

Ministry of
Energy and Mines
and Minister Responsible
for Core Review

2013/14
Annual Service Plan Report



Ministry of Energy and Mines and Minister Responsible for Core Review

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Message from the Minister and Accountability Statement



British Columbia relies on natural resources for much of its economic development. The priorities of the Ministry of Energy and Mines play a critical role in supporting these opportunities and contributing to our province's success. These priorities begin with controlling spending to balance the Ministry budget 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 pay down BC Hydro's deferral accounts, 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. The 10-year plan also includes \$1.6 billion in funding for PowerSmart programs to help customers reduce their bills by using less electricity as well as a rate design review to provide large industrial customers with more flexible rate options to manage their costs.

Government also approved BC Hydro's Integrated Resource Plan (IRP) in November 2013, 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.

Recently, government also announced an independent review of the BC Utilities Commission. This review responds to concerns, raised by customer groups and utilities, about the commission's ability to deliver clear and timely decisions and will be led by an independent task force that will make recommendations on how to improve the commission's effectiveness and efficiency so it can start setting BC Hydro rates by the third year of the 10 Year Plan.

BC Hydro's capital plan of approximately \$1.7 billion per year for the next 10 years is on budget. Projects that have recently started construction include the \$748 million Ruskin Dam Safety and Powerhouse upgrade, the \$272 million GM Shrum Turbine replacement and the \$1.093 billion John Hart Generating Station replacement. Recently completed projects include the Revelstoke turbine, Stave Falls spillway gates, Columbia Valley Transmission Line and Seymour Arm capacitor station, which came in under budget by more than \$150 million combined. This summer, BC Hydro will complete the construction of the Northwest Transmission Line,

unlocking the economic potential of world-class mineral deposits and supporting the development of new mines, jobs and investment in British Columbia's northwest. The Northwest Transmission Line and the extension to Iskut will power the Red Chris Mine, one of the largest copper gold deposits in the world, which will employ 350 workers, including many First Nations, when it opens later this year.

This past year, British Columbia's mineral exploration and mining industries faced ongoing uncertainties in global financial markets and lower commodity prices. These challenges have had impacts, including the decision by Walter Energy to idle its Wolverine and Brule mines and the decision by Teck to defer the opening of its Quintette mine.

While these are tough challenges, the industry has been through this before and there are reasons to expect a rebound in the future. British Columbia's overall shipments of coal and copper have increased and the industry continues to grow. Since 2011, three new mines have opened in British Columbia creating 1,195 jobs, and three more will open this year, creating an additional 815 jobs. Seven major expansions of existing mines have also been completed supporting 3,300 existing jobs and creating more than 300 new jobs.

Today, there are 30 mining projects in British Columbia's environmental assessment process – a huge increase from when I was Mines Minister back in 2005, when we would typically have just one project at a time. Between 2011 and 2013, government increased the level of service to the mining industry and made significant improvements to our permitting processes, including reducing the turnaround time for Notices of Work from 110 days to 55 days by December 31, 2013, and to 43 days by March 31, 2014, surpassing the *Jobs Plan* target of 60 days by December 31, 2013.

To support the development of these projects, government must continue to work with industry to ensure our permitting process provides responsive and timely service. Given current fiscal constraints, government is consulting with industry on permitting fees as a way to ensure long-term, stable funding is in place to maintain service levels and keep turnaround times low. Our Ministry will also continue to work with the Ministry of Aboriginal Relations and Reconciliation to sign mineral tax-sharing agreements with First Nations to support mine development across the province.

The Core Review process was launched to ensure the best possible use of government resources and respect for taxpayers. To date, the Core Review has achieved about \$24 million in savings and we expect to continue to find further savings over the coming months.

Over the past year, another Ministry priority was developing a position on the future of the Columbia River Treaty (CRT). The CRT is one of the most successful trans-boundary water management agreements in the world and after extensive consultation, in March 2014 the Ministry announced the decision to continue the Treaty and seek improvements within the Treaty's existing framework. The Treaty may be terminated by 2024 at the earliest, provided that at least 10 years' notice is given by either party and the Ministry is continuing to work closely with the Canadian Federal Government to prepare for any potential negotiations with the United States.

Ministry of Energy and Mines and Minister Responsible for Core Review

The Ministry of Energy and Mines and Minister Responsible for Core Review's 2013/14 Annual Service Plan Report compares the actual results to the expected results identified in the Ministry's 2013/14 - 2015/16 Service Plan, as updated in June 2013. I am accountable for those results as reported.

A handwritten signature in blue ink, appearing to read "Bill Bennett". The signature is stylized and cursive, with a long horizontal stroke extending to the right.

Honourable Bill Bennett
Minister of Energy and Mines and
Minister Responsible for Core Review

June 25, 2014

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Highlights of the Year

Since June 2013, the Ministry has either met or made significant progress towards all of the requirements of the Minister's Mandate letter, as detailed in the following table.

| Minister of Energy and Mines Mandate Letter – June 10, 2013 | | |
|--|--|--|
| Mandate Letter Item | | Ministry Action |
| 1 | Balance your ministerial budget in order to control spending and ensure an overall balanced budget for the province of British Columbia. | The 2013/14 Ministry budget was balanced. |
| 2 | Conclude the provincial consultations on the Columbia River Treaty and present options to Cabinet on any improvements that can be made to the Treaty. | Completed. The announcements regarding the BC approach were publicly released on March 13, 2014. |
| 3 | 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. | The Ministry continued to work with the Ministry of Aboriginal Relations and Reconciliation to develop Economic and Community Development Agreements with First Nations in order to encourage mine development across the province. As at May 31, 2014, fourteen Economic and Community Development Agreements have been signed. |
| 4 | Continue to develop the Site C dam project and support it through the Environmental Assessment review process. | On January 23, 2014, the Joint Review Panel concluded Environmental Assessment hearings for the Site C dam project and on May 8, 2014, the Panel's report was released to the public. |
| 5 | Complete the Northwest Transmission Line and Iskut Extension. | The Northwest Transmission Line is under construction with an in-service date of June 2014. The Forrest Kerr Project is due to commence commercial operation in July 2014. Responsibility for constructing the Iskut Extension has been transferred to Imperial Metals, which will construct the Extension to BC Hydro's standards and transfer the line back to BC Hydro when completed in summer 2014. BC Hydro will construct a short distribution line to electrify Iskut. |

Ministry of Energy and Mines and Minister Responsible for Core Review

| | | |
|---|--|---|
| 6 | Continue to find efficiencies at BC Hydro, reporting these findings to Cabinet. | The Province announced a 10 Year Plan for BC Hydro on November 26, 2013 that will keep rates as low as possible by limiting operating costs and reducing the amount of money that government takes from the utility. |
| 7 | Minimize rate increases to consumers and industry at BC Hydro while continuing to replace and build hydroelectric and transmission infrastructure. | On November 26, 2013, the Province approved BC Hydro's Integrated Resource Plan and announced a 10 Year Plan to keep rates as low as possible while funding investments in aging assets and new infrastructure. |
| 8 | Work with the Clean Energy sector to ensure that there remain significant opportunities for renewable energy companies to provide power to British Columbia. | BC Hydro's Integrated Resource Plan includes a Clean Energy Strategy that provides opportunities for smaller projects with First Nations Investments under the Standing Offer Program and commitments to continue working with the Industry to support the development of the sector. |

In 2013/14, significant progress was made regarding the Columbia River Treaty. Following extensive consultations with First Nations, local government and the public, on March 13, 2014 the Government announced its decision to continue the Treaty, and to seek improvements within its existing framework. Included in this decision are 14 principles to guide the Province in discussions with Canada and the U.S. on the future of the Treaty.

Considerable progress has been made on the Core Review including transitioning the Pacific Carbon Trust into government, dissolving the Provincial Capital Commission so that government can perform its tasks directly and expanding the Central Deposit Program. Together, these decisions will produce \$24 million in savings in fiscal 2014/15. In addition, a number of decisions have been made through the Core Review process to improve service and outcomes for the public including the closing of the Victoria Distribution Centre to enable government to purchase office supplies directly from the private sector, modernizing the Agricultural Land Commission to protect farmland and support farmers, and dissolving the Private Career Training Institutions Agency and transferring its functions to the Ministry of Advanced Education to provide greater support to the sector and strengthen quality assurance. The Government of British Columbia is committed to having the cleanest LNG industry in the world, and while the principal responsibility for this rests with the Ministry of Natural Gas Development, the Ministry of Energy and Mines is assisting with power supply for the proposed LNG plants.

The Ministry is also developing domestic natural gas markets. B.C. has a growing, globally-recognized presence in natural gas vehicle technology. B.C.'s *Greenhouse Gas Reduction (Clean Energy) Regulation* allows for utility incentives for heavy duty natural gas vehicles. This has

stimulated private sector and utility development of natural gas fuelling infrastructure. The number of medium- and heavy-duty vehicles receiving incentives from FortisBC has exceeded expectations. BC Ferries announced that three new dual-fuelled liquefied natural gas/diesel ferries will start service by 2017.

B.C. has the highest acquisition rate per capita in Canada of clean energy vehicles. The Clean Energy Vehicle Program, funded from the Climate Action and Clean Energy Fund, which ended March 31, 2014, was highly successful in supporting: infrastructure for hydrogen fuelling and electric vehicle charging; point-of-sale incentives for clean energy vehicles; and rebates for residential electric vehicle charging stations. The point-of-sale incentive program provided incentives of up to \$5,000 off the pre-tax sticker price for 950 electric and hybrid vehicles. As well, more than 300 rebates of up to \$500 for home charging stations were provided, and an additional \$650,000 was provided to the Building Owners and Management Association for 125 charging stations in multi-unit residential buildings.

The LiveSmart BC program for small business concluded on March 31, 2014. After three successful years, it has helped more than 14,000 small businesses save more than 150 gigawatt hours of electricity, and more than \$13 million in ongoing utility costs—exceeding program targets by more than 50 per cent. The program’s Business Energy Advisor service is transitioning to BC Hydro, with co-funding from FortisBC. BC Hydro and FortisBC will continue to offer energy-efficient product incentives, and will be expanding the incentives for residential customers.

As required by the 2010 *Clean Energy Act*, BC Hydro has been installing and activating smart meters for its customers. By January 2014, 1.8 million BC Hydro customers, or 97 per cent, had received smart meters. The percentage is expected to grow to 99 per cent once the program is complete. As a result, the grid will be more reliable and efficient, electricity theft reduced, energy conservation facilitated, and safety increased both for workers and the public.

British Columbia’s mining sector continues to grow. The Copper Mountain, New Afton and Mt. Milligan mines have all opened within the last three years, creating over 1200 new jobs. This year, the Red Chris, Roman and Yellow Giant mines are expected to open creating another 815 jobs. In addition, seven expansions to existing major mines have been approved, including the Line Creek Operations Phase II expansion which received approval this year. Together, these expansions support 3,300 existing jobs across the mining industry.

The *Jobs Plan* committed to reducing the turnaround time for processing Notice of Work permit applications to 60 days by 2013. This target was met, and as of the end of March 2014, the average turnaround time was 43 days, a very significant decrease from 110 days in November 2011.

Despite lower commodity prices, mining is still a very strong industry in this province, and mineral exploration spending in 2013 was an estimated \$476 million, the second highest on record. With all of this activity, mining continues to be one of the safest heavy industries in B.C.

Government Extends Mining Tax Credit

Premier Christy Clark announced in January 2014 that the Province would extend the B.C. mining flow-through share tax credit program for 2014 to support mining exploration investment. The B.C. mining flow-through share tax credit—projected to be valued at \$10 million—helps junior exploration companies attract investment and continue making important resource discoveries in the province.

“B.C.'s mineral exploration and mining industry is a great comeback story,” said Premier Clark. “It's a vital part of our strong economy, supporting good paying, secure jobs in communities across the province—and the best is yet to come.”

Purpose of Ministry

The Ministry of Energy and Mines and Minister Responsible for Core Review is the provincial ministry responsible for British Columbia's energy and mining sectors, which comprise public and private interests that explore for, develop and use 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 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 mine development in the Province. The Ministry develops and delivers geoscience databases and surveys, promotes mineral exploration and provides assistance to advance and support continued development of the sector. The Ministry is responsible for permitting and inspecting mine projects to ensure that health, safety and environmental standards are met.

B.C. announces Columbia River Treaty decision

On March 13, 2014, Bill Bennett, Minister of Energy and Mines and Minister Responsible for Core Review, announced the Government's decision to continue the Columbia River Treaty and seek improvements within its existing framework.

The decision concludes that both the U.S. and Canada must recognize that for every cost associated with the Treaty, there are important benefits that should be shared by both parties. Cross-border co-ordination supports the flood control and power generation needs of the U.S., as well as the effective management of its environmental requirements, agriculture water supply and river navigation.

Included in the decision are 14 principles to guide B.C. in discussions with Canada and the U.S. on the future of the Treaty. A key principle is to create and equitably share benefits from trans-boundary co-ordination with the U.S.

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 promotes leading-edge energy efficiency regulations for products and equipment to promote innovative technologies and help reduce energy costs for British Columbians.

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); the Columbia Power Corporation; and the Columbia Basin Trust.



Photo: BC Hydro

A helicopter helps with 'stringing' high-voltage wire on the 344-km Northwest Transmission Line, due for completion in summer 2014. The project will provide a reliable source of clean power for potential industrial developments in the region, provide a secure connection point for clean generation projects and facilitate connecting Iskut to the grid—so it will no longer need to rely on diesel generation.

Strategic Context

British Columbia's real GDP increased by 2.0 per cent in 2013 (according to preliminary GDP by industry data from Statistics Canada), following growth of 1.5 per cent in 2012. Annual gains were observed in consumer spending, manufacturing shipments and exports, while modest declines occurred in employment and housing starts. Several risks to British Columbia's economy remain, including slowing domestic activity, weakness in the U.S. economic recovery, the ongoing sovereign debt situation in Europe, slowing Asian demand and exchange rate volatility. 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.

During 2013/14, the Ministry worked with natural resource sector agencies, communities, First Nations, industry and environmental organizations to promote the goal that continued growth, exploration and development of our energy and mineral resources are carried out in ways that are socially and environmentally responsible.

Clean hydroelectric power, along with other renewable sources such as wind power and biomass, meet more than 97 per cent of British Columbia's electricity needs. BC Hydro is also offsetting approximately 78 per cent of its electricity demand growth through efficiency and conservation measures. BC Hydro has provided relatively low-cost power to the citizens of B.C. for more than 50 years, thanks to the Province's heritage assets, which include the major dams on the Peace and Columbia Rivers.

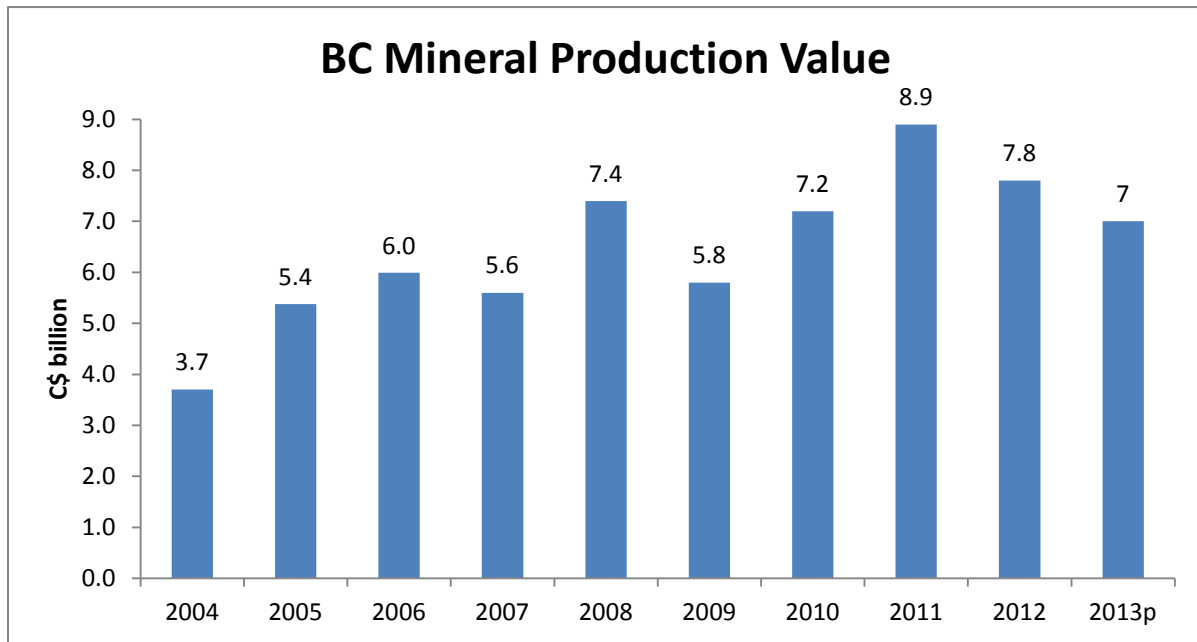
In November 2013, the Ministry approved BC Hydro's Integrated Resource Plan, which sets out how the utility proposes to meet future electricity demand. While BC Hydro currently has an energy surplus, demand is expected to grow 40 per cent over the next 20 years. The Innovative Clean Energy fund continues to support projects that solve everyday energy and environmental issues. On March 31, 2014, of the 62 approved projects, 29 are complete, 9 are underway, 6 are seeking partners or additional funding, 8 have withdrawn and 10 had their funding rescinded. The completed projects created 575 construction jobs, as well as 207 continuing jobs.

British Columbia is Canada's largest producer of copper and its largest exporter of coal. It is Canada's only producer of molybdenum, and also produces significant quantities of gold, silver, lead, zinc and industrial minerals like gypsum, lime and pumice. B.C.'s mining sector is a key economic driver: the value of commodities produced by B.C. mines was approximately \$7 billion in 2013. There are currently 8 coal mines, 10 metal mines, more than 30 industrial mineral mines, and hundreds of aggregate pits and quarries operating around the province.

More than 30,000 people are employed in mineral exploration, mining and related sectors in B.C., mostly in rural parts of the province. Of these, more than 12,500 were directly employed by mining operations in 2012. In 2013/14, \$2.5 billion was invested in mineral exploration and mining.

Declining commodity prices and challenging financing conditions posed challenges to B.C.'s mining sector in 2013/14. The price of metallurgical coal, B.C.'s primary mined export, dropped

to an average of US\$160/tonne in 2013, down from US\$193/tonne in 2012 and US\$257/tonne in 2011.¹ However, the outlook is positive, and mining companies are gaining confidence that the current downturn in the cycle will be a short-term event.



Data Source: Natural Resources Canada. Note that 2013 is a preliminary estimate.

The Mt. Milligan mine, located northwest of Prince George, opened in the summer of 2013 and was developed at an estimated capital cost of \$1.5 billion. Over its 22-year expected mine life, Mt. Milligan will employ about 400 people full time. The \$540 million Red Chris mine, currently under construction in northwest B.C. and scheduled to open by the summer of 2014, will employ about 300 people once it is fully operational during its anticipated 28-year life. While mine developments like these 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 projects through trade and investment missions to Asian countries such as Japan, Korea, China and India. More than half of Canada’s mineral exploration companies are headquartered in Vancouver, and regional estimates indicate that mineral exploration expenditures in B.C. reached \$476 million in 2013, making it the second-best year on record for exploration spending in this province.

¹ PricewaterhouseCoopers, *Digging deep: The mining industry in British Columbia 2013*

Report on Performance

The performance measures in this report refer to the six measures specified in the June 2013 update of the *2013/14 – 2015/16 Service Plan* for the Ministry of Energy and Mines and Minister Responsible for Core Review. The Ministry was created June 7, 2013, from the former Ministry of Energy, Mines and Natural Gas and Minister Responsible for Housing. As a result, a number of goals, objectives, strategies and performance measures differ from those in the latter ministry's February 2013 version of the *2013/14 – 2015/16 Service Plan*.

The changes largely concern the removal of items related to the oil, natural gas and housing portfolios, responsibility for which now resides with the Ministry of Natural Gas Development and Minister Responsible for Housing. Responsibility for gaming policy enforcement was transferred to the Ministry of Finance, and responsibility for liquor licensing, enforcement and distribution was transferred to the Ministry of Justice.

In keeping with these changes, several of the performance measures were dropped or modified for the June 2013 revised Service Plan. The measure "Annual investment in electricity facilities" was dropped, as it no longer directly reflected performance for government policies and programs. The annual targets for performance measures 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 cumulative counts of new mines and expansions, the measures 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.

Performance Results Summary Table

| Goal 1: Internationally competitive energy and mining sectors that contribute to jobs and the economy For greater detail see pages 18 to 23 | 2013/14 Target | 2013/14 Actual |
|---|-----------------------|--|
| 1.1 New energy and mineral resource projects that support the creation of family-supporting jobs in B.C. | | |
| Number of new mines in operation since release of <i>Jobs Plan</i> | 4 | 2 (6 MORE ARE PERMITTED/UNDER CONSTRUCTION) SUBSTANTIALLY ACHIEVED |
| Number of expansions to existing mines since release of <i>Jobs Plan</i> (The <i>Jobs Plan</i> target is to have 9 expansions to existing mines by 2015. Due to the early achievement of 6 expansions by March 31, 2013, the target was substantively achieved.) | 7 | 7 ACHIEVED |
| 1.2 B.C. is positioned as an attractive jurisdiction for investment in the energy and mining sectors and related businesses | | |
| Annual Investment in mineral exploration and mines | \$2.8 BILLION | \$2.5 BILLION SUBSTANTIALLY ACHIEVED |
| 1.3 Optimal revenue from the development of B.C.'s energy and mineral resources | | |
| Direct government revenue from mineral exploration and mining | \$170 MILLION | \$144 MILLION NOT ACHIEVED |
| 1.4 A secure, reliable supply of energy for the long term benefit of all British Columbians | | |
| 1.5 Efficient and effective energy and mining policy, legislation and regulation in the public interest of British Columbians | | |
| Goal 2: Safe and environmentally responsible energy and mineral resource development and use For greater detail see pages 23 to 28 | 2013/14 TARGET | 2013/14 ACTUAL |
| 2.1 Standards that protect the public and the environment | | |
| WorkSafeBC injury rate at B.C. mines | 1.8 | NOT AVAILABLE |
| 2.2 Clean energy resources, fuels and related technologies complemented by energy efficiency and conservation efforts across all sectors of the economy | | |
| Cumulative energy savings achieved each year through energy utility and provincial conservation policies, programs and regulations since 2007/08 | 24,724,511 GJ | 22,997,650 GJ SUBSTANTIALLY ACHIEVED |
| 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 | | |



Photo: BC Hydro

Crews position the base for a tower being built as part of the 247 km Interior to Lower Mainland Transmission Line. Due for completion in 2015, the project will enable electricity to be delivered from areas where it is generated—in the Columbia and Peace regions—to the Lower Mainland and Vancouver Island.

Goals, Objectives, Strategies and Performance Results

A wide range of Ministry strategies continued to be implemented to facilitate job creation, economic development and the well-being of communities throughout B.C. These included Ministry initiatives in support of *British Columbia's Mineral Exploration and Mining Strategy (2012)*, *Canada Starts Here: The BC Jobs Plan*, the *Clean Energy Act* and the *Energy Plan*. The Ministry's performance measures and targets were designed to reflect progress towards achieving its goals.

The Ministry regularly reviews the legislative, regulatory and policy frameworks associated with mining and alternative energy. 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. The Ministry maintains effective and efficient regulation of mines and mineral exploration sites through health, safety and environmental best practices.

Investments such as the Northwest Transmission Line and Iskut Extension will facilitate the opening of new areas to mining by providing clean, affordable electricity in places where communities currently rely on diesel generators. B.C. is well-positioned to benefit from global demand for mined commodities, with its vast reserves of coal and minerals, a highly-skilled workforce and the world's largest concentration of mining and exploration companies.

The Ministry promotes the 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.

Goal 1: Internationally competitive energy and mining 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 Measure 1 and 2: Number of new and expanded mines

| Performance Measure | Baseline/ Benchmark ² | 2012/13 Actual | 2013/14 Target | 2013/14 Actual | 2014/15 Target | 2015/16 Target | 2016/17 Target |
|--|-------------------------------------|-------------------|-------------------|--|-------------------|-------------------|-------------------|
| Number of new mines in operation since release of <i>Jobs Plan</i> | N/A | 2 | 4 | 2 (6 MORE ARE PERMITTED/UNDER CONSTRUCTION) SUBSTANTIALLY ACHIEVED | 5 | 8 | 8 |
| Number of expansions to existing mines since release of <i>Jobs Plan</i> | N/A | 6 | 7 | 7 ACHIEVED | 8 | 9 | 9 |

Data Source: Data analysis by the Ministry of Energy and Mines

Discussion

These performance measures are intended to track on a year-by-year basis the *BC Jobs Plan* target to have a total of eight new mines in operation and nine expansions to existing mines by 2015.

With two new mines in production, six mines under construction or approved to begin construction, and seven expansions approved since the *Jobs Plan* was released, the Province is now more than halfway to reaching this target. However it is difficult to predict the exact timing of investment decisions by companies. Thus, although only two new mines had opened since the release of the *Jobs Plan* by the end of 2013/14, the target has been substantially achieved since six more projects are approved/under construction.

² Since these measures are cumulative, the benchmark is not applicable.

8 New Mines, 9 Mine Expansions by 2015

The BC Jobs Plan set an ambitious target of eight new mines and nine mine expansions by 2015. Today, the Province is more than halfway towards achieving this.

Since the Jobs Plan was released in September 2011, two new mines have opened (New Afton and Mt. Milligan) and six more are under construction or permitted: Red Chris; Roman; Quintette; Bonanza Ledge; and Treasure Mountain and Yellow Giant (Tel mine).

The Province has also approved seven expansions of existing major mines since the release of the Jobs Plan: Highland Valley Copper; Huckleberry (copper, molybdenum); Quinsam (coal); Elkview (coal); Endako (molybdenum); Gibraltar (copper, molybdenum); and Line Creek (coal)

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 | Baseline/ Benchmark (5-Year Average) | 2012/13 Actual | 2013/14 Target | 2013/14 Actual | 2014/15 Target | 2015/16 Target | 2016/17 Target |
|--|---|-------------------|-------------------|--|-------------------|-------------------|-------------------|
| Annual Investment in Mineral Exploration and Mines | \$2.5 BILLION | \$3.7 BILLION | \$2.8 BILLION | \$2.5 BILLION SUBSTANTIALLY ACHIEVED | \$2.8 BILLION | \$2.8 BILLION | \$3 BILLION |

Data Source: Natural Resources Canada (exploration spending, mine complex development and capital investment) preliminary estimates for calendar year 2013.

Discussion

Through its strategies to improve B.C.’s competitiveness, the Ministry continuously strives to attract long-term investment in B.C.’s mining sector. Such investment creates jobs and business opportunities throughout the province, which in turn contribute to the stability and well-being of B.C. communities. This measure was chosen as it directly supports the job creation component in Goal 1. 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. Financial markets and currency fluctuations also affect investment levels. Streamlined processes for mine development permitting and environmental assessments, along with the timely review of tenure applications, help to reduce risk and sustain investment levels.

Volatile commodity markets and challenging financing conditions posed challenges to B.C.’s mining sector in 2013/14. However, in its 2013 survey of B.C. mining companies, PricewaterhouseCoopers found the outlook is positive, and that mining companies in B.C. are gaining confidence that the downturn in the cycle will be a short-term event.

The target for Performance Measure 3, Annual Investment in Mineral Exploration and Mines, was substantively achieved in 2013/14. This category includes expenditures on prospecting, geological surveys, mapping, mineral valuation, drilling and capital expenditures made in opening, operating and expanding mines.

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 | 2011/12 Baseline/Benchmark | 2012/13 Actual | 2013/14 Target | 2013/14 Actual | 2014/15 Target | 2015/16 Target | 2016/17 Target |
|---|----------------------------|----------------|----------------|----------------------------|----------------|----------------|----------------|
| Direct government revenue from mineral exploration and mining | \$170 MILLION | \$173 MILLION | \$170 MILLION | \$144 MILLION NOT ACHIEVED | \$170 MILLION | \$170 MILLION | \$180 MILLION |

Data Source: Forecast and Targets are based on the February, 2014 Budget and Fiscal Plan 2014/15 – 2016/17

*Mining revenue figures comprise free miner certificates, mining receipts, coal tenure revenue and mineral taxes.

Discussion

This performance measure shows the estimated mining revenues collected from industry and paid into the Province’s consolidated revenue fund. The measure directly supports Objective 1.3, which is why it was chosen. 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 the 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 value of commodities mined in B.C. in 2013 was estimated at \$7 billion, down from \$7.8 billion in 2012. This decrease is due to drops in commodity prices, predominantly metallurgical coal, which is B.C.’s primary mined export.

PricewaterhouseCoopers estimates payments made by B.C.’s mining industry to all levels of government in 2013 amounted to \$511 million.

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.

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 | 2011/2012 Baseline/Benchmark | 2012/13 Actual | 2013/14 Target | 2013/14 Actual | 2014/15 Target | 2015/16 Target | 2016/17 Target |
|---------------------------------------|------------------------------|----------------|----------------|----------------|----------------|----------------|----------------|
| WorkSafe BC injury rate at B.C. mines | 1.3 | 1.1 | 1.8 | NOT AVAILABLE* | 1.1 | 1.1 | 1.1 |

Data Source: WorkSafe BC

The injury rate measures the number of accepted claims per 100 worker-years. WorkSafe BC data for the injury rate at B.C. mines fluctuates from year to year as claims are adjusted.

*This figure will not be available from WorkSafe BC until summer 2014.

Discussion

Operations at mining, exploration and processing sites can be hazardous and, if not properly managed, can impact the environment. Safeguarding the public, workers and the environment contributes to environmentally responsible development and use of these resources, which is why this measure was chosen. The threat of accidents is always present, so ongoing policy development and education are necessary to ensure risk is minimized.

| 2012 INJURY RATE BY INDUSTRY* | |
|--------------------------------------|------------|
| Mining | 1.1 |
| Retail | 2 |
| Wood + Paper | 3 |
| Road Construction | 3 |
| Heavy Construction | 4 |
| General Construction | 5 |
| Forestry | 5 |

Source: [WorkSafeBC](http://www.worksafebc.com), August 2013. Updated annually.

*Claims per 100 person years of employment

The targets reflect the anticipated average number of accident claims per year (i.e., calendar 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 higher percentage of workers who are new to mining operations over the next ten years. Enhanced health and safety training and inspections are required to ensure mining remains one of B.C.'s safest heavy industries.

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 | Benchmark | 2012/13 Actual | 2013/14 Target | 2013/14 Actual | 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 | N/A | 20,045,934 GJ | 24,724,511 GJ | 22,997,650 GJ SUBSTANTIALLY ACHIEVED | 26,078,895 GJ | 30,078,895 GJ | 32,314,465 GJ |

Data Source: Ministry of Energy and Mines.

¹ Measured in gigajoules to include both gas and electricity savings. Includes gas savings through provincial conservation policies, programs and regulations, but excludes savings from public gas utilities. Since this measure is cumulative, no benchmark is available.

Discussion

This measure was selected as it is driven by policy actions one through nine of the BC Energy Plan. Targets represent energy savings from the LiveSmart BC: Efficiency Incentive Program, regulated standards under the *Energy Efficiency Act*, green building code changes, and utility programs from BC Hydro’s and FortisBC’s demand side management programs and conservation/stepped rate participants. These utilities design and direct their energy efficiency programs to three main market sectors — residential, commercial and industrial.

The performance measure for energy savings has been improved by including natural gas savings to the extent possible, rather than only the electricity savings reported in previous years. In order to add two different forms of energy savings, the measure is now in gigajoules rather than gigawatt hours. The conversion formula is one gigawatt hour equals 3,600 gigajoules. By reporting both natural gas and electricity savings, this measure provides a more complete indicator of the performance of the total energy demand side management effort by Government and electric utilities and their customers.

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.

The Ministry continues to work with the Ministry of Aboriginal Relations and Reconciliation to develop Economic and Community Development Agreements with First Nations in order to encourage mine development across the province. B.C. is the first province to share direct revenue generated from new mines with First Nations.

Report on Resources: Summary Table

| Core Business Area | 2013/14 Estimated ¹ | Other Authorizations ² | Total Estimated | Actual | Variance ³ |
|--|-----------------------------------|--------------------------------------|--------------------|---------------|-----------------------|
| Operating Expenses (\$000) | | | | | |
| Mines and Mineral Resources | 11,056 | 6,700 | 17,756 | 18,922 | 1,166 |
| Electricity and Alternative Energy | 2,949 | 2,340 | 5,289 | 4,916 | (372) |
| Executive and Support Services | 5,214 | 1,594 | 6,808 | 6,014 | (794) |
| Innovative Clean Energy Fund Special Account | 5,030 | 4,220 | 9,250 | 9,250 | 0 |
| Sub-total | 24,249 | 14,853 | 39,102 | 39,102 | 0 |
| Prior Year Accrual Reversals | 0 | 0 | 0 | (17) | (17) |
| Total | 24,249 | 14,853 | 39,102 | 39,085 | (17) |
| Ministry Capital Expenditures (Consolidated Revenue Fund) (\$000) | | | | | |
| Executive and Support Services | 284 | 0 | 284 | 270 | (13) |
| Total | 284 | 0 | 284 | 270 | (13) |
| Other Financing Transactions (\$000) | | | | | |
| Northwest Transmission Line Receipts | 57,000 | 0 | 57,000 | 93,571 | 36,571 |
| Northwest Transmission Line Disbursements ⁴ | (57,000) | | (57,000) | (93,571) | (36,571) |
| Net Cash Source (Requirements) | 0 | 0 | 0 | 0 | 0 |

¹ The amounts in the "2013/14 Estimates" column correspond to the *Estimates* as presented to the legislative assembly in June 2013.

² "Other Authorizations" include Supplementary Estimates, Statutory Appropriations and Contingencies.

³ "Variance" represents "Actual" minus "Total Estimated". If the Actual is greater than the Total Estimated, the Variance will be displayed as a positive number.

⁴ The higher disbursements for the Northwest Transmission Line in fiscal 2013/14 are due to a shift in the timing of the receipts from Infrastructure Canada from fiscal 2012/13 to fiscal 2013/14.

Annual Service Plan Report Appendices

Appendix A: Ministry Contact Information

Deputy Minister's Office:

Eighth Floor, 1810 Blanshard Street
PO Box 9319, Stn Prov Govt
Victoria BC V8W 9N3
Website: www.gov.bc.ca/empr

Mines and Minerals Resources Regional Offices:

Northwest:

PO Box 5000
Second Floor, 3726 Alfred Avenue
Smithers BC V0J 2N0
Phone: 250-847-7383

Northeast/Central:

350-1011 4th Avenue
Prince George BC V2L 3H9
Phone: 250-565-4240

South Central:

441 Columbia Street
Kamloops BC V2C 3T3
Phone: 250-828-4131

Southeast:

1902 Theatre Road
Cranbrook BC V1C 7G1
Phone: 250-426-1766

Southwest:

PO Box 9395, Stn Prov Govt
Sixth Floor, 1810 Blanshard Street
Victoria BC V8W 9N3
Phone: 250-387-4825

Mineral Titles Branch and Mineral Development Office:

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

Appendix B: Hyperlinks to Additional Information

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

http://www.empr.gov.bc.ca/Titles/Policy/Pages/Legislation_MEM.aspx

Energy and Mines Information

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

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

British Columbia's Natural Gas Strategy can be found at:

http://www.gov.bc.ca/ener/popt/down/natural_gas_strategy.pdf

Liquefied Natural Gas: A Strategy for B.C.'s Newest Industry can be found at:

http://www.gov.bc.ca/ener/popt/down/liquefied_natural_gas_strategy.pdf

Canada Starts Here: The BC Jobs Plan can be found at:

<http://www.bcjobsplan.ca/>

The Frac Focus BC website can be found at: <http://fracfocus.ca/>

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

Appendix C: Crown corporations information

The website for BC Hydro can be found at: <http://www.bchydro.com/index.html>

The website for Columbia Power Corporation can be found at: <http://columbiapower.org/>

The website for Columbia Basin Trust can be found at: <https://www.cbt.org/>