



FERN
FUNDY ENERGY RESEARCH NETWORK

Annual Update of Activities and Accomplishments

April 2011-March 2012

The FERN Terms of Reference, which provide a summary of the roles and functions, can be found at <http://fern.acadiau.ca>.

FERN Objectives:

1. To identify and provide guidance on emerging and priority issues related to tidal energy proposals and developments;
2. To facilitate research collaboration and information sharing among government scientists, academia and tidal energy developers to address environmental, socio-economic and engineering issues and challenges associated with tidal energy developments in the Bay of Fundy;
3. To enable creation of research teams capable of obtaining funding to support collaborative research and training of the next generation of highly qualified people;
4. To enhance communication and cooperation among those involved in tidal energy research and development;
5. To develop and maintain productive relationships with regional, national and international groups involved in tidal energy research;
6. To communicate information and research progress through meetings, seminars, conferences, reports, FERN website, and/or other forms of public presentation.

Membership as of March 2012

- 101 general members (individuals and organizations) registered
- 35 subcommittee members: 6 Biological/Ecological, 12 Socioeconomic, 6 Engineering Challenges, 11 Hydrodynamics & Geophysics
- The executive committee is comprised of 6 members, two co-chairs (Drs Anna Redden and Ken Lee) and one chair from each of the 4 subcommittees

Committee Members

Name	FERN Committee	Affiliation
Anna Redden	Executive Committee co-chair	Acadia Centre for Estuarine Research / ATEI
Ken Lee	Executive committee co-chair	COOGER
Graham Daborn	Biological/Ecological co-chair	Acadia
Gerhard Pohle	Biological/Ecological co-chair	Huntsman Marine Science
Dom Tollit	Biological/Ecological	SMRU
Gary Melvin	Biological/Ecological	DFO, St. Andrews
Jean-Marc Nicholas	Biological/Ecological	NS Power
Greg Trowse	Biological/Ecological	Fund Tidal Inc. / Dalhousie
Kay Crinean	Socioeconomics co-chair	Maritime Tidal Corp.
Dana Morin	Socioeconomics co-chair	Fundy Tidal Inc.
Gay Harley	Socioeconomics	Scotian Carbon Services
Jim Stanley	Socioeconomics	Nova Scotia Community College
John Colton	Socioeconomics	Acadia - School of Recreation Management and Kinesiology, ATEI
James Taylor	Socioeconomics	NS Power / independent
Eric Christmas	Socioeconomics	Mi'qmac Rights Initiative
Sasha Clarke	Socioeconomics	NS Dept ERD
Shelley MacDougall	Socioeconomics	Acadia - School of Business / ATEI
Terry Thibodeau	Socioeconomics	Municipality of Digby
Shawna Eason	Socioeconomics	Cumberland Regional Development Agency
Sandra Farwell (Alternate - Mana Wareham)	Socioeconomics	NS Dept. Energy
Andrew Henry	Engineering	Consultant
Ghanashyam Ranjitka	Engineering	NRCan
James Taylor	Engineering	NS Power
Jamie Ross	Engineering	Consultant
Mo El-Hawary	Engineering co-chair	Dalhousie
Sue Molloy	Engineering co-chair	Glas Ocean Engineering

Alex Hay	Hydrodynamics & Geophysics	Dalhousie
Dan Thompson	Hydrodynamics & Geophysics	NS Power
Danika van Proosdij	Hydrodynamics & Geophysics	SMU
David Greenberg	Hydrodynamics & Geophysics	DFO
Joel Culina	Hydrodynamics & Geophysics	Acadia
Peter Smith	Hydrodynamics & Geophysics co-chair	DFO
Richard Karsten	Hydrodynamics & Geophysics co-chair	Acadia
Ryan Mulligan	Hydrodynamics & Geophysics	Queen's University
Simon Melrose	Hydrodynamics & Geophysics	Oceans Ltd.
Brent Law	Hydrodynamics & Geophysics	DFO
John Shaw	Hydrodynamics & Geophysics	GSC

FERN activities and progress during the period April 2011 – March 2012 is shown in the following table:

Area of Activity			Current status (as of Mar 2012)
	Activity	Personnel	
Representation at Meetings and Events	FERN Meetings held April 2011-March 2012: Executive (May 2011 & Oct. 2011); Biological/Ecological (quarterly); Socioeconomics (every 2 nd month), Hydrodynamics & Geophysics (quarterly), Engineering (every 2 nd month).	-	-
	Representation on external committees <ul style="list-style-type: none"> Member at Large, Bay of Fundy Ecosystem Partnership Management Committee (L. Isaacman) Observer, ACZISC Steering Committee (L. Isaacman) 	Coordinator/Executive	
	Representation at regional, national and international marine renewable energy events: <ul style="list-style-type: none"> Nova Scotia Tidal Energy Forum (presentations by A. Redden, attended by L. Isaacman) (July 2011) 9th Bay of Fundy Ecosystem Partnership Workshop (presentation by L. Isaacman) (St. John, Sept. 2011) ACZISC Steering Committee Meeting (attended by L. Isaacman)(Oct. 2011, Jan. 2012) CSAS National Workshop on DFO Pathways of Effects (Presentation by L. Isaacman, attended by A. Redden, G. Daborn, P. Smith) (Montreal, Nov. 2011) OREG Conference (Presentation by A. Redden, R. Karsten, G. Daborn, attended by L. Isaacman) (Montreal, Nov. 2011) DFO Marine Energy Workshop (Presentation by L. Isaacman, attended by A. Redden, G. Daborn, P. Smith)(Montreal, Feb. 2012) Meetings with Chinese and Korean delegations 	Coordinator / Executive	Completed

Area of Activity			Current status (as of Mar 2012)
	Activity	Personnel	
	regarding potential collaborations & environmental research/monitoring.		
Major Communication Outputs	1 st FERN Newsletter. Distributed to members and associates via email, posted on website and distributed at various regional, national and international events.	Coordinator/Executive	Released July 2011
	2 nd FERN Newsletter	Coordinator	Expected spring 2012
	FERN website maintained and updated, including addition of a searchable publications catalogue, field research calendar, and notice boards	Coordinator	On-going
Projects Underway or Completed	National HQ Fisheries and Oceans Canada contract to complete Pathways of Effects logic models identifying potential environmental stressors and effects of marine wind, tidal and wave energy technologies – component of Clean Energy Fund project to develop strategic research plan and regulatory guidance. Report underwent peer review through a CSAS scientific workshop held November 2011.	Coordinator/G.Daborn	Completed
	Collaborating on developing a Bay of Fundy Modellers Network to facilitate data sharing and communication among the BoF modelling community (in support of subcommittee)	Hydrodynamics & Geophysics SC	Underway
	Facilitated Fundy Tidal Energy Environmental Monitoring and Systems Technical Workshop in partnership with FORCE, ONCCEE and ATEI held in Halifax Jan. 2012. Workshop report to be completed in Spring.	Biological/Ecological Effects SC & Hydrodynamics & Geophysics SC	Completed – report in preparation
	Guidance for Best Practices in Tidal Energy Development – contract awarded by DFO and NS Dept of Energy.	Coordinator/G.Daborn	Underway

Area of Activity		Current status (as of Mar 2012)
Activity	Personnel	
FERN Socioeconomics Scoping Study for Nova Scotia – contract awarded by NS Dept. of Energy.	Socioeconomics SC	Completed
Marine Renewable Energy environmental monitoring and resource characterization technologies and capabilities: review and gap analysis – contract awarded by NRCan	A. Redden, B. Polagye (member)	On-going
Support CFI proposal (Acadia, Dalhousie, SMU, UManitoba collaboration) for advancing research on monitoring tools for detecting impacts on aquatic species from tidal power developments	Coordinator / various members	Ongoing