

# Tidal Energy: Coming Soon to a Grid Near You

*Presented at:  
NEPPA Annual Conference, Rockport, Maine  
August 22, 2011*



Christopher R. Sauer, President & CEO

# ORPC Company Overview

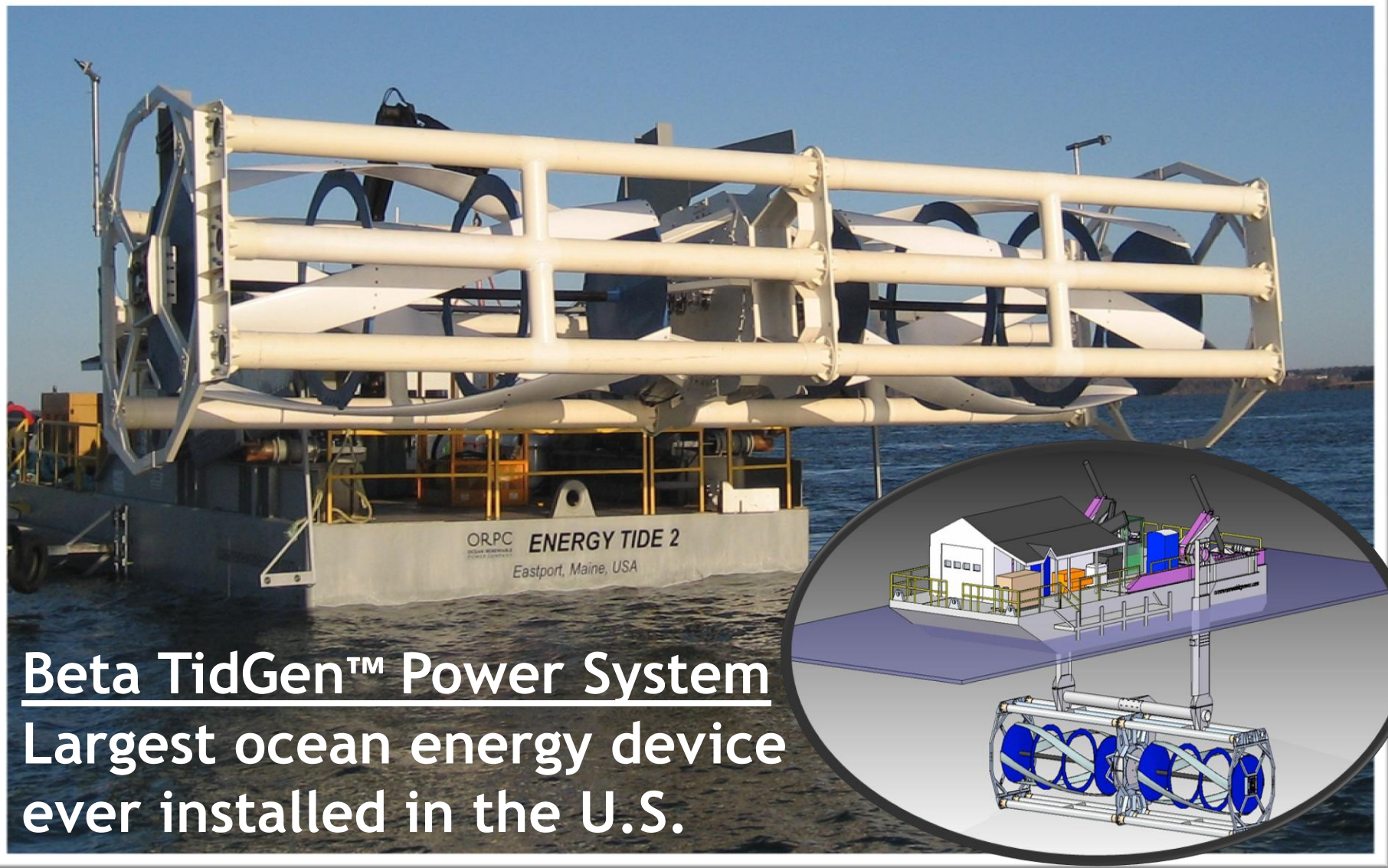
Developer of hydrokinetic power systems and commercial projects for tidal, river and ocean current power generation

Project sites in Maine, Alaska and Nova Scotia with up to 300 MW of Installed Capacity

Superior, adaptable, scalable technology resulting in competitive power systems

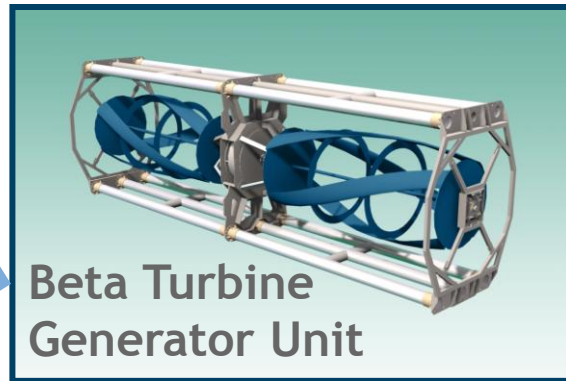
Founded in 2004 - now 28 employees

\$39 MM committed capital - \$19 MM in state and federal funding (\$10 MM DOE award)

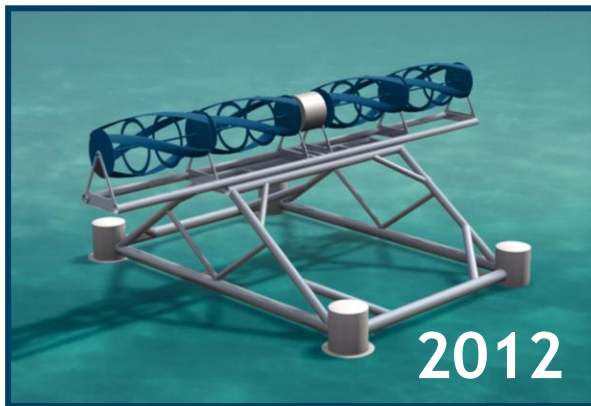


**Beta TidGen™ Power System**  
**Largest ocean energy device**  
**ever installed in the U.S.**

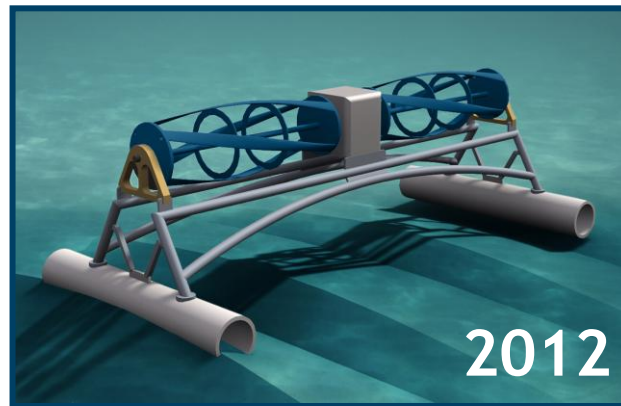
# ORPC Power Systems



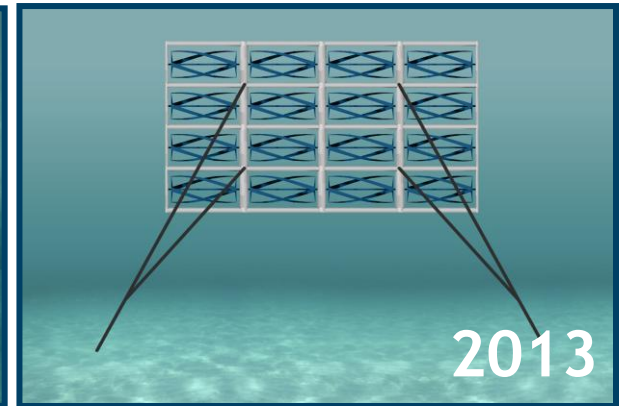
150 kW TidGen™



50 kW RivGen™



600 kW OCGen™

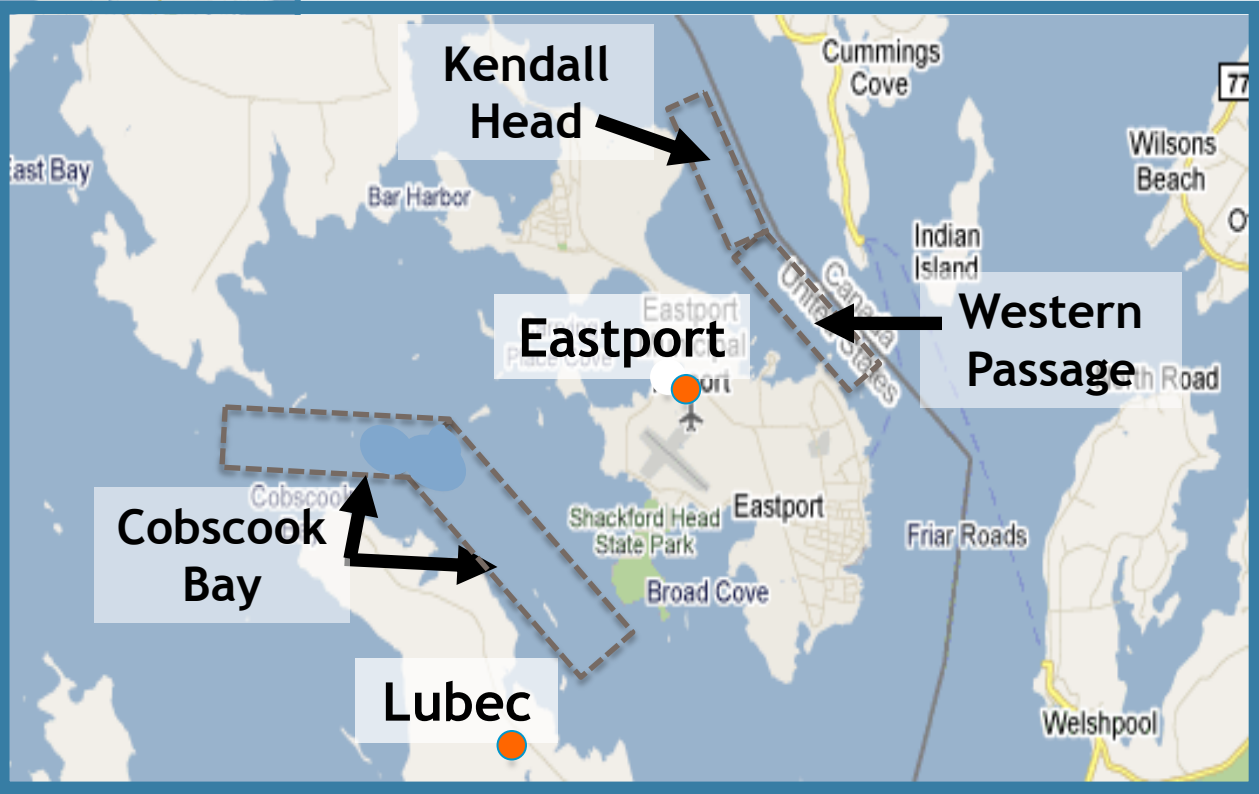


# Maine Tidal Energy Project

Eastport & Lubec, Maine

Boston

*At the mouth of the Bay of Fundy*



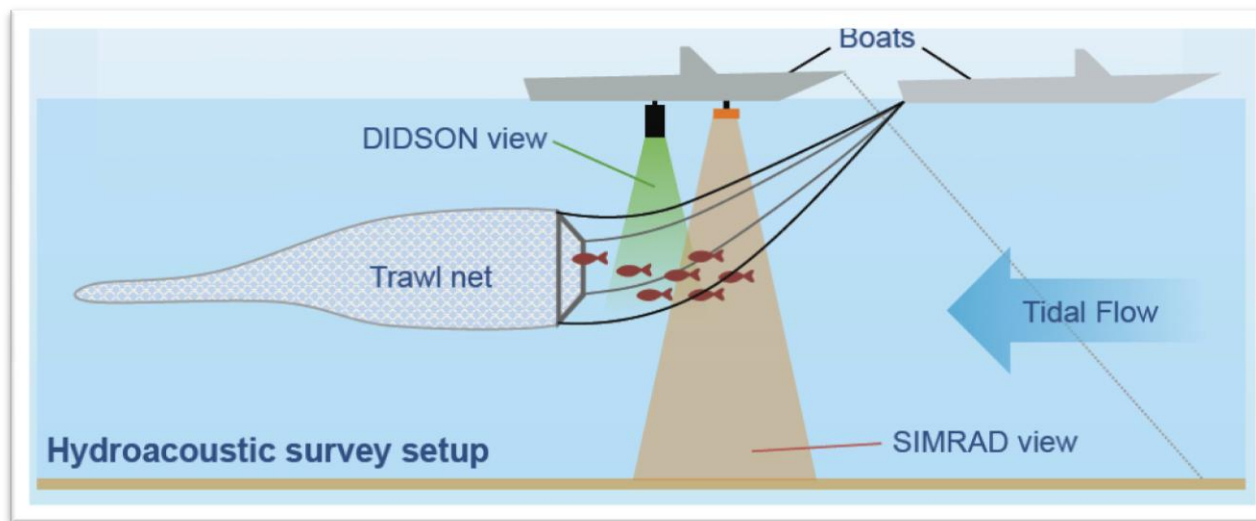
# ORPC Partnerships

- Local communities and fishing industry groups
- Universities in Alaska, Maine, Nova Scotia, Washington, Pennsylvania and Wisconsin
- Utilities, including electric cooperatives and independent power producers
- State and federal agencies
- Supply chain
- Strategic investors



# Environmental Monitoring

In partnership with University of Maine researchers, ORPC has been studying fish and marine mammals at our Maine Tidal Energy Project site and conducting extensive project monitoring for over three years. No negative interactions have been observed.

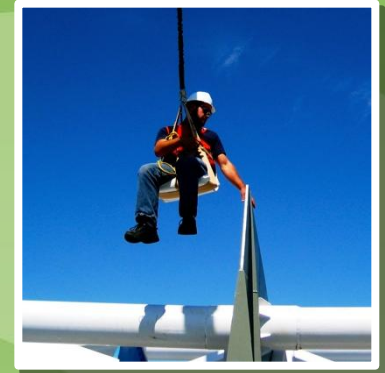


## *From 2007 to 2011, ORPC has:*

- Created or helped retain more than 100 jobs statewide
- Grown from 0 to 23 fulltime employees in Maine
- Spent over \$8 million on goods and services in thirteen of Maine's sixteen counties
- Created new R&D and other professional opportunities for young Mainers
- Jump started the ocean energy industry in Maine, setting the standard for coastal community relations

## *In the Next 7-10 Years, the Tidal Energy Industry in Maine will:*

- Create 400 to 500 direct jobs, including new working waterfront jobs
- Attract investment of up to \$1 billion in Maine
- Create new, sustainable markets for Maine's world class composites industry



# ORPC's Maine Tidal Energy Project

- Possibly the first commercial-scale U.S. tidal project
- Creates significant economic benefits
- Reduces emissions and dependence on fossil fuels
- Provides fuel diversity and price stability
- Delivers predictable, clean, renewable energy
- Critical stepping stone in industry development
- Catalyst for Maine-based technology and manufacturing expertise that can be exported
- Will lead to advanced, commercial, cost-competitive projects by 2020

# Outlook for Maine's Tidal Energy Industry



- Can be a world leader - already recognized around the globe
- Perfect fit with Maine traditions, skills and resources
- 250 MW in state potential
- Combination of utility scale and small distributed generation projects
- Sustainable economic development