

2015 Energy Research Collaboration Workshop – May 5, 2015

Gross Hall – 270 and Winter Garden Area

Time	Item
12:00 – 1:00	Lunch for workshop participants
1:00 – 1:15	Welcome and Energy Initiative Update: Richard Newell, Director, Duke University Energy Initiative; Gendell Professor of Energy & Environmental Economics, Nicholas School of the Environment
Session 1: Energy Materials	
1:15 – 1:30	Overview of Energy Materials Working Group: David Mitzi, Professor, Department of Mechanical Engineering and Materials Science (10 min. presentation plus Q&A)
1:30 – 1:50	Research Sketches on Energy Materials (5 min. each) <ul style="list-style-type: none"> • Mike Lynch, Assistant Professor, Department of Biomedical Engineering: “Engineering Universal Strains for Bioprocess Optimization” • Volker Blum, Associate Professor, Department of Mechanical Engineering and Materials Science: “Materials for Energy Conversion by a Computational Approach” • Adrienne Stiff-Roberts, Associate Professor, Department of Electrical Engineering and Computer Engineering: “RIR-MAPLE Deposition of Photovoltaic Materials” • Isvar Cordova, PhD student, Department of Electrical and Computer Engineering, “Nanostructures for Electrochemical Solar Energy Conversion and Storage”
1:50 – 2:05	Discussion
2:05 – 2:25	Coffee break
Session 2: Energy Data Analytics	
2:25 – 2:40	Overview of the Energy Data Analytics Lab: Kyle Bradbury, Managing Director (10 min. presentation plus Q&A)
2:40 – 3:00	Research Sketches on Energy Data Analytics (5 min. each) <ul style="list-style-type: none"> • Leslie Collins, Professor of Electrical and Computer Engineering: “Rooftop Solar Identification Through Remote Image Recognition” • Matthew Harding, Associate Professor of Public Policy: “Utility Data Analytics” • Brian Prest, PhD student, University Program in Environmental Policy: “The Implications of Unconventional Drilling for Natural Gas Supply Elasticities”
3:00 – 3:15	Discussion
3:15 – 3:35	Coffee break
Session 3: Energy Markets and Policy	
3:35 – 3:55	Research Sketches on Energy Markets and Policy (5 min. each) <ul style="list-style-type: none"> • Daniel Raimi, Associate in Research, Energy Initiative: Moderator • Dalia Patino Echeverri, Assistant Professor, Nicholas School of the Environment: “Electricity Systems Modeling to Inform Generation Planning” • Steve Sexton, Assistant Professor, Sanford School of Public Policy: “State Police Powers and Fracking: Implications for Efficiency and Rent Distribution” • Jonas Monast, Director, Climate and Energy Program, Nicholas Institute for Environmental Policy Solutions: “GHG Regulation Under Section 111(d) of the Clean Air Act”
3:55 – 4:10	• Discussion
4:10 – 4:30	Closing Remarks and Discussion: Richard Newell
4:30 – 7:00	Energy Mix and Poster Session Drinks and hors d’oeuvres reception