

» 2013/14
Annual Report Highlights

Building the AER

› **Energy regulation in Alberta spans 76 years and has evolved over time.**

This evolution continued in June 2013 when the AER became a new organization with an entirely new governance structure and took over responsibilities previously held by the Energy Resources Conservation Board (ERCB).

This journey began with the Government of Alberta's Regulatory Enhancement Project, which was designed to ensure that Alberta's resource policy development, public consultations, and energy development regulations are efficient and competitive while supporting public safety, environmental management, and resource conservation objectives. From this process the government passed the *Responsible Energy Development Act (REDA)* in 2012, and on June 17, 2013, the AER was created.

The AER is part of the Government of Alberta's Integrated Resource Management System, which includes

- › the Government of Alberta, which sets policy;
- › the Alberta Environmental Monitoring, Evaluation and Reporting Agency, which provides data and information;
- › the Aboriginal Consultation Office, which manages First Nations consultation on behalf of the Government of Alberta; and
- › the Policy Management Office, which is the key interface between government and the AER on policy issues related to energy development.

Creating the AER was a complex task that required careful implementation, especially considering that all energy regulation activities in the province

continued throughout the transition. The AER managed this transition with the Government of Alberta through a three-phased approach.

- › Phase 1 occurred in June 2013 when the government proclaimed certain sections of *REDA*, resulting in the launch of the AER and its new governance model. At that time the AER took on all responsibilities previously managed by the ERCB.
- › Phase 2 occurred in November 2013 when we took on responsibilities from Alberta Environment and Sustainable Resource Development (ESRD), beginning with public land and geophysical jurisdiction, and established a Private Surface Agreements Registry for landowners and residents who wish to register private agreements they have signed with companies.
- › Phase 3 occurred on March 29, 2014, when the AER took responsibility for sections of the *Environmental Protection and Enhancement Act* and the *Water Act* as they relate to energy development.

Our transition is now complete, and the AER is the single regulator of energy development in Alberta — from initial application and exploration, to construction and development, to abandonment, reclamation, and remediation.

2014-17 Strategic Plan

Albertans count on the AER to provide strong regulatory oversight of energy development across the province. We're expected to protect what matters most — public safety and the environment — while ensuring economic benefits from our energy resources. That's our mandate, our core business, and what we focus on every day.

This is important work. But to move beyond that core work, to truly reach our vision to be best in class, we need a strategy, a focus on a few strategic priorities, and a plan for how we will direct our human and capital resources to those priorities in a way that delivers results — results for the AER and our stakeholders.

The AER 2014-17 strategic plan plots a roadmap that helps us select projects and initiatives at an enterprise level, determining what will serve our organization best, help us reach our vision, and make the most of our resources.

To become best in class, we know we need to do more. Reaching our vision calls for a proactive strategy that identifies our key priorities and establishes clear performance measures to ensure that we stay on track and can demonstrate our results.

The strategic plan includes our strategic priorities, strategic outcomes, themes (areas of focus), and performance measures and targets against which the AER will monitor its progress and how others will measure our success.

Our strategy reflects our mandate, our vision, and our pursuit of best in class by being **protective**, **effective**, **efficient**, and **credible**.

Strategic priorities

Strategic outcome

Protective

Develop integrated whole-system regulatory approach

Effective management of public safety, and cumulative environmental risks and impacts

Effective

Strengthen risk-based regulation

Effective management of resource conservation and minimize financial liability on Albertans

Efficient

Transform Alberta's energy regulatory system to improve efficiency

The regulatory system is efficient, minimizing duplication, with highly efficient processes, and only intervening to the level necessary

Credible

Increase trust and confidence in how energy is developed in Alberta

Stakeholders are confident about how energy is developed in Alberta

| Theme | * Performance measures | * Performance targets | Vision |
|---|---|--|--|
| Play-Based Regulation (land and water) | Volume of all water (fresh, saline, and recycled) used for oil, oil sands, and gas operations | Work with GoA to set benchmarks and requirements for reduction of water use for energy resource development | The AER is recognized as best in class, ensuring the safe, environmentally responsible development of energy resources for the benefit of all Albertans. |
| Tailings water management | | Implementation of regulations aligned with Alberta's Tailings Management Framework | |
| Air emissions | Volume of gas flared and vented from oil and gas operations | Flaring levels are within provincial guidelines | |
| Integrated Resource Management System | | | |
| Aging Infrastructure and Liability Management | Proportion of inactive wells that meet current suspension requirements | 100 per cent of high-risk inactive wells meet AER suspension requirements | |
| Reservoir containment | Adoption of risk-based regulation to respond to changes in technology and complexity in oil sands development | Complete shallow SAGD caprock integrity study | |
| Pipeline safety | Number of incidents per kilometre of pipelines regulated by the AER | Pipeline incident rate reduced by 4 per cent | |
| Operations continuous improvement | Regulatory process efficiencies | \$60 million in verified cost savings from efficiency initiatives in the first year | |
| Regulatory simplification | Relevant regulatory requirements | Complete a full regulatory review to identify and execute opportunities for consolidation and simplification | |
| Open, transparent communication | Percentage of Albertans confident that oil and gas development is occurring responsibly | 10 per cent increase in awareness of the AER and its role in regulating energy development in Alberta | |
| Stakeholder engagement | Stakeholder rating of AER performance in key areas of concern | 10 per cent increase in positive perceptions/rankings of AER performance | |
| Best-in-class review | Recommendations for best-in-class performance are developed through stakeholder collaboration | Completion and release of recommendations in 2015 | |

* Performance measures and targets will be modified and expanded following input from stakeholders and partners.

our priorities – protective

Develop an integrated, whole-system regulatory approach to safety, environmental protection, and risk management

- › **At the AER, we know that regulating a world-class energy resource is a huge responsibility.** The first priority of our strategic plan is to be protective of public safety and the environment. While any type of industrial activity comes with risks, these risks can be minimized through strong regulatory requirements at every stage of a project's life cycle.

As new technology drives the intensity and scale of development, we need a new approach to energy regulation. The AER will address cumulative impacts and align with Alberta's Integrated Resource Management System as part of the decision-making process for approving energy resource development.

We will focus on what's important to Albertans: public safety, protecting our water resources, making sure companies follow safety and environmental requirements, and enforcing compliance when those requirements are not met.

We will do this by working on projects that deliver measurable results.

Play-Based Regulation

Recognizing the distinct challenges of developing unconventional resources in Alberta — especially with respect to water use, concerns around hydraulic fracturing, and the regional effects of large-scale operations — the AER will be conducting a pilot of play-based regulation. This project will

- › establish requirements for subsurface reservoir management,
- › create a single application and decision-making process,
- › conduct a full review of the costs and benefits of the play-based approach; and
- › require companies to work together on plans for surface development to minimize the number of facilities and surface impacts, reduce the use of fresh water and reuse water where possible, and engage stakeholders.

Compliance Assurance Framework

Our new approach to compliance puts our focus on higher-risk activities, such as developments near populated or environmentally sensitive areas. When companies fail to follow our rules and requirements, the AER has the authority to take strong action including shutting down their facilities.

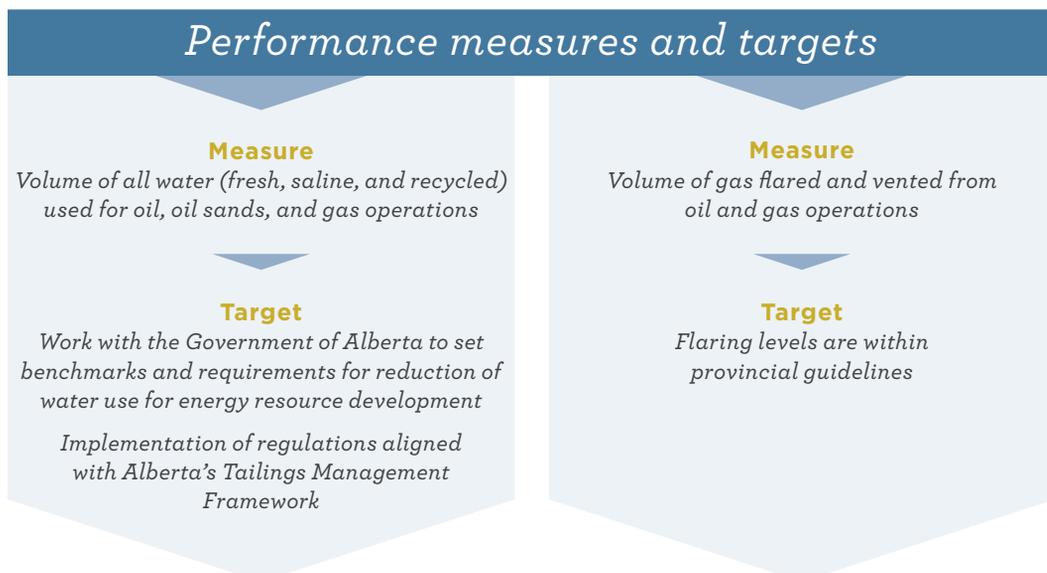
Simply stated, companies that are allowed to develop Alberta's oil and gas resources must follow all rules, regulations, and requirements. If they don't, there are serious consequences.

Working Together to Address Tailings Management

Through our risk-based approach, the AER assesses potential risks to safety, the environment, and the orderly development of energy resources. We use this assessment to address higher-priority areas such as the growing number of tailings ponds associated with oil sands mining.

Working as part of a larger province-wide initiative to regulate tailings management, the AER provides scientific and technical advice to the Government of Alberta as it develops a tailings management framework for the province.

Once the framework is complete, the AER will work with the Alberta Environmental Monitoring, Evaluation and Reporting Agency to monitor water quality in tailings pond areas. Working as part of an integrated team, the AER's goal is simple — to manage tailings ponds growth and minimize the footprint of tailings ponds throughout their life cycle.



Responding to concerns in Peace River

In July 2013, president and CEO Jim Ellis called for a proceeding to examine odours and emissions generated by heavy oil operations in the Peace River area. The proceeding allowed residents and operators to express their concerns in a public forum. The proceeding included a review of industry practices and explored possible solutions to this important issue.

The independent AER hearing panel released its recommendations on March 31, 2014. The AER acted

immediately to address the recommendations, accepting all those in our jurisdiction on April 15, 2014.

That same day, the AER released a revised version of *Directive 060: Upstream Petroleum Industry Flaring, Incinerating, and Venting*. These revisions require companies to conserve gas, regardless of the economics of an energy operation, and give the AER enforcement tools to address off-lease hydrocarbon odours.

In early May, the AER made further revisions to *Directive 060* and released a revised *Directive 056: Energy Development*



Applications and Schedules. The changes will ensure that casing and tank-top gas are conserved in the Peace River area. Companies that fail to meet these new requirements will face enforcement action.

“We are developing a strategy to meet the panel’s remaining recommendations that are within our jurisdiction,” said Carol Crowfoot, vice president of the Regulatory Operations and Economics Branch. “This includes strategies to reduce emergency flaring and fugitive emissions and to increase gas conservation in the Peace River area.”

The AER is also exploring opportunities with the Government of Alberta to establish and expand a regional air quality monitoring program in the Peace River region.

We’re working on long-term strategies to reduce flaring, venting, and incineration and to increase gas conservation in Alberta. We will continue to find ways to improve our approach to addressing air emissions and protecting the environment while ensuring the conservation of Alberta’s oil and gas resources.



our priorities – effective

Strengthen risk-based regulation

› **Alberta’s energy resources provide economic benefits** for all Albertans. The AER regulates development in a way that reduces risks and ensures the greatest economic benefits. We also protect Albertans from the risk of financial liability of aging infrastructure, especially if companies fail.

To do this, we must be effective and focus on risk-based regulation, which means prioritizing regulatory activities so that the most significant risks receive the greatest attention.

It’s about the effective management of our energy resources on behalf of Albertans, who own that resource. It’s about understanding our resources — where they are, how much we have — and how to ensure they are developed to optimize benefits to Albertans.

To become more effective, the AER will focus our risk-based approach on projects that

- › reduce risks to public safety and the environment,
- › limit the financial risks to Albertans,
- › effectively manage resource conservation, and
- › improve industry performance.

These risk-based projects will include the Inactive Well Compliance Program, reservoir containment, and improving pipeline safety.

Inactive Well Compliance Program

The AER will ensure that high-risk inactive wells comply with requirements so that they may be safely suspended. The Inactive Well Compliance Program will offer solutions for well inventory management while addressing the causes of noncompliance, including

- › a robust compliance monitoring and management system;
- › a plan to bring inactive wells into compliance;
- › a reduction in liability, improved well integrity, and clear and consistent expectations for industry; and
- › a clear plan for enforcement.

Reservoir Containment

Earlier this year, the AER responded to a potential risk at certain steam-assisted gravity drainage (SAGD) operations by establishing specific requirements for these projects at shallow depths. While SAGD production has been practiced for years, more and more projects are being proposed in areas where oil sands deposits are at shallow depths. The AER is concerned that at shallower depths, steam, bitumen, or other fluids might escape the reservoir and reach the surface.

We are now working on a technical review, which will include stakeholder consultation. The result could include new rules and requirements that address potential risks and ensure that development using this method is safe and environmentally responsible.

Improvements in Pipeline Safety

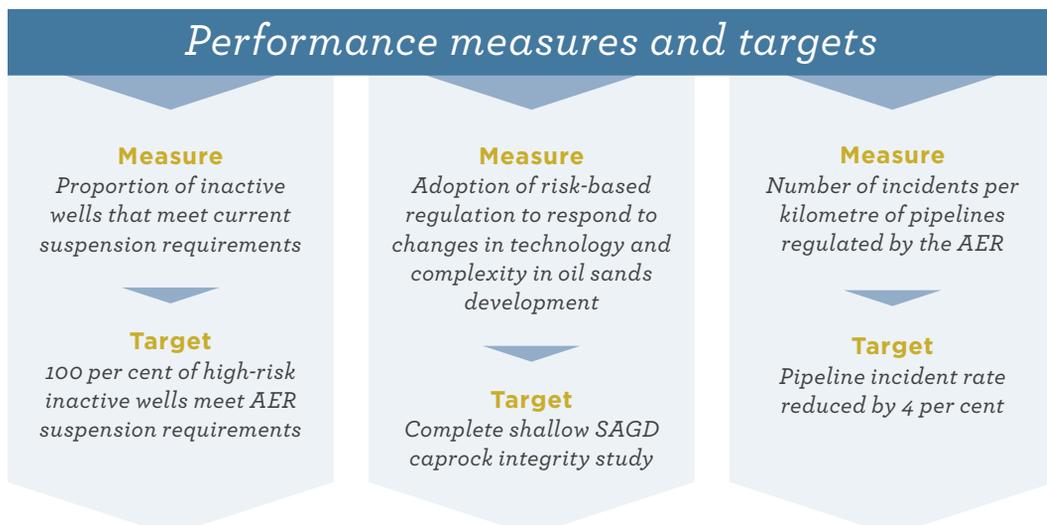
Pipeline safety has improved over the past 20 years. In fact, pipeline incidents have fallen from 2.1 incidents per 1000 km of pipeline in 2008 to 1.4 incidents per 1000 km in 2013.* This is good news, but more can be done.

The AER recognizes that pipeline safety is a top concern for Albertans and will work to further reduce the rate of pipeline incidents across the province. We'll do that by

- › focusing inspections on pipelines at major water crossings and
- › improving integrity programs as Alberta's pipeline inventory continues to grow.

* The AER requires pipeline operators to report ALL pipeline incidents, including breaks, test failures, and external contact with the pipeline — regardless of whether there is an actual leak.

Performance measures and targets



our priorities – efficient

Transform Alberta's energy regulatory system to improve efficiency

» **When the Government of Alberta initiated the**

Regulatory Enhancement Project, one of its main goals was to improve Alberta's competitive advantage. One way to accomplish this is to make Alberta's regulatory system as efficient as possible.

We believe that transforming the regulatory system will reduce duplication, resulting in more efficient processes and ensuring that the regulator intervenes to minimize unacceptable risks. Reduced costs, greater certainty, and clearer processes will benefit landowners, industry, and the public. At the same time, regular and open reporting on our activities and results will demonstrate our performance.

"Efficient" means more than just cutting the cost of regulation or saving time. Efficient means reducing duplication in our system, changing our processes to improve our ability to get the work done, and ensuring that we only intervene to the level necessary. For example, making sure that our data collection policies focus on gathering information we need to do our job as opposed to gathering outdated information or duplicate information because "that's how it has always been done."

Achieving efficiencies will not be easy. After decades of multiple regulators overseeing energy resource development, Alberta's regulatory system has grown to be very complicated as new rules have been added over time.

The AER ensures that unnecessary costs in our system are not economic obstacles to future development. Our goal is to design a simpler regulatory system — one that protects the public and the environment, and improves performance at minimum cost.

Efficiency is about more than saving money, it's about reducing duplication, improving our processes and delivering great service to our stakeholders.

Continuous Improvement of Operations

The AER is responding to concerns about the effectiveness, efficiency, and transparency of regulatory processes and requirements by remaining true to our promise to provide safe, efficient, orderly, and environmentally responsible regulation of Alberta's energy resource sector. This will be achieved by

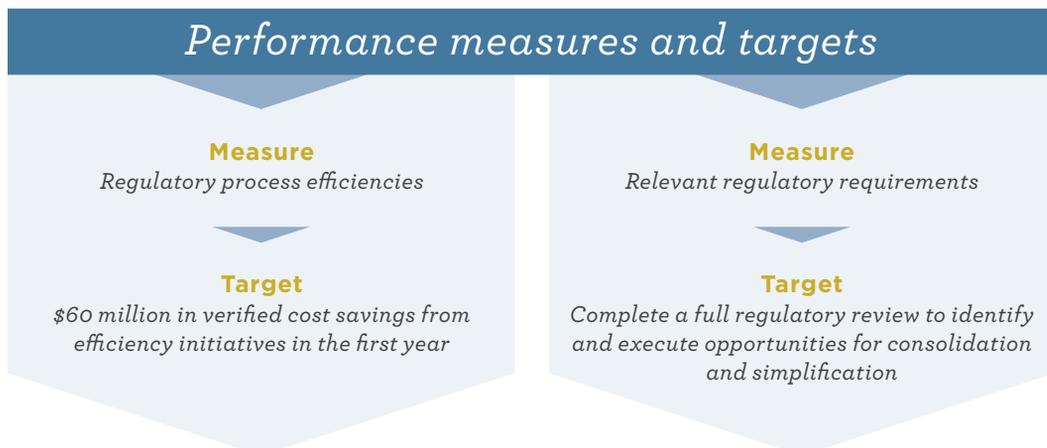
- › enhancing how we process applications and conduct surveillance operations,
- › establishing a continuous improvement process,
- › eliminating redundancies and improving processes,
- › setting clear expectations and meeting them, and
- › using a risk-based approach to conducting business.

Regulatory Simplification Project

Effective regulation means ensuring that all regulatory requirements are necessary, accessible, easy to understand, and enforceable. It means ensuring that all requirements clearly add value. This project will identify outdated, redundant, unnecessary, and confusing or contradictory requirements and eliminate or simplify them.

The AER will

- › inventory all regulatory requirements,
- › align strategic outcomes with each requirement,
- › reduce/eliminate duplication and inconsistencies, and
- › consolidate our regulatory requirements.



our priorities – credible

Increase trust and confidence in how energy is developed in Alberta

- › **Being a best-in-class regulator means more than** providing best-in-class regulation. It means we must ensure that all of our stakeholders are confident about how energy development is regulated in Alberta.

At the AER we know that doing our job and doing it well is important.

We know that the development of Alberta's oil and gas resources attracts international attention. The fact is, the work we do is of interest to people across North America and beyond, as energy development continues to be a source of worldwide debate.

We also know we must do more than simply regulate well. We have a responsibility to share Alberta's 76-year tradition of strong regulatory oversight of energy development — to tell our story and build relationships with our stakeholders. To be best in class, we must

- › report on the results of our work,
- › be open to discussing issues of concern to our stakeholders,
- › share information about the work that we do, and
- › work toward a common definition of what is meant by "best in class."

Our strategic focus will include being best in class and sharing Alberta's regulatory story.

Best-in-Class Project

Alberta has a 76-year tradition of strong energy regulation, but we know there is more that can be accomplished. The development of Alberta's energy resources attracts international attention. We operate on the world stage.

It's not enough for the AER to declare itself a best-in-class regulator. We must define what that means and discuss with our stakeholders here in Alberta and beyond what qualities a best-in-class regulator demonstrates and what it would take for the AER to meet that standard. We'll do that with a project that

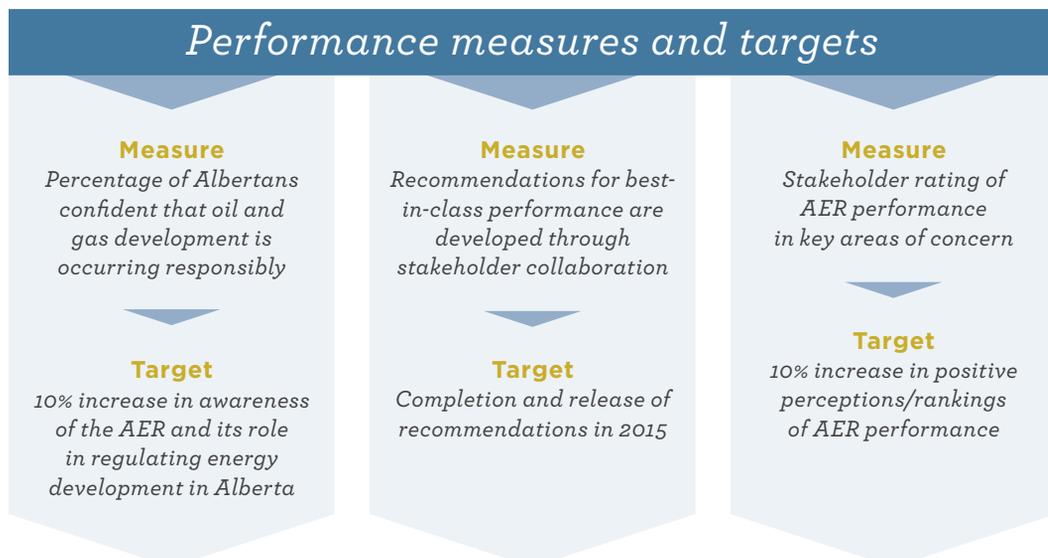
- › provides a definition of “best in class” and a method for measuring the performance of best-in-class regulators;
- › engages experts, academics, regulators, and think tanks throughout Alberta, Canada, and internationally; and
- › builds international relationships by sharing differing perspectives on energy development with a focus on strategy, organizational design, the role regulatory bodies play in society, and how the best regulators communicate, share information, and build partnerships.

At the end of the day, we’ll have a definition of what it means to be best in class that will lead our efforts in the years ahead — one that our stakeholders helped to develop and confirm.

Sharing Alberta’s Story

The AER welcomed 24 foreign delegations since June 2013. Government officials, industry representatives, and regulators from around the world travel to Alberta to learn about how we regulate the province’s energy resource industry. In the coming months and years, we’ll expand that network, reaching out to provincial and federal counterparts to share information, work together on common goals, and build formal partnerships that improve our ability to regulate as we learn from each other.

We’ll share information and expertise formally by forming partnerships with other regulators and informally by participating in research projects, conferences, and public education programs. We’ll better inform Albertans who deserve to know more about the AER and how we protect public safety and the environment.



Our Mandate

The AER's mandate is to ensure the safe, efficient, orderly, and environmentally responsible development of hydrocarbon resources over their entire life cycle. This includes allocating and conserving water resources, managing public lands, and protecting the environment while providing economic benefits for all Albertans.

Our Vision

The Alberta Energy Regulator is recognized as best in class, ensuring the safe, environmentally responsible development of energy resources for the benefit of all Albertans.