

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

**REVISED 2013/14 – 2015/16
SERVICE PLAN**



For more information on the British Columbia Ministry of Energy and Mines and Minister
Responsible for Core Review
see Ministry Contact Information on page 24 or contact:

Ministry of Energy and Mines and Minister Responsible for Core Review

PO BOX 9319
STN PROV GOVT
VICTORIA, BC
V8W 9N3

or visit our website at
<http://www.gov.bc.ca/ener/>

Published by the Ministry of Energy and Mines and Minister Responsible for Core Review

**Message from the Minister and
Accountability Statement**



Since its early days as a province, British Columbia has relied on natural resources to power its economy. Our province is blessed with abundant natural resources as well as resourceful and diverse people and businesses. Our government is committed to building a strong economy that will support our world class health care, education, skills training and social services, and the responsible development of our natural resources are key to a strong sustainable economy.

Sixty years ago, W.A.C. Bennett’s vision saw the development of large hydroelectric facilities on the Columbia and Peace Rivers. Today, we still benefit from this investment and are fast approaching the 50th anniversary of the Columbia River Treaty. The Ministry of Energy and Mines’ priorities over the coming years include ensuring a balanced Ministry budget in order to control spending and achieve an overall balanced budget for the province of British Columbia.

We will conclude the provincial consultations on the Columbia River Treaty and present options to Cabinet on any improvements that can be made to the Treaty. The development of the Site C dam project will be supported through the environmental assessment review process.

We will find efficiencies at BC Hydro and minimize rate increases to consumers and industry while continuing to replace and build hydroelectric and transmission infrastructure. The Northwest Transmission Line and Iskut Extension will be completed and we will work with the clean energy sector to ensure that there remain significant opportunities for renewable energy companies to provide power to British Columbians.

We have set aggressive targets for our mining sector and in order to meet those goals we will continue to support the “one project, one process” initiative to foster more certainty for investors while maintaining our rigorous environmental standards. Key responsibilities for mining are to continue supporting the 2011 Jobs Plan commitments to have eight new mines and nine mine expansions by 2015, and achieve a 60-day turnaround for Notice of Work permitting. Additionally, we will work with the Ministry of Aboriginal Relations and Reconciliation to continue signing mineral tax sharing agreements with First Nations to encourage mine development across the province.

In addition, a core review of government will ensure we are using our resources to the best of our ability to deliver on the priorities of British Columbians. A core review of government will examine the best possible use of government resources, to ensure they are directed to the areas of highest priority, and to protect value for money for taxpayers in the delivery of government services. The core review will also make recommendations on how to improve B.C.’s regulatory reform and red tape reduction initiatives to benefit B.C. businesses. An approach to core review is expected to be finalized in August, 2013.

The *Ministry of Energy and Mines and Minister Responsible for Core Review Revised 2013/14 - 2015/16 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.

A handwritten signature in blue ink, appearing to read "Bill Bennett". The signature is stylized and cursive.

Honourable Bill Bennett

Minister of Energy and Mines and Minister Responsible for Core Review
June 18, 2013

Table of Contents

Message from the Minister and Accountability Statement	3
Purpose of the Ministry	6
Strategic Context	7
Goals, Objectives, Strategies and Performance Measures	12
Resource Summary	23
Appendices.....	24
Ministry Contact Information	24
Hyperlinks to Additional Information	25

Purpose of the Ministry

The Ministry of Energy and Mines is the key provincial ministry responsible for British Columbia's electricity, alternative energy and mining 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 guidelines, 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 and legislation to maintain B.C.'s mining sector competitiveness and encourage investment in mineral exploration and mining in the province. The Ministry develops and delivers geoscience databases and surveys, and provides funding to other organizations to collect and publish geoscience information. The Ministry is responsible for permitting and inspecting mining projects to ensure the health and safety of workers, the public and the environment. The Ministry also promotes mineral exploration and provides assistance and advice to advance and support continued development of the sector.

The Ministry develops and oversees British Columbia's policies with regard to electrical power generation and transmission. 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 significant investments in clean, renewable energy across the province while keeping electricity rates affordable for British Columbians. 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.

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 will grow by 1.6 per cent in 2013 and 2.5 per cent in 2014. Risks to British Columbia's economic outlook include the following: further slowing of domestic economic activity; renewed weakness in the US economy; the ongoing European sovereign debt crisis threatening the stability of global financial markets; exchange rate volatility; and slower than anticipated economic growth in Asia dampening demand for BC's exports.

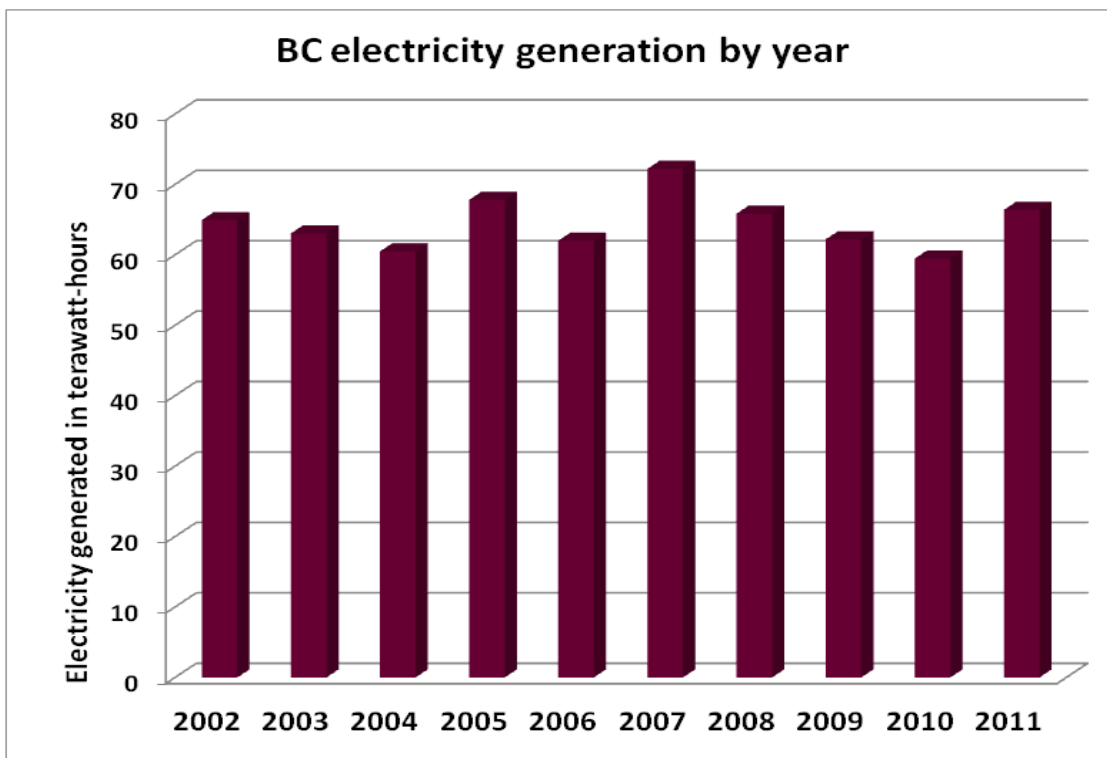
Keeping British Columbia's electricity prices affordable is a government priority. BC Hydro has provided relatively low-cost power to the citizens of B.C. for over 50 years, thanks to the Province's heritage assets, which include historic electricity facilities such as the major dams on the Peace and 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 sets domestic electricity and natural gas rates based on costs.

Increasing demand for electricity, changing patterns of use and an aging infrastructure require attention. BC Hydro is planning a \$6 billion capital program including:

- The Interior to Lower Mainland transmission expansion project—a 250 km 500 kV transmission line along the existing right-of-way between Merritt and Coquitlam. This \$700 million project is the largest transmission project in the last 30 years.
- The \$222 million Dawson Creek/Chetwynd Area Transmission Project will provide reliable power to the South Peace region, which has a greater demand for electricity than any other region of the province.
- Smart Transmission Grid and Meters will improve reliability, outage detection and reduce electricity theft, while delivering net benefits to ratepayers. The \$900 million project is nearing completion.
- The Ruskin Dam and Powerhouse \$700 million upgrade is underway and is expected to be completed by 2018. The 80-year-old facility is in need of a major upgrade.
- Operating since 1947, the John Hart dam needs to be replaced. Construction of this \$1.1 billion project is expected to begin in 2013 and will address seismic, reliability, and both fish and fish habitat concerns.

- The installation of two additional turbines in existing turbine bays at Mica Generating Station is underway. The \$700 million project will provide 1,000 MW of capacity. The target in-service date for the 5th turbine is October 2014; the 6th turbine the following year.

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 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.



Data Source: Ministry of Energy and Mines, using data from *Selected Economic Statistics*, June 2012, BC Stats. Note: 1 terawatt-hour = 1,000 gigawatt-hours. Generation is by calendar year.

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. B.C. has the opportunity to harness its significant renewable energy resources and become a clean-energy powerhouse. Both electricity and natural gas have the potential to help people in B.C. and other jurisdictions reduce their carbon emissions.

British Columbia is Canada’s largest producer of copper and its largest exporter of metallurgical coal. B.C.’s mining sector is a key economic driver: the value of commodities produced by B.C. mines was approximately \$8.3 billion in 2012, 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, 30 industrial mineral

mines, and hundreds of aggregate pits and quarries. More than 30,000 people are employed in mineral exploration, mining and related sectors, and, of these, more than 12,500 are directly employed at producing mines. Due to continuing demand for B.C.-produced minerals and coal on world markets, both mining company revenues and provincial mineral tax revenues are expected to remain strong.

The Ministry strategy for mineral exploration and mining, directly supports *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, three new mines under construction and six mine expansions permitted since the *BC Jobs Plan* was released. With all of this activity, mining continues to be one of the safest heavy industries in B.C.

The New Afton mine near Kamloops opened in September 2012 and employs over 400 people, including more than 100 who were part of a training program coordinated by the British Columbia Aboriginal Mine Training Association. New Afton is expected to yield an average of 85,000 ounces of gold, 214,000 ounces of silver and 75 million pounds of copper annually over its 12-year life. At the Mount Milligan mine site northwest of Prince George, 1,000 jobs were created at the peak of construction in the summer of 2012. Once it is fully operational, Mount Milligan, which is being developed at an estimated capital cost of \$1.5 billion, will provide 350 full-time jobs over its 22-year expected life. The \$470 million Red Chris mine, currently under construction in northwest B.C., will employ about 500 people during the peak of construction and 300 once it is fully operational over an expected 28-year life. While mine developments result in significant numbers of high-paying jobs and substantial, long-term capital investments, mining occupies less than one per cent of the provincial land base.

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.

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 10,000 job openings by 2020, 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, the province exported a total of \$9.1 billion worth of coal and metallic mineral products. While this is slightly down from 2011, it represents 29 per cent of all B.C. exports¹. These exports boost the provincial economy, bringing additional jobs, investment and government revenue.

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.

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.

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 BC Environmental Assessment Office and the Canadian Environmental Assessment Agency signed a [Memorandum of Understanding](#) (MOU) to implement substitution in B.C. 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.).

To date, the federal Minister of the Environment has approved substitution for the EAs of four mining projects in B.C.: Carbon Creek, Sukunka, Echo Hill and Arctos Anthracite. As a result of substitution, B.C.'s findings and conclusions will be used to support both the federal and provincial governments in making their respective EA decisions.

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

Ministry Commitment to Lean Processes

As of May 2012, Lean is the process improvement method used by all British Columbia ministries and agencies to improve customer service, build internal capacity and eliminate waste in the form of unnecessary rules, processes and non-essential activities. To implement a Lean culture of innovation, customer focus and continuous improvement, in 2012/13 the Ministry piloted one Lean project, involving improving the business processes for coal tenure applications. Lean information sessions and ongoing staff training will be offered in the coming years. The Ministry and its staff, with the help of the BC Public Service Agency, will continue to make Lean culture an integral part of the work environment.

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.

Goals, Objectives, Strategies and Performance Measures

A wide range of Ministry strategies are being implemented to facilitate job creation, economic development and the well-being of communities throughout B.C. These strategies include Ministry initiatives in support of the *BC Jobs Plan*, as well as *British Columbia's Mineral Exploration and Mining Strategy*, released in 2012. The Ministry also continues implementation of the *Clean Energy Act*, and the *BC Energy Plan*. The Ministry's performance measures and targets are designed to support its goals.

The Ministry regularly reviews the legislative, regulatory and policy frameworks associated with mining, electricity and alternative energy. As part of this, improving the effectiveness and timeliness of multi-agency federal and provincial reviews of proposed energy and mining projects is a high priority for British Columbia. For mineral exploration and mines, the Ministry maintains effective and efficient regulation of the sites through enforcement when necessary and by encouraging health, safety and environmental best practices.

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 at least 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 the world's largest concentration of mining and exploration companies, B.C. is well positioned to benefit from ongoing global demand for mined commodities.

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.

There have been several changes in the performance measures for the Ministry of Energy and Mines *2013/14 – 2015/16 Service Plan* from those of the former Ministry of Energy, Mines and Natural Gas. One performance measure has been dropped: "Annual investment in electricity facilities." The measure does not directly reflect performance for current government policies and programs, following the changes to the definition of electricity self-sufficiency.

The annual targets for Performance Measure 1 and 2 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. By changing these measures to a cumulative count of new mines and expansions, Performance Measures 1 and 2 more accurately reflect Ministry performance since the release of the Jobs Plan on September 22, 2011.

Another performance measure, "Total energy savings achieved through electric utility and provincial conservation policies, programs and regulations," has been replaced with an improved version, "Cumulative energy savings achieved each year through energy utility and provincial conservation

policies, programs and regulations since 2007/08.” By reporting the cumulative energy savings each year rather than energy savings resulting exclusively from new initiatives, the measure more accurately reflects the impact of government policies, programs and regulations on the consumer and ratepayer. For more details, see the discussion section under the Performance Measure 6.

Goal 1: Internationally competitive energy and mining and sectors that contribute to jobs and 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 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, storage reservoirs, 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 Target	2014/15 Target	2015/16 Target
Number of new mines in operation since release of Jobs Plan*	2	4	5	8
Number of expansions to existing mines since release of Jobs Plan	6	7	8	9

Data Source: Ministry of Energy and Mines

*Canada Starts Here: The BC Jobs Plan was released September 22, 2011

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

have been changed by adding ‘since release of Jobs Plan’ to both measures. By modifying these from an annual count of new mines and expansions to a cumulative count, these Performance Measures more accurately reflect Ministry performance.

The responsibility for meeting the performance targets is shared jointly with the Ministry of Forests, Lands and Natural Resource Operations.

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 towards 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 Target	2014/15 Target	2015/16 Target
Annual investment in mineral exploration and mines	\$3.7 billion	\$2.8 billion	\$2.8 billion	\$2.8 billion

Data Source: Ministry of Energy and Mines, 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 energy and mineral commodities can be cyclical, as can the levels of investment in these sectors. 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.



Inside the mill at Endako Mines, northwest of Prince George. An expansion of the mill was commissioned in the summer of 2012, and along with other upgrades to the molybdenum mine, will nearly double the ore processing capacity to 55,000 tonnes daily. The mine employs 420 skilled and professional workers.

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.

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

Performance Measure	2012/13 Forecast	2013/14 Target	2014/15 Target	2015/16 Target
Direct government revenue from mineral exploration and mining	\$170 million	\$170 million	\$200 million	\$200 million

Data Source: 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

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.

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

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.
- Develop and implement policies to keep electricity rates affordable for B.C. families and respond to B.C.'s other energy objectives.
- Ensure reliable electricity supply through innovative, aggressive conservation, ongoing competitive power procurement programs, and BC Hydro funded projects.
- Expand the use of natural gas as a transportation fuel.



Photo: Courtesy BC Hydro

One of BC Hydro's oldest facilities, the 65-year-old John Hart generating station near Campbell River is due to be replaced by 2018. The replacement, generating 835 gigawatt-hours of electricity annually, will be much more earthquake resistant, more reliable, and—thanks to a new water bypass facility—will improve the habitat for fish. A contract is expected to be signed in the summer of 2013, creating about 400 jobs for the five-year construction period.

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.
- Complete the development of a Carbon Capture and Storage Regulatory Framework.
- Manage the review of the Columbia River Treaty to ensure benefits for British Columbia continue to be realized.
- 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.

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

Objective 2.1: Standards that protect 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.
- Work with industry to identify disposal zones for carbon dioxide sequestration projects and opportunities for carbon dioxide use in enhanced oil recovery.
- 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: WorkSafe BC injury rate at B.C. mines

Performance Measure	2012/13 Forecast	2013/14 Target	2014/15 Target	2015/16 Target
WorkSafeBC injury rate at B.C. mines	1.8	1.8	1.8	1.8

Data Source: WorkSafe BC. **Note:** This measure, formerly known as “Short term injury rate at B.C. mines” has been renamed to reflect the data source. In all other respects, the measure is unchanged.

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 \$288,000 savings in cost. While the measure remains unchanged for the current year, it has been renamed from "Short term injury rate at B.C. mines" to "WorkSafeBC injury rate at B.C. mines," in order to reflect the source of the data.

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 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.
- Continue to implement 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 energy used by British Columbians by implementing a low carbon fuel requirement and increasing the supply of clean electricity for transportation.

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 Forecast	2013/14 Target	2014/15 Target	2015/16 Target
Cumulative energy savings achieved each year through energy utility and provincial conservation policies, programs, and regulations since 2007/08 ¹	20,591,460 GJ	24,724,511 GJ	33,548,401 GJ	39,500,343 GJ

Data Source: 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.

Discussion

This new 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 2007/08.³ The measure replaces the previous measure, “Total energy savings achieved through electric utility and provincial conservation policies, programs and regulations.” The new measure is driven by 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. These objectives are for BC Hydro to reduce expected increases in demand for electricity by 66 per cent by 2020, and to ensure BC Hydro rates remain among the most competitive for North American public utilities. In 2012/13 alone, British Columbia will save energy equivalent to the annual energy consumption of 228,034 households.

³ The energy savings in this measure reflect energy efficiency and conservation initiatives undertaken since *The BC Energy Plan* of 2007.

The previous measure, “Total energy savings achieved through electric utility and provincial conservation policies, programs and regulations,” reported new, or incremental, annual energy savings, while the new measure reports the cumulative energy savings each year. This provides a better account of the performance of energy efficiency and conservation initiatives. For instance, upgrading to a high efficiency appliance reduces energy consumption each year over the effective life of the appliance, rather than for just the year it was purchased. The cumulative measure also harmonizes with the way that BC Hydro reports energy savings. Finally, the new measure has been broadened to include natural gas savings resulting from FortisBC Gas efficiency and conservation initiatives.

BC Hydro’s energy savings are drawn from its 2012/13 – 2013/14 demand side management expenditure application, which has been approved by the British Columbia Utilities Commission. BC Hydro is required to seek the approval of the Commission for demand side management expenditures beyond 2013/14, and BC Hydro will align its future demand side management targets with its Integrated Resource Plan, to be submitted to the Government. As expenditures for the FortisBC Gas demand side management plan are approved by the British Columbia Utilities Commission only through 2013, targets for subsequent years assume incremental annual energy savings equivalent to those projected by the utility for 2013. Projected savings from the LiveSmart BC program for 2013/14 and beyond reflect cumulative energy savings from previous measures being carried forward with no new incremental energy savings after April 1, 2013.

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 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 than grid connected communities. The Ministry's community energy solutions support in these communities is tailored to these unique situations.

Resource Summary

Core Business Area	2012/13 Restated Estimates ⁴	2013/14 Estimates ⁵	2014/15 Plan	2015/16 Plan
Operating Expenses (\$000)				
Mines and Mineral Resources	11,171	11,056	11,056	11,056
Electricity and Alternative Energy	17,980	2,949	2,949	2,949
Executive and Support Services ...	5,284	5,214	5,210	5,208
Innovative Clean Energy Fund special account	14,947	5,030	2,300	2,300
Total	49,382	24,249	21,515	21,513
Ministry Capital Expenditures (Consolidated Revenue Fund) (\$000)				
Executive and Support Services ...	228	284	233	233
Total	228	284	233	233
Other Financing Transactions (\$000)				
Northwest Transmission Line Receipts	60,000	57,000	13,000	0
Northwest Transmission Line Disbursements	(60,000)	(57,000)	(13,000)	0
Total Net Cash Source (Requirements)	0	0	0	0

⁴ For comparative purposes, amounts shown for the 2012/13 have been restated to be consistent with the presentation of the 2013/14 *Estimates*.

⁵ 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

Eighth Floor, 1810 Blanshard Street
PO Box 9319 Stn Prov Govt
Victoria, B.C. V8W 9N3
Phone: 250-952-0241
Ministry website: www.gov.bc.ca/empr

Mines and Minerals Resources Regional Offices

Northwest

PO Box 5000
Second Floor, 3726 Alfred Avenue
Smithers, B.C. V0J 2N0
Phone: 250-847-7383
email: MMD-Smithers@gov.bc.ca

Central/Northeast

350 - 1011 – 4th Avenue
Prince George, B.C. V2L 3H9
Phone: 250-565-4240
email: MMD-PrinceGeorge@gov.bc.ca

South Central

2nd Floor, 441 Columbia Street
Kamloops, B.C. V2C 2T3
Phone: 250-371-3912 Phone: 250-420-2161
email: MMD-Kamloops@gov.bc.ca

Southeast

1902 Theatre Road
Cranbrook, B.C. V1C 7G1
email: MMD-Cranbrook@gov.bc.ca

Southwest

PO Box 9320 Stn Prov Govt
Sixth Floor, 1810 Blanshard Street
Victoria, B.C. V8W 9N3
Phone: 250-387-4825
email: SouthwestMinesDivision@gov.bc.ca

Mineral Titles Branch

303-865 Hornby Street
Vancouver BC V6Z 2G3
Phone: 1-866-616-4999

Mineral Claims Inspectors

Kamloops

2nd Floor, 441 Columbia Street
Kamloops B.C. V2C 2T3
Phone: 250-371-3786

Smithers

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

Hyperlinks to Additional Information

A list of legislation administered by the Ministry can be found at:

www.empr.gov.bc.ca/Titles/legislation/Pages/default.aspx

A list of Crowns, Agencies, Boards and Commissions reporting to the Minister can be found at:

http://www.empr.gov.bc.ca/Titles/legislation/Pages/Major_Agencies_Boards_and_Commissins.aspx

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

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>