

**Ministry of  
Energy, Mines and Petroleum Resources**

**2010/11 – 2012/13  
SERVICE PLAN**

**March 2010**



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## Message from the Minister and Accountability Statement



British Columbia is a world leader when it comes to clean, renewable energy solutions. The province boasts a diverse, competitive and sustainable energy sector including small hydro, wind, geothermal, biomass and ocean energy, which are creating jobs and opportunities in every corner of the province.

We remain committed and are moving closer to our goal of electricity self-sufficiency by 2016. BC Hydro's Clean Power Call encourages the development of clean, renewable energy alternatives from larger projects using proven technologies such as hydro and wind. The Clean Power Call complements the Standing Offer Program for smaller clean projects that generate up to 10 megawatts of power, and the Phase 2 Bioenergy Call for Power.

Conservation is a cornerstone of the BC Energy Plan. By 2012, residential and commercial customers will be provided with smart meters to precisely track and manage their power consumption, and through initiatives such as the LiveSmart BC: Efficiency Incentive Program and changed performance standards under the *Energy Efficiency Act*, we will continue to implement proactive strategies that encourage British Columbians to make smart choices in their energy usage. To meet 2020 provincial targets in the BC Energy Plan, BC Climate Action Plan and the Energy Efficient Buildings Strategy, these initiatives will help us achieve our ambitious target of reducing residential energy use by 20 per cent, acquiring 50 per cent of BC Hydro's incremental resource needs through conservation, and reducing provincial greenhouse gas emissions by 33 per cent below 2007 levels.

By implementing policies and actions outlined in the Energy Plan: A Vision for Clean Energy Leadership, the Ministry of Energy, Mines and Petroleum Resources is leading the way in managing these resources in an environmentally responsible fashion, ensuring the energy needs of British Columbians are being met now and into the future.

Oil and gas rights sales topped \$2.66 billion in 2008, a record-breaking year for revenue and industry growth for B.C.'s petroleum and natural gas sector. Petroleum and natural gas activities play a vital role in B.C.'s economy, generating significant economic wealth and employing thousands of British Columbians.

The Province is committed to maintaining the competitiveness of British Columbia's oil and gas sector, and has introduced programs to attract new investment to northeast B.C. and its rich natural gas plays, including royalty programs for companies that drill outside the traditional winter drilling season.

With established natural gas reserves that have increased for the 10th straight year, B.C. is a pioneer in industry development, community consultation and sustainable environmental management of our natural gas resources. We are working with First Nations and the natural gas industry on the Pacific Trail Pipelines project, an innovative partnership that would bring millions of dollars in economic development as well as significant job opportunities to northern B.C. while providing emerging markets access to our clean natural gas alternative as they transition from coal.

The Northwest Transmission Line will support the development of a number of new mines and take advantage of the vast mineral potential of the province's northwest region. Moreover, it will support the economic diversification of the area by providing access to the electricity grid for customers and clean and renewable electricity generators. The Province, through BC Hydro and the BC Transmission Corporation, has committed \$10 million to support the project's environmental assessment and First Nations consultation process and the federal government has committed \$130 million through the Green Infrastructure Fund. The new 287-kilovolt line will extend 335 kilometers from Terrace to Meziadin Junction and north to Bob Quinn Lake.

B.C. has the potential to become a clean energy powerhouse. With abundant resources such as hydro, geothermal, bioenergy, wind, ocean and solar we are on target to meeting our goals in the Energy Plan.

The Ministry of Energy, Mines and Petroleum Resources 2010/11 - 2012/13 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 service plan has been prepared and for achieving the specific objectives in that plan.



Honourable Blair Lekstrom  
Minister of Energy, Mines and Petroleum Resources  
February 17, 2010

## Message from the Minister of State and Accountability Statement



Mining in B.C. is a resilient and vital industry. The province is blessed with abundant natural resources and boasts a long history of successful mining. We are now looking forward, as the economy recovers and commodity prices rise, to an even more successful future.

B.C. is one of the top jurisdictions in the world for mining. With over half of Canada's exploration and mining companies based in the province, we have one of the most competitive tax and regulatory systems in the world. We are ranked among the best in the world for the quality of our geological database, and have a growing inventory of more than 12,000 mineral occurrences.

Mining touches nearly every corner of the province. There are more than 28,000 people employed in mining and mineral sector-related jobs in more than 50 communities in B.C. We are working with our federal counterparts to streamline approvals that will help projects get off the ground faster, creating jobs and attracting even more investment into the province.

Mineral exploration activity in B.C. reached \$154 million in 2009 with 30 mine development projects submitted to government. This was the sixth-highest total for exploration spending in the last 20 years. The Province supports and encourages exploration by making the geoscience database accessible to clients and investors, via MapPlace.ca and the Ministry's website. This includes all data produced by the British Columbia Geological Survey and Geoscience BC.

We can all be proud B.C.'s mining sector is leading the way when it comes to protecting the environment and the sustainable development of our natural resources. Our mining industry is recognized as a world leader in environmental protection and our government works closely with industry to ensure exploration and development are done in an environmentally responsible, socially inclusive and economically viable manner.

We are the first jurisdiction in North America to engage in resource revenue sharing with First Nations on new and expanded mine projects. We will continue to work with First Nations to build a relationship founded on mutual respect, recognition and reconciliation.

The Northwest Transmission Line is a key infrastructure project that has the potential to leverage significant mining and renewable power investment and related job creation. It would mitigate greenhouse gas (GHG) emissions through decreasing the reliance on diesel-electric power by industry and communities in favour of using low-carbon hydroelectric power. The federal government is committing funding in support of this new regional transmission infrastructure, and the Province is committed to the project going ahead.

Following in the footsteps of the Fraser Valley, the Central Okanagan Regional District has implemented an aggregate pilot project. The project, consisting of a steering committee made up of government and industry representatives as well as members of the public, will provide a model for long term aggregate management in the district.

Asia-Pacific investors will continue to play a key role in the development and continued prosperity of B.C.'s minerals sector. By building and expanding our international relationships, we will enhance our competitive advantage and reinforce our reputation as a leading mining region.

This government is committed to strengthening B.C.'s mining sector. Mining provides well paying jobs in communities across the province and is a vibrant and growing part of the economy. As the economy rebounds in 2010, we are looking forward to a bright future concentrating on sustainability and increased investment.

In my role as the Minister of State for Mining and under the *Balanced Budget and Ministerial Accountability Act*, I am accountable for achieving the following results for 2010/11:

- (a) lead the work of the Minister's Council on Mineral Exploration and Mining in the identification of key issues and opportunities facing the mineral exploration and mining industry in British Columbia, and support the implementation of initiatives that contribute to a globally competitive and sustainable sector.
- (b) on new mining projects or major expansions in British Columbia, initiate or continue discussions with First Nations to identify revenue-sharing opportunities.
- (c) support the ongoing implementation of the Asia Pacific Initiative with respect to mining in order to:
  - (i) encourage investment in British Columbia exploration and mining projects; and
  - (ii) promote business with the British Columbia mining services sector.
- (d) support the efforts of the Environmental Assessment Office to maximize regulatory efficiency on major mining projects in British Columbia.



Honourable Randy Hawes  
Minister of State for Mining  
February 17, 2010

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## Purpose of the Ministry

The Ministry of Energy, Mines and Petroleum Resources manages the responsible development of British Columbia's energy, mining and petroleum resource sectors. Through the promotion of teamwork and positive working relationships with our clients, we facilitate a climate for thriving, safe, environmentally responsible and competitive energy, mining and petroleum resource sectors. It is through these initiatives that the Ministry will continue to contribute to the economic growth and development of communities throughout British Columbia.

British Columbians can expect to see continued benefits from resource development opportunities. This Service Plan outlines the Ministry's strategies to increase the jobs, investment and revenue related to these sectors, while ensuring the highest degree of environmentally responsible resource development occurs on the land base from which energy, mineral and petroleum resources are derived.

In pursuit of its mandate, the Ministry is responsible for a wide range of policies and programs related to mineral exploration and mining, including permitting, mine inspections and safety, geoscience, skills training and educational programs. The Ministry develops and implements British Columbia's policies with regard to electrical power generation and transmission, including oversight of BC Hydro, the BC Transmission Corporation and the Columbia Power Corporation. It is responsible for initiatives to promote new energy technologies, energy conservation and alternative energy sources, such as bio-energy and renewables, including wind and solar power generation. Regulatory policy for the petroleum and natural gas industry, another important part of the Ministry's mandate, ensures the orderly and timely extraction of British Columbia's petroleum and natural gas resources. Examples of the Ministry's petroleum and natural gas related services include participation in job fairs, trade shows and service sector promotion, the provision of geoscience information and the development of royalty policy.

The Ministry also manages the rights to Crown subsurface resources. Monthly petroleum and natural gas rights auctions are held and coal, underground gas storage and geothermal applications, mineral claims and mining leases are processed. The Ministry continues to explore potential frameworks for offshore petroleum and natural gas development for British Columbia as well as develop strategies and policies in the areas of land use, marketing, and Aboriginal and community relations. In developing its policies, legislation and guidelines, the Ministry consults with its clients in the petroleum and natural gas, mining, electricity and alternative energy industries, as well as communities, First Nations, and environmental and industry associations.

The Ministry administers 27 statutes pertaining to the energy, mining and petroleum resource sectors. In addition, the Minister of Energy, Mines and Petroleum Resources is responsible for the Assayers Certification Board of Examiners, the British Columbia Hydro and Power Authority, the BC Transmission Corporation, the Columbia Power Corporation, the Mediation and Arbitration Board and the Oil and Gas Commission. The Ministry retains responsibility for the policy direction provided to the Oil and Gas Commission, which regulates the petroleum and natural gas industry throughout British Columbia.



## Strategic Context

British Columbia is in the fortunate position of having abundant opportunities for energy, mineral, natural gas and petroleum resource development. The Ministry is committed to working with communities, industry, First Nations and environmental organizations to ensure that the continued economic growth and development of these sectors is socially and environmentally responsible. Business opportunities, jobs and government revenue from the production and sale of energy, mineral and petroleum resource commodities continue to be important components of the B.C. economy.

British Columbia's electricity prices remain among the lowest in North America, thanks to: the Province's heritage assets, which include historic electricity facilities such as those on the Peace and Columbia Rivers; the Government's establishment of the Heritage Contract that ensures British Columbia ratepayers continue to benefit from the low cost electricity from these assets; and the B.C. Utilities Commission's regulation of domestic rates.

British Columbia's estimated natural gas resources are substantial. Onshore petroleum and natural gas activity levels remain robust in the British Columbia portion of the Western Canadian Sedimentary Basin; however the industry is highly sensitive to global economic factors. It is expected that the petroleum and natural gas industry will recover in 2010 from the difficult conditions posed by the recent recession. Most of the growth will come from significant investment and development in the Province's large shale gas deposits in the Horn River Basin and Montney formations.

With the heightened awareness of the need to address climate change, consumers are focused on reducing their consumption, improving energy efficiency, and supporting cleaner energy supply options. Natural gas is key to this transition, as it is the cleanest burning fossil fuel. British Columbia has the opportunity to harness its significant renewable energy resources and become a clean-energy powerhouse.

The resurgence that British Columbia's mineral exploration and mining industry enjoyed for the better part of this decade is, in part, due to the significant policy improvements made by the Province since 2001. Stronger mineral prices, largely driven by the emergence of robust Asian economies, have afforded excellent opportunities for B.C. mining. The Government is continuing to focus on streamlining provincial regulations without diminishing B.C.'s high standards for environmental protection, and protecting the health and safety of industry workers and the public. Major mine developments and expansions are scheduled to occur in this province, which will help the industry remain strong over the longer term.

The Ministry assesses its risks and opportunities annually as part of its strategic planning process. Once risks/opportunities have been identified, they are addressed through strategies that result in the successful implementation of Ministry goals and objectives for that given period. The following is a discussion of the Ministry's external risks and opportunities.

## **External Risks**

**Financial** — Volatility in world financial markets and commodity prices can have significant impacts on investment levels in the province. In recent years, Canada has benefited from demand for copper, gold, petroleum and natural gas from the U.S. and increasing demand from emerging economies such as India and China. B.C., in particular, produces a wealth of these commodities. The Ministry is closely monitoring the mild recovery in economic activity to gauge the demand for B.C. energy and mineral exports. Lower natural gas and electricity prices and the emergence of new shale gas resources throughout North America may negatively impact the Province's resource revenue in 2010/11.

**Competition** — Investment dollars move readily around the globe to the jurisdictions that provide the highest net return for given levels of risk. The Ministry monitors changes in British Columbia's competitiveness as compared to other jurisdictions and implements strategies to maintain our competitive position and investment attractiveness. For example, the Ministry continues to streamline and update legislative and policy frameworks to minimize the regulatory burden while increasing British Columbia's competitiveness.

**Skilled Workers** — In the last decade, the resurgence of our mining sector and the rapid expansion of our energy sector has resulted in a growing number of permanent, well-paying employment opportunities for British Columbians. One of the challenges facing resource-based industries today is attracting young people into their workforces as the supply of older workers declines with the aging population. The British Columbia Mineral Exploration and Mining Industry Human Resources Strategy 2008 – 2012 (released in June 2008 by the B.C. Mineral Exploration and Mining Labour Shortage Task Force) estimates that there will be approximately 15,000 job openings in B.C.'s minerals sector in the next decade. The BC Mining Plan and Energy Plan outline approaches to skills training and labour which focus on attracting, developing, retaining, and informing workers about employment opportunities in the province's resource sectors.

## **External Opportunities**

**Global Supply/Demand** — The emergence of China and India as major commodity consumers continues to influence demand and prices in a wide range of resource commodity markets. China is a potential source of investment funds for British Columbia. The Ministry is continuing its engagement in the provincial Asia Pacific Initiative, aimed at positioning British Columbia as the preferred economic and cultural gateway between North America and the Asia-Pacific region. The Ministry continues to promote opportunities in British Columbia through trade missions and by hosting overseas delegations. British Columbia will remain as a significant supplier of natural gas to North American markets and is looking to expand the Province's market access to Asia with liquefied natural gas exports expected in the coming years. The Ministry works to promote exploration for new sources of unconventional gas, for example shale and tight gas. As British Columbia and other jurisdictions undertake actions to reduce greenhouse gas emissions, a growing market is emerging for clean and renewable electricity. British Columbia has large and diverse clean and renewable electricity potential, and is well positioned to serve western North American demand. As one of the richest mineral regions in the world, B.C. can continue to access international opportunities through targeted overseas marketing.

New Relationship with First Nations and Community Consultation — British Columbia's communities in resource rich areas continue to seek earlier and more comprehensive information from the government regarding the development of resources in their areas. Many First Nations and communities are actively looking at the opportunities open to them to engage in proactive energy planning — ranging from energy conservation programs to economic and resource development. The Ministry is actively working with First Nations and will continue to work to enhance public confidence, identify ways to provide greater First Nation and community benefits and increase investment certainty for industry.

***GREEN ENERGY ADVISORY TASK FORCE***

*The Green Energy Advisory Task Force was announced on November 2, 2009. The Green Energy Advisory Task Force consisted of clean energy experts, renowned climate experts, First Nations representatives, and environmentalists. It was formed to provide recommendations to help Government turn B.C.'s green energy potential into real economic, environmental and social benefits for British Columbians. After seeking public input, the Task Force completed its work and reported to Government in mid January 2010. Government is considering its recommendations, which will be publicly released once this review is complete, and will launch a comprehensive strategy to put B.C. at the forefront of clean energy development.*

## **Resource Management Coordination**

This ministry is working collaboratively with all the ministries involved in the management of Crown land and natural resources to ensure the coordination of people and resources for excellence in public service. This collaboration offers the opportunity for alignment of resources to promote economic development and community resiliency while ensuring environmental standards and environmental sustainability is achieved with resource use activities in B.C. Opportunities to improve the efficiency of service delivery will also help meet the budget and demographic challenges facing the government.

## Goals, Objectives, Strategies and Performance Measures

A wide range of Ministry strategies are being implemented in support of the Government's Goal 5 to "Create more jobs per capita than anywhere else in Canada." Some of these strategies include implementation of the BC Energy Plan and BC Mining Plan, expanding opportunities for job training and placement, facilitating First Nation involvement, engaging communities and stakeholders, as well as ensuring a secure, reliable supply of competitively priced electricity for British Columbians.

The Ministry has many initiatives to support the Government's Goal 4 to "Lead the world in sustainable environmental management with the best air and water quality, and the best fisheries management, bar none." The Ministry will maintain effective and efficient regulation of mines and mineral exploration sites aimed at health, safety and environmental best practices, and promote development and use of alternative energy technology and energy efficiency measures. The regulatory framework supporting the *Oil and Gas Activities Act* introduces new requirements that will ensure exploration and development activities throughout the oil and gas sector are both planned and implemented in a manner that safeguards environmental values. Improving the effectiveness and timeliness of multi-agency federal and provincial approvals for energy and mining projects is a high priority for British Columbia. The Ministry is working with the BC Environmental Assessment Office to develop faster, simpler and more effective processes for major project reviews.

Through the BC Mining Plan, we are achieving our vision of a thriving, globally competitive, safe and environmentally responsible exploration and mining industry. The plan has four cornerstones: focus on communities and First Nations; protecting workers and the environment; global competitiveness; and access to land. We are working with First Nations, local governments, industry and community members to maintain British Columbia's mining reputation as a world leader in social responsibility and environmental protection.

The Ministry is leading the promotion of energy efficiency measures to reduce the need for new energy supply, while delivering a healthier living and work environment for British Columbians. The BC Energy Plan provides a made-in-B.C. solution to the common global challenge of fostering the development of new, sustainable energy technology industries. This will ensure more comprehensive and proactive approaches to energy issues in British Columbia for the next 20 years, and supports the continuing evolution of the energy sector and a secure, reliable supply of affordable electricity produced in an environmentally responsible way, which supports job creation and economic growth.

The Ministry is no longer tracking and reporting the number of new or renegotiated working arrangements with First Nations related to energy, mineral and petroleum resource development, which was performance measure number six in the 2009/10 – 2011/12 Service Plan Update. This measure had been in place for five years and Government's approach to First Nations agreements has evolved. Government's move to delivering services collaboratively means that the Ministry will be supporting more cross-agency negotiations, for example Strategic Engagement Agreements, rather than mining specific protocol agreements. The Ministry's revised performance measure six, the number of energy, mineral and petroleum resource related development projects where revenue sharing negotiations are active or complete with First Nations, reflects this new direction.

## Goal 1: Thriving and competitive energy, mineral and petroleum resource sectors.

### Objective 1.1: Increased investment, revenue generation and job creation in energy, mineral and petroleum resource development for the long term benefit of all British Columbians.

- Long term investment in the energy, mineral and natural gas resource sectors contributes to stability and predictability, allowing the industries to grow and prosper.
- Demand for energy, mineral and natural gas resources can be cyclical, affecting the price of these resources, and thus the level of investment in the sectors. Financial costs and currency fluctuations also impact investment levels.

### Strategies

- Attract investment by continuing to work with industry to develop and implement focused marketing and investment programs to showcase British Columbia as a centre of excellence for energy, mining, and natural gas development.
- Further establish British Columbia as a recognized centre for innovation and technology research, education and demonstration, in collaboration with industry, post-secondary institutions, the federal government and provincial agency partners.
- Improve British Columbia's competitiveness in energy, mineral and natural gas development by providing leadership, information, investing in infrastructure, and developing new policies, regulations and programs to address the current economic environment.
- Continue to support the work of the Minister's Council on Mineral Exploration and Mining to identify key issues and opportunities facing the mineral exploration and mining industry in B.C.

### Performance Measures 1– 3: Annual investment in the energy and minerals sectors.

Performance Measure	2009/10 Forecast	2010/11 Target	2011/12 Target	2012/13 Target
Annual Investment in Oil and Gas Exploration and Development <sup>1</sup>	\$6 Billion	\$6.3 Billion	\$6.6 Billion	7.0 Billion
Annual Investment in Electricity Facilities <sup>2</sup>	\$2.6 Billion	\$2.7 Billion	\$2.0 Billion	\$2.0 Billion
Annual Investment in Mineral Exploration and Mines <sup>3</sup>	\$0.693 Billion	\$0.680 Billion	\$0.725 Billion	\$0.750 Billion

<sup>1</sup> Source: Data analysis by Ministry of Energy, Mines and Petroleum Resources based on Canadian Association of Petroleum Producers data for previous years. Estimates provided by calendar year.

<sup>2</sup> Source: Data analysis by Ministry of Energy, Mines and Petroleum Resources, BC Public Utilities. Estimates provided by fiscal year.

<sup>3</sup> Source: Data analysis by the Ministry of Energy, Mines and Petroleum Resources based on calendar year survey results from Natural Resources Canada, Statistics Canada and PriceWaterhouseCoopers.

## **Discussion**

Annual investment in oil and gas exploration and development consists of industry investment in natural gas and petroleum rights sales, geophysical and geological surveys, exploratory and production wells, pipelines and processing plants. Used domestically for heating and cooking purposes, natural gas also has a wide range of commercial and industrial uses. In addition, natural gas activities provide family supporting jobs for British Columbians, build provincial infrastructure, and provide significant revenue to the Province which supports the provision of social programs such as education and health care.

Annual investment in electricity generation and transmission facilities measures the total investment in the electricity sector in British Columbia, including improvement and replacement to existing infrastructure by the major provincial electrical utilities and Crown corporations — BC Hydro, BC Transmission Corporation, Columbia Power Corporation and Fortis BC — and clean and renewable electricity producers which supply electricity to the utilities. Capital expenditures in the electricity sector help ensure a safe and reliable electricity system to meet household, commercial and industrial needs. This investment supports the clean electricity goals in the BC Energy Plan. The electricity sector employs many British Columbians, and the dividends from electricity Crown corporations, tax, water rental and other revenues from all electricity market participants contribute to important social programs. Planned spending for 2011/12 and 2012/13 is expected to increase as BC Hydro's clean and bioenergy calls for power are completed.

Annual mineral exploration expenditures translate into family supporting jobs for British Columbians throughout the province. If commercially viable deposits are discovered, new mines may be opened, which can in turn provide long term employment opportunities for people living in rural communities. Capital investment in new or existing mines also leads to job creation and improvements to provincial infrastructure. Mineral taxes, together with tenure fees and rentals, provide revenue to the Crown.

Through its marketing programs, strategies to improve competitiveness, and collaborative efforts with industry and other provincial and federal agencies, the Ministry continuously strives to attract investment dollars to British Columbia. Ministry policy direction to Crown Corporations that produce and distribute electricity has a direct impact on investment in this sector. These performance measures represent long term outcomes that are an indicator of the favourable impact of Ministry policies and initiatives.

### ***OCTOBER OIL AND GAS RIGHTS SALE HIGHEST FOR 2009***

*B.C.'s economy received a welcome boost with the October 2009 natural gas and petroleum rights sale, which resulted in \$370 million in bonus bids, the sixth-largest sale on record. The October 2009 sale offered 62 parcels covering 66,837 hectares, and sold 58 parcels covering 65,787 hectares. The average price per hectare was \$5,625, which is the second-highest in B.C. history! The natural gas industry generates important jobs that provide stability to families in B.C.*

**Objective 1.2: An increasingly secure, reliable supply of energy for the long term benefit of all British Columbians.**

- A secure and reliable supply of energy contributes to economic growth and stability for British Columbians.
- Energy supply is influenced by a number of factors outside the Province's control, including world economic growth cycles, regional and global demand and supply, international prices, interest rates, and exchange rates.

**Strategies**

- Work with BC Hydro and the BC Transmission Corporation to upgrade the Province's Heritage generation, transmission and distribution assets.
- Ensure self-sufficiency to meet electricity needs, including extra energy or “reliability insurance”, through innovative, aggressive conservation, competitive power procurement programs, and BC Hydro’s own projects.
- Diversify and reduce the carbon intensity of British Columbia’s fuel supply, including the use of biofuels, the implementation of a low carbon fuel standard, and expanded natural gas use. Work with stakeholders and industry to promote the responsible exploration and development of undeveloped onshore basins and the unconventional natural gas resource.



Sierra Yoyo Desan Resource Road, Northeast B.C.

**Objective 1.3: Efficient and effective fiscal, legislative and regulatory frameworks and services that reflect the public interest, and enhanced social and economic benefits for all British Columbians.**

- An efficient and effective tax and policy framework for industry enhances competition and encourages the investment necessary to prosper.
- Competition with other jurisdictions for investment requires ongoing progress in regulatory reform, fee and licence reviews, and policy development.
- Maintaining the balance between the interests of local residents and resource developers is a shared objective of residents, regulators, provincial ministries and industry.

**Strategies**

- In cooperation with other levels of government and the B.C. Environmental Assessment Office, continue regulatory review to ensure British Columbia remains competitive, while maintaining the integrity of environmental, health and safety standards.
- Identify the relative global positioning of B.C.'s exploration and mining sector compared with other significant mineral producing jurisdictions worldwide (countries, states, provinces, etc.).
- Develop and implement a faster and simplified approach to multi-agency approval for exploration and mining activities through FrontCounter BC.
- Expand and improve online service delivery by developing and implementing electronic payment and permitting options.
- Manage the oversight of the Columbia River Treaty to ensure the value of downstream benefits continues to be realized.
- Implement new regulations for renewable fuels and reduced carbon intensity of transportation fuels under the *Greenhouse Gas Reduction (Renewable and Low Carbon Fuel Requirements) Act*.
- Review the *Geothermal Resources Act* and regulations to ensure regulatory efficiency.
- Implement a new regulatory framework under the *Oil and Gas Activities Act* for industry, First Nations, government agencies and stakeholders, which will introduce a regulatory regime that fosters continued development of the natural gas resource, while ensuring effective protection for the environment, health and safety.
- Work with First Nations, communities, industry and other government agencies to understand the effects of resource development and how, through collaboration and progressive public policy, approaches can be developed and implemented to balance the interests and needs of local residents and resource developers.



**Objective 1.4: Greater community awareness of the benefits of energy, mineral and petroleum resource opportunities.**

- Increased awareness of these benefits is one element that contributes to the social licence for industry to move forward. The energy and mining industries contribute significant revenues to the government which are used to fund public services such as healthcare and education.
- Limited time and resources are challenges to raising community awareness. The Ministry strives to reach into as many remote communities and First Nations as is feasible with limited resources.

**Strategies**

- Develop and implement focused promotional programs to inform British Columbians about opportunities in the energy, mining and natural gas industries.
- Provide information to, and foster engagement with, community stakeholders, industry and other government partners about the benefits of environmentally responsible resource development and opportunities for energy conservation.
- Increase provincial awareness of opportunities by working cooperatively with other ministries and partners to engage school students in a discussion of responsible energy, mineral and natural gas resource development.
- Pursue financial and cooperative renewable energy partnerships with industry, such as those with clean and renewable electricity producers, communities and other levels of government.
- Continue to implement the Energy Council working group with the First Nations Leadership Council to raise awareness and enhance understanding of energy and climate issues in First Nations' communities.

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

**Objective 2.1: Operational practices at work sites that protect the public, workers' safety and the environment.**

- Operations at mines, quarries, and gas or oil extraction or distribution sites can be hazardous, and can have an impact on the environment if not properly managed. Operational practices that safeguard the public, industry employees and the environment contribute to safe and environmentally responsible development and use of these resources.
- The threat of accidents, leakages and spills is always present, so ongoing policy development, inspections, education and training are necessary to ensure these are minimized.

## Strategies

- In cooperation with industry, enhance collaboration to improve environmental and safety compliance through inspections and audits.
- Explore further opportunities to expand environmentally responsible energy, mineral and natural gas development, in partnership with industry, communities, First Nations, environmental groups, universities, colleges and other government organizations.
- Meet with mine managers to ensure mine health and safety standards and practices are applied consistently.
- Hold an annual mine rescue competition in collaboration with the Mining Association of British Columbia to recognize and improve emergency response capability.
- In collaboration with the Ministry of Advanced Education and Labour Market Development support education and training initiatives for the enhancement of a skilled mineral exploration and mining workforce, such as the Canada-B.C. Labour Market Agreement to support the creation of a productive, mobile and inclusive workforce.

### Performance Measure 4: Short term injury rate at B.C. mines.

Performance Measure	2009/10 Forecast	2010/11 Target	2011/12 Target	2012/13 Target
Short term injury rate at B.C. Mines <sup>1</sup>	2.0	1.9	1.8	1.8

<sup>1</sup> Data Source: Ministry of Energy, Mines and Petroleum Resources Staff analysis of WorkSafeBC data for previous years. The forecast and targets are calculated by dividing the number of accident claims (as reported by WorkSafeBC) by 100 person years to result in the rate of short term injury per year. A person year is the amount of time an employee works in one year — using 2,000 hours as the average number of hours. Forecasts and targets are expressed by calendar year and are based on the calculation of a 10 year rolling average. The measure captures open pit coal and metal mines, and underground mines. As a result, the measure and targets are an accurate representation of the accident rate for the sector.

### Discussion

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 greater percentage of workers who are new to mining operations in the next decade. Enhanced health and safety training and inspections are required to ensure that mining remains one of B.C.'s safest heavy industries.

To provide context for this measure, using 2008 estimates, a 0.1 decrease in short term injury rate would result in approximately 10 fewer claims or a seven per cent decrease in the number of claims. The claims cost for the three major mines subsectors was approximately \$5 million in 2008. Therefore, a seven per cent decrease in the number of claims would result in a seven per cent decrease in cost, or \$350,000. This illustration assumes that the types of claims are similar from 2008 to 2009.

***B.C. MINES WIN BIG AT WESTERN REGIONAL RESCUE COMPETITION.***

*Mines from British Columbia had a strong showing at the ninth Western Regional Mine Rescue Competition, held September 11-12, 2009 in Fernie, B.C. This event offers an opportunity for the men and women who help maintain the high safety standards at mines across the western region to compete and show off their mine rescue skills over the two days of competition. B.C. teams took six of the eight trophies in the Surface Competition, and in the underground competition, mines from the Campbell River Area came out on top. The tasks are timed and feature simulated smoke, fire first aid, obstacle and recovery problem as well as bench and written tasks.*

**Objective 2.2: Increased energy conservation and use of alternative, clean energy and efficient technologies.**

- Retrofitting or constructing new energy efficient buildings, and 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 BC Building Code and *Energy Efficiency Act* and encouraging the private sector to develop alternative energy sources.
- The up-front expense of retrofitting existing homes and buildings to conserve energy, as well as the expense of material and equipment for energy efficient new buildings, will be fully recovered over time through lower energy bills.
- British Columbia 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.

**Strategies**

- Support energy utilities with the implementation of cost effective demand side management measures.
- Participate in and support long term green energy planning initiatives at the regional and provincial level, including the Western Renewable Energy Zones initiative, the BC Utilities Commission long term transmission review and the Green Energy Advisory Task Force.
- Work with the Climate Action Secretariat, other government ministries and agencies, Crown Corporations, communities, electricity producers and utilities across British Columbia to implement a coordinated and focused approach to energy conservation and efficiency measures and support deployment of alternative energy options to meet the province's energy needs.

- Continue to support energy efficiency in homes and buildings through: supporting the 40,000 British Columbians who have entered the LiveSmart BC: Energy Efficiency Program as they complete the retrofits of their homes; providing one-stop access to federal and utility programs; and working with utility partners on a future version of the LiveSmart Program.
- Implement the 2008 Energy Efficient Buildings Strategy: More Action, Less Energy which has among the most aggressive energy efficiency targets in Canada.
- Introduce a new, industrial energy efficiency program.
- Position the natural gas resource as an abundant, clean-burning alternative to diesel and other hydro-carbon fuels with fewer pollutants and carbon dioxide emissions.
- Ensure the procurement of clean and renewable electricity continues to account for at least 90 per cent of total generation.
- Continue to advance the development of a hydrogen economy by promoting the hydrogen fuel cell industry and other technology that supports alternative energy.
- Continue to implement the BC Bioenergy Strategy to take advantage of B.C.'s abundant sources of beetle-killed timber, wood wastes and agricultural residues.
- Encourage geothermal resource exploration and development by providing new tenuring opportunities.
- Improve energy efficiency in homes, buildings and industry by implementing new standards under the *Energy Efficiency Act* to increase the minimum performance levels for manufactured building components and equipment.



This hydroelectric dam near Atlin, B.C. reduces the community's reliance on diesel power.

**Performance Measure 5: Total energy savings achieved each year through utility and provincial conservation policies, programs, and regulations.**

Performance Measure	2009/10 Forecast <sup>1</sup>	2010/11 Target	2011/12 Target	2012/13 Target
Total energy savings achieved each year through utility and provincial conservation policies, programs, and regulations <sup>1</sup>	3,805,448 GJ	3,873,272 GJ	5,111,602 GJ	4,231,368 GJ

Data Source: Ministry of Energy, Mines and Petroleum Resources.

<sup>1</sup> Measured in Gigajoules to include both gas and electricity savings. Excludes savings from Terasen Gas.

**Discussion**

This measure 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 BC Hydro’s PowerSmart and Fortis BC’s PowerSense demand side management programs and conservation/stepped rate participants. Both of 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. 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 utilities and their customers. Terasen Gas is commencing an expanded demand side management program, and its results will be incorporated into future reporting.

The steep climb in the 2011/12 target is the result of the General Service Lighting Regulation coming into effect in January 2011. This will prohibit the sale of incandescent light bulbs in British Columbia. Incandescent bulbs have a lifetime of less than a year, so all the new savings associated with transitioning from incandescent to compact fluorescent light bulbs will occur in 2011/12, resulting in a subsequent decline in the 2012/13 target.

**Goal 3: The Ministry, communities, First Nations and industry working cooperatively for the responsible development and use of British Columbia’s energy, mineral and petroleum resources.**

**Objective 3.1: A strengthened commitment to environmental and social responsibility through increased, appropriate and timely engagement of communities, First Nations and stakeholders in resource development.**

- If First Nations, local governments, landowners and non-governmental organizations are informed and participate in responsible resource development, they will have an opportunity to help identify and contribute constructively to the resolution of issues and become more aware of the benefits that resource development can provide to a community, such as regular employment for citizens.
- Allocating sufficient time and resources to engage with communities and stakeholders to discuss resource development policies, regulations and opportunities is imperative. Communities' and stakeholders' time and resources are also limited. Communities and landowners require information to understand that resource extraction can take place in an environmentally friendly manner.

### **Strategies**

- Foster working relationships between industry, local communities, First Nations and landowners by clarifying and simplifying resource development and management processes, enhancing dispute resolution methods, and offering more support and information.
- Facilitate and support collaboration on energy developments between industry and First Nations, and encourage and assist industry to engage First Nations early in development proposals.
- Examine tenure policies and legislation, and develop regulations to address areas of new opportunity.
- Work with First Nations, industry and communities to manage the development of the Horn River Basin shale gas play in a manner that establishes leading North American standards for unconventional gas resources.

### **Objective 3.2: Increased opportunity for First Nations to share in the benefits of responsible resource development and use.**

- Some First Nations may have limited staffing and financial resources to actively engage in resource development opportunities in their traditional territories. The Ministry can assist Aboriginal communities in being better informed about resource development opportunities by encouraging early involvement in the development process.
- It is important to advise First Nations on how resource opportunities are developed and regulated in an environmentally responsible manner.
- Information and awareness of resource development opportunities assist First Nations in determining how they can become involved in joint ventures, partnerships or other activities to address employment and economic development within their community.

## Strategies

- Work with First Nations on opportunities to participate in energy, mining and natural gas development.
- Facilitate and strengthen partnerships between First Nations, industry and government to fund skills, employment and business development opportunities.
- Negotiate revenue sharing agreements with First Nations on new mining projects.
- Facilitate involvement by local First Nations in oil and gas pipelines through the proposed Northern Energy Corridor between Kitimat and Prince George.

### **Performance Measure 6: Number of energy, mineral and petroleum resource related development projects where revenue sharing negotiations are active or complete with First Nations.**

Performance Measure	2009/10 Forecast	2010/11 Target	2011/12 Target	2012/13 Target
Number of energy, mineral and petroleum resource related development projects where revenue sharing negotiations are active or complete with First Nations.	5	5	6	7

Data Source: Ministry of Energy, Mines and Petroleum Resources.

## Discussion

The Ministry has modified its Service Plan measure on aboriginal engagement to reflect commitments made by the Province in its New Relationship with First Nations, particularly those elements on benefit and revenue sharing. The revised measure and targets show the Ministry's commitment to engaging First Nations in negotiations on revenue and benefit sharing arrangements. These negotiations may be done directly by the Ministry with First Nations, as well as in collaboration with other Government agencies – such as the Integrated Land Management Bureau and/or the Ministry of Aboriginal Relations and Reconciliation. Examples of these kinds of negotiations include the negotiation of Economic and Community Development Agreements associated with new mines or major expansions of existing mines.

### **Objective 3.3: Enhanced public awareness of resource opportunities and the benefits of their responsible development and use.**

- Increased public awareness of the employment and business opportunities resulting from responsible resource development can enhance cooperation among industry, First Nations, communities and the Ministry.

- The Ministry seeks to reach all appropriate stakeholders and the broader public in key regions, while making the most efficient use of Ministry resources by implementing strategic information and engagement efforts. For example, the Northeast Energy and Mines Advisory Committee is an effective, strategic community engagement forum.

## Strategies

- Continue to collaborate with other ministries, agencies and Crown corporations to provide information and engage communities and First Nations in exploration and development of resources.
- Continue support for the annual Mining and Sustainability Award (implemented in 2006) to recognize the achievements of communities, industry, organizations and individuals.
- Continue to implement the Northeast Energy and Mines Advisory Committee and a public information strategy on energy and mining in northeast British Columbia, which is the province's major natural gas producing area, and the location of significant coal mining and mineral resources as well as wind power opportunities.



Coal mine site at Elkview, B.C.



# Resource Summary

Core Business Area	2009/10 Restated Estimates <sup>1</sup>	2010/11 Estimates	2011/12 Plan	2012/13 Plan
<b>Operating Expenses (\$000)</b>				
Oil and Gas .....	10,111	10,321	12,090	13,867
Titles .....	4,490	3,965	3,832	3,832
Mining and Minerals .....	11,908	10,744	9,917	9,917
Electricity and Alternative Energy .....	28,195	22,219	18,080	18,080
Marketing, Aboriginal and Community Relations .....	4,747	3,811	2,853	2,853
Executive and Support Services .....	3,765	3,390	3,487	3,487
Contracts and Funding Arrangements .....	1	1	1	1
<b>Total .....</b>	<b>63,217</b>	<b>54,451</b>	<b>50,260</b>	<b>52,037</b>
<b>Ministry Capital Expenditures (Consolidated Revenue Fund) (\$000)</b>				
Executive and Support Services .....	21,387	69,008	64,153	68
<b>Total .....</b>	<b>21,387</b>	<b>69,008</b>	<b>64,153</b>	<b>68</b>

Core Business Area	2009/10 Restated Estimates <sup>1</sup>	2010/11 Estimates	2011/12 Plan	2012/13 Plan
<b>Other Financing Transactions (\$000)</b>				
<b>Oil and Gas Commission Receipts</b> .....	32,900	34,530	38,211	42,409
<b>Oil and Gas Commission Disbursements</b> .....	32,900	34,530	38,211	42,409
<b>Total Net Cash Source (Requirements)</b> .....	-	-	-	-
<b>Northwest Transmission Line Receipts</b>	0	32,000	70,000	28,000
<b>Northwest Transmission Line Disbursements</b> .....	0	32,000	70,000	28,000
<b>Total Net Cash Source (Requirements)</b> .....	-	-	-	-

<sup>1</sup> Amounts have been restated, for comparative purposes only, to be consistent with Schedule A of the 2010/11 Estimates. The 2009/10 restated estimates reflect a change in funding model for corporately provided operations support such as accommodation, most information technology, freedom of information, corporate accounting services, payroll, and corporate sustainability. Funds previously held in Ministries for these activities were centralized into Shared Services BC, the existing service delivery body for these services.

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## Hyperlinks to Additional Information

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

<http://www.empr.gov.bc.ca/OG/legislation/Pages/default.aspx>

A list of Crowns, Agencies, Boards and Commissions reporting to the Minister of Energy, Mines and Petroleum Resources can be found at: [www.em.gov.bc.ca/crowns](http://www.em.gov.bc.ca/crowns)

The BC Energy Plan can be found at: [www.energyplan.gov.bc.ca/](http://www.energyplan.gov.bc.ca/)

The BC Mining Plan can be found at:

[http://www.gov.bc.ca/empr/popt/reports/down/bc\\_mining\\_plan\\_02\\_2007.pdf](http://www.gov.bc.ca/empr/popt/reports/down/bc_mining_plan_02_2007.pdf)