

In 2018, the area-based closure (ABC) program was launched as a collaborative joint initiative by the Government of Alberta, Alberta Energy Regulator, the Canadian Association of Petroleum Producers, the Explorers and Producers Association of Canada, and the Petroleum Services Association of Canada.

The ABC program has led to a paradigm shift in the approach the upstream industry takes to closing inactive oil and natural gas sites and infrastructure. Instead of focusing on temporary suspension and closure of individual sites, the program encourages licensees to work together to decommission, remediate, and reclaim groups of inactive sites. In so doing, licensees can realize significant benefits arising from operational efficiencies, and cost reductions due to economies of scale and regulatory incentives. As well, opportunities for collaboration as a part of the ABC program can substantially reduce per site closure costs and enable closure dollars to be used as efficiently as possible. Better leveraging each dollar spent is always important, but is particularly so at a time of continued economic challenges.

In its first full year, ABC program participants and the Orphan Well Association collectively increased their closure activity in Alberta by almost 19 per cent over the previous year. About 70 per cent of closure work in Alberta was conducted by those licensees, with closure work meeting abandonment or reclamation milestones completed on approximately 7,400 sites. Through this focused effort on closure, ABC participants collectively exceeded the anticipated 2019 ABC spend target by almost \$100 million, or approximately 40 per cent. The first-year results of this voluntary program are a strong testament to program excellence and industry's commitment to working towards a common goal to responsibly manage sites across the full lifecycle of development.

The regulated community remains committed to proactive, efficient, and timely reduction of inactive oil and natural gas sites in Alberta. The ABC program, together with other Government of Alberta initiatives, will help to strengthen the liability management system and create a more sustainable approach to managing closure requirements for the upstream industry for years to come.



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Area-Based Closure Program 2019 Highlights

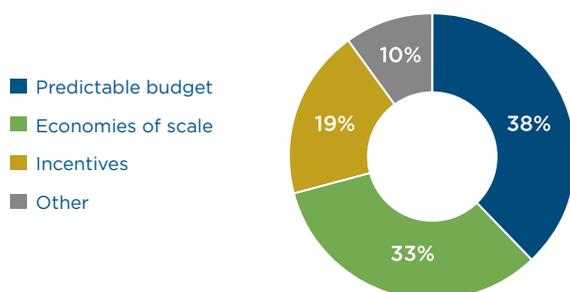
The voluntary area-based closure (ABC) program encourages oil and gas companies to work together to decommission, remediate, and reclaim their energy infrastructure and sites. Participants can complete more closure work for the same cost by finding opportunities to collaborate with other companies. They benefit by sharing information and services with other companies that are completing closure work in the same area. 61 licensees and service providers participated and contributed to the success of the program in 2019, its inaugural year.

81% of program participants surveyed said that the program helped them move infrastructure through the closure process more efficiently. 33% of participants collaborated on closure with another company, and 14% collaborated with the Orphan Well Association. This focus on collaboration and the resulting cost and operational efficiencies is expected to increase the number of oil and gas sites that a company can abandon, remediate, and reclaim with their closure budget.

Companies reported that the most valuable part of ABC was having a predictable closure budget through the commitment to a closure spend target. This enables long-term planning for complex closure projects over multiple years. It also reduces the risk of closure budgets being cut mid-project, which often results in additional closure costs.



Figure 1 What Was The Most Valuable Part of ABC For Your Company?



Participation

Licensees and service providers participate by submitting closure plans via a mapping tool in OneStop to enable collaboration with other companies conducting closure work in the area. The map on the next page shows that licensees that participated in ABC completed closure work across much of the province and reported closure spend on more than 16 000 licences.

In addition, licensees qualify for program incentives by committing to a voluntary closure spend target of 4% of their deemed inactive liability as per *Directive 011*.

61 licensees and service providers participated in ABC, submitting 161 confirmed closure projects. 45 of these companies committed to their voluntary closure spend target and, at the time that the closure spend targets were calculated, these 45 licensees collectively held 58% of the overall industry oil and gas inactive liability as defined in *Directive 011*.

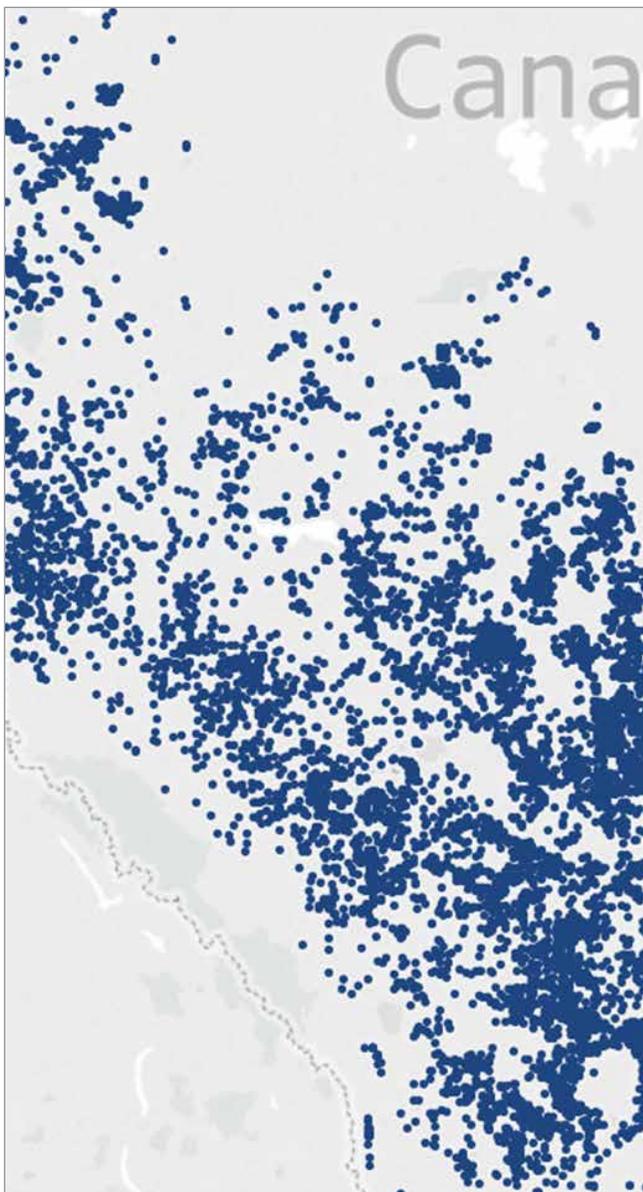
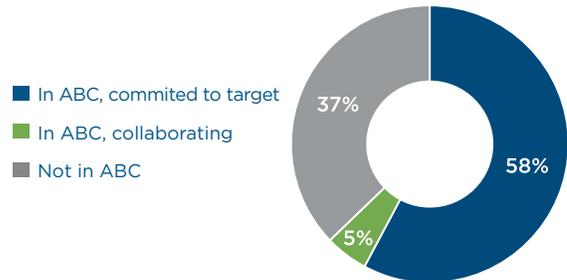


Figure 2 % Inactive Oil & Gas Liability



Participants

The 13 licensees listed below exceeded their voluntary closure spend target by more than 50%:

- Athabasca Oil Corporation
- Cenovus Energy Inc.
- Clearview Resources Ltd.
- ExxonMobil Canada Resources Company
- Husky Oil Operations Limited
- Ish Energy Ltd.
- Longshore Resources Ltd.
- NuVista Energy Ltd.
- Outlier Resources Ltd.
- Sifton Petroleum Inc.
- Spur Petroleum Ltd.
- Tidewater Midstream and Infrastructure Ltd.
- Vesta Energy Ltd.

The following 32 licensees participated in ABC by committing to their voluntary spend target:

- Bellatrix Exploration Ltd.
- Bonavista Energy Corporation
- Canadian Natural Resources Limited
- Canamax Energy Ltd.
- Canlin Energy Corporation
- Cardinal Energy Ltd.
- Crescent Point Energy Corp.
- Devon Canada Corporation
- Ember Resources Inc.
- Enercapita Energy Ltd.
- ExxonMobil Canada Ltd.
- Firenze Energy Ltd.
- Harvest Operations Corp.
- Highwood Oil Company Ltd.
- Imperial Oil Resources Limited
- IPC Alberta Ltd.
- Journey Energy Inc.
- MEG Energy Corp.
- Obsidian Energy Ltd.
- Paramount Resources Ltd.
- Perpetual Energy Inc.
- Perpetual Operating Corp.
- Pieridae Alberta Production Ltd.
- Sinopec Daylight Energy Ltd.
- Steelhead Petroleum Ltd.
- Strategic Oil & Gas Ltd.

- Surge Energy Inc.
- Tamarack Acquisition Corp.
- Tangle Creek Energy Ltd.
- TAQA North Ltd.
- West Lake Energy Corp.
- Zargon Oil & Gas Ltd.

The following 16 licensees and the Orphan Well Association participated in ABC by using the OneStop collaboration tool:

- AlphaBow Energy Ltd.
- Canadian Oil & Gas International Inc.
- Frontier Energy Inc.
- GEX Resources Ltd.
- IPC Canada Ltd.
- LGX Oil + Gas Inc.
- North Shore Environmental Consultants Inc.
- Orphan Well Association
- Pine Cliff Energy Ltd.
- Questfire Energy Corp.
- Scollard Energy Ltd.
- Shoreline Energy Corp.
- Sino-Western Petroleum, Inc.
- Sun Century Petroleum Corporation
- Sydco Energy Inc.
- Torxen Energy Ltd.

Program Incentives

Companies in the program may commit to a voluntary closure spend target. By demonstrating a financial commitment to closure, these participants can take advantage of program incentives that let them focus their closure resources on larger geographic areas instead of spreading them across the province. The following incentives are currently offered to those that commit to the closure spend target:

- They are exempt from pressure testing certain low-risk inactive wells while increasing surface inspections, which cost less. This allows them to reallocate those funds to closure.

In 2019, an estimated \$126 million was reallocated to closure. If all licensees that did not participate in ABC and those that did not commit to a spend target had committed to voluntary closure spend targets, an additional \$108 million could have been reallocated to closure.

- They may also apply to extend timelines for certain low-risk abandonment orders, giving them more flexibility in planning and completing area-based closure projects.

In 2019, abandonment orders on 227 wells were extended by licensees who committed to voluntary spend targets. All licensees that did not participate in ABC and those that did not commit to a spend target could have applied to extend orders on 648 additional wells.

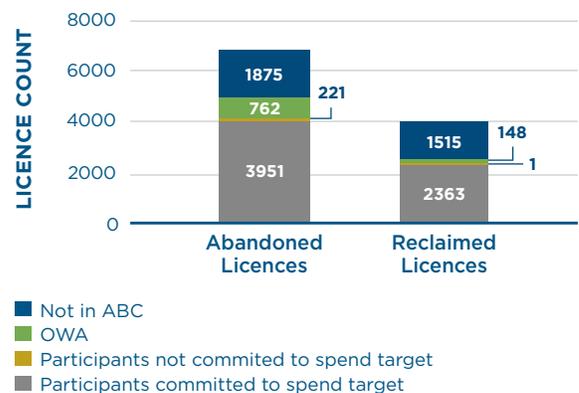
Further incentives for ABC are being assessed and will be released as the program develops. More information about incentives can be found on the AER website, Regulating Development > Project Closure > Liability Management Programs and Processes > [Area-Based Closure](#).

Closure Activity and Spend Summary

Through ABC, industry is now able to report closure progress and associated costs. This new data provides insight into what closure work is being done and how much it costs. This data will help us better understand oil and gas liability and continuously improve the accuracy of our liability programs.

The licensees that participated in the program collectively hold 63% of total inactive liability, and they conducted 69% of all abandonment and reclamation in Alberta, abandoning 4900 licences and reclaiming 2500 licences.

Figure 3 Abandoned and Reclaimed Licences



The total spend target committed to by the 45 licensees was \$244 million. Cumulatively they exceeded this target by 40%. The bulk of industry activity and spend was on infrastructure abandonment (56%); 24% was spent on remediation and 20% was spent on reclamation.

Figure 4 Total Closure Spend by Closure and Infrastructure Types

