An Overview of Atlantic Canada Exploration and the Environmental Legislative Process, Offshore Nova Scotia, Canada

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Facts about EnCana Corporation

- High quality assets – Opportunity Rich Portfolio
- Strong North American natural gas strategy
- Superior oil growth; domestic and international
- Balance sheet positioned for growth
- 590,000 BOE daily production (2002F, after royalties); 64% gas
- 2.3 billion BOE proved reserves (year-end 2001, after royalties); 51% gas
- 90% of reserves and production in North America
- 36 million acres net undeveloped land
- Approximately US$20 billion Value (as of July 24, 2002)
2002 EnCana Capital Budget
US$3.2 Billion Gross*

Division Breakdown

- Marketing & Midstream 5%
- Offshore & New Ventures Exploration 14%
- Offshore & International Development 12%

Onshore North America 69%

Onshore North America Breakdown

- Natural Gas 63%
- Other Oil 22%
- SAGD 6%
- Syncrude 9%

* Prior to planned net dispositions of US$950 million
Six Key Growth Platforms

- Western Canada
- U.K.
- Atlantic Canada
- U.S. Rockies
- Gulf of Mexico
- Ecuador
North America Offshore Basins

- Alaska/Mackenzie Delta
- Gulf of Mexico
- Newfoundland
- Scotian Shelf
- US Eastern Seaboard
Canada: How Much Gas is Out There?

- North of 60°: 175
- British Columbia: 50
- Alberta: 270
- Saskatchewan: 9
- Grand Banks and Scotian Shelf: 63
- Other Frontier (includes other regions offshore East Coast & West Coast): 89

Source: National Energy Board / Canadian Association of Petroleum Producers
US Atlantic Margin

- Area > 250,000 km²
- Reservoir
  - Jurassic Carbonates
  - Jura-Cretaceous Sands
  - Tertiary Sandstones
- Source
  - Jurassic\Cretaceous Marine Shales
- Traps
  - Listiric Normal Fault Plays
  - Stratigraphic Pinch-outs
  - Reef Margins
- Potential (USGS)
  - 16 - 45 Tcf
  - 1 - 4 Billion Barrels
Terra Nova Floating Production System
Sable Offshore Energy Platforms
Sable Thebaud Central Facility
Atlantic Canada Mesozoic Subbasins

[Map showing the Atlantic Canada Mesozoic Subbasins, including subbasins such as New Brunswick, P.E.I., Newfoundland, Grand Banks, Nova Scotia, Scotian Shelf, Quebec, and St. John's.]
Regulation of Canada East Coast Waters

- The Government of Canada and the Atlantic Provinces agreed to jointly administer the offshore by use of independent offshore boards.


- Boards consist of two federal, two provincial and one joint members.

- Each Board Staff Administers: HSE, Resource Rights, Local Benefits, and Operations Management.
Canada Nova Scotia Offshore Petroleum Board

- **Mission Statement**
  
  To regulate petroleum activities offshore Nova Scotia in an efficient, fair and competent manner.

- **Mandate**
  

- **The Board's principal responsibilities include**
  
  - Ensuring the safe conduct of offshore operations
  - Protection of the environment during offshore petroleum activities
  - Management of offshore oil and gas resources
  - Review of industrial benefits and employment opportunities
  - Issuance of licenses for offshore exploration and development
  - Resource evaluation, data collection and distribution
CNSOPB Land Issuance & Program Procedures

Overview

- Nomination of Land
  - CNSOPB Strategic EA
    - Call for Bids
      - Exploration License
        - Seismic Program
          - Geophysical Program
            - Geotechnical Program
              - Drilling Program
Environmental Procedures for EL’s
Standard Field Program (Common)

PLANNING
- Environmental Assessment (EA)
- Oil Spill Response Plan (OSRP)
- Additional Program Specific Requirements

Program’s Approval

OPERATIONAL PROCEDURES
- Operational Procedures

REPORTING
- Reporting

Consultation Process
Environmental Procedures
Seismic Program (Specific Process)

PLANNING

Environmental Assessment
Identify critical time/areas for fishing/mammals/spawning

Program’s Approval

OSRP

Fisheries Liaison Observer (FLO)
Ramp-up of airguns

OPS

FLO Report

REPT.

Consultation

• FEAC (Fisheries Environmental Advisory Committee) Meeting
• Direct information to Fisheries Representatives
• Consultation through Canada-Nova Scotia Offshore Petroleum Board (CNSOPB) and the Federal Departments of Environment Canada and the Department of Fisheries and Oceans (DFO)

• Notices to Mariners
• Fisheries Compensation
Environmental Procedures
Exploration Drilling Program, Pre-Drill (Specific Process)

- Baseline Benthic Data
- Rig’s Metocean Equipment
- OSRP
- Environmental Assessment
- Drilling Chemical Screening
- Metocean Data for Certifying Authority

Program’s Approval

Consultation
- FEAC (Fisheries Environmental Advisory Committee) meeting
- Direct info to fisheries reps
- Consultation through CNSOPB, Environment Canada and DFO
Environmental Procedures

Exploration Drilling, While Drilling, (Specific Process)

- Physical Environmental Monitoring Program (meteo, waves, currents)
- OWTG (oil on cuttings, bilge/ballast/deck drainage water, sanitary/food waste...)
- Environmental Monitoring Program (EMP) (bird monitoring, benthic survey, tainting study...)

Consultation
- Notices to Mariners
- Fisheries Compensation

REPT. OPERATIONS

Metocean End of Well Report
Env. Compliance Monitoring Data
FLO Report
ECM Rpt

FLO (optional)
Environmental Procedures

Environmental Assessment Process 2003 Modifications

- **Existing CNSOPB Process (Timelines)**
  - 30-day review by CNSOPB, DFO, Environment Canada
  - NS Seismic Class Screening EA (1998, LGL document)
  - NS Drilling Generic Assessment (2000, LGL document)

- **New CEAA (Canadian Environmental Assessment Act) Process Timelines**
  - Effective Q1/03 (earliest)
  - Screening Study: wellsite surveys, seismic surveys, and exploration drilling in area previously assessed under CEAA
    - 6-month review
  - Comprehensive Study: exploration drilling in new area
    - 12-month review
Websites for Additional Information

- **Canada Nova Scotia Offshore Petroleum Board**
  - [www.cnsopb.ns.ca](http://www.cnsopb.ns.ca)

- **Canada Newfoundland Offshore Petroleum Board**
  - [www.cnsopb.nfnet.com/](http://www.cnsopb.nfnet.com/)

- **Terra Nova Project**
  - [http://www.terranovaproperty.com/](http://www.terranovaproperty.com/)

- **Hibernia**
  - [www.hibernia.ca/](http://www.hibernia.ca/)

- **Sable Offshore Energy Inc.**
  - [www.soep.com](http://www.soep.com)