

DWAYNE BREGER

Extension Professor
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DEGREES

Ph.D. Resource Economics	University of Massachusetts Amherst	1994
M.S. Technology and Policy	Massachusetts Institute of Technology	1983
B.S. Engineering	Swarthmore College	1979

UMASS EMPLOYMENT

2015 – present Extension Professor, Department of Environmental Conservation
Director, Clean Energy Extension, Center for Agriculture, Food and the Environment

Prior Employment

2002 – 2015 Director, Renewable Energy Division, MA Department of Energy Resources

RESEARCH

Areas of specialization: Renewable energy and climate mitigation economics and policy

I am interested in applied research to support the understanding and resolve of clean energy and climate mitigation barriers and opportunities, particularly in ways that advance community-based energy markets, local economic development, and equitable distribution of the economic benefits of distributed energy resources.

Current student research projects

Prasanna Srinivasan, Modeling the Value of Energy Storage with Offshore Wind, M.S., Industrial Engr.

Grants received (since joining UMass, 2015)

2018-2019	PI	Renewable Thermal Alliance, Yale U.	\$19,984
		Regional planning tool for comparative outcomes of renewable thermal market penetration	
2018-2019	PI (collaboration with CESA)	Renewable Thermal Alliance, Yale U.	\$5,000
		Screening tool for renewable thermal building heating applications	
2018-2020	PI (collaboration with NEFF)	MA EO of Energy & Environmental Affairs	\$49,696
		Life-cycle GHG emissions of cross laminated timber construction	
2018-2019	co-PI w/ Kosanovic, Shenoy	U.S. DOE	\$215,000
		Industrial Assessment Center program	
2017-2019	co-PI w/ Peltier	MA Dept. of Energy Resources	\$150,000
		Monitoring modern wood systems emissions and public health assessment	
2016-2018	PI (sub-contract to UM-Lowell)	U.S. EPA, Pollution Prevention Program	\$14,150
		Energy reduction in MA food and beverage industry	

Journal Publications

Manwell, J.F., McGowan J.G., **Breger, D.**, A design and analysis tool for utility scale power systems incorporating large scale wind, solar photovoltaics and energy storage. "Journal of Energy Storage", Vol. 19, October 2018, 103-112.

Dowling, Z., **Breger, D.**, The Low Cost of Curtailment for Bats at Offshore Wind Facilities. "Conservation Letters" (submitted for publication).

Flynn, H., **Breger, D.**, Belden, A., Bier, A., Laurent, C., Andrews, N., Rickerson, W., “System Dynamics Modeling of the Massachusetts SREC Market”, *Sustainability*, 2010, 2, 2746-2761.

TEACHING (teaching responsibilities started in 2017)

NRC 590C	<i>Clean Energy and Climate Policy in Massachusetts</i>	<i>times taught:</i> 1 (repeated each spring)
NRC 597EC	<i>Analytical Methods for Energy and Climate Policy</i>	<i>times taught:</i> 1 (repeated each fall)
NRC 597U	<i>GHG Inventory for UMass Amherst - Newton Campus</i>	<i>times taught:</i> 1 (one time, spring 2019)

EXTENSION AND SERVICE

UMass Clean Energy Extension – Founding Director of the Clean Energy Extension, including management of 3 staff and one post-doc. CEE collaborates with faculty, professional staff and students across UMass to provide technical support for clean energy development in the state.

Clean Energy Corps – provide mentoring and research internships for a revolving group of graduate and undergraduate students working in support of the Clean Energy Extension.

Co-Chair, UMass Chancellor’s Carbon Mitigation Taskforce 2018-present

Disciplinary Service

Environmental Business Council of New England, Energy Resources Comm. Member	2015-present
Co-op Power, Board Member	2018-present