

Center for Law, Energy & the Environment at Berkeley Law

ANNUAL REPORT 2012

Year in Review (2011-2012)

This inaugural annual report provides a snapshot of the Center for Law, Energy & the Environment's recent initiatives and successes. A few highlights from the past year:

- At the request of the California Governor's Office, we helped design a strategy for meeting the Governor's goal of deploying 12,000 megawatts of local, renewable energy by 2020. See page 2.
- CLEE received a groundbreaking \$1 million gift to start the new Wheeler Institute for Water Law & Policy. See page 3 for details.
- We hosted U.S. EPA Administrator Lisa P. Jackson at Berkeley Law, where she discussed EPA's efforts to curb pollution and create jobs. See page 3.
- Our Climate Change and Business Initiative entered its fourth successful year, and organized a "Local, Clean & Green" conference on campus. See page 4 for more.
- We reported to the California Energy Commission on legal barriers to adaptation in California's water sector. See page 5.

Leading Curriculum

Our preeminent faculty (see page 6) is dedicated to leading scholarship, student-focused teaching, and also finds the time

to author insightful posts on *Legal Planet*, our award-winning environmental law and policy blog. CLEE's core faculty is augmented by an adjunct faculty of seasoned practitioners who together offer over a dozen courses annually on environmental, energy, and land use issues.

Student Activities

Our students keep us engaged and motivated to be better environmental lawyers and citizens. Berkeley Law students manage and publish *Ecology Law Quarterly*, the first environmental law journal in the nation. Students also participate in the Berkeley Energy & Resources Collaborative (BERC), Environmental Law Society (ELS), Student Animal Legal Defense Fund (SALDF), and Students for Environmental & Economic Justice (SEEJ). See page 7 for student highlights.

Looking Forward

The greatest environmental challenges of our time are also unprecedented opportunities. Opportunities to take action and to continue the legacy of environmental innovation that we inherit from figures like former Chancellor Michael Heyman, Professor Emeritus Joseph Sax, and our many dedicated alumni. We look forward to another year of collaboration and progress.

— Jayni Hein, Executive Director

Roadmap for Local Renewable Energy

California Governor Jerry Brown has embarked on an ambitious plan to achieve 12,000 megawatts of local renewable energy in the state by 2020. Local renewable energy refers to energy generated near the homes, businesses and communities that it serves – providing clean power, economic benefits, and consumer autonomy.

To move forward, the Governor's Office asked CLEE to help organize a large, two-day conference in Los Angeles with stakeholders and to report on the legal steps needed to meet the 12,000 megawatt target. CLEE's Jeffrey Russell and Steven Weissman took the lead in producing the comprehensive report, entitled, "California's Transition to Local Renewable Energy: 12,000 Megawatts by 2020."

Our specific recommendations for state government and regulators include:

- Expand the renewable energy net metering program, which is now quickly approaching the current 5% program cap;
- Improve programs utilities use to buy power from local renewable projects, such as feed-in tariffs, and ensure that they are successfully meeting state goals;
- Implement an aggressive plan to develop renewables on state buildings and land;
- Develop a more transparent and efficient interconnection process; and
- Implement fast-track review for interconnection with the grid and establish standardized interconnection agreements.

Specific recommendations for energy utilities include:

- Provide more data to local governments on the capacity and constraints of the distribution grid;



Governor Jerry Brown speaks at the Governor's Conference on Local Renewable Energy Resources on July 25. Photo Credit: UCLA Luskin Center.

- Consider a geographically-based planning process that balances energy supply with local demand and reliability challenges; and
- Develop local integration strategies to ensure grid reliability by using energy storage, demand response or strategic siting.

The report also makes recommendations for local governments and the renewable energy industry. Illustrating our inclusive approach to policy development, we solicited comments from all interested stakeholders and considered those comments before releasing our final report on June 5, 2012.

This project was made possible by the support of the Bank of America Foundation. CLEE is currently pursuing follow-up projects arising from this thorough assessment of the State's local renewable energy plan.

“The authors have put together an excellent distillation of the issues discussed at the conference, augmented with additional information and insights to advance the achievement of the 12,000 MW goal.”

– Heather Raitt
Assistant Executive Director,
California Energy Commission

Groundbreaking New Water Institute

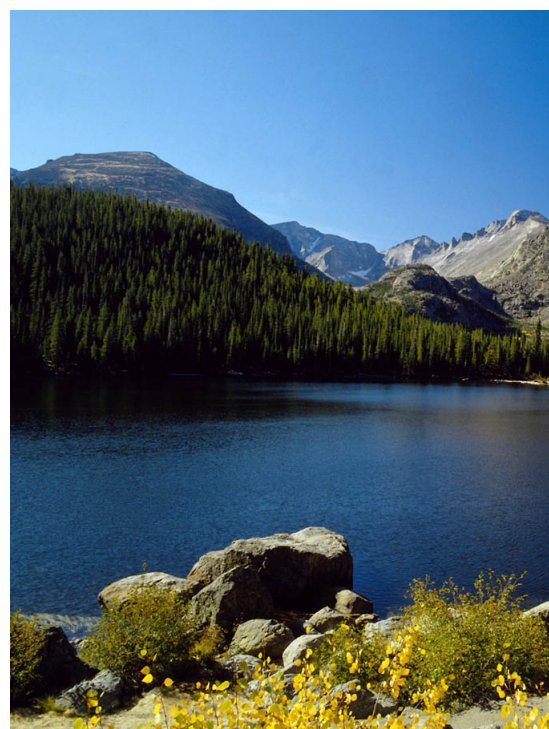
This year, the Center for Law, Energy & the Environment received a record-breaking \$1 million gift to launch the new Wheeler Institute for Water Law & Policy. The Institute will carry out interdisciplinary law and policy initiatives addressing critical water issues confronting California and the United States.

The Wheeler Institute will focus on freshwater quality, conservation, and allocation. The Institute's planned deliverables include:

- Policy briefs on timely water issues including water banking, tracing pollution sources, water reuse and recycling, and clean drinking water access;
- A series of focused workshops with water experts on campus, as well as leading government, non-profit, and private sector practitioners. The aim of these workshops is to discuss discrete issues in water policy and propose recommendations for better water management and planning;
- An annual Wheeler Institute symposium that facilitates interaction among UC Berkeley centers and schools – furthering the Institute's emphasis on interdisciplinary learning and policy work;
- Graduate student research positions for law or policy students; and
- Experiential opportunities for students to engage in pressing water issues via law and policy courses and internship opportunities.

CLEE's Jayni Hein and Deborah Lambe are currently researching California water issues including groundwater banking and fingerprinting pollution sources. CLEE Faculty Co-directors Dan Farber and Holly Doremus are advancing interdisciplinary collaboration with partners in engineering, science, economics, and public policy.

We are enthusiastic about the opportunities that the Wheeler Institute for Water Law & Policy presents for Berkeley Law to advance California and national water law and policy.



Special Visit by U.S. EPA Administrator Lisa P. Jackson



CLEE was honored to host U.S. EPA Administrator Lisa P. Jackson at Berkeley Law this November, where she spoke to full lecture hall

of students about the Obama Administration's environmental priorities, and the EPA's efforts to create more green jobs. Administrator Jackson answered hard-hitting questions from students and faculty, who asked her about the EPA's delay in setting ozone standards under the Clean Air Act, EPA's position on the proposed Keystone XL pipeline, environmental justice priorities, and regulation of controlled animal feeding operations ("CAFOs") under the Clean Water Act.

CLEE'S COLLABORATORS INCLUDE:

- Berkeley Energy Resources Group
- Berkeley Institute for the Environment
- Berkeley School of Information
- Berkeley Water Center
- California Air Resources Board
- California Governor's Office
- California Institute for Energy and Environment
- California Office of the Attorney General
- College of Environmental Design
- Department of Environmental Science, Policy and Management
- Engineering Research Center
- Environmental Law Institute
- Environmental Protection Agency
- Goldman School of Public Policy
- Haas School of Business
- Lawrence Berkeley National Laboratory
- UCLA's Environmental Law Center and Emmett Center on Climate Change and the Environment

Climate Change and Business Opportunities



Deploying renewables on impaired farmland. Increasing water conservation. Expanding investment in public transportation.

Since 2009, CLEE has worked with business executives, policymakers, and non-profit leaders to discuss the opportunities that climate change creates for the business community, and how policymakers, attorneys, and industry can facilitate those opportunities. This successful collaboration between CLEE at Berkeley Law and UCLA Law's environmental law centers is now in its fourth year, and is sponsored by the Bank of America Foundation.

Key outcomes from the Business and Climate Change Initiative include:

- Legislative testimony, including project leader Ethan Elkind testifying before the Assembly Select Committee on Renewable Energy in Rural California and Assembly Select Committee on California's Clean Energy Economy;
- Shaping important legislation, including AB 2514 (energy storage), SB 618 (renewables and agriculture), and AB 710 (parking and infill development);
- Nine subject-specific white papers, and media coverage including television news, op-eds, news articles, and blog posts; and
- Catalyzing the formation of new networks, including the California Infill Builders Association.

In December, CLEE and UCLA hosted a large conference on the Berkeley campus – “Local, Clean & Green: Innovative Policies for California's Local Governments.” Speakers included State Senator Fran Pavley, Ken Alex of the Governor's Office of Planning and Research, and leaders from local government, non-profits, and industry.

The Business and Climate Change Initiative continues to build bridges between diverse stakeholders and draw upon our strengths as an academic research center with skilled environmental lawyers and faculty.

“The workshops have been extremely timely and helpful in the work that the Attorney General's Office has been engaged in over the past two years in the areas of climate change, renewable energy, and sustainable development.”

– *Cliff Rechtschaffen, Senior Advisor to then Attorney General and now Governor Jerry Brown*

ADDITIONAL REPORTS AND EVENTS

Conference on the Future of Infill: How CEQA Reform and the End of Redevelopment Will Affect Sustainable Development in California (May 17, 2012).

Unplugged: The Renewable Energy Speaker Series: CLEE, Farella Braun + Martel LLP, and the Environmental Law Institute collaborated throughout 2011 and 2012 to produce a series of panels on renewable energy law and policy.

Defining Good Infill: SB 226 and the California Environmental Quality Act (March 2012): In collaboration with UCLA and UC Davis Law, CLEE hosted a convening with stakeholders on SB 226.

The Statewide Benefits of Net Metering (February 2012): This report analyzes recent criticisms of the net metering program in California and assesses the implications of major short-term changes to the net metering program. Supported by the Energy Foundation.

Catastrophic Events in an Age of Climate Change: Harnessing the Power of Legal and Policy Tools (December 14, 2011): This lead-in event to the Governor's Conference on Extreme Climate Risks and California's Future was co-sponsored by the Governor's Office, The Nature Conservancy, and Wilson Sonsini Goodrich & Rosati.

2020 Strategic Analysis of Energy Storage in California (November 2011): This report presents a strategic analysis of energy storage for California by 2020 by assessing current energy storage technologies, analyzing the diverse policies affecting deployment, and outlining critical technology gaps, research needs, and policy reforms. Prepared for the California Energy Commission with partners from UCLA and UC San Diego.

Harvesting Clean Energy: How California Can Deploy Large-Scale Renewable Energy Projects on Appropriate Farmland (October 2011): This report – part of the Climate Change & Business Initiative – analyzes how state and local governments can facilitate siting renewable energy projects on impaired farmland.

Promoting Adaptation in California's Water Sector

The legal regime for water management in California was not designed to address the myriad changes caused by population growth and climate change. Legal and regulatory reform is vital to adapt to increasing demands on limited water resources.

In June 2012, CLEE released a report for the California Energy Commission on "Legal Barriers to Adaptation in California's Water Sector." CLEE's faculty and staff collaborated with Agricultural & Resource Economics Professor Michael Hanemann to release this report. We identified changes that would aid in adaptation in two areas: groundwater and surface water. Ultimately, we determined that having an accurate record of what parties are diverting water in California, and in what quantity, is the single most important step towards preparing for climate change.

For groundwater, our proposed changes would:

1. Expand groundwater monitoring and reporting requirements, which would, among other benefits, facilitate water marketing and water banking;
2. Expand groundwater planning requirements and require the State Water Resources Control Board to publicize information about groundwater management best practices; and
3. Require the State Water Resources Control Board to prevent the waste or unreasonable use of groundwater.

For surface water, the changes we identify would:

1. Require the State Water Resources Control Board to improve agricultural water use efficiency, and streamline procedures for enforcement actions pertaining to the waste and unreasonable water usage;
2. Increase penalties for failing to file a Statement of Water Diversion and Use and for illegal diversions;
3. Require beneficiaries of water rights to bear some of the cost of activities related to the administration of those rights; and
4. Require diverters to report to the State what they believe their water rights to be.

We plan to hold a meeting with stakeholders to discuss the results of this work later this year. CLEE is building upon this report's conclusions and recommendations through new water initiatives at the Wheeler Institute for Water Law & Policy (see page 3).



Hetch Hetchy Reservoir, California.

CLEE'S ADVISORY BOARD

The Center for Law, Energy & the Environment's Advisory Board provides guidance, connections, and energy to our research and programming.

Special thanks to Advisory Board member Deanna Ruth Rutter ('72) for her generous giving in 2011. Her gift enabled us to organize more events for students and alumni, and boosted our policy, development and communications efforts.

Thanks to Advisory Board Chair Robert Infelise ('80) for his commitment to CLEE's environmental law program and students.

2011-2012 Advisory Board

Ken Alex, Bill Chamberlain, Robert Falk Hayley Goodson, Honorable Greg Hobbs Robert Infelise, Jill Jaffe, Jennifer Jeffers Fran Layton, Jim Moose, Roger Peters Neil Popovic, Deanna Ruth Rutter Miyoko Sakashita, Edward Strohbehn Mason Willrich, Nicholas Yost Scott Zimmerman, Mike Zischke

CLEE'S AFFILIATED FACULTY

Kenneth Bamberger: Administrative law

David D. Caron: International law, ocean law

Laurel Fletcher: International human rights law

Jennifer Granholm: Energy law and policy

Peter Menell: Economic incentives, alternative energy

Anne Joseph O'Connell: Administrative law

Andrea Peterson: Land use planning

Harry Scheiber: Fisheries, law of the sea

CLEE'S ADJUNCT FACULTY

Robert Infelise: Environmental law, remedies

R. Clark Morrison: Land-use law

Neil Popovic: International environmental law

Antonio Rossmann: Water law

E. Clement Shute: Environmental litigation

HOLLY DOREMUS

Environmental law, law and science



Professor of Law Holly Doremus is a leading scholar and teacher in the areas of environmental law, natural resources law, and law and science. She is Faculty Co-Director of the Center for Law, Energy & the Environment.

Professor Doremus brings a strong background in life sciences and a commitment to interdisciplinary teaching and scholarship to her work at Berkeley Law. She has been a principal investigator on two major NSF IGERT interdisciplinary training grants and a multidisciplinary grant dealing with hydropower relicensing in California. She has co-authored papers with economists and ecologists, and has been a member of two National Research Council review committees.

Recent Publications:

Climate Change and the Evolution of Property Rights, 2 U.C. IRVINE L. REV. ____ (forthcoming 2012)

Adapting to Climate Change Through Law that Bends Without Breaking, 2 SAN DIEGO JOURNAL OF CLIMATE AND ENERGY LAW 45-84 (2010)

ERIC BIBER

Environmental law, natural resources



Professor of Law Eric Biber's work focuses on how environmental and natural resources law and management depends on the production, analysis, and use of information. Current projects explore what legal and institutional structures are most likely to encourage the development of high-quality information about the state of the environment, how

petitions to administrative agencies can improve environmental decision-making, and how the choice of scientific disciplines to inform the regulatory and management process can affect policy outcomes.

Professor Biber is also researching the reasons for the defeat of Proposition 23 in the November 2010 elections in California, a ballot initiative that would have effectively repealed California's global warming regulatory system.

Recent Publications:

Which Science? Whose Science? How Scientific Disciplines Can Shape Environmental Law, 79 UNIV. CHICAGO L. REV. (forthcoming 2012)

The Problem of Environmental Monitoring, 83 UNIV. COLO. L. REV. 1 (2011)

DANIEL FARBER

Environmental law, constitutional law, energy



Professor of Law Daniel Farber is Chair of the Energy Resources Group and Faculty Co-Director of the Center for Law, Energy & the Environment.

Professor Farber's recent work has focused on climate change, including methods for reducing emissions and strategies for adapting to changes that we are unable to avoid. He has become increasingly interested in efforts by states like California to begin emission reductions without waiting for federal legislation. These efforts involve important choices about energy policy as well as significant federalism issues. Professor Farber has also been drawn increasingly into debates about global climate policy and the responsibilities of developed countries like the United States and emerging economies like China.

Recent Publications:

Uncertainty, 99 GEORGETOWN LAW JOURNAL 901 (2012)

Climate Justice, 110 MICHIGAN L. REVIEW 985 (2012)

MICHELLE WILDE ANDERSON

Land Use, local government law



Assistant Professor of Law Michelle Anderson is a scholar of land use and local government law. Her current research focuses on county governments and their subdivisions, including the governance of high poverty, unincorporated urban neighborhoods and the dissolution of struggling municipalities.

Prior to joining the Berkeley Law faculty in 2008, Anderson worked as an Environmental Law Fellow for Shute, Mihaly & Weinberger LLP, a law firm that represents citizen groups and public agencies in land-use and environmental law matters. She earned a master's degree in Regional and Urban Planning at the London School of Economics and Political Science.

Recent Publications:

Dissolving Cities, 121 YALE L. J. 1364 (2012)

Sprawl's Shepherd: The Rural County, 99 CAL. L. REV. ____ (forthcoming 2012)

ALEX WANG

Environmental law, China law, comparative law



Visiting Assistant Professor of Law Alex Wang's primary research and teaching interests are environmental law, China law, and comparative law. Prior to coming to Berkeley Law in 2011, Wang was a senior attorney for the Natural Resources Defense Council (NRDC) based in Beijing and the director of NRDC's China Environmental Law &

Governance Project for nearly six years. In this capacity, he worked with China's government agencies, legal community, and environmental groups to improve environmental rule of law and strengthen the role of the public in environmental protection.

Mr. Wang is a regular speaker on issues related to China and environmental protection. His commentary has appeared in such places as the *New York Times*, *Huffington Post*, *Wall Street Journal*, *Los Angeles Times*, *Bloomberg News*, *China Daily*, *Global Times*, *Time Magazine*, National Public Radio, Marketplace, and CCTV.

Recent Publications:

Environmental Courts and the Development of Public Interest Litigation in China, JOURNAL OF COURT INNOVATION (with J. Gao) (2010)

The Role of Law in Environmental Protection in China, VERMONT JOURNAL OF ENVIRONMENTAL LAW (2007).

STEVEN WEISSMAN

Energy law



As Director of the Energy Program for the Center for Law, Energy & the Environment, Steven Weissman's research focuses on state and federal renewable energy law and policy, modernization of the electric grid, and policies to support less energy-intensive use of city streets.

Weissman's current work explores ways to expand the development of local renewable energy projects, and to use smart meter data to improve the efficiency of the grid while protecting the privacy of information related to individual customers. He is also writing and speaking on the merits of current state policies encouraging renewable energy development.

Weissman came to Berkeley Law from the California Public Utilities Commission where he was an administrative law judge. He has taught energy law and policy classes at Berkeley Law since 2006.

Recent Publications:

The Statewide Benefits of Net Metering (with Nathaniel Johnson) (2012)

Effective Renewable Energy Policy: Leave It to the States?, 3 SAN DIEGO JOURNAL OF CLIMATE AND ENERGY LAW 345 (2012)

STUDENT GROUP ACTIVITIES

This year was an active one for the many environmental and energy student groups at Berkeley Law. One of our program's great strengths is the energy and dedication of our students

Highlights include:

- *Ecology Law Quarterly* (ELQ) published a special edition of *Currents* – its online publication – with articles on topics discussed at the 2012 California Water Law Symposium;
- CLEE and all of the student groups organized the *Spring 2012 Environmental and Energy Speaker Series*, sponsored by Wilson Sonsini Goodrich & Rosati LLP;
- Berkeley Energy Resources Collaborative (BERC) hosted its annual symposium and innovation expo

in October, with this year's event dedicated to the role of universities in meeting today's energy challenges;

- Students for Economic and Environmental Justice (SEEJ) hosted the 7th annual Environmental Justice Symposium, sponsored by CLEE. This year the symposium tackled environmental justice issues in rural California;
- ELS, BERC and CLEE organized a panel on the Keystone XL pipeline, with speakers including the Canadian Consul-General of San Francisco, non-profit attorneys, and a UC Berkeley Professor of Earth Science;
- Berkeley Law students hosted a very successful Water Law Symposium, in collaboration with students from other Bay Area law schools and co-sponsored by CLEE;

- BERC, CLEE, and the Berkeley Center for Law & Technology (BCLT) collaborated to spearhead a series called "Clean Tech Chats," hosting small dinners with Bay Area clean tech practitioners and current students;
- ELQ's diversity fellowship entered its second successful year, and journal members continued the tradition of trips to Yosemite and Lake Tahoe;
- BERC@Boalt President Grace Hsu ('14) won the Most Innovative Proposal award at the U.S. Department of Energy's Better Buildings Case Competition; and
- ELS and SALDF hosted a viewing of *The Cove*, with special guest Rick Perry – the film's protagonist – in attendance.

Engage with our Law and Policy Work

- Visit our website to view our latest research, reports, events, and programs.
- Donate to CLEE to advance our climate change, water, renewable energy, and land use research and programming.
- Follow *Legal Planet*, our environmental law and policy blog.
- Connect us with government, foundation, non-profit, and private practice individuals.
- Ask us about setting up a panel or MCLE presentation for your organization on a timely environmental or energy law topic.
- Sign-up for our quarterly newsletter to hear our most recent updates.
- Contact us directly about how to become more substantively and strategically engaged with the Center's initiatives.

Support our Student and Alumni Programs

- Sponsor a CLEE student event, such as our annual Environmental Speaker Series, "Clean Tech Chats" with alumni and practitioners, or a student writing award.
- Donate to CLEE to support our events, graduate student researchers, policy courses and experiential opportunities, and student-led conferences like the Water Law Symposium and Environmental Justice Symposium.
- Host or sponsor an evening reception for Berkeley Law alumni, students, and our larger community.
- Visit our website to view our latest research, reports, events, and programs.
- Sign-up for our quarterly newsletter to hear our most recent updates.
- Contact us directly about becoming involved in our alumni and student programs.

For more information please contact Executive Director Jayni Hein. Email: jhein@law.berkeley.edu Phone: 510-642-8803

The Center for Law, Energy & the Environment
UC Berkeley School of Law
2850 Telegraph Ave. Suite 500
Berkeley, CA 94705-7220
www.clee.berkeley.edu

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