



UNIVERSITY OF ALBERTA
FACULTY OF LAW

Ownership Issues in Geothermal Energy

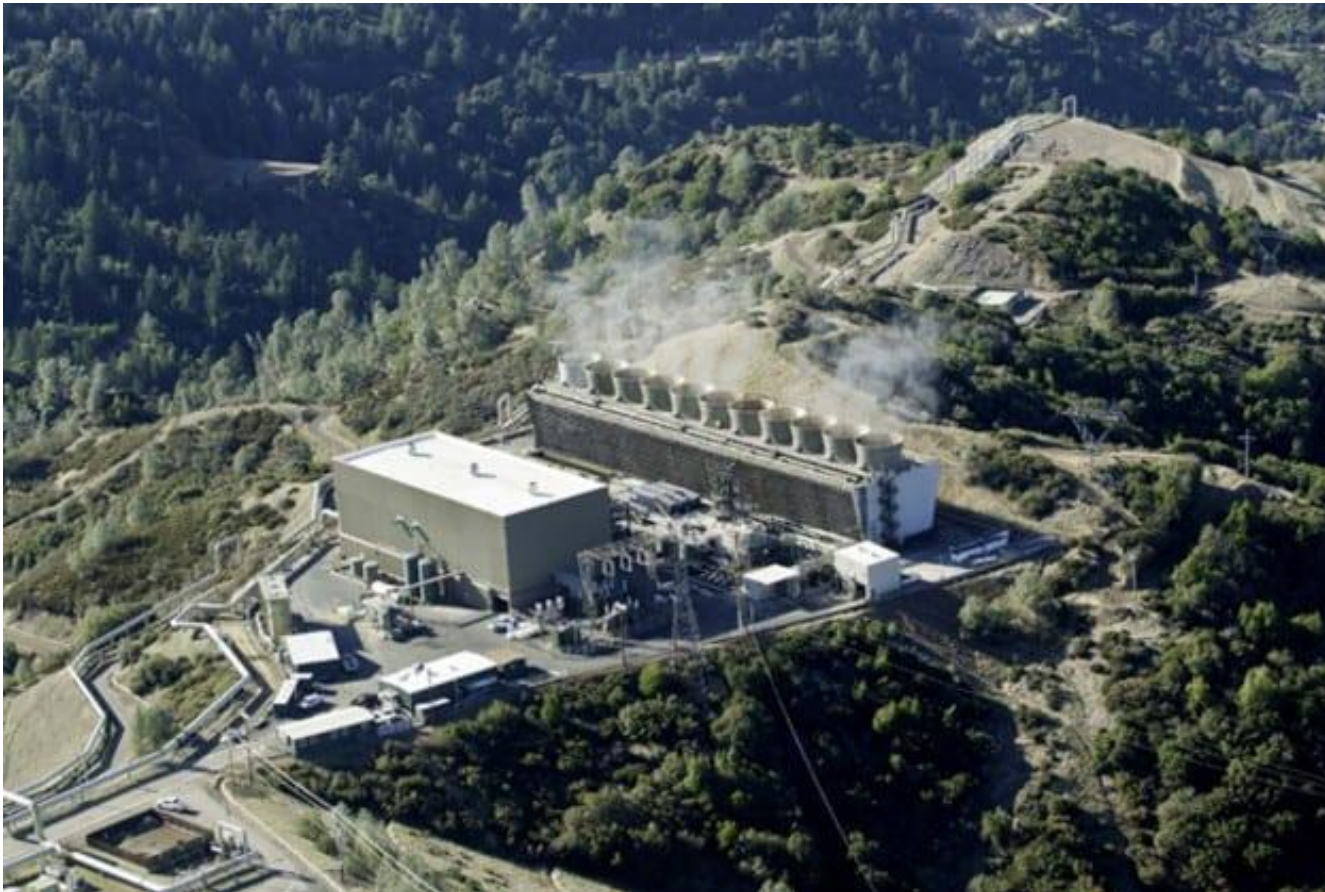
The Richard Riegert Memorial Lecture 2022

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BLG Chair in Energy Law and Policy

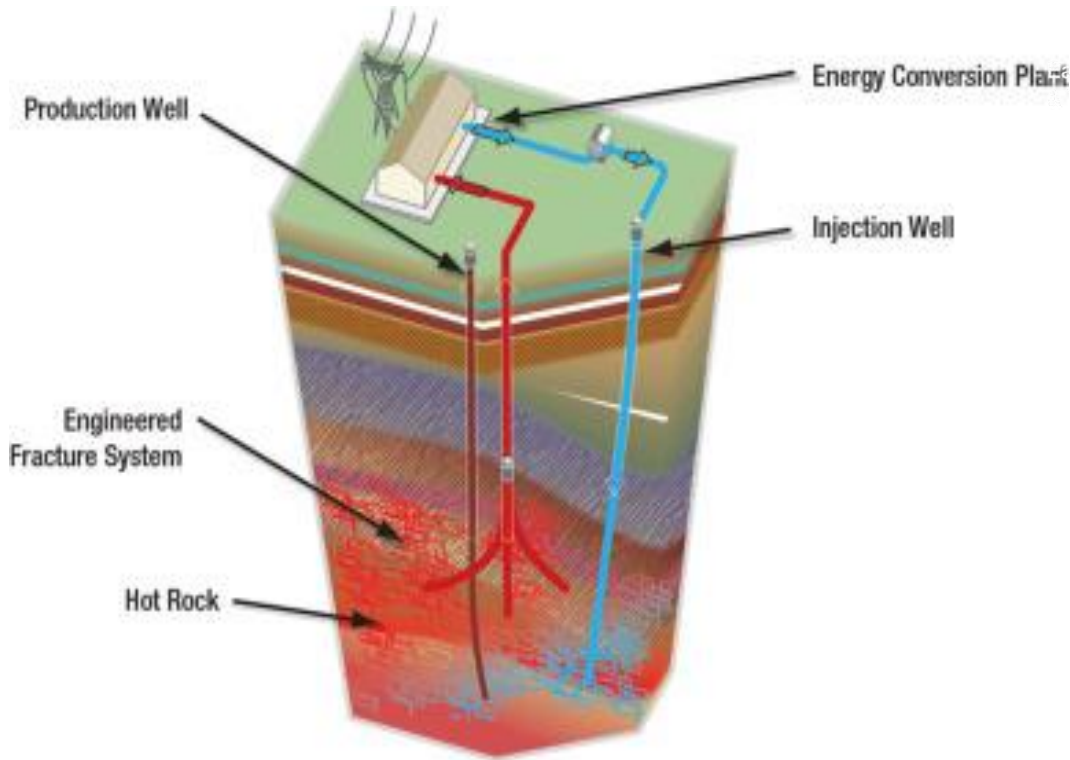


The Geysers Project, California

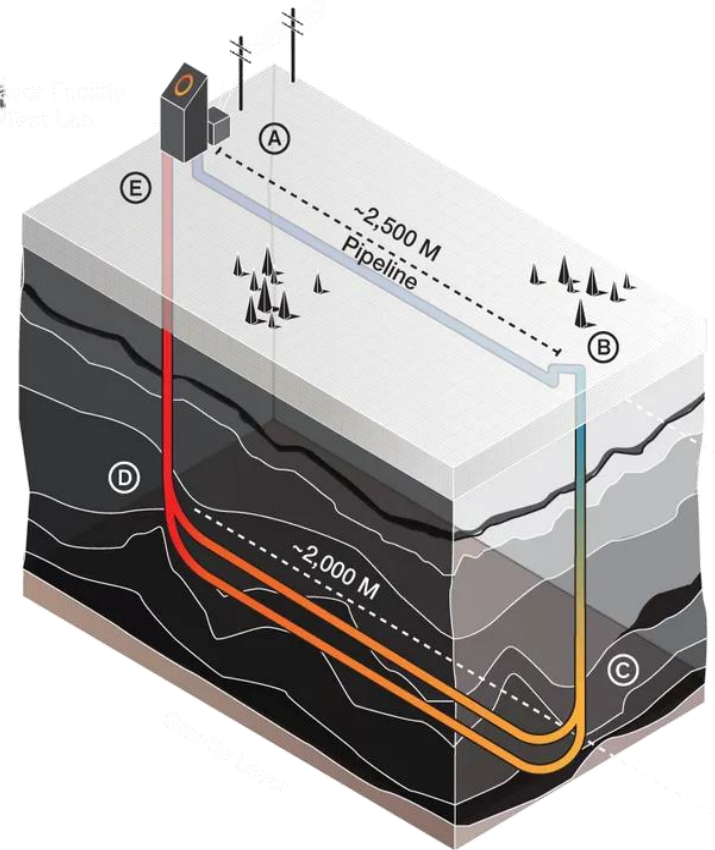




Enhanced Geothermal System



Advanced Geothermal System



Note: A → E Flow Direction



GRDA Ownership Rights

The owner of the mineral title in any land in Alberta has the right to explore for, develop, recover and manage the geothermal resources associated with those minerals and with any subsurface reservoirs under the land (M.&M. Act s.10.2)

Is this declaration effective?



What Are Geothermal Resources?

“the natural heat from the earth that is below the base of groundwater protection”

GRDA s.1(1)d

Common law: the container theory and
cuius est solum est usque ad coelum et ad inferos



The Impact of a Mineral Reservation

The meaning of “mines and minerals” and the underlying principle of the *Borys* decision:

The surface owner has the right to all subsurface resources except those contained in the reservation (or grant)

Principle confirmed by SCC in *Gaumont* (1953) and UKSC in *Bocardo* (2010)



Ownership of Natural Heat from the Earth

“Heat” is not a mineral and geothermal recovery removes no tangible substance from the earth

Surely the surface owner has the right to remove and exploit any non-mineral resources, with at most a possible claim by mineral owner if the heat is derived from a mineral bed

Hot water belongs to the Crown



Does the GRDA Affect Existing Rights?

The presumption that an Act does not affect vested rights;

The presumption against retroactivity: Act takes effect from date of proclamation

Alberta's history in legislation that defines "minerals," sand, gravel, clay and marl, and pore space



Competing Claims to Minerals

CBM Act (2010): Coalbed methane is hereby declared to be and at all times to have been natural gas (M&M Act, s. 10.1(1))

The Act also prohibited actions by the coal owner and deemed that no expropriation had occurred



The Exception: Gas Storage (1994)

- (a) where a person owns the title to petroleum and natural gas in any land, that person is the owner of the storage rights with respect to every underground formation within that land, and**
- (b) where one person owns the title to petroleum in any land and another person owns the title to natural gas in the same land, those persons are co-owners of the storage rights with respect to every underground formation within that land (M&M Act s.57)**



The Impact of the GRDA on Development

GRDA was passed to encourage a nascent source of clean energy

- 1. A prudent developer will negotiate with surface owners for access to geothermal heat**
- 2. In practice, it requires negotiations with the owners of each mineral title on affected tracts**
- 3. Draft directives will also require surface owner's consent to surface disturbance**



BC and Saskatchewan Approaches

BC establishes Crown Ownership of geothermal resources

Saskatchewan assumes Crown ownership and grants exploitation rights through a “lease of space”



Contrasts with Crown and Private Ownership

In Alberta, transaction costs make development on freehold land highly unlikely

Crown control in BC and Sask simplifies and reduces cost of land acquisition

Crown control allows creation of royalty incentives (10 year royalty holiday in BC, no royalty in NZ)



Why the choice of legislation?

Natural Gas Storage Act was passed by a government that trumpeter property rights

Despite the CCS and CBM legislation, the passage of the ALSA in 2009 was seen as a massive intrusion on private property rights

In 2019 the UCP platform committed to entrench property rights and not to remove them without due process. Does this preclude a declaration of Crown ownership?