



**EBC Climate Change Program  
Financing Resilience – The Big Challenge  
*Grants, Loans, Bonds, Insurance-Linked Securities and More***

Tuesday, November 22, 2016

GZA  
249 Vanderbilt Avenue  
Norwood, Massachusetts

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**AGENDA**

- 8:00 a.m. **Welcome: Ruth Silman, Chair, EBC Climate and Air Committee;**  
Boston Office Managing Partner, Nixon Peabody, LLP
- 8:10 a.m. **Introduction - The Challenge Ahead**
- **Daniel C. Stapleton. P.E., Program Chair & Moderator**  
Vice-Chair, EBC Climate Change and Air Committee  
Senior Vice-President/Sr. Principal, GZA
- 8:30 a.m. **Financing Climate Change Resiliency, Overview - Issues and Opportunities**
- **Wayne Cobleigh, Vice President – Client Services, GZA**
- 8:45 a.m. **MA Coastal Resilience Grant Program – Grants Supporting Local Adaptation Efforts**
- **Patricia Bowie, Coastal Resiliency Specialist**  
Office of Coastal Zone Management
- 9:15 a.m. **Achieving Resilience through Property-Assessed Resilience, Microgrid and Clean Energy Loans**
- **Matt Macunas, Legislative Liaison/Marketing Manager**  
Connecticut Green Bank

- 9:45 a.m.      **Catastrophe and Resilience Bonds – The Private Investors’ Perspective, Financial Tools for States and Municipalities to Finance Resilient Infrastructure Projects (and Manage Risk)**
- **Rhodri J. Lane**, Vice President, GC Securities – Insurance-Linked Securities (ILS) Origination & Structuring
- 10:15 a.m.      **Networking Break**
- 10:45 a.m.      **Executive Order 569 - Establishing an Integrated Climate Change Strategy for Massachusetts and Legislative Efforts for a Green Bank in Massachusetts**
- **Kathleen Theoharides**, Director, Climate and Global Warming Solutions Executive Office of Energy and Environmental Affairs
- 11:00 a.m.      **Public and Private Finance - Full Panel Discussion with Audience Q&A**  
Panel Moderator: Daniel Stapleton, GZA  
Panel Members:
- Patricia Bowie, Massachusetts Coastal Zone Management
  - Wayne Cobleigh, GZA
  - Matt Macunas, Connecticut Green Bank
  - Rhodri J. Lane, GC Securities – Insurance-Linked Securities (ILS)
  - Kathleen Theoharides, Massachusetts EOEAA
- 11:30 a.m.      **Adjourn**

#### **PROGRAM CHAIR**

**Daniel C. Stapleton, P.E.**, Senior Vice-President/Senior Principal  
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Dan is a Senior Principal and Senior Vice-President of GZA and a leader of GZA’s Water Services group. He is currently directing GZA project teams in assessing the vulnerability of public and corporate owners of critical infrastructure to climate change and flooding throughout the United States. Dan is also the Principal-in-Charge for developing the Community Coastal Resilience Plan for the Towns of Stratford, CT and Old Saybrook, CT and Long Wharf Flood Protection Study in New Haven, CT, working in collaboration with these coastal municipalities, South Central Regional Council of Governments (SCRCOG) and the Greater Bridgeport Regional Council (GBRC). Dan is a recognized expert in flood and geo-hazard characterization, hazard vulnerability assessment, adaptation planning and design and coastal resiliency. Dan has over 30 years of experience and advanced degrees in geology, geotechnical and civil engineering, and ocean engineering, and is a Registered Professional Engineer. Dan is a prolific speaker on climate change, its effects on critical infrastructure and the application of “Risk-Informed Decision Making”, and has addressed municipalities, industry groups and the Army Corps of Engineers around the United States on this issue. Dan is a member of key American Society of Civil Engineers (ASCE) subcommittees that form the ASCE Infrastructure Resilience Division-Civil Infrastructure and Lifeline Systems Committee. He is a member the Geo-Institute of ASCE and is currently a subject matter expert advising the Nuclear Energy Institute’s (NEI’s) Post-Fukushima response advisory group.

## SPEAKERS

**Patricia Bowie**, Coastal Resiliency Specialist  
Massachusetts Coastal Zone Management  
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Patricia Bowie joined the Massachusetts Office of Coastal Zone Management in August 2014 as a Coastal Resiliency Specialist. In this position, Patricia coordinates CZM's Coastal Resilience Grant Program and provides technical assistance to coastal communities on vulnerability assessments, hazard mitigation, and climate change adaptation planning. Patricia previously worked with the New York State Department of State as a NOAA Coastal Management Fellow and a regional planner where she developed and assisted in the implementation of post-storm redevelopment planning guidelines in communities severely affected by Hurricanes Sandy, Irene, and Lee. Patricia holds a B.S. in Earth and Environmental Science from Furman University and a Masters in Environmental Management from Duke University.

**Wayne Cobleigh, CPSM**, Vice President – Client Services  
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Since 2013, Wayne coordinated with Connecticut Department of Energy and Environmental Protection (DEEP) and a multi-disciplinary team of architects, engineers, regulators, financial lenders, trade association leaders, risk managers and insurance professionals sharing a common interest in solving the problem of escalating NFIP and property casualty insurance premiums. Property Assessed Resiliency (PAR) emerged from these discussions as an innovative financing model for the design, renovation and construction of resilient buildings and infrastructure. In 2015, the Connecticut Institute for Resiliency and Climate Adaptation (CIRCA) agreed to champion the PAR finance model and to research other resiliency finance methods with support from the Connecticut DEEP and the Connecticut Green Bank. In March 2016, H.B. 5563, AN ACT CONCERNING THE RESIDENTIAL SUSTAINABLE ENERGY PROGRAM, was introduced into the Connecticut Legislature. This bill includes PAR finance for residential resiliency building improvements such as hurricane wind resistant roofing and flood protection measures. The bill was received favorably by the Joint Committee on Banking and the Energy and Technology Committee. If the bill passes in 2017, Connecticut will have a unique financing method for improving the resiliency of homes vulnerable to severe weather and sea level rise. Rebecca French, Ph.D., CIRCA's Director of Community Engagement and Cobleigh recently co-authored Financing Resilience in Connecticut: Current Programs, National Models, and New Opportunities. The forthcoming publication in the Sea Grant Law & Policy Journal is co-authored by Rebecca French, Wayne Cobleigh, Jessica LeClair, and Yi Shi. With the creation of CIRCA, addressing needs for insurance, finance, and policy were listed as priority research areas for the Institute. This forthcoming publication is one the first research products in that area that was supported in part by the grant from the Department of Energy and Environmental Protection that created CIRCA. CIRCA released a Fact Sheet: Resilience Financing Options in Connecticut at <http://circa.uconn.edu/2016/04/19/resilience-financing-options-in-connecticut-circa-releases-fact-sheet/>

**Rhodri J. Lane**, Vice President  
GC Securities – ILS Origination & Structuring  
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Rhodri has experience working on 32 cat bond transactions totaling approximately \$9.B of risk capital placed during his 5 years in the ILS market. Most recently, before joining GC Securities in September 2015, Rhodri was a Senior Manager of ILS services at modeling agency AIR Worldwide's London office.

He previously worked for Guy Carpenter in a broking role in 2012-2013, following an initial period at AIR Worldwide beginning in Boston in 2010. He has significant experience working with reinsurers, insurers, and government clients on various capital markets risk transfer solutions.

From 2005 to 2010 Rhodri worked in the more traditional financial markets in portfolio management and retail brokerage.

He holds a BA in Economics from the University of Colorado.

**Matt Macunas**, Legislative Liaison & Marketing Manager  
Connecticut Green Bank  
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Matt is a policy development and outreach specialist on the Green Bank's legal and marketing teams. He was a Legislative Aide at the Connecticut General Assembly for over seven years, serving as office manager, strategist, and spokesperson for multiple elected state representatives. Matt has also been a consultant to state and local political campaigns as an advisor, manager, and treasurer since 2006. Prior to his work with the Green Bank he was Senior Account Executive at public affairs firm Grossman Heinz, supporting clients with grassroots mobilization, executive searches, lobbying, and management consulting.

Matt holds a Master's Degree in Public Administration with a concentration in Public Finance and a Bachelor's Degree in Political Science, both from the University of Connecticut.

**Kathleen Theoharides**, Director, Climate and Global Warming Solutions  
Executive Office of Energy and Environmental Affairs  
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Katie Theoharides is the director of climate and global warming solutions at the Executive Office of Energy and Environmental Affairs, where a focus of her work is implementing Executive Order 569. Prior to joining the state Theoharides spent the last six years running an environmental consulting business that provided services in policy development and analysis, stakeholder engagement and group facilitation, climate change adaptation, and conservation planning. She also worked as the Executive Director of a Massachusetts land trust and spent time in Washington, D.C. working on climate adaptation and environmental policy at Defenders of Wildlife. Theoharides has a B.A. in ecology from Dartmouth College and a Masters of Science from UMass-Boston.