



FERTILIZER CANADA

FERTILISANTS CANADA

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June 30, 2021

Infrastructure Canada
Communications
180 Kent Street
Suite 1100
Ottawa, Ontario
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Via email: infc.info.infc@canada.ca

Re: Building the Canada We Want in 2050 – Engagement Paper on the National Infrastructure Assessment

On behalf of our member companies, Fertilizer Canada would like to thank you for the opportunity to submit comments on Building the Canada We Want in 2050: Engagement Paper on the National Infrastructure Assessment. As an export-driven industry that operates across Canada, we recognize the importance of maintaining and improving Canada's infrastructure. This dialogue between government and industry is an essential step in ensuring that the infrastructural needs of Canadians and Canadian industries are understood and addressed. Long-term strategies for infrastructure are critical to creating a stable business environment that allows industry to invest and plan accordingly.

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.

Canada's fertilizer industry requires safe, secure, and accessible transportation of its products into domestic, U.S., and offshore markets. Following our review of the engagement paper, we have outlined the primary infrastructure challenges and concerns faced by our industry below. While some of our comments are related to transportation infrastructure, including rail, roads, and ports, we also have longer-term concerns about the capacity of Canadian infrastructure to support our industry in achieving climate goals and lowering greenhouse gas emissions. To maintain competitiveness for Canadian industry while improving environmental sustainability, it is vital that the Government of Canada prioritize trade-enabling infrastructure as well as infrastructure that supports Canadian industry in achieving its climate goals.



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Transportation / Shipping Infrastructure

The Canadian fertilizer industry operates across the country to produce, distribute, and sell fertilizer products to our grower customers. We rely heavily on rail, the most sustainable transportation currently available to the industry, to safely move our products across the country, with 95 per cent of fertilizer shipped to distribution centres by rail. In many cases, rail is the only viable transportation option; while most fertilizer facilities have adequate road access, a significant portion of the industry's outbound rail shipments would not be able to be transferred to trucks because of factors such as large volumes of product and long distances. A further consideration is that some fertilizer products that are classified as dangerous goods have specialized handling requirements to ensure the safety of the product, and rail is often the safest method of transporting these products. Our industry also relies on ports to ship our products to international markets and to import fertilizer products for use in Canada.

- 1. Recommendation: Fertilizer Canada asks that Infrastructure Canada prioritize projects that increase modal capacity within the railway network, port facilities, and border crossings. These are industry-neutral options that will improve Canadian competitiveness.**

For Canada's farmers, purchasing and using fertilizer is a highly time-sensitive process. During the critical spring seeding season, the few weeks that will largely determine the course of farmers' harvest, any disruption to fertilizer supply chains can have significant consequences in terms of costs to farmers and food security. In recent years strikes (such as the Port of Montreal longshoremen strike beginning in April of this year), blockades, and embargos have caused significant disruption to the supply chain, which has raised concerns for the fertilizer industry. An unreliable supply chain presents severe challenges, both for the industry within Canada and because these disruptions damage Canada's international reputation as a reliable source of goods.

Following the outbreak of the COVID-19 pandemic, the Government of Canada recognized the fertilizer industry as an essential industry, allowing our member companies to continue operations with COVID-19 precautions in place.

- 2. Recommendation: Fertilizer Canada asks that the Government of Canada designate particular infrastructure, including key rail, ports, and road linkages, as essential in an effort to prevent disruptions to supply chains caused by work stoppages, blockades, or other preventable factors.**
- 3. Recommendation: Fertilizer Canada asks that Labour Canada implements a mechanism to prevent disruptions in essential supply chains, such as fertilizer during spring seeding season.** This could be done, for example, by amending the Canada Labour Code so that goods that must continue to be moved during a port strike or lockout is broadened to products that contribute to agricultural / food security or health.



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- 4. Recommendation: Fertilizer Canada asks that Infrastructure and Transport Canada apply a resiliency lens to all funding investments.** This will ensure that projects that improve the ability of products to reach markets reliably are prioritized and will decrease the likelihood that a supply chain disruption, such as a strike or blockade, completely paralyze Canada's economy.

Canadian Fertilizer Industry Technology Roadmap

Our members are committed to ensuring environmental and economic sustainability for our industry. As we consider potential pathways to meeting federal climate targets set for our industry, we have proactively conducted a Technology Roadmap 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.

This Technology Roadmap has already highlighted several opportunities for infrastructure projects that would allow our industry to access and implement emissions-reducing technologies, help meet Canada's climate objectives, and improve our competitiveness.

- 5. Recommendation: Fertilizer Canada asks that Infrastructure Canada collaboratively review our Technology Roadmap to provide guidance on the near- and long-term green infrastructure needs of our industry.**

At this time, our Technology Roadmap has pointed to a number of potential avenues for reducing emissions from fertilizer production. As one of Canada's most Energy-Intensive, Trade-Exposed industries, we believe there is a significant role for the Government of Canada to play in incentivizing investments in emission-reduction technologies without negatively impacting our competitiveness and causing carbon leakage. Below are our recommendations for emission-reducing projects that align with the government's ambitious climate goals as well as the Hydrogen Strategy for Canada:

- 6. Recommendation: Fertilizer Canada asks that the Government of Canada align its project prioritization across departments to ensure that the necessary infrastructure for carbon capture, utilization, and storage (CCUS) is built.** CCUS is one of the most promising methods of emission reduction that can be targeted for the near- to medium-term. Building infrastructure to support CCUS will be essential for the fertilizer industry to pivot from grey hydrogen (hydrogen produced with natural gas) to blue hydrogen and ammonia (hydrogen and ammonia produced with natural gas plus CCUS). This could include 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. In particular,



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government investment is needed so that a wider array of competitors can participate in CCUS without fear of free-riding or first-mover advantages.

7. **Recommendation: Fertilizer Canada asks that the Government of Canada fund projects that improve Canada’s aging electrical infrastructure, which will help provide accessible, affordable, and clean electricity.** Decarbonizing the grid and improving access to clean electricity will be an important step in the effort to reduce emissions broadly across Canadian industries. Not only will clean electricity lower emissions from electricity generation, but clean electricity can be used to power other innovative technologies. For example, in the long-term, if the fertilizer industry is to make a further switch from grey or blue hydrogen to green hydrogen and ammonia (hydrogen and ammonia produced without GHG emissions), access to abundant, affordable clean electricity to be used in electrolysis has been identified as a challenging barrier. Thus, it is crucial that federal and provincial governments work to build a clean electricity grid that can supply affordable electricity at the industrial scale.
8. **Recommendation: Fertilizer Canada asks that the Government of Canada support the establishment of hydrogen transport and distribution infrastructure to enable hydrogen use at fertilizer production facilities and production for other markets. Additionally, we ask that the Government of Canada recognize ammonia as a viable mechanism for safe and efficient storage and transport of hydrogen, and as a clean fuel in its own right.** In line with federal and provincial hydrogen strategies, we recommend that infrastructure required to produce and distribute hydrogen be prioritized in the National Infrastructure Assessment. While many industries are recognizing the potential for hydrogen, government support is essential for scaling technologies and infrastructure to the industrial level. As hydrogen can be challenging to store and transport, the Government of Canada should also consider the role that ammonia can play both as a means of transporting hydrogen and as a carbon-free fuel. Ammonia is made of a single nitrogen atom and three hydrogen atoms and with a higher boiling point can be stored and transported as a warm liquid. After storage and transportation of ammonia, hydrogen can be separated from the nitrogen atom and used as fuel or feedstock, or the ammonia can be used as a clean fuel without the need to extract hydrogen from the molecule. As a readily used fertilizer, ammonia is already safely stored and transported in large volumes via pipelines, railways, trucks, and ports in Canada, and globally. The Canadian fertilizer industry offers a unique opportunity to safely produce, store and transport hydrogen as ammonia through existing production and transportation infrastructure.

Concluding Remarks

Thank you again for this opportunity to provide input into the National Infrastructure Assessment and to address the infrastructure needs of the Canadian fertilizer industry. We know that long-



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term infrastructure planning will be essential to building climate resilience and to maintaining the competitiveness of our industry. Fertilizer Canada and our members hope to continue this dialogue with Infrastructure Canada as near- and long-term infrastructure priorities are established, and we invite Infrastructure Canada to review our Technology Roadmap with us once it is complete in order to inform infrastructure planning for the fertilizer industry as Canada works towards net-zero targets.

Please do not hesitate to contact us for further information related to the comments above.

Sincerely,

McKenzie Smith
Director, Stewardship & Regulatory Affairs

Daniel Kelter
Senior Manager, Government Relations

CC: Christine Hogan, Deputy Minister of Environment and Climate Change Canada
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