## Deep Panuke Offshore Gas Development Canada-Nova Scotia Benefits Plan



Volume 3

## DEEP PANUKE OFFSHORE GAS DEVELOPMENT

# CANADA-NOVA SCOTIA BENEFITS PLAN VOLUME 3

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Prepared by: EnCana Corporation Suite 700, 1701 Hollis Street Halifax, Nova Scotia B3J 3M8

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#### **PREFACE**

This Canada-Nova Scotia Benefits Plan is the third of five documents comprising a Development Plan Application (DPA) for approval of the Deep Panuke Offshore Gas Development. The documents comprising the DPA are as follows:

Volume 1 Project Summary
 Volume 2 Development Plan
 Volume 3 Canada-Nova Scotia Benefits Plan
 Volume 4 Environmental Assessment Report
 Volume 5 Socio-Economic Impact Statement

**Volume 1**, the Project Summary, summarizes the DPA and provides a description of the Project for a general review.

**Volume 2**, the Development Plan, describes the development strategy and includes details on subsurface interpretation, drilling, processing, facilities, and environmental and safety management for the Project.

**Volume 3**, the Canada-Nova Scotia Benefits Plan, describes the processes to promote Canada and Nova Scotia benefits associated with the Project.

**Volume 4**, the Environmental Assessment (EA) Report, describes the physical and biological environment in which the Project will operate, provides an assessment of the potential environmental, and socio-economic effects of the Project, and identifies mitigation measures.

**Volume 5**, the Socio-Economic Impact Statement (SEIS) provides a summary of the existing socio-economic conditions and a summary of the potential impacts with the project.



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#### INTERPRETATION

Unless the context otherwise requires,

"Accord Act" means the Canada-Nova Scotia Offshore Petroleum Accord Implementation Act, S.C. 1988, Chapter C-7.8, as amended;

"Accord Acts" means collectively the Accord Act and the Provincial Accord Act;

"Benefits Plan" means the Canada-Nova Scotia Benefits Plan, which is DPA Volume 3, as contemplated by Section 45 of the *Accord Act* and the *Provincial Accord Act*;

"CEAA" means the Canadian Environmental Assessment Act, S.C. 1992, c. 37, as amended;

"CNSOPB" means the Canada-Nova Scotia Offshore Petroleum Board established under the *Accord Act* and the *Provincial Accord Act*:

"CSR" means a comprehensive study report contemplated by Section 21 of CEAA;

"Deep Panuke" and "Project" means the Deep Panuke Offshore Gas Development Project;

"Development Plan Application" and "DPA' means an application filed by EnCana Corporation to the CNSOPB seeking approval for its development of the Project;

"EA" means Environmental Assessment;

"EnCana" means EnCana Corporation and includes, according to the context, its predecessor companies on the East Coast of Canada prior to April 2002, including PanCanadian Petroleum Limited and PanCanadian Energy Corporation.

"FEAC" means Federal Environmental Assessment Coordinator (representing the Canadian Environmental Assessment Agency);

"M&NP" means Maritimes and Northeast Pipeline;

"Mean" means the statistical mean value of a probability distribution.

"MOPU" means Mobile Offshore Production Unit;



"NEB" means the National Energy Board;

"OSEA" means Offshore Strategic Energy Agreement;

"Provincial Accord Act" means the Canada-Nova Scotia Offshore Petroleum Accord Implementation (Nova Scotia) Act, S.N.S. 1987, Chapter 3, as amended;

"P10" means value at the 10th Percentile;

"P50" means value at the 50th Percentile;

"P90" means value at the 90th Percentile;

"R&D" means research and development;

"Responsible Authority" and "RA" means responsible authority as that term is defined in CEAA;

"SOEP" means Sable Offshore Energy Project.



#### 1 INTRODUCTION

## 1.1 Canada-Nova Scotia Benefits Plan Requirements

This document is the Canada-Nova Scotia Benefits Plan (Benefits Plan) (DPA Volume 3) for the Deep Panuke Offshore Gas Development Project ("Deep Panuke Project" or "Project") to be operated by EnCana. The Benefits Plan has been prepared in accordance with the requirements of the *Accord Acts*. The Regulator referred to in this Benefits Plan is the CNSOPB.

The requisite content of, and the requirement to submit, a Benefits Plan is set out in Section 45 of the *Accord Act* which states:

45...."Canada - Nova Scotia benefits plan" means a plan for the employment of Canadians and, in particular, members of the labour force of the Province, and subject to paragraph (3) (d), for providing manufacturers, consultants, contractors and service companies in the Province and other parts of Canada with a full and fair opportunity to participate on a competitive basis in the supply of goods and services used in any proposed work or activity referred to in the benefits plan.

- (3) A Canada Nova Scotia benefits plan shall contain provisions intended to ensure that:
  - (a) before carrying out any work or activity in the offshore area, the corporation or other body submitting the plan shall establish in the Province an office where appropriate levels of decision-making are to take place;
  - (b) consistent with the Canadian Charter of Rights and Freedoms, individuals resident in the Province shall be given first consideration for training and employment in the work program for which the plan was submitted and any collective agreement entered into by the corporation or other body submitting the plan and an organization of employees respecting terms and conditions of employment in the offshore area shall contain provisions consistent with this paragraph;

<sup>&</sup>lt;sup>1</sup> For ease of reference, the federal version of the *Accord Act* is cited hereafter.



- (c) a program shall be carried out and expenditures shall be made for the promotion of education and training and of research and development in the Province in relation to petroleum resource activities in the offshore area; and
- (d) first consideration shall be given to services provided from within the Province and to goods manufactured in the Province, where those services and goods are competitive in terms of fair market price, quality and delivery.
- (4) The Board may require that any Canada Nova Scotia benefits plan include provisions to ensure that disadvantaged individuals or groups have access to training and employment opportunities and to enable such individuals or groups or corporations owned or cooperatives operated by them to participate in the supply of goods and services used in any proposed work or activity referred to in the benefits plan.

The Deep Panuke Benefits Plan (DPA Volume 3) describes various processes and procedures to address the requirements for Canada-Nova Scotia benefits as described in Section 45 of the *Accord Act*.

This Benefits Plan reflects EnCana's commitment to the principles and processes by which it will strive to enhance opportunities for Nova Scotians and Canadians through the development and operations phases of the Project. The Benefits Plan will remain an important element of EnCana's overall strategy for Deep Panuke, and through appropriate consultation and reporting, EnCana will demonstrate that the policies and principles of the Benefits Plan (DPA Volume 3) are applied in practice.



#### 2 PROJECT DESCRIPTION

## 2.1 Project Overview

In 1996, EnCana became the operator of the Cohasset Project near Sable Island. While producing oil from the Cohasset Project, EnCana was also conducting exploration drilling in the area. EnCana's exploration drilling resulted in the drilling of the PP-3C discovery well in late 1998. Further delineation drilling results led EnCana to file a DPA with the CNSOPB in March 2002 and conduct an EA in the form of a Comprehensive Study under *CEAA*. A CSR was submitted by EnCana and received Ministerial approval in December 2002. In February 2003, EnCana requested a regulatory time-out to allow further evaluation of the Deep Panuke Project. In December 2003, EnCana withdrew regulatory applications with the CNSOPB to allow further review and refinement of the Project.

Between 2003 and 2006, EnCana re-evaluated the reservoirs and facilities to determine the optimum project basis. EnCana is re-filing the DPA and the NEB applications for the Deep Panuke Project. The EA Report, conducted on the variations between the Project basis of the approved 2002 CSR and the current revised Project basis, will be filed under *CEAA* and as a component of the DPA and NEB application.

EnCana holds a majority working interest in and is the operator of Deep Panuke, which is located approximately 250 kilometres (km) southeast of Halifax, Nova Scotia, on the Scotian Shelf. The Project design consists of a jack-up MOPU in a water depth of approximately 44 metres (m). The Project will initially include completing four previously drilled wells and drilling two new wells, one production well and one acid gas injection well. Up to three additional subsea production wells could be drilled; such wells would be drilled after production start-up and at least one full year of production. All wells will have horizontal trees and will be tied back individually to the MOPU with subsea flowlines and control umbilicals. See Figure 2.1 for the offshore location of the Deep Panuke Project.

The export system will consist of a single subsea pipeline delivering Deep Panuke sales product to one of two delivery points:

- Goldboro, Nova Scotia, to an interconnection with M&NP (herein referred to as the M&NP Option);
   or
- SOEP 660 mm [26-inch] subsea pipeline at a close point on the pipeline route to Goldboro (herein referred to as the SOEP Subsea Option).



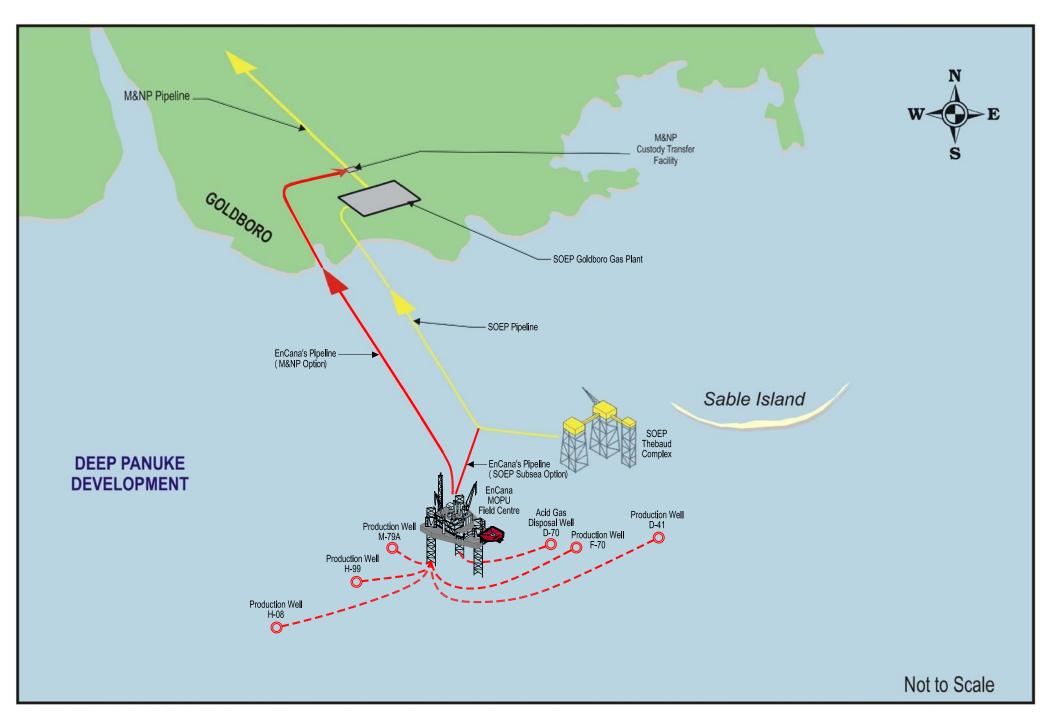


Figure 2.2 Proposed Field Layout

The gas processing system will include inlet compression, separation, sweetening, dehydration, export compression and measurement. Deep Panuke is considered a sour gas reservoir with raw gas containing approximately 0.18 percent hydrogen sulphide ( $H_2S$ ); therefore, gas sweetening equipment is required. Acid gas processing will be performed offshore through application of an amine unit to remove  $H_2S$  and some of the carbon dioxide ( $CO_2$ ), also known as acid gas. Subsequent to its removal from the raw gas stream, the acid gas will be disposed by injection into a suitable reservoir. The production design sales gas throughput for the Project is  $8.5 \times 10^6 \, \text{m}^3/\text{d}$  [300 MMscfd].

## 2.2 Project Components

The main Project components include the MOPU, subsea flowlines and umbilicals, subsea wells, and export pipeline.

#### 2.2.1 Mobile Offshore Production Unit

The MOPU comprises the hull and topside facilities. The hull includes all facilities and equipment that would normally be supplied with a mobile jack-up unit including jacking systems, legs, foundations, accommodations, helideck and utilities. The topsides facility will include all equipment required for processing hydrocarbon fluids from the reservoir.

The topsides facility will contain processing equipment to separate, measure, dehydrate, and sweeten the raw gas. Acid gas and water handling equipment will also be installed on the MOPU. Hydrocarbon dew pointing will be required for the M&NP Option and the condensate will be used as fuel. Currently, it is estimated that there will be no surplus condensate produced beyond fuel usage; however, in the event that condensate must be injected, it will be injected down-hole with the acid gas stream. For the SOEP Subsea Option, condensate separated from the gas will be dehydrated, sweetened, and recombined with the export gas for delivery to SOEP. The sales gas production capacity is  $8.5 \times 10^6 \, \text{m}^3/\text{d}$  [300 MMscfd], with a turn down to  $1.1 \times 10^6 \, \text{m}^3/\text{d}$  [40 MMscfd] to allow for reduced production as the field declines over time.

#### 2.2.2 Subsea Wells and Flowlines

The initial development well program will consist of completing four existing production wells (H-08, M-79A, F-70, and D-41) and drilling one new injection well (D-70) and one new production well (H-99). Up to three new production wells could be drilled sometime after production start-up.

All wells will be completed with horizontal subsea trees and tied back to the MOPU with individual subsea flowlines and control umbilicals. All subsea flowlines and control umbilicals will be trenched and buried.



## 2.2.3 Export Pipeline

The Deep Panuke export pipeline will have a capacity of  $8.5 \times 10^6 \text{ m}^3/\text{d}$  [300 MMscfd] at mean environmental conditions. The pipeline details for both options are presented in Table 2.1. All values are approximate.

Table 2.1 Export Pipeline							
	Pipeline diameter	Pipeline length [km]	Pipeline phases				
	[mm(inch)]						
M&NP Option	560 (22)	176	Single phase				
SOEP Subsea Option	510 (20)	15	Multiphase				

Onshore facilities are required for the M&NP Option only. In this option, the onshore facilities will consist of the physical components necessary for interconnection of the Deep Panuke pipeline with M&NP's facilities. The onshore facilities will include a safety/emergency shutdown system, metering, and pig receiver facilities. Additionally, a small building housing supervisory control and data acquisition (SCADA) and monitoring equipment for the pipeline will be constructed onshore.

For the SOEP Subsea Option, the export pipeline tie-in point will be at a subsea location. The tie-in facility will likely consist of a pile-driven subsea structure with trawl protection. Final processing of the Deep Panuke fluids will be done by SOEP at the onshore plants.

## **2.3** Production Operations Phase Requirements

During the production life of the field, the operations phase activities include production operations, logistics, onshore support, well interventions and ongoing capital improvements.

#### 2.3.1 Production Operations

Typical requirements for production operations would be for the MOPU crew, maintenance and spares, inspection of the facilities including subsea inspection, consumables, repairs, equipment rentals, catering, accommodations and utilities, recertification, insurance and other support for the offshore operations and any onshore facilities.

#### 2.3.2 Logistics

Logistics requirements will include supply and standby vessels, helicopter operations, warehouse and shorebase operations, trucking and other transportation, materials management and freight forwarding.



## 2.3.3 Onshore Support

Typical requirements for onshore support during the production operations phase will include management, regulatory support, engineering and technical personnel, health safety and environment, communications, commercial, financial, and procurement support.

#### 2.3.4 Well Interventions

Well workovers may be required for the production wells during the life of the Project. Typical major well interventions will require a mobile drilling unit, and could include replacing tubing, repairing or replacing trees or packers, etc. Minor workovers may encompass both wireline and coiled tubing units, and may be performed on subsea wells using a specialized vessel or a mobile drilling unit.

## 2.3.5 Ongoing Capital Improvements

Over the course of the operating life of the Deep Panuke facilities, minor capital upgrades to the facilities may be required. These upgrades typically result from ongoing equipment problems, safety and operations audits, and operational efficiency efforts. In addition, there is an expectation that up to three new subsea wells may need to be drilled during the production life of the project, which would require a mobile drilling rig, drilling and logistics services, as well as the installation of subsea flowlines and control umbilicals.

## 2.4 Project Schedule

#### 2.4.1 Development Phase

The schedule for the development phase of the Project is set out in Figure 2.2. The revised definition for the Deep Panuke Project was completed through 2005 and 2006. Negotiations with the Government of Nova Scotia resulted in an Offshore Strategic Energy Agreement (OSEA) signed on June 22, 2006, which defined royalty terms and specific commitments from EnCana regarding opportunities for Nova Scotians, described in Section 4 of this Benefits Plan (DPA Volume 3). The Project is currently in the MOPU bid competition and regulatory application phase. The initial phase of detailed design will be conducted as a competition with an expected duration of nine months.

EnCana will not consider full sanction to the Project until the conclusion of the bid competition phase and after regulatory approvals are received. With full Project sanction, a final contract will be awarded for the provision of a fully engineered, fully compliant, and fully operational MOPU, owned and operated by the contractor on behalf of EnCana. Detailed engineering, procurement, fabrication, integration and installation of the MOPU are anticipated to take approximately 34 months.



Development drilling, pipeline construction, and installation of subsea equipment will be carried out prior to pre-commissioning in late 2010, when first gas production is forecast.

## 2.4.2 Production Operations Phase

The operations phase of the Project is forecast to begin in late 2010, and is estimated to last approximately 13 years in the Mean case with production from the field continuing through late 2023. The P90 case for the Project has a life of approximately 8 years, and the P10 forecast indicates a Project life of approximately 17.5 years.

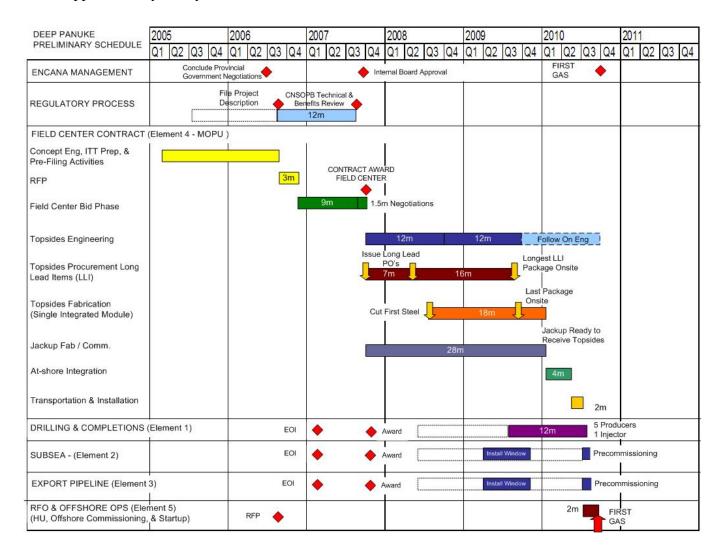


Figure 2.2 Preliminary Master Schedule



## 3 COMMITMENTS, PROJECT PRINCIPLES AND PROCESSES

## 3.1 Commitment to Statutory Provisions

EnCana's commitment to the statutory provisions required for Benefits Plans in accordance with Section 45(3) of the *Accord Act* is demonstrated through the Deep Panuke Project principles and processes described in this section of the Benefits Plan (DPA Volume 3).

- a) before carrying out any work or activity in the offshore area, the corporation or other body submitting the plan shall establish in the Province an office where appropriate levels of decision-making are to take place;
- EnCana has operated its East Coast operations from its Halifax office since 1996. The Deep Panuke Project Management Team will be continue to be based in Halifax for the duration of the Development Phase of the Project, with an operations team located in Nova Scotia during the production operations phase. There will be appropriate levels of decision-making resident in Nova Scotia for all functional areas required for the execution of the Project. Project Management Principles are outlined in Section 3.2.
- b) consistent with the Canadian Charter of Rights and Freedoms, individuals resident in the Province shall be given first consideration for training and employment in the work program for which the plan was submitted and any collective agreement entered into by the corporation or other body submitting the plan and an organization of employees respecting terms and conditions of employment in the offshore area shall contain provisions consistent with this paragraph;
- EnCana is fully committed to employing a competitive, open, and fair recruitment process, with full and fair opportunity for Nova Scotians and all Canadians, and with first consideration to qualified Nova Scotians. Foreign workers will be hired only when specialized knowledge or experience is required and when qualified Canadian workers are not available. Employment Principles and Processes for the Deep Panuke Project are described in Section 3.3.
- EnCana is committed to providing training opportunities to Nova Scotians and Canadians as required for the work program, and will continue to work with educational and training institutions and with the provincial government to identify skills gaps and to promote and support training and development within Atlantic Canada. First consideration will be given to Nova Scotians in training and employment in the work program.



- EnCana will require its contractors to adhere to this Benefits Plan, and any collective agreement entered into by EnCana will contain similar provisions.
- c) a program shall be carried out and expenditures shall be made for the promotion of education and training and of research and development in the Province in relation to petroleum resource activities in the offshore area;
- Since establishing a presence on the East Coast of Canada in 1996, EnCana has demonstrated its commitment to the initiation and support of education, training, and applied R&D associated with East Coast offshore petroleum activities. EnCana will continue to work with Nova Scotia based institutions that have the capacity and capability to develop education and training programs and conduct required R&D in relation to petroleum resource activities in the offshore area. Programs will be developed in consultation with the Province of Nova Scotia to support these initiatives. Specific examples of EnCana's commitment to education and training are described in Section 3.5.
- EnCana has agreed with the Province of Nova Scotia to establish funds, administered by the Province, for the purpose of research and development, education and training, disadvantaged groups and such other benefits expenditures related to R&D, education and training and disadvantaged groups as may be required in an approved Benefits Plan. The formula for funding is based on 0.5% of gross revenues generated by the Deep Panuke Project. Under the Deep Panuke OSEA, the Province has agreed that any expenditures paid by EnCana pursuant to conditions imposed by the CNSOPB on the approval of the Benefits Plan, and accepted by the CNSOPB as an expenditure with respect to Section 45 of the *Accord Act* shall be deemed to be, and credited as, amounts paid to the Province with respect to these funds. More specific details regarding the funds are contained in Clause 3, "EnCana's Commitments Regarding Nova Scotia Benefits" of the OSEA, as well as in Appendix C which provides an excerpt of the commitments from the OSEA signed on June 22, 2006.
- d) first consideration shall be given to services provided from within the Province and to goods manufactured in the Province, where those services and goods are competitive in terms of fair market price, quality and delivery.
- EnCana is committed to providing Canadian companies with full and fair opportunity to participate in the provision of goods and services on an internationally competitive basis, with first consideration to Nova Scotian residents and companies where competitive on a best value basis. EnCana defines best value as a blend of total cost, quality, technical suitability, reliability, delivery and assurance of supply while at the same time meeting or exceeding safety and the environmental standards. The Deep Panuke Project procurement principles, processes, and contracting strategy are described in Section 3.4.



## 3.2 Project Management Principles

Table 3.1 contains some key project management principles, as they relate to the Canada-Nova Scotia Benefits Plan for the Deep Panuke Project:

#### **Table 3.1** Project Management Principles

#### Overall

The Project operates in a dynamic, market-driven environment and must be internationally competitive.

#### Canada-Nova Scotia Benefits

EnCana will provide full and fair opportunity for Canadians and Nova Scotians to participate in the supply of labour, goods and services to the Project on a "best value" basis, with first consideration to Nova Scotians where competitive.

EnCana will facilitate access and opportunities to Canadians and Nova Scotians and encourage the development of long-term industrial support through consultation and communication.

EnCana will facilitate the monitoring of Benefits Plan implementation, and ensure that contractors adhere to the obligations within the Benefits Plan.

#### **Employment**

The recruitment and hiring process will be open and fair, with first consideration to qualified individuals resident in Nova Scotia.

When specialized knowledge or experience is required and when qualified Canadian workers are not available, foreign workers will be hired.

EnCana intends to achieve a workforce that will include traditionally underrepresented groups ("disadvantaged individuals or groups" as defined in the *Accord Act*) within the Project area.

#### **Education & Training**

EnCana will continue to work with educational and training institutions and with government to identify skills gaps and to promote and support training and development in Nova Scotia and Canada.

#### **Management & Organization**

EnCana will maintain a Project Management office based in Nova Scotia where appropriate levels of decision making will take place.

The Project will operate with open and ethical business practices, in accordance with EnCana's Corporate Responsibility Policy.

EnCana will develop strong positive relationships with key stakeholders.

Stakeholders will be informed about Benefits Plan implementation.

Contractors will be required to fulfil obligations consistent with these Project principles.

#### **Procurement**

Goods and services will be procured through competitive tender on the basis of free, open and international competition, with:

- full and fair opportunity for all interested Nova Scotian and Canadian companies and persons to participate in the supply of goods and services;
- "best value" as the most important criterion for contract award;
- "first consideration" given to Nova Scotia suppliers; and encouragement of the development of long-term industrial support for the Project in Nova Scotia and Canada through consultation and communication.

#### **Research & Development**

EnCana is committed to initiating and supporting applied research and development, in Nova Scotia and other Canadian provinces, associated with East Coast offshore petroleum activities.



## 3.2.1 Corporate Responsibility Policy

EnCana's Constitution and Corporate Responsibility Policy establish EnCana's commitment to conducting its business ethically and legally and in a manner that is fiscally, environmentally, and socially responsible, while delivering sustainable value and strong financial performance.

EnCana believes its reputation is critical to the creation of long-term value for its shareholders. It also recognizes that success on the bottom line is reinforced by its behaviour beyond the bottom line.

EnCana's Corporate Responsibility Policy is built on the following eight areas of commitment that reflect existing and emerging benchmarks of Corporate Responsibility:

- leadership commitment
- sustainable value creation
- governance and business practices
- human rights
- labour practices
- environment, health and safety (EHS)
- stakeholder engagement
- socio-economic and community development

The commitment to Socio-Economic & Community Development contained in EnCana's Corporate Responsibility Policy is consistent with the policies, practices and procedures set out in this Benefits Plan (DPA Volume 3).

#### SOCIO-ECONOMIC AND COMMUNITY DEVELOPMENT

EnCana emphasizes collaborative, consultative, and partnership approaches in our community investment and programs, recognizing that no corporation is solely responsible for changing the fundamental economic, environmental, and social situation in a community or country. Through our activities, EnCana will assist in local capacity-building and develop mutually beneficial relationships, to make a positive difference in the communities and regions where we operate<sup>2</sup>.

EnCana's Corporate Constitution and Corporate Responsibility Policy are available on the EnCana.com website at the links provided below:

<sup>&</sup>lt;sup>2</sup> EnCana Corporate Responsibility Policy, August 2006



- http://www.encana.com/responsibility/constitution/index.html
- http://www.encana.com/responsibility/corp\_policy/index.html

#### 3.2.2 Consultation and Communications

A key aspect in developing a relationship with stakeholders is EnCana's intention to fully inform and involve stakeholders. EnCana intends to achieve this through the following:

- a commitment to a strong local presence, by maintaining the existing Halifax Project office and conducting a significant portion of the engineering, procurement, and project management work in Nova Scotia;
- use of electronic bulletin boards, websites, and newsletters to communicate information on the project, employment opportunities, material and goods and services requirements locally, nationally and internationally;
- stakeholder meetings, open houses and information sessions where appropriate; and
- communicating with unsuccessful bidders, when requested and where appropriate, to help them bid more competitively in the future.

## 3.3 Employment Principles and Processes

EnCana is fully committed to employing a competitive, open, and fair recruitment process, with full and fair opportunity for all Canadians, and with first consideration to qualified Nova Scotians, where the employment services to be provided by such individuals are competitive on a "best value" basis. Best value represents a blend of total cost, quality, technical suitability, reliability, and delivery, while at the same time meeting or exceeding safety and environmental standards.

#### 3.3.1 Employment Process

EnCana has established processes for recruiting, selecting, hiring, and mobilizing staff assigned to the Deep Panuke Project.

The following are the major elements of the employment process:

- after identifying a need to hire personnel, a job description is prepared and approved for requisition;
- an advertisement for the local newspapers is prepared and job postings are created for career websites such as CareerBeacon.com and also on EnCana's website. Based on the skills required, a decision will be made on whether to post the advertisement and job postings nationally;



- as resumes are received electronically, the resumes are logged and the resumes of qualified candidates are assembled for consideration;
- qualified candidates are interviewed and ranked according to an evaluation matrix, with best value as the most important criterion. If it is determined that two or more candidates are essentially equal on a best value basis, first consideration will be given to qualified Nova Scotians; and
- unsuccessful candidates who have been interviewed are notified.

Only when specialized knowledge or experience is required and when qualified Canadian workers are not available in a reasonable timeframe, will foreign workers be hired.

## **3.4** Procurement Principles

EnCana is committed to providing opportunities for Nova Scotian and Canadian companies through employment, procurement and contracting on an internationally competitive basis, with full and fair opportunity for Nova Scotians, and first consideration to Nova Scotians where competitive on a best value basis.

As materials and service requirements are identified, these requirements will be communicated to the supplier community in a timely fashion utilizing electronic bid systems such as BIDS Nova Scotia and EnCana's website. Appendix D provides a listing of equipment, goods and services and contracts that will be required for the various elements of the Deep Panuke Project. Companies from all provinces within Canada will have the opportunity to provide these goods and services through a competitive procurement and contracting process described later in this section.

Bid responses are evaluated based on a pre-set assessment criteria. "Best value" will be the most important criterion for contract award. Best value is a blend of total cost, quality, technical suitability, reliability, delivery, and assurance of supply, while at the same time meeting or exceeding safety and environmental standards.

"First consideration" will be provided to Nova Scotia suppliers where competitive. First consideration will be addressed in the following manner:

- at the bid development stage, every reasonable effort will be made to ensure qualified Nova Scotia suppliers are included on all bid lists and enquiry documents; and
- at the bid evaluation stage, if it is determined that two or more bids are essentially equal on a best value basis, the bid with the highest Nova Scotia content will be selected.



In addition to establishing processes to provide full and fair opportunities for all Canadians and first consideration for Nova Scotians, where competitive, EnCana has committed to provide specific industrial and employment opportunities to Nova Scotians. EnCana is committed to increase the capabilities and capacity of the Nova Scotia supply community as it develops Deep Panuke, and has agreed to a minimum level of opportunities guaranteed for Nova Scotians if the Deep Panuke Project proceeds. These specific opportunities are described in detail in Section 4, and include EnCana's pledge to complete construction of a supply vessel in Nova Scotia, to commit financial and human resources to facilitate the development of the capability of an onshore drilling rig manufacturing operation in Nova Scotia, as well as commitments that specific components of the Deep Panuke Project will be undertaken in Nova Scotia with minimum person hour commitments.

#### 3.4.1 Procurement Process

EnCana has an established matrix to describe the main activities, responsibilities and interfaces involved in the procurement of materials, equipment and services. The process is as outlined in Figure 3.1.

Some of the key features of the process include the following:

- making the bidding procedures transparent, open and fair;
- requesting, as part of the bid solicitation process, Canada-Nova Scotia Benefits information in sufficient detail to adequately assess the benefits to be derived from individual bids;
- ensuring that bidders are aware of contractual obligations to Canada-Nova Scotia Benefits requirements;
- communicating requirements for goods and services to all stakeholders in a timely fashion by utilizing electronic bulletin boards such as BIDS Nova Scotia and other websites;
- communicating with appropriate stakeholders that form a support network for the vendor community;
- communicating with unsuccessful bidders, when requested and where appropriate, to help them bid more competitively in the future;
- providing formal notice of bid lists and contract awards to the CNOPSB for major contracts of particular interest to the CNSOPB; and
- providing procurement status updates to the CNSOPB to provide notice of upcoming procurement opportunities as well as status updates on contracts and procurement activities.



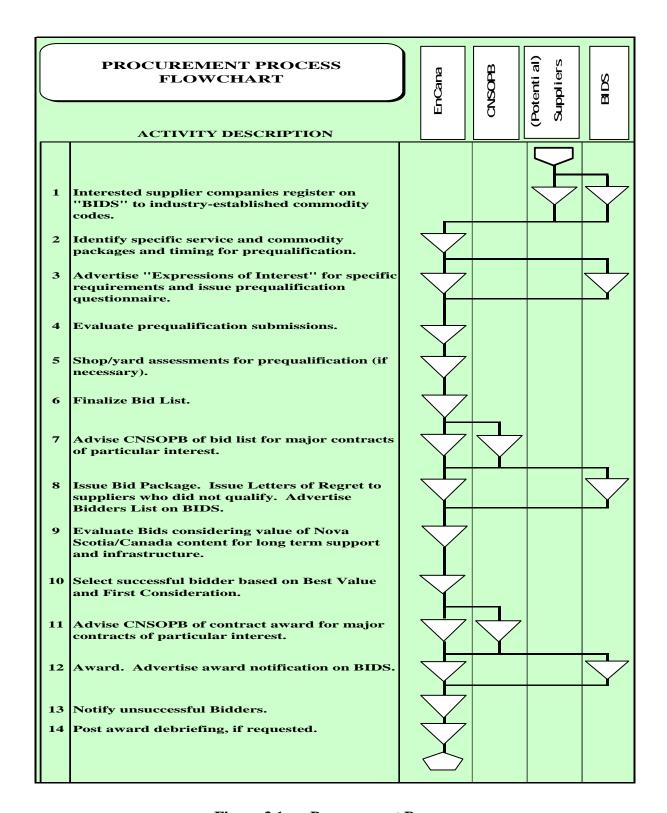


Figure 3.1 Procurement Process



## 3.4.2 Contracting Strategy

EnCana intends to employ a contracting strategy for the Deep Panuke Project that will include tendering of five major Contract Elements identified as follows:

Element 1 Drilling and Completions;
Element 2 Subsea Infrastructure;
Element 3 Export Pipeline;
Element 4 Mobile Offshore Production Unit (MOPU); and
Element 5 Ready for Operations & Long Term Operations.

The five major Elements are outlined in Figure 3.2.

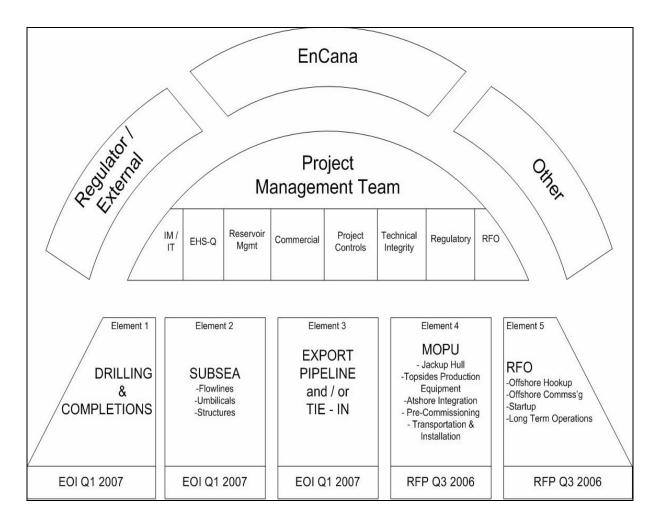


Figure 3.2 – Deep Panuke Project Elements



Contract Elements 1, 2 and 3 will be a direct cost paid by EnCana during the Project execution phase and will follow traditional contract and commercial arrangements for this type of work.

At the core of EnCana's Contracting Strategy is the selection of a principal Contractor, through a competitive bid process, who will provide the necessary Project financing and guarantees for the provision of a fully engineered, fully compliant and fully operational MOPU owned and operated by the principal Contractor on behalf of EnCana as the Operator of Record (Contract Element 4 & 5).

The MOPU will be engineered, procured, fabricated, tested, transported, installed and commissioned at the principal Contractor's cost and provided to EnCana under a field centre lease and operations services contract for the economic life of the field. In addition to the provision of the MOPU, the principal Contractor will:

- provide ready for operations (RFO) and operations personnel throughout the Development Phase to provide operations input into detailed design;
- establish the operations organization;
- support onshore pre-commissioning, provide installation phase logistics management, and manage offshore hook-up and commissioning;
- coordinate facilities start-up; and
- provide long-term production facilities management, day-to-day operations, maintenance, and logistics management services over the producing life of the field.

EnCana will remain the Operator of Record for regulatory purposes, and will retain a project management team in Nova Scotia with reservoir management, regulatory, marketing and other responsibilities.

The process for awarding the contract for the Field Centre Lease and Operations Services Contract includes a nine month bid competition, where short-listed bidders will undertake engineering design and procurement activities in enough detail to respond to an invitation to tender (ITT) for the provision of the Field Centre Lease and Operations Services Contract at the end of the bid competition phase.

To ensure that Nova Scotian and Canadian companies have sufficient lead time to develop plans to participate in the tendering process, EnCana has provided early notification to the local supply community through:

- filing a pre-RFP announcement posted to Bids.ca and the OTANS website on July 4, 2006;
- hosting a bidders briefing attended by 279 people in Halifax on August 16, 2006;
- posting the presentation from the bidders briefing on the OTANS website; and



• providing an open RFP process, with the RFP available to potential bidders online. The RFP was posted on August 28, 2006, with responses due on November 9, 2006.

## 3.4.3 Contractor and Union Obligations

In order to ensure that its contractors adhere to the principles in this Benefits Plan (DPA Volume 3), EnCana will require a clear contractual obligation from all contractors to adhere to this Benefits Plan (DPA Volume 3) and report their Benefits performance to EnCana. This contractual obligation will be in a form similar to that shown in Appendix A for EnCana contracts and requires completion of a "Benefits Report Summary" as illustrated in Appendix A. Any collective agreement that may be entered into by EnCana will contain similar provisions.

# 3.5 Education & Training/Research & Development/Disadvantaged Individuals and Groups

Since establishing a presence on the East Coast of Canada in 1996, EnCana has demonstrated its commitment to the initiation and support of education, training, and applied R&D associated with East Coast offshore petroleum activities. EnCana will continue to work with Nova Scotia based institutions that have the capacity and capability to conduct required training and R&D in relation to petroleum resource activities in the offshore area. Programs will be developed in consultation with the Province of Nova Scotia to support these initiatives.

Some examples of EnCana's commitment to these initiatives since 1996 include:

- providing a contribution of \$2 million to establish an offshore operations technology program;
- participating and providing funding as a founding member of Petroleum Research Atlantic Canada, a
  public private partnership to build petroleum-related research and development capability and
  capacity throughout Atlantic Canada; and
- contributions to the Environmental Studies Research Fund (ESRF) which funds environmental and social studies pertaining to oil and gas activities on Canada's frontier lands including those lands subject to this Benefits Plan.

EnCana is focused on contributing to the strength and sustainability of the communities in which it is privileged to operate. EnCana's Community Investment Program welcomes applications in four areas:

- youth and education
- health and wellness
- environment



3-11

#### • community development.

EnCana employees are equally committed to the communities where they work and live. EnCana supports the philanthropic nature of its employees by providing a dollar-for-dollar match of their donations through the EnCana Cares Foundation and EnCana's on-going Matching Gifts Program.

EnCana also realizes the value of education and believes learning is a life-long process. The practice of continuous learning provides individuals with the expertise needed to cope with the rapidly changing workplace. EnCana supports programs that develop academic skills as well as work/life skills. EnCana is proud to be the sole sponsor of the Canada-Wide Science Fair Grand Awards with a contribution of \$150,000 over three years. The Canada-Wide Science Fair is an exhibition and competition in which highly motivated young people come together, in a Canadian community, to exhibit and discuss their scientific achievements from personal interest or as part of their school work in a science or technology related area.

EnCana is committed to working with disadvantaged individuals and groups to the mutual benefit of all parties to develop their capacity to participate and benefit from business and employment opportunities associated with the Project. EnCana wants to attract, develop and retain the best people at every level. The best people are not restricted to any one cultural group, gender, or age group; they come from a variety of backgrounds and circumstances.

To advance these objectives of R&D, education, and training, access for disadvantaged individuals and groups, and such other related expenditures, EnCana has committed an amount equal to 0.5% of the Gross Revenue from the Deep Panuke Project, over the life of the Deep Panuke Project, to establish funds for these purposes administered by the Province of Nova Scotia. Under the Deep Panuke OSEA, the Province has agreed that any expenditures paid by EnCana pursuant to conditions imposed by the CNSOPB on the approval of the Benefits Plan, and accepted by the CNSOPB as an expenditure with respect to Section 45 of the *Accord Act* shall be deemed to be, and credited as, amounts paid to the Province with respect to these funds. More specific details regarding the funds are contained in Appendix C which provides an excerpt of the commitments from the OSEA signed on June 22, 2006.



#### 4 COMMITMENTS UNDER DEEP PANUKE OSEA

## 4.1 Background to OSEA

In its Energy Strategy, released in 2001, the Province of Nova Scotia identified its desire to enter into voluntary OSEAs with developers of offshore projects, prior to the full regulatory process, that describe expectations and obligations of both parties with respect to the development. In particular, the OSEA would deal with specific industrial and employment benefits commitments and processes.

EnCana and the Province have worked collaboratively to agree to commitments for the potential development of Deep Panuke with respect to Nova Scotian opportunities and other issues including royalty treatment and funding of R&D, education and training, and programs for disadvantaged groups. The OSEA sets out the commitments and obligations agreed to by the Province and EnCana to facilitate the development of the Deep Panuke Project. The OSEA was signed on June 22, 2006.

## 4.2 EnCana's Commitments Regarding Nova Scotia Benefits

Section 3 of the OSEA outlines EnCana's commitments to Nova Scotia Benefits, including its commitment to the statutory obligations in Section 45 of the *Accord Act* describing full and fair opportunity and first consideration for Nova Scotians, and recognition of the right of the Province to be principal beneficiary of the Nova Scotia offshore as set out in Section 1 of the *Canada-Nova Scotia Offshore Petroleum Resources Accord*. In addition to establishing processes to provide full and fair opportunities for Nova Scotians and first consideration where competitive, the OSEA describes additional commitments by EnCana to provide specific industrial and employment opportunities for Nova Scotians, with minimum commitments for person hours of work in Nova Scotia as well as person hours of work for individuals defined as Nova Scotians.

Section 3 from the OSEA is included as Appendix C of this Benefits Plan (DPA Volume 3).

#### **4.2.1** Person Hour Commitments

The total commitment to the opportunities described in Section 3 of the OSEA is one million three hundred and fifty thousand (1,350,000) Person Hours, which will include not less than eight hundred and fifty thousand (850,000) Nova Scotia Person Hours.



#### A Person Hour is defined as:

- one hour of work performed in Nova Scotia by any person; or
- one hour of work performed outside Nova Scotia by a person ordinarily resident in Nova Scotia as defined by the *Elections Act* (Nova Scotia) which states "...a Canadian citizen or landed immigrant who has resided in the province for the immediate preceding six month period..."

#### A Nova Scotian Person Hour is defined as:

• any hour of work performed within or outside the Province of Nova Scotia during the six (6) months prior to and at any time after a person becomes ordinarily resident in Nova Scotia as defined by the *Elections Act* (Nova Scotia). In other words, if a person is a Nova Scotian resident or becomes a Nova Scotian resident by living in Nova Scotia for at least 6 months, all hours of work performed by that person on the Project will be classified as Nova Scotian person hours.

#### 4.2.2 Engineering, Procurement and Management Activities

EnCana is committed to providing not less than six hundred and twenty-three thousand (623,000) Person Hours on Engineering, Procurement and Management Activities, as outlined in the activities below:

- EnCana Management Team Engineering;
- EnCana Management Team Project Management/Procurement;
- Design & Procurement Subsea Protection Structures;
- Design & Procurement Landfall tie-in to M&NP;
- Design & Procurement telecommunications equipment;
- Design & Procurement PIMMS (Process/Production Monitoring System);
- Design metering systems for sales, production, test, and discharge;
- Procurement 560 mm [22 inch] diameter export line to shore;
- Geotechnical survey technical support;
- Environmental Engineering;
- Regulatory & Certifying Authority engineering;
- Preparation of Detailed Safety Case;
- Design & Procurement Drilling & Completions; and
- Placement of 10 Nova Scotians in technical professions within the successful contractor's offices or facilities in the key areas of engineering, project controls, IT/IS, Planning, QA/QC, Cost Control, or Change Management.



## 4.2.3 Offshore Supply Vessels

The Deep Panuke Project will require the service of two offshore supply vessels, leased on a multi-year charter, with options to renew. EnCana has agreed that construction of one of these vessels will be completed in Nova Scotia. The construction of such vessel shall comprise not less than three hundred and sixty thousand (360,000) Person Hours.

#### 4.2.4 Subsea Protection Structures

EnCana agrees to perform design, procurement, and fabrication activities with respect to subsea trawl over protection structures for the subsea well locations on the Deep Panuke Project which shall comprise not less than thirty thousand (30,000) Person Hours.

## 4.2.5 Export Pipeline

Receiving, handling, double jointing, coating and shipping activities with respect to a 560 mm [22 inch] export line will occur in Nova Scotia and shall comprise not less than thirty-seven thousand (37,000) Person Hours.

#### 4.2.6 Accommodations Unit

The design, procurement and fabrication activities with respect to accommodations unit(s) for the MOPU will be undertaken in Nova Scotia with not less than two hundred and eighty thousand (280,000) Person Hours.

#### **4.2.7** Flare

EnCana agrees to perform design, procurement and fabrication activities for a flare unit for the MOPU in Nova Scotia which shall comprise not less than twenty thousand (20,000) Person Hours.

#### 4.2.8 Alternative Initiatives

In the event that it is not practicable to undertake any of the commitments shown in Sections 4.2.1 to 4.2.7, Section 3.5 of the OSEA provides EnCana with the right to substitute alternative initiatives of equivalent value based on Person Hours, subject to agreement of the Province.



## **4.2.9** Onshore Drilling Rig Program

EnCana will commit financial and human resources to facilitate the development of the capability of an onshore drilling rig manufacturing operation in Nova Scotia, to enhance the capability and capacity of the supplier and fabrication community in Nova Scotia. EnCana will work with the Province of Nova Scotia, industry groups and suppliers to support the establishment of the drilling rig operation through the contribution of up to \$1 million per rig for each of the first five rigs manufactured.

#### **4.2.10** Establishment of Funds

EnCana will pay to the Province an amount equal to 0.5% of the Gross Revenue from the Deep Panuke Project, over the life of the Deep Panuke Project, to establish funds administered by the Province for the purpose of R&D, education and training, disadvantaged groups, and such other related benefits expenditures as may be required by the CNSOPB in the approval of a Benefits Plan pursuant to Section 45 of the *Accord Act* (the "Funds"). The Province has agreed to consult with EnCana prior to the distribution of any monies from the Funds, and will recognize EnCana's contribution to the Funds in any distribution.

Details on the funding formula are contained in Section 3.6 of the OSEA, included in Appendix C of this Benefits Plan (DPA Volume 3).



#### 5 ECONOMIC OPPORTUNITIES

## **5.1** Pre-Development Expenditure

Total Pre-Development expenditures for the Deep Panuke Project were approximately \$430 million (Canadian) from 1998 to the end of the third quarter of 2006. This figure includes costs for the successful Panuke PP3-C discovery well, five successful delineation wells, two unsuccessful wells, project management, engineering, studies, geophysical acquisition and interpretation, and subsurface evaluation.

## **5.2** Forecast Expenditures

Forecast expenditures shown in Table 5.1 for the Project are estimated in 2006 Canadian dollars. The forecast is estimated to be accurate at a +/- 25% level at this stage of project definition, and will become more accurate as further engineering design, procurement and contracting activities, and commercial and leasing alternatives are developed.

#### **5.2.1** Development Phase Expenditures

Estimates for the development phase include costs incurred by EnCana, as operator of the Project, from the fourth quarter 2006 to first gas production, scheduled to occur in the fourth quarter 2010. Forecast expenditures shown for the Project are estimated in 2006 Canadian dollars. The forecast is estimated to be accurate at a +/- 25% level at this stage of project definition, and will become more accurate as further engineering design, procurement and contracting activities, and commercial and leasing alternatives are developed.

The costs shown in Table 5.1 are for the M&NP option, and exclude any costs associated with the MOPU, which will be included as operating costs payable during the production life of the Project.



Table 5.1 Development Phase Expenditures			
	C\$ Millions		
	2006		
EnCana Project Management & Engineering	115		
Subsea Cost	135		
Export Pipeline Cost	200		
Drilling and Completions Cost	160		
Subtotal:	610		
Contingency	90		
<b>Total Cost to First Gas</b>	700		

The SOEP Subsea Option would see a reduction in the cost of the export pipeline during the Development Phase. However, there would be an increase in operating costs for tariffs changed as result of using the SOEP pipeline. At this time, these costs are not defined.

#### **5.2.2** Production Operations Phase Expenditures

During the production life of the field, the expenditures will be required for production operations, logistics, onshore support, well interventions, ongoing capital improvements, as well as for the field centre lease and operations services contract. There is significant variability in the potential operations cost forecast for Deep Panuke, primarily because of the impact of the Field Centre Lease, which will constitute the single largest component of operating costs. The annual Field Centre Lease cost will depend on the actual cost of the MOPU, lease terms, duration of amortization, and other factors.

Annual operating costs, including the field centre (MOPU) lease, are estimated at \$150 million per year, +/-25%.

As well, depending on the performance of the reservoir, up to three additional production wells could be drilled after production start-up. The Mean and P50 production profile require one additional well drilled after start-up, while the P10 production profile requires three additional wells. The estimated cost of drilling, completing, and tying back to the future subsea production wells is approximately \$120 million for one well in the P50 and Mean cases and \$260 million for three wells in the P10 case.

## 5.3 Project Employment

## **5.3.1** Employment Commitments

In addition to providing full and fair opportunity for all Canadians and first consideration to qualified Nova Scotians to participate in employment required for the Deep Panuke Project, EnCana has



guaranteed a minimum level of employment in the OSEA signed with the Province of Nova Scotia. EnCana has committed to providing one million three hundred and fifty thousand (1,350,000) Person Hours, which will include not less than eight hundred and fifty thousand (850,000) Nova Scotia Person Hours, for the work scope described under Section 3 of the OSEA.

#### 5.3.2 Predevelopment Engineering and Project Management

During the predevelopment phase of the project from 2001-2005, approximately 660,000 hours of employment were required for Pre-Development Engineering and Project Management.

## **5.3.3** Development Phase Employment

EnCana estimates that approximately 4,500,000 hours of work will be required to carry out the work from 2006 to first production in late 2010, including all engineering, project management, subsea work, fabrication, construction, pipeline installation, drilling and completions, hook-up and commissioning.

## **5.3.4** Production Operations Phase Employment

EnCana estimates that approximately 370,000 hours of work will be required annually during the Production Operations phase of the project. Over the 13.3 year life of production in the Pmean case, this equates to approximately 4,900,000 hours of employment.

Production Operations Phase employment is longer term than Development Phase employment and represents the largest portion of the permanent employment that will be created by the Project. Accordingly, Production Phase jobs will allow Nova Scotians to work in the oil and gas industry and live in Nova Scotia.



#### 6 MONITORING AND REPORTING

EnCana will communicate and coordinate Canada-Nova Scotia Benefits matters with the CNSOPB to enable the CNSOPB to monitor the implementation of the Benefits Plan (DPA Volume 3) as follows:

- 1. Providing timely information on the requirements of the work and pertinent pre-qualification procedures through the submission of a procurement status report, which will provide high level information on forecast procurement requirements including a description of the goods and services, with Request for Proposal (RFP) dates, along with a status update for contract awards, showing the successful bidder and award date. This report will be issued quarterly during the Development Phase of the Project, and annually during the Production Operations Phase.
- 2. Advising the CNSOPB through written communication, of contract and procurement decisions for major contracts of particular interest at the pre-bid and pre-award stages, including the following:
  - the list of bid candidates will be provided to the regulator;
  - Contract award decisions will be provided to the regulator, on a strictly confidential basis, one full working day prior to notifying the successful bidder;

EnCana intends to use BIDS Nova Scotia or similar bulletin boards to disseminate procurement requirements, bid lists and contract award notifications to the supplier community.

- 3. Submitting an annual report, which will include the following:
  - a description of the activities undertaken;
  - total expenditures;
  - an employment summary reported in hours of work for EnCana and contractors associated with the work with breakdowns for Person Hours, Nova Scotia Person Hours, and Other Canadian person hours, with an emphasis on the achievement of targets outlined in Section 3 of the OSEA between EnCana and the Province of Nova Scotia;
  - contributions to Funds administered by the Province for the purpose of R&D, education and training, disadvantaged groups, as described in Section 3.6 of the OSEA;
  - details of specific activities and initiatives undertaken by EnCana which may include technology transfer, supplier development, community investment, R&D, education and training that was undertaken during the year, and proactive communications with underrepresented groups; and
  - an update on planned activities.



Reporting will be facilitated by requiring all Contractors to submit Canada-Nova Scotia Benefits reports. The formats to be used are those currently employed by EnCana (see Appendix A: Contractor Obligations and Benefits Reporting Format).



## 7 PROCESS REVIEW

EnCana undertakes to allow for the review of its Benefits processes and systems, as presented in this Benefits Plan, by the CNSOPB.



## APPENDIX A

## CONTRACTOR OBLIGATIONS AND BENEFITS REPORTING FORMAT



## **CANADA - NOVA SCOTIA BENEFITS**

## - CONTRACTOR OBLIGATIONS -

## TABLE OF CONTENTS

2.0	CANA	DA-NOVA SCOTIA BENEFITS OBJECTIVES AND PRINCIPLES
3.0	CONT	RACTOR CANADA-NOVA SCOTIA BENEFITS REPORTING
<b>Attachments</b>		
	(a)	Employment & Expenditures Report
	(b)	Industrial Opportunities and Activities Report
	(c)	General Principles, Definitions & Interpretations Regarding Benefits Plan
		Content Calculations
	(d)	Project-to-Date Procurement Report



1.0

INTRODUCTION

#### 1 INTRODUCTION

This document sets out CONTRACTOR'S obligations in support of EnCana Corporation's Canada-Nova Scotia Benefits Plan (the Benefits Plan) for EnCana's project(s) filed with the Canada-Nova Scotia Offshore Petroleum Board (CNSOPB) in compliance with the <u>Canada-Nova Scotia Offshore Petroleum Resources Accord Implementation Act</u>, and the <u>Canada-Nova Scotia Offshore Petroleum Resources Accord Implementation (Nova Scotia) Act</u>.

#### 2 CANADA - NOVA SCOTIA BENEFITS OBJECTIVES AND PRINCIPLES

Consistent with the Benefits provisions of the <u>Canada-Nova Scotia Offshore Petroleum Resources Accord Implementation Act</u>, and the <u>Canada-Nova Scotia Offshore Petroleum Resources Accord Implementation (Nova Scotia) Act</u>, CONTRACTOR will promote opportunities in Nova Scotia, while maintaining the economic viability of the PROJECT in the international marketplace through access to <u>"best value"</u> in the acquisition of goods and services. "Best value" is a blend of total cost, quality, technical suitability, reliability, delivery and assurance of supply while at the same time meeting or exceeding safety and the environmental standards. "Best value" can only be achieved in a competitive marketplace. Within this framework, CONTRACTOR shall:

- (a) promote the employment of Canadians and, in particular, members of the labour force of Nova Scotia;
- (b) provide manufacturers, consultants, CONTRACTORS and service companies in Nova Scotia with a full and fair opportunity to participate on a competitive basis in the supply of goods and services used in the PROJECT;
- (c) if appropriate, establish an office in Nova Scotia where appropriate levels of decision-making are to take place;
- (d) provide, consistent with the <u>Canadian Charter of Rights and Freedoms</u>, individuals resident in Nova Scotia with first consideration for training and employment with respect to the PROJECT:
- (e) carry out a program to promote, as necessary, education, training, research and development with respect to the PROJECT, in Nova Scotia; and
- (f) provide <u>first consideration</u> to services provided and to goods manufactured in Nova Scotia where those services and goods are competitive in terms of fair market price, quality and delivery.
- (g) ensure that underrepresented individuals or groups have access to training and employment opportunities associated with the PROJECT and that such individuals and groups are appropriately represented in its work force.

These principles apply to all SUBCONTRACTORS and suppliers of goods and services to the PROJECT.



#### 3 CONTRACTOR CANADA-NOVA SCOTIA BENEFITS REPORTING

In order for COMPANY to comply with its monitoring requirements, CONTRACTOR shall submit, for CONTRACTOR and any SUBCONTRACTOR'S work, the following reports in the time frame specified:

- (a) one copy of an Employment & Expenditures Report similar to that outlined in **Attachment** (a) which corresponds to the time period indicated on the invoice; please accompany a completed report with your invoice(s). *Failure to provide the information requested may result in delay of payment.*
- (b) when requested by COMPANY, and/or on a quarterly basis (see **Attachment (b)**) an update report on Nova Scotia Benefits initiatives (if undertaken in association with this work) concerning:
  - (1) Canadian-Nova Scotia Research and Development;
  - (2) Technology transfer between and within companies;
  - (3) Employee development and training;
  - (4) Inclusion of underrepresented groups;
  - (5) When requested by COMPANY, other information related to Canada-Nova Scotia Benefits as required by the CNSOPB and/or other government agencies.

Instructions on calculating expenditures and person hours are outlined in **Attachment (c)**.

(c) when requested by COMPANY, and/or on a quarterly basis (see **Attachment (d)**) an update report on the project-to-date overview of procurement activity for CONTRACTOR and its major SUBCONTRACTORS.

**Note:** Information and data provided to COMPANY may be subject to review by the CNSOPB and/or a designate body.



Contract No.:	Invoice No.:	ATTACHMENT (a)	Page of
CONTRACTOR:		-	Month Ending:
Contact:	Telephone:		Year:

<b>CURRENT INVOIC</b>	CE	PERSON HOURS BY WORK LOCATION			CONTRACT CUMULATIVE		PERSON HOURS BY WORK LOCATION		
Residency		Person Hours in Nova Scotia		Person Hours out of Canada	Residency		Person Hours in Nova Scotia		Person Hours out of Canada
Nova Scotian					Nova Scotian				
Other Canadian					Other Canadian				
Non Canadian					Non Canadian				

CURRENT INVOICE	\$	-	CONTRACT CUMULATIVE	\$	-
Category	Total \$ (000's)	% Total Cost	Category	Total \$ (000's)	% Total Cost
Materials			Materials		
Labour			Labour		
Services			Services		
Other			Other		
Total	-		Total	-	

Signing Officer For The Company: Date:		
Signing Difficer For The Company:	a Ott. E El C	D 4
	Signing Officer For The Company:	Date.
Duc.	officer i of the company.	Date.

**Note:** An officer of CONTRACTOR's company must certify the report has been prepared in accordance Generally Accepted Accounting Principles and reconciled to the records of CONTRACTOR.



Contract No.:		ATTACHMENT (b)	Page of
Contractor:			Month Ending:
Contact:	Telephone:		Year:

Research and Development			Total Cost				
Technology Transfer	Bri	Total Cost					
Employee Training Courses	Bı	Brief Description of Employee Training					
Co-op / Work	Brief 1	Brief Description of Co-op / Work Placement(s)					
Placements			Placements				
Employment	Racially Visible Persons	Aboriginal Persons	Women in non-traditional roles	Persons with Disabilities	Total # of Individuals	Total Person Hours	
*							

<sup>\*</sup>Note: An individual must voluntarily self-identify himself or herself as part of a traditionally underrepresented group in order for the company to classify them as a member of that group. Some companies undertake yearly or quarterly voluntary surveys to capture this information.



## GENERAL PRINCIPLES, DEFINITIONS and INTERPRETATIONS REGARDING BENEFITS PLAN CONTENT CALCULATIONS

#### ATTACHMENT (c)

#### 1. General Principles

- **1.1** Expenditures are calculated on a pre-income tax and pre-sales tax basis.
- **1.2** Reasonableness and materiality should always be considered.
- All information should be derived through Generally Accepted Accounting Principles (GAAP) and relate back to CONTRACTOR's financial statements.
- **1.4** Foreign exchange should be calculated using actual transaction exchange rates as opposed to a fixed rate calculation.
- **1.5** CONTRACTORS must obtain benefit information from SUBCONTRACTORS, including person hours.

#### 2. Definitions

#### 2.1 Nova Scotian

A "Nova Scotian", for the purposes of benefits calculations, is a Canadian Citizen or landed immigrant who meets the residency requirement for voting in a provincial election, as defined in *The Election Act of Nova Scotia*, which states "...a Canadian citizen or landed immigrant who has resided in the province for the immediate preceding six month period..."

Canadian Citizens who move to Nova Scotia to work on the PROJECT should be reported for the first six months of employment as "Other Canadian" and after six months on the PROJECT, should be reported as "Nova Scotian".

#### 2.2 Canadian Citizen

A Canadian Citizen is a person who was born in Canada and has not relinquished his or her Canadian citizenship: or, a person who has been granted Canadian citizenship; or, a person who has been granted landed immigrant status.

#### 2.3 Non-Canadian

A "Non-Canadian" is a person who was not born in Canada and who has not been been granted Canadian citizenship or landed immigrant status.



#### 3. CONTRACTOR / SUBCONTRACTOR Benefits Report Elements

- 3.1 CONTRACTOR / SUBCONTRACTOR Benefits Reports should contain these elements:
  - Expenditure reports should be supported by appropriate documents and records should be maintained and be consistent with CONTRACTOR's financial statements;
  - Reported person hours worked should be supported by CONTRACTOR records;
  - Current and cumulative "Nova Scotian", "Other Canadian" and "Non-Canadian" content are detailed;
  - Invoice amounts by expenditures are category such as Labour, Materials, Service and Other are included;
  - The report includes CONTRACTOR's name, invoice numbers, contract number, months, year and contact information for CONTRACTOR;
  - An officer of CONTRACTOR's company must certify the report has been prepared in accordance with Generally Accepted Accounting Principles, reconciled to the records of CONTRACTOR, and has been verified to supporting evidence of content classification.



## PROJECT-TO-DATE PROCUREMENT REPORT

## ATTACHMENT (d)

	FORECAST PROCUREMENT REPORT					ACTUAL PROCUREMENT REPORT			
Description	RFP Issue	RFP Close	Award Date	Award Value	Vendor Name	Vendor Location	Award Date	Award Value	
Example: Drill Bits	25-Oct-2006	5-Nov-2006	25-Nov-2006	\$2,500,000	XYZ Drill Bits	NS	25-Nov-2006	\$2,000,000	



## APPENDIX B

## BIDDER QUESTIONNAIRE IN CONTRACTOR'S TENDERS



## **CANADA - NOVA SCOTIA BENEFITS**

## - BIDDER QUESTIONNAIRE -

#### CORPORATE STATEMENT OF PRINCIPLE

The Deep Panuke Project will generate important activity and provide significant opportunities within Nova Scotia and Canada. In recognition of this, EnCana is committed to using and encouraging capable and competitive Nova Scotian and Canadian companies for the provision of the high quality goods and services required in these activities.



## **BIDDER QUESTIONNAIRE**

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#### 1.0 INTRODUCTION

This document is the Canada-Nova Scotia Benefits Bidder Questionnaire for EnCana. The questionnaire is used to assess Canada-Nova Scotia content contained in the bids of prospective contractors. The requirement for the questionnaire is set out in the Canada-Nova Scotia Benefits Plan filed with the Canada-Nova Scotia Offshore Petroleum Board (CNSOPB) in compliance with the <u>Canada-Nova Scotia Offshore Petroleum Resources Accord Implementation Act</u>, and the <u>Canada-Nova Scotia Offshore Petroleum Resources Accord Implementation (Nova Scotia) Act</u>.

The Bidder is required to answer the questions in a submission which follows closely to the format presented below. Failure to provide the information requested may result in the bid being rejected. Accurate information consistent with generally accepted accounting principles (GAAP) is important, as substantiation and audit may be requested by government agencies.

The Canada-Nova Scotia Benefits information provided will be solely for use of EnCana and our respective affiliates and agents, except where provided to regulators and government agencies.

#### 2.0 BIDDER'S CANADA-NOVA SCOTIA BENEFITS UNDERTAKINGS

#### 2.1 Canada-Nova Scotia Benefits Commitments

The Bidder will confirm and provide detail regarding:

- (a) Confirmation of Bidder's understanding and commitment to Canada-Nova Scotia Benefits Objectives, Principles, and Procedures (as outlined in the tender documents).
- (b) Acknowledgement of Bidder's responsibility for ensuring that <u>all</u> subcontractors engaged by Bidder (and by any or all future subcontractors) must also commit to these undertakings.
- (c) Qualifications and organizational placement of the Bidder's personnel responsible for coordinating Canada-Nova Scotia Benefits.
- (d) Bidders capability and commitment (if the successful bidder) to reporting Canada-Nova Scotia Benefits.
- (e) Confirmation that, should the contract be awarded to the bidder, additional information and regular reporting of Canada-Nova Scotia benefits information will be required through EnCana's *Canada-Nova Scotia Contractor Obligations* document.



2.2

#### Procurement

Policies, procedures and initiatives to provide qualified members of the labour force, manufacturers, consultants, contractors and service companies in the Province of Nova Scotia and other parts of Canada, with a full and fair opportunity to participate on a competitive basis in the supply of goods and services for the Project. Willingness and capability to utilize electronic bulletin boards to communicate procurement requirements and contract awards.

#### 2.3 Employment

Policies, procedures and initiatives to provide full and fair opportunity to Canadians for the supply of services for the Project and, consistent with the *Canadian Charter of Rights and Freedoms*, with first consideration to qualified individuals resident in Nova Scotia where competitive for employment opportunities related to the Project.

## 2.4 Research and Development

If appropriate, Canadian and Nova Scotia research and development conducted or supported by Bidder, and Bidder's plans for future research and development in Nova Scotia.

#### 2.5 Technology Transfer

If applicable, policies, procedures and initiatives to promote technology transfer to Canada and Nova Scotia. Your response should address, but not be limited to, the following:

- (a) a description of the intended technology transfer and the strategy and methods which will be employed to achieve this transfer;
- (b) the nature of the arrangements among the participants in the bid, including respective ownership shares and the long term intentions for their business entity;
- (c) the share and nature of the work to be carried out by each of the participants and;
- (d) the arrangements for the transfer of technology from foreign participants to Canadian led, owned or controlled participants, including plans for the development of senior project management capability in the Canadian participants, if applicable.

#### 2.6 <u>Supplier Development</u>

If appropriate, any activities undertaken and/or in progress as well as future plans to develop Canadian and Nova Scotia suppliers.

## 2.7 <u>Employee Development</u>

If appropriate, policies, procedures and initiatives for progressive development of Canadian and Nova Scotia employees, include on-the-job training.



## 3.0 BIDDER INFORMATION

	Please provide the following information:	
Note:	(If Bidder is not a single corporate entity, then each member of Bidder's part venture is required to make a separate declaration):	nership or joint
Main s	hareholders/participants and percentage ownership/participation:	
Locati	on of head office:	
Locati	on(s) of Nova Scotia - Canadian plants/offices/facilities:	
 Primar	ry location(s) of work for this bid:	
Reside	ency for Canadian income tax purposes:	



#### 4.0 BID - CANADA-NOVA SCOTIA EMPLOYMENT CONTENT

#### **Employment Summary**

The section is applicable to service contracts. It also applies to purchase orders where labour is a significant component of the cost and the labour is performed in Nova Scotia.

Is this a service contract?	Yes	No
Are the goods offered manufactured or fabricated in Nova Scotia?	Yes	No

Please complete the following table if answering yes to either the above.

Please provide the total *estimated* number of persons and corresponding total number of estimated person hours associated with the work, categorized as follows:

TOTAL CONTRAC	CT	PERSON HOURS BY WORK LOCATION				
Residency		Person Hours in Nova Scotia		Person Hours out of Canada		
Nova Scotian						
Other Canadian						
Non Canadian						

#### Nova Scotian

A "Nova Scotian", for the purposes of benefits calculations, is a Canadian Citizen or landed immigrant who meets the residency requirement for voting in a provincial election, as defined in *The Election Act of Nova Scotia*, which states "...a Canadian citizen or landed immigrant who has resided in the province for the immediate preceding six month period..."

Canadian Citizens who move to Nova Scotia to work on the PROJECT should be reported for the first six months of employment as "Other Canadian" and after six months on the PROJECT, should be reported as "Nova Scotian".

#### **Canadian Citizen**

A Canadian Citizen is a person who was born in Canada and has not relinquished his or her Canadian citizenship: or, a person who has been granted Canadian citizenship; or, a person who has been granted landed immigrant status.

#### Non-Canadian

A "Non-Canadian" is a person who was not born in Canada and who has not been granted Canadian citizenship or landed immigrant status.



## 5.0 BID – VALUE OF EXPENDITURES

Please provide an estimated breakdown of expenditures associated with the work, excluding income tax, HST, or GST, categorized as follows:

TOTAL CONTRACT	\$	-
Category	Total \$ (000's)	% Total Cost
Materials		
Labour		
Services		
Other		
Total	-	

## APPENDIX C

## DEEP PANUKE OSEA – SECTION 3: COMMITMENTS REGARDING NOVA SCOTIA BENEFITS



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#### 3. ENCANA'S COMMITMENTS REGARDING NOVA SCOTIA BENEFITS

- 3.1 EnCana is committed to providing opportunities for Nova Scotian and Canadian companies through employment, procurement and contracting on an internationally competitive basis, with full and fair opportunity for Nova Scotians, and first consideration to Nova Scotians where competitive on a best value basis, in compliance with Section 45 of the Accord Act.
- 3.2 EnCana recognizes the right of the Province to be the principal beneficiary of the Nova Scotia offshore as set out in Section 1 of Accord Agreement.
- 3.3 In addition to establishing processes to provide full and fair opportunities for Nova Scotians and first consideration where competitive, EnCana shall undertake additional commitments to provide specific industrial and employment opportunities to a total of not less than one million three hundred and fifty thousand (1,350,000) Person Hours, which will include not less than eight hundred and fifty thousand (850,000) Nova Scotia Person Hours, and which, subject to Clause 3.5, are allocated as follows:
  - (a) EnCana agrees to perform Engineering, Procurement and Management Activities which shall comprise not less than six hundred and twenty-three thousand (623,000) Person Hours:
  - (b) The Parties recognize that EnCana will require the use of an offshore supply vessel and a standby vessel. EnCana will contract for the service of two offshore supply vessels, leased on a multi-year charter, with options to renew. Subject to Clause 3.5, EnCana agrees to complete construction of one of these vessels in Nova Scotia. The construction of such vessel shall comprise not less than three hundred and sixty thousand (360,000) Person Hours;
  - (c) EnCana agrees to perform design, procurement, and fabrication activities with respect to subsea trawl over protection structures for the subsea well locations on the Deep Panuke Project which shall comprise not less than thirty thousand (30,000) Person Hours;
  - (d) EnCana agrees to perform receiving, handling, double jointing, coating and shipping activities with respect to a twenty-two inch (22") export line which shall comprise not less than thirty-seven thousand (37,000) Person Hours;
  - (e) EnCana agrees to perform design, procurement and fabrication activities with respect to accommodations unit(s) for the Mobile Offshore Production Unit in Nova Scotia which shall comprise not less than two hundred and eighty thousand (280,000) Person Hours;
  - (f) EnCana agrees to perform design, procurement and fabrication activities for a flare boom unit for the Mobile Offshore Production Unit in Nova Scotia which shall comprise not less than twenty thousand (20,000) Person Hours.



- In addition to the commitments set out in Clause 3.1 and 3.3, EnCana shall, upon the condition set out in Clause 6.1 being fulfilled, commit financial and human resources to facilitate the development of the capability of an onshore drilling rig manufacturing operation in Nova Scotia. Further, for a period commencing on the date the condition set out in Clause 6.1 is fulfilled and ending on the earlier of three (3) years thereafter or the manufacturing of the first five (5) rigs by such operation, EnCana shall support the establishment of the drilling rig operation through the contribution of up to \$1 million per rig for each of the first five rigs manufactured. EnCana shall provide to the Province quarterly reports with respect to its activities under this Clause 3.4.
- 3.5 It is acknowledged that each of the commitments set out in Clause 3.3 shall be undertaken and shall be fulfilled no later than three (3) months following First Gas; provided, however, that should EnCana determine that it is not practicable to undertake any of such commitments it reserves the right to substitute alternative initiatives of equivalent value based on Person Hours, subject to agreement of the Province, which agreement will not be unreasonably withheld. It is agreed by the Parties that all of the actual Person Hours relating to the initiatives committed to in Clauses 3.3(a) through (g), and such alternative initiatives that may be substituted therefor (which shall be also fulfilled no later than three (3) months following First Gas), shall be counted for the purpose of satisfying the total Person Hours commitment set out in Clause 3.3. Further, it is agreed that not fulfilling the number of Person Hours specified for any such individual initiative shall be of no effect so long as the said total is fulfilled.
- 2.6 EnCana shall pay to the Province an amount equal to 0.5% of the Gross Revenue from the Deep Panuke Project, over the life of the Deep Panuke Project, to establish funds administered by the Province for the purpose of research and development, education and training, disadvantaged groups and such other benefits expenditures related to research and development, education and training and disadvantaged groups as may be required by the CNSOPB in an approved Benefits Plan pursuant to Section 45 of the Accord Act (the "Funds"). For greater certainty, the Province agrees that any expenditures paid by EnCana pursuant to conditions imposed by the CNSOPB on the approval of the Benefits Plan, or otherwise required by any law of Canada in force as of the date of this Agreement or any law of the Province of Nova Scotia, and accepted by the CNSOPB as an expenditure with respect to Section 45 of the Accord Act shall be deemed to be, and credited as, amounts paid to the Province with respect to the Funds. The Funds shall be calculated and paid as follows:
  - (a) EnCana agrees to commence the initial payments of the Funds in the calendar year following EnCana Project Sanction.
  - (b) During the development phase of the Deep Panuke Project (before First Gas), the Funds will be paid on an annual basis, no later than March 31 of each year, based on 0.5% of the Allowed Capital Cost ("C") in the previous calendar year. The annual development phase expenditure ("DPE") for Funds will be calculated as follows:

 $DPE = 0.005 \times C$ 



(c) During the production phase of the Deep Panuke Project (after First Gas), the Funds will be paid on an annual basis, no later than March 31 of each year, based on 0.5% of the Gross Revenue ("GR") from the previous calendar year. For the first ten years of the production phase, a deduction will be taken based on 10% of the total development phase expenditures ("TDPE"). The annual production phase expenditure ("PPE") will be calculated as follows:

 $PPE = (0.005 \times GR) - (TDPE \times 0.1)$ , for the first 10 years of the production phase, and;

 $PPE = 0.005 \times GR$  after the first 10 years of the production phase.

3.7 The Province agrees to consult with EnCana prior to the distribution of any monies from the Funds, and will recognize EnCana's contribution to the Funds in any distribution.



## APPENDIX D

# EQUIPMENT, GOODS AND SERVICES, AND CONTRACT REQUIREMENTS



## EQUIPMENT, GOODS AND SERVICES, AND CONTRACT REQUIREMENTS

The listing is provided to illustrate requirements for equipment, goods, services, and contracts during the development phase of the Deep Panuke Project. It is based on conceptual and design parameters at the time this document was prepared. Additions and deletions may be warranted as a result of further preliminary and detailed design activities and as major contractors are selected for the main contract elements.

EnCana does not commit that equipment, goods and services as currently listed will be offered for bid as listed. EnCana and its main Contractors may offer for bid any combination of the listed equipment, goods and services to maintain economic viability of the Project and ensure "best value". EnCana will however maintain its commitment to provide manufacturers, consultants, contractors, and service companies in Nova Scotia with a full and fair opportunity to participate on a competitive basis in the supply of goods and services used in the Project.

#### 1.0 ELEMENT 1 – DRILLING & COMPLETIONS

#### 1.1 Equipment and Materials

- Production Casing and Tubulars
- Casing Accessories (Float Equipment, Centralizers, etc.)
- Conductors (30" x 1" walls)
- Safety Equipment
- Subsurface Safety Valve & Accessories
- Liner Hangers
- Packers, PBR's and Seal Assemblies
- Downhole Press/Temp Gauges and Accessories
- Flow Control Equipment
- External Casing Packers
- Drill Bits

#### 1.2 Subcontracts

- Drill Rig Charter
- Supply vessel charter
- Rig positioning services
- Helicopter Services
- Catering
- Shorebase
- Drilling fluid/mud & chemicals
- Cementing
- Fishing and downhole equipment
- Mud logging
- Coring
- Wireline logging
- Liner hanger
- Well testing and Perforating Services



- Casing handling
- Directional drill services
- Well completion installation
- ROV services
- Drilling equipment rental
- Slickline
- Rig modifications
- Waste disposal
- Pipe and Thread Inspection
- Logging While Drilling
- Solids Control Equipment and Services

#### 2.0 ELEMENT 2 – SUBSEA

## 2.1 Equipment and Materials

- Concrete Mattresses
- Sand Bags
- Anodes
- Subsea Isolation Valve
- Flowlines
- Umbilicals
- Wellheads and XMAS Trees
- Subsea Control Equipment

#### 2.2 Subcontracts

- Supply vessels
- ROV services
- Diving services
- Subsea survey
- Subsea installation
- Metocean
- Offshore telecoms
- Helicopter services
- Fabrication of Offshore Trawl Protection Structures
- Pipe Spool Fabrication
- Onshore Logistics Support
- Customs Brokerage

#### 3.0 ELEMENT 3 – EXPORT PIPELINES & TIE-IN

## 3.1 Equipment and Materials

- Line Pipe, 20" or 22"
- Flanges and Fittings



- Pipe Bends
- Concrete Mattresses
- Anodes

#### 3.2 Subcontracts

- Supply vessel
- Pipe inspection
- Pipe coating
- Nearshore borehole survey
- Topographical survey
- Nearshore route survey
- Nearshore directional drilling
- Onshore pipeline and facilities
- Onshore Site Preparation
- ROV services
- Diving Services
- Metocean
- Offshore telecoms
- Helicopter services
- Onshore Logistics Support
- Customs Brokerage
- Leak Testing, Dewatering and Nitrogen Purging
- Pipe Spool Fabrication

#### 4.0 ELEMENTS 4 AND 5 – MOPU AND RFO

## 4.1 Equipment and Materials

#### 4.1.1 Electrical

- Power Distribution System, Switchgear, MCC's, Transformers, & Panelboards
- UPS / Rectifiers & Battery Chargers / Banks
- Navigational Aids
- Power, Control & Instrument Cables
- Cable Glands
- Cable Tray
- Junction Boxes
- Lighting Fixtures
- Miscellaneous Electrical Bulks
- Heat Tracing

#### 4.1.2 HVAC

- Air Handling Units
- Miscellaneous Fans



- Fire Dampers
- Electric Heaters

#### 4.1.3 Instrumentation

- Control System (DCS / ESD / Fire & Gas)
- Metering Equipment
- Production Information Management System
- Analyzers
- Flow Indicators and Flow Switches
- Instrument Housings and Enclosures
- Instrument Tube and Fittings
- Level Instruments Transmitters / Switches / Indicators
- Pressure & Temperature Gauges / Switches
- Choke Valves
- Control & Regulating Valves
- Actuated On/Off Valves

#### 4.1.4 Safety and Loss Control

- Breathing Air Package
- Deluge Skids
- Life Saving Equipment (SCBA, Life Rafts, Safety Showers, Eye Wash, etc.)
- Fire Fighting Equipment and Containers
- Life Boats and Stations (Evacuation Systems)
- Spill Equipment
- Safety Signs

#### 4.1.5 Mechanical

- Gas Compressors
- Compressors Acid Gas
- Compressors Stabilizer O/H
- Main Power Generation
- Emergency / Essential Power Generation
- Printed Circuit Heat Exchangers
- Double Pipe and MultiTube Exchangers
- Plate Exchangers
- Shell & Tube Heat Exchangers
- Pedestal Cranes
- Stabilizer Feed Filters & Coalescers
- Open Drain Polishers
- Filters & Filter Coalescers
- Amine Gas Sweetening System
- Chemical / Methanol Injection System
- Condensate Stabilizer Package



- Electrochlorination / Hypochlorite Package
- Flare Package incl. Flare Tips
- Fuel Gas Package
- TEG Gas Dehydration System
- Aviation Fuel Package
- Plant / Instrument Air System
- Inert Gas System
- Pig Launchers / Receivers
- Potable Water (Seawater Conversion Unit)
- Produced Water Package
- Seawater Filtration Package
- Sewage Treatment Package
- Seawater Pumps
- Condensate Re-injection Pumps
- Centrifugal Pumps
- Fire Water Pumps
- Positive Displacement Pumps
- Sump Pumps
- Atmospheric Tanks
- Knockout Drums
- Vessels Carbon Steel
- Production Separator Vessels
- Scrubber Vessels
- Steam Generators
- Mechanical Handling Equipment
- Workshop Equipment

## 4.1.6 Piping

- Carbon Steel Pipe, Fittings, and Flanges
- 316, Duplex & Super Duplex, and Alloy 625 Stainless Steel Pipe, Fittings, and Flanges
- Titanium Pipe, Fittings, and Flanges
- CUNI Pipe, Fittings, and Flanges
- Studbolting
- Gaskets
- Strainers
- Flame Arrestors
- Ball Valves
- Butterfly Valves
- Gate, Globe, and Check Valves
- Modular Valves
- Safety Relief Valves (PSV's)
- Valve Interlocks



#### 4.1.7 Structural and Architectural

- Steel Plate
- Steel Tubulars
- Structural Rolled Sections
- Cathodic Protection Anodes
- External Blast Walls, Fire Walls, and Doors
- Platform and Architectural Signs

#### 4.1.8 Telecoms

- Met / Ocean System
- Radar Monitor
- Communications System (Onshore / Offshore)
- Public Address System
- Radio / Video / Communication System
- Security and Surveillance System

#### 4.1.9 First Fills

- Lubes / Oils
- Chemicals

#### 4.2 Subcontracts

- Borehole surveys
- Flareboom
- Accommodations Unit
- Metocean
- Offshore telecoms
- Supply vessels
- Helicopter services
- Freight Forwarding
- Customs Brokerage and Consulting
- Simulator Training
- Medical services
- Catering
- Warehousing
- Shorebase
- Maintenance
- Fabrication modifications
- Inspection services
- Offshore Hook-Up and Commissioning
- Basic Survival Training



## 5.0 MISCELLANEOUS CONTRACTS

- Recruitment and advertising
- Recruitment services (Tech. & Admin.)
- Warranty surveyor
- Public affairs/communications
- Legal services
- Miscellaneous technical support
- International inspection services
- Customs broker
- Flow assurance
- Pipeline/subsea engineering support
- Rig suitability review
- Drilling engineering tech support
- Medical services
- Basic survival training
- Certifying authority
- HAZOP/HAZID services
- Reprographic services
- Project management services
- Land agent
- Document management development
- Concept safety studies
- Cost & schedule risk analysis
- Environmental assessment
- Safety Training
- Operations Training

