



**OERA** Offshore Energy  
Research  
Association

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**ANNUAL  
REPORT**  
**20**<sup>18-19</sup>

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The OERA Board of Directors is focused on ensuring that the Association's efforts remain relevant, strategic and responsive to the Government of Canada and Province of Nova Scotia's plans for our energy sector in the years to come.

I wish to thank the Government of Canada and the Province of Nova Scotia for their continued support of OERA and our partners through fiscal year 2018-19, as well as acknowledge my fellow board members and members of the OERA staff for their dedication and sage guidance. I would also like to thank outgoing Executive Director, Stephen Dempsey, on his leadership of the OERA - we wish him every success in future endeavours.

Countries around the world are continually enhancing their efforts to support innovation, as well as their investments in research. Canada continues to be a world leader in research and innovation by harnessing the skills and talents of researchers across the country, as well as the support of our governments, post-secondary institutions, and private sector.

Significantly, the Government of Canada has taken key steps in recent years to strengthen the science, technology and innovation ecosystem in this country. Canada's Innovation and Skills Plan announced in Budget 2017, and subsequent announcement of investments in five innovation superclusters (including the Atlantic Canada-led Ocean Supercluster) demonstrates Canada's strong commitment to research and innovation. Policies and investments such as these point Canada in the right direction and lay the groundwork for strengthened research capacity and domestic innovation.

The Province of Nova Scotia also continues to take great strides in strengthening our provincial research and innovation ecosystem, with the recent creation of Research Nova Scotia and strategic investments in priority areas of research aligned with emerging opportunities for our province. With over a decade of proven research successes and many promising research endeavours currently underway, the OERA is well-positioned to continue contributing to Nova Scotia's energy research efforts. Through its portfolio of programs, the OERA continues to fund and facilitate innovative R&D by supporting marine renewable energy and petroleum geoscience research, as well as enabling the translation of research through partnerships between industry, government and academia for the betterment of the energy sector in Nova Scotia.

## CHAIR'S REPORT

**Richard Isnor**

D. Phil., Associate Vice President  
Research and Graduate Studies  
St. Francis Xavier University  
Antigonish, NS

OERA, like the energy-related world we work in, is responding, adapting and improving in response to an always changing environment. This year we continued delivering research needed to propel the tidal energy industry forward; we completed year one of a newly funded four-year geo-science program to de-risk offshore energy exploration and with an eye to the future we refreshed our mandate.

The value of tidal energy research projects recently completed and underway is \$3.4 million. The target of the funding is trending towards applied research and technology development, so that key barriers to progress can be overcome. This year, we



initiated a two-year, multi-stakeholder research program to validate environmental effects monitoring technology, so that regulators and stakeholders can understand how fish and marine mammals interact with instream tidal-energy devices. Such an understanding is crucial for the industry to progress.

We completed year one of a four-year, \$12 million Offshore Growth Strategy that will de-risk offshore energy exploration. Feedback from the offshore energy exploration community will be used to tailor the research priorities in years two and beyond. The perceived risks of offshore exploration must be retired rapidly for Nova Scotia to benefit from offshore energy production.

Energy issues in Nova Scotia are becoming ever more inter-related. We talk of energy-mix that could include many novel technologies and a transition to a low carbon-economy that will have widespread effects. Social acceptance and reconciliation are important factors when evaluating energy solutions. In response, OERA has expanded its mandate from offshore to include onshore energy development and from evaluating impact on the natural environment to include the social environment. We are well positioned to contribute to sustainable energy development in Nova Scotia.

On a personal note, I joined OERA half-way through the year. I appreciate the confidence the Directors have in me, and I've been welcomed by a great team that has enthusiasm for its purpose. I'm confident that together we can have great success.

## MESSAGE FROM ED

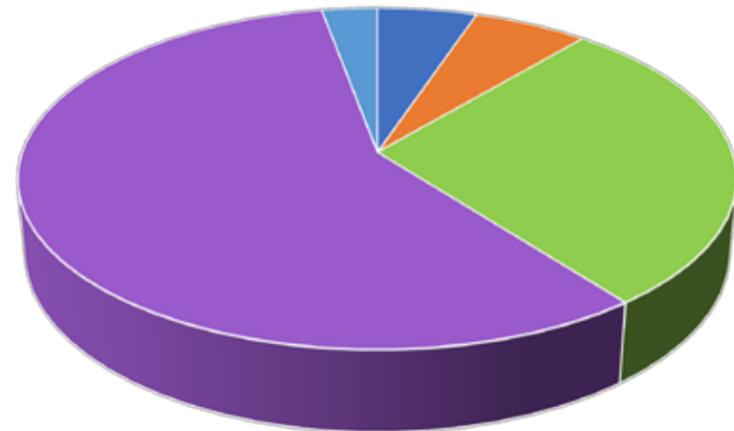
**Alisdair McLean**

P. Eng.  
Executive Director  
Offshore Energy Research Association  
Halifax, NS

Energy is a key contributor to Canada's economy. In 2018, the energy sector was responsible for 819,500 jobs or nearly 11% of total Canadian employment. The energy sector also drove \$197 billion or nearly 11% of nominal Gross Domestic Product (GDP). In addition, energy accounts for a significant portion of Canadian trade, including \$132 billion of exports in 2018 or roughly 23% of total Canadian merchandise exports. Canada's energy system is integral to the broader economy, as it enables the production and delivery of goods and services, and is a key driver of research, development, and innovation. In fiscal 2017-18, more than \$799 million was spent on energy research, development and deployment by the provincial and federal governments. \*source: [https://www.nrcan.gc.ca/sites/www.nrcan.gc.ca/files/energy/pdf/Energy%20Fact%20Book\\_2019\\_2020\\_web-resolution.pdf](https://www.nrcan.gc.ca/sites/www.nrcan.gc.ca/files/energy/pdf/Energy%20Fact%20Book_2019_2020_web-resolution.pdf)

The Offshore Energy Research Association (OERA) is one of the many entities that received funding provincially and federally to support research & development in Nova Scotia .

## REVENUE



**\$1,549,471.00**

- ACOA
- Natural Resources Canada
- Research Nova Scotia
- Genome Atlantic
- NS Department of Energy and Mines

The OERA brings people and information together to find ways to sustainably develop Nova Scotia's energy resources. We are collaborators and problem solvers – providing leadership, funding and the expertise needed to enable petroleum and renewable energy research that will have a meaningful and tangible impact on the challenges and issues Nova Scotia is facing as a province and as an industry today.

As an independent, not-for-profit organization, the OERA leverages skills and expertise from academia, industry and government partners to advance directed research, encourage technical innovation, and build energy sector knowledge to address current research gaps and opportunities.

We build, share and transfer technical information that acts as the catalyst for sustainable resource development.

## STRATEGIC CHANGE

2018-19 was a busy year for strategic transition initiatives for OERA. Building on the strong governance framework that OERA has developed and implemented in 2011, the 2018-19 fiscal year saw the launch of a new mandate change designed to assist the OERA and the Province by expanding R&D to offshore and onshore research. OERA's role as a facilitator is vital to ensuring that Nova Scotia's energy sectors are developed in a responsible and sustainable manner. By broadening our mandate, OERA's programs are able to contribute to risk reduction, and support investment decisions in Nova Scotia's offshore and onshore energy resources.

OERA will balance its activities to fulfill existing obligations while working toward new energy research areas, and begin the process of shifting it's research and innovation priorities to maximize benefits for Nova Scotians and the energy sector as a whole.

# ACHIEVEMENTS TO DATE

- 76** Petroleum Geoscience Projects
- \$17.9M** Leverage
- 14** Webinars Held
- 96** Marine Renewables Projects
- \$8.2M**
- 62** Industry Collaborations
- 11** Academic Collaborations
- 362** HQPs
- 12** OERA Programs
- Engaged With Over 120** Organizations

# 12 YEARS IMPACT

- 560** Proposals Received & Reviewed
- 9** Marine Sound Projects
- \$2.1M**
- 60+** National & International Partners
- 177** R&D Research Projects

# OERA MANDATE

The Mandate of the Corporation is to:

- foster research and development related to petroleum, renewable energy resources and their interaction with the natural and social environment, and the dissemination of that knowledge, including research work that:
- assesses the potential impacts of petroleum exploration, development and production on the natural and social environment;
- assesses the potential impacts of renewable energy technologies on the natural and social environment;
- builds geoscience knowledge about Nova Scotia's oil and gas potential; and
- promotes technical innovations to reduce barriers to development of energy resources.,
- and, where consistent with (a), above, to encourage building research capability in Nova Scotia.





OERA Board Director

All new technology requires intensive and strategically focused research. Marine renewable energy is no different. When it comes to proving, commercializing, and industrializing marine renewable energy, research and innovation are critical to reducing costs and risks, informing stakeholders, and establishing regulatory uncertainty.

Over the past decade there has been a significant amount of research conducted in Canada and globally to better advance wave, tidal, river current, and offshore wind energy. In Canada, a strong network of research expertise and R&D facilities have emerged to support the sector's growth. On the west coast, the University of Victoria has been very active modelling wave energy resources and helping to inform where wave and tidal energy might make sense for coastal remote communities. In Manitoba, there has been ongoing work to test and demonstrate river current energy technologies. On the east coast, the largest cluster of research activity has been taking place -- universities, Fundy Ocean Research Center for Energy (FORCE), the Offshore Energy Research Association (OERA) and others have contributed to a growing body of knowledge focused on environmental interactions, technical issues, and cost reductions.

While the sector is sometimes criticized for moving slowly, a lot has been learned that has helped to evolve technical, environmental, and social aspects of marine renewable energy development. For example, in 2007 when Nova Scotia pursued its first strategic environmental assessment (SEA) of the Bay of Fundy, there had only been a few early studies done and in-stream tidal energy was a very new concept and focus area for researchers, government, and stakeholders. Fast forward twelve years later, and there are numerous studies and data covering in-stream tidal in the Bay of Fundy. There have been three turbine deployments and more developers working to deploy projects in the next couple of years. These deployments and projects have created jobs and opportunities for local businesses -- and without early R&D this wouldn't be possible.

Continued growth of the sector depends on innovating in all areas of project development and building a body of knowledge that stretches across the globe. There are many Canadian and international organizations involved in the sector that have contributed significant findings, enabling future development. While marine renewable energy sites may have varying characteristics and study objectives may also vary, research and innovation from international projects can play a critical role in supporting and informing Canadian activity.

Moving forward, R&D will continue to play an integral role in advancing marine renewable energy -- but, it must be strategic, prioritizing the critical issues that are creating barriers to development, commercialization and industrialization of the sector. With a solid foundation in place, the sector is poised to take some big strides over the next few years and targeted research will not only inform technical aspects, but increase confidence that this is a sector that can operate safely, efficiently, and bring new opportunities and advantages to Canada.

## MARINE RENEWABLES INDUSTRY UPDATE

**Elisa Obermann**

Executive Director  
Marine Renewables Canada  
Halifax, NS

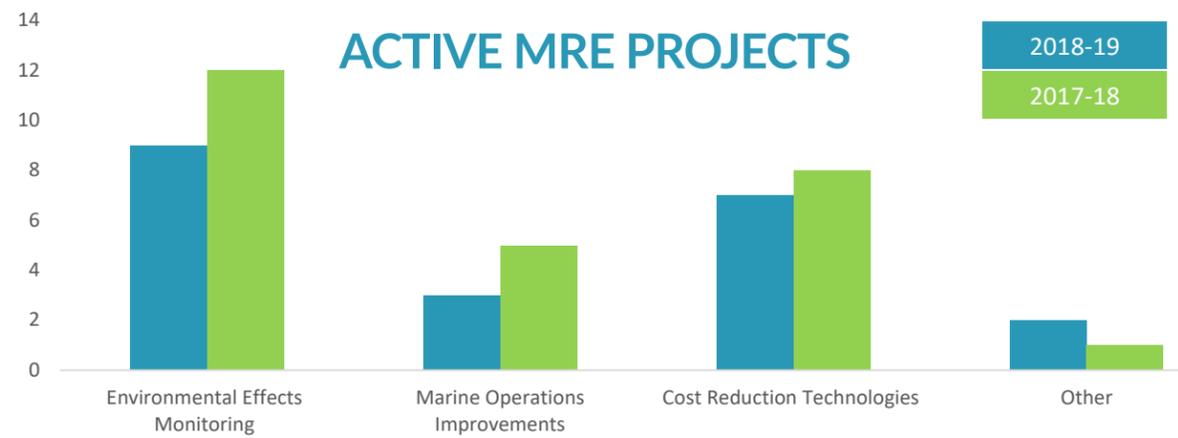
## MARINE RENEWABLES

OERA's Marine Renewable Energy (MRE) research agenda is primarily driven by the Nova Scotia Department of Energy and Mines (NSDEM), with a goal to fund high quality research that supports the growth of its offshore renewables sector. Over that last several years, there has been a shift in the research agenda, transitioning from baseline data collection to supporting predominantly applied research projects. This shift has been in response to tidal stakeholder needs and their collective interest in research that offers to resolve pressing technical challenges and issues. It is noteworthy, that even with transition from baseline to applied research, OERA's subject matter focus has remained much the same since its establishment: that is, effects on fish, marine mammals as well as characterizing the (tidal) resource. Yet now, proponents are using those baseline data sets to investigate new technology solutions that offer improvements in marine life monitoring and/or introduce new tools and methods to more precisely characterize the tides.

In Nova Scotia, there is currently a range of MRE related R&D projects underway. Proponents and their teams are busy working in the field, in the laboratory, and at the computer, to develop innovative technologies, techniques, or methodologies targeted at addressing knowledge gaps in priority research areas. Presently, these efforts include field work in the Bay of Fundy's Minas Passage and Grand Passage; tank trials at the Dalhousie University Aquatron laboratory facility; and numerous desktop studies investigating such issues as energy storage, turbine blade re-design, and acoustic monitoring technology improvements, to name a few. OERA research results are made publicly available for use by industry, regulators, academia, and communities.

### MARINE RENEWABLES 2018-19 HIGHLIGHTS

- New research funding = \$731,400 (\$599,900 NSDEM and \$131,500 Research Nova Scotia (RNST)), yielding ten (10) new research initiatives
- Cumulative cash value of active research projects = \$2.64 Million; and recently completed = \$747,000. Total cash value for active and recently completed projects = \$3.4 Million
- Cumulative leverage value for active and recently completed projects = \$5.5 Million
- Renewables revenue sources mix: Federal 42%, NSDEM 28%, OERA 22%, RNST 6%, and Innovacorp 2%
- Six (6) of 21 active projects supported primarily by federal (NRCan and ACOA) funds, with a combined cash value of \$1.5 Million
- HQP participation during reporting period = 78 (61 on active projects and 17 on recently completed projects)
- Hosted eight (8) tidal related webinars



Since its establishment in 2006, the OERA has now funded or co-funded a total of 96 MRE related projects. The total cumulative cash investment (from all partners) is \$9.17 Million. Additionally, the leverage accumulation associated with these projects is \$10.54 Million, bringing the total MRE research value to date (cash and in-kind) close to \$20 Million since 2006. The OERA's ongoing efforts during this past fiscal, in combination with these impressive cumulative totals clearly demonstrate OERA's significant contribution toward advancing MRE development in Nova Scotia.

Looking ahead, OERA's research agenda for the next few years is clear: to introduce technology solutions and new approaches for environmental effects monitoring (EEM) at tidal energy sites. The goal is to seek out research innovation to address EEM knowledge gaps and reduce development risk, that will lead to greater regulatory certainty for the sector. Regulator confidence and increased social license in tidal energy will enable more device deployments over the longer term that ultimately will propel the sector forward, yielding commercial success and economic benefits for the province.



OERA Board Director

Since the 1960s, interest in the region's offshore petroleum sector has moved through a series of peaks and valleys.

For the time being, offshore oil and gas activity has slowed. ExxonMobil and Encana are currently decommissioning offshore the Sable and Deep Panuke natural gas production projects. BP Energy Canada and Equinor have Active Exploration Licenses off the Nova Scotia coast.

Nova Scotia's first petroleum project, Cohasset oil, ceased production in 1999. More details on the history and regulation of the offshore sector can be found at the website of the Canada-Nova Scotia Offshore Petroleum Board (CNSOPB).

There remains enormous potential for petroleum discoveries in the offshore, according to the Play Fairway Analysis, and onshore, as outlined in the Petroleum Atlas both conducted for the Nova Scotia Department of Energy and Mines.

There are currently two active onshore sources of gas production in the Maritimes, a natural gas development in New Brunswick (Corridor Resources) and a Coal Bed Methane project in Nova Scotia (East Coast Energy).

Nova Scotia and New Brunswick both have significant shale gas reserve potential. However, with moratoriums in place on the utilization of hydraulic fracturing technology, exploration has been limited. The current government of New Brunswick, elected in 2018 has made a regulatory change to allow for the lifting of the moratorium in the Sussex area.

# PETROLEUM ENERGY INDUSTRY UPDATE

## Ray Ritcey

Chief Executive Officer  
Maritimes Energy Association  
Halifax, NS

# PETROLEUM GEOSCIENCE

general geoscience work essential to increasing geological understanding and reducing exploration risk across broad areas of the offshore.

The OGS recognizes the value of developing innovative techniques to provide the province with a competitive advantage over other geographical areas with which it competes for exploration investment. To this end, the OGS includes \$1.2 million for innovation and geoscience research capacity building.

A total of \$900,000 is allocated for geoscience knowledge transfer activities. The purpose of this program is to transfer knowledge from recognized experts outside the province to Nova Scotia researchers, students and consultants to reduce the need in future to go outside the province for certain types of work.

The objective of the Benefits Optimization Strategy, valued at \$800,000, is to build a world class supply chain that successfully pursues regional and global markets, leading to economic development and skills retention in NS.

Thirteen geoscience projects were initiated in fiscal 2018-19 totaling \$1.7M in funding commitments. Seven of the 13 projects are part of the Nova Scotia - Morocco Conjugate Margin Reconstruction program, a multi-year initiative undertaken in partnership with Morocco's National Office of Hydrocarbons and Mines (ONHYM) and the Canada Nova Scotia Petroleum Board (CNSOPB).

The project combines seismic and well data from both margins to map the complex offshore geology, identify oil prone source rocks common to both margins, and model hydrocarbon generation, expulsion and entrapment. Together these projects account for 68% of expenditures over the last fiscal period. This program will continue in 2019.

Funds were also allocated to investigate the failure of Shell Canada's two deep water wells. NSDEM discussions with exploration companies indicated significant interest in Shell Canada's initial geological concept and drilling targets, as well as what could be learned from Shell's well logs and end-of-well reports. Next year, similar work will be undertaken in the BP lease area in collaboration with the CNSOPB once the seismic and well data are off confidentiality.

## PETROLEUM GEOSCIENCE 2018-19 HIGHLIGHTS

- \$900,000 allocated for petroleum knowledge transfer activities
- Thirteen (13) petroleum projects were initiated totaling 1.7M in funding commitments
- Hosted five (5) petroleum related webinars
- Continued Microbial Genomics for De-Risking Offshore Oil and Gas Exploration in NS



Looking forward, geoscience projects will include extending the seafloor hydrocarbon seep mapping and sampling program, undertaking depositional modelling using the new BP and Shell 3D seismic data, and expanding the Conjugate Margins program to examine the tectonics and source rock potential of the earliest rifting period. Supply chain business optimization projects will include investigation of local economic opportunities associated with the LNG projects now under development, and follow-up work to address recommendations made in the Energy and Technology Sector Supply Chain Assessment pilot project. A total of \$2.73M of OGS funding has been allocated to projects in fiscal 2019-20.

# OERA TEAM



Alisdair McLean  
**Executive Director**



Nalani Perry  
**Operations Manager**



Russell Dmytriw  
**Director of Research**



Jennifer Pinks  
**Research Manager**



Carey Ryan  
**Project Manager**



Steve Himmelman  
**Financial Advisor**



Ashley Moriarty  
**Financial/Administrative Assistant**

# BOARD OF DIRECTORS

Richard Isnor  
Chair & Director  
St. Francis Xavier University

Wayne St-Amour  
Vice President & Director  
Nova Scotia Community College

Keith Collins  
Director  
Nova Scotia Department of Energy and Mines

Stephen Hartlen  
Director  
Dalhousie University

Ian MacFadden  
Treasurer & Director  
Strategic Partner, Change Management

Robert MacKay  
Director  
RA Mentor Strategic Consulting

Sandy MacMullin  
Secretary & Director  
Nova Scotia Department of Energy and Mines

Elisa Obermann  
Director  
Marine Renewables Canada

Anna Redden  
Director  
Acadia University

Ray Ritcey  
Director  
Maritimes Energy Association

Adam Sarty  
Director  
Saint Mary's University

Karen White  
Director  
NATIONAL Public Relations

Dale Keefe  
Director  
Cape Breton University

# OUTREACH & DISSEMINATION

TWITTER 

122 Tweets

124,700  
Tweet Impressions

319 Retweets

533 Likes

446 Link Clicks

26  
Final Reports Tweeted

oera  
webinar  
series

13 Webinars



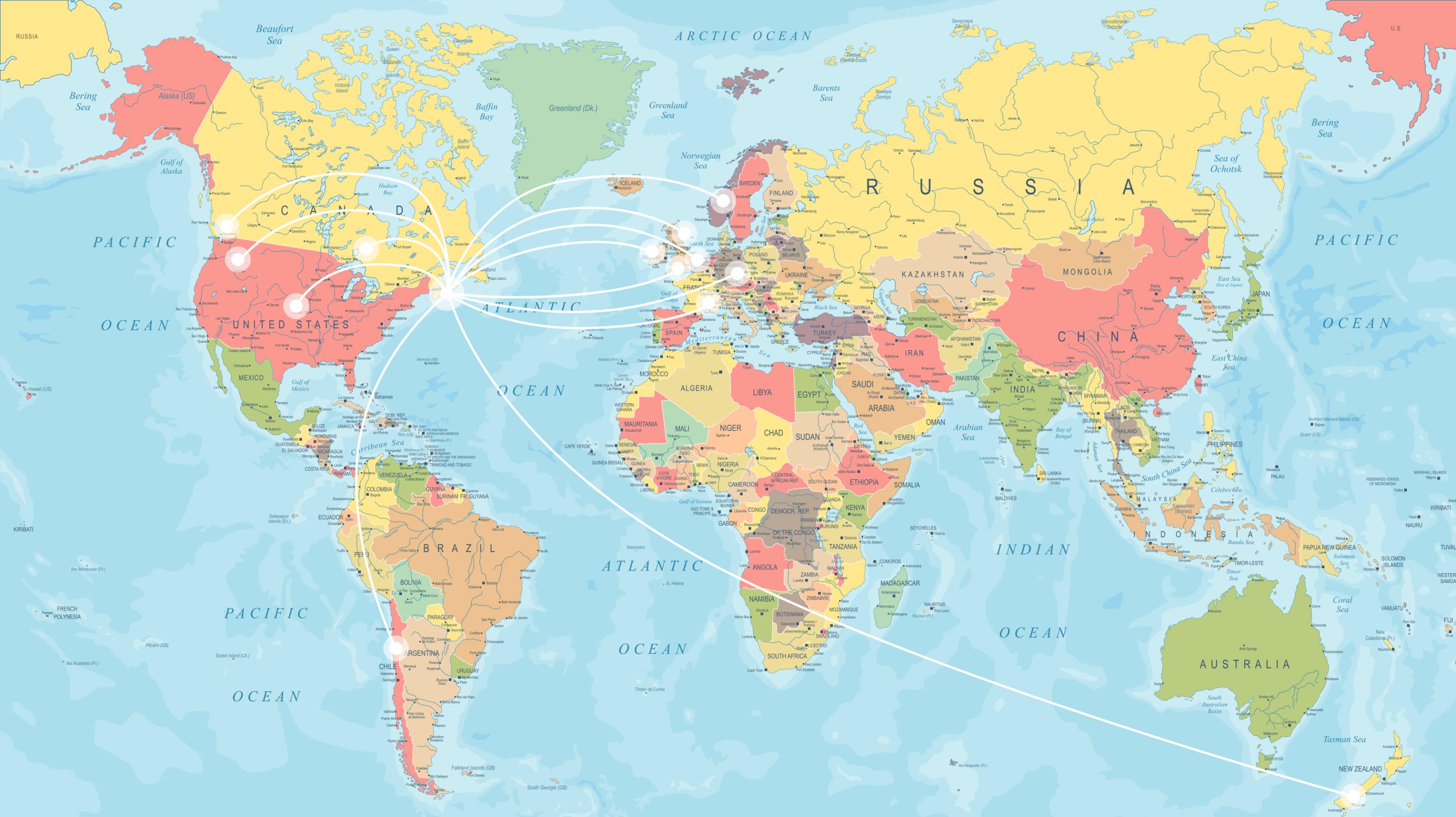
5 Petroleum



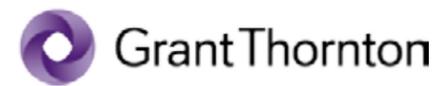
8 Marine  
Renewables

Reached  
Over

11  
Countries



# ERA Webinar Series Audience



## Financial Statements

Offshore Energy Research Association  
of Nova Scotia

March 31, 2019

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## Independent auditor's report

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

### Opinion

We have audited the financial statements of Offshore Energy Research Association of Nova Scotia (the "Association"), which comprise the statement of financial position as at March 31, 2019, the statements of operations, net assets and cash flows for the year then ended, and notes to the financial statements, including a summary of significant accounting policies.

In our opinion, the accompanying financial statements present fairly, in all material respects, the financial position of Offshore Energy Research Association of Nova Scotia as at March 31, 2019, and the results of its operations and its cash flows for the year then ended in accordance with Canadian accounting standards for not-for-profit organizations.

### Basis for opinion

We conducted our audit in accordance with Canadian generally accepted auditing standards. Our responsibilities under those standards are further described in the *Auditor's Responsibilities for the Audit of the financial statements* section of our report. We are independent of the Association in accordance with the ethical requirements that are relevant to our audit of the financial statements in Canada, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

### Responsibilities of management and those charged with governance 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.

In preparing the financial statements, management is responsible for assessing the Association's ability to continue as a going concern, disclosing, as applicable, matters related to a going concern and using the going concern basis of accounting unless management either intends to liquidate the Association or to cease operations, or has no realistic alternative to do so.

Those charged with governance are responsible for overseeing the Association's financial reporting process.

### Auditor's responsibilities for the audit of the financial statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Canadian generally accepted auditing standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with Canadian generally accepted auditing standards, we exercise professional judgment and maintain professional skepticism throughout the audit.

We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit 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.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Association's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Association to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.



Halifax, Canada  
June 17, 2019

Chartered Professional Accountants  
Licensed Public Accountants

**Offshore Energy Research Association of Nova Scotia**  
**Statements of operations and net assets**

Year ended March 31	2019	2018
<b>Revenues</b>		
Contributions (note 3)	\$ 3,587,058	\$ 2,872,406
Interest income	<u>38,441</u>	<u>24,232</u>
	<u>3,625,499</u>	<u>2,896,638</u>
<b>Cost of research</b>		
Projects	3,189,561	2,638,560
Research management	<u>397,497</u>	<u>233,846</u>
	<u>3,587,058</u>	<u>2,872,406</u>
Excess of revenues before expenditures	<u>38,441</u>	<u>24,232</u>
<b>Expenditures</b>		
Advertising and promotion	17,121	455
Board and committee expenses	12,624	2,386
Business development	12,500	17,378
Information technology	38,661	20,456
Insurance	7,883	6,881
Interest and service charges	10,130	5,071
Office and miscellaneous	22,391	32,909
Professional fees – audit, accounting and legal	83,292	31,922
Rent – premises	33,120	33,120
Salaries and benefits	<u>202,761</u>	<u>199,762</u>
	<u>440,483</u>	<u>350,340</u>
Excess of expenditures over revenues before project recovery of expenditures	<u>(402,042)</u>	<u>(326,108)</u>
Project recovery of expenditures	<u>94,321</u>	<u>104,761</u>
Excess of expenditures over revenues	\$ <u>(307,721)</u>	\$ <u>(221,347)</u>
Net assets, beginning of year	\$ 2,344,917	\$ 2,566,264
Excess of expenditures over revenues	<u>(307,721)</u>	<u>(221,347)</u>
Net assets, end of year	\$ <u>2,037,196</u>	\$ <u>2,344,917</u>

See accompanying notes to the financial statements.

**Offshore Energy Research Association of Nova Scotia**  
**Statement of financial position**

March 31	2019	2018
<b>Assets</b>		
<b>Current</b>		
Cash and cash equivalents	\$ 547,960	\$ 559,504
Investments, at market value (Note 4)	9,345,602	3,434,383
Receivables	346,657	12,174,267
HST recoverable	17,368	26,561
Prepays	<u>52,174</u>	<u>38,065</u>
	<u>10,309,761</u>	<u>16,232,780</u>
Investments, at market value (Note 4)	<u>3,970,859</u>	<u>-</u>
	\$ <u>14,280,620</u>	\$ <u>16,232,780</u>
<b>Liabilities</b>		
<b>Current</b>		
Payables and accruals	\$ 857,931	\$ 364,635
Deferred revenue (Note 3)	<u>11,385,493</u>	<u>13,523,228</u>
	<u>12,243,424</u>	<u>13,887,863</u>
Net assets	<u>2,037,196</u>	<u>2,344,917</u>
	\$ <u>14,280,620</u>	\$ <u>16,232,780</u>

On behalf of the Board

 Director  Director

See accompanying notes to the financial statements.

## Offshore Energy Research Association of Nova Scotia Statement of cash flows

Year ended March 31	2019	2018
Increase (decrease) in cash and cash equivalents		
<b>Operating</b>		
Excess of expenditures over revenues	\$ (307,721)	\$ (221,347)
Change in non-cash operating working capital		
Receivables	11,827,610	(12,174,060)
HST recoverable	9,193	78,958
Prepays	(14,109)	1,565
Payables and accruals	493,296	(396,329)
Deferred revenue	(2,137,735)	11,589,168
	9,870,534	(1,122,045)
<b>Investing</b>		
Purchase of investments	(9,882,078)	(3,434,383)
Net decrease in cash and cash equivalents	(11,544)	(4,556,428)
Cash and cash equivalents, beginning of year	559,504	5,115,932
Cash and cash equivalents, end of year	\$ 547,960	\$ 559,504

See accompanying notes to the financial statements.

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

March 31, 2019

### 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:

#### Cash and cash equivalents

Cash and cash equivalents consist of cash on hand and balances with banks.

#### Investments, at market value

Investments consist of investment savings account, mutual funds, and bonds. These are accounted for at fair value. Changes in fair value are recorded in the statement of operations.

#### Foreign currency translation

Monetary assets and liabilities are translated at rates in effect at the balance sheet date. Other assets and liabilities are translated at rates prevailing at the time of acquisition or issue. Revenues and expenses are translated at the daily exchange rate during the year. Translation gains or losses are recognized in the period in which they occur. As at March 31, 2019, cash and cash equivalents included \$Nil (2018 - \$154,740) translated from Euro to Canadian dollars.

#### 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 expenditures are incurred. Contributions receivable are recorded if the amount to be received can be reasonably estimated and collection is reasonably assured. Interest revenue is recorded on the accrual basis, once collectability is reasonably assured. Project revenue recovery of overhead is recognized once funding is received and the expenditures have been incurred.

#### 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.

#### 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. Items subject to significant management estimates include fair value of investments.

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

March 31, 2019

### 2. Summary of significant accounting policies (continued)

#### Allocation of expenditures

Expenditures for salaries and benefits and professional fees are allocated between research projects and operations expenses on an estimated basis depending on the nature of each specific project. Included in the cost of research is \$408,747 (2018 - \$233,846) of allocated salaries and benefits and professional fees.

#### Financial instruments

The Association considers any contract creating a financial asset, liability or equity instrument as a financial instrument, except in certain limited circumstances. The Association accounts for the following as financial instruments:

- cash and cash equivalents
- investments, at market value
- receivables
- payables and accruals

A financial asset or liability is recognized when the Association becomes party to contractual provisions of the instrument.

Unless otherwise noted, it is management's opinion that the Association is not exposed to significant interest, currency or credit risks arising from these financial instruments. The fair values of these financial instruments approximate their carrying value, unless otherwise noted.

#### 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, investments, at market value, receivables and payables.

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.

#### Project recovery of operations expenses

Certain projects are eligible to receive a reimbursement of operations expenses at a predetermined rate. This contribution covers operations expenses and is billed directly to the project.

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

March 31, 2019

### 3. Deferred revenue

	<u>2018</u>				<u>2019</u>
	Deferred revenue	Funding	Investment activities	Recognized as revenue (contributions)	Deferred revenue
Research projects	\$ 1,738,228	\$ 1,214,891	\$ -	\$ 2,629,978	\$ 323,141
Offshore growth strategy	<u>11,785,000</u>	<u>-</u>	<u>235,557</u>	<u>958,205</u>	<u>11,062,352</u>
	<u>\$ 13,523,228</u>	<u>\$ 1,214,891</u>	<u>\$ 235,557</u>	<u>\$ 3,588,183</u>	<u>\$ 11,385,493</u>

During 2018, the Offshore growth strategy was established. This is a contribution agreement with the Nova Scotia Department of Energy, which is effective March 26, 2018 - March 31, 2022. The funds have been contributed to projects in the following fields: geoscience research, innovation/capacity building, knowledge transfer, and benefits optimization strategy.

### 4. Investments, at market value

	<u>2019</u>	<u>2018</u>
Current		
Cash and short term investments	\$ 2,069,686	\$ 3,434,383
Mutual funds	<u>3,333,052</u>	-
Bonds and debentures	<u>3,942,864</u>	-
	<u>\$ 9,345,602</u>	<u>\$ 3,434,383</u>
Long term		
Bonds and debentures	<u>\$ 3,970,859</u>	<u>\$ -</u>

### 5. Comparative figures

The financial statements have been reclassified, where applicable, to conform to the presentation used in the current year. The changes do not affect prior year earnings.