



Alberta Energy Regulator

Supporting safe and responsible energy resource operations

The Alberta Energy Regulator (AER) is a regulatory body with a mandate to provide for the efficient, safe, orderly, and environmentally responsible development of Alberta's energy resources.

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The AER is responsible for regulating the life cycle of oil, oil sands, natural gas, and coal projects in Alberta, from application and construction to production, abandonment, and reclamation.

As a full life-cycle regulator, the AER oversees the responsible development of Alberta's energy resources.

The AER is authorized to make decisions on any activities that require approval under one or more of Alberta's six energy statutes. These activities include applications for energy development, monitoring for compliance assurance, decommissioning of developments, and other critical aspects of energy resource activity.

With a large and established enterprise GIS program, the AER maintains a wide range of applications that are used internally by employees, and externally by oil & gas companies and the general public. GIS supports operations in authorization, emergency response, compliance and surveillance, and reclamation and remediation.

More than 30 servers support the AER's ArcGIS® environment, which includes implementations of *ArcGIS Desktop*, *ArcGIS GIS Server* and *Portal for ArcGIS*.

The Challenge

In March 2014, the AER assumed responsibility for regulating reclamation and remediation activities for all energy resource operations in Alberta. These activities were previously the responsibility of the Alberta government ministry, *Alberta Environment and Parks (AEP)*.

When the AER took over responsibility for issuing reclamation certificates, the handover came with a backlog of more than 2,691 upstream oil & gas reclamation certificate applications. The reason for the large backlog was that the process for reviewing applications was extremely complex; substantial manual work and analysis was required, and each application had to be checked against seven different databases.



“ Not only does [*OneStop*] provide immediate benefits for the reclamation certificate process; it demonstrates that there is an exciting opportunity to deploy similar technology more broadly within the AER. ”

Mark Taylor, *EVP of Operations - AER*

The Solution

In conjunction with Latitude Geographics' Professional Services team, the AER developed a system called *OneStop* to streamline the application review process. *OneStop* ensures that all criteria for reclamation are thoroughly assessed in a timely manner, allowing AER staff to dedicate more resources to high-risk areas.

With *OneStop*, the AER has altered how applications are processed. There are now two review levels: baseline (automated) and additional review (manual). The automated baseline review ensures that the application is complete and meets certain administrative criteria. Every application that enters AER's system goes through the baseline review, and upon completion, *OneStop* determines if any additional manual reviews are required.

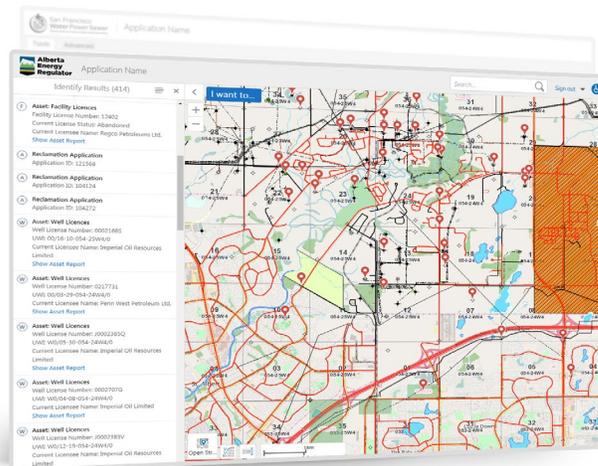
OneStop also has a public-facing component that provides Albertans unprecedented access to the Province's energy-related maps. Using the online map, they can zoom to a specific area and see what's happening by toggling data layers on and off. The application also allows Albertans to see asset information and reclamation decisions throughout the Province.

The Result

Before *OneStop* was launched, there were applications that had been in the system for more than 18 months, and with new applications being submitted every month, they would continue to pile up faster than the team could process them. As soon as *OneStop* was launched, most of the reclamation applications were processed instantly and the backlog was significantly reduced.

Of the backlog, approximately 80% required only a baseline review, which *OneStop* completed automatically. Instead of manually reviewing all 2,691 applications, 2,156 were automatically reviewed and approved, with the remaining 545 sent through for further investigation.

"The backlogged applications received the same attention when reviewed by the online system as they would have if done manually," said Tara Mulrooney, Chief Technology Officer for the AER. "The only difference is that the backlog



The AER's public-facing OneStop application provides residents and operators unprecedented visibility into energy operations throughout Alberta

was reviewed in the blink of an eye, with a more consistent approach than if different employees had manually reviewed them all."

Geocortex Essentials helped AER staff extend their ArcGIS functionality with customizable workflows, tools and features, and configurability with other systems to significantly reduce development time. Geocortex Essentials also allowed the AER to integrate with existing enterprise systems in a simple and intuitive way.

"*OneStop* has been an important project for the AER," said Mark Taylor, EVP of Operations. "Not only does the application provide immediate benefits for the reclamation certificate process; it demonstrates that there is an exciting opportunity to deploy similar technology more broadly within the AER."

The AER has gained efficiency, transparency and consistency in processing reclamation applications. For the energy industry, this process improvement represents cost savings and reduction of liability. For Albertans, it provides increased visibility and environmental protection by reducing land disturbance and helping keep land in a productive state.