

**ENERGY AND ENVIRONMENTAL ECONOMICS, INC.**  
*Senior Consultant*

San Francisco, CA  
2005 - Present

Mr. Cutter is a lead analyst at E3 on the costs and benefits of energy storage, electric vehicles, and customer load management, working with the Electric Power Research Institute (EPRI), utilities, regulators and storage companies to assess their value for the integration of renewable and distributed generation. Mr. Cutter is currently enhancing an energy storage dispatch model developed for EPRI and member utilities, leading an analysis of Photovoltaic (PV) integration with distributed energy resource management on the UCSD Microgrid and supporting the California Public Utilities Commission (CPUC) on Demand Response (DR) cost-effectiveness. Mr. Cutter also focuses on the energy-water nexus and integrating the assessment of energy and water efficiency measures. He has led the development of numerous financial and economic models for planning and regulatory policy in energy and water resources for the State of California and electric utilities nationwide. His clients include EPRI, several technology companies, the California Public Utilities Commission, and multiple utilities. Some of the many projects that Mr. Cutter has worked on are:

- Lead analyst for the value of energy storage applications for EPRI, utilities and technology companies. Led development of the Energy Storage Valuation Tool for EPRI and the modeling and analysis for *Electricity Energy Storage Technology Options: A White Paper Primer on Applications, Costs and Benefits* (EPRI 1020676).
- Lead developer of distributed energy resource management strategies, incentives and business models for the integration of high penetration PV on the UCSD Campus using Viridity's VPower. Winner of highly competitive California Solar Initiative RD&D solicitation.
- Advising technology companies on approaches to facilitate interconnection and integration of distributed PV at the feeder level with load management.
- Lead developer of a plug-in hybrid electric vehicle (PHEV) vehicle model and regulatory analysis tool.
- Supported CPUC on developing and implementing cost-effectiveness methodology for utility demand response programs.
- Performed evaluation, measurement and verification for implementation of optimization algorithm and variable-speed drives (VSD) at water utility pump stations for CPUC.
- Supported the CPUC and CEC for California's Renewable Portfolio Standard (RPS) implementation. Lead developer of the Market Price Referent (MPR) cash flow model used to establish the benchmark for long-term fixed price electricity.
- Evaluated demand response barriers for CAISO and supporting CPUC in development of demand response cost-effectiveness protocols
- Lead developer of the energy efficiency program design tool incorporating electric, gas and water savings, including the reporting tool used by over 30 California public utilities to evaluate EE cost-effectiveness and report to the California Energy Commission.
- Evaluated distribution system impacts of California's Self Generation Incentive Program (SGIP).

## **100<sup>TH</sup> MERIDIAN**

*Lead Consultant*

San Anselmo, CA

2000-2005

- Performed regional economic impact analysis for regional water transfers for Glenn-Colusa and Imperial Irrigation Districts.
- Performed regional economic impact analysis for several proposed casinos in California.
- Developed robust economic analyses and reservoir operations models for FERC re-licensing proceedings.
- Developed cost of generation model for California Energy Commission comparing costs for different technology, ownership, financing and operating scenarios.
- Analyzed two years electric generation and NOx emissions permit trading for evidence of market manipulation of power prices for California Electricity Oversight Board.
- Analyzed impact of agricultural electric rates on comparative costs of electric and diesel pumps for various crops and regions in California.

## **CPUC COMMISSION DUQUE'S OFFICE**

*Intern*

San Francisco, CA

Summer 2000

- Analyzed the restructuring of the natural gas and electric industries and made recommendations regarding water wheeling legislation for CPUC.

## **PG&E ELECTRIC TRANSMISSION SERVICES**

*Senior Resource Analyst*

San Francisco, CA

1998-1999

- Developed and promoted policy changes before the California Independent System Operator, saving PG&E over \$60 million in annual Reliability Must Run payments.
- Successfully advocated progressive solutions in uncertain regulatory environment, summarizing and presenting controversial proposals in concise, well-written documents and in public meetings.

## **POWER MARKET PLANNING**

*Senior Resource Planner*

San Francisco, CA

1997-1998

- Structured and implemented extensive Energy Trading Risk Management System prior to and during electric industry restructuring.
- Created and analyzed hedging strategies for energy trading and traded electricity at real-time desk.
- Produced value-at-risk and management reports for energy trading activity.

## **GAS SERVICES**

*Senior Market Analyst*

San Francisco, CA

1994-1997

- Developed and advocated transportation and storage pricing strategies, increasing margins and earning revenues of \$7 million per month from sales of storage and transportation products.
- Improved customer relations through responsive and thorough pricing support for sales staff. Developed extensive spreadsheets and databases for risk measurement, pricing analysis and

deal evaluation that significantly improved accuracy, confidence and responsiveness of sales team.

- Developed pricing methodology for new transportation, storage and banking services in increasingly competitive market.
- Implemented risk management procedures and developed Monte-Carlo analysis tools for valuing embedded options in transportation and storage contracts.

### **PG&E GAS REGULATORY POLICY AND ANALYSIS**

San Francisco, CA

*Resource Analyst*

1991-1994

- Lead regulatory policy analyst for implementation of capacity brokering for PG&E's intra- and interstate natural gas pipelines.
- Performed strategic and regulatory analysis in early phases of deregulation for natural gas industry.

### **PG&E QUALIFYING FACILITIES CONTRACTS**

San Francisco, CA

*Contract Negotiator*

1989-1991

- Analyzed and negotiated contracts with alternative fuel power producers.
- Wrote and sponsored testimony in legal and regulatory proceedings.

## Education

University of California

Berkeley, CA

*M.B.A., Haas School of Business*

University of California

Berkeley, CA

*M.S., Energy and Water Resources, Energy and Resources Group*

Tufts University

Medford, MA

*B.A., Economics and German, Magna Cum Laude*

## Citizenship

United States