

The Canadian Critical Minerals and Materials Facilitation Office (CMMFO)

Establishing Canada's Clean Economy Through Critical Minerals and Materials Supply Chains

Critical minerals and materials are vital to the well-being of global economies, yet vulnerable to supply disruptions and geographical concentration. The World Bank, International Energy Agency (IEA), and the International Renewable Energy Agency (IRENA), among others, have formally recognized that secure and reliable critical materials supply chains — from critical minerals in the ground to finished clean technology input materials — are essential and urgently required to veer the global economy toward a low-carbon future. Additionally, a Canada-centric solution is required to reduce reliance on China as a sole source of supply for the vast majority of our critical materials. This is a matter of strategic national, economic and technological security.

Formal discussions on critical minerals and materials and associated supply-chain development have been increasing worldwide, and future demand will only continue to grow, as the world turns to these materials to support the clean technology revolution. Further, the security of critical minerals and materials supply has become a significant concern for governments in light of the COVID-19 disruption to global supply chains, in addition to heightened geopolitical concerns — further underscoring the imperative for immediate action for Canada to establish a comprehensive critical materials supply-chain strategy, essential for its long-term economic security. The time to act is now as Canada's window of opportunity is limited and closing fast.

We firmly believe Canada must establish a *Critical Minerals and Materials Facilitation Office (CMMFO)* under the leadership of and supported by an internationally respected, federally appointed team with the sole mandate to develop, support and grow an economic, commercial-scale critical materials supply chain on Canadian soil, with active participation of both North American and global partners. The Office would collaborate with other networks and entities across Canada currently engaged in providing advice to the Government of Canada on economic recovery strategies and inputs.

Similar macroeconomic and political considerations have already emboldened our allies and competitors into taking swift and decisive action. Australia, the European Union, the United Kingdom, and the United States are aggressively moving forward, making significant policy decisions, coupled with strategic investments and incentives to position themselves for success. Canada requires



an informed, fulsome strategy, collaboratively executed by key stakeholders, to provide the foundation for a sustained economic revival and to attract new investment.

CMMFO Vision:

Canada becomes a global clean technology manufacturing hub supported by the production and processing of intermediate and final products, leveraging its critical minerals wealth, processing capabilities and securing collaborative arrangements with global players along critical materials supply chains.

CMMFO Mission:

To enable the development of Canada's critical materials and manufacturing sector and its upstream critical minerals resource opportunities by immediately focusing on near-term downstream material transformation and commercial processing capacity. This will create new Canadian-based demand for critical minerals producers to serve, support innovation and attract investment capital.

Objective and Key Results:

The proposed initiative is aimed at helping elected officials, government-policy leaders, industrial and financial sectors to drive and deliver near, medium and long-term goals by prioritizing effective and efficient facilities (through regulation, investment, partnerships, and trade arrangements) that create enhanced supply chain links, downstream technologies and manufacturing in Canada.

Governance:

The CMMFO should be an independent office with the Chair reporting to both the Ministers of Innovation, Science and Economic Development (ISED) and Natural Resources Canada (NRCan), the latter currently leading a federal Critical Materials Task Force review. Of note:

- As part of the Phase1 work (a three-phase implementation plan is provided as an appendix), the core team will make further recommendations for alignment of the CMMFO within and outside of government, with the possibility of establishing it as a not-for-profit corporation;
- ISED's role is key and premised on the significantly increased probability of success in capturing real value with 'Demand Pull vs. Supply Push' strategies and plans. Creating new demand is essential for new critical minerals producers to be able to access capital to start new operations. The important role of ISED and the CMMFO reinforces the centrality of Canada's economic and industrial growth, innovation, clean technology, national and global security, and trade commitments;
- The CMMFO should have an operational budget for the core team under contract. This initial staff will be drawn from a variety of disciplines; industry, government, academia and finance sectors, particularly individuals having prior experience with critical materials;



 The initial team will also build provincial and industry allies within Canada, e.g., the Provinces of Ontario & Quebec, Canadian Vehicle Manufacturer's Association, The Canadian Chamber of Commerce, and the Business Council of Canada, among others.



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APPENDIX:

A **staged implementation process** will build momentum and secure allies. Key results include:

Phase 1: Initiation and Consolidation – September 2020

- The Government of Canada to formally announce the intent to establish the CMMFO and announce the Chair/Executive Director and core team;
- Build on the findings of the Critical Materials Task Force and analyze associated federal and provincial government policies affecting the critical minerals industry and suggest near and long-term improvements;
- Set top-line objectives, develop and author a strategic roadmap, and define the Canadian 'brand' with a focus on fiscal, regulatory and policy reforms required to establish new critical minerals and materials supply chains and make Canada competitive in the downstream cleantech sector;
- Initiate an advocacy campaign to global markets highlighting Canada's commitment to Canadian-based and international partnership arrangements in secure and reliable critical minerals and material supply chains;
- Establish a staffing plan, industry and association network, and first-order budget framework and associated deliverables; and
- CMMFO's considerations, in conjunction with mandated authorities, will include recommendations made in previous correspondence to Minister Morneau and Ms. Monique Leroux of the Industry Strategy Council.

Phase 2: Implementation – January 2021 to June 2021



- Identify specific priority project and program initiatives, i.e. roll-out of pilot projects through established mechanisms such as SDTC and NSERC to certain operations and technologies;
- Approach Canadian and international companies like Magna International, Tesla, Honda, BMW, GM, Ford and Hyundai and their suppliers and subsuppliers regarding the requirements and risks related to critical material supply-chain capabilities and potential to invigorate idled or underutilized automotive and manufacturing plants in Canada;
- Continue to raise profile and awareness of Canada's leadership initiatives and progress to establish Canadian-based partnerships for secure and reliable critical-material supply chains; and
- Establish a refined budget framework with associated deliverables.

Phase 3: Full Implementation - July 2021 forward

- The proposed \$200M commitment by the government can be augmented by matching funds from industry, providing the financial resources required to execute the strategy, while demonstrating Canada's long-term commitment to both national and international stakeholders:
- Support construction of a demonstration-scale rare earth separation plant and other potential processing facilities (e.g. recycled magnet & battery material processing) and support more advanced upstream projects including potential off-take commitments (e.g. strategic critical material and mineral stockpile); and
- Full-court press on a comprehensive information and promotion program to market Canada's strategic capabilities to a global audience. This program would underscore Canada's achievements and continued progress in reshoring manufacturing, advances in breakthrough process technologies, advancing future critical minerals supply options, advancing magnetrecycling capabilities, and fostering Canadian-based and global partnering arrangements, thereby building, growing and advancing Canada's secure and reliable critical materials supply chains.