

Alberta's Geothermal Resources Regulatory Scheme

The *Geothermal Resource Development Act* (GRDA) is not yet proclaimed in force, nor are its consequential amendments to the *Environmental Protection and Enhancement Act* (EPEA) and other statutes. As well, *Directive [XXX] Requirements for Geothermal Resource Development* is still in draft form. However, the chart incorporates the changes that will occur once the GRDA and Directive [XXX] are in force.

Geothermal Resources

Shallow

Above the base of groundwater protection

Geo-exchange Applications

Deep

Below the base of groundwater protection

Direct Heat & Power Production Applications

Laws of General Application

Water Act

licenses required for diversions of water and approvals needed for activities impacting water

Directive for Water Wells and Ground Source Heat Exchange Systems

EPEA

Schedule of Activities includes structures for recovery, transfer, injection or storage of natural heat from the earth for the purpose of heating which means geo-exchange projects are subject to EPEA requirements including **potentially** requirements for approvals, registrations or notification, and a specific code of practice

Municipal Government Act

may be subject to municipal bylaws around environmental concerns, water, and/or planning and development.

Laws of General Application

Water Act

licenses required for diversions of water and approvals needed for activities impacting water

EPEA

Schedule of Activities includes structures for generation of thermal electric power or steam

Schedule of Activities structures for recovery, transfer, injection or storage of natural heat from the earth for the purpose of heating

Definition of "wells" includes geothermal wells

Conservation and Reclamation Regulation applies to geothermal power plants and wells

Environmental Assessment (Mandatory and Exempt Regulation) which requires some power plants to undergo environmental assessment

Activities Designation Regulation which requires power plants obtain an approval

Electric Utilities Act

Micro-Generation Regulation and *Small Scale Generation Regulation* could apply to certain geothermal power plants

Municipal Government Act

may be subject to municipal bylaws around environmental concerns, water, and/or planning and development

Geothermal Resource Development Act

licensing regime for deep geothermal resource operations

no regulations yet... may make regulations regarding access to geothermal resources, applicability of other energy resource enactments, and prescribing things as not being geothermal wells or facilities for the purposes of the GRDA

amends other pieces of legislation including *Mines and Minerals Act*

AER Rules Directive [XXX] Requirements for Geothermal Resource Development

requirements apply to geothermal wells, facilities and pipelines

addresses technical and operational requirements; closure requirements; applications for obtaining and transferring licenses

many other AER directives apply to geothermal operations as indicated in the draft Geothermal Directive



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