SUMMER 2025

The Community Connector

BIANNUAL NEWSLETTER - ISSUE 10

INSIDE

BCER
BRITISH COLUMBIA ENERGY REGULATOR

Contents

Message from Michelle Carr

Commissioner & CEO

Welcome to the summer issue of the Community Connector for 2025. There is a lot happening across the British Columbia Energy Regulator (BCER), some of which is reflected in the following pages.

Top of mind has been the mandate expansion of our organization, with the Province indicating the BCER will be acting as the one-window regulator for permits to support the North Coast Transmission Line and other high voltage electricity transmission projects. Additionally, we're taking on oversight of renewable projects in B.C., including wind and solar.

You can read more about that in this issue; but there's also a profile of our Compliance and Enforcement Executive Director; an update on the Aboriginal Liaison Program; an introduction to our new data narrative on oil and gas reserves in the province; and more about developing the regulatory process to ensure we have robust oversight of renewable energy sources.

That's just a taste of all that awaits in the pages ahead, so I hope you can take a few minutes to glance through, dive into the articles that interest you and at the same time, gain a further appreciation of the scope of work the BCER undertakes on behalf of all British Columbians.

> **We acknowledge and respect the many First Nations, each with unique cultures, languages, legal traditions and relationships to the land and water, on whose territories the British Columbia Energy Regulator's work spans.**

Province Expands BCER's Role to Renewable Energy Projects

On April 30, 2025, the Province of B.C. introduced legislation allowing the regulation of renewable energy projects, such as wind and solar, to move under the single-window authority of the BCER. The legislation also enables the BCER to be the primary regulatory authority for authorizations associated with the construction of the North Coast Transmission Line (NCTL) and other prescribed major power lines, as announced in January 2024. On May 29, 2025. The Renewable Energy Projects (Streamlined Permitting) Act received royal assent.

This new act will leverage the BCER's experience with linear infrastructure (a lengthy footprint crossing multiple regions, territories and ecosystems), and one-window life cycle regulation to expedite the permitting, approval and construction of the NCTL in partnership with the Province, BC Hydro and First Nations.

The BCER is taking a phased approach, initially focusing on the NCTL, other prescribed high-voltage transmission lines and the 10 renewable projects (nine wind and one solar) selected through **BC Hydro's 2024 call for power**.

This is a natural evolution of the BCER's role, which initially focused on oil and gas, then geothermal development in 2018, then expanded in 2023 to include hydrogen, ammonia and methanol, and now to renewable energy.

The BCER has extensive experience in permitting and regulating energy resource projects and is designed to be a single-window regulator. The expansion of authorities fits with the intention

of the Energy Resource Activities Act, a robust piece of legislation that provides for protection of the environment, safety and provincial reconciliation priorities from permitting through to decommissioning and restoration. Bringing this framework to renewable energy ensures robust management of the projects.

The BCER will work closely with provincial ministries regarding the application and permitting process for these projects and will be engaging on the development of Board regulations specific to renewables. More information about upcoming engagement opportunities can be found on page 16.

The BCER looks forward to contributing towards the development of the renewable energy sector in B.C. while continuing to ensure energy resource activities, such as oil and natural gas, are safe, environmentally leading and socially responsible.

BCER's Check-In with First Nations

Every few years the BCER conducts surveys with First Nations from across the province to collect feedback about our engagement in their communities. These surveys help us to understand what's working for them, where we can improve, and what makes for a successful working relationship.

A main theme we heard from First Nations is to find ways to build trust in our relationships and work together as partners. Other themes include increasing transparency and information sharing, building space for Indigenous knowledge, and improving our cultural understanding. A final recommendation from First Nations was to get to work and action their feedback before doing more surveys!

As a provincial agency, reconciliation is broadening and deepening our engagement with Indigenous peoples. In the past few years, we've made fundamental changes to how we approach Indigenous relations. Much of the work we've done is in response to feedback from these First Nations surveys. Some examples include improving our consultation process, implementing requirements for industry pre-engagement with First Nations, and developing cultural learning opportunities for our staff.

A New Approach to Gathering Feedback in 2025

This year we took a different approach. Rather than our usual mail-out surveys, we invited eight First Nations we work closely with to sit down for open conversations. Instead of measuring level of satisfaction with our engagement as we've done in the past, we're interested in a more meaningful and complete picture: Are communities experiencing positive changes in our working relationships? Tell us how and if we are improving, and in what ways? In what areas do we need to improve? Are we walking the talk on reconciliation?

This approach gave us an opportunity to have open, constructive discussions with the communities and to open the floor for more diverse voices. We're compiling the results and will be sharing our finding with First Nations. Our next steps are to make recommendations and action what we heard. All of this feedback helps us to be a better regulator.

2024 Review – Expanding Northeast B.C.'s Water Monitoring Network

Our focus on collecting data to inform and strengthen our regulatory oversight continues with another successful field season of hydrometric monitoring in northeast B.C.

The project was established in 2019 to expand the water monitoring network in partnership with Treaty 8 First Nations and funding from the BC Oil and Gas Research and Innovation Society (BCOGRIS) and Geoscience BC. A total of six stations were monitored in 2024 with funding from BCOGRIS. The 2024 monitoring locations included Osborn River and Doig River (Doig River First Nation), Aitken Creek and Blueberry River (Blueberry River First Nations), Hulcross Creek (Saulteau First Nations) and Beaver Creek (Prophet River First Nation).

Hydrometric data collected during the 2024 season has been processed and posted to the provincial Aquarius database and the Water Portal. The operation of the hydrometric program over the past five years has fostered relationship and capacity building with First Nation communities as well as increasing our understanding of small watersheds in northeast B.C.

The success of this valuable project is a testament to the benefit of collaboration between government, organizations and First Nation communities.

BCER hydrologist and Doig River First Nation staff members working on station upgrades during a visit to the Osborn River hydrometric station.

Thank you to Blueberry River First Nations, Doig River First Nation, Prophet River First Nation, and Saulteau First Nations for their participation in the program. We would also like to extend our gratitude to the Ministry of Water, Land and Resource Stewardship's Water Authorization Specialists in Fort St. John for continuing to assist with the monitoring of these stations and BCOGRIS for their ongoing commitment to funding this program.

The 2025 monitoring season is now in full swing, with all six stations having their first visit to collect manual streamflow data and address any needed station maintenance. The full 2024/25 Water Monitoring of Small Watersheds Program Summary Report can be downloaded on BCOGRIS' Water Monitoring of Small Watersheds Program webpage.

The BC Water Tool provides us with accurate, real-time information about water resources and existing water users in B.C. It's also a gateway to the Northeast Water Tool (NEWT), our hydrology support tool that provides us with the flow needs of streams and lakes through Watershed Reporting and Cumulative Diversion Analysis, as well as retrieval and compilation of groundwater-related data with the Groundwater Review Assistant.

Staff Profile: Dax Bourke

I began my career with the BC Energy Regulator in 2014 moving to Fort St. John to work as a Natural Resource Officer. As a Natural Resource Officer, I conducted application reviews ensuring regulatory requirements were met to issue permits for companies to conduct energy activities. Shortly after, I took an opportunity with the Compliance & Enforcement group that more aligned with my education in natural resource protection and management. Over the last decade I have worked as an Inspector, Enforcement Officer, Area Supervisor, and in my current role as Executive Director of Compliance & Enforcement.

In my role I oversee the Compliance & Enforcement team consisting of 28 staff in four regional offices (Fort St. John, Dawson Creek, Fort Nelson and Terrace). The team ensures energy activities are conducted in compliance with the Energy Resource Activities Act, specified enactments, and related regulations.

This is accomplished through the Annual Compliance Plan which establishes priorities and targets for inspections and audits for the coming fiscal year. The annual plan consists of an inspection plan and an audit plan, along with measurable targets against which quarterly and annual reporting can be carried out. Quarterly and annual reports, along with inspection and enforcement results are posted on our website to provide transparency and to deter non-compliance.

Field inspections are the primary means through which we manage and evaluate field based regulatory compliance, while establishing ourselves as an active regulatory agency. Through inspections, Compliance & Enforcement Officers and Technical Advisors evaluate permit holder compliance, inform Regulator initiatives, address public complaints and enquires, manage compliance outcomes and communicate information gathered in an orderly and professional manner. The BCER dedicates significant resources to conducting thousands of inspections each year, with 4,728 inspections undertaken in 2024.

When non-compliances are discovered, we are committed to action and strive to ensure a fair, effective, and consistent approach to enforcement. We employ a graduated non-compliance response model where appropriate, ranging from non-compliance notices to more formal, statutory enforcement actions. The graduated approach ensures non-compliance response actions are commensurate with the non-compliance and resources are allocated for maximum effect.

Safety & Compliance 101

Compliance Verification

There are over 1,000 individual regulatory requirements for which the BCER is responsible for ensuring industry compliance. To achieve this, the BCER uses a diverse set of tools based on the type, nature and risk associated with each requirement. Several business teams across the organization are tasked with verifying compliance and enforcing corrective actions when necessary.

Effective Enforcement

Enforcement protects the public and the environment, remedies non-compliances and acts as a deterrent for future non-compliance. The BCER acts decisively to ensure a fair, effective and consistent approach to enforcement when non-compliances occur. As an additional deterrent and to support transparency, the BCER reports Orders, Findings of Contravention, Administrative Penalties, offences and prosecutions on its website.

Operators are ultimately responsible for ensuring they understand and meet all ERAA requirements and are aware of their responsibilities outside of the BCER's jurisdiction.

When Does Compliance Begin?

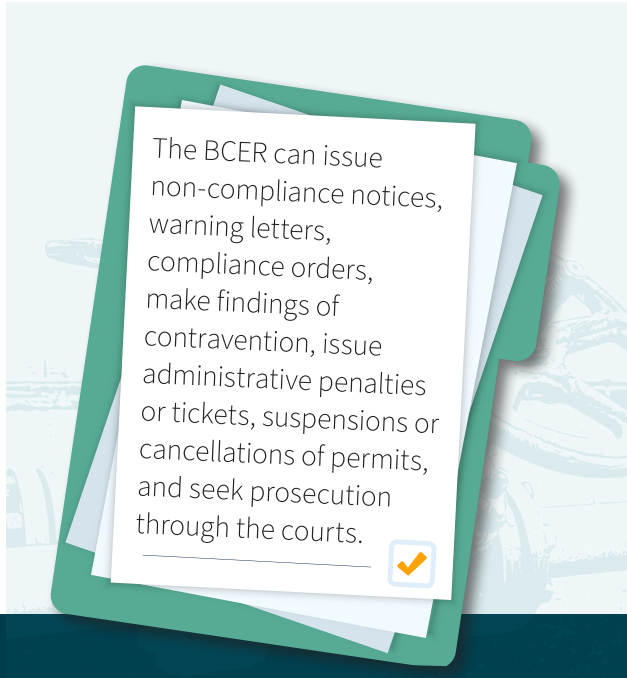
Compliance begins even before an activity application is submitted to the BCER . Regulations guide operators during their pre-activity planning as early as resource tenure acquisition with compliance continuing through subsequent consultation and notification with potentially affected parties.

Operators are expected to observe and adhere to specific requirements during land access agreements, site assessments, land use discussions and throughout the permit application process.

How Are Applications Reviewed for Compliance?

We review applications to determine if they capture all legal requirements and incorporate measures to safeguard the environment, protect public safety and conserve energy resources. During the review process, we can require applications be changed or amended to accommodate factors arising from consultations with First Nations communities, landowner concerns, technical assessments and other matters.

If approved, our inspectors monitor a project from initial startup until operations cease and the land is returned to its pre-activity state. From beginning to end, we help companies understand new or existing laws so they can meet or exceed the standards required of them. Additionally, new innovations in science, technology and energy conservation are encouraged to continuously improve best management practices.



It isn't until compliance with each stage of the application process is met, and any permits issued, that an energy activity may begin.

How Do We Enforce Compliance?

We use a graduated non-compliance response model when appropriate, ranging from non-compliance notices to more formal, statutory enforcement actions. This graduated approach ensures response actions are commensurate with the non-compliance and our resources are allocated for maximum effect.

Our enforcement process includes a wide array of active measures and tools at our disposal:

1 Monitoring and Inspection

Compliance is accomplished through proactive monitoring and inspection. We oversee energy activities and investigate and take enforcement action with operators when alleged non-compliance is identified. The findings of Inspections are posted here.

2 Tracking

Inspection results are communicated with energy companies for action. If an energy company is found to have a high-risk non-compliance issue, they must take action immediately.

3 Escalation

If a non-compliance issue is not addressed properly, we may respond with escalated enforcement actions. Enforcement Actions may be found here.

4 Orders

We have the authority to order corrective work or even shut down operations not in compliance with the law. This can occur if a company does not comply with the requirements outlined in their permits. An Order can also be issued to mitigate a risk to public safety, protect the environment or promote conservation of energy resources. Enforcement Orders can be found here.

5 Penalties

Failure to comply with regulatory requirements may result in an energy company being found in contravention of the law and subject to an administrative monetary penalty, ticket or prosecution in provincial court. Contravention Decisions can be found here.

We work as partners with the Aboriginal Liaison Program conducting joint inspections of energy infrastructure on the land base.

Inspections often include the assessment of several associated activities. When classified by activity type, an average of 15,000 inspections are conducted annually on such infrastructure and activities as facilities, geophysical, roads, cutting permits, water use and more.

INFORMED EXCHANGE

To encompass the wide-ranging aspects of our compliance and enforcement duties, and to ensure our inspections are comprehensive, we work collaboratively with several partner agencies. This cooperation allows for informed data exchange, information sharing and the merging of skillful expertise during audits, inspections and investigations. Some of the government regulatory agencies we work closely with include:

- Ministry of Environment and Park's Environmental Assessment Office and Spill Response.
- Ministry of Forests' Compliance and Enforcement Branch.
- Ministry of Mining and Critical Minerals.
- Canada Energy Regulator.
- Environment and Climate Change Canada.
- Department of Fisheries and Oceans.

24 hour Incident Reporting
1-800-663-3456

Reducing Liability, Restoring the Land: BCER's Commitment to a Sustainable Future

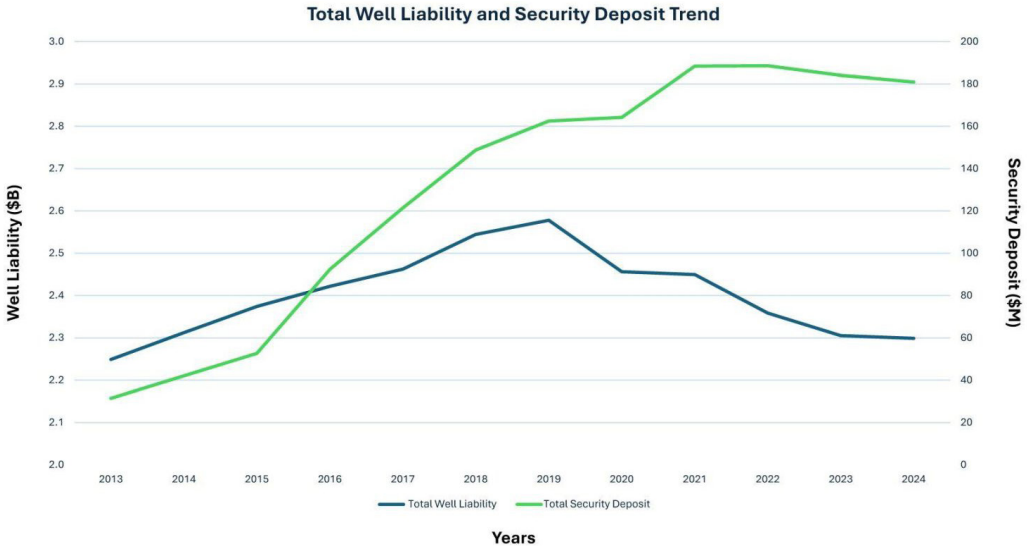
The BC Energy Regulator enforces regulations to restore inactive oil and gas sites, reducing environmental and financial risks. Through the Dormancy and Shutdown Regulation (DSR) and Permittee Capability Assessment (PCA), companies are held accountable, preventing abandoned sites and protecting B.C.'s landscapes for a sustainable energy future.

Across British Columbia, responsible energy development and environmental stewardship go hand in hand. The BCER is leading the way in ensuring inactive oil and gas sites are properly closed and restored, reducing long-term environmental liabilities in the province. Thanks to our Dormancy and Shutdown Regulation and Permittee Capability Assessment programs, along with the dedicated efforts of industry, we are seeing real progress. More sites are being reclaimed, fewer dormant sites are left in limbo, and industry is being held accountable for its responsibilities.

A Clear Path to Restoration

Before the introduction of the DSR in 2019, many inactive wells, pipelines, and facilities remained in an indefinite state of dormancy, creating environmental risks and uncertainty. The DSR changed that by requiring companies to follow strict timelines for site closure and restoration. This regulation has significantly increased cleanup activity, ensuring once energy infrastructure is no longer in use, it is safely decommissioned, and the land is restored.

In 2022, we took another major step forward with the introduction of the PCA program. Unlike previous models, the PCA evaluates a company's financial health using a comprehensive set of financial metrics. This process helps identify companies that need to complete site restoration work or provide additional security. At the same time, it ensures security is returned to companies that have fulfilled their obligations and successfully reduced liability.



Total Well Liability and Security Deposit Trend

A Measurable Impact

Thanks to these initiatives, liability in the province is steadily declining, as illustrated in the graph below. More dormant sites are being cleaned up, reducing environmental hazards and returning land to productive use. By encouraging proactive site management and ensuring industry funds its own cleanup efforts, we are creating a more sustainable and responsible energy sector.

A Legacy of Accountability and Renewal

At the BCER, we are committed to ensuring energy development in British Columbia is not just productive, but also responsible.

Through strong policies like the DSR and PCA, we are driving real change—reducing long-term liability, accelerating site restoration, and protecting B.C.'s natural landscapes for generations to come.

Together with industry partners, government agencies, and local communities, we are building a future where energy resources are developed with accountability and care. The progress we are seeing today is a testament to the power of smart regulation and a shared commitment to sustainability—one site at a time.

Supporting Future Scientific Leaders in Northeast B.C.

This spring, BCER staff had the opportunity to judge two science fairs in Fort St. John. Our staff were thoroughly impressed by the creativity and quality of the presentations. We are grateful for the opportunity to support budding local scientists and learn about their innovative projects!

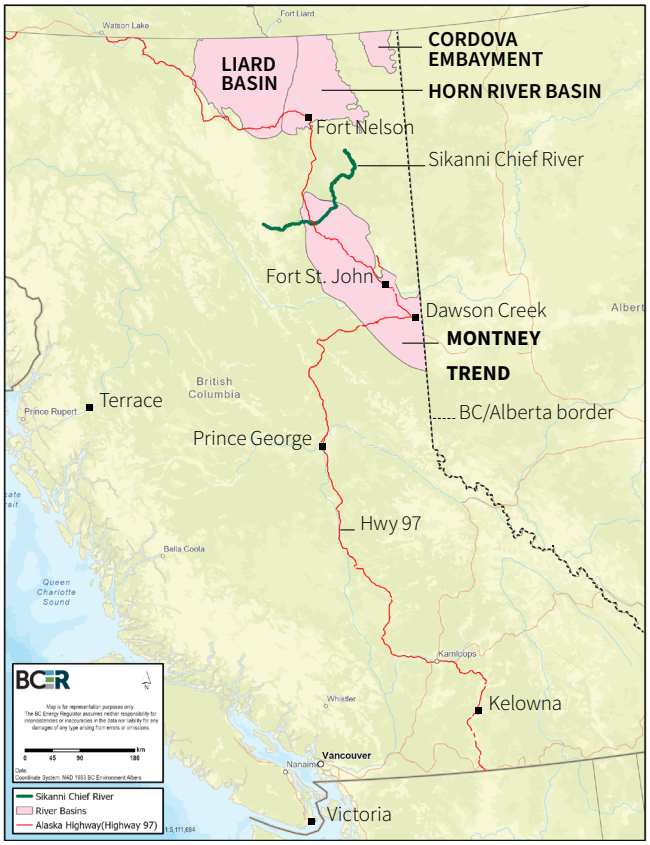
Katelyn White, Biologist and Ryan Rolick, Hydrologist at the Northern BC Regional Science Fair.

Strengthening the Oversight of Induced Seismicity in Northeast B.C.

Many residents of northeast B.C. are familiar with a region called the Montney Trend – a subsurface geological zone and source of almost all natural gas currently being produced in the province.

The Montney Trend began proving to be a viable resource over 15 years ago in conjunction with advances in the combination of horizontal wells and hydraulic fracturing technologies. The Montney Trend can be informally broken down into three subregions referred to as the North (Greater Wonowon-Pink Mountain area), Central (Greater Kiskatinaw area) and South (Greater Briar Ridge area). Hydraulic fracturing activities in the Central/Kiskatinaw subregion have been linked to seismic events that have occurred in step with fracturing operations. Those residing in Farmington and Tower Lake, as well as other surrounding communities, began experiencing 'felt events' resulting from fracturing in the Kiskatinaw subregion.

In response to reports of concerns, we partnered with researchers to investigate the when, where and why behind the induced seismic events – occurrences of seismicity triggered by human activity is referred to as induced seismicity (IS). We began expanding our seismic monitoring network, upgrading and enhancing its reliability and accuracy in recording seismic events. The improvements proved pivotal in advancing our understanding of the Montney's subsurface structural characteristics. The detailed seismic data provides us stable analysis of earthquake locations, fault types, detailed magnitude calculations and is key to attributing IS events to specific energy activities.



The Montney Trend

In 2018 we applied our findings by implementing the Kiskatinaw Seismic Mitigation and Monitoring Area (KSMMA) Special Project Order, encompassing Farmington, Tower Lake and surrounding communities. The Order remains in place today and requires permit holders operating within its boundaries to conduct pre-assessments to gauge the potential for seismic events, use localized seismic monitoring arrays (a selection of individual sensors in a focused area used together to form a network) to capture near real-time data, and notify nearby residents of planned hydraulic fracturing activities.

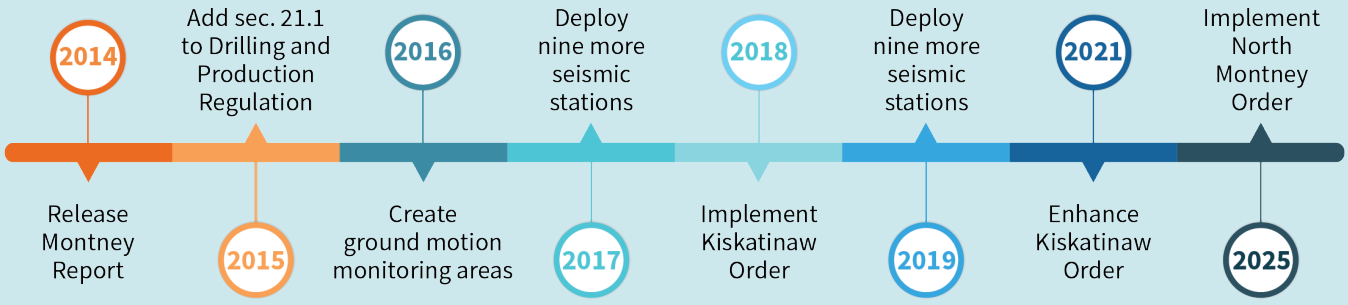
Since enacting the Order, we recognized a different way of calculating magnitudes was necessary to better reflect northeast B.C.'s unique subsurface and near surface geology, so we retired our use of the standard West Coast focused magnitude calculation. Working with seismology experts, we derived a local magnitude standard tailored specifically for the northeast, equipping us to better identify, locate and suspend fracturing activities that trigger seismic events.

The **KSMMA Order** was recently enhanced to clarify and simplify the language and maintained the mitigation and suspension threshold limits that direct permit holders to put into action a predetermined mitigation plan if a local magnitude (ML) 2.00 to 2.99 seismic event is attributed to their hydraulic fracturing operations. Should a seismic event of 3.00 or greater occur, the permit holder must immediately suspend their hydraulic fracturing operations and notify the BCER via phone. The Order is available **online** providing more details on the requirements permit holders must adhere to.

Alongside the KSMMA amendment, we introduced a new **North Montney Seismic Monitoring and Mitigation Area (NMSMMA) Special Project Order**, encompassing the Wonowon-Pink Mountain area, roughly following the Alaska Highway. This new Order was introduced because the NMSMMA also demonstrated it was prone to seismic events from fracturing activities in the Montney. The NMSMMA Order has many of the same requirements to the KSMMA, yet the two Orders differ based on each region's near surface and subsurface geology. The KSMMA's characteristically soft surface soils and complex subsurface result in more frequent seismic events of magnitude 2.5 and below during hydraulic fracturing activities, and its soft surface soils can exaggerate vibrations from seismic waves. This combination can result in felt reports, even from small magnitude events, which can be disruptive to nearby residents. Typically, magnitude 2.5 and greater events can potentially be felt, but it's common for events of magnitude 1.7 and above to felt within the KSMMA.

In comparison, the NMSMMA' s subsurface is influenced predominantly by the Rocky Mountains, resulting in infrequent seismic events above magnitude 2.5 during hydraulic fracturing. Bedrock exists close to or at the surface which means small magnitude events are rarely perceived or felt.

We extensively monitor instances of IS in northeast British Columbia on an ongoing basis. Over the past decade, this has led to a series of enhancements that improve tracking, management, and minimization of seismic events, including the introduction of specific regulations, regional special project orders and targeted permit conditions.

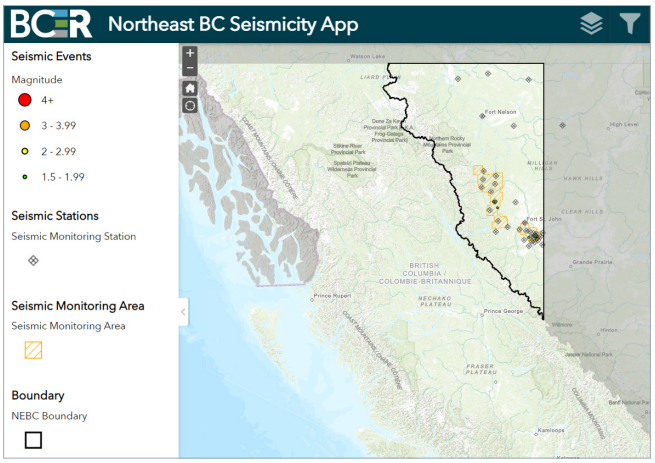


Timeline of Regulatory Enhancements and Network Upgrades

Because of this, the NMSMMA Order's thresholds are higher – with a mandatory mitigation threshold for events of local magnitude 3.00 or above and a suspension threshold for events 4.00 or above.

We will continue our research efforts to help us further understand, manage and minimize IS and improve our regulations, and we will continue to investigate input from residents affected by IS. To report a felt event, email SeismicMonitoring@bc-er.ca with the date, time and location or call 1-877-500-2237. We respond to and investigate every felt event report we receive.

To learn more about how we oversee IS and who to contact with your questions, read our recent Technical Update: Strengthening Oversight of Induced Seismicity in Northeast B.C. (TU 2025-02).



Those who experience felt events may use our NEBC Seismicity App Webmap to locate recent and past seismic events of greater than local magnitude 1.5. and to find nearby industry activity and seismic monitoring stations.

Seismic monitoring station MONT1 in Farmington, B.C.

Additional Resources Available on Our Website at bc-er.ca:

Northeast B.C. Seismicity App
View the location of current energy activities in addition to recent and past recorded seismic events confirmed in northeast B.C.

BCER Data Centre
Housing data sets and other related files.

Trending Topics
Our Induced Seismicity webpage provides more info on IS and other topics of interest.

IS Operations Manual
Created for permit holders, this manual provides pre-planning guidance, reporting procedures and permit holder obligations and operational considerations.

Induced Seismicity Data and Submissions
View guidance and resources for the submission, standards, data and reporting of IS.

Ensuring Industry Compliance

An Introduction to our Annual Compliance Plan

Energy activity operations in B.C. must be carried out in compliance with relevant legislation, including the Energy Resource Activities Act and its regulations.

The Annual Compliance Plan (ACP) establishes our priorities and targets for audits, exercise reviews and inspections for the coming fiscal year. The annual plan consists of an audit plan, exercise review plan and an inspection plan along with measurable targets against which quarterly and annual reporting can be carried out.

Safety and compliance management is carried out by various teams throughout the organization, including engineering, environmental stewardship, geology, archaeology and compliance & enforcement.

The Annual Compliance Plan is created using a cyclical Plan-Do-Check-Act process for continuous improvement.

Plan: Key inputs into the ACP are inspection selection and planning criteria and methodologies, audit planning schedules, results from previous ACP implementations, corporate-level risk registers and other strategic drivers.

Do: Includes the implementation of the annual inspection and audit plans.

Check: Includes quarterly and annual reporting related to the progress of plan implementation, identification of any key trends, and any recommended actions. This may also incorporate operational data and trends from the various compliance verification processes carried out at the business unit level.

Act: Involves responding to information obtained from the check phase – both quarterly and annually - to enhance performance to expectations. Some actions identified may be executed immediately upon observation, or as part of improvements prioritized within the next year's ACP.

Training of a new BCER Compliance and Enforcement Officer at a multi well pumpjack pad near Fort St John.

We track progress towards completion of planned activities in the ACP through preparation and review of quarterly and annual reports. These reports can be viewed on the BCER's website at www.bc-er.ca/data-reports/compliance-enforcement/.

Integrating Wind & Solar into the BCER's Regulatory Framework

The Renewable Energy Projects (Streamlined Permitting) Act received Royal Assent on May 29, 2025. The Provincial Government has indicated its intent to prescribe wind and solar projects as Level 3 Streamlined Projects. If that occurs, the full lifecycle of these projects would fall under the BCER's regulatory oversight, as authorized by the Energy Resource Activities Act (ERAA). To prepare for this, the BCER is developing the regulations needed to support this expanded role.

The BCER takes a systematic approach to regulatory development, ensuring decisions are evidence-based and informed by First Nations, rights holders, and other interested parties.

Our Regulatory Development Process

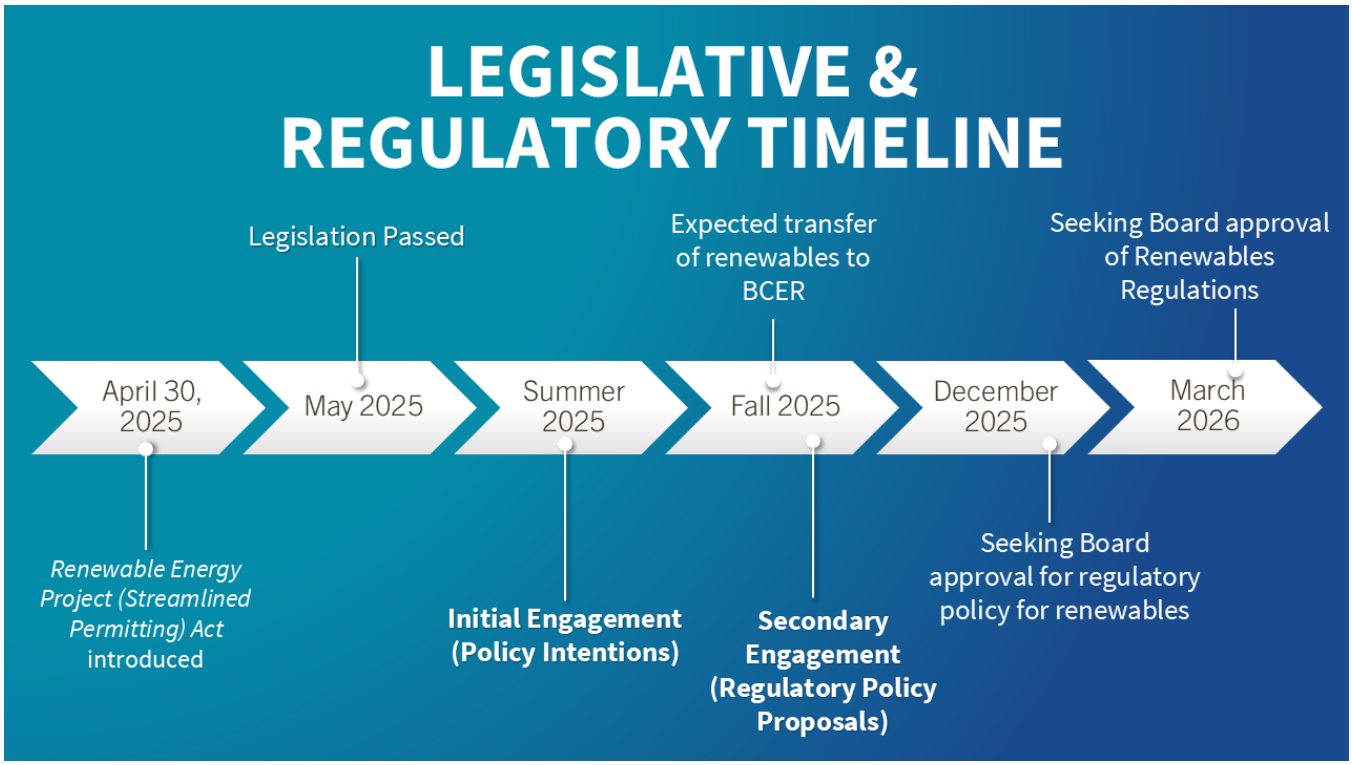
Provincial legislation provides the BCER Board of Directors authority to make regulations regarding the management of a range of policy issues. Prior to Board approval of a regulatory proposal, there are several key steps with engagement touchpoints throughout the process. These include:

- Issue Identification
- Statement of policy intentions (Initial Engagement)
- Identification of policy options
- Statement of proposed regulatory policy (Secondary Engagement)
- Drafting and approval of final regulation

The issue identification step involves outlining the core policy issues that are to be managed. For each issue identified, the BCER provides an "Intentions Statement" articulating high-level direction to manage the issue. The BCER engages on these "policy intentions" to validate the scope of the regulatory framework, hear from interested parties regarding priority issues, and explore initial options for the management of such issues.

Identification of policy options requires identifying specific approaches to manage each policy issue identified. Feedback from engagements is a critical input to this analysis, ensuring recommended options consider the needs and preferences of potentially impacted parties.

Once recommended options have been identified and documented, the BCER will provide additional engagement opportunities on the proposed regulatory policy. Following these engagements, the BCER will seek endorsement of the regulatory policy from the BCER Board of Directors before working with the Ministry of Attorney General to draft the final regulation. Once the final regulation is approved by the BCER Board of Directors, it will be brought into force and implemented through the introduction of new guidance and manuals, updates to application and oversight systems, and the development of policies and standard permit conditions for areas outside of the scope of the regulation.



Initial Engagement Phase: Engagement on policy intentions

The Renewables Framework: Policy Intention document outlines key policy issues the BCER will consider within the regulatory framework for wind and solar projects. It contains a description of the issue under consideration, a statement of the BCER's policy intention relating to it, and a set of potential options to illustrate the different ways in which the issue could potentially be managed.

At this stage, we are seeking feedback regarding the potential impacts of wind and solar projects. We welcome and consider all feedback received as we develop a regulatory framework for wind and solar projects. The feedback received through engagement with First Nations, the public, industry and local government is critical to the development of BCER regulations.

The initial engagement phase is open until July 31, 2025. Please submit feedback to info@rep-spa.ca

New Regulation Streamlines Requirements for Hydrogen Manufacturing in B.C.

B.C. is seeking to become a world leader in the growing hydrogen economy. The B.C. government has launched the **B.C. Hydrogen Strategy**, which outlines the Province's plans to accelerate the production and use of this low-carbon fuel. When burned or used in a fuel cell, hydrogen produces no carbon emissions. The use and deployment of hydrogen could greatly reduce the province's emissions.

In September 2023, the BCER was granted authority to regulate the production, storage and transportation (via pipeline) of hydrogen. Since then, the BCER embarked on developing a regulatory framework for hydrogen, through direct engagement with First Nations, industry and local governments. Input and feedback from this engagement was used to inform the new requirements set out in the Hydrogen Facility Regulation which took effect on April 1, 2025.

You might ask yourself, why hydrogen? Hydrogen is a very flexible fuel that can be used to decarbonize hard to abate sectors like heavy transportation, industrial heat applications, blending into the natural gas system, and stationary power systems at industrial sites and remote communities that rely on diesel fuel for power generation, just to name a few. It is estimated hydrogen has the potential to reduce emissions equivalent to 11 per cent of the province's 2018 emissions.

As of right now, near term development of hydrogen is largely focused on small electrolysers in municipal areas. These kinds of projects have a relatively small impact to neighbours during construction, including impacts from increased traffic, dust and noise. During normal operations neighbours can expect little impact to noise, lighting, and odours. As projects increase in scale and move into different classes under the regulations, nearby residents will have opportunities to raise concerns regarding potential impacts with the proponent of a hydrogen project.

The BCER has developed new requirements for public notifications related to hydrogen facilities in addition to existing municipal and provincial requirements. The BCER's notification requirements differ based on the size of a proposed facility and the scale of anticipated impacts. This tiered approach will support alignment with other requirements for public notification contained within municipal and provincial permitting processes.

Demand for energy in B.C. is highest in the industrial sector, followed by transportation, residential and commercial use. Hydrogen can be applied to each of these sectors in B.C. and could replace a significant percentage of demand currently met by fossil fuels.

The notification framework seeks to ensure local communities are aware of potential impacts and have an avenue to provide feedback to proponents and the BCER on proposed projects. Potential impacts for neighbours include light, noise, dust, traffic, or other quality of life impacts.

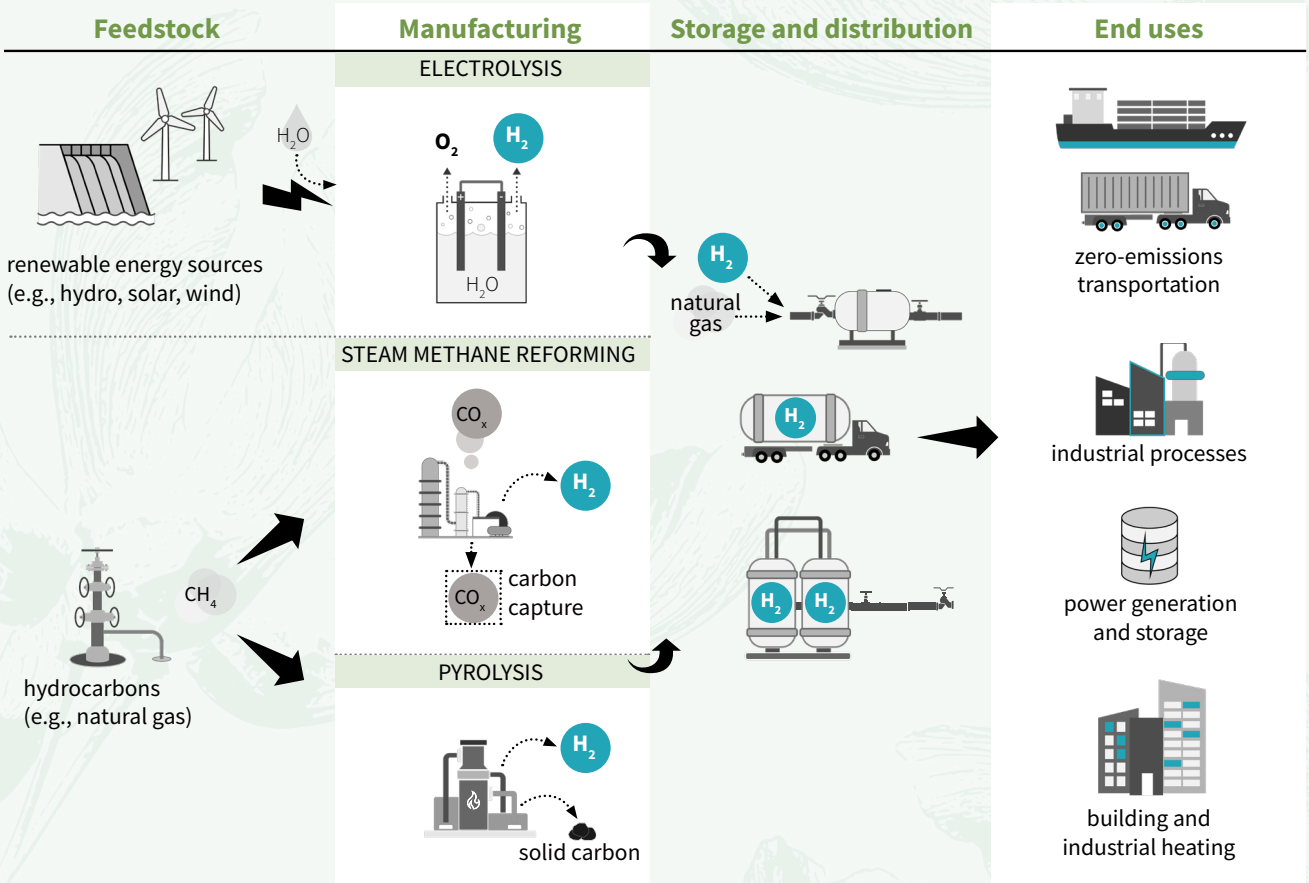
When notifications are required to be issued, proponents must provide 30 days for community members to respond to the proponent or make a submission raising concerns directly to the BCER.

Because the BCER anticipates many of these facilities will be proposed in relatively densely populated urban settings, we are allowing for a degree of flexibility in the method of notification. This means proponents can utilize electronic notification methods, community meetings, and other approaches for communicating with local communities.

To learn more about hydrogen and its role in B.C.'s energy mix you can visit: canadah2bc.ca.

Hydrogen "Pathways"

The carbon intensity of different hydrogen pathways can vary significantly depending on the "feedstock" (energy source and material input), manufacturing method, and whether "capture" of by-product emissions is employed. The following graphic depicts a few of the possible hydrogen production pathways that may be viable in the British Columbia context. Check out our hydrogen factsheet for a detailed description of the graphic and more information about hydrogen development in the province.



Dormancy and Shutdown Regulation (DSR) Analysis

The BCER is conducting a Regulatory Impact Analysis of the **Dormancy and Shutdown Regulation** (DSR) to review the overall effectiveness of the regulation. Regulatory Impact Analyses provide a structured process for evaluating regulations and identifying opportunities for possible improvements. The review includes activities currently covered under the regulation such as wells, production facilities and pipelines. Engagement on items not currently covered by the DSR will be occurring later in 2025 to identify additional activities that may benefit from clear timelines for site restoration.

The Dormancy and Shutdown Regulation was enacted in 2019 as part of the BCER's **Comprehensive Liability Management Plan** to increase the rate at which inactive energy resource sites are returned to their pre-development state. To achieve this, the DSR establishes timelines for all sites to be decommissioned, assessed, and restored.

Some of the key topics and activities covered in the DSR are:

Site Closure Activities:

- Decommissioning, including the downhole and surface abandonment of a well and the removal of any facilities and other surface infrastructure at the site.
- Assessment, including the identification of any potential contamination at the site by a qualified professional.
- Restoration, including remediation and reclamation; both of which return a site to its former condition. Final site reclamation must be completed using ecologically suitable species.

Liability Reduction Plans:
The intermediate site decommissioning, assessment, and restoration timelines set out under the DSR may not be practical for all permit holders, particularly those with large portfolios of dormant sites. In these cases, the DSR enables permit holders to develop Liability Reduction Plans (LRPs). LRPs have strict back-end requirements for site assessment and restoration, and they must be approved by the BCER after consultation with First Nations.

Notification, Planning and Reporting Obligations:
The DSR includes requirements for permit holders to communicate with all interested parties including landowners, First Nations, and local governments. Permit holders must also provide the BCER with Annual Work Plans and Annual Reports. This reporting ensures the BCER can track restoration work completed by permit holders at their dormant sites.

Public engagement on the review of the DSR will be ongoing throughout 2025. Written feedback or requests for meetings may be submitted by emailing **Regulatory.Affairs@bc-er.ca**. Your insights and perspectives are crucial in ensuring this regulation effectively serves our community and meets the needs of all parties.

First Hydrogen Facility Permits Issued

The BCER recently approved the first four permits for hydrogen facilities under the new Hydrogen Facility Regulation. These projects by HTEC, PowerTech, Unilia and the University of British Columbia are all small-scale, Class 1 facilities located in the Lower Mainland. Three of the facilities were already operating prior to the expansion of our mandate. A BCER Order allowed them to continue operating while their permit applications were under review. Additional applications for Class 1 hydrogen facilities are expected in the near future, including proposals from Simon Fraser University and HTEC for a second project at the Harmac mill in Nanaimo.

The issuance of the first hydrogen facility permits, along with the implementation of the new Hydrogen Facility Regulation, marks a significant milestone in the BCER's mandate expansion. Future work will focus on operational management of existing facilities, finalizing guidance for industry, and engaging proponents continuing to advance new projects.

The work the organization has done to bring our oversight to the hydrogen sector, including familiarizing a new group of proponents with the BCER's regulatory approach and the development of innovative regulatory frameworks for new areas of our mandate, provides a solid foundation for the work to bring transmission lines and renewable power generation under the BCER umbrella.

Did You Know?

Worldwide, it is estimated hydrogen will contribute between 12-22 per cent of energy supply by 2050.

Clean hydrogen has the potential to provide up to 30 per cent of Canada's end use energy by 2050 and abate 190 megatonnes of CO_2 equivalent.

Canada is currently one of the top 10 global producers of hydrogen.

B.C. is well positioned to be a leader in low carbon intensity hydrogen production given our abundance of low-cost natural gas, geological capacity for carbon capture and storage and abundance of clean and renewable energy.

Strengthening Community and Cultural Exchange

Aboriginal Liaison Program Update

2024 marked the 10th anniversary of the Natural Resource Aboriginal Liaison Program (ALP) and we're grateful to reflect on over a decade of fostering collaboration, mutual respect, and meaningful partnerships between Indigenous communities and natural resource agencies.

Established in 2014, the ALP is a partnership between participating First Nations across northern B.C., the BC Energy Regulator (BCER), the Canada Energy Regulator (CER), the BC Oil & Gas Research and Innovation Society (BC OGRIS), and provincial natural resource and emergency management agencies. First Nations participating in the ALP hire a Liaison to act as a facilitator of relationship building and two-way communication between Indigenous communities and government agencies.

ALP Liaisons are provided opportunities for training and field participation with natural resource agency staff to increase knowledge-sharing and understanding of various activities associated with compliance monitoring, stewardship, and emergency management. The ALP Liaison can then inform community members with sound, objective and reliable information about resource activities and impacts on their traditional territories. By working directly with Liaisons, natural resource agency staff are provided with opportunities to deepen their knowledge of Indigenous people's cultural values and history in relation to resource development in the area and learn about the communities and people they work with.

ALP Liaisons Murphy Patrick Senior, Lake Babine Nation (left) and Lester Davis, Doig River First Nation (right).

The ALP goes beyond compliance and regulation. It's about safeguarding cultural practices and the environment for future generations through ongoing training and dialogue. As we celebrate the ALP's first decade, we acknowledge the successes that have paved the way for future growth.

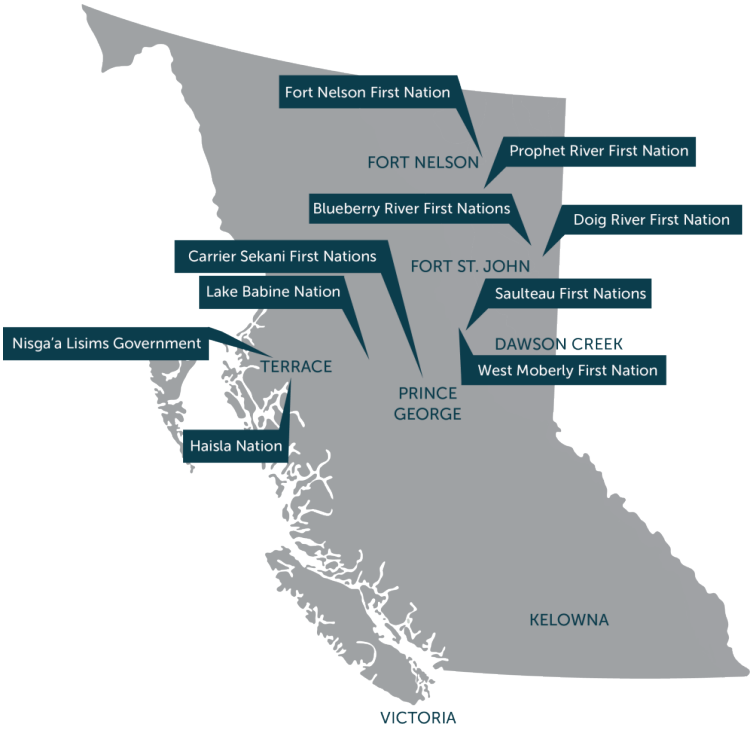
Highlights from the last decade include:

Expanded Partnerships: The ALP was first launched in 2014 as a partnership between Doig River First Nation and the BCER. Since then, the ALP has expanded and now supports ALP Liaisons from 11 First Nations and partnerships with a range of natural resource and emergency management agencies, including the Ministry of Emergency Management and Climate Readiness; the Ministry of Environment and Parks; the Ministry of Forests; the Ministry of Indigenous Relations and Reconciliation; the Ministry of Mining and Critical Minerals; and the Ministry of Water, Land, and Resource Stewardship.

Community-Driven Projects: In addition to the working relationships formed with natural resource and emergency management agency partners, ALP Liaisons have also been key contributors to community-driven projects that reflect their unique values and interests, including wildlife monitoring projects, incident response coordination, and culturally significant land stewardship efforts.

Training and Capacity Building: ALP Liaisons are equipped with the skills and knowledge to monitor environmental impacts and contribute to resource management, ensuring the voices of their communities are heard in key regulatory processes that extend beyond the program.

ALP Liaison participating in BCER joint inspection of CGL construction.



The ALP is geographically diverse, with participants situated across the northern half of the province.

2024 Roaming Air Monitor Deployment Report

Between May and November 2024, our Roaming Air Monitor (RAM) van was deployed in Kitimat, B.C. before and during the early commissioning phase of the LNG Canada facility. The RAM is a specially designed van housing equipment for monitoring air pollutants that could be associated with resource development and is capable of recording air quality levels while being driven or parked.

Our deployment report summarizes the results of the data measured by the RAM during the seven-month period. The full data set is also available and contains additional details including locations, wind direction, humidity and five-minute continuous monitoring data during mobile operation. The full report and supplementary data files can be found on our website at bc-er.ca/how-we-regulate/safeguard-the-environment/air-quality/.

July 2024 RAM van deployment in Kitimat.

New Webinar Alert! Flaring & Air Quality

Our Community Engagement staff recently had the opportunity to sit down with our subject matter experts and discuss some of the most asked questions we receive about flaring. In our newest webinar we cover what flaring is and why it's necessary, flaring at wellsites and facilities. Check out the webinar recording on our YouTube channel at youtube.com/@bcenergyreg/videos.

Did You Know?

We regulate more than 54,000 km of pipelines with approximately 79 per cent carrying natural gas.

Pipelines are recognized as a safe and efficient mode of transportation and secure operation is essential to protecting public safety and the environment.

The BCER responds to and assesses all pipeline incidents to ensure appropriate corrective and preventative actions are in place to avoid reoccurrence. An average of 4,500 inspections are completed every year.

Annually, the BCER prepares a **Pipeline Performance Report** that provides an overview of pipelines regulated by the BCER. The report includes data on types of pipelines, lengths, uses and overall pipeline incident rates.

Can You Recognize a Leak?

Natural gas smells like rotten eggs or sulphur for a good reason. Natural gas is odourless at the wellhead, but trace amounts of mercaptan is added downstream (for home or commercial use) to create a distinctive smell.

The leak may be detected by sight. Vapour and/or ground frosting, bubbles in wet or flooded areas, distinct patches of dead vegetation, dust blowing from a hole in the ground, and flames may be visible if the leak has ignited.

A natural gas leak may sound like a hissing or roaring noise along the right-of-way of a pipeline.

BC 1 CALL

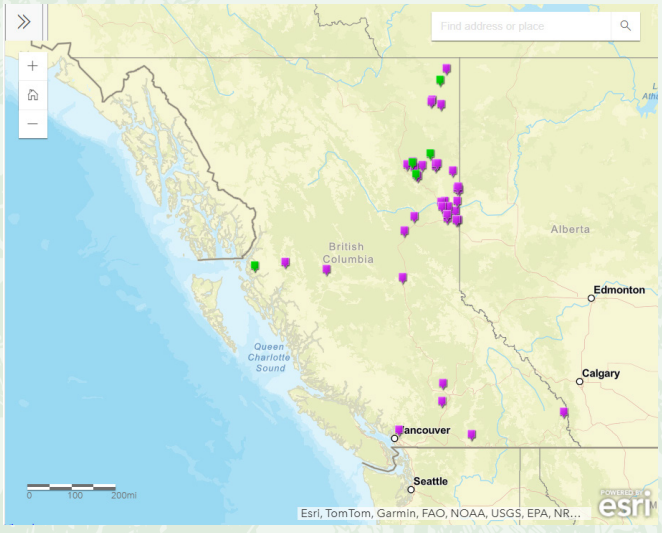
Call Before You Dig
BC 1 Call:
1-800-474-6886 or cellular *6886

Learn More about pipeline damage prevention
For Land Owners
For Contractors

Increasing Transparency with Our Pipeline Incidents Map

British Columbia's energy resource industry depends on pipelines for the distribution of products such as natural gas, water and oil. The BCER's Pipeline Incidents Map depicts locations of pipeline incidents by year in the province. The depicted incidents are updated quarterly and represent pipeline incidents that occurred on pipelines in active, deactivated or abandoned status and includes a brief description of the incident cause.

The map can be accessed on our website at bc-er.ca/data-reports/data-tools/pipeline-incident-map/.



Pipeline Incidents Map Screenshot

Increasing Transparency with Data Narratives

Our data tells stories. Throughout the year we share a variety of visually-driven data narratives that explore some of our key regulatory topics.

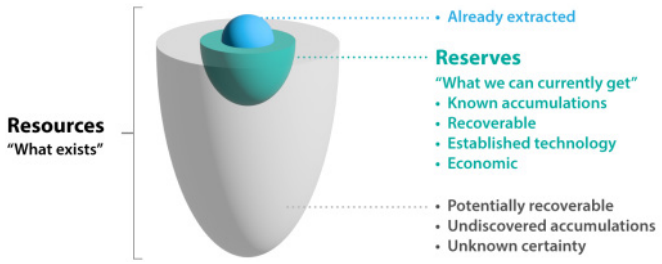
As part of our commitment to transparency and information sharing to increase the public's understanding about B.C.'s energy sector, we've developed the following new data narratives:

Reserves:

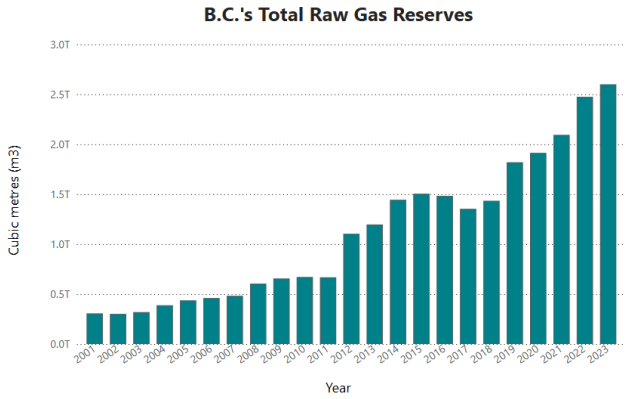
Northeast B.C. is part of a geologic area called the Western Canadian Sedimentary Basin, which extends from B.C. through to Saskatchewan. The site of a vast sea millions of years ago, this basin is rich in oil and gas deposits in sedimentary rock layers at depths from several hundred to several thousand metres below the surface. The B.C. portion of this basin contains mostly natural gas, with limited oil deposits.

In our Reserves Data Narrative, we examine B.C.'s hydrocarbon resources and reserves—what they are, where they're located and current estimates of how much is still commercially recoverable.

For a comprehensive summary of reserves and production data in the province, see our latest B.C. Oil and Gas Reserves and Production Report at www.bc-er.ca/data-reports/reports/.



Reserves vs Resources (not to scale). Current natural gas reserves in B.C., for example, are only about 3.5 per cent of the total estimated natural gas resources in the province.



B.C.'s remaining total natural gas reserves volume by year.

Incidents:

Incidents are events or circumstances outside the scope of normal energy resource operations.

Our Incidents Data Narrative explores incidents—events or circumstances outside the scope of normal energy resource operations. It provides insights into incident preparedness, reporting and response, with recent data categorized by severity, activity type and incident type.

Living Our Values

CEOX1Day

In March we had the pleasure of hosting Queen's University student Hayley Galsworthy at our Victoria office for a jam-packed day spent job shadowing our CEO and Commissioner, Michelle Carr, as part of CEOx1Day Canada.

Hayley brought enthusiasm, curiosity, and consummate professionalism to a day filled with engagements across various business areas and corporate priorities.

Thank you, Hayley, for spending a fantastic day with us and to CEOx1Day Canada for the wonderful opportunity to help support Canada's next generation of leaders!

Michelle Carr and Hayley Galsworthy on CEOx1Day Canada.

2025 Top Employer Award

We're honoured to be named one of B.C.'s Top Employers again this year!

At the BC Energy Regulator, we are diverse and inclusive, with transparency, innovation, and integrity as the foundation of our respectful culture. We prioritize professional growth through individualized development plans, empowering employees to shape their careers while ensuring safe and responsible energy resource development for all British Columbians.

Learn more about what makes the BCER a great place to work here: reviews.canadastop100.com/top-employer-bc-energy-regulator

Our Executive Team members volunteering with the Women's Resource Society in Fort St. John during the holiday season.

BCER staff participating in a community event near Fort St. John.


The Community Connector
BCER
BRITISH COLUMBIA ENERGY REGULATOR
Discover how we regulate energy in B.C.