

# Environmental Monitoring in High Flow Conditions

With in-stream tidal projects on the horizon, the world is watching Canada develop new monitoring technology to enable a clean, predictable carbon-free energy source.



## In-stream Tidal Commercialization

There's a need to monitor and report fish and marine mammal interactions with turbines in high flow sites.

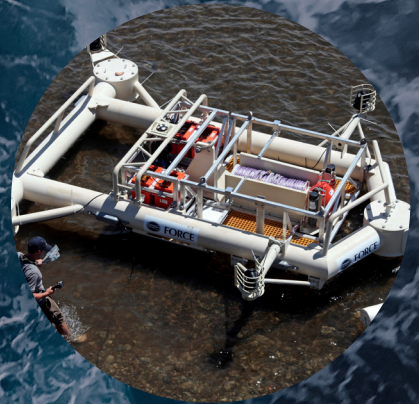
Approved monitoring solutions are critical to the advancement of the tidal energy industry.



## Canadian-made Solutions

Canada's existing strengths in ocean monitoring and big data analytics can be engaged to develop innovations.

Canadian suppliers will have new technology to sell globally to the tidal energy, offshore wind and other sectors of the ocean economy.



## Success from Experience

Success is possible because of prior investments in marine monitoring.

Years of funded research and monitoring in Bay of Fundy has generated the expertise and hands-on experience needed for success.



# The Pathway

## A program for regulatory certainty for in-stream tidal energy projects

A collaborative effort to move the industry forward

- Tidal Developers
- Sensor Technology Providers
- Data Analytics Providers
- Academia
- Regulators
- OERA and FORCE

### Pathway benefits

- Approval of monitoring solution before deployment
- Minimize operating time before deployment
- Faster authorizations for future deployments
- Reduce cost of technology development for Canadian SMEs



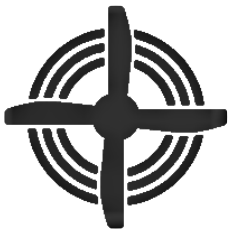
#### Global Capability Assessment

- Identify promising technologies
- Build partnerships



#### Advancing Data Automation

- Timely reporting



#### Technology Validation

- Approval prior to turbine deployment

Global Assessment



Data Automation



Field Trials



Validation



Regulatory Confidence



Global Collaboration



"A fish/marine mammal monitoring solution that is capable of informing Canadian Regulators about the risks to, and potential impacts on, marine animals is essential to the development of in-stream tidal energy technologies and projects in Canada.

The collaborative program that OERA and FORCE are proposing would address concerns and uncertainties that have been expressed by regulators, that are currently placing the delivery of our initial testing and development projects, along with the significant inward investment associated with these projects, at risk.

We're looking forward to making our contribution to the program's success, and believe this project has the potential to unlock the development of a successful tidal energy sector in Canada."

J. Hayman, Managing Director, Sustainable Marine Energy