Clayton Munnings

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Education

Cornell University
B.S. in Science of Natural and Environmental Systems
Concentration in Environmental Economics
Distinction in Research for Thesis in Applied Economics
Cum Laude
2011

Appointments

Undergraduate Research Assistant, Cornell University	Sep 2009 to May 2011
Intern, International Emissions Trading Association	Oct 2011 to Dec 2011
Policy Associate, International Emissions Trading Association	Jan 2012 to Feb 2012
Policy Advisor, International Emissions Trading Association	Mar 2012 to May 2012
COP 19 Delegate, SustainUS	Sep 2013 to Dec 2013
Guest Lecturer, Monroe Community College	Oct 2011 to May 2013
Research Assistant, Resources for the Future	Jun 2012 to May 2014
Research Associate, Resources for the Future	Jun 2014 to Present
Short Term Consultant, World Bank	Sep 2015 to Present

Professional Summary

Clayton Munnings is a Research Associate at Resources for the Future (RFF) where he leads analysis on the domestic and international use of market based mechanisms to mitigate carbon emissions. His research focuses on ex-ante design evaluations and ex-post economic assessments of carbon prices, carbon offset protocols, and linkages between carbon markets.

Clayton also leads certain outreach efforts at RFF regarding domestic climate policy. He manages RFF's <u>forum</u> on the Clean Power Plan, which elicits experts to share their contrasting and constructive views on key aspects of EPA's proposal. He also works with RFF's executive and senior staff to author comments on proposed policies, craft testimonies, prepare for interviews with media, and convene academics and policymakers at the state and federal levels.

Clayton represented RFF at COP 18 in Qatar, COP 19 in Poland and COP 20 in Peru. He also represented and advised SustainUS, a youth non-profit, on climate policy under the Clean Air Act and lobbying strategy at COP 19.

Clayton earned a bachelor's degree in Science of Natural and Environmental Systems with a concentration in Environmental Economics from Cornell University in 2011 with distinction in research for his thesis analyzing allowance allocation under Waxman-Markey.

Works in Progress

"Comparing the Mitigation Value of Emissions Trading Systems" Research Project with the World Bank Group.

"Comparing Options for Regulating Fugitive Methane Emissions in the United States" (with Alan Krupnick), Forthcoming Resources for the Future Discussion Paper.

"Experience with Pricing Carbon Consumption" (with Oliver Sartor, William Acworth and Yong-Gun Kim), Forthcoming Resources for the Future Discussion Paper.

"Regulations and Costs of Plugging Inactive Oil and Gas Wells in the United States" (with Alan Krupnick, Jhih-Shyang Shih, Jacqueline Ho and Katrina McLaughlin), Forthcoming Resources for the Future Discussion Paper.

"Barriers to Formally Linking Carbon Markets and Design Options to Overcome Them" (with Lars Zetterberg), Working Paper.

Academic Publications and Working Papers

"Assessing the Design of Three Pilot Programs for Carbon Trading in China" 2015 (with Richard Morgenstern, Zhongmin Wang and Xu Liu), Resources for the Future Discussion Paper 14-36, Submitted to *Energy Policy*.

"State and Regional Comprehensive Carbon Pricing and Greenhouse Gas Regulation in the Power Sector under EPA's Clean Power Plan" 2015 (with Dallas Burtraw and James Bushnell), Resources for the Future Discussion Paper 15-31.

"The Net Emissions Impact of HFC-23 Projects from the Clean Development Mechanism" 2015 (with Benjamin Leard and Antonio Bento), Working Paper.

"Toward More Complete Assessments of the Emissions Impact of Offsets on Carbon Markets" 2014 (with Benjamin Leard and Antonio Bento), Working Paper.

"Lessons of Wind Policies in Texas" 2014 (with Joshua Linn), Texas A&M Journal of Real Property Law.

"Linking by Degrees: Incremental Alignment of Cap-and-Trade Markets" 2013 (with Dallas Burtraw, Karen Palmer, Paige Weber and Matt Woerman), Resources for the Future Discussion Paper 13-04.

"Progressing to a Fair Carbon Tax: Policy Design Options and Impacts to Households" 2013 (with Daniel Morris), Resources for the Future Issue Brief <u>13-03</u>.

"Designing Renewable Electricity Policies to Reduce Emissions" 2012 (with Harrison Fell and Joshua Linn), Resources for the Future Discussion Paper 12-54.

"Greenhouse Gas Policy under the Clean Air Act" 2012, International Journal of Environmental Policy and Law.

Projects

The Coming US Carbon Market: Planning for Ex Post Analysis
June 2012 to October 2013
Resources for the Future

The Alfred P. Sloan Foundation asked RFF to anticipate what resources policy analysts would need to determine whether a future U.S. carbon market had been successful. For this project, Clayton completed six issue briefs and co-organized a workshop that convened leading researchers, federal policymakers and state regulators to discuss how to best plan for ex post analysis of three policy instruments (a cap-and-trade market, a carbon tax and Section 111 carbon rules) across three different criteria: environmental efficacy, cost effectiveness and distributional impacts.

<u>The World's Carbon Markets: A Case Study Guide to Emissions Trading</u> November 2012 to June 2013 International Emissions Trading Association and Environmental Defense Fund

Together with Ruben Lubowski—Chief Natural Resource Economist for Environmental Defense Fund (EDF)—Clayton started a joint project between IETA and EDF to create detailed case studies of the world's existing and proposed cap-and-trade markets. Clayton and his coauthors (Peter Sopher from EDF and Anthony Mansell from IETA) have collectively finished eighteen case studies to date. These case studies summarize the design of all existing cap-and-trade markets and several proposed cap-and-trade markets including Brazil, China, India, Japan, Kazakhstan and Mexico.

Selected Public Comments

"Comment on Allowance Trading between States with Mass and Rate Based Policies" 2014 (with Carolyn Fischer), part of an RFF report to <u>comment</u> on EPA's proposed Clean power Plan.

"Harmonizing the Regional Greenhouse Gas Initiative with States Planning to Price Carbon" 2012 (with Dallas Burtraw and Karen Palmer), comment to RGGI.

"Optimizing Price Triggers Over Time" 2012, (with Dallas Burtraw and Matt Woerman), comment to RGGI.

"IETA Comments to ARB on Linking within the Western Climate Initiative" 2012 (with Kate Sullivan, David Hunter, Robin Fraser and Henry Derwent), comment to California Air Resources Board.