OERA Offshore Energy Research Association

2012-2013 ANNUAL REPORT

Chair's Message 2012-2013

Joshua Leon, Chair, OERA

2012 – 2013 was a year of building upon the strengths of the OEER and OETR Associations through an amalgamation of the two sister organizations into a new entity called Offshore Energy Association (OERA) which came into effect on April 1, 2012. The amalgamation has simplified administration, reduced costs and enabled greater organizational recognition.

To build on our past accomplishments, we began the planning for a Strategic Review, keeping in mind the continued success of the PFA with a record $2.1 billion of exploration commitments in 2012 and the completion of the new research priorities agenda for the Association in early 2013.

Partnerships

We set our sights on continued success by working to implement the *Research Priorities Funding Strategy* that has been developed for both the geosciences and the marine renewable energy sectors. OERA is also in the process of continued strengthening of its partnerships with industry, government, and academia to establish research collaborations.

In support of the five year research priority plan, OERA is developing a focused stakeholder engagement strategy for revenue generation. OERA has a proven successful process model for contract research with both regional and international partners, resulting in a dynamic network of over 200 researchers worldwide. OERA strives to remain a leader in de-risking Nova Scotia's offshore energy resources through the provision of leading edge scientific research.

Research and a Strategic Renewal Plan

As part of an on-going initiative to identify research goals for the next three to five years, OERA developed a comprehensive *Research Priorities Funding Strategy* for both geosciences and marine renewable research. For each, a series of interviews were conducted with key stakeholders as well as a workshop to assess, evaluate and reach consensus regarding where the research focus should be directed in the coming years. For marine geosciences, research activities that build on the successes of the Play Fairway Analysis (PFA) and those that support the provincial regulator's Call for Bids process were assessed as high priority. For marine renewable research, the identified high priority areas include refining resource assessment and site characterization for promising areas, better understanding of environmental impacts from marine renewable developments and advancing engineering technologies.

The five key components to OERA's *Research Priorities Funding Strategy* are: OERA core funding, industry partner funding, new strategy investment (Industrial and Regional Benefits (IRBs)), ever-greening the PFA, and petroleum R&D funding.

In addition to the above priority interests, OERA is in the process of evaluating a research direction in the area of seismic and marine sound. Presently, OERA is soliciting opinions, locally and internationally, to understand the specific knowledge gaps in this area. Following completion of the gap analysis, OERA will explore opportunities to collaborate with others to address these gaps.

Committee support remains integral to the OERA's business. The strategic and operational guidance of the Research Advisory Committees (RAC) provide the direction for the follow through of OERA's agenda while maintaining the objectives of its key stakeholders. Just as important is the work of the Area Sub Committees (ASC), which provides technical and scientific advice on research initiatives to the OERA staff, RAC, and Board.

Events

The Nova Scotia Energy Research & Development Forum held on May 16 and 17, 2012, was a resounding success. There were over 300 delegates, speakers and sponsors in attendance. Our sponsorship was close to $25,000, well above previous Forums. Delegates commented on the professionalism of the event and reported that this Forum was one of the best events they had attended at the international level. An offsite meeting was set up for some local and international experts to participate in a Parrsboro Dialogue focusing on moving forward the tidal energy agenda.

The 6th biannual Forum is scheduled for May 2014 and we're aiming even higher because the Forum is now established as one of the foremost energy research and development conferences anywhere. The Nova Scotia Energy Research & Development Forum has built a strong reputation and solid credibility among people in the industry. The number of delegates grows every year because the Forum always has a strategic agenda and offers top industry and research speakers. In addition to beginning the preparatory work for the May 2014 Forum, OERA sat on the Steering Committee for the Tidal Symposium, to be held in May 2013. The OERA will also work closely with Marine Renewables Canada on the preparation for the International Conference on Energy to be held in Halifax in November 2014.

The OERA team continues to attend international conferences, workshops and meetings to share ideas and learn more about the ever-changing energy sector. The network of researchers that we build through these international events is invaluable in terms of our strategic planning and prioritization of research.

Acknowledgements

My thanks to fellow OERA Directors: Jeff Somerville, Kevin Vessey, Tom Herman, Bob Bailey, Bob MacKay, Jim Gogan and Bruce Cameron, and Keith De'Bell each of whom has given generously of their time and talents. It has been a pleasure working with all of them over the past year. Stephen Dempsey's work on the strategic planning and research priority-setting process has successfully led the Association through the amalgamation process and he continues to work tirelessly on to set out a renewed research strategy for OERA. His insights and knowledge are vital to the growth of the association.

OERA has a strong staff complement, sound financial management practices and an active and involved Board of Directors and membership. Over the past year, the Association office team has grown to keep pace with our busy research program. I want to acknowledge the ongoing excellence of Wanda Barrett who ensures the efficient daily operation and Jennifer Pinks who manages the Encana Call for Bids and OERA's research program. Nalani Perry continues to provide excellent support to our research program and we look forward to her continued growth in the association. We extend a welcome to the newest member of our team - Lisa LaRoux who joined us in late 2012-13 with a strong background in administration and technology. In addition to our full-time staff, we've worked very closely with David Reid, Cox & Palmer, and Karen Fraser, Accountant, on legal and financial matters relating to the amalgamation and greater efficiencies in financial accounting and Carey Ryan on the research priority process and funding diversification.

We continue to be grateful to the Province of Nova Scotia for their funding which allows us to carryout ground-breaking research.

This Annual Report includes the Board's financial statements and Auditor's report for the year ending March 31, 2012.

Who We Are 2012-2013

The Offshore Energy Research Association of Nova Scotia (OERA) was established in March, 2006 and operates as a not-for-profit contract research association. OERA's mandate is to foster research and development related to offshore petroleum, renewable energy resources and their interaction with the marine environment, and the diffusion of that knowledge. Our vision is to be the leading energy research organization in the country, providing efficient, timely and strategic solutions to complex research challenges. OERA membership includes the Nova Scotia Department of Energy, Acadia University, Cape Breton University, St. Francis Xavier University, Dalhousie University and Saint Mary's University.

Our members:

Saint Mary's University Since 1802
One University. One World. Yours.

Cape Breton University

Nova Scotia Department of Energy

Dalhousie University
Inspiring Minds

StFX University

Acadia University

Board of Directors 2012-2013

Joshua Leon, Chair and Director
Dalhousie University

Tom Herman, Vice-Chair and Director
Acadia University

Bruce Cameron, Director and Secretary
Nova Scotia Department of Energy

Keith De'Bell, Director
St. Francis Xavier University

Robert Bailey, Director
Cape Breton University

Kevin Vessey, Director
Saint Mary's University

Jeff Somerville, Director and Treasurer

Robert MacKay, Director

Jim Gogan, Director

Our Team

Our Staff

Stephen Dempsey, Executive Director
Wanda Barrett, Operations Manager
Jennifer Pinks, Research Manager
Nalani Perry, Research Assistant
Lisa LeRoux, Operations Assistant

Consultants

Finance:	Karen Fraser, Accountant
Legal:	David Reid, Cox & Palmer
Audit:	Grant Thornton
Business Development:	Carey Ryan

The strength of the team is each individual member.
The strength of each member is the team.

Our Committees 2012-2013

Environmental Research Advisory Committee

Rod Doane, *Fisheries and Oceans Canada, Chair*
Gord MacDonald, *Area 23 Snow Crab Fisherman's Association*
Lucia MacIsaac, *Cape Breton University*
Sandra Farwell, *Nova Scotia Department of Energy*
Graham Daborn, *Acadia University*
Edwin DeMont, *St. Francis Xavier University*
John Wanczycki, *Environmental Services Association Nova Scotia (ESANS)*
Eric Theriault, *CNSOPB*
Stephen Dempsey, *(Executive Director) OERA*

Geoscience Research Advisory Committee

Sandy MacMullan, *Nova Scotia Department of Energy*
Kim Doane, *Nova Scotia Department of Energy*
Carl Makrides, *CNSOPB*
Brent Smith, *CNSOPB*
Andrew MacRae, *Saint Mary's University*
Sonya Dehler, *Natural Resources Canada*
John Hogg, *MGM Energy Corporation*
Paul Durling, *Corridor Resources*
Mladen Nedimovic, *Dalhousie University*
Stephen Dempsey (Executive Director) - *OERA*

Tidal Area Sub-Committee

The Area Sub-Committees (ASC) are standing committees that provide technical and scientific advice to OERA (RAC, staff and/or a designated Program Manager) on the specific projects or programs that should be undertaken, and may provide advice to research proponents on aspects of proposals that can be improved to better suit the ASC's interests.

Marine Sound Area Sub-Committee

Gord MacDonald, *Area 23 Snow Crab Fisherman's Association, Chair*
Eric Theriault, *CNSOPB*
Paul Barnes, *CAPP*
Kim Doane, *Nova Scotia Department of Energy*
Hilary Moors-Murphy, *Fisheries & Oceans Canada*
Jim Theriault, *Defense Research & Development Canada (DRDC)*

Geoscience Program Management Committee

The Program Management Committee acts as the management committee for the Offshore Petroleum Play Fairway Analysis and Geoscience Data Package Program.

The achievements of an organization are the results of the combined effort of each individual.

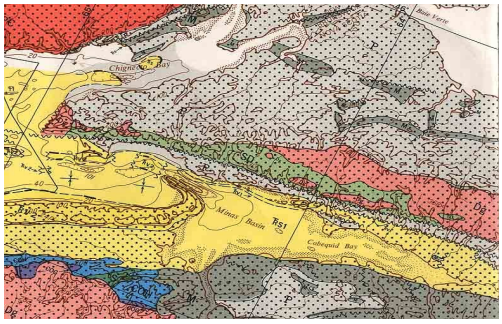
Geoscience Research 2012-2013

By 2012, OERA's geoscience Phase I research initiatives, including the landmark Play Fairway Analysis (PFA) project, was wrapping up or completed. OERA recognizes the need to build on the successes of the PFA and to complete an evaluation to identify where research gaps remain leading to the prioritization of specific research areas in order to reactivate exploration offshore Nova Scotia.

OERA commissioned the priorities exercise in summer 2012, enlisting the support and expertise from key stakeholders including the OERA (Geoscience) Research Advisory Committee (RAC), the Canada Nova Scotia Offshore Petroleum Board (CNSOPB), the Geological Survey of Canada (GCS), the Nova Scotia Department of Energy- Petroleum Resources Group and select industry representatives to participate in the initiative. Through a series of interviews, workshops, and scoring/ranking exercises, a set of five priority geoscience research theme areas were identified.

The set of priorities listed is viewed as critical to driving OERA's geoscience agenda in the coming years. Cumulative total resource to implement all five programs is anticipated to be $4.5 - 6 million.

Geosciences Research Priorities



Petroleum geochemistry focused on the south west portion of the Nova Scotia offshore with the primary objective of establishing/confirming the presence of early Jurassic source rock.

Biostratigraphy, provenance, thermal history and the nature of the hydrocarbon systems to develop a better understanding of the history of sedimentation in offshore Nova Scotia between the Triassic to middle Jurassic periods, particularly in the deep water in the southwest.

Reservoir quality in the Sable area and to the northeast intended to better determine the quality of the reservoirs in the region. The work needs to be considered in a regional context with the priority of sub- projects determined by data availability, quality, timing of Calls, etc.

Seismic reprocessing and analysis in the Orpheus Graben and Sydney Basin, as well as other selected areas, to better understand the basins' architecture and stratigraphic successions, as well as salt distribution; an important step forward in improving their prospectives.

Oil Rim. To improve understanding of the oil rim complex that runs north and northeast of the Sable sub-basin, by refining where there likely exists significant oil potential in Jurassic, Cretaceous and possible younger sands.

Marine Renewables Research 2012-2013

Marine Renewables Energy Research - Phase I and II

With an extensive range of experienced researchers from industry, government and academia to draw on, Nova Scotia has the opportunity to develop a strategic tidal energy research agenda. To assist with developing the research agenda, the Province of Nova Scotia provided funding to OERA to manage tidal energy research. In 2010 OERA approved eight research hydrodynamic modeling projects in the Bay of Fundy totaling $1.2 million which have been completed. In 2011 an additional seven projects were approved by OERA, which will be completed by spring 2014, in the amount of $1.1 million in the areas of: fish behavior and tracking, passive acoustic monitoring of cetacean activity patterns, temporal monitoring techniques, sediment dynamics, computational fluid dynamics, and turbulence. See OERA's website at *www.oera.ca* for more details.

Marine Renewables Research 2012-2013

Priorities

OERA's initial MRE research programs, specifically, its '*Tidal Phase I* and *Tidal Phase II*' projects commenced in 2010, where presently, all Phase I projects are now complete and Phase II projects are either complete or shall be by early 2014. With such programs drawing to conclusion and the ever evolving nature of the research investment, OERA recognized it needed to assess its research accomplishments to date, then evaluate where gaps remained and identify what new priorities would best support the growth of the sector.

Similar to the geosciences priorities exercise, setting tidal priorities required input and advice from the Nova Scotia based MRE community. OERA spearheaded a collaborative effort with key MRE stakeholders from industry, academia, and (federal and provincial) government to determine a set of research priorities as follows:

- ***Deployment, Retrieval, Mooring Systems and Station-keeping in High Flow Environments*** – develop the capability for cost effective deployment and retrieval of equipment in high flow conditions as well as anchoring and mooring systems and procedures.
- ***Resource Assessment*** – continue to identify, assess, and characterize the best potential candidate sites for tidal power development in coastal Nova Scotia.
- ***Monitoring effects of turbines on fish and marine mammals*** – understand the effects of turbines and arrays on fish and marine mammal behaviour and mortality.
- ***Monitoring and optimizing operational and life*-cycle cost performance of turbines and related equipment** – understand the most suitable designs for a given set of operating conditions; monitor performance; maintain the integrity of the assets so that they remain fit for purpose and reduce life cycle costs and opportunities for cost reduction.

Strategic Environmental Assessment – Phase I

In 2008 the Province of Nova Scotia provided funding to OERA to carry out a Strategic Environmental Assessment Phase I of the Bay of Fundy, to provide advice on whether, when and under what conditions tidal energy demonstration and commercial projects should be allowed. Phase I SEA put forward 29 recommendations to the Province to guide a strategic approach to the development of marine renewable energy in the Bay of Fundy.

Cape Breton SEA – Phase II

In the spring of 2012, OERA approved funding to undertake a background report as the first step in developing a SEA for the Cape Breton region, inclusive of the Bras d'Or Lakes. The background report was completed by AECOM Canada over the period of April to December 2012. The report identifies key environmental issues that describe the environmental and socioeconomic issues of interest around marine renewable energy projects and the data and information gaps that will need to be addressed if marine renewable energy projects receive regulatory approval in the future. In March 2013, Stantec Consulting was awarded a contract by OERA to undertake the community engagement consultation process for the Cape Breton SEA with completion set for late October 2013.

The Social License has been defined as existing when a project has the ongoing approval within the local community and other stakeholders, ongoing approval or broad social acceptance and, most frequently, as ongoing acceptance.

Bay of Fundy SEA Update

Phase II

Since the completion of the initial 2008 Bay of Fundy SEA, the tidal energy opportunities in the Bay of Fundy has progressed requiring an update to reflect growth in the environmental knowledge base and the current state of the industry regionally and globally. In April 2013, OERA awarded AECOM Canada a contract to update the 2008 background report including consultation piece and 29 recommendations with completion set for late December 2013.

Additional grants were provided for complementary projects under the Strategic Environmental Assessment which are now complete and include:

Mi'kmaq Ecological Knowledge Study

(Jason GooGoo, Membertou Geomatic Solutions and Dana Morin, Fundy Tidal Inc.)

An ecological knowledge study of the Brier Island and Long Islands area of the Bay of Fundy, including Grand Passage and Petite Passage, to consider the land and water area and identify what the Mi'kmaq traditional use activity that has, or is currently taking place, within the study area.

Southwest Nova Scotia Tidal Resource Assessment

(Alex Hay, Dalhousie University, Richard Karsten, Acadia University, Tim Webster, Nova Scotia Community College and Dana Morin, Fundy Tidal Inc.)

An assessment of the in-stream tidal resources in Southwest Nova Scotia using Acoustic Doppler Current Profilers (ADCPs) to collect data in Petit Passage, Grand Passage, Digby Gut to provide an electronic data set and report on the resource potential of the southwest Nova Scotia region.

Bras D'Or ADCP Deployments and Data Analysis

(Bruce Hatcher, Cape Breton University, Alex Hay and Greg Trowse, Dalhousie University)

This project collected flow information by deploying Acoustic Doppler Current Profilers (ADCPs) at Barra Strait, Seal Island Bridge and Carey Point and the data has provided recommendations regarding the potential for these, and other, tidal energy developments in Cape Breton.

Our past, our present, and whatever remains of our future, absolutely depend on what we do now.

Community & Business Toolkit for Tidal Energy Development

(Dr. Shelley MacDougall and Dr. John Colton, Acadia University)

The Toolkit provides a comprehensive overview and guideline for tidal energy development covering the science, technology, business and community aspects of tidal energy development in Nova Scotia; effectively integrating applied, natural and social sciences and can serve as a model for future applied interdisciplinary work on tidal energy and marine renewables.

Community Engagement Strategies & Resource Guide to Support Small-Scale Tidal Power in Nova Scotia

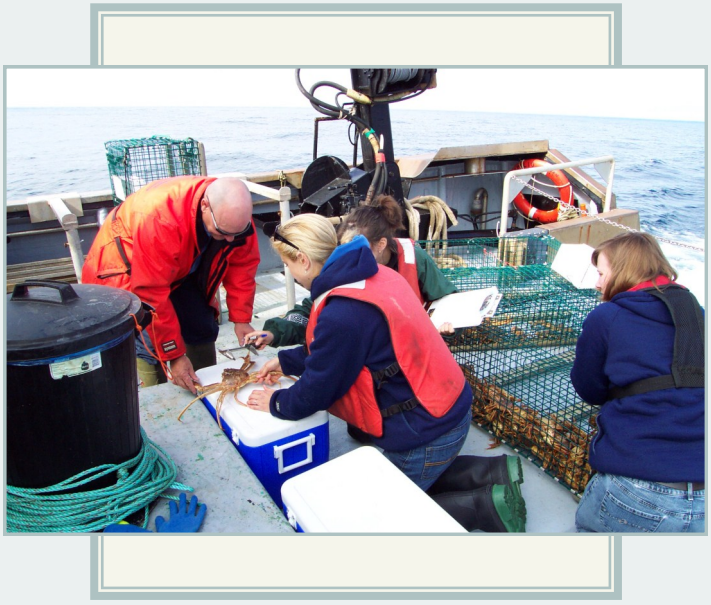
(Dr. John Colton, Acadia University)

This project builds on the Community & Business Toolkit for Tidal Energy Development as an addendum to its Community and Stakeholder Module to provide a comprehensive step-by-step guide for community engagement for usage by all stakeholders involved in tidal power development including municipal, provincial, industry and academic interests.

Seismic & Marine Sound 2012-2013

OERA's seismic marine sound projects, past and present, have been largely focused on the relationship between seismic and snow crabs. However, a priorities exercise to broaden the scope of research is set to commence in late 2013. Seismic research is certainly a subject of international interest, where millions of dollars are spent annually by industry, academia and government to study how seismic activity may impact the marine environment. The intent is to set research priorities that are most relevant to addressing the knowledge gaps affecting the North Atlantic and specifically Nova Scotia's offshore, and avoid duplicate efforts happening or planned elsewhere in the international research community. Additionally, initial discussions have been undertaken with Petroleum Research Newfoundland (PRNL) to explore opportunities for collaboration this area.

In 2012-13, OERA funded two Seismic Invertebrate projects totaling $1.2 million to focus on the impact of seismic exploration on marine invertebrates as follows:



Seismic Invertebrate Projects

Establishment of Baseline Biological Data on Snow Crab (Chionoecetes opilio) Offshore Cape Breton for Future Assessment of Potential Impacts of Seismic Noise on Snow Crab

Dr. Mikio Moriyasu, et al., Fisheries and Oceans Canada - Completion Date: December 2014

This project aims to improve understanding of the fundamental biological characteristics of snow crabs in their natural habitat and the physiological effects of handling.

The Impact of Seismic on the Environment

(Eirik Sonneland, Biota Guard AS, Norway) - Completion Date: September 2013

This project aims to map the possible effects of seismic exposure on snow crab by introducing a system that combines advanced biosensor technology capable of monitoring physiological and behavioural traits in crustaceans and molluscs with leading conventional oceanographic sensors to continuously monitor the marine environment.

Dalhousie University & Strathclyde University

(Dr. Darrel Doman, Dalhousie University)

The specific purpose of the research is to investigate and inform novel and cost-effective engineering solutions to extract and deliver energy from tidal flows. A key objective of the project is to participate in a student exchange as part of an international collaboration between Dalhousie University and the University of Strathclyde. Student research will focus on introducing new tidal turbine blade designs. Specifically, a system engineering approach will be developed to optimize blade shape as well as mechanical components that will advance the science, methodologies and applications regarding the way power is captured, converted and delivered.

OERA's Student Travel Program

OERA's mission is to lead energy research that enables the sustainable development of Nova Scotia energy resources through strategic partnerships with academia, government and industry. We have a great resource in our students who are the next stewards of our energy resources. It is our responsibility to ensure that they get the support they need to broaden local knowledge and collaborate with experts locally and internationally to look at lessons learned elsewhere and new ideas to get us where we need to be in energy development. In January 2012 travel grants were awarded to five students with projects in Scotland, Australia, Trinidad-Tobago and Finland.

Alone we can do so little; together we can do so much

OERA's event networking for 2012-13 profiled local, national and international conferences in both the geoscience and marine renewable energy sectors, which included: Atlantic Ireland 2012, CORE Energy 2012, MRE Sep 2012, Oceans Week, and Central & North Atlantic Conjugate Margins Conference. The sharing of knowledge and the participation in collaborative research projects strengthens OERA's connection with stakeholders, researchers and public officials to ensure a continued movement forward in the development Nova Scotia's offshore and marine renewable sectors.

Research Doesn't Cost – it Pays!
January 28, 2012, Chronicle Herald
Shell Canada Limited's recent decision to invest almost $1 billion to explore for oil and gas reserves in Nova Scotia's off-shore energy sector is exciting news. That level of exploration activity, which is the highest ever committed on Canada's East Coast, will translate into a lot of local spending — creating jobs and stimulating the economy for years to come. And that is not even taking into account the potential benefit of royalty revenues to the province that would be attributable when any production activity commences.

Shell Millions Tied to Study
May 16, 2012, Chronicle Herald
A $15-million government-funded study on Nova Scotia's offshore oil and gas potential helped spur Shell's $1-billion exploration program here, a Houston-based chief geologist with the global energy giant said Wednesday in Halifax.
http://royaldutchshellplc.com/2012/05/17/shell-millions-tied-to-study/

Offshore Energy Research Association of Nova Scotia Announces Contract Signing with Biota Guard A.S., of Stavanger, Norway, to Study Impacts of Seismic on the Environment to Assist Nova Scotia to Determine if Snow Crabs are Susceptible to Exposure to Sound Energy
June 4, 2012, OERA Press Release
OERA has commissioned Biota Guard to introduce a system of biosensor technology to snow crab that is capable of monitoring physiological and behavioural traits in crustaceans and molluscs to continuously monitor the marine environment. The objective of the project is to assist Nova Scotia to determine if snow crabs are susceptible to exposure to sound energy.

Nova Scotia, BC to share marine renewable development information
September 12, 2012, News Release: Ministry of Energy, Mines and Natural Gas, BC
The provinces of Nova Scotia and British Columbia have signed a Memorandum of Understanding that will encourage greater collaboration on tidal energy research and policy development. http://www2.news.gov.bc.ca/news_releases_2009-2013/2012EMNG0004-001335.htm

Harper Government Champions Growth of Canada's Ocean Energy Sector at Dublin Conference
October 17, 2012, Government of Canada
While delivering today the welcoming remarks at the International Conference on Ocean Energy in Dublin, Ireland, the Honourable Bernard Valcourt, Associate Minister of National Defence and Minister of State (Atlantic Canada Opportunities Agency) (La Francophonie) announced that Halifax, Nova Scotia has been selected to host the next edition of this event in 2014. He also highlighted Canadian expertise and competence in this emerging sector, and promoted the many advantages to doing business in Canada.
http://www.canadainternational.gc.ca/ireland-irlande/highlights-faits/2012/OceanEnergyEnergieMarine.aspx?lang=en

Canada Wins Bid to Host the 2014 International Conference on Ocean Energy
October 18, 2012, Trade Centre Limited
Halifax, Nova Scotia will be host to the fifth International Conference on Ocean Energy (ICOE) in October 2014, slated to attract between 700-800 leaders and experts in the global marine renewable energy industry. The Associate Minister of National Defence and Minister of State (Atlantic Canada Opportunities Agency) (La Francophonie), the Honourable Bernard Valcourt announced today at the 4th ICOE in Dublin, Ireland that Canada has won the bid to host the event's first showing outside of Europe.
http://www.tradecentrelimited.com/en/home/news/newsandpress/icoe2014.aspx

Energy: Can Bay of Fundy Ferries Run on Tidal Power?
October 18, 2012, Bay of Fundy
A Nova Scotia tidal energy developer is floating the idea of a hybrid ferry for a Digby Country route.
http://bayoffundy.ca/archives/3835

North America's Leading Tidal Energy Institutes Forge an Alliance
November 6, 2012, OERA Press Release
Stephen Dempsey, Executive Director of OERA, and John Miller, Director of the New England Marine Renewable Energy Center (MREC) of Massachusetts, United States signed a Letter of Intent (LOI), to help advance the marine renewable energy industry worldwide.

Energy Group: Fundy Tidal Issues Need Fresh Eye
December 12, 2012, Chronicle Herald
The Offshore Energy Research Association of Nova Scotia wants a new look at the environmental impacts of tidal energy developments in the Bay of Fundy.
http://thechronicleherald.ca/business/244606-energy-group-fundy-tidal-issues-need-fresh-eye

Completion of the Strategic Environmental Assessment (SEA) Background Report for Cape Breton
January 17th, 2013, OERA Press Release
OERA announces the completion of the Cape Breton SEA Background Report – a comprehensive study aimed at exploring the social, economic and environmental features and effects associated with marine renewable energy projects in coastal Cape Breton and the Bras d'Or Lakes.

Tidal Energy and Offshore Petroleum Research: OERA Awards Graduate Student Funds
February 12, 2013, OERA Press Release
OERA has awarded travel funds, ranging from $2,000 to $3,700 each, to support graduate student research in projects related to tidal marine energy and offshore petroleum/geoscience research.

Student Power is Cost-Effective and Abundant

February 20, 2013, Chronicle Herald

Most of us living in Nova Scotia already know that even though we are a small province, we have more universities than anywhere else in the country. But what we might not know is how important these university students are in connecting all of us to the world — that is 35,000 student connections, with almost 15 per cent enrolled in post-graduate programs, building a powerful knowledge network in our province.

http://thechronicleherald.ca/opinion/735488-student-power-is-cost-effective-and-abundant

Double Dip for Canadian Marine

May 13, 2013, reNews

The Offshore Energy Research Association of Nova Scotia has awarded a pair of strategic environmental assessment contracts for marine renewables.

http://renews.biz/41424/double-dip-for-canadian-marine/

Grant Thornton

Independent auditor's report

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To the members of the Board of Directors of
Offshore Energy Research Association of Nova Scotia

We have audited the accompanying financial statements of Offshore Energy Research Association of Nova Scotia, which comprise the balance sheets as at March 31, 2013, March 31, 2012 and April 1, 2011, and the statements of revenue and expenses and net assets and cash flows for the years ended March 31, 2013 and March 31, 2012, and a summary of significant accounting policies and other explanatory information.

Management's responsibility for the financial statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with Canadian accounting standards for not-for-profit organizations, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's responsibility

Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits in accordance with Canadian generally accepted auditing standards. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the Association's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Association's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained in our audits is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the financial statements present fairly, in all material respects, the financial position of Offshore Energy Research Association of Nova Scotia as at March 31, 2013, March 31, 2012 and April 1, 2011, and the results of its operations and its cash flows for the years ended March 31, 2013 and March 31, 2012 in accordance with Canadian accounting standards for not-for-profit organizations.

Grant Thornton LLP

Halifax, Canada
July 12, 2013

Chartered accountants

Offshore Energy Research Association of Nova Scotia
Statements of revenue and expenses and net assets

Year ended March 31	2013	2012 (note 3)
Revenue		
Contributions (note 6)	$ 2,007,425	$ 1,939,255
Management services agreement	56,593	124,403
Interest income (note 4)	98,774	86,439
	2,162,792	2,150,097
Cost of research		
Projects	1,704,049	1,756,822
Research management	115,370	134,759
Seminars and forums	188,006	47,674
	2,007,425	1,939,255
Excess revenue before operations expenses	155,367	210,842
Expenses		
Advertising and promotion	91,151	14,035
Contracts, salaries and benefits for executive services	165,550	108,272
Contracts, salaries and benefits for office services	166,675	193,438
Insurance	7,447	5,987
Interest and service charges	7,558	1,318
Office and miscellaneous	17,479	9,631
Professional fees – audit, accounting and legal	54,250	39,315
Professional fees – governance	16,957	-
Rent – premises	28,058	29,227
Travel, meals and accommodations	10,333	4,515
	565,458	405,738
Excess costs and expenses before amortization	(410,091)	(194,896)
Amortization expense	-	(1,103)
Excess of costs and expenses over revenue	$ (410,091)	$ (195,999)
Net assets, beginning of year	$ 3,679,743	$ 3,875,742
Excess of costs and expenses over revenue	(410,091)	(195,999)
Net assets, end of year	$ 3,269,652	$ 3,679,743

See accompanying notes to the financial statements.

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Offshore Energy Research Association of Nova Scotia
Balance sheets

March 31	2013	2012 (note 3)	April 1, 2011 (note 3)
Assets			
Current			
Cash	**$ 53,667**	$ 683,323	$ 1,773,922
Short term investments (note 4)	**7,514,170**	7,827,571	9,127,527
Receivables	**284,320**	435,960	904,767
HST recoverable	**227,408**	821,811	756,934
Prepaid expenses	**6,755**	31,541	2,574
	8,086,320	9,800,206	12,565,724
Deferred costs (note 5)	**-**	-	1,103
	$ 8,086,320	$ 9,800,206	$ 12,566,827
Liabilities			
Current			
Payables and accruals	**$ 326,981**	$ 232,681	$ 1,318,528
Deferred revenue (note 6)	**4,489,687**	5,887,782	7,372,557
	4,816,668	6,120,463	8,691,085
Net assets	**3,269,652**	3,679,743	3,875,742
	$ 8,086,320	$ 9,800,206	$ 12,566,827

Commitment (note 7)
Amalgamation (note 9)

On behalf of the Board

Director

Director

See accompanying notes to the financial statements.

3

Offshore Energy Research Association of Nova Scotia
Statements of cash flows

Year ended March 31	2013	2012 (note 3)
Increase (decrease) in cash and cash equivalents		
Operating		
Excess costs and expenses over revenue	**$ (410,091)**	$ (195,999)
Amortization – deferred costs	**-**	1,103
	(410,091)	(194,896)
Change in non-cash operating working capital		
Receivables	**151,640**	468,807
HST recoverable	**594,403**	(64,877)
Prepaid expenses	**24,786**	(28,967)
Payables and accruals	**94,300**	(1,085,845)
Deferred revenue	**(1,398,095)**	(1,484,777)
Net decrease in cash and cash equivalents	**(943,057)**	(2,390,555)
Cash and cash equivalents, beginning of year	**8,510,894**	10,901,449
Cash and cash equivalents, end of year	**$ 7,567,837**	$ 8,510,894
Cash and cash equivalents consist of:		
Cash	**$ 53,667**	$ 683,323
Short term investments	**7,514,170**	7,827,571
	$ 7,567,837	$ 8,510,894

See accompanying notes to the financial statements.

4

Offshore Energy Research Association of Nova Scotia
Notes to the financial statements

March 31, 2013

1. Nature of operations

Offshore Energy Research Association of Nova Scotia ("OERA" or the "Association") was incorporated under the Canadian Business Corporations Act on March 22, 2006. It serves communities, corporations and governments requiring information through research into the impacts of offshore energy activity. It is exempt under the Income Tax Act as a non-profit organization.

2. Summary of significant accounting policies

These financial statements have been prepared in accordance with Canadian accounting standards for not-for-profit organizations ("ASNPO") and include the following significant accounting policies:

Revenue recognition
The Association follows the deferral method of accounting for contributions. Contributions from the Provincial Department of Energy and other government sources are allocated to projects as intended upon receipt and recognized as revenue in the year which related expenditure are incurred. Contributions receivable are recorded if the amount to be received can be reasonably estimated and collection is reasonably assured. Revenue for the management service agreement and interest are recorded on the accrual basis, once collectability is reasonably assured.

Deferred revenue
Deferred revenue consists of that portion of contributions received but not yet earned.

Revenue received as grants or contributions and intended for specific project expenditures as envisioned when the grant was made are recorded as deferred revenue. Once an actual expenditure is incurred, an equal or appropriate amount of deferral is recognized as revenue in the year. Deferred revenue thereby consists of contributions received from government for specific purposes for which expenditure contracts may not yet be undertaken.

Cash and cash equivalents
Cash and cash equivalents for the purpose of the statement of cash flows include cash on hand, balances with banks and short term investments.

Deferred costs
Deferred costs consist of web software and design costs incurred to initially establish operations. The costs have been fully expensed at March 31, 2013.

Contracts for office services
Expenditures for office services are allocated between research projects and overhead expenses on an estimated basis. The expense named "Contracts, salaries and benefits for office services" is the Association's staff costs of administration excluding costs of the Executive Director and Research Manager. The Research Manager's contract costs are fully allocated to Research project costs whereas the full costs of the Executive Director and other staff costs are recorded as expenses where incurred.

Offshore Energy Research Association of Nova Scotia
Notes to the financial statements
March 31, 2013

2. Summary of significant accounting policies (continued)

Use of estimates
Management reviews the carrying amounts of items in the financial statements at each balance sheet date to assess the need for revision or any possibility of impairment. Many items in the preparation of these financial statements require management's best estimate. Management determines these estimates based on assumptions that reflect the most probable set of economic conditions and planned courses of action. These estimates are reviewed periodically and adjustments are made to net income as appropriate in the year they become known.

Financial Instruments
Initial measurement
The Association's financial instruments are measured at fair value when issued or acquired. For financial instruments subsequently measured at cost or amortized cost, fair value is adjusted by the amount of the related financing fees and transaction costs. Transaction costs and financing fees relating to financial instruments that are measured subsequently at fair value are recognized in operations in the year in which they are incurred.

Subsequent measurement
At each reporting date, the Association measures its financial assets and liabilities at cost or amortized cost (less impairment in the case of financial assets), except for equities quoted in an active market, which must be measured at fair value. The financial instruments measured at amortized cost are cash and cash equivalents, accounts receivable, grants receivable and accounts payable.

For financial assets measured at cost or amortized cost, the Association regularly assesses whether there are any indications of impairment. If there is an indication of impairment, and the Association determines that there is a significant adverse change in the expected timing or amount of future cash flows from the financial asset, it recognizes an impairment loss in the statement of operations. Any reversals of previously recognized impairment losses are recognized in operations in the year the reversal occurs.

3. First-time adoption

These financial statements are the Association's first financial statements prepared using ASNPO. The date of transition to ASNPO is April 1, 2011. The accounting policies presented in note 2 to the financial statements were used to prepare the financial statements for the year ended March 31, 2013, the comparative information and the opening balance sheet as at the date of transition.

Impact of transition on net assets as at April 1, 2011
The impact of the transition to the new accounting standards on the Association's net assets at April 1, 2011, the date of transition, is nil.

Reconciliation of excess of revenues over expenses as at March 31, 2012
The excess of revenues over expenses as at March 31, 2012 determined using the new accounting standards is equivalent to that determined using the previous accounting standards (pre-changeover accounting standards).

Offshore Energy Research Association of Nova Scotia
Notes to the financial statements
March 31, 2013

3. First-time adoption (continued)

Statement of cash flows
Accounting standards regarding cash flows included in the new accounting standards are similar to those included in the previous accounting standards. The Association has not made any adjustment to the statement of cash flows.

Exceptions relating to first-time adoption
Section 1501 *First-time adoption by not-for-profit organizations* contains exemptions to full retrospective application which the Association may use upon transition. The Association did not apply any optional exemptions.

4. Short term investments

	Cost	Accrued Interest	Total	**March 31, 2013 Market**	March 31, 2012 Market	April 1, 2011 Market
RBC Investment Savings Account	$ 7,514,170	$ -	$ 7,514,170	**$ 7,514,170**	$ 7,827,571	$ 9,127,527

Interest earned on the investments was $98,774 (2012 - $86,439).

5. Deferred costs

	Rate	Cost	Accumulated Amortization	**March 31, 2013 Net Book Value**	March 31, 2012 Net Book Value	April 1, 2011 Net Book Value
Web design and software	25%	**$ 5,514**	$ 5,514	$ -	$ -	1,103

6. Deferred revenue

	Funding	Recognized as Revenue (Contributions)	**March 31, 2013 Deferred Revenue**	March 31, 2012 Deferred Revenue	April 1, 2011 Deferred Revenue
Research projects	$ 514,000	$ 1,945,095	**$ 4,439,687**	$ 5,870,782	$ 7,291,245
Seminars and forums	95,330	62,330	**50,000**	17,000	81,312
	$ 609,330	$ 2,007,425	**$ 4,489,687**	$ 5,887,782	$ 7,372,557

7. Commitment

The Association has entered into a lease for office space in Halifax, Nova Scotia. The lease expires in 2014 with total rental commitments in 2013-14 of $30,015, including HST and operating costs.

Offshore Energy Research Association of Nova Scotia
Notes to the financial statements
March 31, 2013

8. Comparative figures

Certain of the comparative figures have been reclassified to confirm with the presentation adopted in the current year.

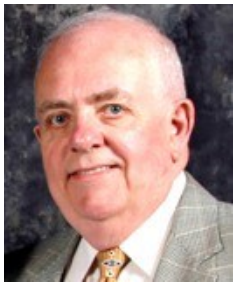
9. Amalgamation

Effective April 1, 2012, OETR Association and OEER Association amalgamated to create a new entity, Offshore Energy Research Association of Nova Scotia ("OERA"), which carried on the activities of OETR Association and OEER Association. OETR Association and OEER Association ceased to exist as separate entities as at March 31, 2012, although for Canada Revenue Agency purposes, the OEER Association business number was maintained for OERA.

The amalgamation has been accounted for as a continuity of interest, and, accordingly, the assets, liabilities, net assets and operations from the predecessor associations have been combined in the amalgamated association. Interassociation balances and transactions have been eliminated. The following is a summary of the net assets brought into the amalgamation by each of the combining associations:

	OETR Association	OEER Association	Eliminate Interassociation	Amalgamated
March 31, 2012				
Total assets	$ 3,604,692	$ 6,288,901	$ (93,387)	$ 9,800,206
Total liabilities	1,980,557	4,233,293	(93,387)	6,120,463
Net assets	$ 1,624,135	$ 2,055,608	$ -	$ 3,679,743
April 1, 2011				
Total assets	$ 5,718,491	$ 6,848,336	$ -	$ 12,566,827
Total liabilities	3,962,945	4,728,140	-	8,691,085
Net assets	$ 1,755,546	$ 2,120,196	$ -	$ 3,875,742

Board of Directors 2012-2013



Robert MacKay
Director

Bob MacKay is the principal of RAMentor Strategic Consulting and provides strategic planning advice to companies in their business dealings with governments and the petroleum sector.

Prior to his retirement in 2004 from the public service of the Province of Nova Scotia, Bob MacKay held a number of senior executive positions in the government of Nova Scotia, the most recent of which were Senior Advisor to the Premier and as Chief Executive Officer of the Office of Economic Development. During the 1990's, Mr. MacKay served as Deputy Minister for the Technology and Science Secretariat, Intergovernmental Affairs, Priorities and Planning Secretariat and dual roles as Premier's Deputy and Secretary to the Executive Council.

Prior to joining the provincial government, Mr. MacKay was a business management consultant specializing in the energy sector. His consultancy business followed 11 years with Petro-Canada where he had operational responsibility for the company's activities in the Maritimes and provided staff support for undertakings throughout Atlantic Canada. Since 2009, Mr. MacKay had been the chairperson of the Transitional Board, Nova Scotia Agricultural College (NSAC), who's task was to develop a new governance model for NSAC as it ceased to be part of a Provincial Government Department. NSAC is now part of Dalhousie University as a Faculty of Agriculture and is governed as such.

Tom Herman
Vice-Chair and Director

TOM HERMAN is Vice-President Academic and Professor of Biology at Acadia University. For more than 30 years, he and his students have explored the interface between humans and biodiversity. A population biologist with particular interest in small fragmented populations and their conservation, he is also keenly interested in the role of science in managing protected areas, and in the role of citizen science and community engagement in recovery of species-at-risk. Tom sits on several national and regional advisory committees on endangered biodiversity, and holds an adjunct appointment in Natural Resource Sciences at McGill University. He is also Vice-Chair of the Mersey Tobeatic Research Institute, Vice-Chair of the Acadia Centre for Social and Business Entrepreneurship and a former President of the Canadian Society of Zoologists.

Bruce Cameron
Director and Secretary

BRUCE CAMERON is Executive Director Sustainable and Renewable Energy. He leads the Department of Energy on renewable energy, electricity policy, energy conservation and efficiency and growing the use of natural gas. He is the Government's representative on the Board of the Province's offshore energy research associations – OERA. Mr. Cameron did his undergraduate work in the social sciences at Carleton University in Ottawa and received an MBA from Dalhousie University in 1985.

Mr. Cameron has been involved in energy issues and policies since 1999 in a variety of leadership roles. He also spent three and a half years with the Nova Scotia Department of Finance.

Board of Directors 2012-2013

Jim Gogan
Director

JIM GOGAN graduated from St. Francis Xavier University with an Honors Degree in Business Administration and from Dalhousie University with a Bachelor of Laws Degree. Jim subsequently obtained his Chartered Accounting designation and practiced within an Atlantic Canadian Accounting Firm. He is a partner with the law firm, The Breton Group, and practices primarily in the areas of commercial, taxation and energy law.

In his practice, Jim has had the opportunity to represent a number of private and public sector interests in various commercial matters. Jim has acted as Counsel for the Province of Nova Scotia on a number of energy related matters, including the Sable Offshore Energy Project and the EnCana Deep Panuke Project. In the course of his energy law practice, Jim regularly appears before a number of regulatory agencies and tribunals on these issues.

Robert Bailey
Director

ROBERT BAILEY is a BSc and MSc graduate of the University of Guelph and was a Research Associate at the Institute for Environmental Studies at the University of Toronto for two years. Following this position, he completed his doctoral studies at The University of Western Ontario and then became a faculty member at Western. His research focused on applied freshwater ecology as well as teaching courses in biostatistics, aquatic ecology, population genetics and environmental science.

In 2000, Dr. Bailey was appointed Director of the Environmental Science Graduate Program at The University of Western Ontario and subsequently Director of Environmental Research Western and the Undergraduate Program in Environmental Science. One of his most satisfying achievements during those years at Western was being a team member responsible for the creation of Western's interdisciplinary Centre for Environment & Sustainability, which included participants from medicine, business, engineering, social science and science. On July 1, 2009, Dr. Bailey began a five year appointment as Vice-President, Academic & PROVOST, at Cape Breton University where he is also a Professor of Biology. He continues teaching statistics for researchers, and maintains his research program on bioassessment of freshwater ecosystems along with graduate students at The University of Western Ontario and University of New Brunswick through adjunct appointments.

Board of Directors 2012-2013

Joshua Leon
Chair & Director

JOSHUA LEON is the Dean of Engineering at Dalhousie University. He previously was Professor and Head of the Department of Electrical and Computer Engineering at the University of Calgary. Before moving to Calgary, Dr. Leon was a faculty member in the Institute of Biomedical Engineering and the Department of Electrical and Computer Engineering at the Ecole Polytechnique de Montreal. He earned his BSc and Master's degrees in Mathematics and a PhD in Biophysics at Dalhousie University.

Throughout his career Dr. Leon has been a very active researcher. He has published over 80 peer reviewed articles on computational science, electromagnetics, bioelectric phenomena and cardiac electrophysiology. His current research focus is on the acceleration of numerical software using Graphics Processing Units (GPU).

Dr. Leon is a co-founder of Acceleware, a publicly traded company based in Calgary Alberta. They are the recognized world leader in General Purpose GPU computing.

Kevin Vessey
Director

J. Kevin Vessey is the Dean of the Faculty of Graduate Studies and Research and a Professor of Biology at Saint Mary's University. Dr. Vessey received his BSc and MSc from Dalhousie University and his PhD from Queen's University. Aside from his 16 years as a Professor of Plant Science at the University of Manitoba, he has also been a Researcher Associate at North Carolina State University, and a Visiting Scientist at the Institut National de la Recherche Agronomique, France. Dr. Vessey took up his current positions at Saint Mary's University in 2005.

Dr. Vessey's teaching and research area is plant physiology, particularly the functional interactions between crop plants and beneficial micro-organisms, and the optimizing of oil-seed crops as biodiesel feedstocks. He has published over 65 peer-reviewed scholarly articles and book chapters and has co-edited one book. He has supervised over twenty graduate students and has been awarded several regional and national research awards.

Positions in which Dr. Vessey has recently served, or is currently serving, include Grant Selection Committees of the Natural Sciences and Engineering Research Council, Advisory Committees for the NS-CIHR Research Partnership Program, the Nova Scotia Research and Innovation Trust, Petroleum Research Atlantic Canada, and TRIUMF (the Tri-University Meson Facility), and the Boards of Directors for the Atlantic Environmental Sciences Network, Offshore Energy Technology Research Association, and Plant Inoculants Canada.

Board of Directors 2012-2013

Keith De'Bell
Director

Keith De'Bell is the Associate Vice President Research at St. Francis Xavier University a post he has held since August 2009. He has extensive experience as a researcher and as a University Administrator. His previous administrative roles included those of the Associate Dean of Arts and Sciences (Science) at Trent University, Dean of Science Applied Science and Engineering at University of New Brunswick (Saint John), and Special Advisor on Health Education and Research to the President and Vice-President (Saint John) at University of New Brunswick.

A particular feature of his work over the last ten years has been working with inter-organizational and inter-sectorial partnerships to increase capacity in areas such as health research and poverty reduction. While at University of New Brunswick (Saint John) he was the project lead for a partnership involving two universities, a community college and a regional health authority to develop interprofessional education for improved health care. The National Collaborating Centre for Determinants of Health, hosted by St. Francis Xavier University and funded through the Public Health Agency of Canada, reports to Dr. De'Bell in his current role as Associate Vice-President Research. He maintains a personal interest in the social determinants of health and community empowerment, particularly in the context of community and public health. As a researcher Dr. De'Bell has published over 70 articles in scholarly journals and given numerous presentations at workshops and conferences. In April 2012 Dr. De'Bell was inducted into the Science Atlantic Hall of Fame as an Outstanding Contributing Member of Science Atlantic/APICS for contributions to that organization over a twelve-year period including a four-year term as Chair of the APICS Council.

Jeff Somerville
Treasurer & Director

A well-respected business and community leader, Jeff became a partner in Venor Search Group in August 2012 to lead its Executive Search Practice. Possessing a vast network and strong connections within Halifax and Atlantic Canada, Jeff has worked in a variety of roles in the region for the past 20 years from leadership in the financial services sector to small business and academia.

Originally from Winnipeg, Jeff earned his BSc (Mathematics) from UBC. He enjoyed a successful 24 year career with the TD Bank, highlighted by the five years he spent in Halifax in the early '90's as Senior Vice President and Region Head for Atlantic Canada. Though Jeff was transferred back to Toronto in 1997, his heart remained in Halifax and he and his wife Angie decided in 2000 to leave the TD and return to Nova Scotia. Jeff then turned his hand to entrepreneurship as managing partner of Premier Executives Suites in its early years and, in 2003, was named one of Atlantic Canada's Top 50 CEO's. From 2003 to 2006, Jeff was Vice-President Business Development at Nova Scotia Community College, and since 2006, he has been an independent consultant, helping a wide range of businesses realize their goals.

An active community volunteer, Jeff has served as Chair of the Halifax Chamber of Commerce and Chair of both the Laing House Association and Laing House Foundation, Treasurer of OTANS, and VP Fund Development at Symphony Nova Scotia. In addition to his board membership at OERA Jeff is a partner at The Carleton Music Bar and Grill, member of the Board of both Nova Scotia College of Art and Design , the Sobey`s Pension Investment Committee and is a member of the Atlantic Signature Mortgage and Loans Advisory Board.

OERA Offshore Energy Research Association

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