The Ad Lucem Research Network

**Lada Adamic**  
Associate Professor, School of Information & Center for the Study of Complex Systems  
University of Michigan

**Research interests:** structure and dynamics of social and information networks, with a particular emphasis on information diffusion, expertise sharing, and online communities


**Kristen Ardani**  
Solar Technology Markets and Policy Analyst  
National Renewable Energy Laboratory

**Research interests:** energy policy, barriers to market acceleration of renewable energy technologies, balance of system cost analysis for solar technology deployment


**Carrie Armel**  
Research Associate, Behavior & Energy Cluster, Precourt Institute for Energy Efficiency  
Stanford University

**Research interests:** the diverse ways in which an understanding of human behavior can lead to improvements in energy efficiency

**Ankur Asthana**  
Analyst  
Solar Mosaic

**Research interests:** solar financing/lending, crowd-funding

*Ad Lucem objective:* looking forward to learning about various approaches to modeling the solar PV market across different segments (residential, commercial, utility) and latest innovations in non-hardware balance of system cost reductions.

**Aimee Gotway Bailey**  
AAAS Science & Technology Fellow, Solar Energy Technologies Program  
U.S. Department of Energy

**Research interests:** technology evolution as it relates to investing in research and development portfolios of advanced energy technologies and identifying effective policies for a low-carbon economy


**Galin Barbose**  
Staff Research Associate, Electricity Markets and Policy Group  
Lawrence Berkeley National Laboratory

**Chris Barrett**
Professor, Virginia Bioinformatics Institute, Computer Science
Director Network Dynamics and Simulation Science Laboratory
Virginia Tech

Research interests: network dynamics and simulation science


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**Severin Borenstein**
Professor, Business Administration and Public Policy, Economic Analysis and Policy Group
University of California, Berkeley

Research interests: economics of renewable energy, economic policies for reducing greenhouse gases, equity and efficiency effects of electricity pricing, and competitive dynamics in the airline industry


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**Antonia Bouchard**
Arizona State Director
SmartPower

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**Jonathan Burbaum**
Program Director
ARPA-E, U.S. Department of Energy

Research interests: advanced biotechnology applications for biofuels and the production of biologically-based chemical feedstocks

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**Adam Cohen**
SunShot Fellow
U.S. Department of Energy

Research interests: using numerical models to build predictive tools of innovation diffusion

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**Eesan Drury**
Energy Analyst, Energy Forecasting and Modeling Group, Strategic Energy Analysis Center
National Renewable Energy Laboratory

Research interests: modeling the evolution of rooftop and utility-scale PV markets, and valuing renewable energy and energy storage resources


*Ad Lucem objective:* I would like to better understand how models can be used to infer customer priorities and concerns, and if complex customer behavior naturally leads to large uncertainty in solar market forecasts.
Barbara Farhar
Senior Research Associate, Renewable and Sustainable Energy Institute
University of Colorado Boulder

Research interests: relevance of behavioral analysis to energy policy, strategic planning for federal research, public opinion about energy and environmental policy, energy efficiency R&D planning, and technology transfer


Kenneth Gillingham
Assistant Professor, Economics, School of Forestry & Environmental Studies
Yale University

Research interests: energy economics and policy, diffusion of new energy technologies


Ad Lucem objective: I would hope to learn more about the SunShot Initiative (of which Yale is a partner), and hear about what other experts in the field are thinking.

Tamara Gishri
Regional Program Manager
California Center for Sustainable Energy

Mark Hartney
Program Director
ARPA-E, U.S. Department of Energy

Roger Hill
Principal Member of the Technical Staff
Sandia National Laboratories

Research interests: project engineering, electrical engineering

Ad Lucem objective: understanding of the science in social sciences and ways to use it in a regulatory and policy environment

Benjamin Ho
Assistant Professor, Economics
Vassar College

Research interests: applied microeconomic theory, behavioral and experimental economics, environmental and energy economics, political economy, economics of education

W. Cecyl Hobbs
Vice President, Business Development and Strategy
Activate Networks
Josh Huneycutt
Market transformer, Solar Energy Technologies Program
U.S. Department of Energy

Dan Kammen
Professor in the Energy and Resources Group
University of California, Berkeley

Research interests: the science, engineering, management, and dissemination of renewable energy systems; health and environmental impacts of energy generation and use; rural resource management, including issues of gender and ethnicity; international R&D policy, climate change; and energy forecasting and risk analysis


Danny Kennedy
Founder
Sungevity

Phil Larochelle
Fellow, ARPA-E, U.S. Department of Energy

Research interests: renewable energy integration

Ad Lucem objective: improved understanding of technology evolution; how to effectively invest in energy R&D; improved understanding of customer decision making and market dynamics in preparation for possible ARPA-E workshop

Scott Litzelman
Support Contractor
ARPA-E, U.S. Department of Energy

Loren Lutzenhiser
Professor, Urban Studies and Planning
Portland State University

Research interests: social dynamics of technology choice and use; energy and behavior; urban sustainability


Ad Lucem objective: greater knowledge of solar market issues and of physicists' and engineers' understandings and views of social phenomena
Charles Macal
Director, Center for Complex Adaptive Agent Systems Simulation, Decision and Information Sciences Division
Argonne National Laboratory

Research interests: modeling energy and consumer markets, agent-based modeling and simulation


*Ad Lucem objective:* I would like to see the field of market adoption of energy technologies put on a firm scientific footing, recognized by DOE, and resourced as an area of scientific and analytical applied research essential to understanding energy futures. I would like to meet new collaborators and establish new collegial relationships.

Robert Margolis
Senior Analyst, Technology Systems and Sustainability Analysis Group, Strategic Energy Analysis Center
National Renewable Energy Laboratory

Research interests: science and technology policy; research, development, and demonstration policy; energy technology; environmental policy

Andrew McAllister
Director of Programs
California Center for Sustainable Energy

Christina Nichols
Market Transformer
Contractor to U.S. Department of Energy

Jonathan Ozik
Computational Social Scientist, Center for Complex Adaptive Agent Systems Simulation
Decision and Information Sciences Division
Argonne National Laboratory

Research interests: agent-based modeling, complex adaptive systems, social systems


*Ad Lucem objective:* I hope to get a better understanding of work currently being done in this area and to look for possible collaboration opportunities.

Douglas Powell
Graduate Student Researcher
MIT

Research interests: finding ways to improve solar cell economics through material processing steps
Varun Rai
Assistant Professor, Public Affairs
University of Texas at Austin

Research interests: technological change and energy, energy and development, climate change policy


Ramamoorthy Ramesh
SunShot Director
U.S. Department of Energy

Martha Russell
Executive Director, Media X
Stanford University

Research interests: innovation ecosystems using data-driven visualization methods for systems analysis and is promoting the development of new media metrics for the persuasive impact of interactive, place-based and social media


Russell Thomas
Ph.D. Candidate, Computational Social Science
George Mason University

Research interests:
- computational social science, with emphasis on innovation (market + technology evolution), resilience of socio-technical systems, and incentive-based collaboration for managing risk and innovation
- modeling, simulation, and visualization using Java, MASON platform for agent-based modeling, Mathematica, NetLogo, and other tools
- extensive experience in competitive analysis, industry analysis, market analysis, business model analysis


Ad Lucem objective:
- participate in a cross-discipline and cross-sector collaboration process on a set of vexing research problems
- contribute ideas and lessons learned from my experience and education
- get ideas that might be useful for my dissertation
- meet potential collaborators, sponsors, or mentors
Christian Schneider  
Postdoctoral researcher, Human, Mobility, and Networks Lab  
MIT  
Research interests: physics, complex networks, mobile phone data, diffusion processes and social networks  
*Ad Lucem objective:* I am convinced that my theoretical works are applicable for the DOE workshop agenda and will help to solve the challenges society is facing. Therefore, it is crucial to meet people from different fields with diverse expertise and exchange ideas to work most successful.

Jessika Trancik  
Assistant Professor, Engineering Systems  
MIT  
Research interests: accelerating the discovery and scaling of new energy technologies  

Rachel Tronstein  
Deputy SunShot Program Manager  
U.S. Department of Energy

Daniel Villa  
Mechanical Analyst  
Sandia National Laboratories

Edward Vine  
Staff Scientist, Energy Analysis and Environmental Impacts  
Lawrence Berkeley National Laboratory  
Research interests: evaluation of energy efficiency programs (including behavior change programs and market transformation programs)  
*Ad Lucem objective:* Learn how other people are planning to design, implement and evaluate the SunShot Initiative.
Yevgeniy Vorobeychik
Senior Member of Technical Staff, Scalable Modeling and Analysis
Sandia National Laboratories

Research interests: computational game theory, computational mechanism design, behavioral economics, complex systems, multiagent systems, artificial intelligence


Ad Lucem objective: Exchange ideas with fellow researchers about how to leverage computation to shape solar market transformation strategies.

Ryan Wiser
Staff Scientist, Electricity Markets and Policy
Lawrence Berkeley National Laboratory

Research interests: planning, design, and evaluation of renewable energy policies, and on the costs, benefits, and market potential of renewable electricity sources