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A VIABLE MARINE
RENEWABLE ENERGY INDUSTRY:
*Solutions to Legal, Economic,
and Policy Challenges*

OCTOBER 23 – 24, 2008

ROGER WILLIAMS UNIVERSITY
SCHOOL OF LAW
BRISTOL, RHODE ISLAND



Photo courtesy of Bluewater Wind





7th Marine Law Symposium
*A VIABLE MARINE RENEWABLE ENERGY INDUSTRY:
SOLUTIONS TO LEGAL, ECONOMIC, AND POLICY CHALLENGES*

October 23-24, 2008
Roger Williams University School of Law · Bristol, Rhode Island

WELCOME!

On behalf of Roger Williams University School of Law, welcome to the 7th Marine Law Symposium, *A Viable Marine Renewable Energy Industry: Solutions to Legal, Economic, and Policy Challenges*.

This year's Symposium focuses on an issue of unprecedented importance to ocean managers, politicians, scientists and citizens concerned about our nation's energy and maritime future: producing renewable energy from ocean resources. The cross-cutting nature of this issue and the timing of this year's Symposium make this topic particularly compelling. Whether you are a manager struggling with increasingly complex management decisions on ocean uses, an energy entrepreneur navigating your way through a maze of regulations, or a coastal community member concerned about long-term sustainability including existing marine and coastal uses as well as sustainable energy sources, renewable ocean energy production is in need of focused attention.

Over the next two days, experts in this fast-moving field from government, private sector and nonprofit organizations will present their experiences and engage in provocative discussion on the array of issues raised by these new uses of ocean resources. We will examine the regulatory framework, both current and future, and the technological challenges raised by generating and using energy from the marine environment. We will investigate the economic and financial obstacles and community concerns, many of which are common to any emerging industry, but all with their own unique ocean focus. International experts will share their experiences, and provide valuable 'lessons learned.' It is our intent that at the end of this Symposium, the range of information presented will guide the development of the appropriate legal and policy processes for renewable ocean energy at this critical time.

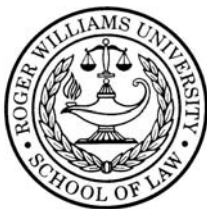
In an endeavor to extend the usefulness of this exercise beyond the walls of the law school for these two days, we have prepared a background paper, will be streaming and blogging the Symposium live on the Internet at (mms://streamer.rwu.edu/marinelaw), and will be publishing a Symposium issue of *The Roger Williams University Law Review* with articles submitted by the presenters. The background paper and selected presentations will also be made available on the Marine Affairs Institute's website (<http://law.rwu.edu/sites/marineaffairs/symposia/seventhMLS.aspx>).

On behalf of the staff of the Marine Affairs Institute, I extend my gratitude to all our generous sponsors, and particularly our partners at Rhode Island Sea Grant College Program and the University of Rhode Island. This Symposium would not have been possible without the dedicated members of the Planning Committee, and I thank each of you for your commitment and contribution to this event.

I challenge each of us to turn our own personal energy to this important topic during these next two days, and beyond. It is my most sincere hope that your participation will catalyze your own engagement in this issue. Something as important as the future of our oceans and how we use them requires no less than our full attention. Thank you for coming!

Sincerely,

Susan E. Farady
Director
Marine Affairs Institute, Roger Williams University School of Law
Rhode Island Sea Grant Legal Program





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AGENDA

THURSDAY, OCTOBER 23, 2008

- 8:00 a.m. **Registration Opens**
- 8:00 – 8:30 a.m. **Continental Breakfast**
- 8:30 – 8:45 a.m. **Welcome**
David A. Logan, Dean, Roger Williams University School of Law
Donald L. Carcieri, Governor, State of Rhode Island
- 8:45 – 9:30 a.m. **Introduction: Willett M. Kempton**
Professor, College of Marine & Earth Sciences and Senior Policy Scientist, Center for Energy and Environmental Policy, University of Delaware
Dr. Kempton will discuss the current state of affairs for the marine renewable energy industry: energy potential, current interest by industry and governments (local, state and federal), existing permitting regimes, economic incentives, available funding for research and development, and public perception.
- 9:30 – 11:00 a.m. **Panel I: Marine Renewable Energy: The Current State of Regulatory Affairs**
This panel will examine the current state of regulatory affairs for permitting offshore renewable energy projects from a federal agency perspective. Projects are currently considered on a case-by-case basis. There is growing interest in establishing a more coordinated and/or regional “ocean management” approach to the siting and permitting of marine renewable energy projects.
- Moderator:** **Peter J. Schaumberg, Esq.**, Beveridge & Diamond, P.C.
Presenters: **Maureen A. Bornholdt**, U.S. Minerals Management Service
 Robert J. DeSista, Regulatory Division for NE District, U.S. Army
 Corps of Engineers
 Edward LeBlanc, Commander, USCG (Ret.), Waterways Management
 Specialist, MSO, U.S. Coast Guard
 Ralph Lopez, National Marine Fisheries Service, National Oceanic and
 Atmospheric Administration
 Ann F. Miles, Federal Energy Regulatory Commission
- 11:00 – 11:15 a.m. **Break**
- 11:15 – 12:45 p.m. **Panel II: Developing Strategies for Marine Renewable Energy Regulation**
This panel will discuss the current state of permitting marine renewable energy projects and identify paths to a more coordinated process for different permitting structures. Closely related to the general federal jurisdictional issues described in Panel I are the roles of states and industry.
- Moderator:** **Carolyn Elefant, Esq.**, Ocean Renewable Energy Coalition
Presenters: **Grover Fugate**, RI Coastal Resources Management Council
 Carolyn Heeps, Fred.Olsen Renewables, Ltd.
 Thomas C. Jensen, Esq., Sonnenschein Nath & Rosenthal LLP
 Steven R. Kopf, Pacific Energy Ventures, LLC



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12:45 – 2:00 p.m.	Lunch Speaker: Senator Sheldon Whitehouse (D-RI)	<i>Room 283</i>
2:00 – 3:30 p.m.	Panel III: Financing/Economic Issues This panel will examine the economic and financial issues raised by the rapid development of offshore renewables. The role of tax credits, investment funds, and financial structures needed for venture capitalists to invest in marine renewable energy projects will be the focus. Financial incentives to meet start-up costs for new technologies, competition with more traditional energy sectors and the ability to obtain financing will also be discussed. Moderator: Edwin F. Feo , Milbank, Tweed, Hadley & McCloy LLP Presenters: Chris Brown , Deepwater Wind James F. Duffy, Esq. , Nixon Peabody LLP Allan MacAskill , SeaEnergy Renewables Christopher Stolarski , Mizuho Corporate Bank Ltd.	
3:30 – 3:45 p.m.	Break	
3:45 – 5:00 p.m.	Panel IV: Renewable Energy Integration (Engineering, Market & Policy) Offshore renewables as intermittent sources of electricity pose special challenges from an engineering, policy, and economic point of view. This panel will present how the intermittency of renewable electricity is managed, the associated costs and benefits resulting from penetration of renewable offshore electricity into the grid, and the necessary policy changes needed to facilitate broad integration into the grid. Moderator: John Norden , Renewable Resource Integration, ISO New England Presenters: Rahim Amerkhail , Office of Energy Market Regulation, Federal Energy Regulatory Commission Jessica McIlroy , The Ocean Renewable Energy Group George Porter , Director Market Development, New Brunswick Systems Operator Joseph M. Rossignoli , Transmission Regulatory Policy Manager, National Grid	
6:00 – 6:30 p.m.	Reception	<i>Bristol Harbor Inn, Bristol, RI</i>
6:30 – 9:00 p.m.	Dinner	<i>Bristol Harbor Inn, Bristol, RI</i>



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FRIDAY, OCTOBER 24, 2008

- 8:00 – 8:30 a.m. **Continental Breakfast**
- 8:30 – 8:45 a.m. **Welcome Remarks**
Andrew C. Dzykewicz
Commissioner, State of Rhode Island Office of Energy Resources
- 8:45 – 9:30 a.m. **Keynote Speaker: Arthouros Zervos**
Chairman, Global Wind Energy Council
Prof. Zervos will discuss the global perspective on marine renewable energy projects.
- 9:30 – 11:00 a.m. **Panel V: The Human Dimension & Environmental Considerations**
This panel will discuss coastal community and environmental considerations raised by renewable ocean energy projects. These issues need to be addressed in tandem with jurisdictional, permitting, and research components. Such human dimension components are frequently funneled through nongovernmental organizations--either active nationally or established locally in response to a specific project.
- Moderator: Wendy Williams**, co-author of *Cape Wind*
Presenters: Jeremy M. Firestone, University of Delaware
Barbara Hill, Clean Power Now
Lefteris Pavlides, President, Rhode Island Wind Alliance
Jack Sterne, Rising Tide Strategies
- 11:00 – 11:15 a.m. **Break**
- 11:15 –12:45 p.m. **Panel VI: International Perspective on Offshore Energy Projects**
This panel will provide an opportunity to learn from and explore marine renewable energy projects in other parts of the world in order to better inform actions within the U.S. How were they permitted and installed? How have they performed from an economic and an engineering point of view? What is the level of support or opposition after installation? What are their future plans for further development?
- Moderator: Steve Sawyer**, Secretary General, Global Wind Energy Council
Presenters: Jeffrey Hammond, Acciona Wind Energy USA, LLC
Taylor Roark, Mainstream Renewable Power
Arthouros Zervos, Chairman, Global Wind Energy Council
- 12:45 – 2:00 p.m. **Lunch**



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2:00 – 3:30 p.m.

Panel VII: Offshore Energy Research & Development Funding

This panel will address the question of how to fund research and development for marine offshore wind, wave, tidal and thermal ocean renewable energy by establishing state, federal, and industry support. Members from academic institutions already involved in offshore renewable energy research, industry representatives, and officials from state and federal agencies will discuss how to form a multi-university consortium with complimentary areas of expertise to seek significant federal, state, and industry support.

Moderator: **Malcolm L. Spaulding**, University of Rhode Island
Presenters: **John M. Ferland**, Ocean Renewable Power Company, LLC
Patrick Gilman, U.S. Department of Energy
George M. Hagerman, Jr., Virginia Tech Advanced Research Institute
James Manwell, University of Massachusetts Amherst

3:30 – 4:30 p.m.

Wrap-Up Discussion and Conclusion

Moderator: **Dennis H. Esposito, Esq.**, Adler Pollock & Sheehan, P.C.

4:30 p.m.

Networking Reception & Exhibitor's Hall

*Sponsored by
Adler, Pollock & Sheehan P.C.*

Presentation of the Rhode Island Sea Grant Lifetime Achievement Award to **Grover Fugate**, Executive Director of the Rhode Island Coastal Resources Management Council, by **Senator Jack Reed** (D-RI), followed by brief remarks



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KEYNOTE SPEAKERS



Dr. Willett M. Kempton
Director, Center for Carbon-free Power Integration
Associate Professor, Marine and Earth Studies
University of Delaware

Willett Kempton is Director of the Center for Carbon-free Power Integration and Associate Professor in the College of Marine and Earth Studies at the University of Delaware.

Dr. Kempton is primarily engaged in research and teaching offshore wind power and research and development regarding the use of electric vehicles to provide power to the electric grid (called V2G).

Dr. Kempton's scholarly articles and research have also covered topics such as American citizens' understanding of global climate change, international comparisons of citizens' and policymakers' environmental perspectives, offshore wind resources and technology assessment, public attitudes toward wind power, energy efficiency policies, and factors which move citizens to take environmental action. He has written one book on theoretical cognitive anthropology, edited three volumes on energy conservation, and coauthored "Environmental Values in American Culture" (1995, MIT Press) – a study of Americans' environmental beliefs and values.

Dr. Kempton has held research or teaching positions at Princeton University, Michigan State University, and the University of California campuses at Berkeley and Irvine, prior to joining the faculty at the University of Delaware in 1992. For more information, see: www.carbonfree.udel.edu.



Arthouros Zervos
Chairman
Global Wind Energy Council

Prof. Arthouros Zervos received his BSE and MSE degrees from the Mechanical and Aerospace Engineering department of Princeton University and his Doctorate degree from the University Paris VI in France. Since 1982, he has been a faculty member at the National Technical University of Athens. He has been working in the field of Renewable Energy Sources for more than 20 years.

From 1990 until 1995, Prof. Zervos worked as a scientific officer in the Renewable Energy Unit of DG XII of the European Commission in Brussels. He is author of two books and more than 80 publications in international magazines and conference proceedings. He has been the chairman of six international conferences, vice chairman or co-chairman of five international conferences, all in the field of renewable energy.

Prof. Zervos is currently the President of both the European Wind Energy Association and the European Renewable Energy Council (EREC), the umbrella association of the major European industry and trade associations of renewable energy (wind, photovoltaic, biomass, solar thermal, geothermal and small hydro). He has also been appointed recently as Chairman of the Global Wind Energy Council which is the global forum of the wind energy sector uniting the wind industry and its representative associations.



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WELCOME REMARKS

THURSDAY, OCTOBER 23



David A. Logan
Dean and Professor of Law
Roger Williams University School of Law

A graduate of the University of Virginia School of Law, David A. Logan has been Dean at the Roger Williams School of Law since 2003. After law school, David clerked for a federal judge and then joined a major Washington, D.C. law firm. During his time in practice he represented American Indian tribes, as well as being on brief in *Havens Realty v. Coleman*, in which the United States Supreme Court approved the use of “testers” to prove racial discrimination under the federal Fair Housing Act. From 1981-2003, David was on the faculty at Wake Forest University School in Winston-Salem, North Carolina, where he taught and wrote about Torts.

He has won awards for his teaching and public service, and is often called upon to provide expert commentary on controversial legal issues. David has frequently been quoted in major newspapers and appeared on Nightline, The NBC Evening News, and CBS Morning News, National Public Radio, and (even) the O’Reilly factor.



Donald C. Carcieri
Governor
State of Rhode Island

Governor Donald L. Carcieri was inaugurated as Rhode Island’s 57th Governor on January 7, 2003. A native Rhode Island resident, his election followed a career in business that was capped with his tenure as Chief Executive Officer of Cookson America and Joint Managing Director of Cookson Group Worldwide. He retired from that position in 1997. Since taking office in 2003, Governor Carcieri has focused on the prosperity for Rhode Island, including a cleaner environment, creating affordable housing opportunities, protecting vulnerable Rhode Islanders, improving roads, bridges and highways, and improving the state’s natural resources. In so doing, he has transformed the state.

Most recently, Governor Carcieri successfully proposed the creation of the Northeast Regional Oceans Council, a joint project among New England governors, to develop policies on important ocean issues to influence national and international policy. In addition, he adopted California’s greenhouse gas emissions standards – the strictest in the nation – to significantly reduce greenhouse gas emissions from motor vehicles. Rhode Island is the ninth state to adopt these standards. Just this month, in an effort to fulfill his mandate that by 2015 15% of electricity generated in RI come from wind power, Governor Carcieri announced that Deepwater Wind was chosen as the successful developer to construct a wind energy project off of Rhode Island. The project will provide 1.3 million megawatt hours per year of renewable energy.



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LUNCHTIME SPEAKER
THURSDAY, OCTOBER 23



Sheldon Whitehouse
Senator (D-RI)

U.S. Senator Sheldon Whitehouse (D-R.I.), a member of the Senate Environment and Public Works (EPW) Committee, has been active in efforts to address global climate change, particularly its threat to America's oceans and coasts. He authored an amendment to support investments in America's oceans and coasts as part of the Senate's FY09 budget resolution, and fought successfully to make sure climate change legislation passed by the EPW committee included protections for coastal communities, wildlife, and land and marine ecosystems against the impacts of global warming. Whitehouse, who traveled to Greenland last summer to see firsthand the effects of climate change on its massive ice cap, has worked closely with Rhode Island's environmental community to raise awareness of the potential impact of global warming on the Ocean State. Elected to the Senate in 2006, Whitehouse lives in Rhode Island with his wife Sandra, an environmental policy expert and marine biologist, and their two children.

WELCOME REMARKS
FRIDAY, OCTOBER 24



Andrew Dzykewicz
Commissioner, Office of Energy Resources
State of Rhode Island

Andrew Dzykewicz is the Commissioner of the State of Rhode Island Office of Energy Resources, originally appointed by Governor Carcieri in January 2006 as his Chief Advisor on Energy. His experience includes technical, economic, and policy matters. Mr. Dzykewicz has spent almost forty years in the energy business in government and private industry.



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NETWORKING RECEPTION SPEAKER

FRIDAY, OCTOBER 24



Jack Reed
Senator (D-RI)

Jack Reed was elected to the Rhode Island State Senate in 1984 and served for three terms. In 1996, the people of Rhode Island elected Reed to succeed Claiborne Pell (D-RI) as Rhode Island's 46th United States Senator.

A leader on defense, education, and health care issues, Reed is a senior member of the Armed Services Committee and a former Army Ranger. A member of the powerful Appropriations Committee, which controls the purse strings of Congress, Reed continues to work tirelessly to secure federal funding for the Ocean State, such as mass transit funding and community development projects. As a senior member of the Senate Banking, Housing and Urban Affairs Committee, Reed's key economic priorities include promoting responsible budgets, bringing business to Rhode Island and creating high-paying, sustainable jobs, and strengthening the national economy. Prior to serving in the Senate, Reed was a three-term Member of the U.S. House of Representatives from Rhode Island's 2nd Congressional District. During his tenure in the House, Reed championed child health care, public libraries, and campaign finance reform.

Jack Reed was born and raised in Cranston, Rhode Island. His father, Joe, was a World War II veteran and Cranston school janitor who worked his way up to become custodial supervisor of the city's school system. Both his father and his mother, Mary, taught him the values of hard work, integrity, commitment, and respect for all people. His parents' lessons helped Reed excel at LaSalle Academy in Providence and earned him an appointment to the United States Military Academy at West Point where he received a Bachelor of Science degree in 1971. After graduating from West Point and receiving an active duty commission in the United States Army, Reed attended the John F. Kennedy School of Government at Harvard University where he received a Masters of Public Policy. Reed, an Army Ranger and a paratrooper, served in the 82nd Airborne Division as an Infantry Platoon Leader, a Company Commander, and a Battalion Staff Officer. He returned to West Point in 1978 as an Associate Professor in the Department of Social Sciences. Reed resigned from the Army as a Captain in 1979 and enrolled at Harvard Law School. In 1982, he graduated from Harvard and served a year as an associate with the Washington, DC law firm of Sutherland, Asbill, and Brennan. In 1983, he returned to Rhode Island and joined the Providence law firm of Edwards and Angell.

Today, Senator Reed continues to utilize the lessons he learned growing up in Cranston, which were deepened in the Army and tested in the halls of Congress, to stand up and speak out for the hard-working families who are the heart and soul of our country.

Senator Reed is married to Julia Hart Reed. They have a daughter, Emily, and make their home in Jamestown, Rhode Island.



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PANEL I



Peter J. Schaumberg, Esq. - Moderator
Partner
Beveridge & Diamond, P.C.

Peter J. Schaumberg is Of Counsel in the Washington, D.C. office of Beveridge & Diamond, P.C. His practice focuses on mineral royalty, land use, oil and gas, and mining sector matters. Mr. Schaumberg also works on matters involving renewable energy resources, such as offshore wind energy development. Mr. Schaumberg began his career as an Honors Graduate at the IRS and quickly moved into the field of energy management and public lands. He spent 25 years at the United States Department of the Interior, Office of the Solicitor, where he became the senior career attorney responsible for federal onshore and offshore mineral development matters.

During his tenure at the Department of the Interior, Mr. Schaumberg worked with its various sub-agencies, including the Minerals Management Service, the Bureau of Land Management, the Office of Surface Mining, the Park Service and the Bureau of Indian Affairs. He has personally worked on the royalty management regulations for the Minerals Management Service and is a highly recognized authority with respect to those regulations.

Mr. Schaumberg took a lead role in the review and implementation of the federal Energy Policy Act of 2005 and was also responsible for review of offshore oil and gas development. Mr. Schaumberg received the Presidential Rank Senior Executive Service Meritorious Service Award and Secretary of the Interior Meritorious Service Award for his outstanding work.

Mr. Schaumberg graduated *cum laude* with B.A. from Tulane University and received his J.D. with honors from George Washington University, National Law Center. He is a member of the bar of the District of Columbia and the U.S. Supreme Court.



Maureen A. Bornholdt
Project Manager, Alternative Energy/Alternative Use Program
U.S. Minerals Management Service

The passage of the Energy Policy Act of 2005 created new responsibilities for the Minerals Management Service (MMS), including the lead Federal agency permitting authority for alternative energy-related uses on the Outer Continental Shelf. In August 2005, Maureen A. Bornholdt was selected to serve as the Project Manager to develop the Alternative Energy/Alternate Use Program for the MMS. Ms. Bornholdt has extensive experience in environmental regulation and compliance having worked offshore oil and gas issues for the Department of the Interior since 1983. Prior to her selection as Project Manager, she managed the Marine Minerals Program, a program presently focused on making available suitable sand deposits in Federal waters for wetlands protection and beach nourishment projects. Ms. Bornholdt has served as the MMS's technical expert on Coastal Zone Management and National Environmental Policy Acts and as the program analyst covering offshore environmental and regulatory issues for the Assistant Secretary for Land and Minerals Management. She earned a B.S. degree in Public Administration from George Mason University in Virginia.

Section 388 of the Energy Policy Act of 2005 granted the Secretary of the U.S. Department of the Interior discretionary authority to issue leases, easements, or rights-of-way for activities on the Outer Continental Shelf that produce or support production, transportation, or transmission of energy from sources other than oil and gas. The Secretary delegated this authority to the Minerals Management Service, which has extensive experience in oil, gas and marine minerals (sand and gravel) offshore leasing. Ms. Bornholdt will discuss the current status and next steps in the process of developing the regulations for offshore alternative energy activities, as well as provide an update regarding activities under the Interim Policy currently in effect.



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Robert J. DeSista
U.S. Army Corps of Engineers
New England District, Regulatory Division

Robert J. DeSista joined the U.S. Army Corps of Engineers in New England in 1976 following receipt of a Bachelor of Arts degree in Geography from the University of Rhode Island.

He has held progressively more responsible positions, including several extended tours as Regulatory Division Chief. In this position, he directed the Corps of Engineers Department of the Army permit program for all of New England. The New England District has the third largest Regulatory Program in the nation, and is responsible for federal permitting in waters of the U.S. under the Clean Water Act, projects in navigable waters under the Rivers and Harbors Act, and ocean disposal of dredged material under the Marine Protection, Research and Sanctuaries Act. The New England District issues over 6,000 permits every year. Mr. DeSista frequently participates in Regional and National Initiatives as a Federal Regulatory expert. He was responsible for all policy development related to the New England Regulatory Program and implementation of several initiatives at the regional level. This included coordination with federal and state program managers and Corps headquarters.

Mr. DeSista will be addressing the current state of regulatory affairs. The scope of his panel presentation will discuss the Corps' statutory regulatory authorities as they apply to offshore renewable energy projects, including Section 10 of the Rivers and Harbors Act and Section 404 of the Clean Water Act and an explanation of typical regulated activities. The Corps' jurisdictional limits will be explained, with an emphasis on coordination with states and the Minerals Management Service. The Department of the Army permit process will be discussed, along with requirements of the National Environmental Policy Act (NEPA) and Environmental Impact Statement procedures. The presentation will highlight past experiences and current strategies the Corps is considering for the review and permitting of renewable energy projects.



Edward G. LeBlanc
Chief, Waterways Management Division
Coast Guard Sector, Southeastern New England
Commander, U.S. Coast Guard (Ret.)

Edward G. LeBlanc is Chief of the Waterways Management Division for Coast Guard Sector Southeastern New England, an area that includes Nantucket Sound, Buzzards Bay, Narragansett Bay, and ocean waters adjacent to Cape Cod, southeastern Massachusetts, and Rhode Island. Under authority of the Coast Guard Captain of the Port, Southeastern New England, his Division ensures navigation safety through a variety of measures including aids-to-navigation, vessel traffic service, boating safety education, and compliance with Federal regulations. The Waterways Management Division also reviews any proposed facility or activity that may impact navigation on a Federal waterway. Mr. LeBlanc served for 28 years on active duty with the Coast Guard, retiring at the rank of Commander in 2003.

Mr. LeBlanc's presentation will discuss the role of Coast Guard Sector Southeastern New England as one of several cooperating agencies reviewing the proposal by Cape Wind LLC to construct a wind energy facility in Nantucket Sound, Massachusetts. He will describe Coast Guard guidance provided to wind energy facility developers, concerns expressed by various waterway users, and discuss some unique requirements related to the Cape Wind proposal.



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Ralph Lopez
Renewable Energy Coordinator
Office of Habitat Conservation - National Marine Fisheries Service
National Oceanic and Atmospheric Administration (NOAA)

Ralph Lopez currently coordinates NMFS efforts to address potential effects on living marine resource habitat of emerging renewable ocean energy technologies to harvest power from tides, currents, waves and offshore wind. He is also responsible for habitat-protection-related budget formulation and planning activities, and associated evaluation efforts. Mr. Lopez's previous positions have included senior staffer to the *NOAA Ocean Council*, NMFS marine protected areas coordinator, fisheries liaison in the NOAA Office of Policy and Strategic Planning, national marine sanctuaries and estuarine research reserves regional manager in the NOAA

National Ocean Service's Office of Ocean and Coastal Resource Management, and private sector consultant. His academic background is in physical oceanography.

NOAA's National Marine Fisheries Service has a number of legislative mandates under which it must closely examine and evaluate the potential and actual impacts of both proposed and operating ocean energy projects. Some of these laws provide strict guidance related to the allowable levels of impacts on endangered, threatened or protected marine species. Others place timelines and processes in place for the recovery of marine fish stocks that have been depleted and are subject to rebuilding plans or prescribe requirements for improved upstream and downstream fish passage. Over the past year, NOAA has formally provided its views regarding the development of renewable ocean energy to both of the principal regulatory agencies, FERC and MMS. This presentation will describe renewable ocean energy characteristics of concern, provide an overview of NOAA Fisheries' regulatory responsibilities and perspectives on the evolving regulatory framework, and summarize recommendations made to the regulatory agencies to allow the development of viable, environmentally-sound renewable ocean energy projects.



Ann F. Miles
Director, Division of Hydropower Licensing, Office of Energy Projects
Federal Energy Regulatory Commission

Ann F. Miles has been with the Federal Energy Regulatory Commission since 1985 and is currently the Director of the Division of Hydropower Licensing in the Office of Energy Projects. The Division is responsible for reviewing applications to construct and operate or relicense non-federal hydropower projects located throughout the United States. This includes preparing environmental documents and making recommendations to the Commission for the best use of a waterway. Ann has an M.A. from the University of Maryland in Recreation Resource Management.

Ann will cover four topics dealing with hydrokinetic projects: background on the Federal Energy Regulatory Commission, jurisdiction, the hydrokinetic regulatory program, and challenges and solutions. The presentation will focus on the regulatory program and include a description of the "strict scrutiny" approach to preliminary permits, the criteria for test projects that do not need a Commission license, the pilot project license, and the standard licensing process. Ann will also discuss some of the key challenges to licensing hydrokinetic projects and elements to a coordinated regulatory program.



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PANEL II



Carolyn Elefant, Esq. - Moderator
Ocean Renewable Energy Coalition
Law Offices of Carolyn Elefant

Carolyn Elefant has her own law firm, the Law Offices of Carolyn Elefant in Washington D.C., specializing in energy related issues. Ms. Elefant began representing marine renewable developers in 1992 and since then, has advised developers, investors, municipalities and other stakeholders on the regulatory, legislative, environmental and transactional issues relating to offshore wind, wave and tidal projects both in the U.S. and abroad. Along with Sean O'Neill, she co-founded the Ocean Renewable Energy Coalition (OREC) in 2005 and serves as the group's Legislative and Regulatory Counsel. Ms. Elefant covers issues related to the marine renewables industry at the blog RenewablesOffshore.com.



Grover Fugate
Executive Director
Rhode Island Coastal Resources Management Council

Grover Fugate graduated from the University of Connecticut in 1976, with a degree in Natural Resource Management. After graduation, Mr. Fugate worked in Canada in a series of positions including Forester and Land Use Planner with the Department of Agriculture, Regional Resource Planner with the Crown Lands Branch, and Director of Shore Zone Management. In 1984, Mr. Fugate completed his MBA from Memorial with a program specialization in resource policy analysis.

In 1986, Mr. Fugate moved to Rhode Island to assume the duties of the Executive Director of the Coastal Resources Management Council. The council is an independent state agency, responsible as the principle planning and management agency for the state's coastal areas. Mr. Fugate's current duties include the day to day administration of the Rhode Island Coastal Resource Management Program. Mr. Fugate is the Council's and state's representative on a number of boards, commissions, task forces, and other coastal-related organizations. Mr. Fugate also holds an adjunct faculty position at the University of Rhode Island and is a guest lecturer at Brown University and Roger Williams University School of Law. He is also a trainer at the Coastal Resources Center for Integrated Coastal Management.

In response to the surge of interest recently for siting renewable energy projects in the offshore environment, Mr. Fugate will discuss CRMC's role in water-based zoning, work the agency has been doing since 1983, gaining international recognition. The CRMC, in partnership with University of Rhode Island scientists and engineers, is in the process of developing an Ocean Special Area Management Plan (SAMP) which consists of planning and zoning for ocean uses in the state's territorial waters and would allow for the proper planning and regulation for renewable energy projects in the offshore environment (or renewable energy "zones"). This plan will include a mapping exercise of existing uses of ocean waters, coupled with mapping for critical zones (transportation corridors, military reserves, essential habitat, etc.). Simultaneously, a screening of sites that have suitable characteristics for renewable energy will also be produced. Additionally, a conflict analysis will be performed to determine which area(s) may be desirable for a more intensive screening exercise. This more detailed screening will confirm that the sites meet the initial selection criteria to a reasonable degree of certainty. This work will generate a draft zoning map for public review and comment and will involve other state and federal agencies. Concurrent with this work, the CRMC will generate regulatory standards for guiding development and protecting the state's resources as part of the RICRMP. With this process, the state will have preselected sites that are environmentally and technically sound and, most importantly, have public and government acceptance. This will increase permitting predictability for renewable energy projects and expedite application review.



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Carolyn Heeps
Offshore Projects Manager
Fred.Olsen Renewables, Ltd.

Dr. Carolyn Heeps is the Offshore Projects Manager with Fred.Olsen Renewables Ltd (FORL). She joined FORL in July of this year following almost seven years with The Crown Estate where she was Head of Policy and Sustainable Development (TCE is the landowner of the UK seabed). AT FORL, her main focus is leading the company's strategic aims to be a large scale marine renewable energy generator. FORL is part of a Norwegian group of companies with a long history in the offshore sector, including shipping services and energy production.

During her time with The Crown Estate, Carolyn was responsible for leading the 2 leasing rounds of offshore wind that are currently underway in the UK. She was also involved in other forms of marine renewable energy, providing policy advice to The Crown Estate as well as managing the Science and Research programme and setting up a pilot GIS based decision support system for strategic planning on the marine estate (which has since been developed to support the Round 3 Offshore wind programme). She was instrumental in establishing COWRIE, the research programme devoted to improving the understanding of the environmental impacts of offshore wind.

Carolyn will present an overview of the development of the marine renewable energy programmes in the UK. Drawing upon her experience from implementing 2 commercial offshore wind leasing rounds with The Crown Estate, she will explain the key processes faced by developers in getting projects from site award, through consent and to commissioning and operation. This will be set against the legislative background in the UK and the possible future changes to that process for large scale projects under the Planning Reform Bill. She will also touch upon the current status of other forms of marine renewables energy and the programmes that have been put in place to assist the development of this nascent sector through to commercial deployment.

Having had experience as a representative of the landowner of the UK seabed and now more recently being involved in the commercial deployment of marine renewable energy projects, Carolyn will attempt to highlight the challenges and risks that have faced the UK industry in relation to policy, consenting and commissioning projects. She will also provide a summary of the work undertaken by COWRIE to help improve the understanding of the environmental impacts of offshore wind.



Thomas C. Jensen, Esq.
Partner
Sonnenschein Nath & Rosenthal LLP

Thomas C. Jensen serves as Chair of Sonnenschein's firm-wide Committee on Environmental Sustainability and leads the firm's renewable energy and natural resources practice. He is a nationally recognized expert in natural resources, energy and environmental law and policy. He represents business, government and nonprofit clients before federal and state regulatory agencies and Congress. He also represents clients in transactions, commercial disputes and regulatory enforcement actions.

Formerly majority counsel to the U.S. Senate Committee on Energy and Natural Resources and a senior official in the President's Council on Environmental Quality, Mr. Jensen's responsibilities in public service included reform of federal water projects in California and other western states; resolution of Indian tribal treaty disputes; endangered species and habitat conservation; Grand Canyon, Everglades and Olympic National Park restoration; creation of national monuments; hydropower regulation; and Fifth Amendment takings policy.

Mr. Jensen is a trustee of the William D. Ruckelshaus Institute for Environment and Natural Resources of the University of Wyoming and serves as editor of the *Trends* newsletter of the ABA's Section on Environment, Energy & Resources.



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Steven R. Kopf
Partner
Pacific Energy Ventures, LLC

With twenty years of business development experience in the energy and transportation sectors, Steven R. Kopf has a proven track record of leading early-stage technologies and new businesses from concept to commercialization.

Mr. Kopf has secured public and private funds to support the development and growth of new technologies and has extensive experience in sales and marketing, including program and proposal development. He is also skilled in government relations, including building collaborative relationships with state and federal officials.

For the past three years, Mr. Kopf has represented a leading ocean energy company in the development of one of the first commercial projects in North America. As the lead on the project, he has played a pivotal role in the early stage introduction of ocean energy to the renewable energy industry. Mr. Kopf has also been active in helping to shape State and Federal legislation to accelerate the commercialization of new ocean energy technologies.

Over the past three years, Mr. Kopf has been actively engaged in the development of two of the first wave energy projects in the United States. Recently his firm, Pacific Energy Ventures, was awarded contracts from the Oregon Wave Energy Trust and the United States Department of Energy to develop recommendations to enhance the siting of marine and hydrokinetic projects. His presentation will focus on lessons learned and a proposal to reduce regulatory risk and accelerate the development of renewable energy projects.

PANEL III



Edwin F. Feo - Moderator
Partner
Milbank, Tweed, Hadley & McCloy, LLP

Edwin F. Feo is a partner in the international law firm of Milbank, Tweed, Hadley & McCloy LLP. He co-chairs the Firm's project finance and energy practice. Mr. Feo represents sponsors and investors in the energy and infrastructure industries, and specializes in renewable energy projects. Milbank is recognized as one of the leading renewable energy law firms in the world, most recently having been named by *Infrastructure Journal* as the #1 Global and U.S. Renewable Energy Legal Adviser for 2007. He has been named in the *California Lawyer* magazine as an "Attorney of the Year" in the Energy category and by *The American Lawyer* as a "Deal Maker of the Year." He was ranked in the "Band 1" tier of Lawyers in the 2007 edition

of *Chambers USA* and highly recommended for banking and finance by *PLC Which Lawyer?* He was listed in *Lawdragon's* "Leading Dealmakers" for 2007 and *The Best Lawyers in America 2008*. He was also named as one of the Top 100 Lawyers in California by *The Daily Journal* in 2006 and 2007. Mr. Feo graduated with a BA and JD from UCLA, and was elected to *Phi Beta Kappa*, the Board of Editors of the *UCLA Law Review* and Order of the Coif. Mr. Feo is a member of the Board of Governors of the Aquarium of the Pacific and the Board of Directors of the Pacific Coast Sailing Foundation.

Mr. Feo is moderating this panel which will be a state of the art review of the financial products for financing renewable energy projects, including current debt products, equity finance, venture capital and capital markets, and will evaluate the specific challenges for renewable energy technologies in the current financial markets, including technology commercialization, vendor credit, monetization of non cash benefits, and other issues.



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Chris Brown
Chief Executive Officer
Deepwater Wind

Chris Brown, former Executive Vice President of DTE Energy Resources & Vice President of DTE Energy Company, is Deepwater Wind's CEO. Deepwater Wind merged with Winergy Power LLC.

Deepwater Wind was chosen as the successful developer to construct a wind energy project off of Rhode Island that will provide 1.3 million megawatt hours per year of renewable energy, 15% of all electricity used in the state. It is expected that the project will cost in excess of \$1 billion to construct – all from private investment sources.



James F. Duffy, Esq.
Partner
Nixon Peabody LLP

James F. Duffy concentrates his practice on transactions involving federal income tax credits and other significant federal and state income tax incentives, including Production Tax Credits for wind and other forms of renewable energy, Energy Investment Tax Credits for solar installations, New Markets Tax Credits, Historic Rehabilitation Tax Credits, and Low-Income Housing Tax Credits. He has represented numerous developers, investors, syndicators and lenders in structuring and closing such transactions and is a frequent speaker on tax-oriented investment structures at industry conferences and seminars.

Mr. Duffy holds a J.D. from Harvard Law School and graduated *summa cum laude* from the University of Rhode Island with a Bachelor of Arts degree. He is admitted to practice in the Commonwealth of Massachusetts. Mr. Duffy is a member of the American, Massachusetts and Boston Bar Associations, has served as the chair of the Equity Finance Committee of the Real Estate Section of the Boston Bar Association, and is a member of the Real Estate Steering Committee of the Boston Bar Association.



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Allan MacAskill
Business Development Director
SeaEnergy Renewables

Allan MacAskill was educated in Scotland, graduating with an honors degree in Mathematics from Herriot Watt University. After graduation, he joined BP and with them for nearly 20 years undertaking a variety of roles in petroleum and reservoir engineering in the UK and North America.

In 1998, Mr. MacAskill joined Talisman Energy as Subsurface Manager for their UK operations. While at Talisman he performed a number of subsurface and project management roles, including the \$100 million project to redevelop the Beatrice field. This involved replacement of the export pipeline and drill/ 4 wells.

In 2003, Mr. MacAskill was appointed Beatrice Windfarm Director and Coordinator of the DOWNVInD programme, Europe's largest renewable energy research and development programme. It pioneered the development of large scale windfarms in the deeper waters on the UK Renewable Energy Zone and culminated in the installation of two turbines at Beatrice, in 45 m of water 25kn from shore. In 2008, Mr. MacAskill and the Beatrice Windfarm Team formed SeaEnergy Renewables in conjunction with Ramco Energy. He was appointed as Business Development Director of the new company. Mr. MacAskill is on the Steering Committee of the European Wind Technology Platform, chairman of the Offshore sub-committee and a member of the Scottish Government's Forum for Renewable Energy Development In Scotland.

Mr. MacAskill's presentation will focus on the European political environment, European targets, European incentive mechanisms, income, costs, returns, financial and technological challenges, and R&D.

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Christopher Stolarski
Senior Vice President
Mizuho Corporate Bank Ltd.

Mizuho Corporate Bank provides solutions that are a perfect fit for the financial and corporate strategy needs of major domestic and global companies. It is one of the leading wind project financiers.

Mr. Stolarski will give a presentation from the lender's perspective on renewable energy deals, discussing how liquidity in the debt markets continues to deepen as more banks lead and participate in non-recourse financing. He will discuss terms and structures for the range of products available in the market today including project level debt, back leverage, turbine loans, bridge loans, and merchant power financing.



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PANEL IV



John Norden - Moderator
Manager, Renewable Resource Integration
ISO New England

John Norden comes from ISO New England, which is the entity responsible for system and market operations for New England's bulk power generation and transmission system.

John was just recently appointed the Manager of Renewable Resource Integration where he is responsible for ensuring the reliable and efficient implementation of demand and renewable resources into system and market operations at the ISO.

John has over 24 years of electric operations experience within New England. He began his career with Fitchburg Gas and Electric in 1983 and worked as an Energy Production Supervisor. He then joined New England Power Service Company in 1987 as a REMVEC Control Center System Operator. In 1994 he joined ISO New England (then NEPOOL) and has held several operating positions of increasing responsibility including but not limited to: Control Room Supervisor, and Manager of Operations Training, Business Process and Compliance. John was also the System Operations Project Manager for Standard Market Design implementation in New England. Most recently, John served as the Manager of Market Administration where he was responsible for the operation of the energy and ancillary service markets within New England.

John holds a B.S.B.A. and is a NERC Certified System Operator at the Reliability Authority level.



Rahim Amerkhail
Energy Industry Analyst
Federal Energy Regulatory Commission

Rahim Amerkhail has been employed at the Federal Energy Regulatory Commission in various positions for the last 16 years, including three and a half years as an advisor to one of FERC's sitting Commissioners. He is currently a member of a new unit formed within the Commission to study emerging issues and how they interact with the Commission's current practices and legal authorities over rates, terms, and conditions for transmission in interstate commerce and wholesale power sales. These emerging issues include climate change, renewable generation,

demand response and advanced transmission technology. Mr. Amerkhail is an economist by training but recovering nicely.

Mr. Amerkhail's presentation will address how grid modernization, while critically necessary for conservation, will also provide an opportunity to optimize structuring the grid for integrating renewables. Grid modernization can be divided into two overarching themes. The first involves investment in both new transmission capacity and new configurations of the grid to better serve modern requirements. This effort is sometimes referred to as an Extra-High Voltage (EHV) Super-Highway or EHV Overlay concept and is meant to bring the benefits of the interstate highway system to the interstate grid. The second theme involves infusing the power grid, and ultimately the entire power system on both the generation and load sides, with modern Information Technology. The "Smart Grid" concept is meant to result in large improvements in reliability, security, and efficiency for the electric grid. Mr. Amerkhail will discuss how this effort should ultimately result in important new capabilities for system operators that should directly benefit renewable integration.



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Jessica McIlroy
Project Director
The Ocean Renewable Energy Group

Jessica McIlroy has been a part of the Ocean Renewable Energy Group since its inception in 2004. She was on the founding Board of Directors as Treasurer and Secretary, stepping down in 2005 to take a staff position as Project Director.

In 2003, Ms. McIlroy completed an MSc in Environmental Sustainability from the University of Edinburgh in Scotland. Her dissertation was on the challenges facing commercialization in the UK wave energy sector, which started her career in ocean energy. She is completing an MBA at Royal Roads University in BC. She also attended Simon Fraser University, completing a BSc in Environmental Science in 2000. She has gained extensive experience in the environmental and renewable energy fields, completing number of contracts for wind and wave energy companies, a conservation organization in Mexico, the Canadian federal government, and other organizations.

Ms. McIlroy's presentation will address the significant R&D and pilot project testing that still needs to occur in the wave and tidal industry, as well as policy and market mechanisms that must be created now in order to provide the appropriate signals. Private project developers and utilities have begun to realize the potential of ocean energy to provide "green" electricity and create local economic benefits. In order for these opportunities to be realized, market mechanisms and policy support need to be in place, including a national/regional strategy for development with goals and timelines, RPS that include an ocean energy obligation and feed-in tariffs that recognize the industry in relation to commercial energy production prices, and appropriate licensing and permitting procedures to allow learning from doing while preventing environmental and social harm.

These mechanisms should be a part of a larger development strategy that move the obligations common to developers to a more collaborative effort. Such activities as environmental baseline studies, public consultation procedures, and grid interconnection studies should be completed by regional authorities. The efforts in Oregon by the Oregon Wave Energy Trust, the Bay of Fundy Strategic Environmental Assessment, and the Pacific Northwest interconnection study by Powertech Labs and the Bonneville Power Administration are good examples. The leaders in this industry are being forced to take on research initiatives and development activities from which the followers will gain very little support. The early efforts should be used as an opportunity for all to learn and be supported through collaboration.



George Porter
Director, Market Development and Settlement
New Brunswick Systems Operator

George Porter is the Director of Market Development and Settlement at the independent New Brunswick System Operator. He holds an electrical engineering degree from the Technical University of Nova Scotia and a Masters Degree in Business Administration from the University of New Brunswick. He is the New Brunswick System Operator's representative on the New Brunswick Market Advisory Committee and collaborates frequently with system operators in the other Atlantic Canadian provinces, Quebec, and New England.

Mr. Porter's presentation will discuss some of the basic characteristics of the existing electric power system, the power production characteristics of some key renewable technologies, and how power system operations and markets can better accommodate these important resources. The need for regional cooperation will be emphasized and supported with discussion of European precedents.



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Some of the more promising forms of marine renewable electricity generation are variable and in some cases challenging to forecast. In small volumes this is of little concern to power system operations. The same can be said for many forms of onshore renewable energy generation. Given the substantial amount of such power that is likely to be developed both onshore and offshore, it is important for power system operators to understand those characteristics and adapt accordingly. Increased flexibility of the system will be important. It is also important to note that much of the need for adaptation can be mitigated, or met, through closer integration of the power markets and system operations in the region. More transmission will enable these resources to be delivered to the market, and also facilitate regional efforts to balance out the variable output of these resources more efficiently.



Joseph M. Rossignoli
Transmission Regulatory Policy Manager
National Grid

Joseph Rossignoli manages the Regulatory Policy Department of National Grid, where he is responsible for directing the development and implementation of National Grid's regulatory strategy and policies for the transmission business. Before taking the position, Mr. Rossignoli was responsible for the development and execution of the company's regulatory plan in support of its business development activities in the West. He joined National Grid in 2000 from the former Eastern Utilities where he was responsible for wholesale trading.

Mr. Rossignoli received his undergraduate degree in Economics from Boston University. He also holds an M.A. in Economics from the University of Rhode Island and an M.B.A. from Providence College.

PANEL V



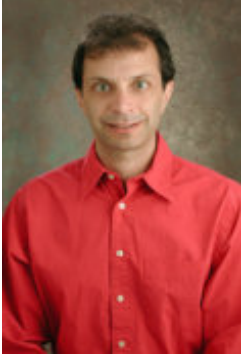
Wendy Williams - Moderator
co-author of *Cape Wind*

Wendy Williams has written for many major publications, including *Scientific American*, *The Christian Science Monitor*, *The Boston Globe*, *The Providence Journal* and *The Baltimore Sun*. She has been journalist-in-residence at Duke University and at the Hasting Center and a fellow at the Center for environmental Journalism at the University of Colorado and at the Marine Biological Laboratory. The author of several books, she lives on Cape Cod, Massachusetts.



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Jeremy M. Firestone, J.D., Ph.D.
Associate Professor
University of Delaware

Jeremy Firestone is an Associate Professor at the University of Delaware's College of Marine and Earth Studies and is Senior Research Scientist with the Center for Carbon-free Power Integration. He has or will publish the results of his offshore wind power research in Energy Policy, Coastal Management, Environmental Law Reports, and Environmental Law, and teaches courses on offshore wind power and climate change law and policy. He was the lead citizen participant in recent administrative proceedings on the Bluewater-Delmarva Power Purchase Agreement (PPA). He has helped to organize workshops at the state level in Delaware as well as the first American Wind Energy Association (AWEA) Offshore Wind Power Workshop; assembled and led panel discussions at The Coastal Society Conference and at the University of Maine Law School; and made numerous presentations on wind power at venues such as: the Danish Offshore Wind Environmental Results Conference, European Offshore Wind Conference 2007, the AWEA Offshore Wind Power Workshop, WINDPOWER 2006, 2007, & 2008 NREL, Princeton, WHOI, and the University of Houston.

Jeremy's talk will focus on two public opinion surveys conducted in Delaware and on the process that led to the first power PPA in the United States for offshore wind energy. In 2006, before the Bluewater Wind bid was announced publicly, approximately 950 Delaware residents were surveyed for their opinions on offshore wind power and on the choices they would make between a new offshore wind power project and expanding coal or natural gas. That survey preceded a survey of more than 1,000 out-of-state beachgoers at Delaware beaches regarding the effect that offshore wind power development would have on coastal tourism. The remaining discussion will focus on the request for proposals (RFP) in Delaware, the Delmarva-Bluewater PPA that grew out of that RFP, and lessons that can be gleaned from the process.



Barbara Hill
Executive Director
Clean Power Now

Barbara Hill is the Executive Director of Clean Power Now (CPN), the leading nonprofit organization, with over 11,000 members, for the Cape Wind project, America's first proposed offshore wind farm. Over the course of the past 30 years, Ms. Hill has held a variety of management positions focused on renewable energy, land preservation, and affordable housing. From 2001 until 2005 she served as the Project Coordinator for Offshore Wind with the Massachusetts Technology Collaborative. She is a founding initiator of the CLEAN campaign, a collaborative of grassroots led organizations working for a new national energy policy advocating CLEAN's Call to Action. Barbara is also a 2008 Senior Fellow with the Breakthrough Institute.

Ms. Hill's presentation will focus on CPN's efforts in grassroots organizing, coalition building, public outreach and policy reform. We can now say unequivocally that neither a developer nor a governmental agency can bring about the necessary changes in energy policy, let alone actually construct large-scale renewable energy projects, without broad citizen involvement and support. CPN's tireless work is the primary reason why public opinion has shifted in favor of the Cape Wind project. For over the past five years, CPN has represented the voice of the community in a robust partnership with organizations, businesses, and regulatory agencies engaging in the critically important dialogue to fully develop offshore wind energy's significant economic, environmental, and energy security opportunities for the United States.



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Lefteris Pavlides, Ph.D., AIA
President, Rhode Island Wind Alliance
Professor of Architecture, Roger Williams University

Lefteris Pavlides, Ph.D., AIA studied architecture at Yale School of Architecture and did his Ph.D. at the University of Pennsylvania combining architectural and anthropological methodologies. Professor Pavlides has taught and practiced architecture since 1978 and has published extensively on inhabitant perceptions of the built environment. He credits his students for turning his attention to wind power. Between 2003 and 2005, he received ten RI Renewable Energy Fund Grants to help with various wind power initiatives. In 2006, he received the Roger Williams University Presidential Fellowship for activism in wind power development and in

2007 his work was recognized with a State of Rhode Island Legislature Citation for contributions to renewable energy.

Professor Pavlides' presentation will focus on how the RI Wind Alliance came to be and its future work. In September 2002, RWU Architecture students, responding to the Cape Wind controversy, requested to research informed inhabitant perceptions of wind turbines in the landscape for a course in Social Aspects of Architecture. Several State grants helped with instrumentation and later funded scientific opinion research for hypothetical and real installations in Rhode Island. Material created on the viability of wind energy and people's evaluations were presented at the Portsmouth Abbey School, to RI towns, on local cable, at national and international conferences, to the RI Economic Development Committee, and at the 2006 RI State Energy Summit. Volunteers used the educational material to promote projects in their own communities, businesses, and schools. Additionally, volunteers continued to develop and expand the body of work, and formed a working group of collaborators that started calling themselves the Rhode Island Wind Alliance. In 2007, the Rhode Island Wind Alliance formed a board and incorporated.

Outcomes of these activities are the creation of information that helped support wind power projects at Portsmouth Abbey, Portsmouth, Raytheon, Westerly, Bristol, Middletown, University of Rhode Island, Narragansett Tribal Lands, Narragansett Bay Commission, and recently in Barrington. This material was also provided to the RIEDC, the State Legislature, and the stakeholder group appointed by Governor Carcieri to select an offshore site. The Rhode Island Wind Power Alliance helped organize the 2007 wind power conference at URI and contributed to the planning of the Marine Law Symposium. A vitally important recent undertaking involves the aggregation of electricity from Rhode Island towns, cities, universities, and other Rhode Island entities to make long term purchase agreements for the offshore wind power to ensure that economic benefits from the anticipated lower electricity rates to be captured by Rhode Island communities.



Jack Sterne
Rising Tide Strategies

Jack Sterne is an environmental lawyer and strategic consultant with nearly two decades of experience in the environmental movement. He has advised and represented a wide range of local, state, and national organizations and foundations, including Environmental Defense Fund, the David and Lucile Packard Foundation, Greenpeace, the Pew Charitable Trusts, the Oak Foundation, the Ocean Conservancy, and the Sierra Club. He is the co-founder of Ocean Champions, the first national political organization for the oceans. Mr. Sterne has been actively involved in shaping and implementing ocean legislation and policy at the national level for the last ten years, and spent eight years as a public interest environmental litigator. During the last

year, he has conceived of and led a process for the Environmental Defense Fund aimed at crafting consensus among environmentalists, utilities, and technology developers on appropriate national policy for development of renewable energy in the oceans.



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Over the course of the last year, the Environmental Defense Fund has engineered a high-level dialogue among environmentalists, renewable energy companies, and utilities to build consensus on appropriate national policy for development of wave, tidal and current energy in the U.S. The participants in this effort have recently agreed to a visionary set of principles that can help break the logjam holding back the development of these promising sources of energy. Their document, which will go to both Presidential campaigns, addresses four key themes: (1) the potentially significant contribution of hydrokinetics in meeting America's energy needs; (2) the imperative for better leadership and cooperation among federal and state agencies; (3) the need to support development of pilot projects through additional research and development funds and a clearer regulatory process; and (4) the importance of robust stakeholder participation in decision-making. Jack Sterne of Rising Tide Strategies, who has led the process for EDF, will discuss these exciting developments.

PANEL VI



Steve Sawyer - Moderator
Secretary General
Global Wind Energy Council

Steve Sawyer joined the Global Wind Energy Council as its first Secretary General in April 2007. The Global Wind Energy Council represents the major wind energy associations (China, India, Japan, Australia, Canada, USA, Europe, Germany, Spain and Italy) as well as the major companies involved in the global wind industry. As of the end of 2007, cumulative global installed wind power capacity exceeded 94,000 MW, with over 20,000 MW installed in 2007, representing capital investment of around 25 billion euros. See <http://www.gwec.net>.

Steve has worked in the energy and environment field since 1978, with a particular focus on climate change and renewable energy since 1988. He spent many years working for Greenpeace International, representing the organization at intergovernmental and industry for a primarily on energy and climate issues. He was the CEO of both Greenpeace USA ('86 to '88) and Greenpeace International ('88-93'), and a member of its international Board of Directors from 1983-1988 and 1993-1995. He has served as Head of Delegation to many UNFCCC negotiations, as well as leading delegations to many other intergovernmental negotiations.

Steve is also a founding member of the REN21 Renewable Energy Policy Network and was an advisor to the Chinese government on the formulation of its renewable energy legislation, as well as an expert reviewer for the IPCC's Working Group III. He grew up in rural New Hampshire and holds a B.A. in Philosophy from Haverford College, is married to Kelly Rigg, has two children Layla (20) and Sam (15) and has lived in Amsterdam since 1989.



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Taylor Roark
Offshore Project Manager
Mainstream Renewable Power

Taylor Roark is currently a project manager for offshore wind farm projects for Mainstream Renewable Power. Mainstream was founded in February 2008 by Dr. Eddie O'Connor, co-founder and CEO of Airtricity since 1998, following the sale of Airtricity to Scottish and Southern Energy for €1.8 billion. Previously, he worked as commercial manager at Airtricity on the Greater Gabbard Offshore Wind Farm, a 500MW project off the East Coast of England that is currently in construction. Mr. Roark serves on the British Wind Energy Association's Offshore Wind Delivery Group.

Prior to involvement in the renewables industry, Mr. Roark spent five years as a corporate lawyer for Davis, Polk & Wardwell in their New York, Tokyo, and London offices. He graduated *summa cum laude* from the University of Maine School of Law. He teaches permaculture courses in London and is an avid cyclist.

Mr. Roark's presentation will discuss scaling up offshore wind: from 500MW to the mainstream. Through climate change, peak oil, globalization and the increasing demands for energy, the world is going through a monumental transition away from fossil fuel generation. At 500MW, the Greater Gabbard Offshore Wind Farm is the first step towards large-scale, commercial development and operation of renewable energy generation assets. A retrospective of this project from conception to commercial reality will be provided, together with lessons learned and suggestions for a path forward.

See Bio Under
Keynote Speakers

Arthouros Zervos
Chairman
Global Wind Energy Council

PANEL VII



Malcolm L. Spaulding - Moderator
Professor of Ocean Engineering
University of Rhode Island

Malcolm L. Spaulding currently serves as Director of the University's Center of Excellence in Undersea Technology. Dr. Spaulding is a senior advisor for the Ocean Special Area Management Plan (SAMP). The development of the SAMP is being undertaken by the University of RI, under the direction of the RI Coastal Resources Management Council, to facilitate siting of alternative energy facilities in RI coastal waters. He has been involved in the assessment and siting of in-stream tidal current and wave energy systems and in the design, development, and testing of a direct drive, linear generator wave energy conversion device.



7th Marine Law Symposium
*A VIABLE MARINE RENEWABLE ENERGY INDUSTRY:
SOLUTIONS TO LEGAL, ECONOMIC, AND POLICY CHALLENGES*

October 23-24, 2008
Roger Williams University School of Law · Bristol, Rhode Island



John M. Ferland
Director of Projects
ORPC Maine, LLC

John M. Ferland is Director of Projects for ORPC Maine LLC, an affiliate of the Ocean Renewable Power Company. He is responsible for project development activities in New England and eastern Canada.

Mr. Ferland formerly was President and CEO of the private, non-profit Maine Center for Enterprise Development (MCED), the oldest technology commercialization center in the Maine. He was also the founding president/CEO of the Environmental & Energy Technology Council of Maine (E2 Tech Council), a statewide industry association of 130 members, with a mission to strengthen Maine's global economic competitiveness by supporting R&D, job creation and new product development in the environmental and energy sector of the Maine economy. Before leading the MCED and E2 Tech, Mr. Ferland was general manager & CEO of Clean Casco Bay, Inc., an oil spill response company created through Portland Pipe Line Corp. and funded by five oil terminal operators in Portland Harbor.

He is a graduate of the University of Maine and has a Master of Marine Affairs from the University of Rhode Island.

Mr. Ferland will discuss the Ocean Renewable Power Co.'s project and technology development efforts, its university R&D partnerships and how it obtained and applied early stage funding. Additionally, he will explain how the creation of public and private partnerships at the local and state levels has helped drive the success of the company's project development efforts.

ORPC was formed in 2004 to develop the technology and projects to generate emission-free electricity from river, tidal and ocean currents. ORPC is in the process of permitting project sites in Maine, Alaska and Florida. The company successfully demonstrated the feasibility of its proprietary OCGen™ technology last spring through a demonstration project in Western Passage off Eastport, ME, and plans to commercialize its technology in 2010.



Patrick Gilman
Program Analyst & Presidential Management Fellow
U.S. Department of Energy

Patrick Gilman is a Program Analyst and Presidential Management Fellow in the U.S. Department of Energy's Wind and Hydropower Technologies Program. He manages DOE's research on environmental and siting issues associated with wind and water power development.

Patrick will discuss DOE's current efforts to address barriers facing the development and deployment of advanced water power technologies as well as future program plans and potential funding opportunities in these areas.



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George M. Hagerman, Jr.
Senior Research Associate
Virginia Tech Advanced Research Institute

Since his support work for the U.S. Department of Energy's first Ocean Energy Program in the early 1980s, George Hagerman has more than 25 years experience evaluating and optimizing the design, performance, and economics of marine renewable energy systems, including offshore wind power, wave power, tidal power, and ocean thermal energy conversion. He is a research faculty member at the Virginia Tech Advanced Research Institute in Arlington, Virginia, and Director of Research for the Virginia Coastal Energy Research Consortium (VCERC), a multi-university partnership exploring offshore wind power and marine biomass derived fuels as potential future energy supply alternatives for Virginia.

His presentation will describe how VCERC was established and funded by the Commonwealth of Virginia, as well as provide a brief overview of project results from the first year of state funding. He also will describe research plans for the coming year and how VCERC is seeking to widen its collaboration, both within the U.S. and with European researchers.



James F. Manwell
Professor and Director, Wind Energy Center
University of Massachusetts Amherst

James F. Manwell studied at the Brentwood School (UK), leaving in 1966, then graduated from Amherst College with a B.A. in biophysics (1970) and from the University of Massachusetts with an M.S. in Electrical and Computer Engineering (1977) and a Ph.D. in Mechanical Engineering (1981).

He is presently a Professor and the Director of the University of Massachusetts Wind Energy Center (a.k.a Renewable Energy Research Laboratory). Prof. Manwell has been working in field of wind energy for over 25 years. His research interests have focused on wind resource assessment, hybrid power system design, and offshore wind energy. He is a co-author of a

textbook on wind energy: [Wind Energy Explained: Theory, Design and Application](#). Currently, he is the U.S. representative to the International Electrotechnical Commission's program to develop design standards for offshore wind turbines. He is also a member of the International Science Panel on Renewable Energies and is on the editorial board of the IET Renewable Power Generation Journal.

Prof. Manwell will discuss his experience with the proposed Hull offshore wind project and how that experience relates to the need for future research and development



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WRAP UP DISCUSSION and CONCLUSION



Dennis H. Esposito, Esq.
Partner
Adler Pollock & Sheehan P.C.

Dennis H. Esposito, Chairman of the Adler Pollock & Sheehan Environmental Practice Group, is a shareholder in the firm and accomplished environmental practitioner in the areas of permitting, land use development, coastal development, hazardous waste issues, and environmental litigation. Mr. Esposito has successfully represented clients in the public and private sectors and has served as legal counsel for the Narragansett Bay Water Quality District Commission, and Rhode Island's Coastal Resources Management Council.

Mr. Esposito graduated with a B.S. from Boston College in 1969 and received his J.D. from Boston University School of Law in 1974. He is admitted to the Bar in Rhode Island and Massachusetts.



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GENERAL INFORMATION

Badges

All registrants and guests must present the official Marine Law Symposium badge to be admitted to symposium events.

Food & Beverages

Symposium registration includes admission to all symposium programs, continental breakfasts and lunches. The Bay View Room is available for use during the breakfast, breaks and lunches. A sign is posted at the door to this room.

October 23rd Dinner - Bristol Harbor Inn

If you have signed up for the dinner, directions to the Inn can be picked up at the Registration table. A complimentary drink at the dinner is located behind your name badge. We regret that no additional reservations can be taken for the dinner.

Continuing Legal Education (CLE) Credit

The Rhode Island MCLE Commission has granted 12.5 credits (no ethics credits) by attending the symposium. Please note rules differ in each jurisdiction. Please see symposium staff at the registration table for a CLE certificate.

Hospitality Room

A hospitality room (Room 244) has been set up for your convenience in making cell phone calls and gaining web access. Please ask at the registration table for directions to the room.

No Smoking

Roger Williams University has a no-smoking policy in effect within all buildings.

Telephones

There are two public telephones located in the School of Law: one located on the main floor next to the elevators and one on the lower level far side of the cafeteria near the mailboxes.



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DIRECTIONS

From Bristol Harbor Inn to the law school:

Turn right out of the parking lot of the Inn. At the stop sign (immediately after turning right), turn left onto State Street. At the next stop, turn right onto Hope Street (Rt. 114S).

Follow Hope Street for approximately two miles. Roger Williams University will come into view on your left as you approach the Mt. Hope Bridge—there is a turnaround **before** the light that takes you over the bridge—it is not marked, but allows you to do a U-turn onto Rt. 114N to put the university on your right. Pass the main university entrance on the right and follow signs for Event Parking to the next right turn. Following that right turn, the lot will be on your left. The School of Law is the 3-story brick building south of the lot, past the athletic fields. The symposium will be held in Room 283 of the law school. Take the stairs (or elevators, which are on your left when you enter the building) to the second floor. Go to your right at the top of the stairs. Room 283 is the first room on your left.

From the law school to Bristol Harbor Inn:

Exiting from the University's lower parking lot

If security has directed you to the university's lower parking lot, when you are leaving the campus, turn left onto Route 136S. Approximately 500 yards up the road, bear right onto Route 114S and follow Rt. 114 for approximately two miles.

*At the intersection of Hope and State streets, turn left onto State Street. At the bottom of State Street, turn right onto Thames Street, then take an immediate left into the Thames Street Landing parking lot (you will go through the arch of the building). The Bristol Harbor Inn entrance will be halfway down the parking lot on your right.

Exiting from the University's main entrance

Exiting the main entrance of the law school, you will need to cross the lanes of traffic to the left lane heading onto Rt. 114N—there is a stop sign for crossing traffic. After the stop sign, follow Rt. 114N for approximately two miles. See the * above for the remaining directions.



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ACKNOWLEDGEMENTS

The Marine Law Symposium would like to acknowledge the generous support of the following sponsors:



Roger Williams University School of Law, the only American Bar Association-accredited law school in Rhode Island, provides a broad-based legal education to over 500 students, drawn from over 40 states and 300 colleges and universities. Founded in 1992, the School of Law is a young, dynamic institution that has made its mark in the professional and educational legal communities in an unprecedented short period of time. The School of Law earned full accreditation approval from the American Bar Association by February 1997, the earliest possible time under the Association's rules and procedures, and became a member of the Association of American Law Schools in 2006.

Although a young law school, its academic profile is rising sharply. Since 2000, applications have jumped as the school has added new faculty with national reputations. Law school professors have appeared on television, radio, and print media as expert commentators on a range of subjects including the Martha Stewart criminal case, Vioxx civil litigation, sentencing guidelines, and the status of Guantanamo detainees.

The Marine Affairs Institute, the Feinstein Institute for Legal Service, three exciting live-client clinics, and summer programs in London and Lisbon provide students unique opportunities to learn outside of the confines of the traditional classroom setting. Visit the School of Law at <http://law.rwu.edu>.



The Rhode Island Sea Grant College Program is a federal-state-university partnership, based at the University of Rhode Island, which designs and supports research, outreach, and education programs that foster coastal and marine stewardship. Rhode Island Sea Grant is one of over 30 programs that make up the National Sea Grant College Program, a part of the National Oceanic and Atmospheric Administration. Rhode Island Sea Grant works with federal, state, and local partners to achieve its goals.

Rhode Island Sea Grant addresses challenges of human-dominated ecosystems through efforts in two core thematic areas: Sustainable Coastal Communities and Ecosystems and Sustainable Fisheries. Visit Rhode Island Sea Grant at <http://seagrant.gso.uri.edu/>. It also boasts of having one of the four Sea Grant Legal Programs in the country. The Legal Program, located at the Marine Affairs Institute at Roger Williams University School of Law, provides analysis and research of marine law issues to further innovative legal and policy approaches to coastal and fisheries management.



The University of Rhode Island offers world-class training in the basic sciences combined with hands-on learning that will shape students into successful problem solvers. Students in CELS have the opportunity to learn in advanced research laboratories and community outreach settings, where they gain important real-world experiences. Our internationally renowned faculty members are student oriented and winners of numerous national teaching awards. Our programs integrate classroom studies, field training, internships and research experiences with faculty and staff. Students develop well-honed skills that prepare them to be scientists, managers and policymakers destined for key roles in the life sciences and in the stewardship of our environment and society.



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SILVER SPONSORS



Adler Pollock & Sheehan is one of the region's most respected and successful law practices. With offices in Providence and Boston, the firm features a sophisticated Corporate practice and a nationally-renowned Litigation practice. Our skilled environmental attorneys help clients with environmental and land use permitting, environmental compliance, environmental litigation, CERCLA/Superfund, Brownfields development, and offshore renewable energy. AP&S has served a growing roster of diverse clients throughout New England, across the country, and around the world, from Fortune 500 and Fortune 100 companies to smaller organizations. Of particular note, AP&S represents generators and providers of various forms of energy and helps them address development, regulatory and permitting issues.



The 11th Hour Project popularizes high-level, high-quality information about solutions to global warming. They work to change public perception about climate crisis from hand-wringing hopelessness to engaged, hands-on problem solving. The 11th Hour Project proudly partners with various organizations working to promote sound science on climate change, empower the green economy, and to bring in new voices in the creation of a sustainable future.

The 11th Hour Project is proud to support The Marine Law Symposium and its goal of furthering the realization of renewable energy sources. By embracing new ideas and confronting challenges as solutions yet unknown, human ingenuity can realize its true potential and, in the process, restore balance to our ecosystems. May the conversations and connections made over these two days bring us closer to achieving a viable and sustainable marine renewable energy industry for the United States.



At CompUtopia, you get old-fashioned customer service for your high-tech requirements.

CompUtopia take time to get to know you and your business. Its business has grown over the years by offering personalized services, support and solutions. For 20 years, CompUtopia has developed long-term relationships with clients ranging from Fortune 1000 companies to small businesses. CompUtopia's specialty is integrating cutting edge, high-tech solutions for Corporate, Education, Government, and Healthcare.



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Ocean Special Area Management Plan

The Rhode Island Ocean SAMP, or Ocean Special Area Management Plan, led by the R.I. Coastal Resources Management Council, will define use zones for Rhode Island's offshore waters through a research and planning process that integrates the best available science with open public input and involvement.

Global warming is perhaps the most critical issue of the 21st century. It is already accelerating sea level rise, leading to beach erosion, property losses, and increasing Rhode Island's vulnerability to hurricanes and floods. Climate change may adversely affect food supply, public health, and the economy. Rhode Island is committed to reducing its carbon footprint by using renewable energy resources, primarily offshore wind farms, to meet 15 % of its energy needs.

From 2008 to 2010, through a public policy process that includes scientific research and stakeholder involvement, the Ocean SAMP will make Rhode Island the first state nationally to zone its offshore waters for diverse activities including renewable energy development. This process will also protect current uses and habitats through zones for commercial fishing, critical habitats for fish, marine animals, and birds, marine transport, and more.

Research projects undertaken by URI scientists will assess wind speeds, appropriate technologies, marine life, geology, meteorology, and more, providing the scientific basis for policy development.

Public involvement will also help shape the Ocean SAMP. For more information, visit seagrant.gso.uri.edu/oceansamp or contact CRMC Public Educator & Information coordinator Laura Ricketson-Dwyer at 401-783-7886 or lricketson@crmc.ri.gov.



The National Oceanic and Atmospheric Administration's (NOAA's) mission is to understand and predict changes in Earth's environment and conserve and manage coastal and marine resources to meet our Nation's economic, social, and environmental needs. This mission is based on a vision that an informed society uses a comprehensive understanding of the role of the oceans, coasts, and atmosphere in the global ecosystem to make the best social and economic decisions to protect life and property and conserve and protect our natural resources. NOAA's data, scientific research and technical products are instrumental in advancing the environmentally-sound use of the marine environment by both traditional and evolving new technologies.

NOAA is extensively involved in coastal and ocean energy matters through its mandates related to fisheries, marine mammals and other protected marine resources, national marine sanctuaries, coastal zone management, oceanic and atmospheric research, etc. Energy facilities provide significant economic and energy self-sufficiency benefits to the nation. Energy projects also impact the coastal and ocean biological and physical environment as well as have socio-economic impacts on coastal and ocean uses and users. Energy demands are increasing the need to facilitate the appropriate siting of energy-related activities and to coordinate authorities of states and federal agencies and the interests of affected parties. NOAA, through its many mandates related to meeting the Nation's energy needs, seeks to reduce coastal use conflicts, conserve coastal resources, and to work with coastal managers, fishery managers, and decision makers to address energy facility technologies and siting.



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BRONZE SPONSORS



Beveridge & Diamond, P.C. focuses on environmental law, land use, and litigation matters for industry and government clients with offices from coast to coast. We represent domestic and international clients on virtually every aspect of environmental law. Our alternative energy practice includes siting, state and federal permitting, and legislative strategy. Attorneys in our ocean and coastal resources practice address complex legal matters involving multiple regulatory schemes covering environmental, land use, resource development and trade policies. We help clients successfully navigate the sector-based and often piecemeal regulatory challenges for obtaining necessary permits and other authorizations for ocean-based activities.



New technologies, new regulatory developments, and recent economic conditions have encouraged the exploration of alternative energy sources. At DTA we recognize that ocean energy represents a significant renewable energy resource for the future. DTA is involved in some of the first marine renewable energy projects in North America and is a recognized leader in providing integrated regulatory, environmental and engineering support to forward this industry. DTA's staff of over 250 engineers, scientists and regulatory specialists located in the United States and Canada pay close attention to local and regional developments, permitting/licensing/environmental issues as well as advances in engineering and power generation.



ESS Group, Inc. is a multi-disciplinary environmental consulting and engineering company with 15+ years of experience in the energy industry. Our projects range from conventional generation and transmissions facilities to innovative natural gas storage and offshore renewable energy and electric transmission. ESS has conducted environmental assessments and prepared regulatory filings for more than 1,000 MW of renewable energy, including the Cape Wind project in Nantucket Sound.

ESS scientists and engineers serve clients throughout the Northeast. We provide comprehensive permitting for complex multi-disciplinary projects. ESS has particular expertise in siting analyses, filed studies, and impact assessments for coastal and offshore environments, involving fisheries, benthic habitat, water quality, dredging/sediment management, and avian investigations. For details, see www.essgroup.com.



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Founded in 1964 as Goldberg-Zoino & Associates, Inc., a soils and foundations specialty consultant, GZA GeoEnvironmental, Inc. (GZA) has grown into a full-service company providing its clients with a wide range of geotechnical engineering, environmental consulting, and remediation services. GZA employs over 525 engineers, scientists, and technical support staff in 21 offices in the U.S. Through integration of its geotechnical, environmental, and civil engineering expertise, GZA has historically been able to offer a broad technical approach and provide our clients with cost-effective and technically appropriate solutions to problems. Technical expertise, innovation, sensitivity to client needs, and responsiveness are the "trademarks" of GZA.



On August 8, 2005, President George W. Bush signed into law the Energy Policy Act of 2005. The law grants Minerals Management Service (MMS) responsibilities over Federal offshore alternative energy and alternate uses of America's offshore public lands, known as the Outer Continental Shelf (OCS.)

MMS program objectives are to: hold meaningful dialogue with affected State and local governments and Federal agencies, ensure protection of the environment, ensure human safety, establish fair return for use of OCS lands, and share revenue with affected States. Continuing activities include coordination with stakeholders, environmental studies and compliance, leasing priorities, monitoring and facility inspection, and finalization of the associated Rule.

PATRON SPONSORS



The Beaufort Maritime Group, LLC, headquartered in Newport, RI since 2002, provides strategic planning and marketing consulting services to maritime transportation companies. Its President is William J. Coffey, an Adjunct Professor at Roger Williams University School of Law. Previously, Mr. Coffey was President of R.K. Johns & Associates, Inc., a New York City-based management consulting firm. He joined RKJ&A in 1991 from Sea-Land Service, Inc., a leading global intermodal carrier.

Mr. Coffey, a Georgetown University Law graduate, is a member of the Maritime Law Association of the United States, the Propeller Club, the Navy League, and the Virginia and District of Columbia Bars.



The Coastal States Organization (CSO) was established in 1970 to represent the Governors of the nation's thirty-five coastal states, commonwealths and territories on legislative and policy issues relating to the sound management of coastal, Great Lakes and ocean resources. CSO works with Congress to shape legislation, with federal agencies on proposed regulations, and with partners to coordinate state and federal activities. CSO advocates for a reauthorized Coastal Zone Management Act, increased federal funding and support for state-based coastal and ocean programs, as well as responsiveness of federal agency program administration and policies to state concerns.



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Mainstream Renewable Power was established in February 2008 by Eddie O'Connor, founder and former CEO of Airtricity, to develop, build and operate renewable energy plant across Europe, North America, South America and Australia. The company has established an *Offshore Centre of Excellence* in London, where a team of experienced staff is focused on delivering large-scale offshore projects in collaboration with strategic partners. Northwestern Europe is a key market and Mainstream is already active in the UK, Germany and Ireland, with other European markets currently under review. The company is also evaluating offshore potential along the northeast coast of the U.S.



Bluewater Wind is the offshore wind company of Babcock & Brown, and is the leading developer of offshore wind projects in the Northeast, with projects under development from Maryland to Massachusetts. Bluewater Wind has entered into the first two Power Purchase Agreements for offshore wind in North America, and its development team has participated in the development and construction of 21 of the world's 28 operating offshore wind parks. Babcock & Brown is a globally leading infrastructure investment company, and among the top five wind energy development companies in the United States, currently operating 20 land-based wind farms and a development pipeline of over 600MW per year.

MORAN SHIPPING AGENCIES, INC.

Moran Shipping Agencies, Inc. was founded by James F. Moran in 1937 as a Rhode Island-based Corporation operating in Providence, Rhode Island and Fall River, Massachusetts. By the time James F. Moran died in 1959, he had expanded and established successful additional ship agency offices in Boston, Massachusetts and Portland, Maine. In 1975, Moran began in earnest to build a national shipping agency by opening a full-service office in Houston, Texas. Within a short time, Moran expanded to Port Arthur and Corpus Christi, Texas. In 1976, Kurz-Moran of New Jersey was opened with the principals of the Chas. Kurz Co.

In 1995 Moran acquired the ownership of the prestigious Patterson, Wylde & Company steamship agency in Boston. Also in 1995, Moran Shipping Agencies acquired full ownership of Kurz-Moran Shipping Agencies in Hopelawn, New Jersey and Philadelphia, Pennsylvania. With this acquisition, Moran Shipping Agencies became a totally independent business answering only to its valued clients.

Over the years, Moran has continued to expand throughout the Gulf (New Orleans, Lake Charles), the South Atlantic (Florida, Charleston) and the West Coast (Long Beach, San Francisco). Moran Shipping Agencies, Inc. now have 20 Full-Service offices which provide full Steamship Agency services at over 90 in North America.



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With more than 50 years experience, TransCanada is a leader in the responsible development and reliable operation of North American energy infrastructure. Founded in 1951 and headquartered in Calgary, Alberta, TransCanada has approximately 3,550 employees in Canada and in the United States.

TransCanada's businesses are organized into two segments: Pipelines and Power. The Pipelines business is principally comprised of TransCanada's pipelines in Canada and the United States. Our diversified Power portfolio encompasses nuclear, natural gas, coal, hydro, and wind generation. TransCanada owns, controls or is developing approximately 10,900 megawatts of power generation, including:

- 560 MW [Ocean State Power](#) plant in Rhode Island
- 567 MW hydroelectric facilities on the [Connecticut and Deerfield Rivers](#) in NH, VT, and MA.
- 132 MW [Kibby Wind Power Project](#) in the Boundary Mountains of Maine (available in 2009)
- 2,480 MW Ravenswood Generating Facility in Queens, New York

TransCanada conducts wholesale and retail electricity marketing and trading for its US Northeast operations out of Westborough, MA. We're proud to have such a strong operational presence in the U.S. Northeast region.



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We would also like to thank those individuals on the planning committee who lent their time and energy to making this year's Symposium a success.

William J. Coffey, Esq., Beaufort Maritime Group, LLC
Angela F. Colamaria, Esq., Beveridge & Diamond, P.C.
Harlan Doliner, Esq., Pepe & Hazard LLP
Carolyn Elefant, Esq., Law Offices of Carolyn Elefant
Dennis H. Esposito, Esq., Adler Pollock & Sheehan P.C.
Charlotte Ferris, Marine Affairs Institute, Roger Williams University School of Law
Megan Higgins, Marine Affairs Institute, Roger Williams University School of Law
Chelsie Horne, Office of Alumni, Programs & Events, Roger Williams University School of Law
David Kaiser, NOAA Coastal Response Research Center
Timothy R.E. Keeney, National Oceanic and Atmospheric Administration
Eleftherios Pavlides, Wind Power Rhode Island
Heather Rhodes, Rhode Island Sea Grant College Program, University of Rhode Island
Peter J. Schaumberg, Esq., Beveridge & Diamond, P.C.
Thomas C. Woodworth, U.S. Minerals Management Service

Special thanks are due to Dr. Michelle Portman of the Woods Hole Oceanographic Institution's Marine Policy Center for serving as the blogger during the event. We also thank the Environmental Law Society, the Maritime Law Society and the Sustainability Committee for their assistance with planning and volunteering during the Symposium.

Environmental Law Society

Allison Novelty, President
Christina Hoefsmit, Vice President
Dawn Euer
Ron Rose
Carolyn Rowe

Maritime Law Society

Brian Eisenhower, President
Daniel Orchard, Vice President
Nat Spencer, Secretary
Samuel "Jake" Parris, Treasurer
James Flores, Events Coordinator

Sustainability Committee

Dawn Euer
Jennifer Lemieux
Leah Nollenberger
Jackie Roller
Carolyn Rowe

Sustainability Fellow

Lauren Parrella



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The Marine Affairs Institute is working with the Law School's Sustainability Committee to ensure that the 7th Marine Law Symposium is a carbon-neutral event. To this end, the Institute is partnering with Carbonfund.org to offset the carbon produced by the Symposium. The Institute's contribution will support the development of renewable energy, energy efficiency, and reforestation projects worldwide.

Additionally, the Institute is working with the management of Bon Appétit, the University's food services company, to ensure that catering at the Symposium is as sustainable as possible. Water coolers and reusable water bottles will be provided, as well as recycled canvas lunch bags. Meals will be served with reusable plates and utensils.

In an effort to reduce carbon emissions produced by travel, attendees are encouraged to carpool. Shuttles will also be provided from the Bristol Harbor Inn to the law school in a further effort to reduce carbon emissions.

If you would like to learn more about carbon offsetting, or offset your own carbon footprint, please visit www.carbonfund.org.



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In partnership with Rhode Island Sea Grant and the University of Rhode Island's Department of Marine Affairs, the Marine Affairs Institute provides analysis of legal issues affecting oceans and coasts, oversees research of law students in ocean, coastal and maritime law, and provides outreach to practitioners and policy-makers. Located on Narragansett Bay, the Institute is uniquely suited to address matters such as coastal and marine pollution, shipping and maritime issues, and coastal zone management. Institute research is relevant on a national and international level as other regions and countries struggle to use and preserve the marine resources.

The Institute works closely with the Maritime Law Society, a student organization comprised of students with interests in admiralty, maritime, and marine law, and the Environmental Law Society, an organization of students interested in environmental and natural resources law. The Institute assists the societies in establishing an annual speaker series, which brings experts to the School of Law to share their perspectives on current legal issues and working in the legal field.

Roger Williams University School of Law offers students numerous elective course offerings in pollution and environmental regulation, coastal zone law, fisheries, traditional admiralty law and practice, related international law courses, and a specialized Marine Law Summer Program. The School of Law, in conjunction with URI's Department of Marine Affairs, offers a joint degree program for students interested in extensive study of legal issues relating to the marine environment. The joint degree program allows students to complete the Juris Doctor and Master of Marine Affairs degrees by combining course work at the two institutions to reduce the overall time necessary for the two degrees. The program provides a wide variety of courses in law and policies regarding the environment and natural resources, coastal zone, maritime and admiralty issues, and international topics.

Building on an existing partnership with the Rhode Island Sea Grant College Program, in 2004 the School of Law created the Rhode Island Sea Grant Legal Program, which sponsors professional and student legal research and analysis regarding marine resources. The Legal Program provides an excellent opportunity for law students to receive training in the identification and resolution of marine resource management and conservation issues. These efforts build on the traditional research of the Marine Affairs Institute and represent one of only four Sea Grant law and policy efforts in the nation. Visit the Institute at <http://law.rwu.edu/sites/marineaffairs/>.