

SYMPOSIUM

GREENING THE GRID: BUILDING A LEGAL FRAMEWORK FOR CARBON NEUTRALITY

Global climate change is likely the most pressing environmental challenge we face today, and if some of the dire predicted consequences of climate change come to pass, it may become the most important global challenge, period. Combating climate change necessitates an integrated response, in which local, state, national, and international governments must work together to create and implement solutions. The complexity and global nature of climate change also requires action in all sectors of the world economy. Above all, however, the U.S. energy sector must be at the forefront of any climate mitigation strategy. The energy sector contributed more than eighty-six percent of all U.S. greenhouse gas emissions in 2007, and the electricity sector alone accounted for thirty-four percent. Effective climate change mitigation will require a transition away from carbon-emitting energy sources toward renewable and more sustainable sources. Transforming the electricity sector raises a host of issues and problems: It will require improved and perfected renewable energy technology, substantial political capital, and significant public education. Perhaps the most important step in achieving a sustainable energy sector, however, is “greening the grid.”

The U.S. electricity grid is a combination of physical elements—a series of wires connecting our nation’s energy sources to consumers—and legal and regulatory schemes—regulations controlling distribution, siting, and rates. As it stands now, the grid is not “green.” The grid cannot yet readily accommodate renewable energy sources, which are typically isolated, remote, and variable. Nor does it operate as efficiently as it can, as it serves only to sell electricity when it could provide an array of energy efficient services and smarter distribution. Improving the electricity system and infrastructure by greening the grid is crucial to a reduced-carbon future and an ultimate solution to climate change.

It was with the goal of addressing these important issues that Lewis and Clark Law School and *Environmental Law* in April 2009 hosted *Greening the Grid: Building a Legal Framework for Carbon Neutrality*. The symposium brought together some of the nation’s leading scholars in energy and

environmental law, as well as energy industry experts and professionals, to explore U.S. energy policy and greening the grid. The panels and presentations highlighted and discussed some of the legal issues involved in developing a greener grid, and the authors in this issue have graciously contributed thoughts regarding the barriers and obstacles that must be overcome; for as is likely obvious, greening the grid will not be easy.

Joseph Tomain's article first establishes what exactly a green grid should look like, by painting the picture of a green grid, explaining its need, describing how it will function more efficiently and effectively, and detailing some of the regulatory structures that must exist. Of course, greening the grid raises a number of legal and policy challenges. Steven Ferrey outlines several of these challenges, including the complicated questions associated with incorporating intermittent energy sources into a power system that relies heavily on constant baseload power, and discusses how regulators must modify the current grid to accommodate these new renewable sources. One particularly controversial legal issue involves the siting of transmission lines and to what extent that process should be federalized or left to the states. Jim Rossi addresses this in detail by exploring the ramifications of this complicated jurisdictional question. He highlights the underlying implications for climate change policy if policymakers address transmission siting authority without first considering the costs and benefits of any jurisdictional decision. Together, these three articles present important perspectives on strategies to prepare the grid for the necessary transition to renewable energy sources.

The other articles look beyond the grid to explore impediments to and incentives for renewable energy development and to highlight key issues that policymakers must consider as they develop climate change mitigation strategies. Many renewable energy advocates have called for leveling the playing field with other traditional sources, which receive large subsidies and enjoy regulatory privileges. To that end, Irma Russell calls for streamlining the processes required by the National Environmental Policy Act (NEPA) for renewable energy projects. Then, providing an example of the difficulties in developing a renewable energy industry and connecting it to the grid, Rachael Salcido looks in depth at ocean wave energy, touching upon some of the legal means for overcoming those difficulties. Joshua Fershee provides us with a different perspective by highlighting the consequences of failing to act to mitigate climate change through greening the grid or otherwise reducing greenhouse gas emissions. His article compares the slow response to warnings about the recent disastrous floods in North Dakota and New Orleans to our nation's slow response to the threat of climate change, and he explains how lessons learned during those disasters might be applied in the climate change context. Finally, Alice Kaswan reminds us that decision-making processes must consider the perspectives of disadvantaged communities and that all policy decisions aimed at greening the grid must incorporate environmental justice concepts.

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While our authors articulately highlight and address the myriad problems we face in greening the grid, they also offer hope. Climate change demands that we immediately work to prepare the grid for greener, carbon-neutral energy sources. This issue aims to enhance the discussion and further the cause of greening the grid.

Environmental Law would like to thank all our symposium authors for their invaluable contributions as well as the symposium planning committee (Erica Thorson, Lin Harmon, and Janice Weis) for facilitating this timely conversation. Finally, *Environmental Law* and Lewis & Clark Law School thank the Rocky Mountain Mineral Law Foundation for its generous grant, which helped us fund this important conference.

Professor Melissa Powers
Symposium Coordinator

Duncan Delano
Symposium Editor