

An Integrated Decision Approach to Energy Development

RISK OVERVIEW

What is a Regulator?

At its heart, a regulator helps prevent bad things from happening.

The Alberta Energy Regulator (AER) creates and enforces requirements that ensure that Alberta's energy resources (oil, gas, bitumen, and coal) are developed responsibly. To do this, we must manage the risks associated with developing these resources; we need to know how likely it is that something bad might happen and what the consequences will be if it does. With the third-largest oil reserves in the world, this is not a simple task.

To start, we collect information. We collect technical information from oil and gas operators and we collect information from the public, environmental nongovernmental organizations, and our government partners. We also tap our own subject-matter experts for their technical expertise. We then take all that information and analyze it so we can make decisions on how, when, and where Alberta's oil and gas resources can be developed in a way that protects the public, water, and the environment while still ensuring economic benefit for Albertans.

What is the Role of a Regulator?

The AER's role is to ensure that companies are developing Alberta's energy resources in a safe, orderly, efficient, and environmentally responsible manner. There are requirements set out in acts, regulations, and directives that companies must follow. We also conduct inspections and audits to make sure that companies are following these requirements. For the most part, these controls are effective. That said, if companies fail to follow the rules, they can face strong consequences.

But we can't be everywhere. Just as it's unrealistic to post a police officer on every street corner, it's not realistic for the AER to watch over every energy development activity that happens across Alberta. Therefore, we must assess the risk posed by any given development and focus our attention on those that pose the greatest threat.

Managing the Risk

Using risk information when making decisions is not new for the AER. But, through our Integrated Decision Approach, the AER is now moving towards a more consistent way of using that information to make decisions.

A clear understanding of each activity (be it the construction of a well, the operation a pipeline, or reclaiming a facility) and the risks each activity poses is necessary for us to determine whether additional oversight is required. For instance, if a company that consistently follows the rules drills a well in an area that is far from people, sensitive species, and waterbodies, it poses a relatively low risk to the environment and the public. But if the same well was drilled by a company with a poor compliance history, in a sensitive bird habitat, or near a town, any impacts from that well might be more likely to occur or might have greater consequences on the things we care about.

Simply put, the lower the risk, the less regulatory oversight (e.g., inspections or audits) is required; the higher the risk, the more oversight is needed. Following this practice helps us make sure we are being as efficient and effective as possible when protecting what matters to Albertans.

Protecting What Matters

But it doesn't stop there. We also make sure that our regulations and requirements continue to be effective, especially when things change. For example, we can and do increase precautionary measures when we are faced with the unfamiliar, such as new technologies. The AER's experts use their professional judgement, data analysis, and other methods and experience to evaluate how effective our current requirements are when companies propose new technologies. They may determine that our requirements work well or that more conditions or inspections are needed to better manage the risks.

We know we play a vital role in ensuring that companies are doing what needs to be done to protect the public and the environment. And we take our job very seriously.

Example: Low-Risk Scenario

What's on the landscape?

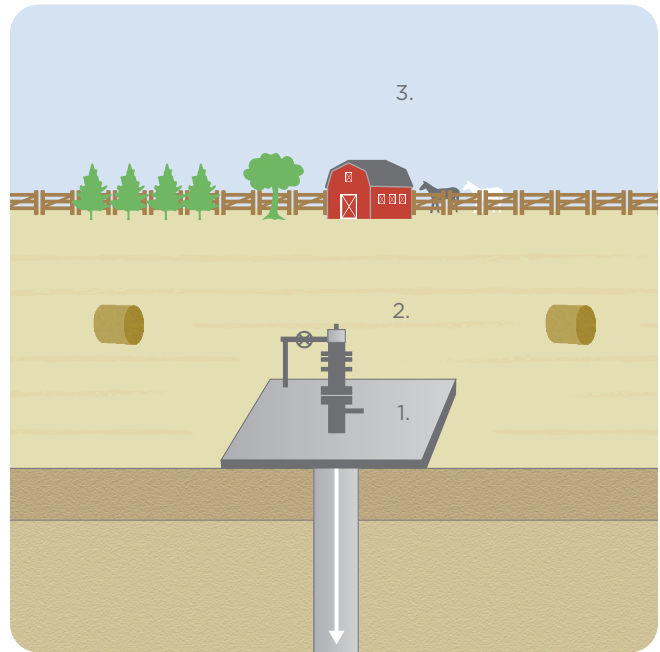
1. The landscape includes a well that produces shallow, sweet gas.
2. The well is located in southern Alberta on flat, private grazing land and the landowner has consented to the activity.
3. No sensitive species are nearby.

What makes this a low-risk scenario?

- Existing requirements in acts, regulations, rules, and directives are working to manage any potential risks.

Because it's considered low-risk...

- No additional review of the application and, unless things change, standard AER inspections and audits will be required over the life cycle.
- The decision to approve the well is automated.



Example: High-Risk Scenario

What's on the landscape?

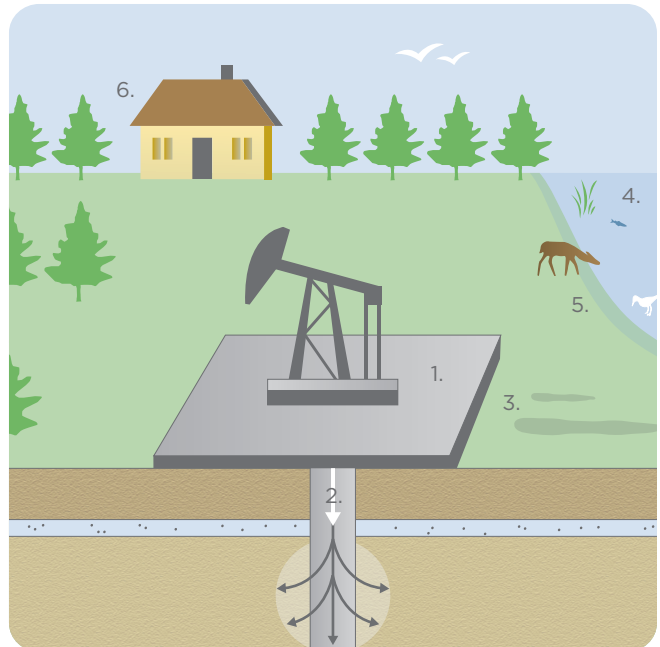
1. The landscape includes a well that uses thermal technology to produce heavy oil.
2. Steam injection and production occurs from a single wellbore.
3. The well has a history of production related incidents.
4. The well is in close proximity to a fresh water well being used by people.
5. The well is close to a sensitive species or habitat.
6. The well is close to a First Nations reserve or traditional land-use area.

What makes this a high-risk scenario?

- Existing acts, regulations, rules, and directives may not sufficiently manage potential risks.
- Indigenous rights issues and federal regulations could come into play.
- Other authorities, such as Alberta Health or Alberta Environment and Parks, could become involved.

Because it's considered high-risk...

- We carry out additional review and surveillance such as inspections and audits to ensure operators are managing the risks over the life cycle.
- Additional requirements and conditions may be added to the approval—such as monitoring of surface water and groundwater.
- Enhanced, ongoing stakeholder engagement may be required.



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