

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

**2009/10 – 2011/12  
SERVICE PLAN UPDATE**

**September 2009**



For more information on the British Columbia Ministry of Energy, Mines and Petroleum Resources  
see Ministry Contact Information on Page 28 or contact:

**Deputy Minister's Office**  
PO BOX 9319  
STN PROV GOVT  
VICTORIA, BC  
V8W 9N3

or visit our website at  
[www.gov.bc.ca/empr](http://www.gov.bc.ca/empr)

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## **Message from the Minister and Accountability Statement**



B.C. has a bright future, thanks to our abundant and diverse natural resources. Energy is now the Province's largest source of natural resource revenue and our fastest growing industrial sector.

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.

2008/09 was a record-breaking year for revenue and industry growth for B.C.'s oil and gas sector, with oil and gas rights sales topping \$2.4 billion. Oil and gas activities play a vital role in B.C.'s economy, generating significant economic wealth and employing thousands of British Columbians.

The Province will continue to introduce programs to attract new investment to northeastern B.C. and its rich natural gas plays, including incentives to companies that drill outside the traditional winter drilling season, funding for upgrades to the Sierra Yoyo Desan road, and a commitment to maintain or improve current royalty structures.

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're working with First Nations and the natural gas industry on the Pacific Trail Pipelines project, an innovative partnership that would bring millions 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 Province is moving forward with the Northwest Transmission Line - a \$400 million project that could stimulate thousands of jobs and billions of dollars worth of economic activity - with an investment of \$10 million to support the environmental assessment and First Nations consultation process. The electrification of Highway 37 will also reduce greenhouse gas emissions by decreasing the reliance on diesel-electric power for industry and communities in that region.

We are leading the way in clean, renewable energy solutions by encouraging a diverse, competitive and sustainable energy sector that includes run-of-river small hydro, wind, geothermal, biomass and ocean energy. A fleet of 20 fuel cell buses will be showcased during the 2010 Olympics in Whistler, reinforcing our position as a world leader in hydrogen and fuel cell technology.

B.C. is moving closer to its goal of electricity self-sufficiency by 2016, which is creating jobs and opportunities for British Columbians. BC Hydro's Clean Power Call encourages the development of clean or 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 two-phase 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 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. These initiatives will help us achieve our ambitious target of acquiring 50 per cent of BC Hydro's incremental resource needs through conservation by 2020.

With abundant energy resources, a competitive business climate, innovative ideas and a motivated, skilled workforce, B.C. is at the forefront of environmental and economic leadership. We remain committed to the vision outlined in the BC Energy Plan, and will continue to respond to challenges and opportunities by delivering innovative, sustainable ways to develop B.C.'s energy resources.

The *Ministry of Energy, Mines and Petroleum Resources 2009/10 - 2011/12 Service Plan Update* was prepared under my direction in accordance with the *Budget Transparency and Accountability Act*. I am accountable for the basis on which the plan has been prepared.



Honourable Blair Lekstrom  
Minister of Energy, Mines and Petroleum Resources  
August 24, 2009

## **Message from the Minister of State and Accountability Statement**



With a history rich in optimism and entrepreneurship, mining in B.C. continues to move forward despite recent volatility in the global financial markets. Mining remains an important piece of the province's economy and a key driver for investment in British Columbia.

B.C. is one of the top jurisdictions in the world for mining. 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 we have a growing inventory of more than 12,000 mineral occurrences.

Mining is critical to B.C.'s economic future. It creates good, well-paying jobs and generates economic activity in regions across the province. 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 expenditures in 2008 tallied in at an impressive \$367 million, the second-highest total for exploration spending in B.C. ever. The Province supports and encourages exploration by keeping the entire public geoscience database freely accessible to clients and investors, via the MapPlace.ca and the ministry's website. This includes all data produced by the British Columbia Geological Survey and Geoscience B.C.

We are proud to be 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.

We are working with First Nations and industry towards the implementation of the Northwest Transmission Line (NTL), an over \$400 million project that could stimulate thousands of jobs and billions of dollars worth of economic activity. The Province is investing \$10 million to support the environmental assessment and First Nations consultation process. Government is currently pursuing funding alternatives to make this important project a reality.

We will be looking at the recommendations contained in the Fraser Valley Regional District Aggregate Pilot Project report with a view to operationalizing these in the coming year. We will be seeking agreement with local government and stakeholders on how we can begin to implement the recommendations to help address some of the concerns often held by the public who live near aggregate operations. With some success, we will also look to other regions of the province outside of the Fraser Valley where these recommendations may be applicable as well.

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.

Managing our growth in an economically and environmentally sustainable fashion is a priority. The Minister's Council on Mineral Exploration and Mining is tasked with identifying and addressing key

challenges and opportunities for communities, industry, First Nations and the Province so we can be certain we are moving forward in a socially responsible manner.

In 2005, the B.C. Mining Plan laid the foundation for establishing mining as one of the safest and most productive resources industries in the province. Safety remains a top priority. Through ongoing safety audits, inspections, training and awards, the Province is committed to being a leader in workplace safety.

In the coming year, government will continue to work on initiatives and policies to strengthen the mining sector. Mining is an integral part of the B.C. Advantage – and it plays a prominent role in why B.C. is such an attractive place to invest. By sharing ideas and building partnerships, the B.C. mining industry will continue to be a success story into the future.

I am the Minister of State for Mining and under the *Balanced Budget and Ministerial Accountability Act*, I am accountable for achieving the following results for 2009/10:

- (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 British Columbia mining projects, initiate 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) work with the federal Major Projects Management Office to maximize regulatory efficiency on major mining projects in British Columbia.



Honourable Randy Hawes  
Minister of State for Mining

August 24, 2009

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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 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 oil and gas industry, another important part of the Ministry's mandate, ensures the orderly and timely extraction of British Columbia's oil and gas resources. Examples of the Ministry's oil and 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 and incentives.

The Ministry also manages the rights to Crown subsurface resources. Monthly oil and 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 oil and 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 oil and 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 oil and gas industry throughout British Columbia.



## Strategic Context

British Columbia is in the fortunate position of having abundant opportunities for energy, mineral 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, family supporting 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 are 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 oil and gas resources are substantial. Onshore oil and gas activity levels remain robust in the British Columbia portion of the Western Canadian Sedimentary Basin; however the industry is highly susceptible to global economic factors. It is expected that industry growth in 2009 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 increased volatility of energy prices, and 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.

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. 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, which will help the industry remain strong over the longer term in this province, particularly during the current downturn in the global economy.

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, oil and gas from the U.S. and increasing demand from emerging economies such as India and China. B.C., in particular, has a wealth of these products. The Ministry is closely monitoring the

current slowdown in economic activity to gauge the demand for B.C. energy and mineral exports. Since the February 2009 Budget, lower natural gas and electricity prices have negatively impacted the Province's resource revenue outlook.

**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** — 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 are implementing an approach to skills training and labour which focuses 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 new 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 with a liquefied natural gas export terminal in the coming years. The Ministry works to promote exploration for new sources of unconventional gas, for example shale and tight gas, however continental production in excess of current demand has led to lower natural gas prices. 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 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.

## Resource Management Coordination

Over the last number of years, the natural resource sector agencies have been exploring better ways of working together to deliver programs and services to the public. In order to sustain key programs and services during the current economic environment and to prepare for the anticipated demographic changes to the labour force that will result in fewer staff, government will be doing more to integrate, collaborate, and coordinate resources across agencies. In the year ahead, the natural resource sector agencies will increase shared service delivery in regional operations, expanding on existing coordination initiatives such as Front Counter BC and the Resource Management Coordination Project. The result will be sustainable, efficient and effective delivery of services for citizens.

*Managing staffing costs has always been one of the prime considerations in maintaining overall government affordability, and since 2001 this government has been diligent in reviewing staff spending each year. This is particularly true in these current economic times. All governments are in the similar position of having to balance spending and service levels against revenues that have declined over the past year in this extraordinary fiscal climate.*

*Staffing costs can be managed through removal of unfilled positions, retirements, staff efficiencies gained through coordination and collaboration across government, administrative program changes and, if necessary, a reduction in the staffing budget. In the 2010/11 budget, we will be managing staffing costs in the context of the current economic climate, examining all opportunities to continue to reduce these costs where possible. In the 2009/10 budget every effort has been made to preserve high staffing levels for frontline services.*

*In future years, government will continue to review its staffing budget to ensure those resources are allocated prudently, efficiently and towards government's key priorities.*



Gordon M. Shrum power station on the Peace River, B.C.

## Goals, Objectives, Strategies and Performance Measures

A wide range of Ministry strategies are being implemented in support of Government Goal 5 to “Create more jobs per capita than anywhere else in Canada.” Some of these strategies include implementation of the BC Energy 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 Government 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 federal Major Projects Management 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 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.

## **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.**



Highland Valley Copper Mine 75 km southwest of Kamloops, B.C.

- Long term investment in the energy, mineral and petroleum resource sectors contributes to stability and predictability, allowing the industries to grow and prosper.
- Demand for energy, mineral and petroleum resources can be cyclical, affecting the price of these resources, and thus the level of investment in the sectors. The financial costs (interest rates) 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 oil and 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 petroleum 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.

### **BC SEISMIC DATA TO SPUR OIL AND GAS EXPLORATION IN NECHAKO**

*In June 2009, new seismic data became available for oil and gas exploration in the Nechako region, west of Quesnel, B.C. The seismic survey was conducted to help explore the oil and gas potential in the heart of the mountain pine beetle-affected area of interior B.C. The survey was conducted in the summer of 2008, at a cost of \$2.5 million, and was part of a \$5-million provincial grant to Geoscience BC in 2005. The project is part of a larger provincial-federal collaborative effort to improve geoscience knowledge of the region, in order to reduce investment risk and encourage petroleum exploration. As part of this program, the Ministry of Energy, Mines and Petroleum Resources has also released new geological maps, gravity and magnetic data, petroleum source rock studies, and reservoir rock evaluations of the Nechako. The new results demonstrate that in some parts of the region, rock units with oil and gas reservoir potential can be successfully imaged with modern seismic technology.*

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

Performance Measure	2008/09 Actual	2009/10 Target	2010/11 Target	2011/12 Target
Annual Investment in Oil and Gas Exploration and Development <sup>1</sup>	\$8 Billion	\$5.0 Billion	\$5.1 Billion	\$5.5 Billion
Annual Investment in Electricity Facilities <sup>2</sup>	\$1.631 Billion	\$2.8 Billion	\$2.9 Billion	\$2.3 Billion
Annual Investment in Mineral Exploration and Mines <sup>3</sup>	\$1.276 Billion	\$0.70 Billion	\$0.68 Billion	\$0.58 Billion

1 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.

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

3 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 oil and gas 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, oil and 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 Independent Power 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.

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.

**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 electricity assets and transmission infrastructure.
- 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 British Columbia’s fuel supply, including biodiesel and fuels developed from biomass.
- Work with stakeholders and industry to promote the responsible exploration and development of undeveloped onshore basins.

**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, fees 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.
- Develop and implement new regulations for renewable fuels under the *Greenhouse Gas Reduction (Renewable and Low Carbon Fuel Requirements) Act*.
- Implement a new regulatory framework under the *Oil and Gas Activities Act* for industry, First Nations, government agencies and stakeholders which will strengthen regulatory oversight and protect 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 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 as many communities and First Nations as it can with available staff resources.



B.C.'s first large wind energy turbine near Chetwynd

**Strategies**

- Develop and implement focused promotional programs to inform British Columbians about opportunities in the energy, mining and petroleum 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 petroleum resource development.
- Pursue financial and cooperative renewable energy partnerships with industry, such as those with Independent Power Producers, communities and other levels of government.
- Negotiate revenue sharing agreements with First Nations on new mining projects.

- 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 petroleum resource 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	2008/09 Forecast	2009/10 Target	2010/11 Target	2011/12 Target
Short term injury rate at B.C. Mines <sup>1</sup>	2.1	2.0	1.9	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, quarries 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. 2008/09 data will be available in late summer 2009.



Brilliant Dam and Expansion Project on the Kootenay River, near Castlegar, B.C.

### 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. 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.
- 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 strategy and program.
- 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.
- 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.

## Performance Measure 5: Electricity savings achieved through conservation policies, programs and regulations.

Performance Measure	2008/09 Actual	2009/10 Target	2010/11 Target	2011/12 Target
Incremental electricity savings achieved each year through utility and provincial conservation policies, programs and regulations <sup>1</sup>	580 GWh	859 GWh	898 GWh	1,330 GWh

Data Source: BC Hydro and Fortis BC, Natural Resources Canada, Ministry of Energy, Mines and Petroleum Resources. Some estimate data provided by calendar year.

1 Savings from new initiatives in the specific year, not including recurring annual savings from initiatives in previous years.

### Discussion

This measure is driven by policy actions one through nine of the BC Energy Plan. Targets represent electricity savings from the LiveSmart BC: Efficiency Incentive Program, regulated standards under the *Energy Efficiency Act*, 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.

#### **AGREEMENT PROMOTES GHG REDUCTION IN OIL AND GAS INDUSTRY**

*In July 2009, the Province and the Canadian Association of Petroleum Producers (CAPP) signed a Memorandum of Understanding (MOU) on energy efficiency that will help to encourage energy conservation and greenhouse gas (GHG) emission reductions in the oil and gas industry. Through this MOU, the Province and CAPP will work collaboratively to achieve energy efficiency in the oil and gas industry, primarily through fuel gas efficiency. Fuel gas is a primary source of energy for the upstream oil and gas industry in British Columbia, with approximately two billion cubic meters consumed in 2007.*

*The MOU was developed jointly by CAPP, the Ministry of Energy, Mines and Petroleum Resources and the Climate Action Secretariat, and includes the following key commitments:*

- \* Establishing a baseline for energy usage and GHG emissions in British Columbia's upstream oil and gas industry to monitor the effectiveness of established energy efficiency programs.*
- \* Promoting energy efficiency and continuous improvement for fuel gas efficiency initiatives across British Columbia's upstream oil and gas industry.*
- \* Investigating various market and fiscal instruments to promote and enhance fuel gas efficiency.*
- \* Recognizing the achievements of industry in helping to establish and maintain British Columbia as a leader in energy conservation and efficiency.*

### **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.



Natural gas treatment facility near Taylor, B.C.

## 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 petroleum 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: Working arrangements with First Nations.

Performance Measure	2008/09 Actual	2009/10 Target	2010/11 Target	2011/12 Target
Number of new or renegotiated working arrangements with First Nations related to energy, mineral and petroleum resource development.	65	75	80	85

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

### Discussion

The Ministry's new and renewed working arrangements include a broad range of initiatives. These arrangements can include Ministry/First Nations information sharing working groups (e.g., Ktunaxa Nation Council), Long Term Oil and Gas Agreements (e.g., Blueberry River First Nations), Mining and Mineral Accord Agreements (e.g. Tahltan Territory Restoration Plan), and Energy Initiatives (e.g. BC/First Nations Leadership Council Energy Working Group). These arrangements are either newly signed with the Ministry, or are existing arrangements that have been renewed. The benefits of these arrangements to Aboriginal communities include information sharing, defined steps for the fulfillment of consultation obligations, support for community capacity, training in Ministry processes and systems related to mineral and oil and gas development, and opportunities to provide input on policy development.

### 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 oil and gas producing area, and the location of significant coal mining and mineral resources as well as wind power opportunities.

## Report on Resources

Full Time Equivalents (FTE) numbers for each Ministry are currently being reviewed across government and therefore are not reported in this Service Plan Update. FTE's are routinely reported in the Public Accounts and more detailed information will now be publicly reported in a new Annual Report on the Corporate HR Plan, released each Fall. For more information, see the Budget and Fiscal Plan documentation.

Core Business Area	2008/09 Restated Estimates <sup>1</sup>	2009/10 Estimates <sup>2</sup>	2010/11 Plan	2011/12 Plan
<b>Operating Expenses (\$000)</b>				
Oil and Gas .....	12,450	10,776	12,647	15,546
Titles .....	5,340	4,676	4,521	4,388
Mining and Minerals .....	14,037	12,544	11,909	11,304
Electricity and Alternative Energy .....	26,486	28,336	17,591	3,455
Marketing, Aboriginal and Community Relations .....	5,641	4,857	4,702	4,516
Executive and Support Services .....	6,239	6,604	6,545	6,716
Contracts and Funding Arrangements	2,500	1,875	1,875	1,875
<b>Total .....</b>	<b>72,693</b>	<b>69,668</b>	<b>59,790</b>	<b>47,800</b>
<b>Ministry Capital Expenditures (Consolidated Revenue Fund) (\$000)</b>				
Oil and Gas .....	383	21,000	86,000	64,000
Titles .....	54	-	-	-
Mining and Minerals .....	813	-	-	-
Electricity and Alternative Energy .....	7	-	-	-
Marketing, Aboriginal and Community Relations .....	-	-	-	-
Executive and Support Services .....	178	387	393	-
<b>Total .....</b>	<b>1,435</b>	<b>21,387</b>	<b>86,393</b>	<b>64,000</b>

Core Business Area	2008/09 Restated Estimates <sup>1</sup>	2009/10 Estimates <sup>2</sup>	2010/11 Plan	2011/12 Plan
<b>Other Financing Transactions (\$000)</b>				
<b>Oil and Gas Commission .....</b>				
Receipts .....	29,000	32,900	34,220	35,597
Disbursements .....	29,000	32,900	34,220	35,597
<b>Total Net Cash Source (Requirements) .....</b>	<b>0,000</b>	<b>0,000</b>	<b>0,000</b>	<b>0,000</b>

<sup>1</sup> These amounts have been restated, for comparative purposes only, to be consistent with the presentation of the upcoming 2009/10 Updated *Estimates*. Schedule A of the 2009/10 Updated *Estimates* presents a detailed reconciliation.

<sup>2</sup> The 2009/10 *Estimates* amounts have been updated from those presented in the February 2009 *Estimates*.

## Ministry Contact Information

### **Deputy Minister's Office:**

Eighth Floor , 1810 Blanshard Street  
PO Box 9319 Stn Prov Govt  
Victoria V8W 9N3  
Phone: 250 952-0241  
Website: [www.gov.bc.ca/empr](http://www.gov.bc.ca/empr)

### **Regional Offices:**

#### **Northwest:**

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

#### **Central/Northeast:**

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

#### **South Central:**

160 Oriole Road  
Kamloops V2C 4N7  
Phone: 250 371-6069

#### **Southeast:**

Second Floor, 42 – 8th Avenue South  
Cranbrook V1C 2K3  
Phone: 250 426-1557

#### **Southwest:**

PO Box 9395 Stn Prov Govt  
Suite 340 – 1675 Douglas Street  
Victoria V8W 9N3  
Phone: 250 387-4825

## Hyperlinks to Additional Information

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

[www.em.gov.bc.ca/legislation](http://www.em.gov.bc.ca/legislation)

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: [www.gov.bc.ca/empr/popt/mining\\_plan.htm](http://www.gov.bc.ca/empr/popt/mining_plan.htm)