



NOVEMBER 4-6, 2014
Halifax, Nova Scotia Canada
ICOE2014CANADA.ORG



Conference Agenda

Track .1	Conference Session
Track .2	Conference Session
Track .3	Conference Session
Track .4 (2)	Poster Abstract Session

MONDAY, November 03

1:00 pm - 4:00 pm Registration - Room 202 - World Trade & Convention Centre

8:00 am - 4:00 pm Exhibitor Set Up - Scotiabank Centre

8:00 am - 6:30 pm [FORCE Site Tours](#)

Group 1 8:00 am - 5:00 pm (pre-assigned) - Buses board at Delta Halifax Hotel 7:45 am
Group 2 9:30 am - 6:30 pm (pre-assigned) - Buses board at Delta Halifax Hotel 9:15 am

TUESDAY, November 04

7:00 am - 6:00 pm	Registration - Room 202				
8:00 am - 8:30 am	Refreshment Break - Foyer 200				
8:30 am - 4:00 pm	B2B - Room 200 C				
8:30 am - 9:15 am	<p>Welcome Remarks & Opening Ceremonies - Room 200</p> <p>Chris Campbell, Marine Renewables Canada The Honourable Rob Moore, Minister of State (ACOA), Canada The Honourable Andrew Younger, Nova Scotia Department of Energy</p>				
9:15 am - 10:15 am	<p>Plenary Session 1 - Room 200</p> <p>Drivers for Marine Energy - Clean Energy, Economic Development & Climate Action</p> <p>Moderator: Eoin Sweeney, Director, ITO Consult Ltd</p> <p>Presenters:</p> <ul style="list-style-type: none"> Carlo Papa, ENEL - <i>Convergence to Make Ocean Energy Happen</i> Alan Moore - <i>Ocean Energy - Why aren't we doing it already?</i> Jean Francois Le Grand, Conseil Général de La Manche - <i>Economic Development Opportunity out of Responding to the Challenge of Climate Action and use of Regional Resource Strengths</i> 				
10:15 am - 7:00 pm	Exhibition & Business Centre - Scotiabank Centre				
10:15 am - 10:45 am	Refreshment Break in Exhibit Hall - Scotiabank Centre				
10:45 am - 12:00 pm	<p>Room 301 (1.1)</p> <p>Market Drivers - FITs, ROCS, RPS etc</p> <p>Moderator: Yago Torre-Encisco, EVE - Ente Vasco de la Energia</p> <p>Presenters: Dr. Gordon Dalton, Beaufort/HMRC, UCC Youngline Industrial Estate <i>Why Wave Energy for Investors</i></p> <p>Rémi Gruet, Ocean Energy Europe <i>International Overview of Markets Support Mechanisms and their Impact in Driving Development and Securing Inward Investment</i></p> <p>Geoff Keith, Synapse <i>The Role of Feed-in Tariffs: Moving Ocean Energy Ahead in Canada</i></p> <p>Paul Griffiths, ADEMAR <i>The Strategy to Realizing Chile's Marine Renewable Energy Potential</i></p>	<p>Room 302 (1.2)</p> <p>Showing the World - Steps that may Shape the Industry</p> <p>Moderator: Jessica McIlroy, BC Women in Energy Network</p> <p>Presenters: Henry Jeffrey, UKERC/Supergen Marine Institute for Energy Systems <i>Optimal Design Tools for Ocean Arrays (DTOcean)</i></p> <p>Richard Parkinson, Mojo Maritime Limited <i>HF4- Tool for Industrialisation of Tidal Energy</i></p> <p>Angus Vantoch-Wood, The Carbon Trust <i>Marine Renewables Commercialisation Fund: Array Technology Innovation Programme</i></p> <p>Jochen Bard, Fraunhofer Institute <i>Multi-use Platform Concepts for the Oceans of Tomorrow</i></p>	<p>Room 303 (1.3)</p> <p>Strategic Leadership Roles of Government</p> <p>Moderator: Bruce Cameron, Nova Scotia Department of Energy</p> <p>Presenters: Brian Carroll, Energy and Natural Resources, Ireland <i>Planning for the Progress of Ocean Energy in Ireland: Recent Policy Developments</i></p> <p>Dr. Stijn Billiet, European Commission DG Maritime Affairs and Fisheries <i>European Governance of Marine Renewable Energy Developments</i></p> <p>Dr. Narasimalu Srikanth, Energy Institute At Nanyang Technological University (ERI@N) <i>Barriers to Ocean Energy Technology Adoption and Role of Policies & Institutional System to Promote in Asia</i></p> <p>Damian Kunko, SMI/Helios Strategies <i>US MHK Development and Federal Support Update</i></p>	<p>Room 204 (1.4)</p> <p>Utility Business, Integration and Interconnection Issues</p> <p>Moderator: Belinda Batten, Northwest National Marine Renewable Energy Center</p> <p>Presenters: Gino Bawn, IT Power <i>Alternative Revenue Streams for Offshore Renewable Energy</i></p> <p>Victor Osu, Robert Gordon University <i>Ocean Renewable Energy Potential: A pathway for Sustainable Energy Services for Coastal Countries with Developing Economies</i></p> <p>Thomas Soulard, Ecole Centrale de Nantes, CNRS <i>Techno-Economical Comparison of Combined Ocean Energy Platforms</i></p> <p>John Ferland, Ocean Renewable Power Company <i>OCGen® Module Mooring Project: Proving the technical and economic viability of a Fast-water mooring system for tidal and ocean current hydrokinetic devices</i></p>	<p>Room 204 (11.4)</p> <p>Operations and Maintenance Issues</p> <p>Moderator: Belinda Batten, Northwest National Marine Renewable Energy Center</p> <p>Presenters: Jean-Christophe Allo, SABELLA <i>From First Real Scale Unit "Sabella D10" to Tidal Turbine Pilot Power Plant "Eussabella" in the Fromveur Strait, France</i></p> <p>Patrik Möller, CorPower Ocean AB Mikael Sidenmark, Ocean Harvesting AB <i>Uncertainties of Critical Components</i></p> <p>Sue Molloy, Glas Ocean/Dalhousie University <i>Steps to MRE Installation</i></p> <p>Bruce Martin, Jasco Applied Sciences <i>Passive Acoustic Monitoring Solutions for Ocean Energy Monitoring</i></p> <p>Boris Teillant, WavEC Offshore Renewables <i>A Decision Supporting Tool for the Lifestyle Logistics of Ocean Energy Array</i></p> <p>Domenico Coiro, University of Naples <i>Design, Towing Tank and Real Scale Test of GEM</i></p>
12:00 pm - 1:15 pm	Lunch Break in Exhibit Hall - Scotiabank Centre				

1:15 pm - 2:30 pm	<p align="center">Room 301 (2.1)</p> <p>Investing in Commercial Generation Projects</p> <p>Moderator: John Callaghan, The Crown Estate</p> <p>Presenters: Tim Cornelius, Atlantis Resources</p> <p>Stephen Wyatt, Offshore Renewable Energy Catapult Centre <i>Financing Marine Energy: The Role of Innovation in Reducing Risk</i></p> <p>Andrew Smith, Renewable Energy Investment Fund, Scottish Investment Bank, Scottish Enterprise</p> <p>Henry Jeffrey, University of Edinburgh <i>Creation of Investor Confidence: The Top-level Drivers for Reaching Maturity</i></p>	<p align="center">Room 302 (2.2)</p> <p>Wave Device Development- State of Play</p> <p>Moderator: Bradley Buckham, West Coast Wave Initiative, University of Victoria</p> <p>Presenter: Patrick Cross, Hawaii Natural Energy Institute, University of Hawaii <i>Research at the Hawaii Wave Energy Test Site</i></p> <p>Tim Finnigan, BioPower Systems <i>The bioWAVE Pilot Program</i></p> <p>Tomasz Mucha, AW-Energy <i>WaveRoller Demonstration Project in Portugal: From Lab to Sea</i></p> <p>Laurent Marquis, Wave Star A/S <i>Wavestar - Four Years of Continuous Operation in the North Sea</i></p>	<p align="center">Room 303 (2.3)</p> <p>Turbulence, Wave/Current Interaction Impacts</p> <p>Moderator: Tony Lewis, University College Cork</p> <p>Presenters: Justine McMillan, Dalhousie University <i>Vertical Profiles of Turbulence Metrics in Grand Passage, Nova Scotia</i></p> <p>Rob Cavagnaro, UCC HMRC / University of Washington <i>Impact of Turbulence on the Control of a Hydrokinetic Turbine</i></p> <p>Kevin Black, Partrac Limited <i>Measuring, Classifying and Predicting the Effect of Turbulence of Tidal Energy Assessment, Device Design/Operation and Array Yield</i></p> <p>Levi Kilcher, US National Renewable Energy Laboratory <i>Multi-scale Coherent Turbulence at Tidal Energy Sites</i></p>	<p align="center">Room 204 (2.4)</p> <p>Impact of Energy Conversion/ Extraction on the Environment</p> <p>Moderator: Sue Barr, OpenHydro</p> <p>Presenters: Lisa Isaacman, Fundy Energy Research Network <i>A Framework for Environmental Risk Assessment and Decision-Making for Tidal Energy Development in Canada</i></p> <p>Inês Machado, Wavec - Offshore Renewables Methodologies for Epibenthic Colonization Assessment at Marine Renewable Energy Devices - Southern Europe Case Studies</p> <p>Amir Hossein Birjandi, University of Manitoba <i>First Steps for Marine Life Impact Assessment of Hydrokinetic Turbines in the Arctic</i></p> <p>Maria Campbell, Plymouth University <i>The Fisheries and Marine Renewable Energy Working Group: An Agenda for Improved Co-existence</i></p> <p>Kendra Ryan, University of Massachusetts - Amherst <i>Long-term, Big Picture: Does Scale Matter?</i></p> <p>Frank Fortune, Royal Haskoning DHV <i>The Use of Adaptive Management in Addressing Risk and Uncertainty in the Potential Impacts from Tidal Energy Developments: Delivering Developable yet Acceptable Projects</i></p> <p>Morgane Lejart, France Energies Marine <i>Ocean Thermal Energy Conversion, the Potential Impact on Microplankton of Bottom Water Discharge at Subsurface</i></p> <p>Mike Graham, College of the North Atlantic <i>Wave Energy Resource Assessment at the new Wave Energy Research Centre in Lord's Cove, NL Canada</i></p> <p>Imke Meyer, Stellenbosch University South Africa <i>Feasibility of the Agulhas Current for Marine Energy Extraction</i></p> <p>Andrea Copping, Coastal and Marine Waters Pacific Northwest National Laboratory <i>Solving Environmental Effects Challenges for Wave and Tidal Devices Internationally - the Annex IV Initiative</i></p>	<p align="center">Room 204 (12.4)</p> <p>Addressing Extreme Events or Environments</p> <p>Moderator: Sue Barr, OpenHydro</p> <p>Presenters: Martyn Hann, Plymouth University <i>The Use of Design Waves to Measure the Extreme Response of Floating Wave Energy Converters</i></p> <p>Mark Hemer, CSIRO <i>Projections of Future Wave Climate for the Ocean Energy Industry</i></p> <p>Olivia Thilleul, HydrOcean <i>Nonlinear Wave Loads Computations in CFD on a Gravity Based Offshore Wind Turbine Foundation</i></p>
2:30 pm - 3:00 pm	Refreshment Break in Exhibit Hall - Scotiabank Centre				
3:00 pm - 4:15 pm	<p align="center">Room 301 (3.1)</p> <p>Project Development Interests</p> <p>Moderator: Melanie Nadeau, Emera Inc.</p> <p>Presenters: Craig Love, Andritz <i>Technical Barriers to Project Development; Reliable Technology, Predictable Performance and Maintainability</i></p> <p>Sean Brennan, Nova Scotia Power <i>Bringing a project to financial close</i></p> <p>Thierry Kalanquin, DCNS <i>The DCNS experience in developing tidal, wave, and OTEC</i></p> <p>James Stewart, Sgurr Energy <i>Advancing marine renewable energy innovation projects</i></p>	<p align="center">Room 302 (3.2)</p> <p>Updates on the Bay of Fundy Tidal Development Projects</p> <p>Moderator: Tony Wright, Fundy Ocean Research Center for Energy (FORCE)</p> <p>Presenters: Jeremy Poste, Open Hydro Group Ltd.</p> <p>Tim Cornelius, Atlantis Resources</p> <p>John Woods, Minas Energy</p> <p>Greg Trowse, Fundy Tidal Inc.</p> <p>Martin Baldus, Black Rock Tidal Power Inc.</p>	<p align="center">Room 303 (3.3)</p> <p>Permitting and Social Acceptance</p> <p>Moderator: Stephen Dempsey, Offshore Energy Research Association (OERA)</p> <p>Presenters: John Colton, Acadia University-Acadia Tidal Energy Institute <i>Developing a Social License: Tidal Energy Development in Nova Scotia</i></p> <p>Matthew Taccogna, University of British Columbia <i>A Marine Planning and Risk Analysis for Tidal Energy in Campbell River, BC</i></p> <p>Jason Busch, Oregon Wave Energy Trust <i>The Pacific Northwest - Update on the Push to Commercialization</i></p> <p>Sam McCloskey, Centre for Advanced Sustainability Energy (CASE) <i>Driving Innovation or Battling Conflicting Goals? - Managing Industry Academia Partnerships to Deliver Success in Tidal Energy Projects</i></p>	<p align="center">Room 204 (3.4)</p> <p>Wave Devices</p> <p>Moderator: Bryson Robertson, West Coast Wave Initiative <i>Impacts of Wave Power Productions Estimates due to Wave Resource Assessment Methods</i></p> <p>Presenters: Tuula Maki, AW-Energy OY <i>WaveRoller - One of the Leading Technologies for Wave Energy Conversion</i></p> <p>Jim Matei, AOE Accumulated Ocean Energy <i>Wave Energy Conversion using Ocean Buoys Compressed Air Method</i></p> <p>Laurent Marquis, Wave Star A/S <i>Competitive cost of energy from Wavestar</i></p> <p>Keri Collins, University of Plymouth <i>From Concept to Laboratory Testing: the Development Cycle of a Novel Wave Energy Converter</i></p> <p>Erik Hultman, Uppsala University <i>Preparing the Uppsala University Wave Energy Converter Generator for Large-Scale Production</i></p> <p>Hongda Shi, Ocean University of China <i>Systematic Design of A Heaving Buoy Wave Energy Device</i></p> <p>Aki Luukkainen, Wello <i>The Penguin - This is Wave Energy Today</i></p>	

4:25 pm - 5:25 pm	<p style="text-align: center;">Plenary Session 2 - Room 200</p> <p style="text-align: center;">Shifting Roles Toward a Project Development Industry</p> <p style="text-align: center;">Moderator: Henry Jeffery, UKERC/Supergen Marine, Institute for Energy Systems, School of Engineering and Electronics, The University of Edinburgh</p> <p style="text-align: center;">Presenters:</p> <ul style="list-style-type: none"> • Dan Pearson, Meygen- <i>Project Implementation Lessons and Challenges</i> • Kai Kolmel, Siemens/MCT - <i>Developing a Technology Portfolio to Best Serve Project Developers</i> • Simon De Pietro, DP Energy - <i>The Project Developer Role - Matching Technology to Different Sites and Site Conditions</i> <ul style="list-style-type: none"> • Andrew Scott, Pelamis Wave Power - <i>Update from Pelamis Full Scale Test Program</i>
5:30 pm - 7:00 pm	ICOE Welcome Reception in Exhibition - Scotiabank Centre

WEDNESDAY, November 5

7:30 am - 4:00 pm	Registration - Room 202			
8:00 am - 8:30 am	Refreshment Break - Foyer 200			
8:30 am - 4:00 pm	B2B - Room 200 C			
8:30 am - 9:00 am	<p>Opening Keynote Address - Room 200</p> <p style="text-align: center;">Introduction</p> <p style="text-align: center;">Graham Curren, ICOE Chair & Director of Marine Business Development for J.D. Irving, Limited</p> <p style="text-align: center;">Chris Huskison, President & Chief Executive Officer, Emera Inc.</p> <p style="text-align: center;"><i>“Tidal Energy: Local Innovation, Global Industry - Tidal opportunities in the Maritimes and the future impact of a local industry on a global scale. “</i></p>			
9:00 am - 10:15 am	Plenary Session 3 - Room 200			
	<p style="text-align: center;">Showing the World - Update on Flagship Projects</p> <p style="text-align: center;">Moderator: Jose Luis Villate, TECNALIA</p> <p style="text-align: center;">Presenters:</p> <ul style="list-style-type: none"> • Olatz Ajuria, EVE - <i>Ente Vasco de la Energia Mutriku: A Flagship Project for Driving Public Engagement</i> • Sven Stoye, Siemens / Marine Current Turbines - <i>SeaGen: A Flagship Project for the Ocean Industry - Facts and Figures, Lesson Learned</i> <ul style="list-style-type: none"> • James Ives, Open Hydro Group Ltd. - <i>Tidal: Road to Commercialisation</i> • Andrea E. Copping, Pacific Northwest National Laboratory - <i>Expanding Access to Environmental Information for Marine Energy Development</i> 			
10:15 am - 4:15 am	Exhibition & Business Centre - Scotiabank Centre			
10:15 am - 10:45 am	Refreshment Break in Exhibit Hall - Scotiabank Centre			
10:45 am - 12:00 pm	Room 301 (4.1)	Room 302 (4.2)	Room 303 (4.3)	Room 204 (14.4)
	<p>Sharing Utility Experience</p> <p>Moderator: Marta Nogaj, EDF</p> <p>Presenters: Nicholas Gerard, EDF CIH <i>The Return of Experience of the Paimpol-Brehat Project</i></p> <p>Carlo Papa, ENEL <i>ENEL's Experience in Marine Energies</i></p> <p>James Tedd, ESBI <i>The Westwave Project</i></p> <p>Anna Novak Zdravkovic, GDF Suez <i>Sharing GDF-Suez's Experience in Marine Energies</i></p>	<p>Project Resource/Site Characterisation, Siting/Planning</p> <p>Moderator: Bryan Polagye, University of Washington</p> <p>Presenters: Jean François Filipot, France Energies Marines <i>On the Modeling Errors in the Tidal Power Assessment</i></p> <p>David Fitzgerald, DP Marine Energy <i>A Project Developers Experience in Site Characterisation</i></p> <p>Richard Karsten, Acadia University <i>Reducing Costs of In-stream Tidal Energy Generation through Comprehensive Hydrodynamic Site Assessment</i></p> <p>Bryson Robertson, West Coast Wave Initiative <i>Impacts of Wave Power Productions Estimates due to Wave Resource Assessment Methods</i></p>	<p>Disruptive Advances (Materials, Design, Integration, etc)</p> <p>Moderator: Sue Molloy, Glas Ocean/Dalhousie University</p> <p>Presenters: Douglas Kane, InCurrent Turbines Ltd. <i>Ocean Energy - The Next 90: Using Vortex Power to Extract Energy from Ocean Currents Flowing below 3 Meters per Second</i></p> <p>Fabian Thalemann, Fraunhofer Institute IWES <i>A Web-based Geographical Information System for the Ocean Energy Sector</i></p> <p>Derek Robertson, Lockheed Martin <i>Inventions and Innovation for New Technology</i></p> <p>Rocky Taylor, Memorial University <i>Design Issues for Offshore Wind Turbines in Seasonal Ice Conditions</i></p>	<p>Energy Conversion and Array Project Design Issues</p> <p>Moderator: Jarett Goldsmith, DNV GL-Energy</p> <p>Presenters: Helen Bailey, West Coast Wave Initiative <i>Optimizing WECs for Canadian Waters</i></p> <p>Luke Myers, University of Southampton <i>Replication and Understanding of Ambient Turbulence for Validation and Performance of Marine Current Energy Converter Arrays</i></p> <p>Michael Shives, University of Victoria <i>Turbulence Modeling for Accurate Wake Prediction in Tidal Turbine Arrays</i></p> <p>Amin Abolghasemi, Imperial College London <i>Tidal Turbine Actuator Disc Method with Adaptive Grid Refinement and Appropriate RANS Turbulence Model</i></p> <p>Martin Koh <i>The Efficiency of Genetic Algorithm Compared to Traditional Turbine Layout in Tidal Turbine Farm Planning</i></p>
12:00 pm - 1:15 pm	Lunch in Exhibit Hall - Scotiabank Centre			
1:15 pm - 2:30 pm	Room 301 (5.1)	Room 302 (5.2)	Room 303 (5.3)	Room 204 (5.4)
	<p>Financing of Ocean Energy</p> <p>Moderator: Alan Moore, Renewable UK</p> <p>Presenters: Don Roberts, Nawitka Capital Advisors Ltd <i>Project Financing for Ocean Energy: Issues to Consider</i></p>	<p>Measurement, Communication and Monitoring</p> <p>Moderator: Marc Le Boulliec, Ifremer</p> <p>Presenters: Oliver Wragge, EMEC <i>Further Development and Testing of the EMEC Integrated</i></p>	<p>Current Technologies - Looking Forward</p> <p>Moderator: Colin Cornish, MEM (UK) Limited</p> <p>Presenters: Magnus Harrold, Tidal Energy Ltd. (TEL) IDCORE <i>Predictive Control for Tidal Turbines</i></p>	<p>Tidal Modeling</p> <p>Moderator: Richard Karsten, Acadia University</p> <p>Presenters: David Culley, Imperial College London <i>Realistic Tidal Energy Yield Estimation through</i></p>

<p>Calum Davidson, Highlands and Island Enterprise <i>Mobilizing Finance by Reducing Risk</i></p> <p>Stephan Ouaknine, Inerjys Ventures <i>Bridging the Gap from Innovation to Deployment</i></p> <p>Simon DePietro, DP Energy Timothy Cornelius , Atlantis Resources Ltd <i>Discussion Panel</i></p>	<p><i>Environmental Monitoring Platform</i></p> <p>Pablo Ruiz-Minguela, TECNALIA <i>SEGMARE - A Novel On-board Device for the Supervision and Control of Operational Hazards in Floating Marine Renewable Energy Units</i></p> <p>James Joslin, University of Washington <i>Development of an Adaptable Monitoring Package for Marine Renewable Energy</i></p> <p>Scott McLean, Ocean Networks Canada <i>Ocean Networks Canada's Quasi Real-time Underwater Monitoring and Control Systems</i></p>	<p>Étienne Gauthier, Laval University <i>Turning Structure Interference into Improved Power Output for Cross-flow Hydrokinetic Turbines</i></p> <p>Mahrez Ait-Mohammed, Ensta Bretagne <i>Numerical Investigation of Bare and Ducted Horizontal Axis Marine Current Turbines</i></p> <p>Jarett Goldsmith, DNV GL - Energy <i>Evaluation of Wake Models for a Tidal Farm Design Tool by Comparison to Experimental Data for Multi-Row Arrays of 3-12 Turbines</i></p>	<p><i>Optimisation of Turbine Arrays</i></p> <p>Tom Blackmore, University of Southampton <i>The Impacts of Turbulence, Waves, and Turbine Control on Blade Loading</i></p> <p>E. Mete Sireli, Clean Current Power Systems Inc. <i>A Novel Design Theory for Ducted Turbines</i></p> <p>Jerome Cuny, Open Ocean SAS Site Characterization of the Alderney Race with an innovative Metocean Analytics tool</p> <p>Luke Myers, University of Southampton <i>Performance Prediction and Layout Design of Tidal Turbine Arrays. How Close are we to an Optimised Solution?</i></p> <p>Daniel Coles, University of Southampton <i>Numerical Estimates of the Energy Yield Potential from the Alderney Race using Large Marine Current Turbine Arrays</i></p> <p>Dr. Kevin Wilcox, University of New Brunswick <i>Development of a High-Resolution Simulation Methodology for In-Situ Tidal Turbine Performance</i></p>
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2:30 pm - 3:00 pm Refreshment Break in Exhibit Hall - Scotiabank Centre

3:00 pm - 4:15pm	Room 301 (6.1)	Room 302 (6.2)	Room 303 (6.3)	Room 204 (6.4)
	<p>Industry Development Centres</p> <p>Moderator: Claire Gibson, Wave Hub</p> <p>Presenters: Anne-Marie Belliveau, Fundy Ocean Research for Energy (FORCE) <i>Adapting to Market Demand for Large Scale Technology Demonstration</i></p> <p>Neil Kermode, European Marine Energy Centre <i>Update on International Test Centres</i></p> <p>Belinda Batten, Northwest National Marine Renewable Energy Center <i>Solving Common Problems and Pursuing Standard Approaches</i></p> <p>Yago Torre-Enciso, Biscay Marine Energy Platform <i>Invigorating Local Supply Chains</i></p>	<p>Moorings, Anchors, and Foundations</p> <p>Moderator: Ryan Nicoll, Dynamic Systems Analysis Ltd</p> <p>Presenters: Andrew Scott, Pelamis Wave Power <i>Pelamis Quick Release and Connection System: Enabling a Cost Effective Off-site Maintenance Strategy</i></p> <p>Dean Steinke & Andrew Baron, Dynamic Systems Analysis <i>Making Tidal Energy Projects Stick: Lessons Learned in the Analysis of Moorings, Anchors, and Operations at Tidal Energy Sites in the Bay of Fundy</i></p> <p>Lars Johanning, Peter Davies, University of Exeter and IFREMER (France) <i>Mooring of MRE Systems with Synthetic Ropes; A Review</i></p> <p>Adam Holland and Damian Callan, McLaughlin & Harvey (UK) <i>De-risking and Cost Reduction for Installation of Wave and Tidal Technology</i></p>	<p>Next Generation - Wave Technology</p> <p>Moderator: John Huckerby, Power Projects Ltd.</p> <p>Presenters: Reenst Lesemann, Columbia Power Technologies <i>Balancing Risk Reduction, Capital Efficiency and Time to Market - The Product Development Path of Columbia Power Technologies, a Next-Generation Wave Energy Technology Company</i></p> <p>Timothy Mundon, Oscilla Power Inc <i>Performance of a Two Body Magnetostrictive Wave Energy Harvester</i></p> <p>Songwei Sheng, Guangzhou Institute of Energy Conversion, Chinese Academy of Sciences <i>A Novel Floating Wave Energy Converter—Sharp Eagle</i></p> <p>David Campbell, Albatern <i>Wave Power for the off-grid market - A case study in aquaculture</i></p>	<p>Resource Assessment and Site Characterization</p> <p>Moderator: Melissa Oldreive, Nova Scotia Department of Energy</p> <p>Presenters: Joel Culina, Fundy Ocean Research for Energy <i>Surface Current Mapping in the FORCE Region of the Bay of Fundy by combining Results from X-band Radar and Hydrodynamic Models</i></p> <p>Jon Mackie/Gordon Fader, Seaforth Geosurveys <i>Geological Concerns of Site Selection and Characterization for Tidal Power In-Stream Energy Conversion Devices and Multi-sensor Platforms in the Bay of Fundy</i></p> <p>George Hagerman/Philip Balitsky Virginia Tech Advanced Research Institute <i>Preliminary Assessment of Wave Energy Resources and Design Conditions at Four Proposed U.S. Test Sites</i></p> <p>Dr. Brian Todd, Geological Survey of Canada (Atlantic), Bedford Institute of Oceanography <i>Geological Survey of Canada's Site Characterization Studies for Ocean Renewable Energy</i></p> <p>Paul Bell, University of Aberdeen <i>Field Deployments of a Self-contained Subsea Platform for Acoustic Monitoring of the Environment around Marine Renewable Energy Structures</i></p> <p>Philip Balitsky, Virginia Tech Advanced Research Institute <i>Preliminary Assessment of Wave Energy Resources and Design Conditions at Four Proposed U.S. Test Sites</i></p>

6:30 pm - 9:30 pm ICOE Gala Dinner - Cunard Centre
Bus Transportation provided from Delta Halifax/Prince George Hotel (embark 5:20 - 7:00pm/return 9:00 - 10:00 pm)

THURSDAY, November 6

8:00 am - 4:00 pm	Registration - Room 202			
8:30 am - 9:00 am	Refreshment Break - Foyer 300			
8:30 am - 4:00 pm	B2B - Room 200 C			
9:00 am - 10:15 am	<p>Room 301 (7.1)</p> <p>Strategic Innovation Acceleration</p> <p>Moderator: Doug Keefe, Doug Keefe Consulting</p> <p>Presenters: Dr. Ir. Matthijs Soede, European Commission, DG Research and Innovation, Renewable Energy Sources <i>Horizon 2020, A Strategic Integrated Approach to Innovation in Ocean Energy</i></p>	<p>Room 302 (7.2)</p> <p>Marine Operations: Deployment and Recovery Developments</p> <p>Moderator: Graham Curren, J.D. Irving Ltd</p> <p>Presenters: Allard van Hoeken, Bluewater Energy Services BV <i>The Installation, Operation and Maintenance Concept of the Floating Tidal Energy Device "SeaGen-F". (SeaGen-F is a Bluewater-Siemens Joint Development)</i></p>	<p>Room 303 (7.3)</p> <p>Canadian Technology Showcase</p> <p>Moderator: Eric Bibeau -Canadian Hydrokinetic Turbine Testing Centre/University of Manitoba</p> <p>Presenters: Voytek Klaptocz , MAVI Innovations</p> <p>Charles Haynes, Mermaid Power Corp.</p>	<p>Room 204 (7.4)</p> <p>Wave Modeling</p> <p>Moderator: Helen Bailey, University of Victoria</p> <p>Presenters: Jens Peter Kofoed, Aalborg University <i>Advances in Modelling and Structural Design of Wave Energy Devices</i></p> <p>Bret Bosma, UCC HMRC / Oregon State University</p>

	<p>Simon Robertson, Carbon Trust, Marine Energy Farm Accelerator <i>UK Marine Energy Industry: Pathway to Commercialisation</i></p> <p>Dr. B. Mario Pinto, NSERC <i>Academic-Industry Research Partnerships to Support Innovation and Industry Growth in Marine Renewables</i></p> <p>Yann-Herve De Roeck, French Energies Marines <i>Public-private Synergy Fostering Innovation in the French MRE Sector</i></p>	<p>Bill Shaw, Bauer Renewables <i>Monopile Foundations for Tidal Turbines - Design and Economics</i></p> <p>Mike Wilson, Ecosse Subsea Systems <i>Sustainable Installation and Maintenance Methods for Tidal Energy</i></p> <p>David Irving, Atlantic Towing</p>	<p>Russell Stothers, Clean Current Power Systems</p> <p>Joel Atwater, HydroRun</p> <p>Clayton Bear, New Energy Corp</p> <p>Pierre Blanchet, Indenergie</p>	<p><i>Design and Modeling of the Floating Power System for the Galway Bay Wave Energy Test Site</i></p> <p>Clayton Hiles, Cascadia Coast Research Ltd. <i>Forecasting Nearshore Waves on the British Columbia Coast</i></p> <p>Jochem Weber, National Renewable Energy Laboratory <i>Wave Energy Converter Technology Development - Technology Performance Levels & Structured Innovation</i></p> <p>Shahab Yeylaghi, University of Victoria <i>A Comparison of SPH and RANS Models for Simulation of Wave Overtopping</i></p> <p>Wanan Sheng, University College Cork <i>A New Latching Control Technology for Improving Wave Energy Conversion</i></p> <p>Samuel Draycott, Edinburgh University <i>The All-Waters Test Facility</i></p>	
10:15am - 1:00 pm	Exhibition & Business Centre - Scotiabank Centre				
10:15am - 10:45 am	Refreshment Break in Exhibit Hall - Scotiabank Centre				
10:45 am - 12:00 pm	<p>Room 301 (8.1)</p> <p>International Collaboration/ Acceleration</p> <p>Moderator: Ana Brito e Melo, Wave Energy Centre</p> <p>Presenters: Alison LaBonte, US Department of Energy <i>DOE achievements in evolving marine energy technology</i></p> <p>Henry Jeffrey, University of Edinburgh <i>Developing a UK Marine Energy Sector</i></p> <p>Tony Lewis, University College Cork <i>Building Research Capacity in Ocean Energy in Ireland and International Dimensions</i></p> <p>Xia Dengwen <i>Governmental Initiatives and Relevant Projects in China</i></p> <p>José Luis Villate, TECNALIA <i>The OES Role Supporting the Development of Ocean Energy</i></p>	<p>Room 302 (8.2)</p> <p>Cables - Experiences and Risks</p> <p>Moderator: Neil Rondorf, LEIDOS</p> <p>Presenters: Florence LaFon, EDF <i>Paimpol-Brehat Tidal Farm: Export Cable Stabilization</i></p> <p>Dorleta Marina, EVE- Ente Vasco de la Energia <i>Subsea Cable Laying: From Theory to Practice</i></p> <p>Alasdair Wilkie, Hibernia Networks <i>Submarine Cables - Still Learning after 150 years</i></p> <p>Joel Whitman, Whitman Consulting Group <i>Offshore Power Cables Lessons Learned: from project planning to installation to maintenance</i></p>	<p>Room 303 (8.3)</p> <p>Numerical Modelling - Critical Learning before Getting Wet</p> <p>Moderator: Richard Karsten, Acadia University</p> <p>Presenters: Mitsuhiro Kawase, University of Washington <i>An Assessment of the State of the Art in Regional-Scale Ocean Modelling for Tidal Energy Applications</i></p> <p>Simon Funke, Simula Research Laboratory <i>Tidal Farm Layout Optimisation and Resource Assessment based on PDE-constrained Optimisation</i></p> <p>Brian Polagye, University of Washington <i>Design Load Estimation for Tidal Turbines from a Multi-Year Measurement Time Series</i></p> <p>Bryson Robertson, University of Victoria <i>Quantifying the Wave Energy Resource and Farm Siting Opportunities for British Columbia</i></p> <p>Kevin Wilcox, University of New Brunswick <i>Turbine Modeling Towards In-Situ Tidal Simulation in the Bay of Fundy</i></p>	<p>Room 204 (8.4)</p> <p>Technology Assessment and Standards</p> <p>Moderator: John Miller, MRE Consortium of New England</p> <p>Presenters: John Breslin, SmartBay Ireland Ltd. <i>SmartBay - Ireland's Test, Demonstration and Validation Facility for Ocean Energy Device Developers</i></p> <p>Stuart Brown, FloWave TT Ltd <i>Lessons Learned and Research Findings following the Recent Completion and Preliminary Research at the FloWave Ocean Energy Research Facility</i></p> <p>Chenhua Ni, National Ocean Technology Center China <i>Development of Ocean Energy Test Field in China</i></p> <p>Victoria Alleyne, CSA Group <i>Standardization: Advancing the Industry by doing Marine Energy Right - the First Time Around</i></p>	<p>Room 204 (18.4)</p> <p>Instruments</p> <p>Moderator: John Miller, MRE Consortium of New England</p> <p>Presenters: Dr. Paul Bell, UK National Oceanography Centre <i>Marine Radar Derived Current Vector Mapping at a Planned Commercial Tidal Stream Turbine Array in the Pentland Firth</i></p> <p>Steven Benjamins, Scottish Association for Marine Science <i>Using Drifting and Moored Passive Acoustic Detectors to Monitor Porpoises in Tidal-stream Sites</i></p> <p>Len Zedel, Memorial University <i>Observing Fish Behavior using a Bottom Mounted Doppler Velocity Profiler at a Proposed In-stream Tidal Site: Grand Passage Nova Scotia</i></p> <p>Adam Brown, Oregon State University <i>A Wave Measurement Buoy to Detect Wave Breaking</i></p> <p>Qiulin Liu, Tsinghua University <i>Experimental Study on Performance of Wave Buoys in Measuring Waves</i></p>
12:00 pm - 12:45 pm	Networking Lunch (Room 200)				
12:45 pm - 1:30 pm	Plenary 4 - Room 200				
	<p>Showing the World - INORE, Building the Foundations of Collaborative Research Moderator: Thomas Kinsey, INORE</p> <p>Speakers:</p> <ul style="list-style-type: none"> Matthew Hall, University of Maine - <i>Innovation in Offshore Renewable Energy: International Collaboration and INORE</i> Adrián David de Andrés Gutierrez, University of Cantabria - <i>Identifying Risk and Uncertainties - Pathways Towards a Lower LCOE in Marine Energy</i> Carlos Perez-Collazo, Plymouth University - <i>Colocated Wave - Wind Farms: A Preliminary Approach to the Shadow Effect</i> Robynne Murray, Dalhousie University & Katie Grace, Strathclyde University - <i>Development of High Performance Tidal Turbine Rotors through Collaborative Research Initiatives</i> 				
1:40pm - 2:50pm	<p>Room 301 (9.1)</p> <p>Supply Chain Best Practices</p> <p>Moderator: Sheila Paterson, Nova Scotia Economic and Rural Development and Tourism</p> <p>Presenters: Jan Reid, Scottish Enterprise <i>Next Steps in Marine Energy in Scotland</i></p> <p>John Ferland, Ocean Renewable Power Company <i>Experience from the Field: Improving Performance and Reducing Cost in the Supply Chain</i></p> <p>Gareth Davies, Aquatera <i>Making Marine Operations Effective, Reliable and Affordable for the Marine Energy Sector</i></p> <p>Jim Hanlon, IORE <i>The Role of Industry, University, Government Research Collaboration in the Development of Marine Renewable Energy Supply Chains</i></p>	<p>Room 302 (9.2)</p> <p>Subsea Power Technology</p> <p>Moderator: TBA, OceanWorks International</p> <p>Presenters: Don Bryan, MacArtney Inc. <i>Subsea Infrastructure in Marine Renewable Energy</i></p> <p>Arthur Burrows, Siemens Energy UK <i>Lowering the Cost of Marine Energy with Affordable Subsea Connection Solutions</i></p> <p>Jonathan Ritchey, Exro Technologies <i>Improving Generator and Motor Technology using Dynamic Current Management (DCM)</i></p> <p>Dave Pye, Seacon <i>The Use of Subsea Connectors in Marine Renewable Energy</i></p>	<p>Room 303 (9.3)</p> <p>Developing Standards and Best Practices</p> <p>Moderator: Russell Stothers, Clean Current Power Systems</p> <p>Presenters: Claudio Bittencourt Ferreira, DNV GL <i>The Acceptance of Tests for Approval in Marine Renewables</i></p> <p>Andrew Cornett, National Research Council Canada <i>Appraisal of IEC Standards for Wave and Tidal Energy Resource Assessment</i></p> <p>Morgane Lejart, France Energies Marines <i>GHYDRO: Methodology Guide for Assessment of Environmental Impacts of Tidal Stream Energy Technologies at Sea</i></p> <p>Anna Redden, Acadia Tidal Energy Institute <i>Detecting Potential and Actual Turbine-Marine Life Interactions: A Call for the Development of Best Practices</i></p>	<p>Room 204 (9.4)</p> <p>Disruptive Advances (Materials, Design, Integration etc)</p> <p>Moderator: Clayton Bear, New Energy Corporation</p> <p>Presenters: Katie Gracie, <i>Impact Analysis of Blade Shape on Performance of Tidal Turbine for Passive Feather Power Regulation</i></p> <p>Prof Conchúr Ó Brádaigh, UCC <i>Fatigue Design of Composite Tidal Turbine Blades: Effects of Water Saturation and Control Strategy</i></p> <p>Robynne Murray, Dalhousie University <i>Design of Passively Adaptive Rotor Blades for Horizontal-axis Tidal Turbines</i></p> <p>Deborah Greaves, Plymouth University <i>Compressible Wave Energy Devices</i></p> <p>Prof. Luis Gato, Instituto Superior Técnico</p>	

				<p><i>Testing OWC Sparbuoy at Technalia</i></p> <p>Keith Towse, Scott's Bay Tidal Power <i>A Paradigm Shift in Tidal Range Technologies</i></p> <p>Joaquin Hernandez-Brito <i>The Integration of Marine Renewables Energies in Multi-use Offshore Platforms in the scope of the FP7 TROPOS Project</i></p> <p>Gino Bawn, IT Power <i>Tool for Conceptual Engineering Design of a Multiuse Offshore Installation: The H2OCEAN Case</i></p>
2:50 pm - 3:05 pm	Refreshment Break - Foyer 300			
3:05pm - 4:15pm	<p>Room 301 (10.1)</p> <p>European Policy and Market Drivers for Ocean Energy Development in the EU</p> <p>Moderator: Remi Gruet, Ocean Energy Europe</p> <p>Presenters: Annie Cudennec, University of Brest <i>The European Legal Framework for Offshore Renewable Energies</i></p> <p>Kerstin Hindrum, OffshoreVäst hosted by SP Technical Research Institute of Sweden <i>Offshore Vast: A Swedish Industrial Initiative</i></p> <p>Benat Sanz, Spanish Renewable Energy Association- APPA <i>Spanish Know-how: A Great Opportunity to Lead the Market</i></p>	<p>Room 302 (10.2)</p> <p>River Current Energy - State of Play</p> <p>Moderator: Marie-Helene Briand, Water Power</p> <p>Presenters: Gilles Boesch, Hatch Ltd. <i>River Current Resource Assessment and Characterization Considering Ice Conditions</i></p> <p>Andrew Cornett, National Research Council Canada <i>Hydrokinetic Energy Resources in the St Lawrence River and Estuary/A National Assessment of Canadian Inland Hydrokinetic Resource Potential</i></p> <p>Eric Bibeau, University of Manitoba <i>The Canadian Hydrokinetic Turbine Test Centre Capacity and Opportunity</i></p> <p>John Ferland, Ocean Renewable Power Company <i>Making River Energy an Economical Source of Clean Power for Remote Communities</i></p>	<p>Room 303 (10.3)</p> <p>Advances in other Marine Energies</p> <p>Moderator: Yann Herve de Roeck, France Energies Marines</p> <p>Presenters: Sarah Bellew, Floating Power Plant <i>Application of the Aero-Hydro-Elastic Model, Hawc2-WAMIT, to Offshore Data from Floating Power Plant's Hybrid Wind- and Wave-Energy Test Platform, P37</i></p> <p>Jinfu Xiao, North Carolina State University <i>Characterization of Structural Response of Two OCAES Vessel Configurations under Operational Loading</i></p> <p>Claude Mabile, IFP Energies Nouvelles <i>Analysing the Effect of the Hot Water Temperature Change on Different OTEC Processes</i></p> <p>Peter Roberts, VerdErg Renewable Energy Ltd <i>Venturi-Enhanced Turbine Technology</i></p>	<p>Room 204 (10.4)</p> <p>Cost of Energy</p> <p>Moderator: Shelley MacDougall, Acadia University</p> <p>Presenters: Lucy Cradden, University of Edinburgh <i>Visualising the Levelised Cost of Offshore Energy around Europe</i></p> <p>Thomas Roc, Acadia University <i>Benchmarking Tidal Array Optimization: a Balance between Impacts & Economics of the Bay of Fundy - Early Results</i></p> <p>Pablo Ruiz-Minguela, TECNALIA <i>A Project-investment Oriented Approach for Design of Wave Energy Technologies</i></p> <p>Shelley MacDougall, Acadia University <i>Better to Wait? Investigating the Value of Delay of In-stream Tidal Energy Projects</i></p> <p>Erik Schulz, Floating Power Plant <i>Can the Levelised Cost of Energy be reduced by Combining Wave and Wind Energy</i></p> <p>James Monroe, Blue Water Dynamos <i>Mooring/ Anchoring Cost Effective Alternative</i></p> <p>Vincent Neary, Sandia National Laboratories <i>Key findings of the Reference Model Project (RMP), sponsored by the U.S. Department of Energy's (DOE) Wind and Water Power Technologies Program within the Office of Energy Efficiency & Renewable Energy (EERE)</i></p>
4:25 pm - 5:25 pm	<p>Plenary Session 5 - Room 200</p> <p>Showing the World - ICOE 2014'S Iconic Steps Forward</p> <p>Moderator: Elisa Obermann, Atlantic Director, Marine Renewables Canada</p>			
FRIDAY, November 07 8:00am - 5:00 pm	<p>Annapolis Basin Tidal Station Site Tour Bus Boards at Delta Halifax Hotel 7:45 am</p>			