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## Alberta Rolls Out Yet Another Form of Sequestration Agreement

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**Document commented on:** [Mineral Rights Information Bulletin, 2023-01](#), Small-Scale and Remote (SSR) Carbon Sequestration Tenure, September 14, 2023

The Government of Alberta (GoA) is experimenting with several different forms of carbon sequestration tenure. But while the initial development of sequestration tenure and policy between 2010 and 2013 was open and transparent – as reflected in the [Regulatory Framework Assessment](#) – there is very little in the way of public explanation for the more recent changes, and, as noted in previous ABlawg posts (my last [post](#) contains relevant links), very little in terms of overall transparency.

The GoA announced its most recent development, Small-Scale and Remote (SSR) CCS projects by way of a Mineral Rights Information Bulletin on September 14, 2023 (although the Premier had earlier made reference to the new program in a [keynote address](#) to a CCUS Conference in Edmonton on September 12, 2023 – at about 6:30 in her address.) The Bulletin suggests that Small-Scale and Remote (SSR) Carbon Sequestration Tenure applications are designed to respond to the following situations:

- carbon emissions too far from a hub, or when hub infrastructure may be delayed, or when a hub is not ready to accept the volume of carbon dioxide from an emitter;
- carbon sequestration would be less than 200,000 tonnes of carbon dioxide annually;
- waste gas disposal, such as sour gas or acid gas, which may arise or is arising from oil and gas facilities and needs to be disposed; or
- carbon emissions arising from facilities testing carbon capture approaches. (Bulletin at 1)

The Bulletin goes on to state:

As part of the application process, applicants will be required to identify and address overlapping interests and activities in the Location (i.e., lands and sequestration formation) that has been requested. Ultimately, the potential approval of an application would result in the granting of two agreements:

- a pore space agreement that grants the right to sequester carbon dioxide into a subsurface reservoir (pore space) within the Location; and
- a pore space unit agreement that addresses the varying interests and activities within the Location, including Crown interests. (at 1)

A link embedded in the Bulletin takes the reader to [Alberta Online Learning \(gov.ab.ca\)](http://www.alberta.ca) and four additional documents: an [SSR Application Guidelines](#), (hereafter “Guidelines”) a [Pore Space Lease template](#), a [Pore Space Unit Agreement template](#), and an [SSR Carbon Sequestration Application Form](#).

The Guidelines contain the important information that the target formation may “include saline aquifers and/or depleted reservoirs” (at 4). The same document clarifies that “[t]he requested lands cannot overlap with an existing carbon sequestration agreement or grant of pore space” including subsurface reservoir leases (it is not clear to me what these are), and “carbon sequestration agreements (e.g., evaluation permits, leases, or carbon sequestration hub agreements)”(at 4). CO<sub>2</sub>/EOR projects (i.e. CO<sub>2</sub> miscible flood enhanced oil recovery projects) will continue to operate under current mineral rights tenure systems, and existing acid gas disposal (AGD) operations will continue to operate under Crown authorizations under s 54 of the *Mines and Minerals Act*, [RSA 2000, c M- 17 \(MMA\)](#). All new AGD operations will be required to apply for a grant of pore space, and existing AGD operations who wish to supplement their acid gas volumes with captured CO<sub>2</sub> from their facility operations will also “be required to apply for a grant of pore space (i.e., carbon sequestration tenure, not a Crown authorization)” (at 4)

The Guidelines also inform that the SSR stream is intended “for proponents that can demonstrate a carbon sequestration hub will not address their carbon sequestration ambitions.” (at 5) Accordingly, proponents must demonstrate why a sequestration hub is not viable. This might include:

- an assessment of sequestration options and potential sequestration capacity in the region, and
- an economic analysis and justification. (At 5)

Supporting technical information may include the following:

- cross-sections;
- logs with marked formation tops;
- core analysis;
- brine analysis;
- directional survey;
- injectivity tests;
- injection forecasts;
- pressure transient analyses;
- fluid compatibility testing report;
- seismic (with suitable well tie);
- pertinent geological and sequestration mapping (net reservoir isopach, CO<sub>2</sub> available pore volume isopach including parameters used in pore volume calculations);
- projected area of influence (AOI) of CO<sub>2</sub> fluid and pressure plumes including a dynamic reservoir simulation model of the pressure influence of the plume AOI;
- areas of resource interest or activity overlap including existing disposal wells within current and projected area of influence identified on the pore volume isopach;

- mineral reserve(s) calculations in the sequestration zone, area of influence, and available pore volume for carbon sequestration – including any material balance and volumetric calculations; and - the data must include calculations about remaining recoverable resources so that Alberta Energy and Minerals can generate an amortization schedule;
- disposal records (recent volumes/charts/tables, etc.) (at 5)

The Guidelines conclude with a section on the need for a pore space unit agreement. Apparently, applicants for an SSR pore space lease must submit a completed pore space unit agreement and an appropriate cover letter with their application that:

- identifies the subsurface reservoir (pore space) within which captured CO<sub>2</sub> will be permanently sequestered; and
  - reflects the varying interests within the Location.
  - Interests include Crown mineral agreement and authorization holders, and Mineral owners (including the Crown). (at 6)

The Pore Space Unit Agreement itself contains the preambular acknowledgement that:

... the Parties acknowledge that this Pore Space Unit Agreement (Agreement) is not a unit agreement as described in Part 7 of the *Mines and Minerals Act (MMA)* and that this Agreement is entered into under the authority of section 15.1(3) of the *MMA*. (Pore Space Unit Agreement at 1).

Unlike the Unit Agreement, the posted Pore Space Lease template does not identify which section or part of the *MMA* provides the authority for the pore space lease.

## Commentary

This is an impressive if not amazing amount of paper for this new initiative. Indeed, and ironically, with this release of documents we now know far more about this new SSR stream of CCS projects in Alberta than we know about the hub and spoke projects. All of this is released by way of a Bulletin and without any general public consultation or release of draft documents for comment. And frankly, that seems bizarre, albeit completely on brand for this government's approach to consultation.

Here are some preliminary thoughts on this new SSR stream for CCS projects in the province. I intend to provide an additional post examining the terms of the proposed pore space unit agreement.

## Multiple Forms of Sequestration Tenure in Alberta

It now seems that we have (at least) three forms of sequestration rights in Alberta. First, we have the sequestration permit and lease created by Part 9 of the *MMA* and the Carbon Sequestration Tenure Regulation, [Alta Reg 68/2011](#) (CSTR). This is what Shell's Quest project has, and it is this form of tenure that provides the gateway to the transfer of liability for CCS projects to the Crown post closure. Second, we have s 9 (*MMA*) Crown agreements for hub and spoke projects. At the

risk of sounding like a broken record we have yet to see the form of these agreements, but Appendix A of the [Request for Full Project Proposals](#) (March 3, 2022), expressly states that the final sequestration agreement will be issued under s 9 of the *MMA*, and not under Part 9 (see earlier post [here](#)). The current Bulletin introduces a new form of tenure, a pore space lease accompanied by a pore space unit agreement (SSR tenure). The latter at least is issued under the authority of s 15.1 (the Crown vesting provision) of the *MMA*. We are left to guess as to the genealogy of the pore space lease. The pore space lease approach differs from the first two insofar as it appears to contemplate that the proponent will go straight to lease without the need for an evaluation permit. This suggests to me that the proponent will be familiar with the property (otherwise it would be difficult to complete the application) and thus will likely have a mineral lease in relation to the lands in question.

### **The Scope of the SSR Tenure Stream**

The new SSR tenure incorporates a diverse and not obviously similar range of projects. The first category consists of those projects that cannot be accommodated by a proposed or existing hub. This may be for physical or economic reasons. This signals that the GoA is not really committed to the hub idea and is at least open to the province's natural gas processor investor-driven model i.e. build it if it makes sense from the perspective of private capital, and ultimately ignore the problems of proliferation of facilities and dissipation of economic rent.

The second category is “small-scale” projects, the third category is waste gas disposal projects, and the fourth category is experimental projects. All of these projects will be allowed to target either saline formations or depleted reservoirs.

This is an odd collection of eligible projects around which to design a form of tenure, and it makes one wonder if all the criteria in the guidelines apply to all categories of projects. For example, on the face of it, all projects need to demonstrate why they cannot access a hub and all projects need to complete a unit agreement. But why should an experimental project injecting in a saline formation need either? One can imagine that an experimental project faced with such requirements might well prefer to proceed under s 54(5) of the *MMA*.

### **Acid Gas Disposal**

For years the GoA has provided the “property” authorization for AGD schemes by way of an authorization loosely sanctioned by s 54 of the *MMA* (for further discussion see this [post](#)). In this Bulletin the GoA indicates that this approach is no longer acceptable for new AGD schemes. I think that this reflects what I have referred to before as the increased competition for pore space: see posts [here](#) and [here](#). I further suspect that this will be a mixed blessing for industry. On the one hand it will entail more complexity, more “red tape”, but on the other hand it may offer greater security of tenure to the lessee of such an agreement.

But the inclusion of AGD projects in this SSR project stream is one of the reasons that the GoA cannot use Part 9 for this form of sequestration tenure. This is because Part 9 only deals with the geological sequestration of “captured carbon dioxide” which the *MMA* defines (at s 1 (a.1)) as a “fluid substance consisting mainly of carbon dioxide captured from an emissions source”.

## Information Requirements

It is useful to compare the information requirements described in the Guidelines/Application with the requirements for those seeking or holding sequestration permits or leases under Part 9 of the *MMA* and the CSTR. One thing jumps out. And that is the complete silence of the Guidelines on the subject of monitoring measurement and verification (MMV). This is a key requirement of CCS projects authorized under Part 9 of the *MMA* and the CSTR, and internationally. It has also been the subject of a recent delegation of authority from the Ministry to the Alberta Energy Regulator, as covered in this [recent ABlawg post](#). Perhaps that itself is the rationale for the silence of the Guidelines on this point, otherwise this failure to address MMV requirements as part of the SSR stream of CCS projects is a glaring and unexplained omission and a significant departure from international practice and standards.

Recall as well that the RFP for sequestration hubs from March 2022 also required information on a business model including information on the proponent's financial capability and benefits to Indigenous communities as well as information on sequestration risks and mitigation measures. There is none of that in this latest form of sequestration tenure. This new form of tenure is risk management light.

## Depleted Oil and Gas Reservoirs

Both *MMA* Part 9 and the hub proposals are directed at saline aquifers and pure CO<sub>2</sub> sequestration operations. This is not the case for the SSR stream, which clearly contemplates injection into depleted reservoirs. This begs the question of whether the Crown pore space vesting provisions in s 15.1 of the *MMA* actually cover this scenario. This is perhaps the reason for the need for both a pore space unit agreement and the preambular acknowledgement contained in that agreement (quoted above) with respect to the source of authority for the arrangement..

## Unit Agreement

As indicated above I plan to write a second post on the pore space unit agreement, but it is worth reflecting on what this agreement is designed to achieve and who the GoA expects to be parties to such an agreement. Unitization is normally required when there are multiple tracts and owners within a single oil and gas pool, and the working interest owners in the various tracts decide to cooperatively develop the pool. But in the case of pore space, there is only one owner, the Crown, and unless the Crown grants leases to multiple lessees there should not be a need for unitization. But things will not be so simple in the case of a depleted reservoir where there may be both pore space interests and petroleum and natural gas interests. It seems that the unit agreement requirement is likely intended to deal with this situation. How effective it will be remains to be seen. One thing I would bet money on, though, is that the negotiations between these different interests (pore space and mineral interests) will be long and complex, and parties need to understand that there is no compulsory unitization in Alberta (see earlier post [here](#)). That means that there is a real risk of holdouts frustrating any particular development.

## Where did the Idea for this New Form of Tenure Come From?

I think that this new form of tenure is a response to the (small) Explorers and Producers Association of Canada (EPAC), which represents perhaps an important part of the UCP's base. In [a letter to then Minister Savage](#) in June 2021, EPAC rejected the hub approach to CCS projects. EPAC reasoned as follows:

Albertans should be concerned that the allocation methodology proposed in Alberta Department of Energy IL 2021-19 will result in a central government planning approach to carbon sequestration with a few government-selected companies controlling this new emerging business, benefiting only a few Alberta communities. Unlike the United States, which has allowed all companies and all communities to benefit under strictly regulated, safe, and orderly development controls, Alberta seems to be focused on an off-shore European approach that lacks direct relevance to the Canadian context.

Instead, EPAC argued for equal access to pore space and stressed that the GoA should not be in the business of picking winners.

It took a while, but I think that this new form of tenure delivers in spades on EPAC's request. Now EPAC will turn its attention to the Alberta Energy Regulator to make sure that it delivers on the regulatory approvals that its members will be seeking to take advantage of this new form of pore space tenure.

## The Premier on CCS and CCUS

In her keynote address to the Edmonton CCUS conference referenced above, Premier Smith emphasised the importance that industry attaches to certainty. I agree with that, but I do not believe that the GoA's preferred way of communicating new developments in the CCUS space provides industry with the certainty that it craves or the transparency that the public deserves. And the Premier's views on CCS have hardly been consistent, as Graham Thomson points out: "[Danielle Smith's Carbon Capture Contradictions](#)". Pity the CCS/CCUS developer who searches for certainty in this morass.

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