



FUTURE ELECTRIC

U t i l i t y R e g u l a t i o n

WEBINAR ANNOUNCEMENT:

Recovery of Utility Fixed Costs: Utility, Consumer, Environmental and Economist Perspectives

Report No. 5 in the Future Electric Utility Regulation series

Lawrence Berkeley National Lab presents a free, 90-minute webinar to discuss the findings of a new report, *Recovery of Utility Fixed Costs: Utility, Consumer, Environmental and Economist Perspectives*, by:

- Utility experts **Lisa Wood**, Institute for Electric Innovation and The Edison Foundation, and **Ross Hemphill**, RCHemphill Solutions
- Consumer advocate **John Howat**, National Consumer Law Center
- Environmental advocate **Ralph Cavanagh**, Natural Resources Defense Council
- Economist **Severin Borenstein**, University of California, Berkeley

Electric utilities are proposing a variety of changes to retail rate designs, particularly for residential customers, to recover so-called “fixed costs” to serve customers — generally, costs that do not vary over the course of a year regardless of electricity usage.

Today, most residential customers pay a small monthly fixed charge plus a payment for each kilowatt-hour of electricity they consume. The less power they use, the less they pay. Proposals to address the potential gap between fixed utility costs and revenues, particularly where loads are flat or declining, include significantly increasing the fixed charge, adding a demand charge based on the customer’s highest energy usage in the billing period, formula

rates that automatically adjust rates when earnings fall above or below a set level, and time-varying rates.

Four essays in a new report in the [Future Electric Utility Regulation](#) series from Berkeley Lab discuss these and other options for recovery of fixed utility costs. The report concludes with a literature review by Jeff Deason and Lisa Schwartz of the Electricity Markets & Policy Group at Berkeley Lab. It is the fifth report in the series.

The report authors will present the report on a free webinar on July 8, 10 a.m. to 11:30 a.m. Pacific (1 p.m. to 2:30 p.m. Eastern). **Click here to register:** <https://cc.readytalk.com/r/7grtfk989xq4&eom>.

The report will be available on or before June 20, 2016 at feur.lbl.gov.

The report was funded by the U.S. Department of Energy’s Energy Policy and Systems Analysis Office and the National Electricity Delivery Division of the Office of Electricity Delivery and Energy Reliability. Lisa Schwartz, in Berkeley Lab’s Electricity Markets and Policy Group, is the project manager and technical editor.

Four Perspectives on Fixed Cost Recovery

	Wood/Hemphill (utility)	Howat (consumer)	Cavanagh (environmental)	Borenstein (economist)
Higher fixed charges	●	○	○	● ¹
Minimum bills	○	●	●	○
Demand charges	●	○	● ²	○
Time-varying rates	○	●	●	● ³
Tiered rates	○	●	●	○
Revenue decoupling	○	● ⁴	● ⁵	○
Frequent rate cases	● ⁶	○	○	○
Formula rate plans	●	● ⁷	●	○
Lost revenue adjustment mechanisms	○	○	○	○
	○ Poor	● Better	○ Good	● Preferred

¹ First set volumetric price to reflect actual social marginal costs, including costs of externalities whether or not the utility has to pay those costs.

² Linked to periods of coincident peak and subject to negotiated resolution of important technical issues.

³ Reflecting full social marginal cost, with the remaining revenue requirement balanced between higher volumetric rates and higher fixed charges.

⁴ Assuming a number of safeguards are implemented (see report).

⁵ Necessary but not sufficient.

⁶ In combination with a formula rate plan and only for setting revenue requirement; rate design issues to be addressed less frequently (e.g., every three years).

⁷ Implementation of formula rates should not deny utility customers and other stakeholders the ability to periodically review and litigate a utility’s cost structure.

About the Authors

Severin Borenstein is E.T. Grether Professor of Business Administration and Public Policy at the Haas School of Business and a Research Associate of the Energy Institute at Haas. He is also Director emeritus of the University of California Energy Institute (1994–2014) and the Energy Institute at Haas (2009–2014). He received his A.B. from University of California–Berkeley and Ph.D. in Economics from Massachusetts Institute of Technology. His research focuses on business competition, strategy, and regulation. He has published extensively on the airline industry, the oil and gasoline industries and electricity markets. His current research projects include the economics of renewable energy, economic policies for reducing greenhouse gases, alternative models of retail electricity pricing and competitive dynamics in the airline industry. He has served on numerous committees and boards for state and federal governments.

Ralph Cavanagh is co-director of NRDC’s energy program, which he joined in 1979. Cavanagh has been a Visiting Professor of Law at Stanford and University of California–Berkeley Law School and a Lecturer on Law at the Harvard Law School. He also has been a faculty member for the University of Idaho’s Utility Executives Course for more than 20 years. From 1993 to 2003 he served on the U.S. Secretary of Energy’s Advisory Board. His current board memberships include the Alliance to Save Energy, the Bipartisan Policy Center, the Bonneville Environmental Foundation, the Center for Energy Efficiency and Renewable Technologies, and Renewable Northwest.

John Howat has been involved with energy programs and policies since 1981, including the past 17 years at National Consumer Law Center (NCLC). He manages projects in support of low-income consumers’ access to affordable utility services, working with clients in 30 states on design and implementation of low-income energy affordability and efficiency programs, utility consumer protections, rate design and metering technology. He has testified as an expert witness in 14 states and is a contributing author of NCLC’s treatise, *Access to Utility Service*. Previously, he served as Research Director of the Massachusetts Joint Legislative Committee on Energy, Economist with the Electric Power

Division of the Massachusetts Department of Public Utilities, and Director of the Association of Massachusetts Local Energy Officials.

Ross C. Hemphill is an independent consultant on regulatory and energy policy issues. His career over more than 35 years has been devoted to energy and regulatory policy with a primary focus on ratemaking theory and practice. Hemphill has worked for utilities, research institutions and regulatory agencies, both directly and as a consultant, including on the staff of the Illinois Commerce Commission, with AEP Service Corp., the National Regulatory Research Institute, Argonne National Laboratory and Niagara Mohawk Power. Most recently, he was vice president of Regulatory Policy & Strategy for Commonwealth Edison.

Lisa Wood is Vice President of The Edison Foundation and Executive Director of the Institute for Electric Innovation (IEI). Under Wood's leadership, IEI released its fourth book in December 2015, *Key Trends Driving Change in The Electric Power Industry*. Wood is a Nonresident Senior Fellow in the Energy Security and Climate Initiative at The Brookings Institution and an Adjunct Professor at Johns Hopkins University SAIS. She serves on several boards including the Advisory Board of *Current*, GE's new energy business. Prior to launching IEI, Wood was a Principal with *The Brattle Group*, a Principal with PHB Hagler Bailly, and a Program Director at RTI International. Wood holds a Ph.D. in Public Policy and Management from the Wharton School of the University of Pennsylvania and an M.A. from the University of Pennsylvania.

Previous reports in the Future Electric Utility Regulation series:

Report No. 1: Electric Industry Structure and Regulatory Responses in a High Distributed Energy Resources Future (November 2015)

By Steve Corneli (previously with NRG) and Steve Kihm of Seventhwave

This report envisions potential structural and business model changes in a future where distributed energy resources are competitive with grid power in price and performance. It describes two competing views. In one, utilities play a major role in sourcing, financing and optimizing distributed energy resources. In the other, competitive firms increasingly perform these functions. In such a future, the utility focuses on providing and maintaining infrastructure to deliver basic energy and capacity services, while facilitating distributed energy resources to create value for the utility and grid, lower the utility's costs, and encourage customers to remain connected to the distribution system rather than defect from it.

Report No. 2: Distribution Systems in a High Distributed Energy Resources Future: Planning, Market Design, Operation and Oversight (October 2015)

By Paul De Martini of the California Institute of Technology and Lorenzo Kristov of California Independent System Operator

The report offers a practical three-stage framework to guide the evolution of distribution systems with growth in distributed energy resources. The authors provide a structured sequence that regulators and policy makers can use to assess options and develop a preferred distribution system tailored to their jurisdiction, with clear lines of sight to overarching regulatory and public policy objectives. The authors then compare three distribution operational models for the future and discuss the pros and cons of an independent Distribution System Operator (DSO) versus the distribution utility serving as the DSO. The report concludes with considerations and recommendations for policy makers, regulators, utilities and other stakeholders.

Report No. 3 Performance-Based Regulation in a High DER Future (January 2016)

By Tim Woolf of Synapse Energy Economics and Mark Lowry of Pacific Economics Group Research

The report explores key elements and variations of comprehensive performance-based regulation (PBR) and its advantages and disadvantages from the perspectives of utilities and customers. The report explains the components of PBR, including multi-year rate plans and performance incentive mechanisms, and how they can be applied to a potential future with a high reliance on energy efficiency, demand response, distributed generation and storage.

Report No. 4: Distribution System Pricing With Distributed Energy Resources (May 2016)

By Ryan Hledik of The Brattle Group and Jim Lazar of the Regulatory Assistance Project

Utilities will likely continue to provide backup power and other grid services to customers that adopt distributed energy resources (DERs). At the same time, utilities may buy services from customers who adopting these devices, such as energy, capacity and balancing. In this kind of two-way future, how should these services be priced? This report explores four options for pricing distribution services in the future: (1) rates tailored for each type of service; (2) rates tailored to each type of customer; (3) a buy/sell arrangement where DER customers pay for their use of the distribution grid and get paid separately for services they provide; and (4) a competitive solicitation for buying grid services from DER customers. The authors evaluate these options from a utility and consumer perspectives based on economic efficiency, equity and fairness, customer satisfaction, utility revenue impacts and customer price impacts.

Next report in the series:

- *Future of Resource Planning*
By Fredrich Kahrl (E3), Andrew Mills (LBNL), Arne Olsen and Nancy Ryan (E3)

Reports and webinar materials are available at feur.lbl.gov/. Additional report topics will be announced.