

**Ministry of
Energy and Mines
and Minister Responsible for Core Review**

**2014/15 – 2016/17
SERVICE PLAN**

February 2014



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Message from the Minister and Accountability Statement



British Columbia continues to rely on natural resources for its economic development, and the *Ministry of Energy and Mines* plays a critical role in this development. The Ministry's priorities over the coming years all contribute to this. These priorities begin with balancing the Ministry budget, to control spending and to support the overall government budget.

British Columbia is fortunate to have an electricity system that provides affordable, clean and reliable power, helping to drive our province's economic prosperity. The bulk of this system was built decades ago and today, large investments are required to ensure that these benefits can continue. In November 2013, the government introduced a 10-year plan that will keep electricity rates as low as possible while BC Hydro makes investments in aging assets and new infrastructure to support our growing population and economy. The government and BC Hydro have worked together to reduce pressure on rates and measures in the 10-year plan will reduce the amount of money that government takes from the utility, free up additional cash to support investments in infrastructure, and lower BC Hydro's operating costs.

Government has also approved BC Hydro's [Integrated Resource Plan](#) (IRP), which sets out cost effective investments in infrastructure, conservation and clean energy to support British Columbia's growing electricity needs. The IRP includes a clean energy strategy to maintain British Columbia's commitment to developing new clean energy sources and to support greater First Nations participation in the clean energy sector.

In 2014/15, the Northwest Transmission Line and Iskut Extension will be completed, opening up world class mineral deposits, new mines and new clean energy projects in northwest British Columbia.

In 1964, Canada and the United States ratified the Columbia River Treaty, a trans-boundary water management agreement. With the treaty approaching its 50th anniversary, government consulted with the public on possible improvements to the treaty and presented options to Cabinet in December 2013.

The [BC Jobs Plan](#) sets aggressive goals for our mining sector including eight new mines and nine mine expansions by 2015 and a 60-day turnaround for Notice of Work permitting.

Government has already made substantial progress towards meeting these goals with two new mines in operation, five more under construction or permitted and seven major expansions of existing mines approved. In addition, government achieved a 55-day turnaround time for Notice of Work permitting in January 2014.

To continue supporting these goals, government remains committed to advancing the "one project, one process" initiative to provide more certainty for investors while maintaining our rigorous environmental standards.

Metals and minerals are a significant natural resource in British Columbia. To ensure that this important industry remains strong, the Ministry will continue to work with the Ministry of Aboriginal Relations and Reconciliation to sign mineral tax-sharing agreements with First Nations.

British Columbians expect government to ensure the programs they value are operating as efficiently and effectively as possible, and are focused on their priorities. The Core Review of government, now well under way, will ensure the best possible use of government resources and respect for the interests of taxpayers.

The Cabinet Working Group on Core Review will identify opportunities throughout government for savings or the redeployment of resources, and will also make recommendations to Cabinet on how to improve B.C.'s regulatory reform and red tape reduction initiatives to get to yes on economic development without needless delay. The Core Review process will be complete by December 31, 2014.

The Ministry of Energy and Mines and Minister Responsible for Core Review *2014/15 - 2016/17 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.



Honourable Bill Bennett
Minister of Energy and Mines and Minister Responsible for Core Review
January 30, 2014

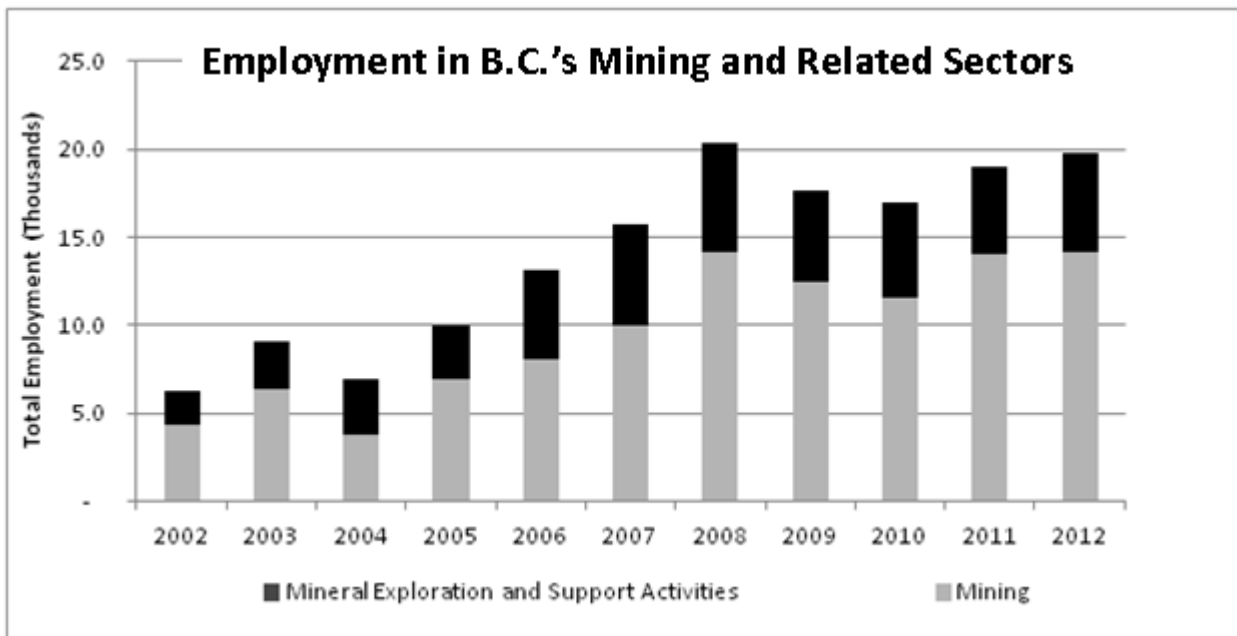
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Purpose of the Ministry

The Ministry of Energy and Mines is the key provincial ministry responsible for British Columbia’s electricity, alternative energy, mining and mineral exploration sectors, which comprise public and private interests that explore for and develop electricity, clean or renewable energy (biomass, biogas, geothermal, hydro, solar, ocean, wind or any other alternative energy resource), coal, minerals, and renewable and low-carbon fuels. Through teamwork and positive working relationships with its clients, the Ministry facilitates B.C.’s thriving, safe, environmentally responsible and competitive energy and mining sectors to create jobs and economic growth in communities. In developing energy and mining sector policies, legislation and regulations, the Ministry consults with other ministries and levels of government, energy, exploration and mining companies, First Nations, communities, environmental and industry organizations, and the public.

Working with its stakeholders, the Ministry develops policies, programs, legislation and regulations to maintain B.C.’s mining sector competitiveness and encourage investment in mineral exploration and mining in the province. The Ministry allocates all mineral and placer rights in the Province, registering and managing mineral titles using an Internet based Mineral Titles Online (MTO) business process. The Ministry develops and delivers geoscience databases and surveys, and provides funding to other organizations to collect and publish geoscience information. The Ministry is the provincial regulatory agency responsible for permitting and inspecting mineral exploration and mine sites to ensure the health and safety of workers, the public and the environment.



Data Source: Statistics Canada Labour Force Survey and PricewaterhouseCoopers. Note: Data consists of total employment in metal and coal mines, industrial minerals, construction aggregates and mineral exploration and support activities in British Columbia. Downstream processing and manufacturing are not included. Data for 2012 is based on preliminary estimates.

The Ministry develops and oversees British Columbia's policies with regard to electrical power generation and transmission, including replacing and upgrading infrastructure. It is responsible for initiatives that promote new energy technologies, energy efficiency and conservation, and alternative energy resources, including renewable and low carbon transportation fuels. The *Clean Energy Act* builds upon B.C.'s unique wealth of clean, renewable energy resources and sets the foundation for development of clean, renewable energy across the province. The Ministry is responsible for the Province's consultations on the Columbia River Treaty. To minimize electricity rate increases, the Ministry works with BC Hydro to find efficiencies and develop policies, including water rental rates for power generation. Through the Innovative Clean Energy Fund, the Ministry is helping to invest in new technologies to respond to global energy and environmental challenges.

The Ministry is responsible for administering all or parts of 19 statutes pertaining to the energy and mining sectors, and has policy responsibilities under the *Utilities Commission Act*. The Ministry is responsible for the following Crown Corporations: the British Columbia Hydro and Power Authority (BC Hydro), Columbia Power Corporation, and Columbia Basin Trust.



Work continues at the Red Chris gold and copper mine, 80 km south of Dease Lake. Scheduled to open in the spring of 2014, the mine will be served by BC Hydro's Northwest Transmission Line and Iskut Extension.

Strategic Context

British Columbia is in the fortunate position of having abundant energy and mineral resources as well as innovative, growing energy, mineral exploration and mining sectors.

People, resources and technology combine to provide the energy and mineral products and services required by British Columbians and our export customers, create business and investment opportunities, and develop and market new products and technologies for energy production, use and conservation. The energy and mining sectors help to meet the daily needs of families and businesses, provide important inputs to industrial and manufacturing processes, and generate new jobs, investment and government revenue. The Ministry is committed to working with natural resource sector agencies, communities, First Nations, industry and environmental organizations to ensure that the continued growth, exploration and development of our energy and mining sectors and resources are safe and socially and environmentally responsible.

The Economic Forecast Council expects British Columbia's real GDP to grow by 2.3 per cent in 2014 and 2.7 per cent in 2015. Risks to British Columbia's economic outlook include the potential for further slowing of domestic activity, renewed weakness in the US economy and slowing Asian demand. Additional risks include the ongoing sovereign debt situation in Europe and a fluctuating Canadian dollar.

The 2010 *Clean Energy Act* set the policy framework for the future of electricity self-sufficiency, job creation and reduced greenhouse gas emissions in B.C. In 2012, the Province's electricity self-sufficiency definition was changed by: (i) an amendment to the *Electricity Self-Sufficiency Regulation* under the *Clean Energy Act*, to reflect average water levels rather than critical water levels; and (ii) repealing the requirement in the *Clean Energy Act* for BC Hydro to provide, by 2020, 3,000 gigawatt-hours per year of "insurance" electricity. This approach protects B.C. ratepayers and ensures the development of sufficient new power to meet our needs, while avoiding overbuilding to supply a U.S. market which currently does not require the power.

Keeping British Columbia's electricity prices affordable is a government priority. BC Hydro has provided relatively low-cost power to the citizens of B.C. for over 50 years, thanks to the Province's heritage assets, which include historic electricity facilities such as the major dams on the Peace and Columbia Rivers. The establishment of the Heritage Contract ensures that B.C. ratepayers continue to benefit from the low-cost electricity generated by these assets. The British Columbia Utilities Commission (BCUC) sets domestic electricity and natural gas rates based on costs.

The 2011 [Review of BC Hydro](#) by Deputy Ministers resulted in 56 recommendations to reduce costs and find efficiencies. Of these, 50 recommendations dealt with BC Hydro and BC Hydro has reduced costs by \$390 million, reduced the number of employees, and deferred capital expenditures.

The [10-year BC Hydro Rate Plan](#), announced in November 2013, addresses the remaining recommendations on net income, dividend payments, water rental rates and rate design. BC Hydro's rates will be set for the first two years at 9 per cent and 6 per cent respectively, and be capped at 4 per cent, 3.5 per cent and 3 per cent for the next three years. In the final 5 years of the 10-year plan,

rates will be set by the BCUC and actions by Government and BC Hydro will ensure increases will remain low and predictable.

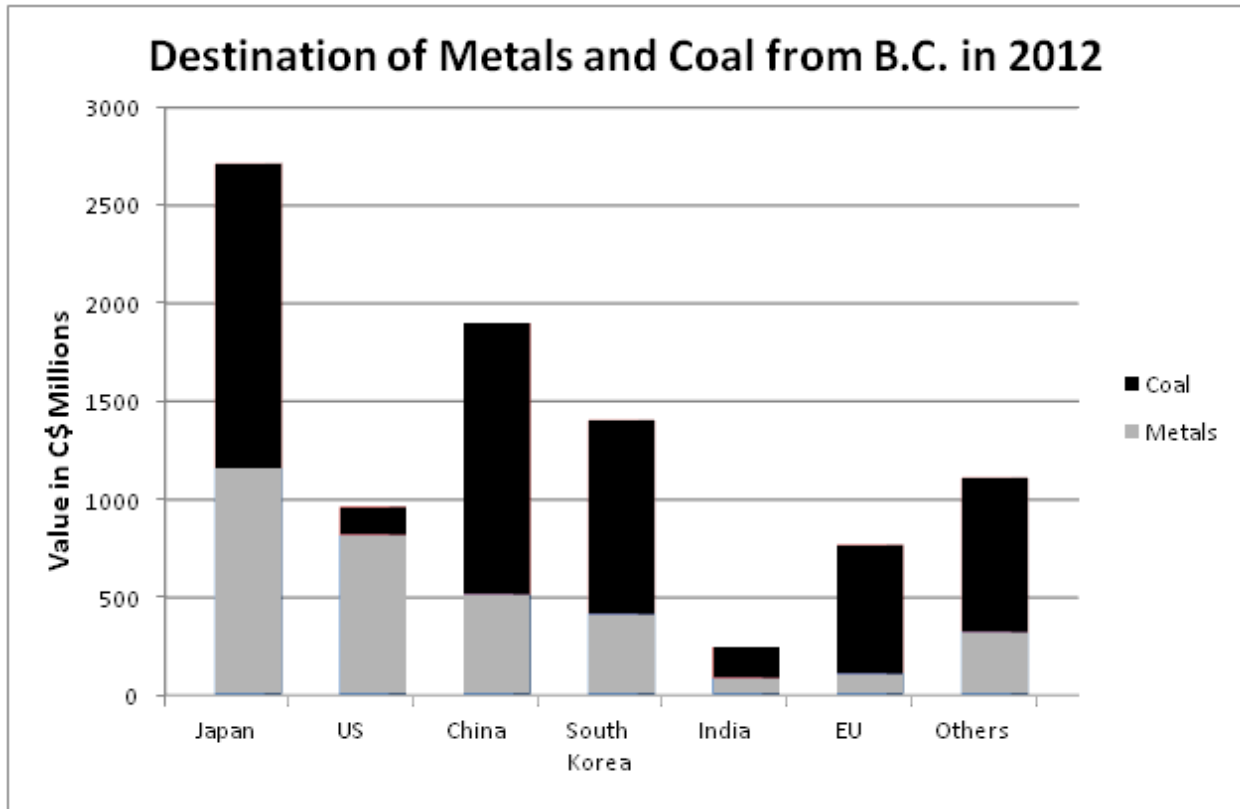
The government revenue from BC Hydro (taxes, water rental payment, dividends) was linked to BC Hydro's capital additions. BC Hydro's capital plan forecasts capital expenditures of \$1.7 billion per year for the next 10 years and would have resulted in additional revenue to the Province and increased rates. However, to reduce the rate impacts of BC Hydro's capital investments, Government will reduce its revenues from BC Hydro by tying net income growth to the Consumer Price Index after fiscal 2017 and, starting in fiscal 2018, reducing dividend payments over 5 years and eliminating a water rental rate that costs BC Hydro \$50 million per year

Increasing demand for electricity, changing patterns of use and an aging infrastructure require attention. In November 2013, the Province approved BC Hydro's Integrated Resource Plan, a flexible plan that focuses on making prudent investments in conservation and energy efficiency, clean energy and keeping future electricity supply options available. BC Hydro will be updating its Plan in two years and developing a Clean Energy Strategy. As well as ensuring a cost-effective, reliable electricity supply, the plan follows the objectives of B.C.'s *Clean Energy Act* related to greenhouse gas reduction, clean energy and electricity self-sufficiency. Among the plan's 18 recommendations are those proposing further improvements to the province's electricity infrastructure, and achieving 7,800 gigawatt-hours per year in energy savings and 1,400 megawatts in capacity savings by 2021.



The Meridian substation at Westwood Plateau in Coquitlam is being upgraded as part of the new Interior to Lower Mainland 500kV transmission line. By allowing for more efficient transmission of electricity from Merritt to the Lower Mainland area, when it is finished in 2015 the 247 km line will save enough energy to power approximately 80,000 homes.

Due to the heightened awareness of the need to address climate change, consumers continue to focus on reducing their energy consumption, improving energy efficiency, and supporting cleaner energy supply options. By reducing their consumption and choosing cleaner fuels, British Columbians can reduce their greenhouse gas emissions. Both electricity and natural gas have the potential to help people in B.C. and other jurisdictions reduce their carbon emissions.



Source: BC Stats: 'Metals' includes the major metals copper, lead, zinc, molybdenum, nickel, gold, and silver from custom ores, and adjustments. The destination may not be the end-use market.

British Columbia is Canada’s largest producer of copper and its largest exporter of metallurgical (steel-making) coal. B.C.’s mining sector is a key economic driver: in 2012, the value of commodities produced by B.C. mines was approximately \$8.3 billion, and at an estimated \$680 million, exploration spending in B.C. hit record levels. There are currently nine coal mines in operation, ten metal mines, more than 30 industrial mineral mines, and hundreds of aggregate pits and quarries.

More than 30,000 people work in mineral exploration, mining and related sectors, which include non-metallic and primary metallic manufacturing. Of that total, more than 14,000 people are directly employed at producing mines, and an estimated 2,700 are employed in exploration. The remaining are employed in refining and smelting and downstream mineral processing.

Due to continuing demand for B.C.-produced minerals and coal in world markets, both mining company revenues and provincial mineral tax revenues are expected to remain at historically high levels in the long term.

The Ministry's strategies for mineral exploration and mining directly support *Canada Starts Here: The BC Jobs Plan (BC Jobs Plan)*. The *BC Jobs Plan* committed to the opening of eight new mines and the expansion of nine existing mines by 2015. Significant progress has been made with two new mines in production; five new mines approved or under construction and seven mine expansions permitted since the *BC Jobs Plan* was released. Yet, with all of this activity, mining continues to be one of the safest heavy industries in B.C.

The Mount Milligan mine, northwest of Prince George, began production in August 2013. This copper, gold and silver mine was developed at an estimated capital cost of \$1.5 billion. Once it is fully operational in 2014, it will produce as much as 110,000 tonnes per day of ore and employ 350 people full-time.

The \$500 million Red Chris mine, currently under construction in northwest B.C., will employ about 450 people during the peak of construction and 300 once it is fully operational over an expected 28-year life.

Construction began in August 2013 on the \$200 million Roman mine project, southeast of Tumbler Ridge. The project is located immediately south of the existing Trend mine, and operations will be integrated. The combined Trend and Roman operations are expected to begin producing steelmaking coal in 2014 and will employ approximately 450 people full time over an anticipated 16-year mine life.

The New Afton mine near Kamloops opened in September 2012 and employs more than 400 people, including more than 100 who were part of a training program coordinated by the British Columbia Aboriginal Mine Training Association. In 2010, the Province signed the first Economic and Community Development Agreement (ECDA) in Canada, guaranteeing First Nations a share of the mineral taxes paid by New Gold, which operates the New Afton mine. The mine has now completed its first year of production, resulting in the first revenue-sharing cheque to be issued under the ECDA program in October 2013.

A number of mines in the province have either received approval to expand their operations or are in the application process. The Ministry has approved expansions at another seven mines, which are expected to sustain more than 3,000 jobs. Further expansions are expected in 2014.

Streamlined permitting boosts efficiency

The permitting process for some low-impact exploration activities has been made more efficient. Following consultation with industry, First Nations and the public, in September 2013 the Province exempted exploration drill programs on operating mine sites, extensions of proposed exploration work by up to two years, and induced polarization surveys. These activities are authorized on projects where a Mines Act permit has already been granted. Under the new rules, companies must provide 30 days' advance notice and information on each activity to a mines inspector. During the 30 days, the Province will refer the information to First Nations. The change reduces the number of regulations while preserving health, safety and environmental standards.

The Province is playing a key role in facilitating investment in B.C. mines and mineral exploration through trade and investment missions to Asian countries such as Japan, Korea, China and India. The Ministry produces publications and is committed to leading-edge technologies in support of these efforts. British Columbia, in particular Vancouver, is the centre of one of the world's largest pools of international expertise in geology, mine engineering, project financing, and environmental sustainability.

A key component of the Ministry's work involves regulating and inspecting mines for health and safety risks. The mining industry is one of the safest heavy industries in the province. According to WorkSafeBC, the industry's injury rate has remained consistently between one and two injuries per 100 person years of work in recent years. Safer work environments, supported by a robust inspection regime, not only help to keep miners safe on the job, but also help to keep operating costs low. To this end, the Ministry sponsors the Mine Safety Awards to recognize operations in the province with the best safety records each year. In addition, the province conducts mine rescue training and competitions so that all mine sites are prepared to respond to emergencies.

The Ministry annually assesses external factors and the risks and opportunities associated with the factors described above as part of its strategic planning process. As risks and opportunities are identified, they are managed and/or mitigated by the Ministry through a range of strategies so that the Ministry's goals and objectives can be achieved. The following paragraphs discuss external factors that may affect the Ministry's operations in the coming year and how these are being managed.

Competitiveness - Investment dollars move readily around the globe to the jurisdictions that provide the highest net return for given levels of risk. The Ministry continues to streamline and update legislative and policy frameworks to minimize the regulatory burden while maintaining environmental protection. Public geoscience data, maps and other studies, generated by the Ministry and Geoscience BC, provide key information that allows mineral exploration companies and prospectors to target areas for investment in B.C.

Skilled Workers - In the last decade, the rapid expansion of B.C.'s energy and mining sectors has resulted in a growing number of permanent, high-income employment opportunities for British Columbians. The mining sector alone is expected to have 15,000 job openings in the coming years, including those in key occupations such as machinery and transportation equipment mechanics, primary production workers and vehicle drivers. One of the challenges facing resource-based industries today is attracting young people into their workforces as the average age of the workforce increases. *British Columbia's Mineral Exploration and Mining Strategy* outlines approaches to skills training and labour which focus on attracting, developing, retaining, and educating individuals for employment opportunities in the province's resource sectors.

Coal and Mineral Commodity Markets - British Columbia sells large volumes of coal and mineral products in global commodity markets, which are subject to price, currency and demand fluctuations. In 2012, coal and metallic mineral products made up about 29 per cent of the value of all B.C. exports.¹ These exports boost the provincial economy, bringing additional jobs, investment and government revenue.

¹ Source: BC Stats. Metallic mineral products include: copper and molybdenum ores and concentrates; and unwrought aluminum and zinc.

First Nations in Energy and Mining - Increased collaboration between First Nations and energy, mineral exploration and mining companies is resulting in benefits for all parties. For First Nations there are jobs, contracts and resource revenue-sharing opportunities. The First Nations Clean Energy Business Fund provides resource revenue sharing for impacted First Nations from new private clean and renewable electricity projects, as well as capacity and equity funding. BC Hydro's Clean Energy Strategy will also include opportunities for First Nations' involvement in clean energy projects.

New arrangements with First Nations continue to be pursued to enable opportunities in Aboriginal communities and to provide regulatory certainty for proponents. The Province has signed Economic and Community Development Agreements with a number of different First Nations for various mine development projects and is currently in discussion with other First Nations about possible opportunities.



The Fording River mine in southeastern British Columbia produces steelmaking coal.

Project Assessments – In the past, approximately two-thirds of proposed projects undergoing a B.C. environmental assessment (EA) have also required a federal review. This led to significant duplication between the two levels of government and placed demands on the public, First Nations, and other stakeholders who wanted to be involved in both review processes. In July 2012, the federal government enacted the [Canadian Environmental Assessment Act, 2012](#) (CEAA 2012), which contains new tools for reducing duplication with other jurisdictions.

In March 2013, the B.C. Environmental Assessment Office and the Canadian Environmental Assessment Agency signed a Memorandum of Understanding (MOU) to implement substitution in British Columbia. B.C. is the first province in Canada to pursue the substitution provisions enabled by CEAA 2012, and this MOU will serve as a model for other jurisdictions in Canada. Substitution

means that where both federal and provincial EAs are required, a single EA process is conducted (B.C.'s), but two decisions are made (Canada and B.C.).

Ministry Commitment to Lean Processes – Lean is the continuous improvement method used by all British Columbia ministries and agencies that focuses on the work processes we use to deliver value to our customers. Lean asks employees to provide solutions to remove inefficiencies, reduce costs and save time. To date, 69 Lean projects have been initiated across the B.C. public service. In 2012/13, the Ministry piloted one Lean project which improved the efficiency of the coal tenure application process. Results included less manual labour, up to date digital maps for stakeholders and a shorter application processing time.

In 2014/15, the Ministry will examine the Correspondence Unit's business process and provide ongoing Lean training to create a Lean methodology as an integral part of the work environment.

In addition, the Ministry has a culture deployment strategy outlining the change management activities necessary to help make a Lean culture successful.

Core Review – In fall 2013, BC Government ministries identified opportunities to improve the effectiveness and efficiency of service delivery to British Columbians, including:

- Overlapping or duplicate programs or services of other ministries or the broader public sector;
- Any change in the Ministry's organizational structure or governance that would make it easier to deliver on the Ministry's objectives and/or improve outcomes for the public;
- Services that could be provided through Alternative Service Delivery (ASD) arrangements and achieve better results;
- Services that are already delivered by ASD arrangements which could achieve better results; and
- Programs that government should consider no longer delivering or organizations that should be restructured, streamlined or dissolved.

Expenditure Restraint Measures – In support of the Province's commitment to balance the budget by 2013/14, the Ministry has initiated expenditure restraint measures, including adhering to government-wide Managed Hiring Guidelines, travel restrictions, and other office and operating cost management measures to achieve efficiencies and savings. The Ministry is committed to meeting its approved budget without negatively impacting service levels.

Pacific Coast Action Plan on Climate and Clean Energy – On October 28, 2013, Premier Christy Clark, California Governor Edmund G. Brown Jr., Oregon Governor John Kitzhaber, and Washington Governor Jay Inslee signed the Pacific Coast Action Plan on Climate and Energy (PC Action Plan), which includes commitments for British Columbia to maintain its low-carbon fuel standard and policies to promote energy efficiency and conservation.

Goals, Objectives, Strategies and Performance Measures

The Ministry's two goals are essentially unchanged from those in the Ministry's *2013/14 – 2015/16 Service Plan* published in June 2013, apart from minor wording changes for clarification. The Government's strategic priority of a strong economy and the *BC Jobs Plan* are directly supported by the Ministry's goal one and its associated objectives, strategies and measures. The Government's strategic priority of a secure tomorrow, and in particular, safe communities, is supported by the Ministry's goal two, objective 2.1 and performance measure five.

Ministry strategies support the *BC Jobs Plan*, as well as *British Columbia's Mineral Exploration and Mining Strategy*, released in 2012. The Ministry continues to implement the *Clean Energy Act*, and the *BC Energy Plan*. The Ministry's performance measures and targets, which also are unchanged from its June 2013 *Service Plan*, are designed to support its goals and to facilitate job creation, economic development and the well-being of communities throughout B.C.

Minister Bennett's Mandate Letter from Premier Christy Clark dated June 10, 2013, includes the following key deliverables. The locations in this Service Plan of the Ministry's specific strategies in support of these deliverables are noted in parentheses:

- Conclude the provincial consultations on the Columbia River Treaty and present options to Cabinet on any improvements that can be made to the Treaty. (Page 20)
- Work with the Ministry of Aboriginal Relations and Reconciliation to continue to sign mineral tax sharing agreements with First Nations to encourage mine development across the province. (Page 24)
- Continue to develop the Site C dam project and support it through the environmental assessment review process. (Page 20)
- Complete the Northwest Transmission Line and Iskut Extension. (Page 20)
- Continue to find efficiencies at BC Hydro, reporting these findings to Cabinet. (Page 20)
- Minimize rate increases to consumers and industry at BC Hydro while continuing to replace and build hydroelectric and transmission infrastructure. (Page 20)
- Work with the Clean Energy sector to ensure that there remain significant opportunities for renewable energy companies to provide power to British Columbia. (Page 23)

The *BC Jobs Plan* highlights the importance of the mining sector to the B.C. economy and targets eight new mines to be in operation by 2015, and the expansion of nine existing mines. Investments such as the Northwest Transmission Line will facilitate the opening of new areas to mining by providing cleaner, affordable electricity in places where communities currently rely on diesel generators. With its vast mineral and coal reserves and one of the world's largest concentrations of

mining and exploration companies, B.C. is well positioned to benefit from ongoing global demand for mined commodities.



When it commences operation in 2014, the 287 kV Northwest Transmission Line and Iskut extension will provide cleaner, affordable energy to industrial developments and communities in the area, and will allow independent power producers to connect to the provincial grid. The project includes 1,100 steel towers, averaging 27 metres in height, like the one in this photo.

The Ministry promotes development and use of alternative energy technology and energy efficiency measures to minimize waste, increase productivity and lower operating costs, while delivering a healthier living and work environment for British Columbians. The *BC Energy Plan* together with the *Clean Energy Act* foster the development of new, sustainable energy and technology industries. This will ensure more comprehensive and proactive approaches to energy issues in British Columbia for the next 20 years, and support the delivery of a secure, reliable supply of affordable electricity that is produced in an environmentally responsible way. The *Greenhouse Gas Reduction (Renewable and Low Carbon Fuel Requirements) Regulation* implements B.C.'s low carbon fuel standard to reduce the carbon intensity of transportation energy and create demand for low-carbon transportation fuels.

Goal 1: Globally competitive energy and mining sectors that create jobs and grow the economy.

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

Strategies

- Support the development of roads and electricity infrastructure required for industrial activity, including liquefied natural gas, oil and gas development, new mines and mine expansions.
- Work with BC Hydro to ensure an adequate supply of clean electricity is available to support new investments in mines.
- Continue to develop a coordinated, transparent permitting and approval process with clear timelines for all industrial projects, including natural resource development projects.
- Continuously improve geological and resource assessments for geothermal, coal, minerals and aggregate through collaboration with industry, industry associations, and academic and research institutes.
- 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.

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

Performance Measure	2012/13 Actual	2013/14 Forecast	2014/15 Target	2015/16 Target	2016/17 Target†
Number of new mines in operation since release of Jobs Plan*	2	2	5	8	8
Number of expansions to existing mines since release of Jobs Plan	6	7	8	9	9

Data Source: Ministry of Energy and Mines, internal tracking system. **Canada Starts Here: The BC Jobs Plan* was released September 22, 2011 † *The BC Jobs Plan* currently sets targets only until the end of 2015/16.

Discussion

The annual targets support commitments in the *BC Jobs Plan* to have a total of eight new mines in operation and nine expansions to existing mines in place by 2015. Performance Measures 1 and 2 provide a cumulative count to reflect Ministry performance toward *Jobs Plan* targets. Because 2012/13 was the first full year since the release of the *Jobs Plan*, no benchmark is available for either measure.

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

Strategies

- Contribute to trade missions and marketing initiatives led by the Ministry of Jobs, Tourism and Skills Training to attract investment in B.C. energy and mineral projects and business opportunities.
- Further establish B.C. as a recognized centre of excellence for energy and mining expertise, innovation and technology in collaboration with industry, post-secondary institutions, the federal government and provincial agency partners.
- Improve the competitiveness of B.C.’s energy and mining sectors by providing leadership, information, investing in infrastructure, and developing new policies, regulations and programs.
- Conduct energy and mining related 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.
- The Province will continue to work with the federal government to develop a single, effective environmental review process, maintaining the highest standards while eliminating costly and time-consuming duplication.

Performance Measure 3: Annual investment in the mineral exploration and mining sector.

Performance Measure	2012/13 Actual	2013/14 Forecast	2014/15 Target	2015/16 Target	2016/17 Target
Annual investment in mineral exploration and mines	\$3.7 billion	\$2.8 billion	\$2.8 billion	\$2.8 billion	\$3.0 billion

Data Source: Based on calendar year survey results from Natural Resources Canada, Statistics Canada and PricewaterhouseCoopers

Discussion

Through its strategies to improve B.C.’s competitiveness, the Ministry continuously strives to attract long-term investment in B.C.’s energy and mining sectors and related service industries. Such investment creates jobs and business opportunities throughout the province, which in turn contribute to the stability and well-being of B.C. communities. A key challenge to achieving investment targets is that the markets for mineral commodities can be cyclical, as can the levels of investment in these sectors. Investment in mineral exploration and mining has varied substantially in recent years, from \$1.8 billion in 2010/11 to \$3.8 billion in 2011/12, reflecting the variability of commodity prices. For example, in the two years from late August/early September 2011, gold fell by approximately 24 per cent and silver by approximately 43 per cent.

Prices are projected to remain at reduced levels for the next several years. As a result, the 2013/14 forecast and the targets for 2014/15 and 2015/16 are reduced from the 2012/13 actual figure. Longer term, commodity prices are estimated to increase. As a result, the 2016/17 target is higher than for the previous two years. Financial markets and currency fluctuations also affect investment levels. Streamlined processes for energy and mine project permitting and environmental assessment, along with the timely review of tenure applications, help to reduce risk and sustain investment levels.

Annual mineral exploration investment includes expenditures on prospecting, geological surveys, mapping, mineral valuation, drilling and rock work. Annual investment in mines includes mine planning, permitting, environmental assessment, construction, operation and reclamation.

Objective 1.3: Optimal revenue from the development of B.C.’s energy and mineral resources.

Strategies

- Provide the government services needed to respond to increasing economic activity, in particular delivering sound, timely decisions on exploration and mining, and related water, Crown land and other permits, authorizations and tenures.
- Optimize the mineral tax system to enhance B.C. mining competitiveness while generating revenues to the Crown from the production of its resources.

Performance Measure 4: Direct government revenue derived from mineral exploration and mining.

Performance Measure	2011/12 Benchmark	2012/13 Actual	2013/14 Forecast	2014/15 Target	2015/16 Target	2016/17 Target
Direct government revenue from mineral exploration and mining	\$170 million	\$173 million	\$170 million	\$170 million	\$170 million	\$180 million

Data Sources: Internal tracking by the Ministry of Finance and the Ministry of Energy and Mines.

Note: Mining revenue comprises free miner certificates, mining receipts, coal tenure revenue and mineral taxes

Discussion

Revenue derived from mineral exploration and mining contributes to government programs such as education and social services.

This indicator shows the forecast of mining revenues expected to be collected from industry and includes free miner certificates, mining receipts, coal tenure revenue and mineral taxes. The mineral exploration and mining industry contributes to government revenues in a number of other ways, including payments related to employment. Based on survey results, PricewaterhouseCoopers estimated that payments to governments by B.C.’s mining industry totalled \$504 million in 2012.²

² *Stay The Course: The Mining Industry in British Columbia 2012*

B.C.'s coal and mineral producers are subject to demand and price fluctuations in world commodity markets where their products are sold. The Ministry implements resource revenue-collection mechanisms, such as mineral tax, that are market-based to share the market and investment risk, and manage resource development. As a result, government revenues are also subject to market fluctuations and financial conditions. The targets in this service plan have been revised downwards to reflect the decline in coal prices. Coal prices are expected to increase gradually over the next three years due to a rebounding global economy.

Objective 1.4: A secure, reliable supply of energy for the long term benefit of all British Columbians.

Strategies

- Work with BC Hydro to upgrade the Province's heritage generation, transmission and distribution assets to meet future demand, including the development of a Clean Energy Strategy and Site C.
- Develop and implement policies to keep electricity rates affordable for B.C. families and respond to B.C.'s other energy objectives.
- Develop and implement policies to ensure reliable electricity supply through mandatory reliability standards and participation in the Western Electricity Coordinating Council.
- Expand the use of natural gas as a transportation fuel.

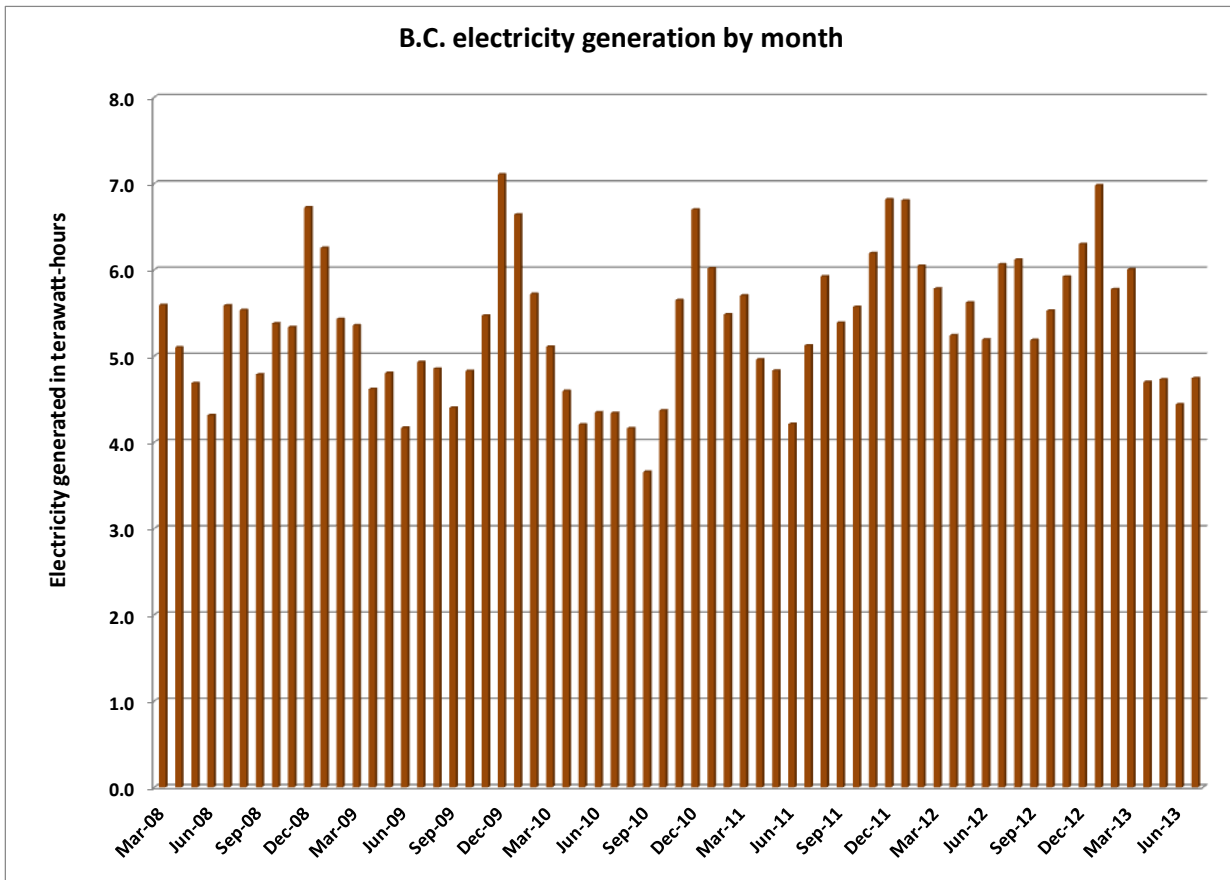
Objective 1.5: Efficient and effective energy and mining policy, legislation and regulation in the public interest of British Columbians.

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.
- Prepare for and enter into negotiations with Canada and the United States on changes to the Columbia River Treaty.
- In consultation with other ministries and stakeholders, develop and implement new acts and regulations that support the responsible development and use of energy and mineral resources.

New long-term plan to meet B.C.'s long-term electricity growth

Following extensive consultation with the public, stakeholders and First Nations, in November 2013 BC Hydro released its 20-year strategic plan to meet the province's growth in electricity demand. The Integrated Resource Plan is flexible, and focuses on making prudent investments in conservation and clean energy, while keeping open future electricity supply options.



Total includes electricity generated by public and private utilities, as well as industrial generation.

Data Source: Ministry of Energy and Mines, using data from Statistics Canada

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

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 Measure 5: WorkSafeBC injury rate at B.C. major mines.

Performance Measure	2011/12 Benchmark	2012/13 Actual	2013/14 Forecast	2014/15 Target	2015/16 Target	2016/17 Target
WorkSafeBC injury rate at B.C. mines	1.3	1.1	1.1	1.1	1.1	1.1

Data Source: WorkSafeBC

Note: The mining industry will continue to maintain the highest safety standards with the target of 1.1 injuries per 100 person years of employment being maintained despite increased employment and new major mines opening over the next four years.

Discussion

Operations at mines, electricity generating stations and transmission facilities can be hazardous and if not properly managed, can affect the environment. Safeguarding the public and the environment contributes to environmentally responsible development and use of these resources. The threat of accidents, leakages and spills is always present, so ongoing policy development and education are necessary to ensure risk is minimized.

The targets reflect the anticipated average number of accident claims per year at B.C. mines, including open pit coal and metal mines, quarries and underground mines per 100 person years. B.C.’s mining workforce is constantly evolving and is expected to have a number of workers over the next ten years who are new to mining operations. Enhanced health and safety training and inspections are required to ensure mining remains one of B.C.’s safest heavy industries. To provide context for this measure, using 2009 estimates, a 0.1 per cent decrease in the WorkSafeBC injury rate would result in approximately 10 fewer claims or an 8.6 per cent decrease in the number of claims. The claims cost for the three major mines subsectors (i.e., open-pit coal, open-pit metal and underground mines) was estimated at \$3.34 million in 2009. Therefore, an 8.6 per cent decrease in the number of claims would result in an estimated \$287,000 savings in cost.

Objective 2.2: Clean energy resources, fuels and related technologies complemented by energy efficiency and conservation efforts across all sectors of the economy.

Strategies

- Support energy utilities with the implementation of cost effective demand side management measures.
- Participate in and support long-term clean energy planning initiatives at the regional and provincial level, including the Pacific Coast Collaborative, Western Renewable Energy Zones initiative and BC Hydro’s *Integrated Resource Plan*.
- Work with the Climate Action Secretariat (Ministry of Environment), other government ministries and agencies, Crown corporations, the public, electricity producers and utilities across B.C. to implement a coordinated approach to energy conservation and efficiency measures and support the deployment of alternative energy options to meet the province's energy needs.

- Continue to support energy efficiency in homes and buildings by monitoring on-bill financing pilots for British Columbians to inform the evolution of the successful LiveSmart BC: Energy Efficiency Program.
- Ensure the procurement of clean and renewable electricity continues to account for at least 93 per cent of total generation, excluding power required for liquefied natural gas projects.
- Review and update the *BC Bioenergy Strategy* to take advantage of B.C.'s abundant sources of Mountain Pine Beetle timber, wood wastes and agricultural residues.
- Through the Innovative Clean Energy Fund, support projects that solve real, everyday energy and environmental issues and create economic benefits for all British Columbians.
- Reduce the carbon intensity of the transportation energy used by British Columbians by continuing to implement the *Renewable and Low Carbon Fuel Requirements Regulation*.

Promoting the deployment of alternative energy technology contributes to environmentally responsible energy development and use. The Government plays a key role in providing information to the public about practical conservation initiatives, establishing new standards through the B.C. Building Code and *Energy Efficiency Act*, and encouraging the private sector to develop alternative energy sources.

B.C. has a number of alternative energy options such as solar, tidal, biomass, wave, geothermal and wind power. These sources of alternative energy are renewable and can complement existing electricity generating facilities and heating and transportation fuels.

Performance Measure 6: Total energy savings achieved each year through utility and provincial conservation policies, programs, and regulations.

Performance Measure	2012/13 Actual	2013/14 Forecast	2014/15 Target	2015/16 Target	2016/17 Target
Cumulative energy savings achieved each year through energy utility and provincial conservation policies, programs, and regulations since 2007/08 ¹	20,045,934 GJ	22,997,650 GJ	26,078,895 GJ	30,078,895 GJ	32,314,465 GJ

Data Source: Utilities' annual reports and internal tracking by the Ministry of Energy and Mines.

¹Measured in Gigajoules to include both gas and electricity savings. The savings from energy utilities are from BC Hydro, FortisBC Electric and FortisBC Gas. Data on conservation rates is from BC Hydro and FortisBC Electric. FortisBC stats are based on calendar year due to reporting differences.

Discussion

This measure reports cumulative energy savings achieved each year through the LiveSmart BC energy efficiency incentive program, utility demand-side management programs, conservation rates, and regulated codes and standards since 2007/08. The measure is an indicator of the energy efficiency and conservation policies of *The BC Energy Plan* of 2007, as well as British Columbia's *Clean*

Energy Act objectives for BC Hydro and natural gas savings resulting from FortisBC Gas efficiency and conservation initiatives. Since this measure is cumulative, no benchmark is available.

Targets are set based on planned utility and government spending.³

Objective 2.3: The Ministry, stakeholders, First Nations and industry are engaged and working cooperatively for the responsible development and use of B.C.'s energy and mineral resources.

Strategies

- Foster working relationships among industry, the public, First Nations and landowners by clarifying and simplifying resource exploration and development management processes, enhancing dispute resolution methods, and offering more support and information.
- Continue to collaborate with other ministries, agencies and Crown corporations to provide information to promote greater public understanding of the exploration and development of resources.
- Support the development and continuous improvement of Strategic Engagement Agreements with First Nations to make consultation processes more predictable.
- Support the development of Revenue Sharing Agreements that provide First Nations communities with economic benefits based on energy and mining activities in their traditional territories.
- Continue to work with the Ministry of Aboriginal Relations and Reconciliation to build effective business development relationships with First Nations.
- 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.
- Continue to support the Remote Community Energy Network (BC Hydro, Aboriginal Affairs and Northern Development Canada, the First Nations Technology Council and the Ministry) including energy education and training, community energy planning, utility service provision, clean energy development, energy efficiency and energy monitoring.

If the public, First Nations, landowners and non-governmental organizations are informed and participate in responsible resource exploration and development, they will have an opportunity to help identify and contribute constructively to the resolution of issues. They also become more aware of the

³ BC Hydro's energy savings are drawn from its demand side management (DSM) plan and align with recommendations from the 2013 Integrated Resource Plan approved by Government on November 26, 2013. These savings targets have been reduced primarily due to electricity market conditions. FortisBC Gas plans beyond 2013 have not yet been approved by the BCUC. The targets are based on recent annual savings achievements, and have been lowered from previous projections. FortisBC Electric targets are not based on the utility's current proposals but on status quo DSM spending, due to uncertainty about proposed program reductions. Projected savings from the LiveSmart BC program for 2013/14 and beyond reflect cumulative energy savings carried forward from previous measures, with no new incremental energy savings after April 1, 2013.

benefits that resource development can provide to a community, such as regular employment for citizens and expanded infrastructure.

There are close to 70 remote communities in B.C. that are not connected to the major natural gas or electricity grids. These communities have challenges and opportunities in their energy systems that are very different from those in grid-connected communities. The Ministry's community energy solutions support in these communities is tailored to these unique situations.

Resource Summary

Core Business Area	2013/14 Restated Estimates ¹	2014/15 Estimates ²	2015/16 Plan	2016/17 Plan
Operating Expenses (\$000)				
Mines and Mineral Resources	11,056	11,056	11,056	11,056
Electricity and Alternative Energy	2,949	2,949	2,949	2,949
Executive and Support Services	5,106	5,102	5,100	5,100
Innovative Clean Energy Fund special account	5,030	2,300	2,300	2,300
Total	24,141	21,407	21,405	21,405
Ministry Capital Expenditures (Consolidated Revenue Fund) (\$000)				
Executive and Support Services	284	196	196	196
Total	284	196	196	196
Other Financing Transactions (\$000)				
Northwest Transmission Line Receipts	57,000	13,000	0	0
Northwest Transmission Line Disbursements	(57,000)	(13,000)	0	0
Total Net Cash Source (Requirements)	0	0	0	0

¹ For comparative purposes, amounts shown for 2013/14 have been restated to be consistent with the presentation of the 2014/15 Estimates.

² Further information on program funding and vote recoveries is available in the [Estimates and Supplement to the Estimates](#).

Appendices

Ministry Contact Information

Deputy Minister's Office

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Southwest

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Phone: 250-387-4825

email: SouthwestMinesDivision@gov.bc.ca

Mineral Titles Branch

303-865 Hornby Street

Vancouver, B.C. V6Z 2G3

Phone: 1-866-616-4999

Mineral Claims Inspectors

Kamloops

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Kamloops, B.C. V2C 2T3
Phone: 250-371-3786

Smithers

PO Box 1389
Houston, B.C. V0J 1Z0
Phone: 250-845-3584

Legislation

The Ministry of Energy and Mines and Minister Responsible for Core Review is responsible for the following legislation:

1. BC Hydro Public Power Legacy and Heritage Contract Act
2. Clean Energy Act (The Act except Part 6 and s. 38; s. 36 (2))*
3. Coal Act
4. Columbia Basin Trust Act
5. Energy Efficiency Act
6. Geothermal Resources Act
7. Greenhouse Gas Reduction (Renewable and Low Carbon Fuel Requirements) Act
8. Hydro and Power Authority Act
9. Hydro Power Measures Act
10. Mineral Land Tax Act (The Act except as it relates to (a) the collection of public money, as defined in section 1 of the Financial Administration Act, other than a fine, or (b) the administration of deposits and securities payable)*
11. Mineral Tax Act (The Act except as it relates to (a) the collection of public money, as defined in section 1 of the Financial Administration Act, other than a fine, or (b) the administration of deposits and securities payable)*
12. Mineral Tenure Act
13. Mines Act
14. Mining Right of Way Act
15. Ministry of Energy and Mines Act (except ss. 3, 5 (a), (b) and (c), 7 – 8.5, 9 – 13.1, 23 and 24 as those provisions relate to the portfolio of the Minister of Natural Gas Development and Minister Responsible for Housing and Deputy Premier.)
16. Power for Jobs Development Act
17. Special Accounts Appropriation and Control Act, (s. 9.5)

To view these statutes and their regulations, visit: <http://www.bclaws.ca/>

The Ministry is also responsible for the following Private, Special and Local Statutes:

1. Fort Nelson Indian Reserve Minerals Revenue Sharing Act (as it relates to minerals and coal)
2. Indian Reserve Mineral Resource Act
3. West Kootenay Power and Light Company, Limited Act, 1897

Notes: *

2. The Minister of Aboriginal Relations and Reconciliation is responsible for Part 6 and s. 38; s. 36(2)
10. The Minister of Finance is responsible for the provisions of the Act as it relates to (a) the collection of public money, as defined in section 1 of the Financial Administration Act, other than a fine, or (b) the administration of deposits and securities payable
11. The Minister of Finance is responsible for the provisions of the Act as it relates to (a) the collection of public money, as defined in section 1 of the Financial Administration Act, other than a fine, or (b) the administration of deposits and securities payable

Crown Corporations

The Ministry holds responsibility for three Crown corporations:

[BC Hydro](#)

[Columbia Power Corporation](#)

[Columbia Basin Trust](#)

The Ministry does not hold responsibility for any other agencies, boards or commissions.

Hyperlinks to Additional Information

Canada Starts Here: The B.C. Jobs Plan can be found at:

http://www.bcjobsplan.ca/wp-content/uploads/2011/09/CSH_BCJobsPlan_web.pdf

BC Hydro 10-year Rate Plan:

<http://www.newsroom.gov.bc.ca/2013/11/10-year-plan.html>

Energy and Mines Information

The *BC Energy Plan* can be found at: www.energyplan.gov.bc.ca/

The *Clean Energy Act* and a complete set of backgrounders and factsheets can be found at:

www.mediaroom.gov.bc.ca/DisplayEventDetails.aspx?eventId=490

British Columbia's Mineral Exploration and Mining Strategy can be found at:

<http://www.empr.gov.bc.ca/Mining/Documents/MiningStrategy2012.pdf>

