

**Joshua R. Castigliego, Researcher**

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**PROFESSIONAL EXPERIENCE**

**Applied Economics Clinic, Boston, MA**

*Researcher, Oct. 2019 – Present*

Conducts research and analysis on utility regulation, energy markets, and energy policy. Clients are primarily public service organizations working on topics related to the environment, consumer rights, the energy sector, and community equity.

**Boston University Institute for Sustainable Energy, Boston, MA**

*Research Fellow (Analyst), May 2018 – Oct. 2019*

Led Carbon Free Boston's waste sector analysis of emissions impacts from Boston's zero waste strategies. Assisted in analysis, graphics, and writing for other Carbon Free Boston reports.

**Boston University Department of Earth & Environment, Boston, MA**

*Teaching Fellow, Jan. 2018 – May 2018*

Taught weekly discussion sessions for over 60 students from an introductory sustainability course. Created a syllabus and weekly assignments that encouraged a deeper understanding of the lecture material.

**Roger Williams University Department of Mathematics, Bristol, RI**

*Research Assistant – Applied Mathematics, Jan. 2017 – Aug. 2017*

Investigated the relationship between vehicular flow and its associated carbon emissions. Simulated and analyzed this relationship through mathematical models in MATLAB.

**Roger Williams University Department of Chemistry & Physics, Bristol, RI**

*Research Assistant – Computational Physics, Sept. 2015 – May 2017*

Researched methods for the separation of microplastics from microorganisms in an oceanic system. Ran various simulations on diffusiophoresis and the separation of particles within a system using MATLAB and C++. Presented "Lattice-Boltzmann-based Simulations of Diffusiophoresis" research at APS 2016 March Meeting in Baltimore, MD and AAAS 2017 Annual Meeting in Boston, MA.

**Roger Williams University, Bristol, RI**

*Mathematics & Physics Tutor, Jan. 2014 – May 2017*

Provided personalized tutoring for students in mathematics and physics, helping them achieve mastery of the concepts covered in lectures. Conducted monthly review sessions to prepare students for pre-calculus and introductory physics exams.

## EDUCATION

**Boston University**, Graduate School of Arts and Sciences, Boston, MA

Master of Arts in Energy & Environment, 2018

**Roger Williams University**, College of Arts and Sciences, Bristol, RI

Bachelor of Science in Mathematics and Physics, Magna Cum Laude, Dean's List, 2017

## JOURNAL ARTICLES

Castigliego, J.R., A. Pollack, C.J. Cleveland, M.J. Walsh. 2021. "Evaluating Emissions Reductions from Zero Waste Strategies under Dynamic Conditions: A Case Study from Boston." *Waste Management*, 126, 170-179. [\[Online\]](#)

## TOOLS AND MODELS

Castigliego, J.R. 2023. *AEC's Emissions Measurement Inventory Tool (AEC-EMIT) [Excel Workbook]*. Applied Economics Clinic. [\[Online\]](#)

Castigliego, J.R., and E. Seliga. 2023. *AEC's Heating Electrification Assessment Tool (AEC-HEAT) [Excel Workbook]*. Applied Economics Clinic. Prepared for the Green Energy Consumers Alliance (GECA). [\[Online\]](#)

## TESTIMONY AND EXPERT COMMENTS

Comings, T., and J.R. Castigliego (with Sierra Club). 2023. *Comments on Evergy's 2023 Integrated Resource Plan Update in Kansas*. Comments to State Corporate Commission for the State of Kansas on behalf of the Sierra Club, Docket No. 19-KCPE-096-CPL. [\[Online\]](#)

Comings, T., and J.R. Castigliego (with Sierra Club). 2023. *Comments on Evergy's 2023 Integrated Resource Plan Update in Missouri*. Comments to the Missouri Public Service Commission on behalf of the Sierra Club, File Nos. EO-2023-0212 and EO-2023-0213. [\[Online\]](#)

Comings, T., and J.R. Castigliego (with Sierra Club). 2022. *Comments on Evergy's 2022 Integrated Resource Plan Update in Kansas*. Comments to State Corporate Commission for the State of Kansas on behalf of the Sierra Club, Docket No. 19-KCPE-096-CPL. [\[Online\]](#)

Comings, T., and J.R. Castigliego (with Sierra Club). 2022. *Comments on Evergy Missouri's 2022 Integrated Resource Plan Annual Update*. Comments to the Missouri Public Service Commission prepared on behalf of Sierra Club. File Nos. EO-2022-0201 and EO-2022-0202. [\[Online\]](#)

Hotaling, C., T. Comings, J.R. Castigliego, A. Sommer. 2022. *A Clean Alternative for Minnesota Power*. Applied Economics Clinic and Energy Futures Group. Prepared for Fresh Energy, Clean Grid Alliance, Minnesota Center for Environmental Advocacy, and Sierra Club. [\[Online\]](#)

Castigliego, J.R. 2022. *Testimony on Demand Charge Alternatives in Massachusetts*. Testimony to Massachusetts' Department of Public Utilities on behalf of Green Energy Consumers Alliance, Docket Nos. 21-90 and 21-91. [\[Online\]](#)

Stanton, E.A., and J.R. Castigliego. 2022. *Testimony on National Grid's Off-Peak Charging Rebates in Massachusetts*. Testimony to Massachusetts' Department of Public Utilities on behalf of Green Energy Consumers Alliance, Docket No. 21-91. [\[Online\]](#)

Stanton, E.A., and J.R. Castigliego. 2022. *Testimony on Eversource's Off-Peak Charging Rebates in Massachusetts*. Testimony to Massachusetts' Department of Public Utilities on behalf of Green Energy Consumers Alliance, Docket No. 21-90. [\[Online\]](#)

Comings, T., and J.R. Castigliego. 2021. *Comments on Evergy Missouri's Integrated Resource Plan*. Applied Economics Clinic. Prepared for Sierra Club. [\[Online\]](#)

Comings, T., J.R. Castigliego, S. Alisalad, E. Tavares (with Sierra Club). 2021. *Comments on Ameren Missouri's 2020 Integrated Resource Plan*. Comments to the Missouri Public Service Commission prepared on behalf of Sierra Club. File No. EO-2021-0021. [\[Online\]](#)

## **PUBLICATIONS**

Castigliego, J.R., E. Seliga, and E.A. Stanton. 2023. *Space Heating with Heat Pumps: The Need for Alternative Rate Designs in Massachusetts*. Applied Economics Clinic. Prepared for the Green Energy Consumers Alliance (GECA). [\[Online\]](#)

Castigliego, J.R., E. Seliga, and S. Patel. 2023. *Estimating the Net Emissions Benefit for Clean Energy Projects in Southeastern Massachusetts*. Applied Economics Clinic. Prepared for the A.D. Makepeace Company.

Lala, C., and J.R. Castigliego. 2023. *Economic Impacts of Offshore Wind in Connecticut*. Applied Economics Clinic. Prepared on behalf of the Connecticut Roundtable on Climate and Jobs (CRCJ). [\[Online\]](#)

Stanton, E.A., J.R. Castigliego, C. Lala, S. Peddada, J. Bonner, E. Tavares, S. Patel, A. Zhang, M. Majumder, D. Jiang, and J. Burt; R. Bueno and K. Hewitt. 2023. *Puerto Rico's 2019 and 2021 Greenhouse Gas Inventories Report*. Applied Economics Clinic. Prepared for the Puerto Rico Department of Natural and Environmental Resources (DNER). [\[Online\]](#)

Lala, C., J.R. Castigliego, S. Peddada, and E.A. Stanton. 2023. *Carbon Capture, Utilization, and Storage and Louisiana's Power Sector*. Applied Economics Clinic. Prepared on behalf of Union of Concerned Scientists (UCS) and Louisiana Against False Solutions Coalition. [\[Online\]](#)

Stanton, E.A., J.R. Castigliego, M. Majumder, E. Tavares, and S. Peddada. 2022. *Expert Memo: Review of Memphis Light, Gas, and Water RFP Update and Staff Power Supply Recommendation*. Applied Economics Clinic. Prepared for the Southern Environmental Law Center. [\[Online\]](#)

Castigliego, J.R., C. Lala, and E.A. Stanton. 2022. *Net Emissions Savings Benefit for a Battery Storage Facility in Wendell, Massachusetts*. Applied Economics Clinic. Prepared for New Leaf Energy, Inc. [\[Online\]](#)

Castigliego, J.R., S. Alisalad, S. Peddada, and E.A. Stanton. 2022. *Economic Impacts of a Clean Energy Transition in New Jersey*. Applied Economics Clinic. [\[Online\]](#)

Woods, B., J.R. Castigliego, E. Seliga, S. Peddada, T. Stasio, and E.A. Stanton. 2022. *Barriers and Opportunities for Green Jobs in New Jersey*. Applied Economics Clinic. [\[Online\]](#)

Stasio, T., J.R. Castigliego, C. Lala, and E.A. Stanton. 2022. *Risk Assessment of Florida Power and Light and NextEra Energy Clean Energy Transition Plans*. Applied Economics Clinic. Prepared for Environmental Defense Fund. [\[Online\]](#)

Stasio, T., J.R. Castigliego, S. Alisalad, and E.A. Stanton. 2022. *Decarbonizing Building Heat in Massachusetts*. Applied Economics Clinic. Prepared for Home Energy Efficiency Team. [\[Online\]](#)

Woods, B., C. Lala, and J.R. Castigliego. 2022. *Peabody Peaker Plant Risk Assessment*. Applied Economics Clinic. Prepared for Massachusetts Climate Action Network. [\[Online\]](#)

Stasio, T., B. Woods, J.R. Castigliego, and E.A. Stanton. 2021. *Equity Assessment of Electrification Incentives in the District of Columbia*. Applied Economics Clinic. Prepared for The Office of the People's Counsel for the District of Columbia. [\[Online\]](#)

Castigliego, J.R., E.A. Stanton, S. Alisalad, and E. Tavares. 2021. *Energy Storage for Winter Grid Reliability: How Batteries Became a Low-Cost Solution for Power Assurance in Massachusetts*. Applied Economics Clinic. Prepared for Clean Energy Group. [\[Online\]](#)

Castigliego, J.R., E.A. Stanton, S. Alisalad, T. Stasio, and E. Tavares. 2021. *PJM's Capacity Market: Clearing Prices, Power Plants, and Environmental Justice*. Applied Economics Clinic. [\[Online\]](#)

Castigliego, J.R., C. Lala, E. Tavares, and E.A. Stanton. 2021. *Estimating the Net Change in Carbon Dioxide Emissions for Solar Projects in Massachusetts*. Applied Economics Clinic. Prepared for Borrego. [\[Online\]](#)

Castigliego, J.R., T. Stasio, S. Alisalad, and E.A. Stanton. 2021. *Assessment of Backup Diesel Generators in Massachusetts*. Applied Economics Clinic. Prepared for Bloom Energy. [\[Online\]](#)

Castigliego, J.R., T. Stasio, S. Alisalad, and E.A. Stanton. 2021. *Assessment of Backup Diesel Generators in New York City*. Applied Economics Clinic. Prepared for Bloom Energy. [\[Online\]](#)

Castigliego, J.R., T. Comings, S. Alisalad, and E.A. Stanton. 2021. *Background Report: Benefits of Coal Ash Cleanup and Remediation*. Applied Economics Clinic. Prepared for Earthjustice. [\[Online\]](#)

Woods, B. and J.R. Castigliego. 2021. *Benefits of Net Zero Buildings for the Town of Bedford*. Applied Economics Clinic. Prepared for the Facilities Department of the Town of Bedford, Massachusetts. [\[Online\]](#)

Castigliego, J.R., T. Stasio, and E. Tavares. 2021. *Conditional Benefits of Sustainable Community Microgrids*. Applied Economics Clinic. Prepared for GreenRoots. [\[Online\]](#)

Castigliego, J.R., S. Alisalad, T. Stasio, and E.A. Stanton. 2021. *Inflection Point: When Heating with Gas Costs More*. Applied Economics Clinic. Prepared for HEET. [\[Online\]](#)

Castigliego, J.R., T. Stasio, and E.A. Stanton. 2020. *Fixing Massachusetts' Leaky Pipes: When Will It Be Paid Off?* Applied Economics Clinic. [\[Online\]](#)

Castigliego, J.R., and E.A. Stanton. 2020. *Planning for the Future: Massachusetts Cleans Up Its Heating*. Applied Economics Clinic. Prepared for Gas Leak Allies. [\[Online\]](#)

Stanton, E.A., J.R. Castigliego, B. Woods, and E. Tavares. 2020. *A Needs Assessment of the Hopkinton-Ashland Transfer Line Replacement Project*. Applied Economics Clinic. Prepared for the Town of Ashland. [\[Online\]](#)

Stanton, E.A., B. Woods, J.R. Castigliego, E. Tavares, and S. Alislad. 2020. *A Whole New Ballgame: Indiana Coal and the New Energy Landscape*. Applied Economics Clinic. Prepared for Citizens Action Coalition of Indiana. [\[Online\]](#)

Stanton, E.A., B. Woods, J.R. Castigliego, and E. Tavares. 2019. *Massachusetts Gas versus Massachusetts Climate Goals*. Applied Economics Clinic. Prepared for Gas Leak Allies. [\[Online\]](#)

Castigliego, J.R., M.J. Walsh, A. Pollack, C.J. Cleveland. 2019. *Carbon Free Boston: Waste Technical Report*. Boston University Institute for Sustainable Energy. Prepared for Boston Green Ribbon Commission. [\[Online\]](#)

Cleveland, C.J., P. Fox-Penner, M.J. Walsh, M. Cherne-Hendrick, S. Gopal, J.R. Castigliego, T. Perez, A. Pollack, K. Zheng. 2019. *Carbon Free Boston: Summary Report*. Boston University Institute for Sustainable Energy. Prepared for Boston Green Ribbon Commission. [\[Online\]](#)

Cleveland, C.J., P. Fox-Penner, M.J. Walsh, M. Cherne-Hendrick, S. Gopal, J.R. Castigliego, T. Perez, A. Pollack, K. Zheng, E. Galante. 2019. *Carbon Free Boston: Social Equity Report*. Boston University Institute for Sustainable Energy. Prepared for Boston Green Ribbon Commission. [\[Online\]](#)

## **PRESENTATIONS**

Castigliego, J.R. and T. Stasio. 2022. *PJM's Capacity Market: Clearing Prices, Power Plants, and Environmental Justice*. Applied Economics Clinic. Prepared for PJM Cities & Communities Coalition. [\[Online\]](#)

Castigliego, J.R. 2021. *Energy Storage for Winter Grid Reliability: How Batteries Became the Low-Cost Solution for Power Assurance in Massachusetts*. Applied Economics Clinic. Prepared for Clean Energy Group. [\[Online\]](#)

Castigliego, J.R. 2021. *Leaking Pipes and the Cost of Heating: The Future of Gas in MA*. Applied Economics Clinic. Prepared for the Union of Concerned Scientists. [\[Online\]](#)

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