

Written Submission for the Budget Consultation in Advance of the 2024 Federal Budget

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Summary of Recommendations

Recommendation: Government of Canada should expand the criteria for 'Property and Uses' within the "Legislative Proposals to the Income Tax Act – Clean Technology Manufacturing Investment Tax Credit", ensuring drilling rig and service rig companies can fully utilize the tax credit to invest in the carbon abatement technologies needed for the extraction of critical minerals and diverse resource streams across Canada's energy landscape.

Sector Overview

The Canadian Association of Energy Contractors' (CAOEC) drilling rig and service rig members, made up of small-to-medium and Indigenous companies, are a critical piece of the supply chain for Canada's energy transition and net-zero future. The sub-surface extraction of Canada's diverse energy and critical mineral resources, such as lithium for EV batteries, helium for semiconductors, geothermal heat to generate electricity, potash, or storage for carbon dioxide or hydrogen, will always require energy services and contractors, specifically drilling rigs and service rigs. CAOEC believes a multi-lateral approach with provincial and federal collaboration is needed to further our decarbonization and net-zero goals. However, more must be done to accelerate the deployment of carbon-abating technology in the energy services sector, specifically for broader resource extraction.

The future of the energy industry runs through our people; the energy services sector is at the very center of the sustainable jobs energy transition. Our members and their people already possess the skillset necessary to be the industry's front-line for emissions reduction. However, the next step to decarbonize our sector is to move our technology off diesel to electricity, battery, hydrogen, and lower-emitting natural gas technologies as viable in the areas we operate. Fortunately, the sector already has these proven technologies, like high-line power, battery energy storage systems, and alternative fuel sources, to power our equipment and accelerate Canada's net-zero journey. **These technologies could reduce our GHG sector emissions by as much as 85 – 95 per cent**, but the cost of deploying some of these units is currently over \$1,000/ tonne CO₂eq.

However, at present, there are no financial tools that are appropriate for accelerating the long-term deployment of proven carbon abatement technologies waiting to be utilized across the sector. The myriad of government solutions offered to our industry have failed to address the policy gap in the energy services sector, thus making the resources for a sustainable energy transition inaccessible to these small-to-medium and Indigenous companies. To read our white paper on the topic, click [here](#). CAOEC has been advocating both federally and provincially to rectify this gap and bring about the inclusion of the sector within existing strategic financial tools, such as the investment tax credits (ITCs).

If the following strategic amendments are made to the current *Income Tax Act*, *Clean Technology Manufacturing Investment* tax credit, it would see an estimated investment of **\$532MM in new carbon abatement technology over the next seven years for a cost to the government of \$160MM, resulting in a commutative emissions reduction of almost 1MT**. Please see Appendix A for the GHG reduction and investment estimates breakdown.

Policy Gap

While the Government of Canada made commendable strides to further decarbonization and attract investments in the energy industry through Budget 2023, it is simply not enough. **The design of the Clean Technology Manufacturing Investment tax credit (CTMI) fails to recognize the real-life applications of drilling rigs and service rigs, and how it fits into the Canadian energy tapestry.** Current design language within the Budget Annex details what ‘eligible activity’ and ‘eligible property’ qualifies companies to access the CTMI. The energy services sector’s decarbonization rig technology meets the qualifications listed under ‘eligible activities’ for the following:

- “Extraction and certain processing activities related to six critical minerals essential for clean technology supply chains.” (Budget Annex)
- “Manufacturing of certain renewable energy equipment (geothermal).” (Budget Annex)
- “CMT use means:
 - (b) the use of a property in a qualifying mineral activity producing ... qualifying material ...”
 - qualifying material (a) lithium ... qualifying mineral activity (a) the extraction of resources from a mineral deposit.” (Regulations)
- CAOEC also fulfills a portion of the ‘eligible property’ requirement within the Budget Annex as its decarbonization rig technology qualifies as “...machinery and equipment... used in manufacturing, processing, or critical mineral extraction.” However, the requirement also details that the property be “used all or substantially all for eligible activities [to] qualify for the credit.”

The energy services sector’s decarbonization rig technology meets the qualifications listed under **property** in the following areas:

- “...machinery and equipment... used in manufacturing, processing, or critical mineral extraction.” (Budget Annex)
- “CTM property means property of a taxpayer ...
 - (d) described in Schedule II to the Income Tax Regulations that is
 - (i) included in (B) paragraph (a) of Class 43, (c) Class 53,
 - (iii) included in (C), (v) included in (A).” (Regulations)

While CAOEC’s drilling rig and service rig technologies are used in the extraction of lithium, geothermal, helium, and more, our members also use the same equipment to drill for oil and gas to meet the country’s current and future demand for these products. It is one of the reasons why the energy services sector is able to advance a seamless, sustainable energy transition for our workforce and equipment. This business model enables us to accelerate diverse sub-surface extraction projects without retraining our people on the ground or switching out expensive equipment. The ability to be agnostic on what we drill for is pivotal to the success of Canada’s energy transition and journey to net-zero. However, this also renders us unable

to access various funding streams, such as the CTMI, making the federal resources for a sustainable energy transition inaccessible to our small-to-medium and Indigenous companies.

Under current conditions, it is not possible to have rig technology that is solely used for the activity listed in the Budget Annex without severely impacting our ability to develop resources. This would also impact field workers' wages and employment, our member companies' revenues, and the communities in which we operate. There simply aren't enough critical mineral extraction projects underway in Canada right now to offset the revenues our members derive from oil and gas drilling projects. The current definition of the 'eligible property' for the CTMI would halt our progress for a sustainable jobs transition and disrupt the extraction of critical minerals and diverse resource streams across Canada's energy landscape. **The failure to recognize the importance of carbon abatement activities in Canada's oil and gas extraction activities will impact the pace of emissions reduction in the energy services sector.**

Recommended Solution

Our industry is motivated to accelerate the deployment of decarbonization technologies as soon as possible to ensure Canada reaches its 2030 emissions reduction goals. See below for a priority list of the technologies our sector seeks to get in our fields.

We recommend that the Government of Canada **expand the criteria for *property and uses* in the Regulations to ensure clean drilling rig and service rig technologies can fully utilize the tax credit.**

Furthermore, the Association recommends **exempting drilling and service rig technologies from the "substantially all" requirements to ensure critical mineral and geothermal resource extraction is not negatively impacted.** Please see the section 'Legislative Language' below for proposed legislative language to insert in the *Income Tax Act, Clean Technology Manufacturing Investment Tax Credit*.

The expanded tax credit will allow energy service companies to make the necessary investments in carbon abatement technologies, providing Canada with the tools to develop emerging energy and mineral resources while delivering on its international targets.

Further, these listed clean drilling rig and service rig technologies are all either net-zero sufficient or utilize limited fossil fuel, thus labelling it as "fossil fuel efficient" as defined by the parameters set out in the *Inefficient Fossil Fuel Subsidies Government of Canada Guideline* since it:

- (a) supports clean energy and renewable energy;
- (b) helps provide essential energy services to remote communities;
- (c) supports Indigenous participation in energy activities.

Creating this world-leading fleet of drilling rigs and service rigs for the energy transition will also sustain the careers of our existing workforce and create opportunities for thousands of new workers. On average,

one active drilling rig, regardless of what it is being drilled for (i.e., lithium, geothermal, or natural gas), creates 220 direct and indirect jobs, \$1 million in taxes, and supports 38 related subcontractors for each wellsite drilled. With the acceleration of proven carbon abatement technology, Canada can establish a sustainable drilling and service rig industry through the energy transformation, continue actively advancing Indigenous participation in the energy industry, and provide secure careers for front-line workers.

Over the last few months, CAOEC has engaged with various officials in Ottawa on the importance of technology deployment and decarbonization. While we have identified a policy gap in the government's current response to the Canadian energy evolution, we were encouraged to see officials across multiple departments such as Labour, Environment and Climate Change, Prime Minister's Office, Privy Council's Office, Natural Resources Canada, and Finance were in agreement with the need to address the energy service sector in federal policy. However, the move to act within the government is too slow and risks Canada's net-zero goals, the future of the energy services workforce, the energy security of communities across the country, and the success of Indigenous economic participation within our industry. The future of Canada's energy services workforce and the pace at which we can accelerate the energy transition depends on immediate policies that recognize the real-life applications of drilling rigs and service rigs. Our sector is ready to do its part and position Canada as a world leader in carbon efficiency. However, we need the proper tools and resources to accomplish our decarbonization goals.

Priority Technology Breakdown

The stated strategic amendments to the CTMI would see an estimated investment of \$532MM in new carbon abatement technology over the next seven years for a cost to the government of \$160MM, resulting in a commutative emissions reduction of almost 1MT. Please see Appendix A for a further GHG reduction and investment estimates breakdown.

High-Line Power (Fully Electric Rig)

Connecting the drilling rig to grid power reduces GHGs, noise, and truck traffic because diesel generators are not required.

Assumptions: Electrical grid intensity varies across Canada, with British Columbia, Alberta, and Saskatchewan having grid intensities of 18.6, 620, and 660 g-CO₂eq/kWh, respectively.

Results: 98%, 21%, and 16% GHG reduction for British Columbia, Alberta, and Saskatchewan, respectively.

Battery Energy Storage System (BESS)

When coupled with on-site generators, BESS will reduce the number of generators online (two instead of three, for example). In addition, charging the batteries increases the load on the engine, allowing it to run more efficiently.

Assumptions: BESS reduces diesel consumption for diesel generators from 5,632 L/day to 4,844 L/day.

Results: 14 – 20% GHG reduction

Hydrogen Blending

Hydrogen does not emit CO₂ when combusted. A 20% H₂ blend with natural gas is possible without modification to the natural gas engine.

Results: 38% GHG reduction

Bi-Fuel (Natural Gas + Diesel) Generator

The equipment allows a diesel engine to burn diesel, natural gas, or a combination of the two. Dynamic gas blending (DGB) allows the engine to maximize the amount of natural gas used automatically. With DGB, up to 70% of the diesel can be replaced with natural gas.

Assumptions: A conservative 55% replacement of diesel reduces engine emission by 1.89 tonnes CO₂eq/day.

Results: 12 – 15% GHG reduction

100% Natural Gas Generator

Replacing a diesel generator with a natural gas generator reduces GHG emissions, maintenance, and truck traffic.

Assumptions: Natural gas generators emit 12.25 tonnes CO₂eq/day, reducing engine emissions by 3.44 tonnes CO₂eq/day.

Results: 22 – 25% GHG reduction

Legislative Language

The Association recommends adding the following to section 127.49 of the proposed Legislative Proposals Regulations to the *Income Tax Act*, *Clean Technology Manufacturing Investment Tax Credit*.

Amendment #1:

CTM property includes;

(A) paragraph (b)(i) of Class 41 in Schedule II to the Regulations;

(B) paragraph (a) of Class 10 in Schedule II to the Regulations;

(C) paragraph (i) of Class 8 in Schedule II to the Regulations;

(D) paragraph (a) of Class 43, Class 29, or Class 53 in Schedule II to the Regulations;

(E) qualified expenditure; or

(F) property/costs ancillary to a property described in (A) to (E).

qualified expenditure is an expense incurred by the taxpayer for the purpose of retrofitting equipment, switching fuel sources of an engine (fuel switching), changing the power source of an engine, or similar type projects that reduce the greenhouse gas emissions of a property described in (A) to (F) which may include:

(A) the conversion of or replacement of an internal combustion engine (“ICE”) to run on:

i. electric fuel cell technologies; or

ii. natural gas; or

iii. a combination of ICE and an alternative source as described in i) to ii);

(B) replacement of or retrofit of generators and other ancillary equipment with equipment that runs on electricity, hydrogen, natural gas, or a combination of thereof.

Amendment #2:

qualifying material means:

(a) lithium;

(b) cobalt;

(c) nickel;

(d) copper;

(e) rare earth elements;

(f) graphite;

(g) helium; and

(h) petroleum

Amendment #3:

qualifying mineral activity means:

(b) a mineral process activity, including drilling and well servicing

Amendment #4:

The Association recommends exempting drilling and service rig technologies from the “substantially all” requirements to ensure critical mineral and geothermal resource extraction is not negatively impacted.



About CAOEC

The CAOEC represents 95 drilling rig and service rig member companies (nearly 100% of the industry) on the front lines of energy security and transition. The membership operates a fleet of 460 land drilling rigs and 748 service rigs in northeast British Columbia, Alberta, Saskatchewan, southwest Manitoba, and offshore drilling rigs operating off the coast of Newfoundland.

CAOEC's members are varied and diverse. Many of our members are small and medium-sized enterprises that have been leaders in creating opportunities for young people, Indigenous communities, and middle-class workers to access the energy we need in Canada and around the world.

For decades, our membership has included Indigenous representation. From Indigenous-owned companies such as Pimee Well Servicing, Homeland Well Servicing, and Onion Lake Cree Nation Well Servicing, to business partnership ventures, ownership stakes, and Indigenous training programs, CAOEC members create meaningful work in remote communities and exemplify an inclusive transformation in the energy services sector.

Appendix A: Technology Options – GHG Reduction and Investment Estimates

Clean Technology	Per Unit Cost	Per Unit GHG Reduction*	% of Rig Fleet with Units	2030 % Target	Cumulative GHG Reduction to 2030**	Industry Investment	CTMI (30%)
1. Hi-line Power (Fully Electric Rig)	\$ 1,000,000	2,000	10%	15%	150,000	\$ 15,000,000	\$ 4,500,000
2. Battery Energy Storage System (BESS)	\$ 1,400,000	549	3%	20%	137,250	\$ 70,000,000	\$ 21,000,000
3. Hydrogen Blending	\$ 250,000	1,471	1%	10%	198,585	\$ 6,750,000	\$ 2,025,000
4. Bi-fuel (Natural Gas + Diesel) Generator	\$ 2,100,000	472	27%	70%	306,800	\$ 273,000,000	\$ 81,900,000
5. 100% Natural Gas Generator	\$ 4,000,000	858	1%	15%	180,180	\$ 168,000,000	\$ 50,400,000
					972,815	\$ 532,750,000	\$ 159,825,000

*Tonnes CO2eq/year

**Tones CO2eq