

Request for Proposals
Program Management
Offshore Petroleum Play Fairway Analysis and Geoscience Data Package Program
for the
Offshore Energy and Technical Research (OETR) Association

I OETR ASSOCIATION AND SITUATION OVERVIEW

Mandate

The OETR Association (Association) was established in March 2006 with \$2.6 million in government funding to support research and development on offshore energy issues and to diffuse the resulting knowledge in order to enhance petroleum exploration and development in offshore Nova Scotia. Its mandate is to fund research that builds geoscience knowledge about Nova Scotia's offshore oil and gas potential, as well as research that reduces the technical and engineering barriers to development of discovered reserves. Where consistent with these goals, it also builds research capacity in Nova Scotia.

In 2008 the Government of Nova Scotia committed additional funding of approximately \$18 million to the Association to enable it to undertake further research to support offshore energy development. A significant portion of this (in the order of \$15 million) will be used to fund a comprehensive program of geoscience studies, data acquisition and research projects, together with other related initiatives, with the goal of stimulating renewed offshore petroleum exploration activity. This request for proposals concerns the management of this overall geoscience program, the integration of the results of a number of individual projects to develop an industry standard play fairway analysis and atlas, and assisting with the creation of a publicly available geoscience data package including the acquisition of data.

II SITUATION BACKGROUND

Background

The history of petroleum exploration offshore Nova Scotia spans more than 40 years with the first well drilled in 1967 and the first discovery in 1969. During this period more than 200 exploration, delineation and production wells have been drilled with discovered reserves in the range of 2.1 billion (boe). However it was not until 1992 that the first oil production took place at the Cohasset Panuke development, and the

first natural gas production in 1999 from the Sable Offshore Energy Project. More recently the discovery of commercial quantities of natural gas at Deep Panuke has resulted in the development of that field, with first gas expected in 2010.

The remaining resource potential of the Nova Scotia offshore has been estimated by the Canada Nova Scotia Offshore Petroleum Board to range from 12 to 39 tcf of natural gas and between 1.3 and 4.5 billion barrels of oil. In spite of what appears to be an attractive resource base, exploration activity has declined sharply over the last decade. Since 1998, a total of 29 exploration and delineation wells have been drilled at a cost of over \$1 billion, but with only one commercial discovery, Deep Panuke in 1998. The lack of exploration drilling success is reflected in the decline in exploration licenses from a high of 59 in 2002 to only 10 in the early part of 2008. Since then two new licenses have been issued and more may follow as a result of a Call for Bids issued in mid-2008. Aside from these new licenses, many of the licenses existing at the beginning of 2008 may be relinquished at the end of the year resulting in a further decline in exploration licenses.

Royalties and other forms of government revenues from offshore petroleum production are extremely important to Nova Scotia. For the fiscal year ending March 31, 2008, Nova Scotia received approximately \$540 million in direct revenues of various types from offshore petroleum activity, the third largest provincially-generated source of government revenues. Royalties alone are forecast at almost \$514 million in the 2008/09 fiscal year. In addition, petroleum activities have generated substantial economic activity in the Province, amounting to over \$2.5 billion since the beginning of construction of the Sable Offshore Energy Project in 1996. It is clear that without an increase in exploration with commercial discoveries the fiscal and economic benefits that the Province has enjoyed will decline sharply. This provides a strong motivation for the provincial government to do whatever it can to address those issues that are within its ability to influence, particularly with respect to improving geoscience knowledge, the regulatory and fiscal regime, and targeted marketing of its resource potential.

A number of studies have been commissioned by the Province, the Atlantic Canada Opportunities Agency (ACOA) and others to better understand and address some of the key issues affecting offshore exploration. These have examined rights issuance practices, particularly those in the United Kingdom, practices related to offshore infrastructure access, the competitiveness of the Nova Scotia offshore versus other jurisdictions, the attraction of investment to the Nova Scotia offshore sector, and most recently the “Geoscience Gap Analysis” study conducted by PARAS Consulting Ltd. It is this latter study that is the basis for this Request for Proposals.

The PARAS Geoscience Gap Analysis study was undertaken to identify what data and studies were necessary to address gaps in the current understanding of the geology of the Nova Scotia offshore area, and by filling those gaps, contribute to the

generation of renewed petroleum exploration interest. The study, completed in early 2008, concluded that although Nova Scotia is “data rich”, much of the data that is fundamental to offshore explorers is not in the public domain. Furthermore there is no publicly available industry standard play fairway analysis for the Nova Scotia offshore. The primary recommendations arising from the PARAS study were:

- a. Conduct an “industry standard” play fairway study which should be published as a play fairway atlas, and
- b. Build a geoscience data package that can be made publicly available along with the play fairway analysis.

The Province has now provided funding to the Association to enable the implementation of the PARAS study recommendations. This Request for Proposals concerns the possible selection of a consulting firm to manage and coordinate the geoscience program (development of the play fairway analysis), and assist with the development of the publicly available geoscience data package to complement the play fairway analysis. The Executive Summary of the PARAS study is appended (Appendix 1). Short listed firms will be provided with a copy of the entire report on a confidential basis. If a firm is selected to undertake this work package, that firm will have access to all previous work required to successfully carry out the assignment. The remainder of this RFP describes in more detail the project and submission requirements, as well as the basis on which the selection will be made.

III PROJECT

The Purpose

- a. The purpose of this work package is to provide program management services for a play fairway analysis of the Nova Scotia offshore; the coordination and integration of a number of studies and research projects related to the play fairway analysis; and the development of a geoscience data package for potential explorers through the identification and acquisition of data, much of which is currently not in the public domain. The play fairway atlas and digital geoscience data package should be put together in a format that will be distinctive and attractive to exploration companies.
- b. The ultimate goal of this program is to address specific issues and perceptions that have been identified as negatively impacting petroleum exploration, most notably the lack of a basic geological framework and a publicly available package of data to complement the framework, and by doing so help to rekindle offshore exploration interest.

The Objectives

It is expected this Request for Proposals will enable the Association to select a consulting firm to manage and coordinate the geoscience program (development of the play fairway analysis), as well as assume the responsibility for the development of a publicly available geoscience data package that will be accessible to potential explorers to complement the play fairway analysis. The work package has the following objectives:

- a. Ensuring development and completion of the necessary projects to enable a play fairway analysis to be carried out for the NS offshore area within the specified timeframe and budget;
- b. Selecting and ensuring performance of those contractors and researchers most capable of undertaking program elements to derive the greatest value from available program funds;
- c. Providing quality assurance, including peer review by recognized international technical experts, for program outputs to ensure they are seen as credible and based on the best science and analysis;
- d. Coordinating and integrating program elements, including all necessary studies and new research projects (described later), to enable a comprehensive geological framework to be developed incorporating all important elements for understanding NS offshore geology;
- e. Developing and providing leadership in the implementation of a process, complementing government/regulator data release policy initiatives, for securing and making geoscience data publicly available to support the play fairway analysis;
- f. Facilitating a consensus among key players on the goals and their active engagement to accomplish the necessary work to complete the program, and cooperation in the completion of non-contracted projects;
- g. Ensuring that the activities and results of this geoscience program fit within and support the province's broader goals and initiatives for stimulating offshore petroleum activity; and
- h. Transferring scientific and technical knowledge and capabilities to the local research community through their active involvement in the geoscience program, as well as improving the research management capabilities within the province through the possible involvement of Nova Scotians in particular aspects of the program management.

Program Description

The overall program has two distinct but related elements – an “industry standard” play fairway analysis, and the creation of a geoscience data package. The play fairway analysis will be based on an industry standard sequence stratigraphic framework, sufficiently detailed to provide credible results. The primary component projects of this aspect of the program are:

- a. Constructing the necessary database consisting of well data, 2-D seismic data (approx. 20,000 km.), selected 3-D seismic data (~ 30,000 sq. km.), satellite seep data, shallow coring data;
- b. Building a sequence stratigraphic framework;
- c. Reviewing the tectonic evolution of the Nova Scotian margin;
- d. Evaluating the major tectonic controls on sediment deposition;
- e. Reviewing the conjugate margin history and developing models for predicting source rock distribution;
- f. Carrying out a review of exploration history (success/failure analysis);
- g. Completing a play fairway analysis for approximately 10 reservoir fairways;
- h. Estimating the resource potential by fairway; and
- i. Developing high level methodologies for addressing key exploration risks.

A number of special research projects will also be undertaken as part of the program which may include the building of a framework for reservoir distribution prediction, basal heat flow history models, petroleum systems analysis for understanding charge risk, fluid inclusion studies, salt modeling, sequence stratigraphy, and seismic rock physics and attribute studies. The primary product from this program element will be a “Play Fairway Atlas” published in both paper and electronic format consisting of the stratigraphic framework, gross depositional environment maps, petroleum system review, common risk elements, play types, “yet to find” resource potential and the reports from special projects.

Although considerable knowledge exists and numerous studies have been carried out by government, industry and the academic research community, important gaps remain as identified in the PARAS gap analysis study. These gaps will be filled through contracted services. Utilization will be made of a number of specialties (some hard to obtain), such as focused research projects conducted by the academic research community, and the scientific staff of government agencies and regulators

(CNSOPB, Geological Survey of Canada, etc.). The integration of existing and new work will be an important aspect of the program.

Fundamental to the play fairway analysis is gaining access to the most recent data required to carry out the various projects and studies. Respondents to this RFP should be aware of the complexities related to data ownership and access, and should carefully consider both the challenges and strategies for securing the necessary data. Although considerable data exists, access to the data and its usefulness is complicated by data ownership, rules governing confidentiality and release, varying vintages and format of data, the age and quality of processing, etc. Data is readily available in hardcopy and digital format for most wells drilled offshore, although at some modest cost for the latter. Some geological and geophysical reports have been released but many more are retained by operators. Most exploration 2-D seismic data is only available in digital form at a cost from geophysical contractors. Some data in high resolution image format is available. Two 3-D seismic surveys are available. Other types of data are available or can be purchased.

The intent is to complement the play fairway analysis with a package of geoscience data for public release. While ideally the data package should include the same data as used to develop the play fairway analysis, in reality it may be a subset of that data due to difficulties gaining access to data or restrictions placed on its use by data owners. To enhance its usefulness the data package should be prepared in a workstation ready format to enable its easy use by prospective explorers.

As already noted one of the challenges to developing the data package is gaining access from industry and then making it easily and cheaply available in digital format. The geoscience data package project in general involves developing and implementing a program to identify the data required for release, preparing a strategy for and negotiating access with the data owners, identifying significant gaps in the acquired data, recommending how best to fill those gaps, assembling and integrating the data into a common database (including reprocessing if warranted).

Scope of work

Respondents should recognize the scope of this RFP is specific to the management of the geoscience program, the integration of the results of past work and new projects, and the geoscience data package. The cost of individual projects will be funded separately, as will the cost of acquiring and/or processing data. The total program cost, including the work described in this RFP, is in the range of \$15 million. Although a budget for the work contemplated in this RFP is not provided, respondents are expected to base their cost estimates for completing the work on their experience with managing large multi-disciplinary programs and their proposed compensation plan on their understanding of what is required, the risks involved and the uncertainties that are to be expected in a program of this nature.

The intended results from the overall program have been described in the previous section. This section describes the specific work that a successful respondent will be expected to carry out in order to achieve the objectives set out above.

- a. A successful respondent will work within an overall program management framework that will enable the coordination and integration of past studies and data together with a number of new individual projects carried out by a variety of consultants, government agencies and researchers to accomplish the development of the play fairway atlas and complementary data package.
- b. The general governance structure for the program is described in section V. A successful respondent will be expected to develop the operational protocols, processes and procedures to ensure the effectiveness of the governance framework. With an overall program budget in the range of \$15 million (which includes all costs associated with required projects, data acquisition and program management) over roughly two years proper program administration, financial management and accountability to stakeholders will be essential. Some of the important elements of a successful respondent's responsibilities related to the governance structure will include, but not be limited to:
 - i. Assist Association staff and the management committee with development of terms of reference and operating procedures for the management committee, project steering and technical advisory groups, proposal and project review committees, etc.;
 - ii. Supporting, reporting to and implementing the decisions of the management committee;
 - iii. Establishing a financial management system including accounting, cost control, cash flow management, payment processes and reporting conforming with the Association's standards and guidelines, and that will meet audit tests;
 - iv. Setting up a project management system for initiating, tracking, controlling and reporting on individual projects that make up the overall program;
 - v. Interacting on a regular basis with project managers to ensure effective project delivery;
 - vi. Processes for project quality assurance including external peer review by recognized technical experts; and

- vii. The structure and mechanisms for integrating the results of the individual projects, identifying critical remaining gaps and initiating the work to fill those gaps.
- c. A successful respondent will be responsible for ensuring that individual projects necessary for the play fairway analysis are managed in accordance with established procedures and that they are aligned with and contribute to the final product. In particular, a successful respondent is expected to manage the procurement of services for the conduct of individual projects (e.g. terms of reference, selection, contracting, schedule, costs and quality assurance). This will also include the establishment and operation of the project management structure including ensuring suitable project managers, as well as project steering and /or technical advisory groups.
- d. A number of special projects have been identified as needed to complete the play fairway analysis. Many of these may be conducted by academic researchers, the GSC and the CNSOPB, as well as consultants where required. A successful respondent is expected to work with the management committee to confirm the specific studies; establish the scope of work, deliverables and timing; identify and reach agreement with those best suited to conduct each special project based on responses to procurement requests; determine any funding required to complete the work; negotiate the terms and conditions for such funding and draft funding agreements for execution by the Association and the organization conducting the work; ensure that a proper project management structure is in place; monitor the conduct and quality of the work. A successful respondent will be responsible for the integration of the results of these special projects into the final play fairway analysis.
- e. The geoscience data package is a large and complex project that forms part of the overall program and will be the responsibility of the selected contractor. This project has already been described in some detail. A successful respondent will have the following specific responsibilities associated with the geoscience data package:
 - i. Confirm the data requirements as identified in the PARAS report, and for the necessary data determine data owners, data vintages and formats, as well as other relevant factors;
 - ii. Develop a business case and strategy for approaching each data owner that takes account of existing strategies and levers being used by governments and regulators;
 - iii. Lead the discussions with data owners to negotiate the acquisition or release of their relevant data in standard digital format on the best possible terms and conditions;

- iv. Identify work that would enhance the value/usefulness of the data to both potential explorers and the data owners including reprocessing, megamerge, new acquisition, etc. and develop a business case for each to support the funding of such work;
- v. Contract any external services to support this aspect of the program including legal, seismic reprocessing, digitization, database development; and
- vi. Provide project management for the geoscience data project to ensure satisfactory delivery of the final product.

IV DELIVERABLES

A successful respondent will be held accountable for ensuring that the following deliverables are provided to the Association:

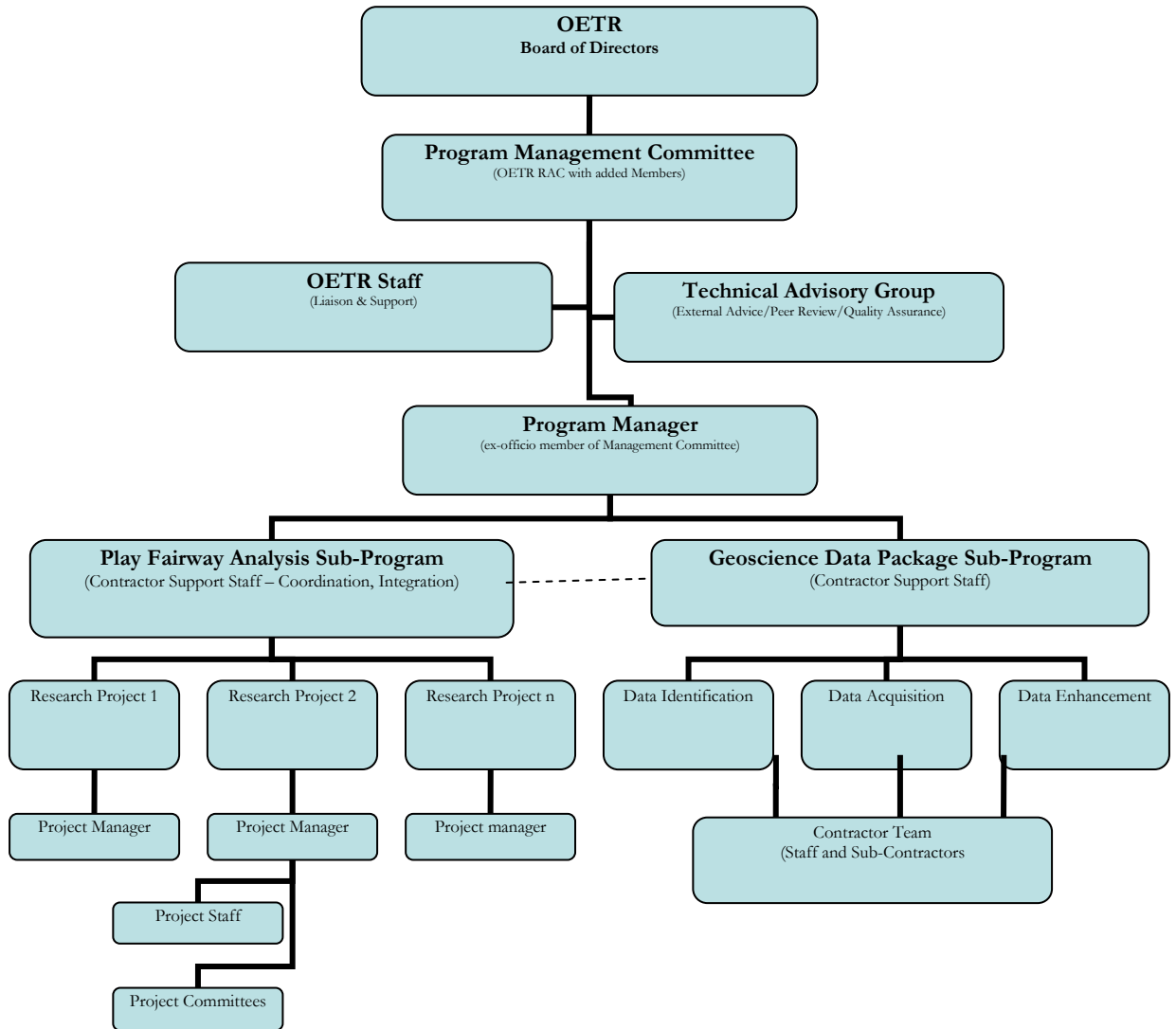
- a. Overall management of the geoscience program composed of the play fairway analysis and atlas, and complementary data package;
- b. Accountability to the program management committee for the effective delivery of the program elements, quality assurance and financial management of program funds;
- c. Coordination of all program activities and participants;
- d. Integration of the results of existing work with new projects and data to develop the play fairway analysis;
- e. Play fairway atlas for the Nova Scotia offshore;
- f. Acquisition of geoscience data currently not in the public domain;
- g. Publicly available geoscience data package including project reports;
- h. Full documentation of all work;
- i. Regular progress reports to the management committee;
- j. Organization of a forum, in partnership with the Association, to be held upon completion of the program to present the results and begin the dissemination process as well as workshops and other mechanisms for knowledge transfer during the course of the program; and
- k. Recommendation of a strategy and process to effectively reach potential explorers with the results of the program, as well as additional work to fill

remaining gaps in understanding the geology and resource potential of offshore Nova Scotia.

V MANAGEMENT STRUCTURE AND REPORTING

The Association's Board of Directors (Board) will ultimately be responsible for the delivery of the program, decisions regarding direction of the program and award of contracts/grants, the results achieved and the money spent to achieve those results. The Association's Research Advisory Committee (RAC) will act as the management committee for the program with responsibility for technical direction, oversight, reporting to the Board on program activities, and providing recommendations to the Board for program expenditures, as well as activities to be conducted. The membership of the management committee may be expanded beyond the current RAC to supplement existing expertise. A program technical advisory group (TAG), appointed by the management committee with input from the respondent's program manager, will assist the management committee by providing advice on the technical aspects of the overall program and external peer review as part of the quality assurance process. Association staff will provide a day to day point of contact for liaison between the successful respondent and management committee, facilitate the resolution of any general program related issues as they arise, and be available to provide support to the management committee and the respondent as needed. In addition, an Association staff member will provide advice and monitor and exercise oversight on behalf of the Association of the financial management of program funds.

A successful respondent's program manager will report to and be an *ex officio* member of the management committee. The program manager will be supported by his/her team. Each project will have a project manager who will report to the program manager, as well as project team members to execute delivery of each project. Technical advisory groups may be appointed for individual projects and whose responsibilities could include proposal review and recommendation as well as ongoing technical advice and guidance for the project. The expected management structure for the program is illustrated in the following diagram, although respondents may suggest alternative structure.



See Appendix 2 for a further description of committee composition and mandates.

VI REQUIREMENTS

Expected Time-Frames

The expected schedule for the process to select a firm to provide the services described above is provided as guidance and may be changed at the Association's discretion.

Issuance of Request for Proposals	October 14, 2008
Potential Respondents' Conference(conference call)	October 22, 23, and 24, 2008
Deadline for Submission of Initial Proposals	November 14, 2008 (4:00 pm AST)
Short listed firms notified	November 28, 2008
Interviews (short-listed respondents only)	December 3, 4, and 5, 2008
Deadline for Submission of Final Proposals (short-listed respondents only)	December 19, 2008 (4:00 pm AST)
Completion of Review and Notification	January 15, 2009
Contract Negotiation Completed and Final Decision	January 30, 2009
Commencement Date	February 2, 2009

Although any contract entered into between a respondent and the Association is expected to be based largely on the respondent's final proposal, it is expected further negotiations will be required to finalize the contract.

If a contract is awarded, the notional schedule for the completion of the work package is:

- Finalization of program management contract – January 30, 2009
- Build project database –February 2/09 to September/09
- Play fairway analysis –March/09 to September/10
- Resource estimate – October/09 to September/10
- Special studies – February/09 to September/10
- Integration of play fairway work – January/10 to September/10
- Play fairway atlas completion –October/10
- Geoscience data package construction – February/09 to September/10
- Documentation – ongoing as program elements completed
- Program management committee meetings - quarterly
- Quality assurance/peer review meetings – semi-annual or more frequent if required
- Release of deliverables –November, 2010

Program Element	2008	2009				2010			
	Oct-Dec	Jan-Mar	Apr-June	July-Sept	Oct-Dec	Jan-Mar	Apr-June	July-Sept	Oct-Dec
Awarding of program management contract		◆							
Build project database		█	█	█					
Play fairway analysis		█	█	█	█	█	█	█	
Resource estimate		█	█	█					
Special studies		█	█	█	█	█	█	█	
Integration of play fairway work									◆
Play fairway atlas completion									◆
Geoscience data package construction		█	█	█	█	█	█	█	
Documentation		←	←	←	←	←	←	←	→
Program management comm. meetings		◆	◆	◆	◆	◆	◆	◆	◆
Quality assurance/peer review meetings			◇		◇		◇		◇
Release of deliverables									◆

VII GENERAL SUBMISSION CONTENT AND RESPONSE GUIDELINES

The process leading to the final award of the program management contract is expected to be composed of several phases including this request for proposal, submission of initial proposals, presentations from and interviews of short-listed respondents, submission of final proposals, contract negotiations, and contract award. While the types of information required in both the initial and the final proposals are similar in some respects, the level of detail and weighting of selection criteria will differ between the two stages. Both the initial and the final proposals should include the following information:

- a. Title Page showing request for proposal title, respondent’s name and address, closing date and time, respondent's telephone number and a contact person (presumably the proposed program manager).
- b. One page letter of introduction identifying the respondent and signed by the person or persons authorized to sign on behalf of the respondent.
- c. Table of contents including page numbers.
- d. A short one or two page summary of key features of the proposal, including a statement demonstrating understanding of the project and outlining the results to be achieved.

In addition the initial proposal must include the following information in sufficient detail to allow for evaluation against the criteria outlined in section VIII:

- a. A profile of the company outlining relevant work experience related to similar work.
- b. The program management team members, their proposed roles, an overview of relevant experience, where they will be located and the overall team structure (reporting relationships). The involvement of Nova Scotia firms or

individuals should be noted. Resumes are to be provided for all program personnel, with the exception of support staff. The program manager is to be clearly identified, as well as the person's program management experience in complex programs of this nature.

- c. A general description of the proposed approach and methodology that will be used to complete the assignment. This should demonstrate an understanding of the program and its objectives, the key issues being faced, and the risks to successful completion.
- d. With respect to the geoscience data package, the respondent should demonstrate a clear understanding of the anticipated challenges in accessing and obtaining the required information/data, and provide insight into how they would see those challenges being addressed.
- e. The general time schedule, cost summary, factors that may affect the cost and any other information that the respondent feels would be beneficial in determining if the firm should be short-listed. More detailed costing and timelines will be required in final proposals submitted by those respondents that have are on the short-list.

Approximately one week after the issuance of this RFP a "Respondents' Conference" will be held in order to provide an opportunity for questions concerning the RFP and provide any needed clarifications. The Conference will be structured to enable companies to participate either in person or by telephone. This will allow respondents to ensure they understand what is being sought in the preliminary proposals and enable all firms to have common information.

Although there is no predetermined limit on the number of firms that may be short-listed, it is anticipated that approximately three to six firms will be invited to interview sessions with the Association's review committee. Presentations will be up to one hour, followed by a general discussion of the program and a question and answer session. The final proposal will incorporate material previously submitted in the initial proposal, as well as additional content providing more detail on the approach and methodology, costing, proposed basis for remuneration and time schedule. The Association reserves the right to clarify in writing its expectations regarding the content of final proposals following the completion of the interviews. The final proposals are expected to include:

- a. The approach and methodology for providing the required services described in detail. In addition to demonstrating an understanding of the program, its objectives and elements, the final proposal should also highlight the respondent's thinking on how best to achieve those objectives in light of

project risks to successful completion. Alternative approaches for structuring the program and its elements should be described and the rationale for the approach/methodology being advocated.

- b. The respondent's approach to ensuring that the program management deliverables are met including a general description of processes and procedures to ensure proper management of program resources, accountability to the program management committee and the delivery of a credible, quality product.
- c. The respondent should expand on the anticipated challenges for accessing the required information/data for the geoscience data package, and clearly describe their proposed approach for addressing those challenges.
- d. Because much of the public domain geoscience research pertaining to the Nova Scotia offshore has been conducted by researchers in provincial universities, research institutes and government agencies, and the further growth of this expertise is an objective of the Association, respondents should indicate how they propose to take advantage of these capabilities, link local and external experts and further develop geoscience research capabilities in Nova Scotia.
- e. An estimate of the time required for each major element of program management, play fairway atlas development and geoscience data package development, and the estimated resources that will be assigned to each.
- f. A project time schedule showing all major program tasks, milestones, meetings and targeted report delivery dates.
- g. A detailed cost estimate for each major aspect of this RFP (program management, integrating the results of past and new projects to develop the play fairway atlas, and geoscience data package) development broken down by major element, per diem rates for each person working on the project, travel costs and any other expected disbursements. Respondents should clearly indicate how they will ensure that resources allocated to each of these three areas, as well as the expenditure of program funds for projects and data acquisition, will be managed to enable the program objectives to be accomplished within the overall program budget.
- h. References that can be contacted regarding related past work (no letters of reference are to be submitted).
- i. The information identified in section VIII – Stage 2 Evaluations below.

- j. Any other information that the respondent feels is appropriate and that will assist in evaluating the proposal.

VIII EVALUATION CRITERIA

Initial Proposals

The criteria for the evaluation of the initial proposals and the points allocated to each are outlined below. These will be used to determine the short-listed respondents who will be invited to make a presentation to the review committee and participate in an interview. The criteria will be more heavily weighted towards the relevant experience, capability and capacity of the company; composition and experience of the proposed team; and their demonstrated depth of understanding of what the Association intends to achieve.

Criteria	Description	Points
Experience and capability	Demonstrates that the respondent and individual program team members have the relevant experience and capability to carry out the work	Max. 25 Min. 15
Company capacity	The depth of the company's human and other resources for carrying out the work, including proposed subcontractors	Max. 20 Min. 12
Program team	Demonstrates that the program team's structure, qualifications and mix of expertise are suitable	Max. 25 Min. 15
Understanding of program	Demonstrates a good understanding of the client's needs, the program's objectives, scope of work and significant challenges based on the proposed approach to conducting the work	Max. 25 Min. 15
Other factors	This includes costing, ability to meet the time schedule and the care demonstrated in preparing the RFP	Max. 15 Min. 8
Total		Max. 110 Min. 65

Final Proposals

Following the interviews, the short-listed companies will be invited to submit final proposals. The evaluation of these final proposals will give greater consideration to the approach and methodology, the thoughtfulness exhibited, value offered, and qualitative factors such as fit, interpersonal skills, opportunities for knowledge transfer to Nova Scotians and communications. All proposals will be assessed based on the criteria specified below. Final proposals should include all the following information (in addition to the information noted above in section VII):

- Confirmation that the proposed program manager and key personnel will be available starting February 2, 2009 until the program’s completion in Q3, 2010.
- A company profile outlining the relevant experience with similar work.
- The names and resumes of all personnel participating in the work with the exception of support staff. The program manager must be identified and program management experience detailed.
- A time schedule, an estimate of the time required for each major task, the resources that will be assigned, a program budget with a maximum price specified and the proposed approach for compensation.

Criteria	Description	Points
Methodology & deliverables	Demonstrates a clear understanding of the client’s needs with the proposed approach and methodology; shows awareness of the challenges to successful completion and plan to mitigate program risks	Max. 30 Min. 18
Program management approach	Appropriateness, effectiveness and suitability of the proposed program management processes and procedures; ensures good accountability	Max. 30 Min. 18
Resource allocation	Allocates sufficient resources (quantity, quality and mix) to achieve program objectives; demonstrates a reasonable balance between major tasks	Max. 25 Min. 15
Knowledge transfer	Provides opportunities to involve and transfer knowledge to the local research community and improve local research management capabilities	Max. 20 Min. 12
Schedule	The detailed schedule will enable the program to be completed on time; tasks are logically sequenced; important decision points are recognized	Max. 15 Min. 8
Proposal	Structure, clarity, writing style and presentation of the material and information in the proposal	Max. 15 Min. 8
Value	Demonstrates the ability to deliver the project on time, within the budget and with an adequate level of resources; proposed approach to compensation	Max. 25 Min. 15
Total		Max. 160 Min. 94

Note: Scores from the initial and final proposal evaluations will be added in order to rank the proposals received by the Association. The ranking is designed to assist the Association with its evaluation. It will serve as a guide only and may not be the basis on which the Association uses to award a contract. The Association reserves the right to withhold award of a contract for this work or to negotiate with one or more of the respondents before making a decision on contract award.

IX SUBMISSIONS

Written responses to this Request for Proposals are to be submitted to the Association by courier, facsimile or mail and must be received by no later than 4:00 p.m. (AST), November 14, 2008. An electronic copy must also be provided and may be submitted separately by e-mail. Contact and mailing information is provided below.

Contact Name: Wanda Barrett
Address: c/o OETR Association
c/o 5151 George Street, Suite 400
Halifax, NS B3J 3P7
Telephone: 902-424-8479
Fax: 902-424-0528
Email: barretwm@gov.ns.ca

A shortlist of will be created from the first round of submissions. Shortlisted companies will be contacted in late November and interviewed in early December. Those firms that are short-listed must submit their final proposal to the Association by no later than **4:00 p.m. (AST), December 19, 2008**. Proposals may be submitted by courier, facsimile or mail. As with the RFP, an electronic copy of the proposal is to be provided. Notwithstanding the deadlines cited above, the Association reserves the right to consider any proposals received after the above-noted deadlines and to modify the deadlines in its sole discretion.

X CONTRACT

It is anticipated any contract with a successful respondent will be based on the Association's standard contract, amended as required.

This is an invitation for proposals only and not a tender call. Nothing in this RFP is in any way intended to create legally binding obligations between the Association and a respondent. By submitting a proposal, a respondent acknowledges this. Further, notwithstanding any other provision contained in this RFP, selection by the Association of a final proposal does not create a contract with the Association. Rather, selection of a respondent's final proposal merely initiates negotiations which may lead to a contract with the Association to provide the services described in this RFP. The Association is not bound to accept any proposal which is submitted.

No clause in this document may be interpreted as conferring upon a respondent any type of exclusivity whatsoever regarding the supply of the services outlined in this RFP. More specifically, the Association reserves the right to negotiate at any time with more than one respondent.

XI NO LIABILITY

The Association shall not be liable to any respondent in respect of any claim for losses, costs, expenses or damages of any nature or kind whatsoever arising out of or resulting from this RFP, including without limitation, any claim for losses, costs, expenses or damages resulting from the submission of a proposal in response to this RFP, the selection of a proposal or the withdrawal or amendment of this RFP by the Association, whether such claims is based in contract (including a claim based on fundamental breach of contract) or tort, including negligence and assertion of strict liability or otherwise. Respondents acknowledge and agree that the Association may accept or reject any proposal and may amend or withdraw this RFP at any time. Any such exercise of its discretion shall be final and binding and respondents acknowledge and agree that they cannot request any compensation or claim any damages as a result thereof.

XII ENQUIRY CONTACTS

Respondent requiring further information on this Request for Proposals should contact Wanda Barrett by telephone, email or facsimile as provided above.

Appendix 1 Executive Summary – PARAS Consulting Report

January 08 2/50 Geoscience Gap Analysis Executive Summary Offshore Nova Scotia is an underexplored hydrocarbon province. To date some 2.1 bnboe of resource has been discovered in the Sable Island area, much of which is either in production or will shortly be in development (Deep Panuke).

The CNSOPB estimate that the remaining offshore resource potential is of ~12-39 TCF of gas and ~ 1.3 – 4.5 bnbbbls of oil. This resource scale is highly attractive when compared with other areas of the world that are drawing exploration interest.

The production forecast from existing and planned developments shows a marked decline after ~2013. It is clear that aggressive exploration will be required in the very near future to ensure that production is maintained and/or increased over the coming years.

Offshore Nova Scotia has many including its geographic location close to world scale markets. With the forthcoming development of Deep Panuke, there will be an extensive infrastructure network that can transform the economics of even relatively small pools.

Arguably this places Nova Scotia in a very competitive position relative to other exploration opportunities worldwide (e.g. when compared with opportunities in places such as Australia, Ireland, Madagascar, India etc.).

The DoE and CNSOPB have carried out a sound technical work programme over many years to present potential licensees with the information to encourage them to participate in exploration in Nova Scotia. However, following some success, the result in terms of license bids, wells drilled and hydrocarbons won has proved disappointing. The value of the hydrocarbon province has not been fully un-locked. Yet production and proven discoveries demonstrate that there is a working hydrocarbon system.

Early in 2007 the DOE commissioned a study by Gaffney Cline & Associates to assess Nova Scotia's position in the competitive arena for upstream petroleum investments. Gaffney Cline's study gave the following perceptions within the industry about Nova Scotia,

- High cost and difficult conditions
- Not super-major scale but has super-major costs and risks
- Disappointing exploration results
- Lack of basic geological framework which creates a high barrier to entry

Arguably the major concern raised in the Gaffney Cline review is the perception regarding resource scale and the geological risks. This necessarily underpins industry's appetite for engagement in any petroleum basin.

This document reports the results of an analysis to identify gaps in geoscience understanding and data that may be contributing to investors' current reluctance to engage in exploration offshore Nova Scotia.

In order to attract new investors it will be necessary to lower the barriers to entry. One of these is undoubtedly the ability of new investors to easily and quickly develop a good geological understanding of the Nova Scotia offshore basins. The Geoscience Gap Analysis project is aimed at identifying geoscience activities that could help lower the barriers to entry. It is hoped that by lowering these barriers a new more energetic competitive environment will be created through encouraging a wider spectrum of oil companies to assess the offshore Nova Scotia opportunity.

The study concludes that the main “gap” is in the availability of a modern play fairway analysis that describes the scale of the remaining opportunity within a thorough geological framework. It is argued that with the exception of some specialist data requirements, the offshore is actually “data rich”. The main recommendations are

1. Conduct an “industry standard” play fairway study, which should be published
2. Build a database package that can be released together with the fairway analysis.

It is estimated that such an integrated programme will take ~12-18 months to conclude. A budget of ~\$12-15m will be required to deliver this programme.

It is further recommended that the programme uses an organisation which integrates local Nova Scotia based expertise (DOE, CNSOPB, GSC, Dalhousie and St. Mary's Universities) with a contractor that can deliver the core interpretation part of the sub-surface project.

It is highly likely that publishing a quality geological analysis together with an extensive database will be exceptionally distinctive. This would significantly lower the barriers to entry for many oil companies. It will enable a very wide range of companies to quickly assess the regional story and if interested rapidly develop a lead and prospect inventory on which they can assess the economics of potential bids. The products of the recommended programme would inject much competitive urgency into assessments of Nova Scotia, because a very wide range of companies will be able to assess the opportunity at very little risk and cost to them.

Appendix 2

Program Committees – Composition and Mandates

Program Management Committee:

- The program management committee will be composed of the existing RAC members possibly expanded to supplement existing expertise on the RAC, with the program manager participating as an ex-officio member.
- The program management committee will be responsible for monitoring the performance of the successful respondent; ensuring that the required deliverables are provided for the play fairway analysis and geoscience data package; that budgeted funds are spent prudently and effectively; providing general technical direction for the work being conducted; and exercising oversight to ensure the technical and scientific quality of the work, and its credibility and value to potential explorers.
- The management committee will report to the OETR Association Board of Directors, and will make recommendations to the Board for program activities and expenditures. Final authority for spending and project approvals rests with the Board.
- The program management committee will meet quarterly or more frequently if required and will report to the Board at each Board meeting.

Technical Advisory Group (TAG):

- The TAG will be made up of recognized independent external scientific and technical experts in disciplines relevant to the program being carried out. It will have between 6 and 10 members drawn from universities, research organizations, industry and elsewhere. The TAG will be appointed by the management committee.
- The TAG will provide technical and scientific advice to the program management committee that will help to guide the work, the specific projects to be undertaken and their integration to develop the overall play fairway analysis and accompanying data package. In particular the TAG will act as an external peer review body that will assess the quality and merits of all deliverables, and as such will be an integral part of the overall program quality assurance process.
- The TAG will meet and provide advice to the management committee semi-annually or more frequently if required. Because of the geographical distribution of TAG members, it is expected that the meetings will be by teleconference for the most part.

Project Committees:

- Project committees may be established for individual projects. They will be appointed by the program manager in consultation with the individual project manager. Project committee members will be appointed on the basis of their scientific and technical knowledge that is relevant to the specific project. They will

be independent of the project team and not have any real or perceived conflict of interest to ensure their impartiality. The size and composition of project committees will vary from project to project depending on the nature of the project but generally will range in size between 6 and 12 people.

- The responsibilities of the project committees will in general be to provide advice on the terms of reference for specific individual projects; review submitted proposals; rank proposals and recommend the successful proponent; assist the project manager in monitoring project progress and the quality of the work; and reviewing and assessing the adequacy and acceptability of the project deliverables.
- Project committees will report to and provide advice to the project managers. The program manager will be invited to all project team meetings as an observer.