

Play-Based Regulatory Trends for the Alberta Petroleum Geoscientist

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Summary

The Alberta energy sector has evolved significantly since its inception in the early 20th century. Ever-changing geoscience and technology has allowed profitable extraction of coal, shallow gas, conventional oil, sour gas, heavy oil, mineable bitumen, tight gas, and coalbed methane. Now a new frontier has opened up with shale-hosted hydrocarbons through horizontal drilling and multi-stage hydraulic fracturing. For each resource era since Turner Valley days in 1937, Alberta has had a strong regulator working alongside the energy industry. This regulator has evolved as well, the most recent incarnation being the Alberta Energy Regulator (AER). And behind this new regulator is a new and innovative policy assurance construct, which is now taking shape in response to the new realities that energy extraction has to be more holistically balanced with multiple users of the subsurface rock formations and pore space, as well as with social and environmental impacts at the surface.

As a consequence of these changes, the petroleum geoscientist in Alberta is going to find their work intersecting the regulatory world more than they may ever have. The AER's play-based regulatory framework is, at its heart, a petroleum-geology construct and reflects the reality that, at least for the non-mining energy sector, it is the subsurface that drives the surface.

This talk will provide an overview of these changes and explain the broader trends at work in energy regulation. The Alberta energy sector was built on the imagination and drive of petroleum geoscientists to find more petroleum and extract it efficiently and safely. The petroleum geoscientist of the future can expect to have a bigger role in Alberta's energy development for many decades to come, including informing allocation and conservation of water, management of public lands, and protection of the environment. With the petroleum geoscientist at the table, the play-based regulatory construct will bring future benefits to all Albertans and keep our energy sector competitive and profitable.