INTRODUCTION

One of government’s key commitments is to build a strong, sustainable, innovative economy and create good-paying jobs in every corner of British Columbia (BC); a healthy and growing mining sector is foundational to achieving that goal. To this end, the Minister of Energy, Mines and Petroleum Resource’s mandate letter included a commitment to establish a Task Force to identify measures to create and sustain good jobs in this important industry.

Launched on February 26, 2018, the BC Mining Jobs Task Force (Task Force) was created to work with Indigenous peoples, labour, educators, the mining industry, communities and other concerned constituencies to develop actions government should take to grow the mining sector and create good jobs for people across the Province today, tomorrow and beyond. The mining industry spans a range of activity from early stage, grassroots exploration to mature, operating mines through to reclamation of impacted environments. These activities in turn create good jobs for thousands of workers, provide benefits through partnerships with Indigenous groups and form the foundation of healthy, vibrant communities across the province.

The mining sector is in a time of transition. With transition comes great opportunity, as well as risk. The Task Force commends the Minister for the foresight to assemble, for the first time, such a diverse Task Force representing all constituents at such an important juncture.

To capitalize on this opportunity, the Task Force focused not only on the current state of industry, but also on identifying a long-term vision to reach a desired future state: British Columbians are proud of our growing mining industry as the backbone of an inclusive, progressive and low carbon economy.

Driven by this desired future state, the Task Force has crafted a suite of innovative and impactful actions to support a healthy and growing industry in BC. These actions are wide-ranging and deeply interconnected, representing the diversity of the constituencies, communities and segments of industry that make up BC’s world class mining industry. If not embraced as a whole, the Task Force believes this vision cannot be realized – there is no one discrete initiative, but rather a suite of fundamental actions that if implemented collectively will succeed in moving the sector and BC’s reputation forward. Furthermore, if these actions are not implemented there is real risk of a contraction of this mining sector and the foundational benefits and opportunities it brings to the people of British Columbia.

Achieving this vision will take considerable work, but successful adoption of these actions will drive a progressive, inclusive and competitive sector that maintains its place as a leader in innovation and environmental best practices, supports job creation and ongoing socio-economic development, and meaningfully contributes to advancing reconciliation with Indigenous peoples.

MINING JOBS TASK FORCE VISION:

British Columbians are proud of our growing mining industry as the backbone of an inclusive, progressive and low carbon economy.
MINING JOBS TASK FORCE ACTION PLAN

The Task Force’s actions have been summarized in the placemat graphic on the next page (Figure 1), to visually represent the holistic suite of actions, strategic areas of focus, goals and ultimate vision for the sector. These actions are diverse and interlinked, with multiple interdependencies existing between each. The greatest dependency is the existence of a thriving sector needed to provide the strong economic foundation with which to drive increased and wider-reaching benefits. Ensuring a competitive and healthy sector is first and paramount to achieve enhancements to job growth, skills and training, benefit sharing, community sustainability, innovation and increasing the positive impact of the mining sector throughout the province.
Minerals Task Force Action Plan

**Vision**

British Columbians are proud of our growing mining industry as the backbone of an inclusive, progressive, and low carbon economy.

**Strategic Area of Focus**

- Increasing awareness of mining’s role in a prosperous BC
- A skilled and representative mining sector in a future for British Columbians
- Supporting a healthy and diverse workforce
- Fostering innovation
- Realizing community benefits
- Enhancing BC’s global competitiveness

**Goals**

- Building awareness of mining’s role in a prosperous BC
- A skilled and representative mining workforce
- Supporting a healthy and diverse workforce
- Fostering innovation
- Realizing community benefits
- Enhancing BC’s global competitiveness

**Strategic Area of Focus**

- Creating and supporting an accessible worker database (pg 20)
- Supporting plans to fund Indigenous Stewardship and Monitoring Initiatives (pg 27)
- Increasing awareness of mining’s role in a prosperous BC (pg 31)
- Enhanced Exploration Incentives (pg 39)
- Make the New Mine Allowance Permanent (pg 37)
- Expanding the BC Regional Mining Alliance (pg 41)
- Eliminating PST on production machinery and equipment and mine infrastructure (pg 36)
- Support government’s low carbon industrial strategy (pg 33)
- Develop a coordinated geoscience strategy (pg 44)
- Create a standing code review committee (pg 21)
- Fund mining innovation roadmap for BC (pg 48)
- Develop a mine sector training roadmap (pg 18)
- Coordinated mine sector branding (pg 51)
- Coordinate communications and education strategy (pg 52)
- Establish world-leading community health and well-being best practices (pg 29)
- Enable the development of community trusts for multiple First Nations (pg 26)
- Study the potential for an exploration investment fund (pg 42)
- Create and support the new mine allowance permanent (pg 37)
- Support exploration incentives (pg 39)
- Fund mining innovation roadmap for BC (pg 48)
- Develop a mine sector training roadmap (pg 18)
- Committee to monitor implementation of the Action Plan (pg 54)
- Establish world-leading community health and well-being best practices (pg 29)
- Enable the development of community trusts for multiple First Nations (pg 26)
- Study the potential for an exploration investment fund (pg 42)
- Create and support the new mine allowance permanent (pg 37)
- Support exploration incentives (pg 39)
- Fund mining innovation roadmap for BC (pg 48)
- Develop a mine sector training roadmap (pg 18)
- Committee to monitor implementation of the Action Plan (pg 54)

**FIGURE 1:** Mining Jobs Task Force Action Plan
BC’s mining sector directly employs over 30,000 workers and thousands more through indirectly-related employment. In 2017, the sector contributed an estimated $9.9 billion to the BC economy while generating economic spin-offs in local communities throughout BC, including expenditures by suppliers and mine employees. The mining sector is consistently a top exporter, bringing into the province ‘first dollar’ resources that drive a myriad of different activities – from service sectors to innovation funding to local benefits.

Mining is at the forefront of advancing reconciliation with Indigenous peoples and implementation of the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP). Mining is a key employer of Indigenous people in rural and remote communities, and benefit agreements and revenue sharing provide revenue streams to advance community priorities. The mining sector has been and continues to be a leader in developing and implementing collaborative decision-making and including Indigenous communities in compliance monitoring and verification.

The sector also provides the minerals, metals and steelmaking coal needed for the growth of emerging technologies such as electric cars, wind turbines and transit systems necessary for a low carbon future. Global demand for metals will rise to support this transition, and BC is well-positioned to meet these needs due to the Province’s existing competitive strengths, including a low greenhouse gas (GHG) profile globally, strong infrastructure network, rule of law, skilled workforce and commitment to reconciliation with Indigenous groups.

While there is much to celebrate about British Columbia’s mining industry, there are also challenges that must be addressed if we are to achieve our collective vision. Government has a critical role to play in ensuring that the standards that regulate the industry are kept up to date, and that in addition to the economic benefits mining provides British Columbians, its social and environmental impacts are accounted for and properly managed. Investment in enhancing regulatory oversight, transparency, community engagement, reconciliation and driving technological innovation will assist the sector in improving public trust and moving toward a cleaner, safer sector.

United Nations Declaration on the Rights of Indigenous Peoples

The Province of British Columbia has committed to the full implementation of the UN Declaration, an international human rights instrument adopted by the United Nations which was fully endorsed by Canada in 2016. The rights affirmed in it “constitute the minimum standards for the survival, dignity and well-being of the indigenous peoples of the world” (Article 43).
To remain competitive relative to other jurisdictions and make BC an attractive jurisdiction for investment in Canada, there are several key gaps identified by the Task Force, supported by an independent review, that need to be addressed. Overall, BC has been at risk for several years to eroding market share and competitiveness challenges from both regulatory and cost perspectives. While these challenges are not unique in a global context, there is evidence that BC is falling behind. Over the past decade BC’s share of investment in the mining sector, both nationally and globally, has declined.

As an inherently cyclical industry, fluctuating commodity prices force the sector to cut costs at times, and in some cases, put projects and job creation on hold until markets improve. As a mining jurisdiction, BC’s risk increases due to a profile that is largely mid-to low tier in grade and scale, this creates unique challenges for the sector.

The Task Force has focused on areas that can help the sector maintain its current strength, mitigate impending risk and grow into the future to become an even stronger economic driver, benefitting all corners of the province. The mining sector provides vital economic contributions in rural BC, but also supports a significant service and supply sub-sector providing well-paying jobs in the province’s urban centres. For every direct job in the BC mining industry there are at least two jobs in mining supply and services. In addition to direct and indirect employment, the mining sector represents hundreds of millions of dollars in taxes. This vital contribution to the provincial treasury funds progressive initiatives in health care, education and broader economic development. Mining is truly a province-wide industry supporting the growth of a modern British Columbia.

### TABLE 1: 2017 B.C. Minerals Sector Employment (Stats Canada)

<table>
<thead>
<tr>
<th>INDUSTRY</th>
<th>JOBS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Metal Mining</td>
<td>3,420</td>
</tr>
<tr>
<td>Coal Mining</td>
<td>4,745</td>
</tr>
<tr>
<td>Industrial Minerals and Construction Aggregates</td>
<td>1,345</td>
</tr>
<tr>
<td>Exploration</td>
<td>4,125</td>
</tr>
<tr>
<td><strong>Total Direct Exploration and Mining Employment</strong></td>
<td><strong>13,635</strong></td>
</tr>
<tr>
<td>Mineral Refining and Smelting</td>
<td>4,990</td>
</tr>
<tr>
<td>Downstream Minerals Processing</td>
<td>19,815</td>
</tr>
<tr>
<td><strong>Total Direct Minerals Economy Employment</strong></td>
<td><strong>24,805</strong></td>
</tr>
<tr>
<td><strong>TOTAL SECTOR EMPLOYMENT</strong></td>
<td><strong>38,440</strong></td>
</tr>
</tbody>
</table>

### TABLE 2: Average earnings of mine-site full-time employees in BC (Stats Canada)

<table>
<thead>
<tr>
<th>Year</th>
<th>Earnings</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>$92,000</td>
</tr>
<tr>
<td>2011</td>
<td>$96,600</td>
</tr>
<tr>
<td>2012</td>
<td>$105,900</td>
</tr>
<tr>
<td>2013</td>
<td>$107,700</td>
</tr>
<tr>
<td>2014</td>
<td>$120,900</td>
</tr>
<tr>
<td>2015</td>
<td>$113,000</td>
</tr>
<tr>
<td>2016</td>
<td>$112,500</td>
</tr>
<tr>
<td>2017</td>
<td>$116,000</td>
</tr>
</tbody>
</table>
Since its launch in February 2018, the BC Mining Jobs Task Force has worked to identify a desired future state for the BC mining sector. Actions to reach this desired future state were collaboratively developed through the Mining Jobs Task Force Strategic Framework (the Framework) (detailed in Section 5). The Task Force used this consensus tool to develop actions to bring more certainty to the mining sector and create good jobs today and into the future. In developing the Framework, the Task Force reviewed British Columbia’s diverse mining sector, highlighting key drivers of change and strategic areas that will enable BC to undeniably state that we are the most attractive jurisdiction for investment in Canada.

The Task Force represents a diversity of constituents unprecedented in a mining task force, including members from: Indigenous groups; labour; an environmental non-governmental organization; post-secondary/training; financial sector; municipal government; and industry. This diverse group brought unique perspectives and ideas to the table, but all Task Force members shared a common goal – a desire to produce consensus based, realistic, innovative and implementable actions that will support the long-term growth of mining jobs in BC. The full membership of the BC Mining Jobs Task Force is as follows:

- **Keith Bertrand**, Mayor, District of Tumbler Ridge
- **Bryan Cox**, President and CEO, Mining Association of British Columbia
- **Earl Graham**, Staff Representative, United Steelworkers
- **Michelle Laurie**, Staff Representative, United Steelworkers
- **Don McPherson**, Past-Mayor, District of Tumbler Ridge
- **Codie Morigeau**, Director of Education and Employment, Ktunaxa Nation Council
- **Mark Podlasly**, Senior Adviser, First Nations Energy and Mining Council
- **Neil Pogany**, Partner, Deloitte LLP (operating in his personal capacity)
- **Peter Robb**, Assistant Deputy Minister, Ministry of Energy, Mines and Petroleum Resources
- **Regina Saimoto**, Associate Dean, Coast Mountain College, Eastern Region
- **Tom Syer**, Head of Government Affairs, Teck Resources Limited
- **Edie Thome**, President and CEO, Association for Mineral Exploration
- **Richard Tremblay**, Vice-President and General Manager, Taseko Gibraltar Mine
- **Alan Young**, Director, Materials Efficiency Research Group
The Task Force met in-person for ten full-day sessions, in-addition to regular teleconference calls. Highlights of these working sessions include the development of the Framework, constituent engagement strategy and an intertwined suite of actions. The Framework was developed by the Task Force to provide context and clear pathways for action that align with long-term strategies, goals and an overall vision for mining in BC. The Framework is explored in detail in Section 5.

The Task Force was supported in its work by Ministry of Energy, Mines and Petroleum Resources (EMPR) staff, whose responsibilities included providing technical expertise and secretariat support, coordinating Task Force activities, background research and fact-finding and liaising with other agencies on complementary initiatives. The Task Force invited presentations from key stakeholders, such as the BC Geological Survey and Geoscience BC. The Ministry also engaged Ernst & Young LLP (EY) to develop a report including baseline data metrics and a jurisdictional competitiveness review to inform the Task Force’s work: BC Mining Industry Assessment – Performance and Competitiveness.

EY’s report assessed BC’s investment attractiveness based on the major drivers of investment returns, geology and geography, fiscal policy and regulatory framework. EY compared the conditions in BC to our major competitors for metallurgical coal, copper and gold, which include Chile, Queensland (Australia), Western Australia, Ontario and Quebec. They concluded that our competitors have an edge in geology and geography leaving fiscal policy and regulatory framework as the levers that government can pull to improve competitiveness. For fiscal policy EY identified that, in general, BC’s fiscal regime is competitive for exploration, mine development and operating mines with exception of the BC carbon tax.

EY also noted the rapid pace of change seen in the sector due to a number of disruptive technological, social and demographic forces. This rapid pace of change means that the mining industry of the future will look considerably different than it does today, presenting challenges but also exciting opportunities. The BC sector has the opportunity to take proactive steps to lead the way in advancing innovation, workforce inclusion and training, Indigenous partnerships, regulatory agility and the shift to a low-carbon economy.

Task Force members solicited input from constituents to inform their work. A designated engagement period took place in September and October 2018, and included conversations with constituencies represented on the Task Force including Indigenous groups, industry, labour, communities and stakeholders with an interest in the matters contained within the Terms of Reference. The Task Force also presented the Framework findings to key target audiences to gather information to enhance recommended actions for the Province.

BC Mining Industry Assessment - Performance and Competitiveness Report

The BC Mining Industry Assessment – Performance and Competitiveness report provided to the Task Force by Ernst & Young LLP concluded that the primary policy levers that government can pull to improve mining sector competitiveness are fiscal policy and regulatory framework. It also noted that one area of fiscal policy that stood out as a challenge is the BC carbon tax, but highlighted the opportunity for the BC’s mining sector to be a leader in the shift to a low-carbon future.
OVERVIEW OF THE MINING JOBS TASK FORCE STRATEGIC FRAMEWORK

Introduction and Purpose of the Framework

As a part of fulfilling its mandate, the Task Force chose to adopt a strategic approach to addressing the areas in their Terms of Reference for which they were asked to provide recommended actions. The result of this approach is the development of the Framework.

The Framework (Figure 2 on page 10) describes the desired future state for mining in British Columbia, along with specific areas of focus for realizing the desired future state. Additionally, the Framework outlines short and long-term drivers of change in BC’s environment and guiding principles.

To capitalize on the opportunities provided by these drivers of change, the Task Force identified five key strategic areas of focus to create good, sustainable jobs for British Columbians and make BC the most attractive mining jurisdiction in Canada. For each strategic area, core areas were identified where concrete action is necessary to ensure a healthy, sustainable and competitive sector. Through the Framework, Task Force actions feed into each of these strategic areas, while at the same time addressing drivers of change and targeting desired outcomes, goals and, ultimately, the vision.

The Framework was developed by the Task Force through a consensus-based approach and all members are in support of it. The Task Force...
SECTION 5

Force worked to table all issues and ideas and debate their suitability for inclusion. The Framework represents a balanced collection of the drivers and principles informing the essential strategic areas of focus and desired outcomes identified as important by the Task Force. This process and Framework were a significant achievement and provided the foundation for the Task Force’s collaborative development of these actions.

The Framework supported the development of the actions by providing a strategic lens. This lens ensured that the actions address current challenges while also considering downstream implications and, concurrently, advance the sector towards the desired future state. Finally, this approach allows Task Force members to develop actions from a holistic perspective and consider how potential actions influence or impact others.

How the Framework was used to develop Actions

As outlined above, the Framework provided a strategic lens to the development of the actions. As actions were developed, each was assessed from a number of perspectives outlined in the Framework prior to finalization for inclusion in this report and submission to the Minister, including but not limited to:

- How the action supports realizing the goals and desired outcomes;
- How the action considers or addresses environmental factors, such as drivers of change;
- How the action aligns with the guiding principles;
- How the action supports the areas of focus and the available data that underpins and validates the action.

This assessment provided a level of certainty beyond what was originally contemplated in the Terms of Reference and ensures that all actions are strategic, synergistic and forward thinking in nature while based on available evidence.
VISION

Our ideal future state

British Columbians are proud of our growing mining industry as the backbone of an inclusive, progressive and low carbon economy.

Goals

What we need to accomplish as work towards our vision

1. An innovative, competitive, resilient, and sustainable mining sector
   - A transparent and certain regulatory system
   - Advance reconciliation with Indigenous people and support the implementation of UNDRIP
   - BC increases its share of global investment in mining
   - Industry and regulatory practices position BC for leadership in the emerging clean energy economy
   - Innovative and best practices are adopted to prevent or remediate the environmental impact of mining
   - Decisions are made on robust scientific evidence and traditional knowledge

2. A skilled and representative mining workforce working in safe, healthy and respectful workplaces
   - Barriers to mining jobs for Indigenous people and women are reduced
   - The mining workforce reflects BC’s rich and diverse population
   - Training supports the needs of today and is agile in meeting evolving needs of the sector
   - The mining sector is a leader in the creation of healthy, respectful and safe work environments

3. The Mining Sector is valued for its role in a prosperous future for British Columbians
   - Indigenous and non-Indigenous communities share in the benefits of mining
   - Indigenous and non-Indigenous communities have confidence that proper social and environmental protections are in place
   - British Columbians understand mining’s contribution to our everyday lives and a prosperous tomorrow
   - British Columbians understand mining’s role in clean energy technology

Drivers of Change

Significant trends and issues that the framework seeks to addresses

- High-amplitude commodity cycle
- Current public perception on mining
- Environmental sustainability
- New technology and automation
- Advancing reconciliation with Indigenous people
- Underrepresentation of women and Indigenous people in mining jobs
- Maintaining and increasing global competitiveness
- Emerging markets for responsibly sourced metals in auto, electronics, building and green energy
- Shifting government priorities

Strategic Areas of Focus

What we need to focus on to realize our desired goals and ultimately our vision

A) Enhancing BC’s fiscal and regulatory competitiveness through:
   - Improved regulatory transparency and predictability
   - Meaningful and well understood incentive programs to support mineral exploration
   - Attractive fiscal framework for developers and operators
   - A coordinated approach to geoscience

B) Fostering innovation through:
   - The use of innovative practices and tools that enhance competitiveness and environmental performance
   - Agile regulatory regime
   - Funding models that support partnerships in research and development
   - Ensure attractiveness of BC produced metals for responsible mining markets

C) Supporting a healthy and diverse workforce through:
   - Advancing the participation of Indigenous people and women in mining
   - Training programs that support the skills of today and tomorrow
   - Ensuring a respectful, healthy and safe work environment

D) Realizing community benefits through:
   - Ensuring Indigenous and non-Indigenous communities share in the benefits of mining
   - Appropriate social and environmental protections are in place

E) Building awareness of mining’s role in a prosperous BC through:
   - Fostering an understanding of the essential role mining has in clean energy
   - Highlighting the use of minerals in our everyday life
   - Communicating the important role of the sector in supporting rural and urban economies

Desired Outcomes

Specific results we hope to accomplish that support realizing our goals

1. Maintain and increasing global competitiveness
2. The mining workforce reflects BC’s rich and diverse population
3. BC increases its share of global investment in mining
4. Industry and regulatory practices position BC for leadership in the emerging clean energy economy
5. Innovative and best practices are adopted to prevent or remediate the environmental impact of mining
6. Decisions are made on robust scientific evidence and traditional knowledge

Strategic Areas of Focus

What we need to focus on to realize our desired goals and ultimately our vision

A) Enhancing BC’s fiscal and regulatory competitiveness through:
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   - Meaningful and well understood incentive programs to support mineral exploration
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B) Fostering innovation through:
   - The use of innovative practices and tools that enhance competitiveness and environmental performance
   - Agile regulatory regime
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   - Advancing the participation of Indigenous people and women in mining
   - Training programs that support the skills of today and tomorrow
   - Ensuring a respectful, healthy and safe work environment

D) Realizing community benefits through:
   - Ensuring Indigenous and non-Indigenous communities share in the benefits of mining
   - Appropriate social and environmental protections are in place

E) Building awareness of mining’s role in a prosperous BC through:
   - Fostering an understanding of the essential role mining has in clean energy
   - Highlighting the use of minerals in our everyday life
   - Communicating the important role of the sector in supporting rural and urban economies

Actions

What we need to do to realize our desired future state

- See actions 1-25.
THE OPPORTUNITY

The mining sector, from exploration to operations to reclamation, is an essential part of the economic and social fabric of British Columbia; the very foundations of the province rest on the mining sector. A vibrant, competitive and responsible industry provides benefits to British Columbians in all corners of the province. However, the rapid pace of change seen both in industry and in broader society require bold and innovative responses to ensure that the BC mining sector is fiscally competitive with jurisdictions throughout the country and the world, maintains its place as a leader in innovation and environmental best practices, and contributes to ongoing socio-economic development and the advancement of reconciliation with Indigenous peoples in the province.

BC has exciting mining projects, both early stage and nearing development, that are well-positioned to become BC’s mines of the future. At the same time, many of BC’s operating mines are primed for expansion or mine-life extensions if conditions are right. However, in the last year, two companies with significant BC operations have chosen to invest billions in rival jurisdictions. By taking action to ensure competitiveness, BC can better position our projects to attract these investments, thereby driving new and expanded mines that create new jobs for British Columbians. For example, EY’s report provided an estimate on the incremental impact that an additional steelmaking coal mine has on the BC economy. Based on their findings, an additional coal mine in BC would have a total economic impact of $691 million and employ approximately 639 employees.

The opportunity is at hand to grow this foundational industry that employs tens of thousands of workers and contributes a total economic impact of almost $10 billion to the provincial economy. At the same time, BC risks a contraction of this vital sector of the economy by not taking concrete, immediate action. BC’s competitors are advancing initiatives of their own, and BC needs to implement innovative, actionable ideas to maintain a healthy and competitive mining sector that is positioned for growth.

To meet these challenges and capitalize on new opportunities, the Task Force focused not only on the current state of industry, but also on identifying a long-term vision to reach a desired future state. Significant trends and issues projected to impact the sector have been identified and analyzed, and these drivers of change comprise the foundational challenges and opportunities that this Task Force report seeks to address.

The mining sector is intertwined with its neighbouring communities – the sector’s well-paying jobs form the economic backbone of towns and cities across BC.
There remains significant work to do to fulfill government’s commitment to lasting reconciliation and implementation of UNDRIP, and the mining sector can continue to play a significant leadership role. There are opportunities for joint decision-making, wealth and capacity building, employment, revenue sharing, investment, economic growth, and partnership opportunities with Indigenous groups and businesses across the entire mining life cycle. This type of investment in Indigenous communities is a mutually beneficial proposition – improving predictability and the self-determination, sustainability and socio-economic conditions of Indigenous and rural communities while mobilizing new capital and meeting the long-term labour force needs of a growing mining sector.

The mining sector is intertwined with its neighbouring communities – the sector’s well-paying jobs form the economic backbone of towns and cities across BC. There is the opportunity to deepen this bond by supporting industry to ensure it can stay in these communities for the long term; training local workers, providing crucial economic stimulus to these regions and providing opportunity for workers to raise their families in vibrant, sustainable communities.

As the demand for clean energy grows, so too will the associated need for the metals and minerals used to manufacture those technologies. BC is already a major producer of metals used in solar power cells, as well as the coal used to make steel that goes into wind turbines. The inherent connection between these two industries represents significant opportunities at the

### TABLE 3: Kilograms of Copper contained in specific vehicle technology

<table>
<thead>
<tr>
<th>Type of Vehicle</th>
<th>Copper Content (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conventional Cars</td>
<td>8-22 kg</td>
</tr>
<tr>
<td>Hybrid Electric Vehicles (HEV)</td>
<td>60 kg</td>
</tr>
<tr>
<td>Plug-in Hybrid Electric Vehicles (PHEV)</td>
<td>83 kg</td>
</tr>
<tr>
<td>Battery Electric Vehicles (BEVs)</td>
<td>89 kg</td>
</tr>
<tr>
<td>Hybrid Electric Bus</td>
<td>39 kg</td>
</tr>
<tr>
<td>Battery Electric Bus</td>
<td>369 kg</td>
</tr>
</tbody>
</table>

Copper is Essential to Electric Vehicle Technology

Copper is used throughout electric vehicles, charging stations and supporting infrastructure because of the metal’s durability, high conductivity and efficiency.
provincial level. This new reality is highlighted by government’s recent commitment that by 2040 all new cars and trucks sold in BC will be zero-emission vehicles. A clean energy vehicle can require up to four times the amount of copper as a standard combustion engine and 600kg of metallurgical coal. On a global basis, this transition represents a tremendous opportunity for future growth.

BC must work to ensure new markets and the drivers of demand for our products are well understood – identifying areas where industry can address challenges and develop competitive advantage. While the transition to a low-carbon economy is moving slowly in terms of product demand, emerging demand for responsibly sourced metals in auto, electronics, building and clean energy is expected to enter the market in the years ahead. By positioning itself to take advantage of this evolving marketplace, BC has the opportunity to position BC to have a competitive advantage in these markets.

EY’s report compared the conditions in BC to our major competitors for metallurgical coal, copper and gold including Chile, Queensland (Australia), Western Australia, Ontario and Quebec. EY highlighted the main levers available to increase the BC’s attractiveness to investors are lowering taxes, offering greater incentives, and improving the regulatory framework – and there exists an additional opportunity for the province to invest now to position itself as Canada’s leader of the ‘mining industry of the low-carbon future’.

EY’s strongest competitiveness finding is that BC is not competitive in is its treatment of carbon. Although government has proposed some targeted support to industry to alleviate competitiveness concerns related to the BC carbon tax through the Clean Growth Incentive Program, mining companies operating in BC currently, and will continue to, pay substantially more than their competitors in other jurisdictions. This cost-burden has a direct effect on
the competitiveness of existing operations and creates a challenging investment environment for new mines and mine expansions.

However, BC’s mining sector has worked to reduce its carbon footprint and has become a model internationally for how to lower emissions. Industry continues to work with government and the clean tech sector to develop innovative solutions to reduce emissions and keep BC operations competitive. The Province’s recently announced CleanBC program is an opportunity to continue these efforts, reducing carbon tax costs and investing directly into emissions reduction projects. This program will help the sector and its workers thrive, create a clean industry brand for BC, and help the sector compete in a global market where consumers are increasingly demanding cleaner products.

Investment dollars for mine development and mine expansion can also be challenging to attract. Building on existing programs to support and incentivize mine development and maintaining/expanding existing operations will ensure that BC remains one of Canada’s top jurisdictions for mineral production, with direct impact to communities and the provincial treasury. Operating mines directly provides thousands of full-time jobs and training opportunities with salaries well above the provincial average. Indirectly, the mining services and supply sector of BC provides further high-paying full- and part-time employment in areas such as geological research, business administration, finance, management, engineering and environmental consulting, making mining an integral part of the BC labour economy.

This Task Force was struck by the possibilities presented by this transitional moment – this is an exciting time for those involved in and benefitting from the mining sector. Running concurrently through 2018/2019 and beyond are a number of government initiatives that can influence or be influenced by the work and outputs of the Task Force. These key initiatives, such as the Low Carbon Industrial Strategy, CleanBC Plan, Rural Economic Development Strategy, establishment of the Indigenous Economic Development Joint Office and the Canadian Minerals and Metals Plan, possess strong linkages to the Task Force’s work. Wherever possible, synergies and alignment between Task Force actions complimentary to other initiatives have been noted with the goal of leveraging the collective effort of partner agencies and other levels of government.

Operating mines directly provides thousands of full-time jobs and training opportunities with salaries well above the provincial average.

BC’s mining sector faces strong global competition for investment and financing. Fiscal incentives can play an essential role in attracting investment for small to medium sized, non-revenue generating companies that undertake a significant portion of the high-risk grassroots mineral exploration in BC. Expanding these programs and exploring innovative ideas to sustain and grow mineral development activity will drive new discoveries to enter the project pipeline and become the operating mines of the future.
The actions endorsed by the Task Force reflect the complex and intertwined nature of the mining sector – there is no single lever that immediately creates a growing, sustainable mining sector envisioned by the Task Force. These actions reflect the full development cycle of a mining project, from grassroots exploration to a mature, operating mine. They also reflect the diverse nature of the constituents whose livelihoods, communities and culture are linked to mining.

While the Task Force actions are divided into five areas of focus to provide clarity, they are collective vision for advancing BC’s mining sector, with all actions jointly driving toward the desired future state. Action in any one area has numerous knock-on affects driving progress in other areas of the sector, and as such this list of actions must be viewed as a collective, holistic shift rather than a series of individual initiatives.

The five areas of focus are:
1. Supporting a healthy and diverse workforce
2. Realizing community benefits
3. Enhancing BC’s fiscal and regulatory competitiveness
4. Fostering innovation
5. Building awareness of mining’s role in a prosperous BC

1. Supporting a healthy and diverse workforce

Projections of market growth coupled with the limited availability of talent could create labour force challenges for the mining sector in BC. This risk is exacerbated by the aging mining workforce (20% over 55 years of age), highlighting the need for a long-term, cohesive and fully-funded training strategy. In addition to a commitment to training Indigenous people, this strategy must target a demographic that has been traditionally underrepresented in the mining workforce, women. Only 16% of the mining workforce in BC is female, compared to 62% of the general labour force.

These gaps represent an opportunity to develop a refreshed training strategy that is forward-looking and responsive to future needs. Specific programs targeting traditionally underrepresented demographics can drive a more inclusive sector and provide these workers with the skills needed to build lasting careers in mining. The rapid pace of change means that the mining industry five, ten, and twenty years

Only 16% of the mining workforce in BC is female, compared to 62% of the general labour force.
into the future will look considerably different than the industry today. Labour forecasting indicates that advancements in automation and the modernization of mines means future mining jobs will require higher education and/or more specialized skills, and training strategies must reflect this.

I. ADVANCING THE PARTICIPATION OF INDIGENOUS PEOPLE AND WOMEN IN MINING

ACTION: Introduce an Integrated Indigenous Mine Training Program, with provincial, federal and industry funding/participation.

With 25% of the mining workforce scheduled to retire within the next five years and 1,200 Indigenous communities within 200 kilometres of an operating mine or exploration project across Canada, providing target training and placing more Indigenous people into mining careers across the province will provide exciting opportunities for Indigenous workers and help meet future industry demand.

While the mining sector is already a significant employer of Indigenous peoples, creating a dedicated program that accelerates the ability of companies to hire and upskill Indigenous employees will assist with providing new opportunities and reducing barriers for this underrepresented group. Dedicated funding for this program can also leverage existing company-community agreements and other industry programs. In addition to a commitment to training Indigenous people, this strategy could expand to target additional demographics that have traditionally been underrepresented in the mining workforce, such as women and new immigrants. Program funding needs to be flexible to allow for program innovation and metrics for funding need to consider graduation and employment rates rather than just cost per student. The Task Force recommends this program be modeled after two award winning programs: the BC Aboriginal Mine Training Association (AMTA) that ran from 2009-2014, and the School of Exploration and Mining (SEM). In partnership with industry, governments and educators and Indigenous communities, AMTA

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**TABLE 4: Demographics of the BC Mining Sector**

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<thead>
<tr>
<th>Indigenous Peoples</th>
<th>Immigrants</th>
<th>Women</th>
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<tbody>
<tr>
<td><strong>NATIONAL</strong></td>
<td><strong>BC</strong></td>
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- % of Mining Workforce
- % of Total Workforce
provided training and support services to Aboriginal participants through a formal process of personal and professional development and matched jobs to workers and would-be employees, providing paths to sustainable careers in the natural resource sectors for over 1,000 people. SEM was established in 2004 in partnership with Smithers Exploration Group. Between 2004 and 2014, 1,300 graduates completed SEM programs (89% graduation rate), the majority of whom were Indigenous. 72% of graduates and 75% of Indigenous graduates transitioned to employment. Graduates represented 113 communities, of which 86 were Indigenous communities.

**ACTION: Develop and implement an action plan to attract and retain women in mining careers.**

While BC outperforms the national mining industry standard for employment of women, the mining industry still lags behind the general labour force rates for employment of women. The highest concentrations of women in the mining workforce are found in administrative or clerical positions (19%) and mid-level management (16%). Less than 1% of the women employed in the BC mining industry are in roles such as mine supervisor or apprentice tradesperson. Roles with the highest vacancies – heavy equipment operators, tradespeople and labourers – also have the lowest rates of female participation, with less than 5% of these jobs being filled by women.

Women’s participation in the mining workforce has been steadily climbing – studies from groups such the Mining Industry Human Resources Council have influenced many companies to institute policy changes, create programs that foster diversity, and initiate targeted hiring campaigns to increase female workforce participation. Data from one of the largest producers in the province shows continued growth, outpacing the current national average of female employment in mining of 14%. However, additional effort is still required. The development and implementation of an action plan, led by women working in the sector in collaboration with industry and government, will provide direct benefits to the mining workforce, prospective workers, their communities and industry.

Attracting and retaining more women in the mining industry will require a combination of collaborative solutions—from enhancing early education programs aimed at exciting young girls about technology fundamentals, to encouraging women to explore the varied

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### RESOURCES + TIMELINES

#### 2020/21 BUDGET CYCLE

**COST:** $5 MILLION

**IMPLEMENTATION NOTES**

- Work should commence in 2019 to build a blueprint for a robust program to be funded in the 2020/2021 budget.
- This program should be administered outside government.

**BENEFITS:**

- This action will support the development of a skilled and representative mining workforce and reduce barriers to mining jobs for Indigenous people and other traditionally underrepresented groups.
- Communities benefit from increased education and employment.
- Industry will be provided with a pipeline of skilled workers to meet future demand.
opportunities for careers in mining, to building a gender-inclusive awareness of the industry, to appointing more women to senior leadership and board positions. In addition to high-level shifts to attract women to these careers, direct action is needed to retain women in the industry, including providing more options around childcare and work schedules, and ensuring equipment and facilities are inclusive of the female workforce.

The Canadian mining industry is projected to need to hire roughly 97,450 workers over the next 10 years.

**II. TRAINING PROGRAMS THAT SUPPORT THE SKILLS OF TODAY AND TOMORROW**

**ACTION:** Support the development and implementation of a cohesive roadmap for enhanced mine sector training to meet the mining sector’s future skills and labour needs through a collaborative, inclusive, innovative and geographically-focused approach.

Market growth projections coupled with the limited availability of talent could create future labour force challenges for BC’s mining sector. The Canadian mining industry is projected to need to hire roughly 97,450 workers over the next 10 years (2019 to 2029). A significant portion of those workers will be needed in BC, and given the mobility of the Canadian workforce, the BC sector will be competing for employees with mines in other parts of the country.

Labour forecasting also indicates that advancements in automation and the modernization of mines means future mining jobs will require higher education and/or more specialized skills, and training strategies must reflect this. Today’s mines access deeper, lower-grade and more complex deposits than ever before, and these activities necessitate the use of new, more sophisticated and innovative technologies at all stages of the mining cycle.

A forward-looking and responsive training strategy is needed to meet future need of skills and supply for BC’s mining sector. A cohesive roadmap for enhanced mine sector training will meet the mining sector’s future skills and labour needs through a collaborative, inclusive, innovative and geographically-focused approach.
Greater integration is needed between industry, labour, training providers and government to close the gap between the education and the workplace. This integration can take the form of:

- Increasing the ease of transition from school and training to the jobs available through apprenticeships and on-the-job training.
- Locating post-secondary education/skills development in the communities proximal to mining operations.
- Improving coordination between industry and training providers to ensure workforce supply meets workplace demand and skills needs.
- Ensuring training programs and subsequent credentials are endorsed by industry.
- Supporting programs that emphasize transferable skills and accreditation (e.g. through professional associations) to assist in worker mobility between natural resource sectors, provide more stable employment and a more stable skilled workforce.

To support the success of an enhanced training strategy, further information is required regarding:

- The future skills gaps projected as a result of innovation and technological development in the mining industry.
- A clearer understanding of transferable skills between natural resource sectors (e.g. forestry and mining), and accreditation of training programs where possible would enhance worker mobility within and between sectors (career shifting, shifting back during upswings, upward mobility).
- Opportunities to advance the participation of Indigenous people, women and other underrepresented groups in training programs and long-term mining career paths.
- Encouraging post-secondary institutions to more fully integrate prior learning assessments to recognize skills and knowledge of students.

**RESOURCES + TIMELINES**

**2019/20 BUDGET CYCLE**

**COST:** $300,000

**IMPLEMENTATION NOTES**

- To be developed in collaboration with AEST.
- Budget to be confirmed with AEST.
- To be developed with deep input from industry, labour, Indigenous groups and post-secondary institutions.

**BENEFITS:**

- This action will help to prepare for the expected future state, where there will be significantly more automation in the industry, by creating a local tech-ready pool of workers and training facilities to support the evolving needs of the sector.
- This action will support a healthy and diverse workforce by expanding opportunities to groups traditionally underrepresented in the mining workforce and be geographically located to ensure Indigenous and non-Indigenous communities proximal to mining operations can participate fully.
**ACTION:** Create and support an accessible worker database to support workforce transitions across the natural resource sector.

BC’s natural resource sector forms a strong economic foundation throughout rural BC. These industries, such as mining, provide good, well-paying jobs that support working families and vibrant communities. However, these industries are vulnerable to boom-bust cycles tied to global markets. These cycles can create labour shortages in times of high demand and adversely affect the feasibility of operations during down-cycles.

To buffer against the boom-bust nature of the natural resource sector, the Task Force recommends that government support, in partnership with industry and labour, the creation of an accessible worker database to support workforce transitions across the natural resource sector. The Task Force envisions this as an accessible database where workers can self-identify skill sets and operators can self-identify skills and labour needs within their operations. Cycles for different industries, such as mining and forestry, can be offsetting, and there is opportunity for workers to move between industries within their home region.

The Ministry of Forests, Lands, Natural Resource Operations and Rural Development (FLNRORD) supports workforce transitions, economic diversification and development and community supports and services across BC. However, current programming is reactive to large-scale layoff events and facility closures. The Task Force recommends this work evolve to a proactive approach that includes an accessible worker database forecasting labour shortages, surpluses and skills gaps in addition to supporting workforce transitions.

**RESOURCES + TIMELINES**

**2019/20 BUDGET CYCLE**

**COST:** $200,000

**IMPLEMENTATION NOTES**

- To support and enhance ongoing FLNRORD initiatives in this area.

**BENEFITS:**

- This tool would allow for more fluid labour transitions during operational up- and down-turns across the natural resource sector.
- This action would improve the ability of workers to access employment opportunities in other natural resources industries requiring similar skillsets. This will assist in keeping local workers employed locally.
- Improving access to well-paying jobs will support the sustainability of communities throughout BC.
- Such a database would help to forecast skills gaps and surpluses, providing valuable data to the training and post-secondary sector.
III. ENSURING A RESPECTFUL, HEALTHY AND SAFE WORK ENVIRONMENT

**ACTION:** Create a fully funded Standing Code Review Committee to periodically review evolving trends and implement best practices in workplace health and safety.

The Health, Safety and Reclamation Code for Mines in BC (the Code) regulates the mining industry, governs worker safety, and is the foundation for the daily operational activities such as inspections, and compliance and enforcement. The Code, once considered to be a leading-edge regulation, is more than 20 years out of date in certain sections, with the exception of the recent changes made to regulate tailings storage facilities and limited health and safety sections.

Previous reviews of the Code were completed in 1996, 2003, 2008 and 2016/2017, with the last fulsome review taking place in 1995-1996. More recent reviews were only able to address very specific and limited sections within the Code and were in direct response to events that required an urgent or emergency response from government.

Other regulatory bodies, such as Worksafe-BC and Technical Safety BC, have dedicated staff who work to ensure that their regulatory framework stays current and keeps workers and worksites safe. For example, Technical Safety BC has 16 employees dedicated to the 2018 Canadian Electrical Code Review. EMPR, at present, does not have any dedicated resources to undertake a Code Review. If the Code is not regularly updated and maintained this increases the risk of incidents occurring at mine sites. Any reallocation of existing resources would reduce resources available for permitting and Compliance and Enforcement.

With ongoing and rapid changes to technology and increased expectations from Indigenous groups, labour and industry for a transparent and leading edge regulatory framework for mining, the Task Force recommends that the Code Review continue as a regular function of the Mines and Mineral Resources Division (MMRD) in order to bring the current Code up to date and ensure that the mining industry remains relevant and is able to address the changing needs of the industry, the environment, Indigenous groups and residents of British Columbia.

**RESOURCES + TIMELINES**

**STARTING IN 2019/20 BUDGET CYCLE**

**COST:** $500,000 PER YEAR

**IMPLEMENTATION NOTES**

- EMPR intends to commence the Standing Code Review in early 2019 and is starting to put staffing and resources in place now.

**BENEFITS:**

- Funding a standing Code Review will help to maintain mining’s place as the safest heavy industry in the province and enable EMPR to respond to the rapid pace of change that industry is experiencing.
- This action will ensure safe and healthy workplaces for the mining workforce, and also bolster an agile regulatory regime that supports the use of innovative practices and tools to enhance competitiveness and environmental performance.
- British Columbia was recently found to be the least risky jurisdiction in the world for companies to invest in mining projects, largely based on BC’s Mining Code, according to the Mining Journal’s 2018 World Risk Report. Ensuring the Code remains current will help to ensure the Province remains an attractive place for investment.
2. Realizing community benefits

For generations, mining has generated jobs and prosperity for families in every region of BC. The sector provides benefits through salaries, taxes, ancillary economic activity and partnerships with Indigenous peoples, forming the foundation of healthy, vibrant communities across the province.

However, there are many communities that do not have the resources to fully engage in the benefits of mining, and there are constantly evolving tools and best practices that can be adapted to the BC context. There are opportunities for capacity building, employment, investment, economic growth, and partnership opportunities with communities throughout the entire mining life cycle.

There remains significant work to do to fulfill government’s commitment to lasting reconciliation and implementation of UNDRIP, and the mining sector can continue to play a significant leadership role. BC can be a leader in the domestic and global movement towards reconciling with Indigenous people, further transitioning our diversity into a global strength.

Investment in supporting mining communities can improve the sustainability and socio-economic conditions of Indigenous and non-Indigenous communities, improve community confidence in the mining sector and create new industry-community partnerships, while mobilizing new capital to support mining projects and meeting the long-term labour force needs of a growing mining sector.

I. ENSURING COMMUNITIES SHARE IN THE BENEFITS OF MINING

**ACTION:** Review the fiscal framework for BC’s revenue sharing policy to determine ways to reduce the volatility of the revenue streams to Indigenous communities.

BC was the first province to institute revenue sharing with Indigenous communities so they can share directly in mineral tax revenue from mines operating within their traditional territories. To date, thirty-two Economic and Community Development Agreements (ECDAs) have been signed with forty-four Indigenous groups, and negotiations towards several further agreements are underway or planned.

ECDAs are agreements between Government and Indigenous communities for sharing the direct mineral tax revenue on new mines and major mine expansions. The revenues shared with Indigenous communities can provide valuable revenue streams to support numerous initiatives including community programs, infrastructure development and long-term sustainability.

**Economic and Community Development Agreements**

Sharing the wealth from extraction of natural resources within First Nations territories is an important part of reconciliation with Indigenous people and supporting self-determining, healthy Indigenous communities. Since 2008, the Province of BC has concluded Economic and Community Development Agreements with 44 First Nations for 16 different major mines in BC and has shared more than $64 million in mineral tax revenues.
The only source of revenue included in ECDAs is the direct Mineral Tax Revenue. Mineral Tax Revenue is the Incremental Mineral Tax Revenue or the Net Mineral Tax Revenue attributable to the project and is defined as the total amount of tax, penalty and interest paid by the operators of the project under the Mineral Tax Act, minus any refunds and/or interest the province has paid back to the operators. This amount is based on incremental production by the project. Incremental production for new mines means mining and production of all ore within the area of the project. The ECDA model sees 37.5% of incremental mineral tax revenue from a mine flow to affected Indigenous communities.

Singular reliance on shared revenue from ECDAs can create revenue stream volatility for communities. Mines often deduct their capital development costs from their Mineral Tax revenues, especially in the early-stages of mine development and later during expansion or high capital expenditures, leaving little to be shared. The BC Mining Tax is also a small portion of the taxes paid by a mine. As a result, under the current framework communities are challenged to make long-term plans, borrow against the revenue streams, or leverage these funds through strategic investments.

The ECDA model has been in place in BC since 2010, and the time is now right to evaluate this model and government’s fiscal relationship with Indigenous communities with respect to operating mines. This review should examine two aspects:

- Examine approaches to smoothen the revenue sharing streams from operating mines to provide greater certainty to Indigenous communities.
- Examine the denominator of taxes paid by mines to understand the impacts and benefits of modifying revenue sharing with Indigenous communities to be based on a larger ‘denominator’ of taxes paid by a mine such as GST/PST, employer taxes, municipal taxes, etc.

**RESOURCES + TIMELINES**

**BEGINNING IN 2019**

**COST: REVIEW TO BE CONDUCTED WITH INTERNAL CAPACITY**

**IMPLEMENTATION NOTES**

- Conducted with internal capacity.

**BENEFITS:**

- This action would support Indigenous communities sharing in the benefits of mining by providing a more stable and consistent revenue stream, thereby improving stability for communities and contributing to government’s adoption of UNDRIP.
**ACTION:** Explore opportunities to support Indigenous communities across BC in gaining equity ownership related to major projects.

Indigenous involvement in Canadian infrastructure projects is increasing. In the last few years, Indigenous involvement has taken on a wider range of roles, from more traditional involvement, such as being consulted or employed on projects developed on or near traditional lands, to equity stakes. In equity participation, there has been an evolution from small stakes, or full ownership of small projects, to potential control of very large projects and development roles. Currently, stakes rise as high as 50%, with construction costs for some projects in the hundreds of millions, if not billions, of dollars.

With larger projects and equity stakes, funding of equity is a bottleneck for many Indigenous investors. Many Indigenous communities have few internal financial resources for investment purposes, so will effectively need to borrow their equity to invest in larger projects and need long-term financing to match the life of the project asset. Providers of such debt are limited.

Ontario’s Aboriginal Loan Guarantee Program (ALGP) was announced in the 2009 Ontario budget as a $250 million fund to support participation in renewable green energy infrastructure in Ontario including transmission projects and wind, solar and hydroelectric generation projects. The program provides a Provincial guarantee for a loan to an Indigenous...
Many Indigenous communities in BC have strong business relationships with operating mines.

In British Columbia, accelerating Indigenous capital formation through resource project partnerships (equity and supplier businesses) can form a core basis for expanding the benefits of mining and (further) de-risking projects. Such a program would be of interest to Indigenous groups in BC who are looking to secure equity in or around a mining project, particularly in ancillary or support infrastructure that does not feature the same resource price volatility as mines themselves. These types of projects provide a steady revenue stream to pay back loans.

Many Indigenous communities in BC have strong business relationships with operating mines. This program would enable these communities to expand the scope of investments that support mine development and operation, and provide opportunities for other Indigenous communities to engage in new partnerships. In addition to providing increased opportunities for Indigenous communities to participate in project development, such a program would benefit industry by mobilizing an additional source of capital that would lower the capital requirements for mine expansions and new mines.

RESOURCES + TIMELINES

BEGINNING IN 2019

COST: REVIEW TO BE CONDUCTED WITH INTERNAL CAPACITY

IMPLEMENTATION NOTES

• Facilitate review across government initiatives that could support equity approach.

BENEFITS:

• This action would build upon existing partnership frameworks seen at infrastructure projects across Canada to support Indigenous groups in BC in becoming part owners in major projects proposed for their traditional territories.

• This program would enable communities who have existing business relationships with mines to expand the scope of investments that support mine development and operation and provide opportunities for other Indigenous communities to engage in these partnerships.

• In addition to providing increased opportunities for Indigenous groups to participate in project development, such a program would benefit industry by mobilizing an additional source of capital that would lower the capital requirements for mine expansions and new mines.

• An Indigenous community as an equity partner clearly addresses the UNDRIP issue of Free, Prior and Informed Consent (FPIC), advancing government’s broader reconciliation goals.

owned corporation to purchase up to 75% of the corporation’s equity in an eligible project, to a maximum of $50 million.

The program is available to corporations that are wholly-owned by Indigenous communities. By participating in eligible renewable energy projects, Indigenous communities can benefit from jobs and training as projects are developed and from dividends once projects come into service. The ALGP expanded by $150 million in 2012 and by $250 million in 2014, bringing the current envelope to $650 million.
ACTION: Amend or develop existing legislation to support the development of community trusts with participation of multiple Indigenous groups.

Across BC, mining operations have forged deep partnerships with neighbouring Indigenous groups. However, in many cases multiple Indigenous groups have overlapping traditional territories in direct proximity of a mine, complicating benefit sharing. Multi-community agreements can allow affected communities to address issues with shared territories without involvement of the Province and include provisions for a financial trust (i.e. Indigenous Sovereign Wealth Fund) that is managed by the communities collectively using existing trust laws and procedures for multi-generational returns.

These agreements also provide the Indigenous communities with a vested interest in seeing mines expand and prosper, and provide benefits to communities in the form of operational input to the mine operations, preferred contracting opportunities, reclamation planning and financial benefits such as revenue and mineral tax sharing.

As demonstrated by the success of the benefit sharing agreement between the BC Government, Teck Resources and multiple Indigenous groups at the Highland Valley Copper mine, supporting the development of multi-community agreements, including provisions for Indigenous Sovereign Wealth Funds, at mines in BC would provide greater opportunities for Indigenous groups to effectively participate in resource development. At Highland Valley Copper, eight Indigenous groups have collaborated to create one trust, pooling resources to provide better returns for future generations and share decision-making.

There is currently no mechanism in BC that allows for the capture of funds by Indigenous groups to be held in trust for their communities. Indigenous groups receiving benefits from the Highland Valley Copper Mine were forced to use the federal Family Trust Act to set up a trust model that worked. This work-around required significant administrative capacity – a barrier for other Indigenous groups to set up trusts of their own.

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<td>COST: REVIEW TO BE CONDUCTED WITH INTERNAL CAPACITY</td>
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IMPLEMENTATION NOTES

- Conducted with internal capacity.

BENEFITS:

- This action will support Indigenous participation in major projects across all resource sectors.
- These agreements provide the Indigenous communities with a vested interest in seeing mines expand and prosper and provides benefits to communities.
- Indigenous Sovereign Wealth Funds provide opportunity for Indigenous communities to better leverage the revenue streams coming from mining operations.
- Multi-community agreements provide opportunity for Indigenous communities to address boundary issues and division of benefits without the involvement of the Province.
- For government and operators, it provides long-term assurances and operational stability for mines to make major investments.
II. APPROPRIATE SOCIAL AND ENVIRONMENTAL PROTECTIONS ARE IN PLACE

ACTION: Support government’s plan to fund Indigenous Stewardship and Monitoring Initiatives, such as guardianship programs, to enhance environmental performance and increase Indigenous involvement in environmental monitoring at mineral exploration and mining projects.

There are numerous provincial activities throughout the natural resource sector that fall under the banner of Indigenous Stewardship and Monitoring Initiatives (SAMI), including Indigenous monitoring, liaison and guardianship programs. These programs facilitate the participation of Indigenous communities in environmental monitoring for projects in their areas of interest.

There is a high degree of support for these initiatives across participating provincial agencies. Positive outcomes have included a greater degree of Indigenous awareness and influence over resource management issues, increased protection for significant cultural and ecological values, community capacity-building, and developing trust-based relationships with government agencies and other land users. Mining Inspectors and Compliance Officers have received consistent feedback from Indigenous communities that there is interest in increased Indigenous participation in mining oversight. Government currently supports nine SAMI pro-

Collaboration on Compliance and Monitoring

The Province of British Columbia and the Tahltan Central Government signed the Red Chris Mine Management Agreement on January 24, 2017. The Agreement sets out a framework for the Parties to collaborate with respect to the Red Chris Mine operated by the Red Chris Development Company, including:

- Working together to review applications for new Provincial authorizations;
- Providing opportunities for Tahltan participation in Provincial inspections; and
- Ensuring notification and engagement with Tahltan following incidents at the Mine.
GRAMS INVOLVING 17 INDIGENOUS GROUPS ACROSS THE NATURAL RESOURCE SECTOR, WITH EXISTING FUNDING SET TO EXPIRE IN 2019. IN MANY CASES, HOWEVER, LACK OF FORMAL STRUCTURE AND LONG-TERM COMMITMENT TO FUNDING HAVE HINDERED PROGRESS AND RESULTED IN A LACK OF CAPACITY, DIFFUSE GOALS, LIMITED RESOURCES AND INCONSISTENT APPROACHES.

RESOURCES + TIMELINES

BEGINNING IN 2019

COST: NO IMMEDIATE ADDITIONAL COST

IMPLEMENTATION NOTES

- Supports existing FLNRORD budget ask.
- Will seek to align with federal funding opportunities.

BENEFITS:

- Participation in oversight activities has the potential to strengthen trust between the mining industry and affected communities by allowing Indigenous participants to play a positive role in holding resource users to account in terms of permitting conditions.

- Other potential benefits include the facilitation of consistent and regular information-sharing, increased transparency and collaboration, the development of technical capacity in communities through an associated training component, and employment opportunities.

- The development of a cross-sector program would reduce additional levels of bureaucracy while creating alignment opportunities with potential partners. This includes the federal government, which provided $25 million for an Indigenous Guardians Pilot over five years starting in 2017-18.

- Allocating resources towards the identification of a model that meets the specific needs of the mining industry would help facilitate integration with existing EMPR compliance and enforcement practices in order to avoid creating additional bureaucracy. Further, engagement with industry and Indigenous groups would ensure the development of a mining-specific model that works for all affected parties.
**SECTION 7**

**ACTION:** Support government initiatives to review the current state and establish world-leading best practices for supporting the health and well-being of communities impacted by the natural resource sector.

Mining development can cause positive, negative, direct and indirect impacts to nearby communities. Negative impacts can include rapid population influxes and migration, social and cultural disruption, strain on housing stock, strain on public infrastructure and services, increased crime and substance abuse, inequitable distribution of wealth and poor child development and education outcomes. Positive socio-economic benefits, such as employment rates, salaries, and higher standards of living are significant but can also have negative impacts if improperly managed.

The EY report commissioned by the Task Force on the BC mining sector included community well-being in-scope. The report included a jurisdictional scan of best practices required by government to support community well-being, including socio-economic effects management plans (SEEMPs), environmental registers, community engagement plans and consultative committees. The most detailed analysis was of contrasting approaches to SEEMPs across jurisdictions and found Queensland, Australia to be a leader in this area with legislation having required mining proponents to identify, manage and monitor social impacts from 2008.

In 2017, Government struck a Cross Ministry Working Group with a mandate to examine the social impacts of industrial camps related to natural resource development and to identify mitigation strategies. There now exists the opportunity to expand the work of this group by coordinating government initiatives – in partnership with industry, Indigenous groups and communities – to further review and enhance best practices to provide forward-looking guidance for supporting the health and well-being of communities impacted by the natural resource sector.

This analysis of community health and well-being could also be expanded to examine local levels of employment and local economic impact by mining operations. This could be similar to the monitoring framework that currently takes place for environmental impacts.

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<td><strong>COST:</strong> $750,000</td>
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**IMPLEMENTATION NOTES**

- This resource allocation will support mining only, contributing to a full review of the broader natural resource sector.

**BENEFITS:**

- This action will provide communities neighboring natural resource activities with confidence that sufficient social and environmental protections are in place and effective policies have been developed to ensure mines coexist harmoniously with neighbouring communities, and that communities most affected share in the benefits of mining.
- Requiring the reporting of statistics on local employment and local economic impact would allow government to accurately track local impact across the sector and capture positive impacts generated by the operation.
3. Enhancing BC’s fiscal and regulatory competitiveness

While some of the fundamentals of BC’s mining sector remain strong and BC remains a major player in the Canadian landscape, global forces strongly impact sector investment and performance. The high-amplitude commodity cycle requires BC explorers and operators to be responsive and competitive in the context of international markets where investment is mobile, and the low-price phase of commodity cycles can result in mine closures, deferred projects and lower exploration expenditures. This was demonstrated between 2012 and 2016, when a decline in commodity prices caused exploration expenditures in the province to decrease from $680 million to $205 million, and eleven operating mines were forced to enter care and maintenance with corresponding layoffs.

Government now has the opportunity to invest in proactive, rather than reactive, actions to improve fiscal and regulatory competitiveness to reduce the risk of future industry contraction and encourage the development of new mines and expansions at existing operations. BC competes with the world for investment, and BC producers of raw materials are price-takers, not price makers in the international marketplace. Competitive regulatory and tax structures must be in place to ensure the industry can grow jobs and sustain communities in the province. Government investment in key competitive advantages like geoscience, innovation, clean energy inputs and infrastructure must be increased to keep pace with rival jurisdictions. Included in these dimensions of competitiveness are strong socio-economic objectives, including world-class environmental performance and Indigenous relationships that generate tangible benefits which drive real economic reconciliation on the land base.
I. IMPROVED REGULATORY TRANSPARENCY AND PREDICTABILITY

Given the significant, upfront capital outlays and long-lead times to develop mines and move them into production to generate cash inflows, mining investments are inherently high-risk. The regulatory framework governing a mining investment can further compound this risk. The EY report found that government investment in actions to increase the efficiency, transparency, and predictably of the regulatory framework governing the sector in BC would encourage investment by decreasing investment risk and improve competitiveness.

A more efficient, predictable, and effective regulatory framework with dedicated resources to implementing UNDRIP within the regulatory system will improve clarity and certainty for all stakeholders. This will enable proponents to make investment decisions with confidence, leading to new mines being built and corresponding employment growth. Committing resources to anticipating and incorporating innovation in the regulatory framework results in improved uptake of new tools to improve competitiveness and enhance environmental performance.

**ACTION:** Provide budget lift for EMPR to advance mandate letter commitments and enhance regulatory excellence, boosting its position as a world-leading regulator.

This action supports an increased focus on BC’s competitiveness and advocacy for new mining investment, while supporting independence for
mining oversight and positioning BC to be a leader in industry safety. Clear separation of these functions will help increase public, Indigenous and industry confidence and trust, as well as improve permitting timelines - all of which are critical to a thriving mining industry in this province. EMPR initiatives will be advanced by enhanced budget funding to:

- Expand the mandate of the Major Mines Permitting Office (MMPO) to include broader range of permitting requirements, including concurrent permitting and other initiatives to streamline the complexity of BC’s regulatory regime;
- Ensure clear(er) division of responsibility and resources between permitting functions and compliance and enforcement within EMPR;
- Bolster an agile regulatory regime that supports the use of innovative practices and tools to enhance competitiveness and outcome-focused environmental performance;
- Provide EMPR Regional Offices with sufficient resources to ensure EMPR permitting procedures align with government’s commitment to the adoption and implementation of UNDRIP, and to permit efficiently, to support a healthy and competitive mining sector;
- Support increased cross-ministry and cross-jurisdictional collaboration on permitting to ensure a transparent and certain regulatory system that provides proponents and operators confidence throughout the regulatory continuum, with a specific focus on continuing to advance and strengthen partnerships with Indigenous communities involved in the mining sector; and,
- Collaborate with the Ministry of Environment and Climate Change Strategy (ENV) to support clear pathways to sustainable project approvals by providing certainty of process and clarity of regulatory considerations, including the option to advance projects from Environmental Assessment directly to permitting through MMPO when the regulatory framework and Indigenous support merit.

**RESOURCES + TIMELINES**

**2019/2020 BUDGET CYCLE**

**COST: $11 MILLION**

**IMPLEMENTATION NOTES**

- EMPR has developed a detailed budget to address these policy areas.

**BENEFITS:**

- Support a transparent and certain regulatory system that is responsive to shifting government priorities and the rapid pace of innovation.
- Ensure safe and healthy workplaces for the mining industry workforce, including camp environments.
- Improve public/stakeholder support and confidence with regulatory system decisions.
- Better coordination, alignment and delivery of responsibilities for permitting under one area of the ministry.
- Improve permitting times and certainty of process for proponents.
- Enhance Indigenous engagement during permitting and compliance monitoring, contributing to government adoption of UNDRIP and implementation of the Province’s 10 Principles for Reconciliation.
- Improve health and safety capacity and effectiveness, and establish a compliance auditing and effectiveness monitoring function.
II. ATTRACTIVE FISCAL FRAMEWORK FOR DEVELOPERS AND OPERATORS

BC is Canada’s largest producer of copper and steelmaking coal and among the top three provinces in the production of gold. Preliminary estimates provided by Natural Resources Canada (NRCan) show that BC produced almost $9 billion worth of minerals in 2017. Over the past ten years, mining in BC has generated an average of $250 million per year in mineral tax royalties to the province. Currently, there are nine major metal mines and eight major coal mines operating in BC directly employing over 8,000 people.

The mining industry’s ability to maintain profitable mining operations and obtain financing for the development of new mines and expansions is heavily impacted by commodity price cycles and a jurisdiction’s competitive cost structure. Commodity prices for BC’s major mineral products have historically experienced periods of high volatility. For example, from 2011 to 2015 the US price of copper fell from an annual average of $4.00/lb to $2.49/lb. Gold and metallurgical coal went from $1,572/oz and $282/tonne to $1,159/oz and $101/tonne respectively. From June 2014 to July 2015 seven mines in BC were forced into care and maintenance due to financial difficulties. In addition, investment into mine development for BC fell from approximately $2 billion in 2011 to $1.2 billion in 2015.

Actions to manage industry cost-burden, enhance incentive programs and improve regulatory efficiency and predictability can buffer the volatility that commodity price cycles have on the industry in BC and encourage investment. These actions will ensure that the industry remains an important contributor to the provincial economy and position the sector for future growth.

**ACTION:** Support government’s Low Carbon Industrial Strategy for British Columbia including development of programs to stimulate capital expenditures and address competitiveness challenges.

Emissions-intensive, trade-exposed (EITE) sectors of BC’s economy face an increasing disadvantage versus domestic and international competitors, the majority of which have no or significantly lower carbon pricing. The Task Force commissioned EY report identified the carbon tax as the leading competitive disadvantage for BC mining operations, and anecdotal evidence suggests it is already contributing to carbon leakage. Despite previous commitments to address EITE issues, to date BC remains the only jurisdiction with a comprehensive carbon pricing system and no equivalent EITE system. Recent announcements by governments in Ontario, Alberta and Quebec have only served to further underscore this challenge, with new incentive funds that not only exempt EITE sectors for GHG costs or regulations, but incentivize capital expenditures which reduce GHG emissions. The EY report found the carbon tax as the single greatest barrier to sector competitiveness in BC.

Addressing the competitiveness challenges of the BC carbon tax system is a high priority for industry. More directly, as the pan-Canadian framework moves forward and carbon pricing is implemented by the federal government in provinces that do not have carbon pricing regimes in place, BC will be at a further competitive disadvantage given the misalignment in treatment of EITE sectors that is being implemented across the country. Compounding this disadvantage further, are the significant new incentive funds being put in place to assist
TABLE 5: Comparative carbon prices

<table>
<thead>
<tr>
<th>JURISDICTION</th>
<th>STATED CARBON PRICE 2019</th>
<th>STATED CARBON PRICE 2022</th>
</tr>
</thead>
<tbody>
<tr>
<td>British Columbia</td>
<td>$40/tonne</td>
<td>$50/tonne</td>
</tr>
<tr>
<td>Quebec</td>
<td>$18 - $20/tonne</td>
<td>$20 - $22/tonne</td>
</tr>
<tr>
<td>Ontario (federal backstop)</td>
<td>$20/tonne</td>
<td>$50/tonne</td>
</tr>
<tr>
<td>Chile</td>
<td>$5</td>
<td>$5</td>
</tr>
<tr>
<td>Australia</td>
<td>$0</td>
<td>$0</td>
</tr>
</tbody>
</table>

with the transition to a lower carbon economy in other provinces and by the federal government. While BC has made an initial step in the 2018 budget to address the EITE sector and provide a modest start to funding EITE sectors’ transition to a lower-carbon profile, there remains a significant competitiveness gap and challenges to maintaining BC’s position as a low-carbon resource provider for the world.

As the mining sector transforms towards a low-GHG profile there is a need for programs to enable capital to drive the sector’s emissions profile lower – leveraging federal expenditures and working from a platform of a more competitive carbon tax framework. Through this, government can provide stronger incentives to EITE sectors that are vital pillars of BC’s economic base, while incentivizing a shift to a lower emissions model that will help meet BC’s carbon reduction targets and reduces the potential for carbon leakage.

The CleanBC program for industry announced in Budget 2018 directs a portion of BC’s carbon tax paid by industry into incentives for cleaner operations. The program is designed for regulated large industrial operations, such as pulp and paper mills, natural gas operations and refineries, and large mines. This program will help the sector and its workers thrive – stable, efficient companies and industries will ensure a continuing supply of good jobs for British Columbians across the province.

CleanBC

In December 2018, the Government of British Columbia has released its CleanBC plan aimed at reducing climate pollution, while creating more jobs and economic opportunities for people, businesses and communities. The CleanBC plan was developed as a pathway to achieve the Province’s legislated climate targets while growing the economy. The Province is helping the mining industry lower its emissions through the clean growth incentive program, which will help operators become the cleanest operators in the sector while competing with other jurisdictions that may not have a carbon price.
Government support for industry will also be shaped through the implementation of Budget 2018 and the Low Carbon Industrial Strategy. Actions include:

- Support for emissions intense industry to transition to a low carbon economy while maintaining competitiveness and minimizing carbon leakage.
- New green initiatives to grow innovation and investment.
- Direct a portion of BC’s carbon tax paid by industry into incentives for cleaner operations, including a shift to cleaner heavy-duty fleets and further industrial electrification.
- Tax policy: developing criteria for a BC tax model to encourage capital investment and support lower GHG operations that advance sectors and competitiveness of BC industry, including tax inducements, referrals and/or exemptions.
- Input costs: developing BC’s broad energy policy framework to include incentives through BC Hydro and natural gas as tools to drive a low-carbon energy infrastructure.
- Examining the policy, fiscal and operating issues affecting the competitiveness of trade exposed industrial sectors with the goal of offsetting the competitiveness gap, thereby creating more jobs and opportunities.
- Supporting economic opportunities and outcomes that advance broad reconciliation goals for Indigenous peoples.

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**RESOURCES + TIMELINES**

**BEGINNING IN 2019**

**COST:** TO BE FUNDED THROUGH EXISTING INITIATIVES SUCH AS THE LOW CARBON INDUSTRIAL STRATEGY, CLEANBC PLAN AND BUDGET 2018

**IMPLEMENTATION NOTES**

- The Task Force recommends EMPR collaborate with the Ministry of Environment and Climate Change Strategy and industry, leveraging these existing initiatives to develop innovative programs that incentivize the shift to low-carbon operations while preserving industry competitiveness and minimizing carbon leakage.

**BENEFITS:**

- This action will address a key impediment to BC’s global competitiveness and reduce carbon leakage by creating a more competitive, attractive framework for developers and operators in EITE sectors such as mining.
- Low-carbon incentive programs will use appropriate fiscal tools to shift industry to a lower-emissions model, thereby contributing to a more competitive, resilient and sustainable sector.
- This approach to dealing with the competitiveness challenges of the carbon tax in BC enables government to utilize non-carbon tax measures to reduce the costs of GHG reducing capital programs and thereby improve EITE competitiveness while achieving GHG reductions that would otherwise not be economic.
ACTION: Examine relief from PST on Production Machinery and Equipment and infrastructure for developers and operators to support new mines, mine expansions and investment in cleaner, lower-carbon operations.

Mine operators in BC are exempt from Provincial Sales Tax (PST) applied to eligible production machinery and equipment (PM&E) that is used in the extraction or processing of minerals. Eligibility for the exemption depends on whether the PM&E is an integral component and is in use for over 50% of the mineral production process, measured in either time or volume.

The PM&E exemption exists only at the qualifying part of the mine site, which is defined as the point where the mineral is extracted from the ground to the point where the finished product is first stored or first placed in a vehicle for removal from the mine site. For example, vehicles used to transport the finished product from the qualifying part of a mine site do not qualify for the PM&E exemption. Expanding the PM&E exemption could assist with supporting a shift to cleaner and lower-carbon operations through upgrades to transportation systems, water treatment facilities and other areas of operations. Mining and manufacturing PST exemptions for “pollution control” machinery and equipment are currently restricted to that used at the “qualifying part” of a mine, inhibiting capital deployment for improvements across other areas.

From a process perspective, mine operators also face significant challenges in administering the PST. This includes increased internal requirements for staff time as well as external (supplier) impacts. The administrative burden is also substantial for the Province and streamlining this tax structure would reduce red tape. Few jurisdictions apply sales tax in form of PST and have such a complex system for administering a narrow range of exemptions as in BC.

<table>
<thead>
<tr>
<th>RESOURCES + TIMELINES</th>
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<tbody>
<tr>
<td>BUDGET CYCLE 2019/2020</td>
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<tr>
<td>COST: THE ESTIMATED ANNUAL FISCAL IMPACT TO THE PROVINCE WOULD BE $5 MILLION</td>
</tr>
</tbody>
</table>

IMPLEMENTATION NOTES
- A review of PST exemptions should take place through 2019 to inform the next budget.
- Costs would be partially offset by decreased administrative burden for the Province.

BENEFITS:
- Address a core competitiveness challenge for BC companies and induce a stimulative effect on capital deployment across key areas of the mining sector.
- Improving the capital cost in areas such as environmental technologies/infrastructure by removing the PST will result in improved competitiveness and equitable treatment.
- This action will contribute to a competitive resilient and sustainable sector. It will enhance BC’s global competitiveness by creating an attractive fiscal framework for developers and operators.

ACTION: Make permanent the Electricity Cost Deferral Program (BC Hydro Mining Customer Payment Plan).

Electricity costs are one of the most significant operating costs for mines and have been increasing as electricity rates in BC rise. In 2015 and early 2016, low copper and coal prices put operations at a number of BC mines at risk, forcing some to reduce production and em-
employment levels. To support the mining sector and safeguard jobs, the Province developed a strategy to allow companies to defer a portion of their monthly BC Hydro electricity bills until commodity prices recovered.

Under the five-year term of the program, which is delivered by BC Hydro, copper and coal mines in BC are able to defer up to 75% of their electricity costs over two years. As commodity prices recover, mines are required to repay the amounts deferred, plus interest equal to prime plus 5%. Six copper mines entered into the BC Mining Customer Payment Plan in 2016, including Gibraltar, Copper Mountain, Mount Milligan, Mount Polley and Red Chris.

RESOURCES + TIMELINES

2019/20 BUDGET CYCLE

COST: NO IMMEDIATE FISCAL IMPACTS

IMPLEMENTATION NOTES

• This program is currently in place and part of BC Hydro’s fiscal plan.
• Evaluate interest rates on a 5-year basis.

BENEFITS:

• Making this program permanent can assist with de-risking mine closures/shutdowns.
• This action will contribute to a competitive resilient and sustainable sector. It will enhance BC’s global competitiveness by creating an attractive fiscal framework for developers and operators.

ACTION: Make permanent the New Mine Allowance under the BC Mineral Tax Act.

BC’s New Mine Allowance encourages the development of new mines and significant mine expansions by allowing operators to claim an additional 33% for eligible capital expenditures on their mineral tax returns. Eligible capital expenditures include those incurred for the purpose of bringing a mine or mine expansion into commercial production. For a mine expansion to be eligible, it must increase the mine’s designed production capacity by at least 25%.

Under the BC Mineral Tax Act, mine operators are required to pay a minimum 2% tax from operating profits generated by the mine until they have recovered all eligible capital expenditures. Once these expenditures have been recovered, the mine operator is required to pay a 13% tax. The New Mine Allowance essentially delays the time it takes a mine to move from the 2% to the 13% tax tier by allowing operators to claim additional capital expenditures (i.e. 33% of actual expenditures) incurred prior to their mine being brought into commercial production. This allowance is currently set to expire on January 1, 2020.

RESOURCES + TIMELINES

2019/20 BUDGET CYCLE

COST: NO IMMEDIATE FISCAL IMPACTS

IMPLEMENTATION NOTES

• This allowance is currently in place and part of the Province’s fiscal plan.

BENEFITS:

• Making this program permanent will provide certainty to proponents and encourage the development of new mines and eligible expansion projects, creating new, good jobs in the province.
• It will create an attractive fiscal framework for developers and operators by creating a meaningful and well-understood incentive program to support mine development.
III. MEANINGFUL AND WELL-UNDERSTOOD INCENTIVE PROGRAMS TO SUPPORT MINERAL EXPLORATION

Since 2014, BC’s share of Canada’s total mineral exploration has been falling steadily. In 2017, 12% of mineral exploration expenditures were made in BC compared to 22% in 2014. Some of this variance can be explained by falling commodity prices for metallurgical coal and copper, which represent BC’s top two commodities in terms of production value. However, Canada has seen a significant increase in expenditures for precious metal exploration, from $849M in 2015 to an estimated $1.4B in 2017, and BC’s share of those expenditures has been declining relative to other jurisdictions. For example, in the past three years, Quebec has seen its Canadian share of precious metal exploration expenditures go from 14.1% to 26.8%, whereas BC saw its share fall from 17.2% to 12.9%.

Over the past 10 years, BC’s average annual share of Canada’s total exploration expenditures has been 16.07%. In 2017, BC’s share was 12.2%. Assuming Canada’s 2018 exploration expenditures remain the same as in 2017, BC would see an increase of $81.75M in exploration expenditures if the province was able to achieve a share of Canada’s total exploration expenditures equal to its 10-year average. BC now has the opportunity to realize this potential surge in exploration dollars by implementing a suite of actions to make the province the most attractive jurisdiction in Canada for investment.

Quebec is a strong example of the influence that a robust suite of incentives can have on exploration activity. In 2012 and 2014 the Quebec government reduced tax credits for mineral exploration. This resulted in Quebec’s share of Canadian mineral exploration reducing from 20% in 2011 to 14% in 2015. In 2016, Quebec restored many of the incentives and its share of Canadian mineral exploration rebounded rapidly to 27% in 2017 and an estimated 29% in 2018. While these changes cannot be attributed solely to incentives, they are a key part of the impact.

<table>
<thead>
<tr>
<th>PROVINCE/TERRITORY</th>
<th>2016</th>
<th>2017</th>
<th>2018*</th>
</tr>
</thead>
<tbody>
<tr>
<td>British Columbia</td>
<td>14%</td>
<td>12%</td>
<td>13%</td>
</tr>
<tr>
<td>Northwest Territories</td>
<td>5%</td>
<td>4%</td>
<td>4%</td>
</tr>
<tr>
<td>Nunavut</td>
<td>13%</td>
<td>8%</td>
<td>5%</td>
</tr>
<tr>
<td>Ontario</td>
<td>24%</td>
<td>25%</td>
<td>27%</td>
</tr>
<tr>
<td>Quebec</td>
<td>19%</td>
<td>27%</td>
<td>30%</td>
</tr>
<tr>
<td>Saskatchewan</td>
<td>14%</td>
<td>9%</td>
<td>8%</td>
</tr>
<tr>
<td>Yukon</td>
<td>6%</td>
<td>8%</td>
<td>8%</td>
</tr>
</tbody>
</table>

*Expected. Source: Natural Resources Canada
**ACTION:** Make permanent the BC Mining Flow-Through Share program at a rate of 20% and increase the rate to 35% for a three-year trial period.

Flow-through shares are generally common shares issued by a corporation to an investor, pursuant to an agreement in writing under which the corporation agrees to incur exploration expenses in an amount equal to the consideration received for the shares issued. Under this agreement, the corporation renounces qualifying Canadian Exploration Expenses (CEE) to the investors who can then deduct that CEE from income for tax purposes. The program encourages exploration by reducing the amount of funds the investor has at risk.

Since 2001, the Province has provided a 20% non-refundable tax credit to investors who invested in flow-through shares offered by a company conducting grassroots mineral exploration in British Columbia. The program has been renewed on an annual basis, creating uncertainty in longer term planning and increasing the risk of stranded investments for the investment community.

The federal government also offers a non-refundable, 15% tax credit for grassroots exploration expenses pursuant to a Flow-Through Share Agreement. This credit was recently renewed (November 2018) for five years based on the advice of industry. The BC Mining Flow-Through Share (MFTS) tax credit is completely harmonized with the federal tax credit, and if raised to 35%, would make the after-tax cost of flow-through share-financed grassroots exploration expenditures in BC the lowest in Canada.

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**RESOURCES + TIMELINES**

**TRIAL TIMELINE 2019 - 2022**

**COST:**
NO COST TO THE PERMANENCY OF THE INITIAL 20%.

THE TRIAL INCREASE IS ESTIMATED AT AN ADDITIONAL $4 MILLION PER YEAR.

**IMPLEMENTATION NOTES**

- To take effect in 2019.
- Over the last ten years, the MFTS tax credit program has cost the Province an estimated $9.4 million per year.

**BENEFITS:**

- This action will create an attractive fiscal framework for developers and operators by expanding a meaningful and well-understood incentive program to support mineral exploration.
- This is a proven and effective tool to support exploration and keep investment funds in BC (from 2011-2017, 68% of Canadian exploration investment involved flow-through shares).
- Finance Canada has estimated that every dollar of flow-through financing generates $2.60 of exploration expenditures in Canada.
- When taken with the federal investment tax credit, this action will position BC as the best “super flow-through” tax credit in Canada, exceeding the credits available in Manitoba and Quebec.
- This action will increase BC’s share of Canadian mineral exploration, support investment during low points in the commodity cycle, provide investment certainty and allow for multi-year investments.
**ACTION:** Make permanent the BC Mineral Exploration Tax Credit (BC METC) at 20% and increase the rate to 30% for a three-year trial period.

Corporations that conduct grassroots exploration in BC may be eligible to receive a refundable tax credit equal to 20% of non-flow-through funded, eligible mineral exploration expenditures incurred after July 31, 1998, and before January 1, 2020. An enhanced rate of 30% is available for grassroots exploration undertaken in prescribed Mountain Pine Beetle affected areas.

Exploration companies and investors depend on some level of certainty to finance not only the current year of their exploration programs, but also any subsequent exploration necessary to fully scope the mineral potential of a particular property.

Mineral exploration expenditures which are eligible for the Mining Exploration Tax Credit Program (METC) include those incurred for determining the existence, location, extent or quality of a mineral resource. A recent amendment to BC’s Income Tax Act has expanded eligible exploration expenditures to include those incurred after February 28, 2015 for conducting environmental studies and community consultations undertaken to obtain a right, license or privilege for the purpose of grassroots exploration.

Making the BC METC permanent will provide stability for exploration companies, increasing the opportunity for multi-year exploration program funding and allowing for longer-term planning. This is vital for exploration programs, as mineral deposits are carried out in stages over an extended period of time. Exploration companies and investors depend on some level of certainty to finance not only the current year of their exploration programs, but also any subsequent exploration necessary to fully scope the mineral potential of a particular property.

### RESOURCES + TIMELINES

#### TRIALTIMELINE 2019 - 2022

**COST:**

NO COST TO THE PERMANENCY OF THE INITIAL 20%.

THE TRIAL INCREASE IS ESTIMATED AT AN ADDITIONAL $4 MILLION PER YEAR.

**IMPLEMENTATION NOTES**

- To take effect in 2019 fiscal year.
- Over the last ten years, the Mining Exploration Tax Credit program has cost the Province an estimated $34.8 million per year.

**BENEFITS:**

- This action will meet or exceed Quebec’s rate of 28-31% for non-operating companies, improving BC’s competitive position in Canada. This action will increase BC’s share of Canadian mineral exploration and attract investment to the province.
- This action will create an attractive fiscal framework for developers and operators by creating a meaningful and well understood incentive programs to support mineral exploration.
- This action will increase BC’s share of Canadian mineral exploration, support investment during low points in the commodity cycle, provide investment certainty and allow for multi-year investments.
**SECTION 7**

**ACTION:** Provide funding for the continuation and expansion of the BC Regional Mining Alliance to collaboratively promote BC as a leading jurisdiction for mineral development.

Established as a pilot project in early 2018 and currently focused on northwestern BC, the BC Regional Mining Alliance (BCRMA) coordinates with Indigenous governments and industry to promote BC as the leading mining jurisdiction in Canada in which to invest. As a team, the BCRMA currently promotes the many advantages of BC through a collective presence aimed at international investment. Early indications are that the BCRMA has been successful in generating interest in BC’s mineral development sector and the partnership opportunities available in the province.

The BCRMA currently promotes the many advantages of BC through collective presence aimed at international investment.

The BCRMA is currently focused on the “Golden Triangle”, a region richly endowed with mineral resources located in northwestern BC within the traditional territory of the Tahltan Nation and the Nass Area of the Nisga’a Treaty. Accordingly, partnership with the Nisga’a Lisims Government (NLG) and the Tahltan Central Government (TCG) has been critical to the success of this initiative. These governments, along with the Province of British Columbia and the Association for Mineral Exploration (AME), currently govern the program as partners.

An opportunity now exists for the Province to fund the continuation and expansion of this initiative. Expansion could include growing the BCRMA to include mine operators, larger regions and additional Indigenous governments. BC has many success stories that span the province and the phases of the mining industry and now the BCRMA has an exciting opportunity to share these stories further with a global investment audience.

### RESOURCES + TIMELINES

**TIMELINE 2019 - 2022**

**COST:** $1 MILLION

**IMPLEMENTATION NOTES**

- BCRMA budget is currently supported by funds from industry partners and in-kind work.

**BENEFITS:**

- Promotes BC’s world class geology, collaborative and experienced people and companies, and successful operating mines, and reinforces the stable, sustainable and collaborative approach that BC takes in the industry.
- Increases interest in and awareness of BC among investors and highlights the positive leadership role Indigenous governments play in the exploration and extractive sectors.
- Supports long-term economic development and community sustainability.
- Builds meaningful and productive relationships between strategic partners and key external players.
- Creates broader awareness of Indigenous groups’ role in resource development thereby contributing to reconciliation.
- Enhances the BC ‘brand’.
**ACTION:** Fund a time-bound study to examine the potential for an investment fund with a mandate of investing in companies that carry out mineral exploration activities in British Columbia.

Early-stage mineral exploration provides the foundation upon which a healthy mining industry is built. Exploration creates jobs and economic activity in rural areas, and longer term, adds to the pipeline of projects that may become mines. A robust project pipeline requires an active and diversified exploration sector approach as many projects will fail, yet a few will succeed spectacularly. Unfortunately, BC lags significantly behind Quebec and Ontario for mineral exploration spending.

This lag is due, in part, to a lack of capital flowing to the exploration sector. The trend from active investing to passive has negatively impacted junior mining companies’ ability to raise exploration dollars, and the traditional sources of capital for exploration, such as mining-focused mutual funds and hedge funds, are dwindling in both number and size. To address this gap, there may be an opportunity for government to stimulate exploration spending in the province through the creation of a private sector-managed investment fund targeting early-stage mineral exploration projects, similar to the current BCTECH Fund and Quebec’s SIDEX program.

Suitability of this model to the BC context needs to be comprehensively vetted. The Task Force has identified the BC Venture Capital Research Project, which provided the justification for the BCTECH Fund, as a model for assessing this concept. A time-bound study will examine the concept of a new mineral exploration investment fund with a mandate of providing funding to mineral exploration companies that carry out exploration activities in British Columbia. This study should examine:

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**SIDEX**

SIDEX is a Government of Québec created fund created to invest in companies involved in exploration in the province. First launched in 2001, initial capital funding was $50 million over five years. To date, SIDEX has invested $70 million in the Québec mining industry with the goal of:

- Diversifying Québec’s mineral base;
- Encouraging new exploration models;
- Stimulating investment in exploration for new commodities;
- Opening new territories with strong discovery potential.
• Why capital is not flowing to mineral exploration in BC sector and the causes of this problem.

• The applicability of a fund to the BC exploration sector and projected impact on attracting investment and creating jobs in the BC mineral exploration sector.

• The size of fund most applicable to BC and projected return on investment.

• What fund governance structure would best assist BC with realizing goals of transportation, appropriate risk, partnership and reconciliation with Indigenous groups, stakeholder input and economic value.

• How the fund can be modeled to support projects that contribute to sustainability and promote world leading innovation.

• Opportunities for the funds profits to be re-invested in Indigenous priorities, jobs and potentially address historic issues of the industry such as abandoned sites.

• The experience of SIDEX and other similar programs in jurisdictions comparable to BC.

**RESOURCES + TIMELINES**

**BEGINNING IN 2019**

**COST: $300,000**

**IMPLEMENTATION NOTES**

• This study should produce a recommendation within 8 months.

**BENEFITS:**

This study will assess the suitability of this model to BC. If determined to be feasible, a mining investment fund would:

• Increase exploration spending and leverage investment from other Canadian and international sources by being the ‘lead investor’. (SIDEX takes 10-15% of the investment generating up to 90% of new investment dollars).

• Stimulate exploration activity that could lead to the discovery of new mineral deposits or expand known deposits that lead to new mines.

• Stimulate economic activity that creates jobs and supports rural communities.

• Buffer investment and jobs during low commodity cycles by being a key source of investment when traditional sources are difficult to access.

• Create an attractive fiscal framework to investors and signals to the global investment community that BC supports the mineral exploration and mining industry.

• Promote projects with the attributes valued by Indigenous and non-Indigenous British Columbians.
IV. A COORDINATED APPROACH TO GEOSCIENCE

ACTION: Pursue a coordinated and adequately resourced geoscience strategy that supports growth of the provincial mineral exploration industry, considers future market demands and complements a lower-carbon future.

The mining sector is an important economic driver in BC that creates good jobs and supports the economy. However, mines are not possible without significant early-stage work prior to operation. Public geoscience information is one of the principal enablers of grassroots mineral exploration – the first stage in the mining life-cycle.

In BC, public geoscience to support mineral exploration is primarily delivered by two organizations – the BC Geological Survey (BCGS) and Geoscience BC (GBC). This two-pronged approach is unique in the world. Overall public geoscience in BC is rated highly, with analysis by the Fraser Institute and others rating BC well in this area.

However, public geoscience spending in BC is significantly behind that of competing jurisdictions in Canada. Core funding for BCGS averaged $3.7 million annually over the past five years. Provincial surveys in BC’s rival jurisdictions of Ontario and Quebec averaged $17.7 million and $15.8 million annually over the past five years, respectively. BC is spending significantly less per capita on geoscience to support mineral exploration. This deficit is reflected in provincial exploration expenditures – in 2017 BC received less than 50% of the expenditures of Ontario and Quebec.
### TABLE 7: Geoscience Survey Expenditures (2004-2018)

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<th>'16</th>
<th>'17</th>
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<tbody>
<tr>
<td><strong>Budget ($ in millions)</strong></td>
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**Notes:**
- BC Government
- BC Geological Survey
- Government Grants to GeoscienceBC
- Ontario
- Quebec
- Saskatchewan
- Newfoundland & Labrador
- Yukon Territories
- Northwest Territories
In addition to funding levels, observers both on the Task Force and independent have raised questions as to the efficacy of the two-organization delivery model that BC currently employs for public geoscience to support mineral exploration. Created with an initial 5-year, $25 million grant in 2005, GBC generates valuable earth science programs across the province. While initially focused on projects to support mineral exploration, their mandate has since expanded to include other earth science disciplines such as oil and gas and water projects. After 13 years of operation, the time is right for a review of this dual-organization delivery structure.

This evaluation must inform the development of a coordinated provincial approach to public geoscience, including assessing BC’s competitiveness relative to other jurisdictions, and review of the structure, resource allocation and tools used to generate public geoscience that effectively supports mineral exploration and provides the best value to British Columbians.

This new, coordinated approach to geoscience should be informed by a review assessing:

- What is an appropriate amount to be spending on geoscience annually?
- What should the delivery method[s] be, assuming the values of collaboration, transparency, efficiency, effectiveness, quality and transparency?
- Is the BC geoscience framework adequate to support mineral exploration in BC?
- How does BC’s public geoscience delivery systems to support mineral exploration (BCGS/GBC), their perceived effectiveness, roles and responsibilities, and funding levels sit in comparison to competing jurisdictions?
- What new or expanded geoscience related and/or taxation programs should BC consider implementing?

### RESOURCES + TIMELINES

**TO BE COMPLETED IN 2019**

**COST:**

GEOSCIENCE REVIEW TO BE COMPLETED WITH EXISTING RESOURCES.

$5 MILLION IN BRIDGE FUNDING FOR GBC

**IMPLEMENTATION NOTES**

- This review will inform the 2020 budget.
- Explore potential industry partnerships and alignment with federal funding opportunities
- One year of bridge funding, longer-term funding direction should be determined by the geoscience review.

**BENEFITS:**

- Providing public geoscience to accurately inform public policy and evidence-based land use decisions.
- Implementing principles of UNDRIP and furthering reconciliation.
- Supporting a more competitive mineral exploration and mining sector.
- Attracting new investment to BC.
4. Fostering innovation

Expectations for responsible and progressive environmental best practices are now the norm, and BC’s exploration and mining sector is taking the lead in developing innovative technologies and new approaches that will minimize the environmental impacts of their operations and enhance operational competitiveness. The EY report highlighted this as an exciting growth opportunity for the sector and an area where BC can become a global leader.

The provincial government has the opportunity to invest in a tailored-for-BC research, development and innovation strategy that will aim to accelerate innovative solutions to challenges and opportunities facing the BC mining industry. Once proven, these solutions can be exported to larger global markets. Through a ‘BC Mining Innovation Roadmap’, the province can become Canada’s leader in mining innovation, commercialization and adoption of step-change innovation to attract investment, create new jobs, and position BC for the mining industry of the future.

The time is right for BC to drive the development of a forward-looking innovation strategy. Vancouver is already a global mining hub and base of over 1,000 mining companies, service providers and suppliers, in addition to world-class universities, all with a strong tradition of research, development and innovation. In parallel, industries increasingly linked to mining, such as the tech sector, are thriving in BC. Supported by cross-sector initiatives like the Digital Supercluster, CleanBC Plan, Low Carbon Industrial Strategy and others, there is opportunity to leverage the funding, expertise and experience present in the province to build momentum and set a new path forward on innovation for the mining industry of the future.

While this section focuses explicitly on innovation, the innovation theme inhabits all actions contained within this report. Government must invest in supporting regulatory agility to enable innovative technologies and tools, training strategies must anticipate the rapid pace of technological change and industry and academia must work to develop new technology to enhance productivity and develop new deposits. The breadth of issues that innovation touches on reflects the interconnected nature of mining and the need for coordinated investment by all actors to develop the innovative tools and technologies necessary to create a cleaner and more competitive sector.

BC INNOVATION

Made in BC solutions are driving a global shift toward a cleaner, more efficient mining sector. MineSense, a pioneer BC technology company, is creating digital mining solutions that provide real-time, sensor-based ore sorting for large-scale mines. They concentrate ore through superior ore-waste classification to increase revenue from higher recoveries and reduce costs spent on processing waste. MineSense was recently named to the Global Cleantech 100 and has offices and field personnel in South America, Australia and Africa and works with mining customers around the world.
ACTION: Fund the development of a BC Mining Innovation Roadmap.

The mining sector is amidst a rapid transformation driven by digitization, automation, workforce transformation, enhanced environmental stewardship and the transition to a lower-carbon future. Exciting work in these areas is being driven by industry and academic institutions across BC, but a new Mining Innovation Roadmap is needed to coordinate and accelerate this effort. Other jurisdictions and sectors currently have better models for coordinating efforts and accessing innovation capital. A coordinated BC mining innovation sector has the potential to be more efficient and leverage collective effort to address industry challenges and develop competitive advantages.

By outlining a clear path for growth, innovation and a desired future state, a Mining Innovation Roadmap will build on BC’s leading expertise to create a global hub for research and innovation. This Roadmap will not only address issues in BC, but develop cutting-edge services for export worldwide. This strategy should be created through a ground up process, starting with the formation of a committee with a composition similar to the Mining Jobs Task Force. The roadmap will be grounded in, supported by, and leverage funding from existing provincial and federal programming projected to include:

- CleanBC Plan
- Low Carbon Industrial Strategy
- Innovative Clean Energy (ICE) Fund
- Green Mining Innovation Program
- Digital Supercluster ($153M)
- Sustainable Development Technology Fund ($400M / five years)
- Cleantech Impact Program ($75M / five years)
- Low Carbon Economy Fund ($1.4B)
- Strategic Innovation Fund ($1.26B funding envelope)
- Innovative Solutions Canada ($100M fund)
- Clean Growth in the Natural Resources Program ($155M / four years)
An agile regulatory regime is required to support the implementation of innovative practices and tools that enhance competitiveness and environmental performance.

These programs support BC’s goals and strategy on innovation investments that make industry more competitive by reducing comparable net costs, cutting GHGs and creating quality jobs.

This roadmap should be designed in collaboration with industry and post-secondary institutions [colleges, technical institutes for applied research and universities for academic research] to harmonize with existing and future training programs and research initiatives. This will ensure research and innovation funding contributes to hands-on experiences for students and apprentices, attracts under-represented and diverse candidates, ensures graduate readiness for employment and supports greater academic advances relevant to industry through collaborative research at post-secondary institutions.

The creation of this roadmap will require investment and coordination by the Province, in partnership with industry, Indigenous communities active in mining, academia and other levels of government, to develop the innovative tools and technologies necessary to create a cleaner and more competitive sector for the future. Support will also be needed to ensure this innovation is accessible and can transition smoothly through the regulatory framework.

RESOURCES + TIMELINES

STARTING IN 2019
COST: $1 MILLION

IMPLEMENTATION NOTES
• This level of funding will support the development, implementation and ongoing evolution of the Roadmap. Additional funding will be leveraged through existing initiatives.

BENEFITS:
• Drives innovation and leading practices in the BC mining sector, developing new tools that enhance competitiveness and environmental performance, leveraging emerging research, best practices and evidence to support the continued transformation of the sector.
• Supports a healthy and diverse workforce through training programs that support the skills of today and tomorrow.
• Creates collaborative funding models that support partnerships in research, development and innovation, and leverage funding from outside the province.

MINING AND THE DIGITAL SUPERCLUSTER

In February 2018, the BC-based Digital Technology Supercluster was awarded $153 million in funding from the Government of Canada.

Comprised of a consortium of 250 members, including Vancouver miner Teck Resources, TELUS, Microsoft, and all 25 BC post-secondary institutes, the supercluster’s initiatives include collaboration between the mining and tech sectors and post-secondary institutions to unleash new innovation and address sustainability and productivity opportunities and challenges.
5. Building awareness of mining’s role in a prosperous BC

Mining has played a significant role in British Columbia’s history. Many communities across the province were founded in connection with mineral discoveries, and Indigenous mineral discoveries and production prior to colonization are documented in many regions of the province. Mining also plays an essential role in clean energy development. Materials acquired through mining are essential to increase the global supply of solar panels, wind turbines, smart grids, LED light bulbs and electric cars. In addition, quarry materials such as sand, gravel and rock are vital to the construction of buildings, roads and other physical infrastructure that British Columbians use every day.

A 2017 survey found that 87% of Australians surveyed accept mining to some degree. The same survey also reported a high degree of public literacy on the industry’s role in job creation, positive effect on regional communities and improvement of transport infrastructure. In BC, mining has not traditionally held similar levels of understanding and support, but high operational standards, low carbon footprint and significant contribution to the economy provide the building blocks for the sector to improve public perception while growing a responsible, competitive and productive industry.

Government, industry and labour have an important role to play in fostering a greater understanding of the essential role mining has in clean energy, highlighting the use of minerals in the everyday life of British Columbians, communicating the important role of the sector in supporting rural and urban economies and sharing the story of the collaborative partnerships between industry and Indigenous groups that are advancing reconciliation throughout the province.

**ACTION:** Host a multi-stakeholder forum to build understanding, awareness and support for responsible market standards and systems that would advance responsible metals market objectives for BC.

With growing awareness and demand for eco-logically and socially-responsible products, jewelers, electronics businesses, auto makers and others are increasingly seeking assurances that the raw materials they purchase are mined responsibly. Most consumer product producers do not buy directly from mines – the supply chain of mined materials is long and often complicated – so leading companies now look to global certification programs to provide confidence to their customers that raw materials used in their products have been ethically produced and procured.

**RESPONSIBLE SOURCING, IRMA, BUY-IN FROM MICROSOFT AND OTHER MULTINATIONALS**

Developed by the Initiative for Responsible Mining Assurance (IRMA), the Standard for Responsible Mining reflects the input from over 100 companies, organizations and individuals worldwide and has support from leading companies like Anglo American, ArcelorMittal, Microsoft and Tiffany & Co.

IRMA’s approach to responsible mining is to certify social and environmental performance at mine sites globally. Impartial, credible certification addresses purchaser demand for greater options in mined materials and civil society’s desire for transparency and truthfulness about whether a mine is taking steps to reduce potential harm and make continuous improvement.
The BC mining sector’s high operational standards, low carbon footprint and commitment to reconciliation with Indigenous people provides opportunity to capitalize on this global movement. A BC-led multi-stakeholder forum on responsible market standards will capitalize on this potential to bring together key actors including industry, metals buyers, civil society, Indigenous organizations, labour and policy makers to build a collective understanding and develop action plans that would advance responsible metals market objectives.

**ACTION:** Coordinate mine sector branding with low-carbon economy strategies and opening of new markets through jointly developed action plans.

As a major producer of many of the crucial minerals needed for renewable energy systems, BC is well positioned to take advantage of a global shift to a lower-carbon economy. BC is Canada’s largest producer of copper used in electric cars and Canada’s largest exporter of the steelmaking coal needed to build wind turbines and light rail transport systems. The province is Canada’s only producer of molybdenum, used in the steelmaking process, and BC smelters are among the lowest carbon footprint producers in the world.

BC’s mines also have high operational standards and low carbon footprints compared to global competitors. These exciting stories now have the potential to contribute to an innovative mine sector branding strategy that will open new markets and enable preferred access for BC products. The Task Force recommends the development of a forward-looking mining sector branding and marketing strategy to emphasize the linkages between the mining industry, clean energy and clean and ethical production to enhance market awareness and access for BC products. This branding strategy will be enhanced by leveraging the momentum of the recently launched CleanBC Plan, which has earmarked resources dedicated to enhancing and marketing a clean BC brand internationally.

This approach should be refined through dialogue with industry, metals buyers, civil society, Indigenous organizations, labour and policy makers. This dialogue can begin through the CleanBC framework and be enhanced by convening a multi-stakeholder forum (see above).

**RESOURCES + TIMELINES**

**BEFORE THE END OF 2020**

**COST:** $200,000

**IMPLEMENTATION NOTES**
- Development of this forum should take place throughout 2019, targeting a mid-2020 date.

**BENEFITS:**
- Bringing buyers from electronics, steel, automotive, renewable energy supply chains to BC to discuss their needs and market drivers would help BC understand where the markets are trending and what we need to do to adapt to these trends.
- Enhances BC’s global reputation and competitiveness while considering environmentally progressive approaches and practices.
- Positions BC for leadership in the emerging clean and ethical economies.
- Enhances BC’s global competitiveness by opening the provincial industry to new and emerging markets.
- Key findings will inform long-term branding and public awareness strategy for BC industry.
to guide strategic direction and next steps. Outcome of this forum will provide long-term direction to government and industry on an innovative and inclusive mine sector branding strategy.

**RESOURCES + TIMELINES**

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<th>WILL LAUNCH IN 2019</th>
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<td>COST: $200,000</td>
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**IMPLEMENTATION NOTES**

- To involve coordination with industry, metals buyers, civil society, Indigenous groups and policy makers.

**BENEFITS:**

- Leveraging the CleanBC program, this branding initiative would position BC industry as modern and forward-looking by drawing explicit connections between the raw materials used to manufacture clean energy technology and the ‘clean energy’ itself.
- The development and implementation of this branding initiative would open new markets enable preferred access for BC products.
- Collaboration and partnerships between the mining and clean energy sectors could allow for greater reach, impact and enhanced knowledge-sharing.
- This initiative would contribute to the development of a “Destination BC” style BC brand strategy that will allow government and industry to speak about low-carbon exports and investment opportunities with a united voice.

**ACTION:** Support implementation of a coordinated communications and education strategy that informs British Columbians of the foundational importance of the mining sector to the province and their everyday lives.

Despite the exciting good news stories that mining in the province generates, many British Columbians are unaware of the continued importance of the modern mining industry and the ways in which mining continues to positively shape BC today and into the future. Collaborative relationships between Indigenous groups, industry, labour and government receive limited publicity, and there is a persistent disconnect in public consciousness between technological advancements and the raw materials used to construct them. Moreover, there is a lack of understanding regarding the role that BC’s mining industry continues to play in supporting both rural and urban economies – including through exploration, mining and mining services, primary processing, downstream manufacturing, and legal and financial activities – and the exciting career opportunities available throughout the sector.

The Task Force has identified an opportunity to develop a coordinated communications and education strategy to inform British Columbians of the foundational importance of the mining sector – both to the province, and to their everyday lives. This strategy should be led by Mining Association of BC and the Association for Mineral Exploration in partnership with civil
society, Indigenous organizations and communities, and involve collaboration with sectors that have linkages to mining (i.e. clean energy, construction).

A broader communications strategy should be underpinned by an educational component that would engage with K-12 students to improve basic literacy around the mining industry and provide pathways to careers in the mining sector, building on the existing work of the successful MineralsEd program. Engaging early with children and youth is key to opening the sector to a more diverse range of participants and getting young people (particularly those from underrepresented groups) excited about the innovative, high-tech careers that will build the mining sector of the future.

**SECTION 7**

**RESOURCES + TIMELINES**

**WILL LAUNCH IN 2019**

**COST: NO COST TO GOVERNMENT**

**IMPLEMENTATION NOTES**

- To be led by industry, in collaboration with civil society, Indigenous groups, and policy makers.

**BENEFITS:**

- This strategy will communicate the ongoing role of the mining sector in growing a strong provincial economy, providing good jobs and supporting healthy communities across BC.
- Increasing public understanding of the world leading best practices employed by BC’s mining sector will improve public confidence in the industry.
- British Columbians will understand mining’s role in clean energy technology and the transition to a lower-carbon future.
- Improving the mining and minerals literacy of K-12 students will provide pathways to careers in industry, including for traditionally underrepresented groups such as women and new immigrants.
- This strategy would increase public awareness of Indigenous involvement in the mining sector by providing opportunity for Indigenous groups to share their own stories of collaboration with mineral development.
The BC Mining Jobs Task Force report contains a spectrum of actions to bring more certainty to the mining sector, advance reconciliation and create good jobs for British Columbians now and in the future. Actions are wide-ranging and deeply interconnected, representing the diversity of the constituencies, communities and segments of industry that make up BC’s mining landscape. Together, these actions will support a healthy, innovative and progressive sector that provides the foundation for strong, sustainable and inclusive economic growth in the province. This Task Force represented a diversity of constituents unprecedented in reviews of the mining sector to this point and has set a high bar for future reviews in this and other industries. This diverse group brought unique perspectives and ideas to the table, but all Task Force members were united and committed to identifying actions to support the long-term growth of mining jobs in BC. Given the consensus-based nature of this process, the Task Force feels these actions will be valuable across government and to all constituents represented. To reach this broad audience and have maximum impact, the Task Force recommends government plan a roll-out of the report at Roundup 2019 to communicate Task Force findings to constituents, stakeholders and the public.

1. Implementation timeline
To drive mining in BC toward the desired future state – British Columbians are proud of our growing mining industry as the backbone of an inclusive, progressive and low carbon economy – the Task Force’s actions are designed to be implemented in stages. The Task Force has identified immediate actions that are crucial to creating a competitive business environment to encourage investment, project development and job growth, while other actions are designed to support longer-term growth, participation and innovation throughout the sector. This approach was conceived to ensure there is continuous improvement seen in the sector through the short, medium and long-term, to ensure there is appropriate time to design and solicit further input on certain programs, and to spread out the fiscal impacts of recommended actions.

2. Ongoing monitoring and evaluation
At their first meeting in early 2018, the Task Force identified a strong desire to develop actions that are not only implementable, but advance achievable targets with the ability to measure and report on progress. To support this goal, the Task Force has created an additional action, outside the initial scope, to support ongoing implementation and evaluation of Task Force actions.

**ACTION**: Create a committee to support ongoing monitoring, evaluation and refocusing of actions resulting from the BC Mining Jobs Task Force.

The Task Force has collectively communicated a strong desire to see all actions from this report adopted by government and implemented to support a healthy, sustainable and competitive mining industry in BC into the future. Anecdotal reports suggest uptake from studies authored by previous Task Forces was limited and that may have been influenced by the absence of an ongoing monitoring and evaluation function that would have supported implementation.
A committee on the implementation of these actions along with an evaluation of their effectiveness would provide an opportunity to continue the constructive, collaborative dialogue between a diverse group of constituencies on growing jobs in BC’s mining sector. This group would guide ongoing monitoring, evaluation and refocusing of actions resulting from the Task Force report in addition to developing key performance indicators and reporting mechanisms that can inform a better understanding of the industry in the future. This group could also be proactive in developing new actions in response to the rapid pace of change seen throughout the industry.

This body should remain committed to the guiding principles developed by this Task Force:

- Our decisions and actions support advancing reconciliation with Indigenous people;
- We actively seek to enhance B.C.’s global competitiveness while considering environmentally progressive approaches and practices;
- We are fair and transparent with our decisions and actions;
- We are innovative, leveraging emerging research, best practices and evidence to support the continued transformation of the sector.

**RESOURCES + TIMELINES**

**STARTING IN 2019/2020 BUDGET CYCLE**

**COST: $50,000 PER YEAR**

**IMPLEMENTATION NOTES**

- This committee should be formed after close of the Task Force and hold quarterly meetings on an ongoing basis.
- This committee will mirror the composition of the Task Force to ensure all constituencies remain represented and engaged.

**BENEFITS:**

- This body will ensure actions from the Task Force are implemented and evaluated.
- Evaluation of Task Force actions will provide valuable lessons learned to inform future initiatives.
- Ongoing monitoring will create ownership of these initiatives and support communication with constituencies.
- Continued dialogue between the diverse constituencies represented at the Task Force will strengthen relationships and improve mutual understanding.
IN CONCLUSION

The Task Force is thankful for the opportunity to provide input into the future of BC’s mining sector and commends the Minister for the foresight to assemble such a diverse Task Force who could bring the unique experiences and perspectives of their constituencies to the table. Together, all members of the Task Force are committed to supporting a competitive, safe and socially and environmentally responsible mining industry that grows a strong, sustainable, innovative economy supporting people and communities in all areas of the province.

There remains significant work ahead to realize the desired future state identified by the Task Force. But through the collaborative development of this report, the Task Force has identified a powerful, innovative and inclusive suite of actions to drive the long-term health, growth and competitiveness of BC’s mining sector.

If these actions are taken, the future is bright for the mining industry in British Columbia.