

FERTILIZER CANADA

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September 15, 2022

Via email: cmce-cemc@nrcan-rncan.gc.ca

Re: Fertilizer Canada Feedback and Recommendations to Canada's Critical Minerals Strategy: Discussion Paper

On behalf of our member companies, Fertilizer Canada would like to thank you for this opportunity to provide input into Canada's Critical Minerals Strategy (CMS). Canada's CMS is an essential building block on which the foundation of Canada's mining and production economy is built. With the ability to drive Canada's supply chain, and to help Canada continue to establish itself as a global leader in innovation and opportunity, Canada's CMS remains an indispensable tool of the Canadian economy.

Fertilizer Canada represents manufacturers, wholesalers, and retail distributors of nitrogen, phosphate, potash, and sulphur fertilizers – the backbone of Canada's agri-food economy. Fertilizer is responsible for half of the world's current food production, and our industry is a major contributor to this global supply, supporting food security in Canada and around the world. We also contribute approximately \$24 billion annually to Canada's economic activity. Our industry has facilities across Canada supporting the employment of over 76,000 individuals throughout the supply chain.

Canadian fertilizer manufacturers produce about 33 million tonnes of nitrogen, potash, and sulphur fertilizers annually in some of the most technologically advanced, energy efficient, and safe facilities in the world. As proactive environmental stewards, our member companies have made tremendous progress to date, with Canadian potash producing 50 per cent fewer emissions in comparison to its global competitors. Our facilities in Canada are more advanced and efficient in comparison to our global competitors and, as price takers in a global market, we are unable to pass down increased costs to our grower customers.

Canada has the largest and richest potash resources in the world, and has the potential to supply the needs of farmers worldwide for several hundred years. Over 95% of potash produced in Canada is exported to international markets making potash Canada's second most valued critical metal or mineral, trailing only to gold. Fertilizer Canada and our members are extremely concerned potash is not currently included in the CMS's list of early efforts. We ask that the Government of Canada review the proposed CMS to include specifically include potash within its CMS list of minerals for early prioritization.



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Prioritization and Areas of Focus:

Do you concur that the value chains identified and their associated minerals offer Canada the greatest opportunities for economic growth?

Fertilizer Canada believes that while the value chains identified are of great importance to the economic and environmental growth of the country, more emphasis needs to be placed on potash. Fertilizer Canada believes that it is critical for potash to be included with the other six (6) minerals (lithium, graphite, nickel, cobalt, copper, and REE) listed in Canada's early efforts to further develop the CMS. Given current geopolitical fragility, more stress is being put on the Canadian fertilizer industry now than ever before, and it is imperative for potash to be prioritized moving forward so as not to subject one of Canada's major economic driving industries to additional global competitiveness or carbon leakage concerns.

Are the six areas of focus and their associated objectives the right ones to help Canada achieve its vision on critical minerals for domestic and global value chains?

Fertilizer Canada cannot emphasize enough how important is it for potash to be highlighted within the existing six areas of focus. While the overarching theme of all six areas of focus are agreeable, Fertilizer Canada has some points of concern which include:

- Ensuring the appropriate distribution of funds targeting critical minerals research, development, and innovation;
- Ensuring Critical Mineral Tax Credit is applied to potash as well as other targeted critical minerals; and
- Ensuring potash as a critical mineral is afforded the same research, innovation, and exploration priorities as other emphasized early effort critical minerals.

Driving Research, Innovation, and Exploration:

What are priority areas for research programs (academia, industry, governments)?

Fertilizer Canada believes research programs should remain technology agnostic and all research projects should be considered for their potential. While some research is best suited for industry, Fertilizer Canada is encouraged to see the Government of Canada investing in the critical minerals sector and asks that funds be allocated to decarbonizing and innovative research programs for the potash industry in Canada.

Given the findings of our recent Low-Carbon Technology Scan, Fertilizer Canada recommends the Government of Canada invest in solutions, such as research and development and policies that encourage implementation of carbon capture,



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utilization and storage (CCUS) technologies at potash mines. Additionally, we ask the federal government work with provincial governments to invest in CCUS infrastructure that will be accessible and cost-effective for a number of key critical mineral industries in Canada, including potash.

What more should be done to drive critical mineral exploration and innovation?

We would first like to thank the Government of Canada for its initial investment of \$144.4 million towards critical mineral research and development. Fertilizer Canada asks that Natural Resources Canada provide more information in following consultations on the CMS as to how these funds will be distributed to the various critical minerals identified, and specifically potash, so as not to unintentionally exclude exploration and innovation for such a significant energy-intensive trade-exposed (EITE) sector in Canada.

Accelerating Project Development:

How can we streamline the regulatory process to better facilitate project development?

To further reduce emissions and secure low-carbon investments at our Canadian facilities and mines, our EITE industry needs safeguards against global competitiveness impacts. Without sufficient safeguards, Canadian made potash and nitrogen would likely be replaced by products produced by nations with lower environmental standards, resulting in unintended carbon leakage and greater global emissions. Our industry is committed to helping Canada reach its environmental goals. With the proper supports and policies in place from both provincial and federal governments, our industry can meet its goal of increasing both environmental sustainability and critical mineral production.

In addition to environmental regulatory alignment and certainty, competitive funding streams are needed to attract investments in project development across the potash sector in Canada. There is an opportunity for the Strategic innovation Fund (SIF) to further define short, medium, and long-term project classes which could allow for a more efficient allocation of funds based on project timelines. Short-term projects may not require large investments or options to extend funding to complete scopes of work, however, longer term, large industrial projects stand to benefit from such flexibilities. Providing funding based on cost benefit analysis that consider specific project timelines, economic potential, and environmental impact could also help streamline the regulatory process. Dynamic project funding could also prove important in maintaining project efficiency. For example, as geopolitical landscapes change, more emphasis should be placed on the streamlining of fertilizer industry R&D and innovative solutions to support an industry with increasing global competitiveness pressures.



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Building Sustainable Infrastructure:

What regional infrastructure gaps must be addressed (e.g., transportation and clean energy) to enable the sustainable development of Canada's critical mineral resources?

Fertilizer Canada and our member companies are committed to high standards for environmental sustainability. As part of this commitment, we have proactively conducted a Low-Carbon Technology Scan for the Canadian fertilizer industry which explains current manufacturing processes, evaluates new or emerging technologies against their emission reduction potential, commercial scalability, economic viability, and regional considerations, and provides technology and policy recommendations based on this evaluation. With financial support from Natural Resources Canada, we are currently expanding this work to complete a Low-Carbon Technology Roadmap with competitiveness study and nitrogen emission benchmarking.

Our industry has identified CCUS and co-generation of electricity as two important lowcarbon technologies for the potash sector in Canada. Government support is needed to implement the infrastructure required for industry to pursue CCUS on a wide scale. Government-built and industry accessible carbon trunk lines near large facilities that could benefit from CCUS, as well as regionally focused low-cost CCUS infrastructure, are steps that would enable widespread adoption. Government investment is needed so that a wider array of competitors can participate in CCUS without fear of free-riding or first-mover advantages. To date, the limited amount of CCUS infrastructure in Canada has been driven by industry. However, CCUS infrastructure, as well as the necessary infrastructure for other emissions-reducing technologies like clean electricity, must be seen as a public good and a public investment in our collective effort to lower emissions and improve environmental performance. Government has a significant role to play in making CCUS accessible to all industries and companies, which would allow widespread adoption of CCUS and significant reduction in emissions.

As Canada looks to expand the production of critical minerals, improvements to national transportation networks including rail systems and ports must be made in order to facilitate that expansion. Demand for Canadian products is high due to Canada's strong ESG profile and high-quality mineral deposits, but without the required trade-enabling infrastructure improvements Canada won't be able to reach its goals for critical minerals.

Fertilizer Canada recommends the Government of Canada work with industry and other stakeholders to identify locations and facilities best suited for CCUS and align the relevant government departments, such as Canada's Infrastructure Bank, to fasttrack construction of the necessary infrastructure that would encourage widespread adoption of CCUS.



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Advancing Indigenous Reconciliation:

How can Indigenous governments and organizations, communities, and Individuals, partner and participate in critical mineral value chains (including regulatory processes)? How can government and non-Indigenous industry proponents support this effort?

Indigenous governments and organizations can undoubtedly help and participate in the value chain through knowledge sharing. Opportunities for employment, collaboration, and consultation should be made available through government programs/funding opportunities designed for various stages of the value chain. Hiring indigenous organizations, nations, and individuals offers insight into local and historical knowledge than non-indigenous population may not know about or may overlook.

Fertilizer Canada recommends the Government of Canada seek longer-term agreements with indigenous Nations surrounding areas of prominent critical mineral exploration (e.g., > 10 years) that set a clear framework for the future of critical mineral exploration and production.

Growing a Diverse Workforce and Prosperous Communities:

How do we leverage critical minerals investment into more diverse skills training, employment, and regional outcomes, including for local, rural, and Indigenous communities?

Long term opportunities for leveraging critical minerals investments into more diverse skills training, employment, and regional outcomes includes more direct funding for industry R&D. Industrial R&D opportunities exist in areas such as CCUS which could afford industry with more employment opportunities and greater regional outcomes. Additionally, long term critical mineral education programs for youth across Canada could fuel more diverse knowledge outcomes and greater local employment opportunities for youth, specifically indigenous youth, moving forward.

In the short term, Fertilizer Canada supports the implementation of more credit systems put in place to encourage the development of critical mineral strategy research and development, as well as continued commitments to environmental stewardship coast to coast.

Strengthening Global Leadership and Security:

How might the Government work with its partners and stakeholders so that greater value is placed on high ESG standards throughout the value chain?



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Fertilizer Canada believes the Government of Canada should work with partners and stakeholders to ensure greater environmental impacts are made through the application of new critical mineral credit systems, and the introduction of additional funding for transportation and storage infrastructure. Again, to place greater value on the social standards of the value chain, critical mineral education opportunities run through various outlooks (i.e.: industry, government, and indigenous perspectives) should be made available for long term solutions.

Thank you again for this opportunity to submit comments on CMS policy and implementation. This is an important topic for the fertilizer industry, and we look forward to working with the Government of Canada to explore further adaptation. With the necessary policy and funding supports in place, we believe that the fertilizer industry is well-suited to help lead adoption of CMS adaptations in the coming years.

Sincerely,

Nadine Frost Director, Policy & Industry Standards