

## **1.0 Purpose**

This document provides a description of the scope of the project, the factors to be considered and the scope of the factors related to the Comprehensive Study (CS) for BEPCo Canada Company's (BEPCo) proposed exploratory drilling project in Exploration Licence 2407. This document has been developed by the Canada-Nova Scotia Offshore Petroleum Board (CNSOPB), as a Responsible Authority (RA), in consultation with the Canadian Environmental Assessment Agency (CEA Agency) as the Federal Environmental Assessment Coordinator (FEAC), and with the Department of Fisheries and Oceans (DFO), and Environment Canada (EC), which have been identified as expert Federal Authorities.

## **2.0 Scope of Project**

The proposed exploratory drilling activity will occur in the marine waters under the jurisdiction of the CNSOPB in EL2407; located approximately 190 km from Halifax, on the Scotian Slope. BEPCo, the Proponent, is proposing a multi-year, multi-well drilling program. It is anticipated that one exploration well will be drilled per year between 2005 and 2007. If significant hydrocarbons are discovered, this may be followed by drilling delineation/appraisal wells and/or pre-development drilling to determine the extent of the reservoir. Two appraisal wells may be drilled in 2008 and a third well may be drilled in 2009. Also, the proponent may conduct two Vertical Seismic Profiles (VSPs) during the drilling of each well.

Specific well locations have not been determined; however, the areas of interest are located in the deep water portion of their exploration licence, in water depths greater than 1,200 m. BEPCo initially proposes to drill the first well in a water depth of approximately 1,450 meters. The approximate location of this well is 42 39' 19.974"N and 63 04' 33.726"W.

In summary, the proposed project could consist of drilling a maximum of six wells over a five year period. For additional details, refer to the Project Description submitted by BEPCo to the Canada Nova Scotia Offshore Petroleum Board on April 28, 2004.

## **3.0 Regulatory Considerations**

The Project will require authorizations pursuant to Section 142 (1)(b) of the Canada-Nova Scotia Offshore Petroleum Resources Accord Implementation Act (S.C. 1988, c. 28) (Accord Act). Issuance of this authorization is described in the Law List Regulations of the Canadian Environmental Assessment Act (CEA Act) and therefore constitutes a power as described in sub-section 5(1)(d) of the CEA Act.

**BEPCo Canada Company**  
**Exploratory Drilling Program on Exploration Licence 2407**  
**Scope of Comprehensive Study**  
***DRAFT***

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The CNSOPB, as the Responsible Authority (RA) must ensure that an environmental assessment of the Project is conducted. The Project as proposed is described in Item 15 of the Comprehensive Study List Regulations of the CEA Act.

Pursuant to Section 17(1) of the CEA Act, the CNSOPB will delegate the conduct of the comprehensive study to BEPCo. The BEPCo will prepare and submit to the Board an EA report. Following the review of the information provided by BEPCo, the CNSOPB, in consultation with the CEA Agency, DFO and EC will prepare the Comprehensive Study Report, which will be submitted to the Minister of Environment.

The CEA Agency will be the FEAC respecting the assessment. In this role it will be responsible for coordinating the review activities of the CNSOPB, EC and DFO, in accordance with Section 12 of the CEA Act.

#### **4.0 Public Participation**

The Comprehensive Study process requires that the public be given ample opportunity to participate in the review of the environmental assessment. Public participation is actively sought while the Comprehensive Study Report is being prepared and while it is being reviewed. There are three distinct stages for public consultation. The first is during the preparation of the scope of the environmental assessment and while deciding which assessment process should be used, the second is during the preparation of the Comprehensive Study, and the third is while the Minister is reviewing the Comprehensive Study Report.

The public will have 21 days to provide written comment to the Board on the draft Scoping Document, up to four weeks to submit written comments to the Board on the EA Report provided by BEPCo, and a period, to be determined by the Canadian Environmental Assessment Agency, to examine the CSR, while it is being reviewed by the Minister. This final public review period is typically about 30 days. The Board will advertise, in provincial and community newspapers, the public consultation periods for the Scoping Document and EA Report, as well as, issuing news releases to encourage public participation.

The Board will receive all public comments on the Scoping Document and EA Report and distribute to the expert Federal Authorities and the Agency. The CSR must demonstrate how such comments were considered, and note any changes made as a result of that consideration.

A public registry has been established for the project and the project is listed on the Canadian Environmental Assessment Registry (reference number 04-03-2712).

## **5.0 Factors to be Considered**

The Comprehensive Study shall include a consideration of the following factors as described in Subsections 16(1) and (2) of the CEA Act:

Factors to be considered in accordance with subsection 16(1) are:

- The environmental effects of the project, including the environmental effects of malfunctions or accidents that may occur in connection with the project and any cumulative environmental effects that are likely to result from the project in combination with other projects or activities that have been or will be carried out;
- The significance of the environmental effects;
- Comments from the public that are received in accordance with the Canadian Environmental Assessment Act and its regulations; and
- Measures that are technically and economically feasible and that would mitigate any significant adverse environmental effects of the project.

Factors to be considered in accordance with subsection 16(2) are:

- The purpose of the project;
- Alternative means of carrying out the project that are technically and economically feasible and the environmental effects of any such alternative means;
- The need for, and the requirements of, any follow-up program in respect of the project; and
- The capacity of renewable resources that are likely to be significantly affected by the project to meet the needs of the present and those of the future.

It is recognized that environmental assessment is conducted at the early phases of project planning when alternative means of carrying out the project are under study and project details have yet to be finalized. As set out in this scope document, alternative means of carrying out the project must be considered in the comprehensive study.

## **6.0 Scope of the Factors to be Considered**

The CS will address the factors listed above, and document any issues and concerns that may be identified by the proponent through regulatory, stakeholder, and public consultation.

BEPCo intend to use the “valued ecosystem component” (VEC) approach to focus the analysis in the environmental assessment. A definition of each VEC (including components or subsets thereof) identified for the purposes of environmental assessment, and the rationale for its selection, shall be provided.

The environmental assessment will consider the potential effects of the proposed physical activity within spatial and temporal boundaries that encompass the periods and areas during and within which the Project may potentially interact with, and have an effect on, one or more VEC. These boundaries may vary with each VEC and the factors considered, and should reflect a consideration of:

- the proposed schedule/timing of the drilling program;
- the natural variation of a VEC or subset thereof;
- interrelationships/interactions between and within VECs;
- the time required for recovery from an effect and/or return to a pre-effect condition, including the estimated proportion, level, or amount of recovery;
- the area within which a VEC functions and within which a Project effect may be felt,
- the assessment of cumulative environmental effects should be consistent with the principles described in the February 1999 CEEA *Cumulative Effects Assessment Practitioners Guide* and in the March 1999 CEEA operational policy statement *Addressing Cumulative Environmental Effects under the Canadian Environmental Assessment Act*, and will include a consideration of environmental effects that are likely to result from the proposed Project in combination with other projects or activities that have been or will be carried out. These include, but are not limited to: other oil and gas activities and fishing activities.

## **7.0 Spatial and Temporal Boundaries**

The proponent shall clearly define, and provide the rationale for the spatial and temporal boundaries that are used in its environmental assessment. All VECs must be given adequate attention throughout the core study area. Any VEC-specific variation from the core study area should be identified and the rationale provided. Boundaries should be flexible and adaptive to enable adjustment or alteration based on field data.

The selection of spatial boundaries for the study area shall be consistent with the CEA Agency's Operational Policy "*The Process for Defining the Spatial Boundary of a Study Area During an Environmental Assessment of Offshore Exploratory Drilling Projects*".

The temporal scope should describe the timing of Project activities.

## 8.0 Summary of Potential Issues

The following table is a list of environments, ecosystem components, project activities and environmental influences that, as a minimum, the comprehensive study must consider. **The list is not intended to be exhaustive and is provided solely to guide the proponent as to the type of content expected in the environmental assessment.** The proponent should carefully examine this list and expand upon it where necessary. In general, all applicable interactions should be considered.

The selection criteria for VECs must be described, with explanations of why a particular VEC was or was not chosen from the list below. The environmental protection objectives for each VEC should be identified, based on applicable legislation, policies and site-specific considerations. These objectives can be helpful in analyzing the significance of impacts and in determining appropriate mitigation and follow-up measures.

**Table: Summary of Environment Assessment Considerations**

Description of Major Environments	<ul style="list-style-type: none"> <li>• Marine Physical, Biological and chemical</li> <li>• Atmospheric</li> <li>• Geologic (geomorphology, marine sediments, sediment quality)</li> </ul>
Ecosystem Components (candidate Valued Ecosystem Components, to be considered in all relevant environments for all relevant seasons)	<ul style="list-style-type: none"> <li>• Air quality</li> <li>• Water quality</li> <li>• Fish and fish habitat</li> <li>• Marine Mammals</li> <li>• Archaeological and heritage resources</li> <li>• Benthos</li> <li>• Vegetation</li> <li>• Plankton</li> <li>• Birds and bird habitat</li> <li>• Aboriginal interests (traditional knowledge and fishing, current use activities, cultural sites)</li> </ul>
Species at Risk (SAR):	<ul style="list-style-type: none"> <li>• description to the extent possible of SAR in the project and affected areas</li> <li>• environmental effects due to the project, including cumulative effects, on those SAR identified</li> <li>• means by which adverse effects upon SAR and their critical habitat may be mitigated through design and/or operational procedures</li> </ul>
Special Areas	<ul style="list-style-type: none"> <li>• provide a description of any 'sensitive areas' in the project area, such as important or critical habitat</li> <li>• environmental effects due to the Project, including cumulative effects, on those sensitive areas</li> </ul>

**BEPCo Canada Company**  
**Exploratory Drilling Program on Exploration Licence 2407**  
**Scope of Comprehensive Study**

**DRAFT**

	<p>identified</p> <ul style="list-style-type: none"> <li>• means by which adverse effects upon “sensitive areas” may be mitigated through design and/or operational procedures</li> </ul>
Potential Impacts upon other Ocean Users	<ul style="list-style-type: none"> <li>• Interactions with commercial fisheries</li> <li>• Interactions with scientific research surveys</li> </ul>
Project Activities (possible causes of environmental effects)	<ul style="list-style-type: none"> <li>• Description of physical project components (drilling platform, support vessels, aircraft, infrastructure)</li> <li>• Normal and fugitive air emissions (e.g. greenhouse gases (CO<sub>2</sub>, methane), H<sub>2</sub>S, SO<sub>2</sub>, NO<sub>x</sub>, VOCs, CO, particulate matter, toxics; from activities such as well testing, venting, incineration)</li> <li>• Potential release of toxic and priority substances listed under the authority of the Canadian Environmental Protection Act</li> <li>• Marine discharges (drill fluids and cuttings, biocides, grey water, black water, chlorinated waste water, galley waste)</li> <li>• Noise</li> <li>• Onshore waste disposal</li> <li>• Vessel traffic</li> <li>• Aircraft activity</li> <li>• Malfunctions and accidental events (e.g. spills or leaks of hydrocarbons or chemicals, blowouts)</li> </ul>
Environmental Influences (conditions acting on the project that could have consequences for the environment; factors which could affect the project design or operation)	<ul style="list-style-type: none"> <li>• Meteorology and oceanography (e.g. extreme winds, waves, currents and precipitation, fog, freezing spray)</li> <li>• Seismic activity</li> <li>• Ice regime</li> <li>• Corrosion</li> <li>• Climate change</li> </ul>
Environmental management system and its components	<ul style="list-style-type: none"> <li>• Pollution prevention policies and procedures</li> <li>• Program(s) for compensation of affected parties, including fisheries interests, for accidental damage resulting from project activities</li> <li>• Emergency response plan(s)</li> </ul>
Follow-up Monitoring	<ul style="list-style-type: none"> <li>• Discuss the need for and requirements of a follow-up program</li> </ul>

## 9.0 Significance of Adverse Environmental Effects

The Proponent shall clearly describe the criteria by which it proposes to define the “significance” of any adverse effects (i.e., following the employment of mitigative measures) that are predicted by the environmental assessment. This definition should

**BEPCo Canada Company**  
**Exploratory Drilling Program on Exploration Licence 2407**  
**Scope of Comprehensive Study**  
**DRAFT**

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be consistent with the November 1994 CEA Agency reference guide *Determining Whether a Project is Likely to Cause Significant Adverse Environmental Effects*, and be relevant to consideration of each VEC (including components or subsets thereof) that is identified.

## **References**

Canadian Environmental Assessment Act, November 2003.

<http://www.ceaa.gc.ca/013/ceaa-2003.pdf>

Law List Regulations, 1999. [http://www.ceaa.gc.ca/013/lawlist\\_e.htm](http://www.ceaa.gc.ca/013/lawlist_e.htm)

Comprehensive Study List Regulations, November 4, 1999.

[http://www.ceaa.gc.ca/013/complist\\_e.htm](http://www.ceaa.gc.ca/013/complist_e.htm)

*Cumulative Effects Assessment Practitioners Guide*, February 1999.

[http://www.ceaa.gc.ca/013/0001/0004/index\\_e.htm](http://www.ceaa.gc.ca/013/0001/0004/index_e.htm)

Operational Policy Statement, *Addressing Cumulative Environmental Effects under the Canadian Environmental Assessment Act*, March 1999.

[http://www.ceaa.gc.ca/013/0002/cea\\_ops\\_e.htm](http://www.ceaa.gc.ca/013/0002/cea_ops_e.htm)

CEAA Operational Policy *The Process for Defining the Spatial Boundary of a Study Area During an Environmental Assessment of Offshore Exploratory Drilling Projects*, October 28, 2003. [http://www.ceaa.gc.ca/013/0002/drilling\\_ops\\_e.htm](http://www.ceaa.gc.ca/013/0002/drilling_ops_e.htm)