FALL 2015 LECTURE SERIES: PLUGGED INTO URI ENERGY RESEARCH

portation

THE UNIVERSITY OF RHODE ISLAND EXTENSION OUTREACH CENTER

Prepared by Angela Tuoni and Alysse Vindeed 2015 URI Energy Fellows

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Acknowledgements

This initiative would not have been possible without the support and engagement of a dedicated team of University Staff and Faculty, including:

Provost Donald DeHayes Dr. Deborah Sheely, URI Extension

Dr. David Bidwell, Department of Marine Affairs Dr. Reza Hashemi, Department of Ocean Engineering Eric Kretsch, Department of Marine Affairs Wendy Lucht, Ocean State Clean Cities Dr. Norbert Mundorf, Harrington School of Communication and Media Dr. Valerie Maier-Speredelozzi, Department of Mechanical, Industrial, and Systems Engineering Dr. Simona Trandafir, Department of Environmental and Natural Resource Economics

Kristina DiSanto, URI Extension Dalton Kell, URI Extension Angela Tuoni, URI Extension Kate Venturini, URI Extension 2015 URI Energy Fellows, URI Extension

Executive Summary

URI Extension provides a window to the College of Environment and Life Sciences through which stakeholders can access factually-based information that addresses environmental, economic, and social issues. In an effort to empower individuals and community leaders as informed decision-makers and advocates with respect to energy, the URI Extension Outreach Center (EOC) formed an Energy Literacy Team comprised of Extension staff and undergraduate URI Energy Fellows in 2015. The team sought to design and deliver Extension programming that would bridge the gap between URI research faculty, Extension resources and our stakeholders. In response to the need to highlight ongoing academic energy research at URI, the first **Plugged into URI Energy Research** lecture series was developed and offered during the fall semester of 2015. The lecture series afforded URI faculty the opportunity to showcase their research and, where appropriate, call attendees to action with their newly acquired research-based knowledge.

Dr. Reza Hashemi shared his research on ocean renewable energy and encouraged attendees to support further research and academic initiatives surrounding these emerging technologies while Dr. Simona Trandafir shared her research on energy efficiency in transportation and encouraged attendees to change their driving patterns and habits to reduce negative impacts of transportation on air quality. In addition to

encouraging behavior change, the lecture series also helped to increase visibility of existing and emerging academic opportunities related to energy at URI. Not only did a select group of URI Energy Fellows play a leading role in the development of this programmatic effort with URI Extension staff, they also gave verbal testimonials during the lecture series to share their experiences as URI Energy Fellows. This experience provided hands-on Extension program design and implementation skill building to each Fellow and allowed them to hone their public speaking skills.



Figure 1: Dr. David Bidwell, Assistant Professor in the Department of Marine Affairs, presents during the "Energy and the Ocean" lecture on November 3, 2015.

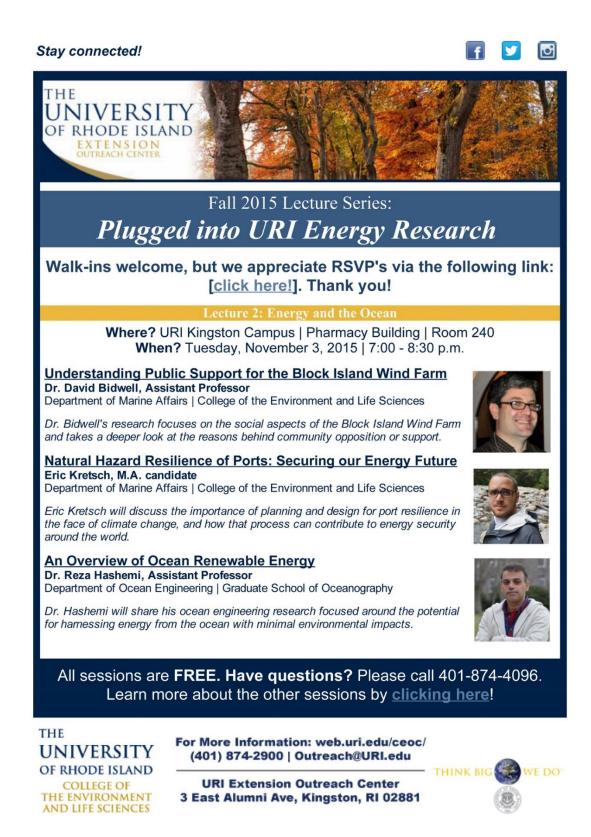
Each lecture in the series was developed through the

careful examination of: a) stakeholder input on topics of interest through the EOC's "Master Energy Program", "Home Energy School" and "Renewable Energy School" between 2008 and 2015; b) an inventory of existing URI faculty research and staff research projects around energy; and c) the desire of URI faculty and staff to share their research with the public. All attendees were encouraged to evaluate the lectures they attended on the form in Appendix 4. The summary of responses below is based on the feedback we received on these forms following the lectures.

Attendee Evaluation Summary

The inaugural *Plugged into URI Energy Research* lecture series engaged nearly 100 attendees, including URI students, industry professionals, members of the general public, and policymakers. Attendees responded favorably when asked to rate content delivery and presentation quality for three lectures given, and marked the interactive nature and organization of each talk within lectures the highest of all. When asked about whether or not the information they received during the lectures would encourage them to make different decisions about their own behaviors related to energy, those who answered favorably said that they will shift towards more sustainable transportation behaviors, seek out academic opportunities in energy, and pass on the information to other community members. Future topics of interest include: energy and climate change, ocean energy-related topics, policy development, transportation systems, and the integration of social science into traditional science. Overall, respondents found the presentations "excellent" and will attend future EOC energy education programs in the future.

Appendix 1: Energy and the Ocean Publicity Announcement



Agenda

Where: URI Kingston Campus | Pharmacy Building | Room 240 Date: Tuesday, November 3, 2015 | 7:00 - 8:30 p.m.

7:00 PM Welcome and Introductions Alysse Vindeed, 2015 URI Energy Fellow Outreach Center | URI Extension | College of the Environment and Life Sciences

7:10 PM Understanding Public Support for the Block Island Wind Farm Dr. David Bidwell, Assistant Professor Department of Marine Affairs | College of the Environment and Life Sciences

Construction of the nation's first offshore wind farm is underway on the coast of Rhode Island, but not without conflicts of opinion. Dr. Bidwell's research focuses on the social aspects of the Block Island Wind Farm and takes a deeper look at the reasons behind community opposition or support. Join us to learn about the complex nature of this field of study, and how you can develop your own insight.

7:30 PM Natural Hazard Resilience of Ports: Securing our Energy Future Eric Kretsch | M.A. candidate Department of Marine Affairs | College of the Environment and Life Sciences

Marine ports facilitate 90% of world trade, but are often located in areas exposed to sea level rise and coastal storm events. Eric Kretsch will discuss the importance of planning and design for port resilience in the face of climate change, and how that process can contribute to energy security around the world.

7:50 PM An Overview of Ocean Renewable Energy Dr. Reza Hashemi | Assistant Professor Department of Ocean Engineering | Graduate School of Oceanography

We use the oceans for swimming, fishing, boating and other forms of recreation; but can we also use it to power our homes and businesses? Dr. Hashemi will share his ocean engineering research around the potential for harnessing energy from the ocean with minimal environmental impacts.

- 8:10 PM QUESTIONS
- 8:30 PM ADJOURN

Speaker Biographies



Eric Kretsch, M.A. candidate | Department of Marine Affairs

Eric Kretsch graduated from URI with a B.S. in Marine Affairs and Environmental and Natural Resource Economics in 2014. As an undergraduate, Eric was selected to be a 2013 Energy Fellow working on energy efficiency projects through the URI Outreach Center. Eric's current research interests focus on assessing vulnerabilities and long-term resilience of maritime infrastructure, including energy infrastructure, using stakeholder engagement processes.

Dr. David Bidwell, Assistant Professor | Marine Affairs | Ocean Renewable Energy Cluster

David Bidwell joined the URI Marine Affairs faculty in 2014, as part of the Provost's Ocean Renewable Energy Cluster. In his research, Dr. Bidwell utilizes theories and techniques from environmental sociology and social psychology to understand public acceptance of offshore wind farms and other renewable electricity technologies. Other interests include participatory decision making and climate adaptation. Dr. Bidwell earned a PhD in Sociology from Michigan State University.



Dr. Reza Hashemi, Assistant Professor | Ocean Engineering

Dr Reza Hashemi is an assistant professor, in Department of Ocean Engineering and Graduate School of Oceanography. He was awarded a PhD in civil engineering/ Shiraz University, Iran (2006), and another PhD in Ocean Sciences, University of Wales (Bangor), UK (2014). He was previously a research Fellow at School of Ocean Sciences, University of Wales (Bangor) for 3 years and joined URI in January 2015 His research is mainly focused on ocean physics, mostly applied to ocean renewable energy (tides and waves), and coastal problems (e.g. flooding and erosion).

Appendix 2: Energy in URI Extension

Publicity Announcement

Stay connected!





Fall 2015 Lecture Series:

Plugged into URI Energy Research

Walk-ins welcome, but we appreciate RSVP's via the following link: [click here!]. Thank you!

Energy in URI Extension

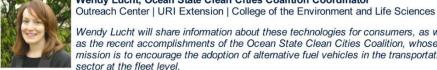
Where? URI Kingston Campus | Pharmacy Building | Room 240 When? Tuesday, November 10, 2015 | 7:00 - 8:30 p.m.

Using Energy Extension as a Tool to Save our Cities Thousands Kristina Disanto, Energy Projects and Fellowships Coordinator



Kristina DiSanto will talk about URI's role in the RI Public Energy Partnership (RIPEP), a three-year collaborative effort funded by the U.S. Department of Energy and led by the RI Office of Energy Resources to achieve deep energy savings in the public sector.

Promoting Alternative Fuels for Transportation Fleets Wendy Lucht, Ocean State Clean Cities Coalition Coordinator



Wendy Lucht will share information about these technologies for consumers, as well as the recent accomplishments of the Ocean State Clean Cities Coalition, whose mission is to encourage the adoption of alternative fuel vehicles in the transportation sector at the fleet level.

Energy Curriculum and Fellowships at URI



Angela Tuoni, 2015 URI Energy Fellow URI Outreach Center | Extension | College of the Environment and Life Sciences

Angela Tuoni will highlight opportunities for students to gain energy knowledge and experience through a newly proposed undergraduate certificate and the Energy Fellows Program administered through URI's Outreach Center.

Energy Fellow Experience Dalton Kell, 2015 URI Energy Fellow



URI Outreach Center | Extension | College of the Environment and Life Sciences Dalton Kell will discuss his fellowship experience this year working to develop energy

efficiency policies for the RI National Guard's facilities statewide.

All sessions are FREE. Have questions? Please call 401-874-4096. Learn more about the other sessions by clicking here!



For More Information: web.uri.edu/ceoc/ (401) 874-2900 | Outreach@URI.edu

URI Extension Outreach Center 3 East Alumni Ave, Kingston, RI 02881



Agenda

Where: URI Kingston Campus | Pharmacy Building | Room 240 Date: Tuesday, November 10, 2015 | 7:00 - 8:30 p.m.

 7:00 PM Welcome and Introductions Kate Venturini, Interim Director | Extension Outreach Center | CELS
 7:15 PM Using Energy Extension as a Tool to Save our Cities Thousands Kristina DiSanto. Energy Projects and Fellowships Coordinator

Outreach Center | URI Extension | College of the Environment + Life Sciences Kristina DiSanto will talk about URI's role in the RI Public Energy Partnership (RIPEP), a three-year collaborative effort funded by the US Department of Energy and led by the RI Office of Energy Resources. RIPEP's goal to achieve deep energy savings in state and municipal facilities and build a sustained, effective infrastructure for ongoing savings has engaged URI students in data management and analysis for the length of the project through the URI Energy Fellows Program.

7:35 PM Ocean State Clean Cities Coalition: Promoting Alternative Fuels for Fleets

Wendy Lucht, Ocean State Clean Cities Coalition Coordinator Outreach Center | URI Extension | College of the Environment + Life Sciences There are emerging alternative fuel vehicle technologies new to the market every day. Wendy Lucht will share information about these technologies for consumers, as well as the recent accomplishments of the Ocean State Clean Cities Coalition, whose mission is to encourage the adoption of alternative fuel vehicles in the transportation sector at the fleet level.

7:55 PM Energy Curriculum and Fellowships at URI

Angela Tuoni, 2015 URI Energy Fellow

URI Outreach Center | Extension | College of the Environment + Life Sciences Faculty and staff are not alone in their efforts to add value to energy progress at URI. Angela Tuoni will highlight opportunities for students to gain energy knowledge and experience through a newly proposed undergraduate certificate and the Energy Fellows Program administered through URI's Outreach Center.

8:05 PM The URI Energy Fellow Experience

Dalton Kell, 2015 URI Energy Fellow

URI Outreach Center | Extension | College of the Environment + Life Sciences To provide a closer look into a day in the life of a URI Energy Fellow, Dalton will discuss his experience at the RI National Guard for his 2015 Energy Fellowship. Hear about how his work is benefitting the State, university, and tomorrow's energy work force.

- 8:15 PM QUESTIONS
- 8:30 PM ADJOURN

Speaker Biographies



Kristina DiSanto, Coordinator | URI Outreach Center

Kristina DiSanto has coordinated energy projects and fellowship programs at the URI Outreach Center since 2009. Prior to joining the staff, Kristina worked as a graduate Energy Fellow co-authoring URI's Climate Action Plan and managing URI's EPA Climate Showcase Communities grant. She now specializes in energy benchmarking for the RI Public Energy Partnership, a three-year federally-funded grant led by the RI Office of Energy Resources. Kristina earned both her B.S. (2010) and M.S. (2012) in Environmental and Natural Resource Economics from URI.



Wendy Lucht, Coordinator | Ocean State Clean Cities Coalition

As the Coordinator of the Ocean State Clean Cities Coalition at the URI Outreach Center, Wendy Lucht works to promote the use of alternative fuels, hybrids, idle reduction technologies and fuel economy measures. She also facilitates networking among public and private fleet managers, fuel providers, and state energy officials. Wendy has a Master's degree in Public Administration with a concentration in Environmental Policy from the Maxwell School of Citizenship and Public Affairs at Syracuse University. She earned her BS from Ithaca College in New York.



Angela Tuoni, 2015 Energy Fellow | URI Outreach Center

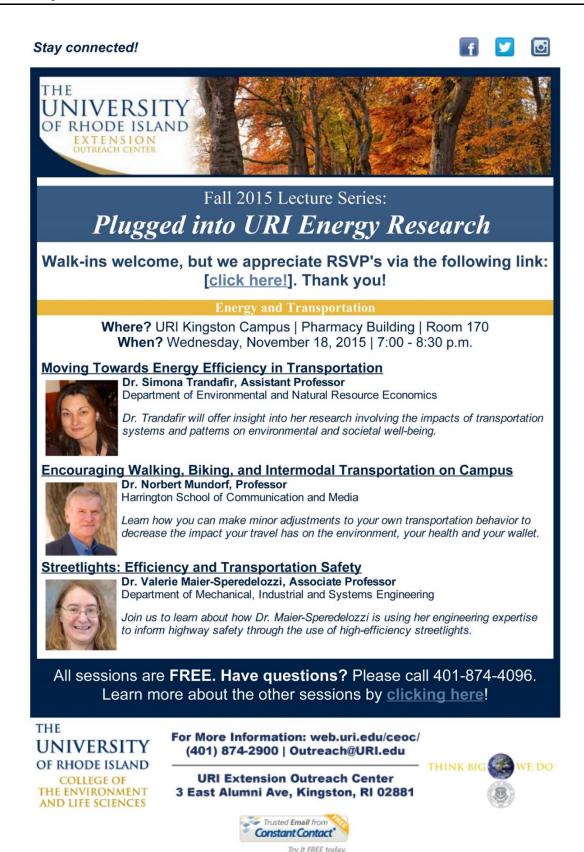
Angela Tuoni is a senior in the Environmental and Natural Resource Economics Department, and a second-year Energy Fellow. She coordinated URI's first Home Energy and Renewable Energy Schools in 2014, and is currently conducting an environmental scan of RI farm energy management programs and incentives.



Dalton Kell, 2015 Energy Fellow | URI Outreach Center

Dalton Kell is a junior in the Environmental and Natural Resource Economics Department, and a 2015 Energy Fellow. As part of his energy fellowship, he is working with the RI National Guard to implement energy management practices at the individual and institutional level.

Appendix 3: Energy and Transportation Publicity Announcement



Agenda

Location: URI Kingston Campus | Pharmacy Building | Room 170 **Date:** Wednesday, November 18, 2015 | 7:00 - 8:30 p.m.

7:00 PM Welcome and Introductions *Matthew Reinhardt, 2015 URI Energy Fellow* Outreach Center | URI Extension | College of the Environment and Life Sciences

7:10 PM Moving Towards Energy Efficiency in Transportation Dr. Simona Trandafir, Assistant Professor Department of Environmental and Natural Resource Economics

> Many associate "energy efficiency" with homes and businesses, but the concept has implications in transportation as well. Dr. Simona Trandafir will offer insight into her research involving the impacts of transportation systems and patterns on societal wellbeing. She will discuss how energy use is directly linked to our transportation decisions; and how adoption of certain policy strategies might reduce transportation's negative effects on the health of our environment and communities.

7:30 PM Encouraging Walking, Biking, and Intermodal Transportation on Campus Dr. Norbert Mundorf, Professor

Harrington School of Communication and Media

Transportation is woven into the fabric of our lives. Dr. Mundorf will discuss his research related to individual transportation behavior and the effect it has on environmental quality, community health, and economic prosperity. Learn how you can make minor (or substantial) adjustments to your own transportation behavior to decrease the impact your travel has on the environment, your health and your wallet.

7:50 PM Streetlights: Efficiency and Transportation Safety Dr. Valerie Maier-Speredelozzi, Associate Professor Department of Mechanical, Industrial and Systems Engineering

In a society always on the go, shouldn't our roads and highways be as safe and efficient as possible? Join us to learn about how Dr. Maier-Speredelozzi is using her engineering expertise to inform highway safety and sustainability through the use of high-efficiency streetlights.

8:00 PM QUESTIONS

8:30 PM ADJOURN

Speaker Biographies



Dr. Simona Trandafir, Assistant Professor | Environmental and Natural Resource Economics (ENRE)

Dr. Simona Trandafir (Ph. D. University of Rhode Island) is a Visiting Assistant Professor in ENRE. Her PhD dissertation on port competition won the URI's Best Transportation Dissertation award. Other research focused on topics such as preservation of estuarine watershed open space, fishery resource damage assessment and economic impacts of transportation cost changes on the maritime transportation system in the U.S. More recent work explored oil and gas leasing policies and their impacts on governmental revenue.



Dr. Norbert Mundorf, Professor | Harrington School of Communication and Media

Dr. Norbert Mundorf (Ph.D. Indiana University) has been a faculty member at URI since 1987. He is involved in various interdisciplinary research, teaching and outreach initiatives to promote Sustainable Transportation and Health. Dr. Mundorf's research interests include media, global and online communications, and transportation and behavior change. He has worked with the URI Transportation Center, the Cancer Prevention Research Center, and the University of Göttingen and Fraunhofer ISI (Germany) on issues related to Virtual Mobility and Sustainable Transportation.



Dr. Valerie Maier-Speredelozzi, Associate Professor | Mechanical, Industrial and Systems Engineering

Dr. Valerie Maier-Speredelozzi (Ph. D. University of Michigan) is an associate professor in Industrial and Systems Engineering. During school, she worked in industry with Georgia Power Company, Volvo Penta of the Americas, and General Motors, and now works with numerous RI manufacturing companies and healthcare agencies. Her research interests include performance metrics, lean systems, sustainability and system design across multiple industries, including healthcare, manufacturing, transportation, and government.

Appendix 4: Sample Attendee Evaluation



1. How did you hear about the program?

Facebook	Other website post
Twitter	URI news
Online calendar post	Friend / Family member
Outreach Center email	Newspaper/Magazine
Other (please specify)	

2. Please rate your instructor on a scale of 1-5 (1=poor and 5=excellent).

David Bidwell (Understanding Public Support for the Block Island Windfarm) _____ Eric Kretsch (Natural Hazard Resilience of Ports: Securing Our Energy Future) _____ Reza Hemshi (An Overview of Ocean Renewable Energy) _____

3. Do you have any other general comments or suggestions?

4. What did you learn that you will implement into your own practices?

5. What topics would you like to see offered in the future?

6. Would you be willing to provide a testimonial of your experience for our website?

For More Information: Visit: web.uri.edu/ceoc



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