Ministry of Energy and Mines and Minister Responsible for Core Review

2017/18 – 2019/20 SERVICE PLAN

February 2017



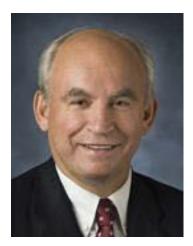
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Minister Accountability Statement



The Ministry of Energy and Mines and Minister Responsible for Core Review 2017/18 - 2019/20 Service Plan was prepared under my direction in accordance with the Budget Transparency and Accountability Act. I am accountable for the basis on which the plan has been prepared.

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Honorable Bill Bennett Minister of Energy and Mines and Minister Responsible for Core Review February 10, 2017

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Purpose of the Ministry

The Ministry of Energy and Mines¹ is responsible for British Columbia's electricity, alternative energy, mining and mineral exploration sectors. These sectors are made up of diverse interests that explore for and produce coal and other valuable minerals and that develop electricity, clean or renewable energy sources, including biomass, biogas, geothermal, hydro, solar, ocean, wind and lowcarbon transportation fuels. Through teamwork and positive working relationships with its clients and stakeholders, the Ministry facilitates thriving, safe, environmentally responsible and competitive energy and mining sectors in order to create jobs and economic growth in communities across the province. In fulfulling its mandate, the Ministry consults with other ministries and levels of government, energy developers and marketers, mineral exploration and mining companies, First Nations, communities, environmental and industry organizations, and the public.

The Ministry supports the Minister in his governance responsibilities for the following Crown Corporations: <u>British Columbia Hydro and Power Authority</u> (BC Hydro); <u>Columbia Power</u> <u>Corporation</u>; and the <u>Columbia Basin Trust</u>.

¹ <u>http://www.bclaws.ca/Recon/document/ID/freeside/00_96298_01</u>

Strategic Direction and Context

Strategic Direction

Minister Bennett's <u>Mandate Letter</u> from Premier Christy Clark, dated July 30, 2015, includes a number of key deliverables relating to electricity policy, rates and infrastructure, as well as mining, mineral exploration and development. The Ministry supports the direction in the <u>Taxpayer</u> <u>Accountability Principles</u> for citizen-focused service and respectful communication with clients and the public. The Ministry regularly assesses the external risks and opportunities within the context described below as part of its strategic planning process.

Strategic Context

In the energy sector, the Ministry focuses on increasing product and appliance efficiency, reducing the carbon intensity of transportation fuels, expanding electric vehicle infrastructure, and coordination with utilities on programs to reduce energy use, greenhouse gas emissions and power bills for residential, commercial and industrial ratepayers. BC Hydro is investing more than \$2 billion per year in capital projects, and the Ministry strives to ensure that British Columbians continue to receive benefits from the low-cost electricity generated through the Province's heritage assets. The Site C project is on budget and on time, and BC Hydro has submitted its Revenue Requirements Application and Rate Design Application to the BC Utilities Commission for approval. BC Hydro projects 40% electricity demand growth over the next 20 years, based on forecasts of population growth and industrial activity. At least 66% of this growth will be met through efficiency and conservation, with the balance from new generation, including Site C. Changing patterns of generation and use of electricity, and aging infrastructure, will require that the Province and BC Hydro safeguard these public heritage assets through capital investments, system expansion, conservation and efficiency programs. The Greenhouse Gas Reduction Regulation has resulted in commitments for more than 600 vehicles and marine vessels that will reduce carbon dioxide emissions by 74,000 tonnes per year. As noted in the Climate Leadership Plan, Government intends to support the reduction of GHG emissions in the marine sector and position British Columbia as a global marine bunkering centre on the west coast.

Mining is a key driver of B.C.'s economy. More than 30,000 people work in mineral exploration, mining and related sectors, which include non-metallic mineral product and primary metal manufacturing. Between 2011 and 2015, over \$2 billion was spent on exploration projects. Spending remains strong, with two new mines under construction in the province: the \$900 million Brucejack gold-silver mine in northwestern B.C.; and the \$75 million Silvertip silver-lead-zinc mine in northern B.C. Together, these mines will employ approximately 500 people when operational in 2017. A Deputy Ministers Mining Compliance and Enforcement (C&E) Board was established to oversee C&E planning and delivery across B.C. in all aspects of mineral exploration and development. The Board's mandate includes overseeing strategic improvements that enhance C&E effectiveness. The BC Mine Information website, launched in 2016, makes information on permitted major mine sites in B.C. more accessible. Information posted to date includes permits and amendments, inspection reports, and dam safety inspections/reviews for major mines. In future, this site will deliver a comprehensive picture of government's integrated oversight of the mining sector.

Goals, Objectives, Strategies and Performance Measures

The Ministry's goals have changed from the Ministry's 2016/17 – 2018/19 Service Plan published in February 2016. Goals were reordered to group the two mining goals together. Goal three (formerly goal two) now references clean instead of diverse sources of energy, and goal two (formerly goal 3) removes the references to electricity and alternative energy. This service plan contains three new performance measures: B.C.'s share of Canadian mineral resource development investments; coordinated inspections with Ministry of Environment and the Environmental Assessment Office; and the number of Zero Emission Vehicles registered in B.C. The energy savings measure was removed because the Ministry is implementing the Climate Leadership Plan actions, one of which commits to fuel switching (to electric vehicles). With the resulting increase in electricity sales, it would be difficult to separate out energy savings.

The Government's strategic priorities for the mining and energy natural resource sectors are directly supported by Ministry Goals 1, 2 and 3. Ministry goals support the <u>Taxpayer Accountability</u> <u>Principles</u> of Service by focusing on outcomes for citizens, and of Respect by including effective communication. Our consultative and collaborative strategies under Goal 3 support the principle of Integrity. The Ministry's performance measures were updated to reflect the principles of Accountability and Efficiency.

Goal 1: A globally competitive mining sector that creates jobs and grows the economy.

Objective 1.1: New mineral resource projects that support the creation of family-supporting jobs in B.C.

Strategies

- Utilize the Major Mines Permitting Office to improve the co-ordination of major mine permits across government, and for timely and high quality review of mines.
- Leverage opportunities through collaboration with industry, associations, and academic and research institutions to expand geological and resource assessments for geothermal, coal, minerals and aggregate resources.
- Work closely with the Ministry of Jobs, Tourism and Skills Training to ensure that skills gaps in the workforces of the mineral exploration and mining sectors are identified and filled.
- Support the development of infrastructure required for new mines and mine expansions.

Performance Measure	Benchmark*	2016/17 Forecast	2017/18 Target	2018/19 Target	2019/20 Target
Number of new mines permitted each year	2	0	2	2	2
Number of expansions to existing mines permitted each year	2	5	2	2	2

Performance Measures 1 and 2: Number of new and expanded mines.

*Annual average from 2011 to 2014

Data Source: Ministry of Energy and Mines

Discussion

These new annual targets were adapted from commitments in the *BC Jobs Plan*. The new targets for two new mines permitted and two expansions permitted each year are representative of the Ministry's estimate of the expected growth in the mining sector for the stated years. The 2016/17 forecast of five expansions permitted is in response to a number of applications received from a single major mining company in B.C.

Objective 1.2: B.C. is positioned as an attractive jurisdiction for investment in the mining sector and related businesses.

Strategies

- Further establish B.C. as a recognized centre of excellence for mining expertise, innovation and technology in collaboration with industry, post-secondary institutions, the federal government and provincial agency partners.
- Engage the mining sector to identify opportunities to improve the competitiveness of B.C.'s mining sector.
- Continue government's commitment to competitive taxation regimes to support the exploration sector.
- Conduct geoscience research and technical assessments to promote industry investment.
- Continue to work with the Ministry of Forests, Lands and Natural Resource Operations to sustain an average 60-day turnaround time for processing Notice of Work permit applications for mineral and coal exploration activities.
- Contribute to trade missions and marketing initiatives led by the Ministry of International Trade to attract investment in B.C. mineral projects and business opportunities.
- Work with the Government of Alaska to implement the Memorandum of Understanding and Cooperation between the state and province.

Turnaround time for Notices of Work and B.C.'s share of Canadian mineral resource

	development investments.							
Performance Measure	Benchmark	2016/17 Forecast	2017/18 Target	2018/19 Target	2019/20 Target			
Turnaround time for Notices of Work	60 days	45 days	Under 60 days	Under 60 days	Under 60 days			
B.C.'s share of Canadian mineral resource development investments	13%*	12%	13%	14%	15%			

Performance Measures 3 and 4:

Data Sources: Ministry of Energy and Mines and Natural Resources Canada

* Annual average from 2013 to 2015

Discussion

The Ministry's regional offices accept permit applications under the *Mines Act* for exploration and small-scale mining activities called "Notices of Work." The performance measure and its targets for the Turnaround time for Notices of Work support commitments in the *BC Jobs Plan*. Processing times are also a measure of competitiveness. The target is to maintain an average 60-day turnaround time for Notices of Work as committed to in the *Jobs Plan*. This includes all sand and gravel, placer, industrial mineral and rock quarries, as well as mineral and coal exploration. Tracking Notice of Work turnaround time helps the Ministry assess its progress in streamlining its authorization processes, and in providing efficient, predictable and transparent permit application review services.

Through its strategies to improve B.C.'s competitiveness, the Ministry continuously strives to attract long-term investment in B.C.'s mining sector and related service industries. A key challenge to achieving investment targets is that the markets for mineral commodities are cyclical and are driven by global economic factors. However, government can help to reduce risk and sustain investment levels through streamlined processes for mine project permitting and environmental assessment.

Natural Resources Canada produces annual estimates of mineral resource development investments, which include expenditures on mineral exploration, deposit appraisal and mine complex development. In 2015/16, B.C.'s total mineral resource development investments were approximately \$1.6 billion or 11% of the Canadian total. B.C.'s share is expected to gradually increase over the 2016/17 to 2019/20 period given the anticipated level of mineral exploration and development in the province and other jurisdictions.

Objective 1.3: Efficient and effective mining policy, legislation and regulation in the public interest of British Columbians.

Strategies

• In cooperation with other levels of government, continue to review legislation and regulations to ensure B.C. remains competitive, while enhancing the integrity of environmental, health and safety standards.

• In consultation with other ministries and stakeholders, develop and implement new legislation and regulations that support the responsible development and use of mineral and coal resources.

Goal 2: Safe, environmentally and socially responsible mineral resource development.

Objective 2.1: Practices that protect workers, the public and the environment.

Strategies

- Work with industry and other natural resource sector agencies to improve environmental and safety regulation compliance at mine sites through inspections and audits.
- Continue to support the annual British Columbia Mine Reclamation Awards to recognize outstanding achievements in mine reclamation in this province.
- Support mine rescue competitions and the annual Mines Safety Awards.

Performance Measures 5: Mine Inspections by Ministry Staff.

Performance Measure	Benchmark 2009-2013 average	2016 Forecast	2017 Target	2018 Target	2019 Target
Mine Inspections and follow up	775	1,300	1,300	1,300	1,300

Data Source: Manually compiled by the Ministry Energy and Mines.

Discussion

The Ministry's Mines Inspectors conduct inspections of mine sites to ensure compliance with the *Mines Act*, the Health, Safety and Reclamation Code for Mines in B.C., and individual permit conditions. Inspections can be multi-faceted or specifically focused, i.e., on health and safety, permitting, reclamation, electrical, mechanical or geotechnical. The benchmark in the table above represents the five-year average calculated with inspection figures from 2009 to 2013 inclusive. The targets for this measure have been set in accordance with the Chief Inspector's annual report to maintain a steady level of inspection that the Ministry deems appropriate for the maintenance of mine safety.

I citor mance weasure o. Coordinated while inspections						
Performance Measure	2015/16 Baseline	2016/17 Forecast	2017/18 Target	2018/19 Target	2019/2020 Target	
Number of mine inspections coordinated with the Environmental Assessment Office and the Ministry of Environment ¹	N/A	N/A	5	10	15	

Performance Measure 6: Coordinated Mine Inspections

Data Source: Manually compiled by the Ministry of Environment, Ministry of Energy and Mines, the Environmental Assessment Office.

¹ Inspections include in office reviews and on site examinations.

Discussion

While each agency conducts inspections under their respective legislation, the Ministry of Environment, the Ministry of Energy and Mines and the Environmental Assessment Office have created a new performance measure that formally tracks their joint inspections. This is the result of an increased emphasis on coordinated compliance and enforcement efforts with respect to mining.

Objective 2.2: The Ministry, stakeholders, First Nations and industry are engaged and working cooperatively for the responsible development of B.C.'s mineral resources.

Strategies

- Continue to enhance working relationships among industry, the public, First Nations and landowners.
- Continue to collaborate with other ministries and agencies to provide information to promote greater public understanding of the exploration and development of mineral resources.
- Support the development and continuous improvement of agreements with First Nations to make consultation processes more streamlined and predictable.
- Work with the Ministry of Aboriginal Relations and Reconciliation to continue to conclude mineral tax sharing agreements to encourage mine development across the province.
- Continue to support the annual Mining and Sustainability Award to recognize the diverse companies, communities, First Nations, non-governmental organizations, government agencies and individuals committed to advancing and promoting sustainable development in B.C. mining.

Goal 3: Affordable, reliable and clean sources of energy, serving British Columbians, their communities, and sustaining competitive businesses and industries.

Objective 3.1: Energy policy, programs, legislation and regulation that serve the public interest of British Columbians.

Strategies

- Implement the 10 Year Rates Plan for BC Hydro in order to keep rates as low as possible for British Columbians while continuing to invest in new generation and critical infrastructure upgrades.
- Implement projects, programs and initiatives through the Innovative Clean Energy Fund to deliver upon government's energy, environmental and economic priorities and build leveraged funding partnerships with other levels of government.
- Maximize opportunities for workers in B.C., the Peace Region, and First Nations in the delivery of the Site C Clean Energy Project.
- Develop and implement policies to ensure reliable electricity supply through mandatory reliability standards and participation in the Western Electricity Coordinating Council.
- Work with BC Hydro to upgrade the Province's heritage generation, transmission and distribution assets.
- Ensure any negotiations on the Columbia River Treaty reflect the British Columbia position on the future of the Treaty.
- Achieve government's goal of reducing the carbon intensity of B.C.'s gasoline and diesel transportation fuels under the Renewable and Low Carbon Fuel Requirements Regulation, including the development of Part 3 Agreements and Credit Trading.
- Accelerate the market transformation of the light-duty vehicles used in B.C. to zero emission vehicles through effective delivery of government's Clean Energy Vehicle Program and associated policy development.

Objective 3.2: British Columbia's economic and environmental priorities are served through sustainable energy use and development across all sectors of the economy.

Strategies

• Work with all public and private stakeholders to continue development and implementation of policies, programs, regulations, codes and standards to advance energy efficiency and conservation and the use of clean energy.

- Support energy utilities with the planning and implementation of coordinated, cost effective demand side management measures including efficient electrification.
- Work with BC Hydro to deliver the Site C project on time and on budget.
- Participate in and support long-term clean energy planning initiatives at the regional and national level, including the Pacific Coast Collaborative, Pacific NorthWest Economic Region, and Canadian Energy Strategy.
- Implement climate leadership policy actions to reduce and avoid GHG emissions, while growing the BC economy.

Performance Measures 7 and 8: Ranking of BC Hydro residential monthly bills and Number of BC Zero Emission Vehicles.

Performance Measure	Benchmark	2016/17 Forecast	2017/18 Target	2018/19 Target	2019/20 Target
Ranking of BC Hydro residential monthly bills (1,000 kWh use)	3 rd lowest				
Number of Zero Emission Vehicles registered in B.C.	3,628	4,746	5,946	7,446	9,246

Data Sources: Compiled by the Ministry of Energy and Mines staff from BC Hydro, ICBC and ZEV sales.

Discussion

Measure 7 provides a comparison of BC Hydro's monthly bills and average prices for residential customers with other North American utilities including those in Alberta, Quebec, Ontario, Manitoba, Washington, Oregon and California in Canadian funds as of April 1, 2016. BC Hydro's monthly bills and average prices are among the lowest when compared with these utilities.

Measure 8 indicates the number of Zero Emission Vehicles (ZEVs) on the road in B.C. A ZEV is defined as a battery electric vehicle, plug-in hybrid or hydrogen fuel cell vehicle. This measure has been selected as it demonstrates the impact of the Ministry's Clean Energy Vehicle (CEV) Program through vehicle adoption success. The CEV Program was designed to reduce barriers to the adoption of ZEVs, including the cost and availability of new vehicles and the availability of charging and fuelling infrastructure. Increased use of ZEVs helps to shift spending on imported transportation fuels to locally produced electricity and hydrogen, while stimulating jobs and economic development in the local clean technology sector. The benchmark is the number of ZEVs on the road in BC at the end of fiscal 2015/16.

Resource Summary

Core Business Area	2016/17 Restated Estimates ¹	2017/18 Estimates	2018/19 Plan	2019/20 Plan					
	Operating Expenses (\$000)								
Mines and Mineral Resources	16,939	21,630	22,479	22,369					
Electricity and Alternative Energy ²	2,967	42,998	3,033	3,033					
Executive and Support Services	6,082	7,331	7,498	7,485					
Innovative Clean Energy Fund	2,299	2,299	2,303	2,303					
Total	28,287	74,258	35,313	35,190					
Ministry Capital Expenditures (Consolidated Revenue Fund) (\$000)									
Executive and Support Services	755	409	409	409					
Total	755	409	409	409					

¹For comparative purposes, amounts shown for 2016/17 have been restated to be consistent with the presentation of the 2017/18 Estimates.

² One year \$40M funding for Clean Energy Vehicles programs in 2017/18.

*Further information on program funding and vote recoveries is available in the Estimates and Supplement to the Estimates."

Appendix: Ministry Contact Information

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