting the Stage for Clean Geothermal Development).

The Government proposes to begin discussions this fall with key stakeholders, and introduce legislation for the exploitation of geothermal energy. According to the Government, a strong geothermal sector has the potential to create jobs in the oil and gas industry and create economic opportunity for Indigenous and rural remote communities, while lowering greenhouse gas emissions.

The proposed geothermal legal and policy framework will create greater policy and regulatory certainty, provide industry with clarity on rules and processes, establish an approach to land use and liability management, and protect landowners and mineral rights owners. The announcement follows on the heels of the Government sharing its Natural Gas Vision and Strategy. These plans are particularly important to the oil and gas industry as part of the Government blueprint to diversify the province's energy sector, in order to encourage and attract new investment in the sector.

Background

Geothermal energy is natural heat within the subsurface of the earth. It is contained in the rocks and fluids beneath the earth's crust and can be used for heating and cooling purposes or be harnessed to generate clean electricity. Research from the University of Alberta has identified potential to develop this resource on a commercial scale, with more than 6,100 megawatts of thermal power capacity potential and more than 1,150 megawatts of technically recoverable electrical power capacity potential across several municipal districts in western Alberta.

The Government sees enormous opportunity for geothermal energy to power homes, businesses and remote communities. Interest in geothermal energy development has increased because of improvements in available data, advances in technology, the ability to complement other industrial and commercial processes, such as agriculture and forestry, and its role in reducing greenhouse gas emissions.

Alberta has a number of advantages to develop geothermal energy, including:

- a natural geological advantage;
- the opportunity to repurpose inactive oil and gas wells, well sites and infrastructure;
- leadership in drilling technology;
- extensive oil and gas expertise; and
- a well-established service sector.

The Government notes that pilot projects are currently underway in the province.

Implications

There has been uncertainty whether geothermal is a mineral, whether royalty will be payable, and how its exploitation in commercial quantities will be regulated. Currently, Alberta assesses geothermal project applications on a case-by-case basis. Given increased interest in geothermal development, and to achieve the Government's plan for geothermal, a stable and predictable regulatory environment is required. It is anticipated that the framework will facilitate the use of existing oil and gas infrastructure in extracting geothermal energy, while limiting additional land impacts and saving money. The proposed regulations and policies will create new opportunities for the energy sector, while allowing Alberta to integrate renewable resources into the existing energy industry.

We will continue to monitor the development of the geothermal legal and policy framework and provide updates as they become available.

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