Understanding lifecycle improvement credit opportunities under the Clean Fuel Standard

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It is no secret that there has been opposition to Environment and Climate Change Canada's (ECCC) coming Clean Fuel Standard (CFS). Concerns over the increased costs of production, technological compliance difficulties and regulatory constraints have been coupled by threats of constitutional challenges similar to those launched a few years ago in respect of federal baseline carbon pricing.

One might argue, however, that the CFS contains some incentives as well as financial burdens for Canada's oil and gas industries – most notably, credit creation opportunities through lifecycle reduction in the carbon intensity of fossil fuels.

Carbon intensity reductions across fuel lifecycle

Borrowing from the British Columbia *Low Carbon Fuel Standard*, the focus of the coming CFS liquid fuels regulations will be upon enhanced environmental performance across the entire supply chain for fossil fuel production, including improvements from both the "Primary Supplier" (producers/importers) and their vendors/service providers such as:

- Switching to a lower-carbon intensity fuel;
- Renewable energy integration; and
- Carbon capture (& utilization) and storage.

Credit generation can undertake activities from July 2017, so early adopters (past and present) will qualify. In adopting a similar lifecycle methodology to the BC *Low Carbon Fuel Standard*, the CFS can also benefit from the experience under that program.

What is "additional" v. good business?

When supply chain improvements count as credit generation is less clear under the CFS. The CFS leans upon the carbon market's notion of "additionality" as a threshold requirement – in other words, compensating parties who are primarily incentivized to reduce carbon (or its intensity) by the prospects of credit generation and not normal course process and efficiency improvements.

Here the ECCC, in its Proposed Regulatory Approach, is less than reassuring to the market:

"The additionality assessment will take into account *many factors*, including the *financial aspect of the project,* regulatory considerations (e.g. whether an action is required by other law or regulations), *technological and financial barriers,* emissions (in the defined base case and projected reductions), and the *penetration rate of the technology or* practice."

It's no wonder that wholesale process improvements have not been convened in the name of the CFS. Much more is needed from the ECCC as concrete guidance before the CFS will deliver significant lifecycle carbon intensity improvements.

But what about related Canadian carbon programs?

Credit creation for process improvements under the CFS will not occur in a vacuum. Many Primary Suppliers will also be caught by other emissions-related laws, both federal and, more often, provincial.

The ECCC has indicated that lifecycle improvements will quality for CFS credits where such improvements "overlap" with carbon pollution pricing systems (read: Federal Carbon Pricing Backstop and its progeny) in either:

- Emissions compliance; or
- Carbon credits.

CFS credits will also be generated through improvements made in compliance with the BC *Low Carbon Fuel Standard*. What is less clear is the status of compliance activities of Alberta's *Renewable Fuels Standard* - an omission not lost on the province.

What will not qualify as creditable lifecycle improvements?

The ECCC is, unfortunately, much clearer in defining what does not qualify than what does. The noteworthy exclusions include:

- Legal compliance (other than carbon pricing laws);
- Use of renewable or low-carbon fuels already CFS-credited upstream;
- Processing lower-carbon intensity fossil fuels (such as heavy to light crude oil); and
- Curtailing production.

Curiously, receipt of government funds for improvements itself, does not, exclude eligibility for CFS lifecycle credits.

The answers lie in the emission reduction quantification methodologies

The hope is that the ambiguities in the lifecycle credit generation process will become much clearer through the ECCC development of emission reduction qualification methodologies. For now, we know they must be consistent with ISO 14064-2, overtly scientifically defensible and for no less than a 5-year period. We also know that methodologies will be developed for:

- Carbon capture and storage;
- Enhanced oil recovery;
- Low-carbon intensity electricity integration;
- Methane reductions that are additional to regulatory requirements;
- Co-generation;
- “Electrification”; and
- Co-processing of biocrudes in refineries and upgraders.

In short, a veritable laundry list of the types of improvement areas that the oil and gas industries have continued to work on long before the CFS was ever contemplated.

With tangible and detailed lifecycle credit opportunities and meaningful financial returns for the investment, the oil and gas industries may well be able to take advantage of the lifecycle improvement credit opportunities under the CFS. Further, the carbon-intensity improvements brought about by these changes may also better position Canada’s industry to meet similar standards developing throughout various export markets.

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