

**Nova Scotia Department of Energy**

**Business Plan**

**2009 - 2010**

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Honourable Bill Estabrooks  
Minister

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## **MESSAGE FROM THE MINISTER**

Nova Scotians have long been aware of our natural assets: some of the fastest average wind speeds in the world, one the best tidal energy sites in the world, significant offshore petroleum estimates, and even larger potential estimates onshore.

This year, these assets will pay new dividends.

New wind turbines will be erected, North America's largest tidal turbine will enter the Bay of Fundy, new natural gas supply from the offshore Deep Panuke area may be made ready for delivery in 2010, and a number of onshore exploration activities will continue.

All this is good news. But we are determined to see this activity increase.

We have set aggressive new targets for renewable electricity: 25 per cent of total supply by the year 2015. This will require dramatic increases in a combination of wind, biomass, tidal, hydro, solar and other renewable sources. And it will mean accelerated investment in a greener economy.

We are also aggressively pursuing new offshore exploration. The prize is big: offshore revenues can contribute greatly to the total provincial budget, helping pay for education, health care, and debt reduction.

Reaching these goals will require bold decisions and hard work; fortunately, these are qualities Nova Scotians have in abundance. And we will be supported by significant research and discussion this year, including:

- a transmission and system operator study,
- an integrated resource planning exercise with Nova Scotia Power and the Utility and Review Board,
- a renewable energy consultation exercise led by Dr. David Wheeler, and
- a \$15 million "filling-the-gaps" offshore data project

We have strong natural assets in the energy sector; enclosed within is our plan to use them to our collective benefit, now and in the future.

Honourable Bill Estabrooks  
Minister of Energy

## 1.0 MISSION/VISION/MANDATE

### 1.1 Mission Statement

The mission of the Nova Scotia Department of Energy is to advance the interests and concerns of the Province with respect to energy and achieve optimum economic, social, and environmental value from the sector. This will be achieved by promoting the efficient, effective, and environmentally responsible use and development of energy resources by developing and implementing energy policies and programs directly and in partnership with governments, industry, other provincial departments, and local communities.

### 1.2 Vision

The Nova Scotia Department of Energy's vision is for a sustainable energy future achieved by developing and using energy in a manner that integrates economic growth, diversity in supplies, social goals, and respect for the environment, for generations today and tomorrow.

Sustainability is:

- Reducing our dependence on carbon intensive fossil fuels
- Using less energy per household, vehicle, etc.
- Growing the resource sector (renewable and non-renewable)
- Reinvesting revenues from non-renewable resources to obtain enduring benefits

### 1.3 Department Mandate

The Department of Energy's mandate is outlined in the *Public Service Act*. The mandate includes the responsibility to manage and promote energy resources in order to achieve optimum economic, social, and environmental value from the energy sector.

This mandate also includes developing and implementing energy policies and programs, conducting research, analysis as well as exploration and development of energy resources, liaising with governments and all stakeholders on energy matters.

### 1.4 Department Profile

The Nova Scotia Department of Energy was created in June 2002 to serve as the Government's representative in developing and managing the Province's energy resources. Building our energy sector and making the most of our energy resource opportunities continues to be a priority for the Department of Energy. These priorities are balanced by our commitment to improving our environment and promoting the use of renewable energy resources and technologies.

The department currently consists of six divisions:

- Business and Technology
- Communications

- Energy Fiscal Affairs
- Energy Markets
- Petroleum Resources
- Strategic Policy, Planning and Services

## **2.0 LINKS TO DEPARTMENT MANDATE/STRATEGIC GOALS**

The Nova Scotia Department of Energy has developed five strategic goals based on the requirements outlined in our mandate. These strategic goals include; 1) Reducing air emissions and saving energy through energy efficiency and conservation 2) Secure, competitive and sustainable energy supplies 3) Sustainability from energy resource revenues 4) New economic growth and opportunities 5) Achieving social accountability. A detailed description of each strategic goal is presented in Sections 4.0 Strategic Goals and 7.0 Performance Measures.

## **3.0 PLANNING CONTEXT**

### **3.1 Overview**

Energy is vital to almost everything we do. Our work, our home lives, our essential services, our transportation systems, and our community activities all require energy.

Nova Scotia is faced with a number of challenges. Our energy economy is going through a period of tremendous change. Energy prices are difficult to predict making it difficult to determine what future mix of energy technologies will best suit our needs. We do know that our current way of producing energy is too dependent on imported fossil fuel. Fossil fuels degrade our air, change our climate, and leave us vulnerable to world prices, and supplies. Our access to electricity from outside our provincial borders is limited. Unlike other provinces we do not have large hydro resources that give most of Canada a clean, dependable local supply of electricity. Our tidal resources have energy potential but tidal technology needs time to develop and be tested. Offshore petroleum exploration is expensive and offers no guarantees.

Nova Scotia is rich in energy alternatives. Our coastline experiences some of the fastest average wind speeds and strongest tidal currents in the world. We have agricultural land and forests that may be able to produce sustainable amounts of biomass to create electricity or be converted to fuel. Experts believe that we have significant untapped reserves of natural gas offshore and onshore. Through simple conservation measures we could save large quantities of energy.

We treasure our environment, and we take responsibility for protecting it. At the same time, we want our economy to grow and our children to prosper. Nova Scotia's *Environmental Goals and Sustainable Prosperity Act* reflects these goals, including two key goals by 2020:

- 10 per cent less greenhouse gas emissions than 1990 levels
- Economic performance to the Canadian average or better

To achieve these energy targets we must make smart choices. Our decisions today will determine the future prosperity of our children and grandchildren. For more information please refer to the Energy Strategy.

### 3.2 Current Energy Situation

Nova Scotia produces almost all of the electricity it uses. Our current electricity grid has a small connection with New Brunswick, while New Brunswick benefits from an interconnected grid with Quebec and New England. To effectively develop local intermittent renewable resources and import cleaner power sources from elsewhere, a stronger grid connection with our neighbours is needed.

Production of natural gas, a cleaner burning fuel, has made a major contribution to our economy. Revenues from the Sable Offshore Energy Project account for a significant share of our GDP. However, production from the Sable Project has peaked (or will peak soon), and royalties from that project will decline. Deep Panuke, the next Nova Scotia offshore project, is expected to enter production in 2010. Its total gas and royalties are expected to be much smaller than the Sable Project. If we are to retain the revenues, jobs, and business opportunities we've enjoyed from our offshore energy sector, we need to attract new, large-scale offshore exploration and development activity.

Onshore exploration in the province is continuously being encouraged and may lead to promising developments of shale gas in Hants County and coalbed methane in Cumberland County. Onshore fields can potentially produce for decades resulting in large volumes of gas over the project's life.

Nova Scotians are some of the highest consumers of energy in the world. This means opportunities exist for conservation and savings: in money, in energy, and in greenhouse gas emissions. Table 1 illustrates the volatility of fossil fuel prices and their longer-term upward trend.

Table 1: Nova Scotia Consumer Price Increases for Energy: Prices are Annual Average and Include Taxes

<b>Energy Source</b>	<b>2003 Price</b>	<b>2008*</b> <b>Price</b>	<b>% Increase 2003–2008</b>	<b>2009**</b> <b>Price</b>
<b>Gasoline</b> (litre, regular)	\$0.7750	\$1.1780	53.73%	\$0.85900
<b>Furnace Fuel</b> (litre)	\$0.6060	\$1.1260	85.80%	\$0.71500
<b>Electricity</b> (Kwh- residential)	\$0.0970	\$0.1175	21.13%	\$0.11796

*\*2008 the average price in Halifax from January to December.*

*Prices for 2003 and 2008 are annual averages and include taxes.*

*\*\*2009 price is the average price from January 2009 and February 2009 including taxes.*

Predicting the future prices of these commodities has become increasingly difficult. Approximately 92 per cent of our total energy needs come from fossil fuels of which most are imported. Our challenge is to become less dependent on imported fuel sources, more energy efficient, and work to develop local and regional energy sources. For more information please refer to the Energy Strategy.

#### **4.0 STRATEGIC GOALS**

##### **4.1 Reducing Air Emissions and Saving Energy Through Energy Efficiency and Conservation**

Using existing energy supplies more efficiently is Nova Scotia's most cost effective opportunity to meet the energy security, economic, and environmental goals of its energy sector. Since 1990 Nova Scotia's energy consumption has increased by 14 per cent while population has increased only 2 per cent. To curb energy use and the production of GHGs the Council of the Federation set a medium term goal of improving energy efficiency by 20 per cent by 2020. Nova Scotia Power Inc (NSPI) under the direction of its regulator the Nova Scotia Utility and Review Board (NSUARB) completed an Integrated Resource Plan (IRP). This study predicts that by 2018 investing in efficiency will save 2,300 gigawatt-hours of electricity per year, nearly 20 per cent. The Board has requested an update to the IRP in 2009.

A separate agency, regulated by the Utility and Review Board (UARB), will be created in 2009 to deliver conservation for electricity only, using funds NSPI charges customers for demand side management. Conserve Nova Scotia, created in 2006, is responsible for planning, developing and coordinating policies and programs for energy efficiency and conservation. As mandated by the *Environmental Goals and Sustainable Prosperity Act* (EGSPA-2007) Conserve Nova Scotia will work with relevant departments to create regulations requiring new homes, buildings, and vehicles to be more efficient.

##### **4.2 Secure, Competitive, and Sustainable Energy Supplies**

To make our economy more sustainable means strengthening our energy security through greater diversity in our energy supply. We need to develop and use more diverse energy sources including our natural gas as well as developing or importing more renewable sources. We need to achieve energy sustainability by developing and using energy in a manner that integrates economic growth, diversity in supplies, social goals, and respect for the environment. Nova Scotia is rich in diverse energy sources including natural gas, wind, tidal, biomass, and other renewable sources.

Both our renewable and non- renewable sources offer promise as well as challenges. Oil and gas development is unpredictable, buffeted by volatile markets, driven by financial and technology trends, and concern about emissions. Our renewable sources, such as wind and tidal, are intermittent and variable-sources of power. To increase use of these renewables we need backup power sources, such as natural gas, to draw on quickly when

renewable supply becomes unavailable. Renewable and non-renewable sources need to be integrated to provide a secure, competitive, and sustainable energy system.

To enhance our energy security, we need to use less imported fuels and more of our natural and more diverse sources of local and imported renewable energy. The province is considering ways to use the following to improve electricity security; natural gas, new power generation through larger-scale renewable energy projects and smaller ones supported by net-metering, as well as conservation and demand-shifting opportunities through smart meter pilots, and being alert to innovation generally.

Additionally, we have begun a Green Grid initiative which will examine transmission grid expansion and assess opportunities to strengthen grid connection with our neighbours. This initiative includes a major study on options for power grid upgrade and regional interconnection and operation. Grid expansion will allow the region to maximize the benefits of our renewable sources while enhancing the economic efficiency of renewable energy. It would also increase the diversity of our energy supply.

To encourage more renewable electricity, new opportunities for small-scale producers will be created and new research on ocean energy will be funded. We will be continuing our work with New Brunswick to research and regulate tidal energy in the Bay of Fundy. All while the Department explores marine renewable legislation opportunities.

#### 4.3 Sustainability from Energy Resource Revenues

Part of the revenues from non-renewable resources will be used to benefit Nova Scotians today and in the future, by paying down debt and thus freeing up millions in debt servicing costs. Renewable resources could potentially provide Nova Scotia with revenue opportunities in the future. As new technologies and markets emerge, a need to review royalties for the use of renewable resources may arise.

#### 4.4 New Energy Economic Opportunities

Commercially viable projects are essential to achieving the goals outlined in the 2009 Energy Strategy. However, knowledge gaps can prevent these developments. To better understand these gaps the province has invested in research organizations to enhance our understanding of opportunities for research and development. These research organizations include Offshore Energy Technology Research (OETR), Offshore Energy Environment Research (OEER), ecoNova Scotia's Environmental Technology Program, the Fundy tidal demonstration centre, and Carbon Capture and Storage Consortium of Nova Scotia.

These research organizations will help reduce the barriers to investment in the development of our resources. Such investments will help local suppliers in both renewable and non-renewable projects develop new markets in Nova Scotia and around the world. They will also recognize potential community opportunities in energy projects while identifying and supporting new skills for local workers.

Nova Scotia is committed to becoming one of the most environmentally and economically sustainable places. This commitment will lead to new renewable energy projects across Nova Scotia. We could potentially see wind developments, possible tidal developments, and biomass developments in a number of our rural communities. We are working to create new opportunities for small-scale producers of renewable electricity and investing in research on ocean energy and renewable thermal energy.

The strength of oil and gas prices kick-started onshore exploration interest in Nova Scotia. However, the recent decline in gas and oil prices may result in fewer wells being drilled until prices rebound. Improved technologies for tapping unconventional gas reserves was also a factor in increased exploration and the existence of a gas pipeline offers access to markets that had not been possible before. Onshore energy exploration and development will continue to be encouraged. As new projects move into production we will support local supply and employment opportunities. Our current regulations for onshore petroleum exploration and development are to be modernized and we will work with New Brunswick to identify areas for a harmonized approach to operational regulations. Our onshore royalty regime will be examined to ensure it is competitive and reflects the cost of exploration and production.

Offshore petroleum exploration and development have contributed greatly to Nova Scotia's economy. Sable revenues (royalties, Crown Share and Federal Offsets) now account for nearly 10 per cent of provincial revenues. Experts estimate that as much as 40 trillion cubic feet of natural gas potential lie off our shores. In 2008-09 we invested a portion of our offshore petroleum revenues into research and development initiatives that support further development by reducing knowledge gaps.

The amounts contributed in 2008-09 are: \$18,752,000 as part of Crown Share Settlement and an additional \$430,000 for a total of \$19,182,000 to support geoscience and engineering research and \$4,688,000 from Crown Share Settlement and an additional \$100,000 for a total of \$7,525,000 for marine energy and environmental research. The results from this work will be made available to regulators, the public and potential investors in the global energy industry to encourage continued exploration off our shores.

The activities associated with turning oil and gas into marketable products requires hundreds of millions of dollars in capital investment and employs highly skilled trades people, professionals, and contract opportunities for local businesses. These activities can include pipeline transmission and distribution systems, gas plants, fractionation plants, storage facilities and oil refineries. We plan to identify and promote opportunities for investment in these energy projects and diversify the domestic market through the growth of natural gas distribution. Private-sector development will be supported with timely information and marketing. While we plan to seek out new opportunities, the province will demand that any new operation meet the highest standards for managing GHGs and air pollutants.

#### 4.5 Achieving Social Accountability

Energy has an enormous impact on the lives of Nova Scotians. As we developed the Renewed Energy Strategy, department officials were mindful of the many social responsibilities that the process touches on. First among these is a responsibility to consult openly and consistently with citizens, industry, environmental groups, municipalities, other governments, and First Nations. This reflects the strategy's overriding goal of supporting sustainable prosperity for Nova Scotians. The Department will continue to consult openly and consistently.

The rapid changes sweeping over energy production and use in Nova Scotia require a skilled workforce. While all industries face skills shortages, the energy sector is particularly sensitive to competition for scarce skills. International salaries make it difficult for local companies and governments to compete. The Department of Energy will work with Labour and Skills Development, universities, and the Nova Scotia Community College to monitor emerging skills requirements and shortages. Technical skills required for new renewable production, energy conservation, efficiency programs, and gas distribution will receive particular emphasis.

The province has a responsibility to protect workers in the energy sector. The investigation into a death in Nova Scotia's offshore in the 1990s identified gaps in occupational health and safety legislation as it applies to offshore workers. The governments of Canada, Nova Scotia, and Newfoundland and Labrador have agreed on legislative changes that will firmly ground worker safety and worker rights in law. The Minister of Labour and Workforce Development will have authority over worker safety under the Accord Acts. The amendments will also enhance operational safety which will remain the responsibility of the Minister of Energy.

The process of turning policy agreement into law in three diverse jurisdictions has proven long and complex. All parties are working to ensure final legal language reflects the policy decisions. This work is expected to be completed later this year and stakeholders will be consulted before the legislation is finalized and brought before the Nova Scotia Legislature and the Parliament of Canada.

Ocean energy is a public resource that can be developed commercially; it must be managed in a safe, orderly manner, just like other natural resources. Marine renewable legislation is needed to provide a framework for testing and developing offshore renewable energy provisions for:

- Licensing
- Ensuring compliance with environmental protection requirements including disclosure of environmental data and technical information
- Revenue from the licensing or from development of the resource
- Community benefits
- Environmental benefits through a reduction of greenhouse gas emissions

The Province is committed to providing timely and accurate information to everyone involved or affected by energy developments. To this end, the Province will:

- Develop new capacity to analyze energy trends and impacts
- Develop new partnerships with First Nations and formally commit to consult when rights may be infringed
- Work with communities and businesses to understand energy opportunities
- Continue a dialogue with fishing organizations and non-governmental organizations on energy impacts and seek to resolve conflicts through research, public policy, and where necessary, legislation and regulation

## **5.0 CORE BUSINESS AREAS (CBAs)**

### **5.1 Business and Technology**

The Department of Energy has a legislated responsibility to represent the interests of the Province in the negotiation and implementation of industrial benefits plans associated with offshore oil and gas developments. As with other international offshore jurisdictions, this process builds the local capacity and capabilities that are critical to attracting future investment. It ensures Nova Scotians are able to compete on a best value basis for local business and employment opportunities related to the development of a Nova Scotian non-renewable resource.

Working with energy sector stakeholders, the department promotes investment in the energy-related capabilities of Nova Scotia. Business and Technology provides opportunities for local companies to meet potential joint venture partners and participate in investment missions abroad. Business and Technology maximizes business opportunities for local suppliers of goods and services and identifies areas of labour demand and possible skill shortages to develop strategic approaches to ensuring maximum participation of Nova Scotians in major energy projects and undertake partnerships in training projects and initiatives.

The department identifies and supports opportunities for Nova Scotian firms competing within the energy sector to benefit from the transfer of technology critical for expanding business opportunities within the sector.

The department also leverages federal and private sector investment in state-of-the-art energy-related educational and training infrastructure in Nova Scotia's post-secondary educational institutions. It has also works to ensure Nova Scotia's energy-related educational training modules and standards meet employer needs.

The Department of Energy ensures that research priorities are identified, supported, and enhanced through partnerships and leverage opportunities that ensure best value.

The key areas of focus for 2009-10

- Deep Panuke Project

Business and Technology continues to monitor the contracting process related to the Deep Panuke Offshore-Strategic Energy Agreement (OSEA) commitments. It also represents Nova Scotia's priorities in research and training through the Benefits Review Committee.

- Sable Offshore Energy Project

The Sable Project is currently in a steady-state production; however additional goods and services are frequently required and are monitored for Nova Scotia content. Depending on market conditions and technology, there could be further field developments that would open up additional opportunities.

- New Initiatives

Energy markets for goods and services are global and dynamic. The marketplace requires detailed research and planning to enter new markets and expects a quick and effective response to opportunities arising in a highly competitive environment. New potential opportunities are arising related to investment from countries such as Korea, China and new foothold business successes in new markets such as the United Arab Emirates. In each case, significant market research and preparation supported by cross-cultural business acumen has resulted in potentially large opportunities for Nova Scotia.

- Marketing

Marketing support continues to enhance Nova Scotia's professional and polished interface with potential investors, business clients or partners. Nova Scotia's Offshore Renewal Plan has benefited from focusing on strategic marketing fundamentals supported by a promotional mix tailored to specific audiences. The Department has shown leadership in the early adoption and support of Provincial brand initiatives and continues to infuse "Come to Life" marketing fundamentals in all of its promotional activities.

- Market Development

Business and Technology works closely with many disparate stakeholders to compete in the dynamic and challenging international marketplace. The technical nature of energy sector goods and services combined with the intricacies of international markets require in-depth analysis of economic and financial risk factors as well as supply chain fundamentals and cross-cultural knowledge.

Established markets in the Gulf of Mexico, the North Sea, and western Canada are supported through longstanding participation in trade initiatives and missions. Newer markets such as Trinidad and Tobago, Venezuela, and the Middle East are showing results from focused efforts. Prospective markets in Latin America, Caribbean, Spain, and the Far East have begun to demonstrate potential.

- Elmworth Benefits Plan

Elmworth's approved development plan for their shale gas project onshore Nova Scotia includes a detailed forecast of expected employment as well as procurement needs for goods and services in support of the project. Business and Technology will continue to

work closely with the Petroleum Resources Division and Elmworth to help the project maximize employment, maximize training, and supply community opportunities in Nova Scotia. This division will also work with Strategic Policy Planning and Services in their work to analyse socio-economic impacts from this industry.

## 5.2 Communications

The communications division is responsible for the coordination and release of internal and external information produced by the Department. The division helps to inform Nova Scotians about department activities and increase Nova Scotians' understanding about energy use and development, particularly around issues such as the exploration and development of oil and natural gas, electricity, and renewable energy.

The division provides public education initiatives; an extensive website offering a library of publications and other energy-related information; and develop innovative communication approaches to educate Nova Scotians on energy issues.

The communications division is also responsible for helping to meet the priorities in the business plan. It is involved in all major aspects of the Department's business, including public education programs, conferences, major initiatives, trade missions, scholarship programs, stakeholder consultation sessions, and building new economic opportunities.

In 2009-10, special emphasis will be placed on helping the department meet its strategic initiatives as outlined in this business plan, in particular, these include:

- Offshore investment attraction: geoscience, policy, regulation, marketing
- Onshore public education
- Deep Panuke and local benefits
- Green grid initiatives
- Bioenergy and other forms of renewable generation
- Wind education / public information
- Natural gas (both exploration and domestic use)
- Marine renewable legislation, tidal energy, and tidal facility partners
- Research and Development (especially work with OEER / OETR)
- Royalties, Crown share, and other financial issues

## 5.3 Energy Fiscal Affairs

The Energy Fiscal Affairs is a new division with the primary responsibility for ensuring accurate and timely forecasts and monitoring of the financial results and fiscal implications of petroleum exploration and development. The largest project to date is the Sable Offshore Energy Project which is projected to contribute between \$2.8 and \$3.6 billion in revenues over the life of the project. There are several projects both onshore and offshore that are expected to commence royalty payments in the near future including the Deep Panuke project.

There are several other areas that require the department's monitoring including but not limited to the Crown share payments from Ottawa, offshore forfeitures, and rental payments.

The department has the responsibility to ensure that all petroleum projects are in accordance with the Offshore Petroleum Royalty Regulations, *Petroleum Resources Act*, or any other relevant agreements. This requires the division to administer audits, monitor payments, and assesses royalties from petroleum projects. In order to perform the required audits the division works closely with various interest holders to obtain appropriate audit evidence and fulfill the regulations mandate.

The division undertakes fiscal policy research and analysis and provides related recommendations. When required, it also performs a central role in fiscal negotiations.

The key areas of focus for 2009-10

- Onshore Petroleum Royalty Regulations

Recent opportunities in the onshore industry have underscored the need to provide regulations for the royalty collection and administration process. The division is currently expanding the existing Petroleum Resources Regulations into new Petroleum Royalty Regulations. This is aimed at providing appropriate guidance to the royalty clients allowing the Province to efficiently and effectively administer the royalty payments.

- Onshore Competitiveness Analysis.

A second phase to the onshore Petroleum Royalty Regulations is a study to analyze our onshore industry from a royalty competitiveness perspective. This involves a comprehensive analysis of our onshore regulations in comparison to other jurisdictions considering uniqueness and infancy of Nova Scotia's onshore industry.

- Research and Development

Fiscal research and development focuses specifically on the Frontier Oil and Gas Geoscience Fiscal Incentive Initiative. Current research on this initiative is being undertaken by the Department of Energy with the assistance of the Department of Finance and Saint Mary's University as part of the Pengrowth Trust arrangement.

- Crown Share Adjustment

The division is responsible for the administration of Crown Share Adjustment Payments (CSAP) from the federal government. Administrative processes will need to be established in accordance with the CSAP regulations.

- Deep Panuke

The Deep Panuke project requires the division to perform the royalty administration of the Offshore Strategic Energy Agreement (OSEA).

- Monitoring Revenue Streams

The Energy Fiscal Affairs Divisions is also responsible for tracking all energy related

payments, including onshore and offshore royalties, Crown share payments from Ottawa, and offshore forfeitures and rentals on Exploration Licences. This requires complicated analysis and highly judgmental forecasting.

#### 5.4 Energy Markets

Energy Markets works closely with Conserve Nova Scotia and the Climate Change division at Nova Scotia Department of Environment. The division partners with Conserve Nova Scotia on energy management issues including electricity policy development issues regarding the establishment of a new independent administrator for the electricity demand side management programs and initiatives related to support for enhanced renewable energy uptake. Energy markets and natural gas responsibilities continue to be carefully coordinated with the province's Climate Change division.

The Energy Markets Division provides advice regarding the development of and implementation of policies, programs, legislation, and regulations dealing with:

- Natural gas transmission, distribution, underground storage, and end use
- Nova Scotia's electricity market, including generation, transmission, distribution, and end use
- Refined petroleum products
- Renewable energy resource development, including small scale community developments

The 2009 Energy Strategy provides an important roadmap for a more diversified and secure and longer term low cost energy future. Expert advice on matters relating to this transformation come from external advisors contracted by this division or from the expertise of the division staff. In the coming months and years the division will focus on renewable energy and expansion and enhancement of the transmission system.

The key areas of focus for 2009-10

- Transmission Grid Study

Undertake a comprehensive external consulting study to assess opportunities to realize future transmission grid upgrades and explore a number of grid operation alternatives. This work will assist the Division/Department in formulating strategic policy options to achieve the Province's stated goals and objectives as defined in the 2009 Energy Strategy and Climate Change Action Plan.

- Atlantic Bioenergy Task Force

Continue to further develop the work that was done by the Atlantic Bioenergy Task Force. The division will continue to work with our key stakeholders, including the Nova Scotia Forest Products Association, NSPI/Emera, universities, other provincial, federal, and municipal government representatives to develop a strategic plan to use the Province's biomass resources in an environmentally acceptable and economically sustainable manner.

- Wind Siting Concerns

Use the results from a government commissioned study to assist stakeholders, Union of Nova Scotia Municipalities (UNSM), and Nova Scotia Environment, in dealing with public concerns regarding wind siting issues. Work with Nova Scotia Environment and UNSM to educate the public on issues related to wind farms and siting. The division is partnering with the various stakeholders to enhance its ability to educate the public and promote the value of renewable energy projects.

- Natural Gas and Underground Storage

Alton Gas has applied to the Department for a natural gas storage lease. They have already received an environmental approval with conditions from Nova Scotia Environment. The division also oversees the grants for the Gas Market Development Fund. Funds continue to be available to Heritage Gas for residential conversions as well as larger projects such as conversion projects for Capital Health and universities in Halifax.

- Pipeline Act

A consultation paper was drafted outlining changes to the *Pipeline Act* and Regulations. Stakeholder consultation concerning the *Pipeline Act* and Regulation was conducted in spring 2008. The proposed amendments to the *Pipeline Act* and Regulations will be brought forward in 2009.

- Regulator Intervention

The Department intervenes on behalf of Nova Scotians at Utility and Review Board (UARB) and National Energy Board (NEB) hearings related to issues such as electricity pricing, gas distribution, and new capital developments.

## 5.5 Strategic Policy, Planning and Services

Strategic Policy, Planning and Services (SPPS) division is responsible for the coordination of corporate energy policies, strategies, plans, and services. SPPS supports the plans of the divisions that have specific responsibilities and expertise. The division gathers information on Nova Scotia and other jurisdictions' experiences, policies, and activities. It also gathers information on the general business climate for energy investments and analyzes it for effectiveness and implications for meeting public policy objectives and relevance to Nova Scotia's energy sector. It leads in the responsibility for consultation with First Nations on energy matters. In carrying out all of its responsibilities, the division works closely with other divisions in the department.

The division works with all divisions to coordinate general regulatory development and corporate initiatives such as Better Regulation. This commitment includes the goal of reducing administrative paper burdens through electronic registries and services delivery. The division also works closely with the federal government and other jurisdictions, industry, and key stakeholders to develop an efficient and effective regulatory regime for offshore and onshore petroleum resources.

SPPS has primary responsibility for inter-governmental affairs in collaboration with the divisions which have energy sector specific relationships and responsibilities. SPPS works with the province's Intergovernmental Affairs (IGA) agency to ensure the government's intergovernmental agenda is well coordinated, for example SPPS has specific responsibility to coordinate the Partnership Agreement on Regulation and the Economy (PARE).

The coordination of corporate activities related to business planning, budgeting, financial management and control, human resources, procurement, records management, information management, submissions to Executive Council, and reporting are all the responsibility of SPPS.

The key areas of focus for 2009-10

- Policy Support

The division has a responsibility for the analysis of energy supply, demand, and pricing. More specifically, the division analyzes economic impacts and implications of energy development policies and strategies. It also monitors and reports on pricing for natural gas, gasoline and fuel oil. It provides public information on the comparative costs for different energy sources of space and domestic hot water heating.

Understanding the business conditions for investment attraction requires analysis and advice on Nova Scotia's competitive position as well as research and policy development on investment strategies, competitive advantages and financial implications of energy policies, plans, and strategies. Monitoring and supporting the implementation of the 2009 Energy Strategy is a key priority. Implementation of the Strategy involves all Divisions and requires a parallel process of legislative and regulatory development using modern regulatory tools and approaches.

- 12-Year Retrospective

Twelve years have passed since the Sable Offshore Energy Project started to have a major impact on Nova Scotians in 1996. Some of the resulting changes to the Province's economic, social, and environmental fabric have been documented over the years. Using a wider time-frame now will help gain perspective on what the "big-picture" impacts have been. This major study will address several overarching questions about extent of benefits to Nova Scotia, outcomes for local business, and learnings about environmental and worker safety rules.

The SPPS division is working with Business and Technology division to collaborate with a consultant on this study. Economists in the Division will be actively involved with the consultant in modelling and reporting on the economic impact analysis.

- Onshore Petroleum Economic Impact

The Division is gathering and analyzing information on the expected economic impact from the development of onshore oil and gas. Information obtained from this study will assist in evaluating the future importance of the onshore petroleum industry to Nova

Scotia. This study will try to estimate the total direct and indirect impacts that this new industry could potentially have on the economy. Additionally, it will identify areas where Nova Scotia could improve its capabilities or take advantage of perceived opportunities.

- **Aboriginal Consultation**

The Department of Energy works with the aboriginal community to foster a mutually beneficial relationship based upon working collaboratively and positively on the development of Nova Scotia's energy sector.

In July 2007, Canada, Nova Scotia, and the Mi'kmaq signed a Consultation Terms of Reference. The Terms of Reference (ToR) lays out a process to be followed when departments make a decision to consult with the Mi'kmaq. The Department is working to meet the Province's objectives outlined in the Terms of Reference.

The Department of Energy meets several times a year with the Energy Consultation Table which is made up of the Province of Nova Scotia, Government of Canada, and the Mi'kmaq to table and discuss concerns and recommendations on energy projects that may impact on claimed Mi'kmaq rights or title. The lead chief of the Table is Chief Gerard Julian of Paq'tnkek First Nation.

The Department will continue to work with the Mi'kmaq to facilitate early input into the scoping of environmental assessments of projects and encourage meetings between companies and the Mi'kmaq Benefits Committee to discuss business and economic opportunities. The Department will work closely with the Mi'kmaq on the development of tidal energy in the Bay of Fundy. The Province will support a Mi'kmaq Ecological Knowledge Study in the Minas Channel to document valuable information on Mi'kmaq use and ecological knowledge of the area.

- **Electronic Records**

In 2009-10, a foundation for the implementation of electronic records (IBM FileNetP8) will be developed. Work will be done to create an electronic records file plan so staff can easily access information and know where it originated. Additionally, work will be done to better manage the information assets under the control of the Department of Energy and its agencies, boards, and commissions.

- **Business Continuity Plan**

Work will be done in response to the government wide requirement for each department to develop a Business Continuity Plan (BCP) to preparation for a disaster. In 2009-10 the priority for this requirement will be the following: Assess status of the BCP process at the department in light of lessons learned by staff, by Emergency Management Office (EMO), and by other departments, the division will work toward the most effective means for increasing compliance with this requirement.

In 2009-10 the department will take the next steps needed to determine specific BCP priorities, options, and actions to move the process to a 50-80 per cent level of compliance by end of FY 2009-10. In consultation with EMO the department will prepare

and implement options to streamline the BCP process in away that is appropriate for the Department of Energy and our unique mandate.

- Regulatory Innovation

Regulation of offshore energy is a joint federal and provincial responsibility. Thus development of offshore oil and gas policy is significantly affected by the views and priorities of our partner Natural Resources Canada (NRCan) and our counterparts in Newfoundland and Labrador Natural Resources. In addition, other federal departments and provincial energy interests have a role to play in developing a modern legislative and regulatory system as well as stakeholder groups including industry, fisheries, environmental, aboriginal, and community groups.

SPPS supports the Province's interests in many initiatives including: the Frontier and Offshore Regulatory Renewal Initiative (FORRI) to modernize offshore regulations. Through FORRI, the division will continue its work to finalize modern drilling and production regulations and, for the longer term, to develop a comprehensive Offshore Operations Regulation. The Regulatory Innovation group will also participate in ongoing efforts to inform on best available research on seismic practices in the offshore.

The province has a responsibility to protect workers in the energy sector. The Government of Canada, Nova Scotia, and Newfoundland and Labrador agree on legislative changes that will firmly ground worker safety and worker rights in law, but the process of turning that agreement into law in three diverse jurisdictions has proven long and complex. All parties are working to bring it to a conclusion.

Renewed interest in onshore petroleum in both conventional and unconventional gas highlights the requirement to update our regulations to seize emerging opportunities. In particular the development of new technology allows exploration for and development of coal-bed methane and shale gas. The Regulatory Innovation group is coordinating work with other divisions to create onshore Drilling and Production Regulations, update royalty regulations, and finalize a renewed *Pipeline Act* and Pipeline Regulations.

- Better Regulation Initiative

The next step for Energy under the Better Regulation Initiative will be to use the government template for the creation of new forms and for updating old forms. These online forms will be consistent and easy to not only find but to fill out correctly. The goal is to reduce the time required for paperwork by the companies we work closely with.

The Petroleum Resources division is also currently reviewing promising electronic tracking systems to improve service turnaround times. These systems could work well with our applications and policies, making it much easier to do business in Nova Scotia.

- Marine Renewable Energy

Generation of offshore marine renewable energy is an emerging field and the Bay of Fundy has been identified as one of the most attractive sites in the world for generation of tidal energy. The Province has approved development of a tidal energy demonstration

project for the Minas Passage area. Offshore wind and wave energy may also hold future potential for the Province. The development of a coordinated regulatory framework for offshore renewable energy, including development of marine renewable energy legislation, is a key mandate of the Regulatory Innovation group. Staff members will continue to work closely with federal and provincial regulators, tidal energy developers, and stakeholders to develop policies and strategies aimed at creating efficient and effective regulatory processes for this new industry.

- Georges Bank

Georges Bank represents an important ocean area to Canada from a broad social, economic and environmental perspective. The area is under exploration moratorium until 2012 and as part of that moratorium, the federal and provincial ministers are required to initiate a review by January, 2010 and determine by June 2010 whether there will be a full public review.

Since the Panel decision in 1999 and the Government's acceptance of the recommendation to extend the existing moratorium, there have been changes in petroleum exploration including: new seismic methods and technologies; risk and mitigation strategies including the potential for re-injection of produced water; and enhanced disposal of muds and cuttings.

An evidence-based decision making process will require extensive information on the state of eco-system science knowledge applied to environmental screens of potential petroleum activities and potential mitigation methodologies. An updated geoscience understanding of resource potential and information on the impact of the offshore oil and gas sector on Nova Scotia over the past 10-12 years is critical for conducting a clear socio-economic analysis of the implications of extending or ending the moratorium, including input from the southwest region on potential positive and negative effects.

The Department of Energy will support and encourage the various projects underway or set to be underway that will assist the Governments of Canada and Nova Scotia in making a decision on whether to proceed to a Public Review of the Moratorium in 2010. We need to conduct scientific research and gather new information prior to January 5, 2010 in order to inform Ministers prior to their decision on whether they should initiate a public review of the moratorium.

## 5.6 Petroleum Resources

The Petroleum Resources Division is responsible for the development of programs and initiatives to ensure Nova Scotia's non-renewable petroleum resource potential onshore and offshore is identified and marketed to private sector investors. The resulting activities are monitored and where appropriate, regulated in the public interest. This division works collaboratively with other government departments to develop the policy, legislation, and regulations for the exploration and development of the Province's petroleum resources.

Onshore, the division administers the granting of petroleum rights and co-ordinates the regulation of exploration, development, and operational activity. The onshore activities will be focused on processing activity applications for conventional petroleum as well as coal gas (coalbed methane) and shale gas operations. Proposed activities for 2009-10 are expected to include onshore seismic, exploration drilling, and development drilling.

While the Canada-Nova Scotia Offshore Petroleum Board (CNSOPB) regulates day-to-day offshore petroleum activity; the Petroleum Resources Division actively promotes and markets Nova Scotia's onshore and offshore petroleum potential to global oil and gas companies.

Highlights on the regulatory and policy areas include working with the CNSOPB and NRCan to further refine areas where legislative, regulatory, and policy amendments can be made to make offshore Nova Scotia a more competitive and attractive place to invest.

The key areas of focus for 2009-10

#### 5.6.1 Onshore Petroleum Resources Management Plan

This is a multi-year management plan that incorporates all aspects of onshore petroleum activity in Nova Scotia. It will effectively streamline the regulatory environment by providing a framework for the Division's onshore initiatives and keeping them strategically aligned.

- Onshore Legislative Initiatives

Onshore regulations that currently exist have experienced little modification since they were enacted in the 1980s. However, as technology has evolved over the years there is now a need for the relevant legislation and regulations to be either replaced or modified to reflect technological change. The *Petroleum Resources Act* will be amended and new regulations will be developed for land tenure, drilling and production. To complement the regulatory changes and to clarify the intentions of the regulations a series of Guidelines and Information Letters for operators will be developed. The Division is also developing Regulatory Roadmaps to identify the processes for all operational processes and approvals such as seismic, drilling, and land tenure flow charts.

- Onshore Operations/Activity

In 2009-10, all aspects of onshore regulation's enforcement will continue to be regulated, monitored, and improved. These include: Land Tenure policy, drilling and seismic operations, public awareness, Aboriginal consultation, improved regulatory initiatives, and the establishment of a Petroleum Registry. Currently two departments are responsible for the Petroleum Registry, the Department of Natural Resources and the Department of Energy. This system of management is becoming increasingly inefficient to operate because it operates out of two departments. The establishment of a petroleum registry will take high priority this fiscal year and will incorporate new aspects such as annual reporting, expenditure statements, mapping, information letters, notices, and other functions important to operator and the government.

- Onshore Geoscience

As onshore activity continues to increase, it is important to build the Division's geoscience knowledge to attract further investments. The Division is committed to the creation of an Onshore Atlas. It will take several years to finish and it will be tiered to have deliverables along the way. It will help prospective investors to understand our onshore petroleum potential. Going forward the Division will also develop an improved data management system for seismic, well files, and electronic files of all reported information. The expansion of the Department of Natural Resources Core Storage Facility in Stellarton needs to be examined as the Department shares the facility with the Department of Natural Resources and the facility has reached its capacity. Long-term planning with Natural Resources on this facility will be a focus to ensure the value of the facility is understood and captured for future opportunities.

- Onshore Education

Public education and awareness is an area that requires attention especially as more petroleum activity begins to occur throughout the Province. In order to educate Nova Scotians about petroleum opportunities, petroleum activities, and their economic impact we are working with Communications staff to develop fact sheets, public education materials, and school materials. This information will help explain the department's focus on promoting a diverse energy portfolio.

### 5.6.2 Offshore Renewal Plan

The Nova Scotia Offshore Renewal Plan (NSORP) is a series of initiatives, intended to renew exploration and development interests in the offshore. The plan is to organize these into four themes (see NSORP document 2008) as follows:

- Offshore Geoscience

The key to attracting new investment is to develop new geological theories for the offshore by re-evaluating existing data to develop and recognize new exploration opportunities. Investment in geosciences is vital to attracting potential investment. The division is coordinating with OETR to ensure that \$15 million in geoscience initiatives are undertaken and focus on the unknown elements of our offshore geology. It is OETR's intention to make the results of the work available free of charge to the general public and to investors.

- Offshore Policy Initiatives

Policy development can often be critical to the success of any regulatory regime. The Offshore Renewal Plan has identified areas of our offshore policy that require improvement. Access to offshore infrastructure initiative will take priority in 2009-10 leading to the development of an industry Code of Practice accompanied by a set of guiding principles. Other policy initiatives identified for actions in 2009-10 include: rights issuance reviews, regional investment initiatives, examination of new research areas, and development incentives. The Division will work with Energy Fiscal Affairs

and Strategic Policy, Planning and Services on research and development incentives, in some of these areas.

- Regulatory Initiatives

The Division works with Strategic Policy, Planning and Services to make strategic policy decisions that have the potential opportunity to amend the Nova Scotia Offshore Accord. Technical knowledge on the subject matter is essential and requires a collaborative effort to deal with the Provincial government, Federal government, and regulators (CNSOPB).

- Investment Attraction Initiatives

In a globally competitive marketplace it is essential that we market our opportunities to the world. An Interim Investment Strategy has been initiated by the Department of Energy in collaboration with NRCan, CNSOPB, and Atlantic Canada Opportunities Agency (ACOA). This strategy will showcase our potential at local, national, and international events. It will highlight all new initiatives currently underway. Expanding our efforts to new markets will also refine our strategy in a more focused manner and we will increase our work with the Business and Technology division on foreign investment opportunities. A number of events are scheduled for this year including industry trade shows and conferences.

## 5.7 Energy Research

The Department of Energy works with partners in the Province's energy research community to help build the knowledge required to resolve energy challenges and close the knowledge gaps that are barriers to success. These partners include federal research organizations such as the Geological Survey of Canada (GSC), the Centre for Offshore Oil and Gas Environmental Research (COOGER), and general energy research groups such as Petroleum Research Atlantic Canada (PRAC), OEER, and OETR. The Strategic Policy, Planning and Services division is responsible for supporting and providing Board-level liaison between the two research associations which are helping to remove some of the barriers to sustaining prosperity for our offshore energy resources.

### 5.7.1 Offshore Energy Environmental Research Association

In March 2006, the OEER Association was established as a not-for-profit corporation with \$2.6 million funding from the Nova Scotia Department of Energy to promote and fund research on energy and the marine environment. OEER's membership includes Cape Breton University, St. Francis Xavier University, Acadia University, and the Nova Scotia Department of Energy.

In March 2007, OEER received a further grant of \$250,000 to conduct a Strategic Environmental Assessment of the Bay of Fundy for Marine Renewable Energy Projects. In August 2008, OEER received \$4,688,000 in Crown Share Adjustments from the Province.

In addition, in March 2008, the Department granted \$500,000 to OEER for research specific to the Georges Bank. The Department of Fisheries and Oceans through the Centre for Offshore Oil and Gas Energy Research (COOGER) is expected to complete an independent review of the science findings since the 1999 Georges Bank Review process. This report is expected to be completed in December 2009. Depending on the specific findings from this study and advice from interested parties, specific projects related to Georges Bank may be identified.

In March 2009 the Department granted \$75,000 to OEER for further work in the area of Marine Renewable Energy development. The work is a follow-up to the Tidal SEA for the Bay of Fundy completed by OEER. The new project is intended to provide engagement with stakeholders and the general public in the development of Marine Renewable Energy Legislation.

Additionally the Department has granted \$27,000 to the OEER Association to fund a portion of a Mi'kmaq Ecological Knowledge Study (MEKS) in the Minas Channel.

These funds will help improve science knowledge and facts with respect to offshore energy impacts on the marine environment. This work includes a focus on the environmental impacts of both the non-renewable oil and gas resources and emerging renewable resources such as in-stream tidal energy technologies.

#### 5.7.2 Offshore Energy Technical Research Association

OETR is a not-for-profit corporation dedicated to fostering research to enhance petroleum exploration and development of Nova Scotia's offshore. The Association was incorporated in March 2006, with a grant of \$2.6 million from the Nova Scotia Department of Energy to fund research work that builds geoscience knowledge about Nova Scotia's offshore oil and gas potential as well as research that reduces the technical and engineering barriers to the development of discovered reserves. Membership of the Association includes Dalhousie University, Saint Mary's University, and the Nova Scotia Department of Energy.

In August 2008, OETR received \$18,752,000 in Crown Share Adjustments for the Province. OETR has allocated \$15 million of this funding for purposes of performing petroleum play fairway analyse and creating data packages to be released to investors in late 2010.

In March 2009 the Department granted the Association \$250,000 toward a project that would enable researchers to access 1980's seismic data on Georges Bank and build a better picture of our offshore potential on the entire Scotia Shelf. The project would involve the acquisition of the seismic data which would then be digitized, processed, and analyzed.

Additionally the Department granted \$180,000 to the Association to advance earlier work to develop technical and economic models for small field development in the Nova Scotia offshore.

The Petroleum Resources and Fiscal Affairs Divisions work closely with OETR on developing and implementing the geoscience technical research mandate. OETR and OEER are developing a mandate for marine renewable technology research. The Energy Markets Division will work closely with the Associations in developing and implementing this mandate.

## **6.0 CORPORATE PRIORITIES**

The Toward a Greener Future: Nova Scotia's 2009 Energy Strategy outlines the Department's current and long term objectives and key actions. This Strategy is being implemented in the Department of Energy through current and future Business Plans. The objectives and actions outlined in the Strategy will be the basis for the Department's performance measures.

## 7.0 PERFORMANCE MEASURES

Table 2: The Performance Measures for each of the Department of Energy’s Key Priorities

<b>Priority: Sustainability from Energy Resource Revenue</b>				
<b>Outcome</b>	<b>Measure</b>	<b>Data</b>	<b>Ongoing Targets</b>	<b>Strategic Action to Achieve Target</b>
- Enhanced sustainability of NS economy and government programs - Increase in provincial and municipal tax bases	- Establish baseline 1996-2008 compare to 2009-2019	- To be collected	- 10 year period	- Grow and use energy resource revenue in a sustainable manner
<b>Priority: New Economic Opportunities</b>				
<b>Outcome</b>	<b>Measure</b>	<b>Data</b>	<b>Ongoing Targets</b>	<b>Strategic Action to Achieve Target</b>
- Increase in community opportunities or offsetting benefits - Increase in exploration bids, drilling activity, and discoveries	- Establish baseline 1996-2008 compare to 2009-2019	- To be collected	- Target to be established once opportunities emerge	- Establish and implement onshore and offshore resources investment attraction plans - Revise offshore strategic energy agreements - Ongoing discussions with project operators and proponents - Continue with regulatory and policy innovation
- Support for the supply community in pursuing opportunities locally and abroad	- Establish baseline 1996-2008 compare to 2009-2019	- To be collected	- Target to be established once opportunities emerge	- Monitor contracts - Target international opportunities
- A clear, more complete picture of NS offshore oil and gas prospectively, petroleum systems and environmental sensitivities for prospective investors - A clear picture on the potential for carbon capture and storage in NS	- Establish baseline 1996-2008 compare to 2009-2019	- To be collected	- Target to be established once opportunities emerge	- Invest in energy research and development excellence - Reporting at bi-annual NS research and development forums
- Increased renewable electrical energy from	- Establish baseline	- To be	- 25% increase by	- Establish renewable energy policies/set

NS sources	1996-2008 compare to 2009-2019	collected	2015	new renewable energy requirements by next fiscal year as part of energy strategy commitments.
- Offshore and onshore petroleum and marine renewable energy projects with community socio-economic impacts	- Establish baseline 1996-2008 compare to 2009-2019	- To be collected	- 2009	- Establish regional energy policies to maximize socio-economic impacts - Onshore petroleum economic impact study - 12-year retrospective
<b>Priority: Secure, Competitive and Sustainable Energy Supplies</b>				
<b>Outcome</b>	<b>Measure</b>	<b>Data</b>	<b>Ongoing Targets</b>	<b>Strategic Action to Achieve Target</b>
- Electricity rates for homes that support conservation for NS (Balanced portfolio with multiple energy sources)	- Establish baseline 1996-2008 compare to 2009-2019	- To be collected	- Progress will continually be evaluated and monitored	- Participating in the IRP process phase 2
- Clearer understanding of where smart technology for new buildings can be used to the greatest benefit to NS electricity transmission system	- Establish baseline 1996-2008 compare to 2009-2019	- To be collected	- Progress will continually be evaluated and monitored	- Support technologies that inform and help reduce and shift electricity demand
- Energy prices comparable or lower on a before tax basis with neighbouring jurisdictions	- Establish baseline 1996-2008 compare to 2009-2019	- To be collected	- Progress will continually be evaluated and monitored	- Continuous checks to ensure we remain competitive with neighbouring jurisdictions
- Increase use of locally produced cleaner greener energy	- Establish baseline 1996-2008 compare to 2009-2019	- To be collected	- Progress will continually be evaluated and monitored	- Renew Energy Standard Regulations
- Increased contributions of net metering	- Establish baseline 1996-2008 compare to 2009-2019	- To be collected	- Progress will continually be evaluated and monitored	- Renew Energy Standard Regulations

- Harmonization of energy policies/regulation in the region	- Establish baseline 1996-2008 compare to 2009-2019	- To be collected	- Progress will continually be evaluated and monitored	- Atlantic Canada Cooperation initiative (work with other Atlantic provinces on offshore petroleum, onshore petroleum, transportation and transmission, Atlantic Energy Office) - Partnership Agreement on Regulation and the Economy (work with New Brunswick to harmonize onshore petroleum operations, collaborate on tidal energy development, potential improved/integrated regional electrical transmission)
<b>Priority: Reducing Air Emissions and Saving Energy Through Energy Efficiency and Conservation</b>				
<b>Outcome</b>	<b>Measure</b>	<b>Data</b>	<b>Ongoing Targets</b>	<b>Strategic Action to Achieve Target</b>
- Expanded, greener electricity transmission grid - Importing cleaner power	- Establish baseline 1996-2008 compare to 2009-2019	- To be collected	- Target to be established once opportunities emerge	- Support Atlantic Energy Cooperation initiative - Create new opportunities for small-scale producers of renewable electricity - Enhanced interconnection and options for system operators through the Green Grid Study to be completed in 2009
<b>Priority: Achieving Social Responsibilities</b>				
<b>Outcome</b>	<b>Measure</b>	<b>Data</b>	<b>Ongoing Targets</b>	<b>Strategic Action to Achieve Target</b>
- Modernized energy legislation - A track record of engagement, outreach, and consultation	- Establish baseline 1996-2008 compare to 2009-2019	- To be collected	- Progress will continually be evaluated and monitored	- Create policies, legislation, and regulations - Regular reporting and analysis of energy sector performance and trends

## **8.0 HUMAN RESOURCE STRATEGY**

### **8.1 Human Resource (HR) Framework Implementation**

In 2005 the Nova Scotia Public Service Commission initiated Nova Scotia's Corporate Human Resource Plan 2005-10.

The plan has five goals:

- To make a difference through a skilled, committed, and accountable public service
- To be a preferred employer
- To be a safe and supportive workplace
- To be a diverse workplace

In 2008-09 the department developed an HR strategy that parallels the Corporate Plan but is tailored to Energy's circumstances and needs. In 2009-10 the Department will continue to incorporate this strategy into its HR administration. The areas that will be given specific attention the following:

- **Diverse Employer**

The Department of Energy is committed to diversity in its recruitment of employees. In 2009-10 it will review its hiring practices with emphasis on improving the representation of designated groups such as African Canadians, Aboriginals, and women in non-traditional roles within its ranks. To this end, the department will actively work with the Human Resources Client Services Unit to ensure that individuals on their list of qualified diversity candidates have been given first opportunity for casual placements.

- **Succession Management**

Senior Management will identify resource requirements for their divisions and provide staff with resources required for skill development. As part of succession management planning, the department will continue to encourage employee participation in GoverNEXT events, including networking, mentorship opportunities, and career development initiatives.

- **Orientation of New Hires**

The department has developed an orientation package for new employees to Energy and will provide this to all new hires in 2009-10. The department will also support the government's Corporate Employee Orientation Program and draw from these tools and resources to provide additional information to new employees such as the orientation DVD.

- **Career Planning**

The Department will require each employee to create a career plan including training and development opportunities. Management will continue to conduct performance appraisals for all staff which include identification of career development goals and will provide the support and resources needed to assist staff in accomplishing these goals.

## 8.2 Occupational Health and Safety

The Department of Energy values the health and safety of its employees and is committed to providing a safe and supportive working environment. The departmental Joint Occupational Health and Safety (JOHS) committee ensures that these goals are met. This committee's priority is to work in partnership with employees to minimize the risk of occupational injury and illness in the workplace. The committee will continue to work with all employees to identify, report, and resolve workplace hazards; ensure employee access to training and take necessary measures to promote health and safety.

## 8.3 Health Workplace Planning

The Healthy Workplace initiative of Nova Scotia Government means improving the health of the organization for better employee retention, effectiveness, and their quality of life within and outside the workplace. The Health Workplace initiative includes occupational health, the physical environment at work, a supportive culture, along with awareness, and action for healthier lifestyles.

The government wide Health Workplace initiative is now moving from its introductory stages. Each Department is encouraged to move at their own pace from Level 1 (Commitment) to Level 2 (Planning and Transformation) of the Health Workplace framework, and will in the future be assessed on its progress. For financial year 2009-10 the Department of Energy through its Healthy Workplace committee will strengthen its basic commitment to Health Workplace, and begin the path to Level 2, creation of a Healthy Workplaces Plan. The Department will begin that process by quantifying the current state of health of the Department and assessing employee needs for Healthy Workplace programs and supportive environment. This will allow for the creation of a baseline measures for tracking progress. This is one of the key steps in developing a Health Workplace plan for the department along with including the process in our business planning and management structure.

## 8.4 French Language Services

The Department of Energy continues to commit to fulfilling their obligations under the French Language Services Act and Regulations. Every year a plan is developed where specific goals and objectives are set by the Department of Energy and are submitted to the Office of Acadian Affairs Nova Scotia through Energy's French Language Services Coordinator. Progress is documented in reaching these goals and submitted every year end.

## 9.0 BUDGET CONTEXT

Table 3: Department of Energy Budget Context

Department of Energy			
	2008-2009 Estimate	2008-2009 Actual	2009-2010 Estimate
Program & Service Area	(\$ thousands)	(\$ thousands)	(\$ thousands)
<b>Gross Department Expenses:</b>			
Senior Management	501	514	517
Communications	479	445	457
Business and Technology	1,834	1,929	1,902
Strategic Policy, Planning and Services	1,098	6,271	1,260
Energy Markets	1,154	886	1,568
Petroleum Resources	2,145	1,733	1,993
Fiscal Affairs	0	0	510
Human Resource and Administration	847	937	812
Legal Services	230	47	20
Conserve Nova Scotia	10,269	19,859	27,701
Canada-Nova Scotia Offshore Petroleum Board	3,260	3,260	3,350
<b>Total Gross Department Expenses</b>	<b>21,817</b>	<b>35,881</b>	<b>40,090</b>
<b>Additional Information</b>			
<b>Fees and Other Charges</b>	0	0	0
<b>Ordinary Recoveries</b>	1,677	1,940	1,677
<b>TCA Purchase Requirements</b>	0	0	0
<b>Provincial Funded Staff (FTEs)</b>	49	42	55