



Business Plan

2019–20

Department of Energy and Mines



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Minister's Message

Resource development is an important part of our economic future in Nova Scotia. The new Department of Energy and Mines combines two teams with expertise in resource assessment and development. This collaborative and coordinated approach will make the most of our opportunities, while ensuring the environment is protected.

Energy and Mines will continue to pursue the development of Nova Scotia's offshore petroleum resources, as well as important projects like the Alton Natural Gas storage facility and the Pieridae and Bear Head LNG proposals. Our work with phase two of the Offshore Growth Strategy will create a clearer picture of our oil and gas resource potential and help attract international investment.

At the same time, we continue to add more renewable energy to our mix as we move toward a cleaner energy future. The new SolarHomes Program makes it more affordable for Nova Scotia homeowners to add solar panels and reduce their energy bills. Plus, our work to make homes more energy efficient continues to build on our province's position as a national leader in reducing greenhouse gas emissions. Supporting the development of tidal energy remains a priority for Energy and Mines. The new marine-renewable energy permit program gives companies a new way to test their technologies, while research and development continues with berth holders at the Fundy Ocean Research Centre for Energy (FORCE).

Led by a resurgence in gold production, our mining sector continues to create jobs and opportunities in rural areas of the province. Nova Scotia saw an increase in mineral claims stakes this past summer, and the Mineral Resources Development Fund is an important way we encourage investment and development in the sector. With the new *Mineral Resources Act* and its regulations now in effect, we're making it easier for companies and prospectors to do business, by reducing costs and cutting red tape. The new Act and regulations also ensure responsible development and provide better enforcement.

Nova Scotia is in an unprecedented period of electricity rate stability and keeping our electricity affordable beyond 2020 remains a priority. We will continue to support sustainable transportation initiatives through Connect2 and create more opportunities for young people. These are just a few of the ways we will look to create inclusive economic growth for Nova Scotians. I encourage you to read our business plan to find out more.

(original signed by)

Derek Mombourquette
Minister

Mandate

The Department of Energy and Mines' serves the social, environmental, and economic interests of Nova Scotians by promoting the efficient, effective and environmentally sound use of energy and mineral resources.

Government has directed the Department, via 2017 Ministerial Mandate letters, to work towards the following objectives:

1. Reduce greenhouse gas emissions
2. Continue with enhancements to the non-electric, home energy efficiency program
3. Continue to develop the offshore growth strategy
4. Create a Mineral Resources Development Fund
5. Ensure electricity rate stability and reduce energy costs for low income individuals and families
6. Continue work on tidal and renewable energy

2019-2020 Department Initiatives: Ministerial Mandate

The following initiatives are being undertaken by the Department in order to achieve the Ministerial Mandate:

Greenhouse Gas Mitigation

The Department of Energy and Mines is collaborating with other departments and partners to achieve greenhouse gas emission reductions. This is a long-standing government objective and is consistent with obligations made under the Pan-Canadian Framework on Clean Growth and Climate Change (PCF) and the "Canada-Nova Scotia equivalency agreement regarding greenhouse gas emissions from electricity producers".

With an increase in available federal funding, the Province will continue to support strategic investment in GHG emissions reduction programs and leverage significant private investment. Two significant areas of GHG mitigation that will be addressed in 2019-2020 are Low Carbon Programming and Green Infrastructure Funding.

Low Carbon Programming

Low Carbon Programs are expected to achieve over one million tonnes of lifetime GHG reductions, through initiatives aimed at:

- Off-oil energy efficiency retrofits (extending Efficiency NS' activities and incentives to oil-heated and other non-electrically heated homes),
- Market-ready new technology (increasing range of new technologies to all households),

- Emerging technology and local supplier capacity-building,
- Funding of the Low Carbon Communities Program, designed to help jump-start projects and activities by funding the development of feasibility studies and plans, engagement activities, and implementation of a variety of low-carbon initiatives, and,
- Continued funding to support energy efficiency work in low-income households to reduce GHG emissions and energy costs.

Green Infrastructure Funding

The Department's GHG mitigation investment will be guided by provincial strategic priorities and will focus on the three largest sectoral GHG-emitters for NS:

- Electricity,
- Transportation, and
- Buildings

Non-electric, Home Energy Efficiency Program Enhancements

The Department will continue to support and provide funding for Efficiency Nova Scotia in its delivery of energy efficiency programming for homes with non-electric heating systems (e.g. furnace oil, wood, propane or natural gas).

The Department also supports the development of policies to support energy efficiency in buildings and home energy products.

Continue to develop the offshore growth strategy

The Offshore Growth Strategy (OGS) is a long-term strategy which will help ensure the province retains an offshore oil and gas industry and supply chain that contributes to the prosperity of Nova Scotia. The OGS is aimed at increasing investment in offshore exploration and building local capacity to ensure Nova Scotia companies are benefiting from opportunities.

In 2019-20, OGS Phase II will:

- Provide continued investment in geoscience,
- Include complementary activities of marketing and benefits optimization,
- Provide new insights supporting the attainment of the Offshore Growth Strategy goals: Investment, effective resource management, business development, innovation and capacity building
- Continue to modernize and strengthen the operational rules for the offshore.

Mineral Resources Development Fund

The Mineral Resource Development Fund (MRDF) is a multi-year project that replaces the Mineral Incentive Program and is designed to increase mineral exploration and mine development, invest in mineral research for Nova Scotia and provide cooperative education opportunities. Through this initiative prospectors, students, and junior exploration companies are provided with funding, technical assistance and training intended to support grass-roots and advanced exploration projects, university and college-based minerals research, major projects, marketing and promotion, and mineral investment opportunities.

Ensure electricity rate stability and reduce energy costs for low income individuals and families

Through its Electricity Plan, the Province is continuing to work with its electricity utility and with Nova Scotians to ensure technology development and innovation are supported, power rates are predictable and stable, there is transparency and accountability, and the regulatory system is easier to understand.

Electricity Plan Implementation

The Province legislated a three-year Rate Stability Period in 2016, that has resulted in electricity rates increasing at a rate lower than the cost of inflation from 2017-2019. As part of the Plan, the Department has developed programs which will support technology and innovation, while managing rate pressure associated with other energy programming, including the Solar Electricity for Community Buildings program.

Electricity Studies

In 2019-20, the Department will prepare for the upcoming Integrated Resource Plan and other processes at the Utility and Review Board by undertaking analysis, commissioning reports, and other actions to ensure that our electricity system remains affordable for Nova Scotians and continues to reduce GHG emissions from electricity generation.

Reducing Energy Costs and GHG Emissions through Natural Gas

Supporting the ability to manage household and business energy costs through access to cleaner natural gas continues to be a priority. The Alton Natural Gas Storage Project, as well as Goldboro LNG Project and Bear Head LNG Project could result in greater delivery of more affordable natural gas to Nova Scotia markets while improving the economics of converting consumers from more carbon intensive fuels. Natural gas can also assist in supporting the cost-effective integration of new sources of renewable electricity. In this regard, these natural gas projects represent important opportunities to meet Nova Scotia's needs, and the Department will continue to perform a regulatory coordination role in ensuring the efficient and effective regulation of natural gas related projects as they proceed toward final investment decisions. Further, the Department will continue to examine other manners in which natural gas access can be improved by examining

opportunities to be had in a more regional approach to natural gas access. In parallel, the Department will continue to work on regulatory improvements under the *Underground Hydrocarbons Storage Act* as well as the *Pipeline Act*.

Continue work on tidal and renewable energy

Under the Marine Renewable Energy Strategy, the Province is continuing to work collaboratively with stakeholders and Nova Scotians to ensure the industry develops in a sustainable and responsible manner. The Province's approach is to focus on research, development, and regulatory initiatives that will enable deployments that benefit Nova Scotians.

Tidal Energy

The Department is tracking tidal projects and the various stages and milestones for each project. Program outcomes are to develop opportunities to research, test, demonstrate, and deploy a variety of tidal technologies.

Offshore Wind

The Department is currently evaluating business models and regulatory processes for development of offshore wind projects off Nova Scotia. In 2019-20, priorities will include assessing the opportunity of the provincial service and supply chain sector.

Solar Energy

The Province will continue to develop solar policies and programs, as well as work with industry and partner organizations to further the development of solar energy in Nova Scotia. Through deployment of solar, Nova Scotians can be given more choice in meeting their electricity needs, while also reducing greenhouse gas emissions and contributing to local jobs and economic activity.

In 2019-20, the Department will continue to support community participation in renewable energy generation by offering the *Solar for Community Buildings Program*, which enables eligible community groups and organizations to generate up to 75kW of solar photovoltaic electricity on their roofs or properties and sell it to their utility under a 20-year contract.

2019-2020 Department Initiatives: Legislated Mandate

In addition to the responsibilities under its Ministerial Mandate, the Department will continue to provide support for the following initiatives under its legislated mandate:

Geoscience and Resource Development

The Department of Energy and Mines brings the province's experts in subsurface resources together in one department and provides opportunities to better promote the province's energy and mineral resources through collaboration on energy and mining files.

Onshore Petroleum Atlas

Work will continue in 2019-20 on the Onshore Petroleum Atlas, an initiative that will improve data accessibility and usability, and provide new insight into our onshore geology. Project outcomes will include establishing geoscience information resources to support robust regulation and oversight of the onshore petroleum industry in Nova Scotia and producing subsurface geological models and oil and gas resource assessments.

Resource Evaluation

The Department will continue its work to attract, encourage and support private sector investment in developing the Province's mineral and geoheritage resources by identifying new opportunities for mineral exploration and development including base and precious metals, coal, industrial minerals and geoheritage sites.

Exploration Services

The Department will continue to provide support to prospectors and the exploration industry by providing training and assistance to prospectors, promoting the geological resources of the province at national and international trade shows, creating awareness of the industry through community engagement, administering the MRDF, and assisting industry with the Integrated Resource Management process - a planning and decision-making process that attempts to consider the many interests and issues within the wildlife, parks, forestry, and minerals sectors that affect Crown lands.

Environmental Geology

The Department will continue to support the protection of public health and safety and ensure the best use of the province's groundwater resources by gaining a better understanding of the quantity and quality of groundwater resources, identifying and assessing geological hazards, and assessing the vulnerability of the coastline to erosion and flooding.

Geoscience Information

Work will continue in 2019-20 to provide high quality information and data to our clients to support better decision making on resource evaluation, public health and safety through the publication of reports, hard copy and on-line interactive maps and atlases,

on-line applications and databases, and GIS data products, and by providing client access to the Provincial Drill Core Library.

Industry and Supplier Development

Mineral Management

The Department retains ongoing responsibility over the Registry of Mineral and Petroleum titles, which provides global access to a secure, map-based system for acquiring mineral and petroleum rights in Nova Scotia.

Energy Training Program

The Energy Training Program develops the energy workforce in Nova Scotia by encouraging private sector employers to hire post-secondary students for career-related work terms. The program offers a wage subsidy to employers hiring students and new graduates from Nova Scotia universities and community colleges for term employment. Employers benefit from a proven, cost-effective way to enhance short-term productivity and develop long-term recruiting solutions. Post-secondary students and recent graduates contribute to the energy industry while gaining valuable skills and experience that will enable them to become part of a highly skilled workforce in the energy sector.

Pengrowth-Nova Scotia Energy Scholarship Program

The Pengrowth-Nova Scotia Energy Scholarship Program offers funding to trades and technology, and university undergraduate and Master-level students throughout Nova Scotia to pursue energy-related studies. Since its inception, the program has supported more than 200 students and researchers with more than \$1 million in funding. By providing scholarships to students pursuing energy-related studies at both universities and the Nova Scotia Community College, the Pengrowth-Nova Scotia Energy Scholarship Program helps students develop the skills and knowledge they need to become leaders in the energy sector.

Regulatory Initiatives

Joint Management of Offshore Petroleum Resources

Offshore oil and gas activity in the Province is jointly managed by the Province of Nova Scotia and the Government of Canada through legislation, regulation, and policy. The Department works with Natural Resources Canada and the Canada-Nova Scotia Offshore Petroleum Board to ensure that the exploration and development of Nova Scotia's offshore oil and gas resources are responsibly managed.

Work will continue to modernize offshore regulations to ensure that we maintain rigorous standards for safety, environmental protection and management of resources. In 2019-20, the Frontier and Offshore Regulatory Renewal Initiative and Occupational Health and

Safety initiatives will be conducting stakeholder consultation and publishing proposed regulations in Canada Gazette I for public comment.

Onshore Petroleum Regulation

The Department administers onshore petroleum rights as set out in the *Petroleum Resources Act* and Regulations. In 2019-20, work will continue to modernize onshore oil and gas regulation to ensure that industry continues to use best practices, particularly as new technologies continue to be developed.

Marine Renewable Energy Regulation

The Department will continue to oversee the licensing and permitting system to oversee the development of marine renewable energy projects created through the *Marine Renewable-energy Act* and Regulations, which were proclaimed in January 2018.

Mineral Resource Regulation

The Department is responsible for regulating the exploration and development of Nova Scotia's mineral resources, as set out in the new *Mineral Resources Act* and Regulations, which were proclaimed in December 2018. In 2019-20, the Department will coordinate a "one window" process for approvals of mineral exploration and development projects, under the new regime.

Royalties Administration and Audit

Offshore Petroleum Royalties

The Department is responsible for monitoring energy projects to ensure appropriate economic benefits are collected from the development of offshore petroleum resources. The administration and auditing of oil and gas royalties and Crown Share Adjustment payments contributes millions of dollars directly to the provincial treasury. The Department ensures the province's royalty regime reflects modern best practice and strikes a balance between attracting investment and providing a fair return to Nova Scotians.

Mineral Royalties

The Department is responsible for administering, auditing, and assessing royalties from onshore mineral projects. In 2019-20, the Department will provide recommendations and administration of the royalty regulations and agreements under the new Mineral Resources regime.

Financial Summary

Energy and Mines Expenses Summary			
(\$ thousands)			
<u>Programs and Services</u>	<u>2018-2019 Estimate</u>	<u>2018-2019 Forecast</u>	<u>2019-2020 Estimate</u>
Office of the Minister / Deputy Minister	460	358	465
Administrative Services	1,368	1,175	1,181
Sustainable & Renewable Energy	2,445	2,562	2,745
Business Development & Corporate Services	3,234	3,090	3,213
Geoscience and Mines	-	-	5,529
Petroleum Resources	1,855	2,104	2,035
Canada-Nova Scotia Offshore Petroleum Board	4,305	4,305	4,305
Clean Growth and Climate Change	17,795	28,524	29,563
Total - Departmental Expenses	31,462	42,118	49,036
Ordinary Recoveries	17,760	14,297	27,785
<u>Funded Staff (# of FTEs)</u>			
Department Funded Staff	58.2	81.7	96.0
Notes:			
Geoscience and Mines transferred from the Department of Lands and Forestry			
Ordinary Revenues: See Estimates and Supplementary Detail Book, Chapter 2			

