

AMPARO NIETO
SENIOR VICE PRESIDENT

Economists Incorporated
101 Mission Street, Suite 1000
San Francisco, CA 94105
Direct: (415) 975-3231
nieto.a@ei.com

Amparo Nieto is an energy economist with over twenty years of energy industry experience. She provides advice to utilities, independent system operators and energy regulatory commissions as they address complex regulatory challenges involving pricing, economic, and market design issues. Her consulting engagements involve entities and regulators in the US, Canada, Latin America, Europe, Oceania, and the Caribbean.

In the US, Ms. Nieto has directed an extensive number of energy regulatory projects involving major utilities in California, Nevada and Oregon, as well as utilities in NYISO, MISO, PJM, SPP and ERCOT. She has provided expert testimony before state public utility commissions on behalf of energy utilities on electricity and natural gas marginal cost analysis, electricity rate structures, reforms to tariffs for customers with distributed generation, evaluation of net metering and efficient power contract design. She has developed cost-benefit analysis of utility demand response programs, interruptible rates, and smart rates.

Ms. Nieto has authored expert reports on electricity sector restructuring policies and wholesale energy market design in Europe and Latin America. She has advised energy regulators and independent transmission operators in the US and Alberta on transmission planning, cost allocation, and planning reserve margin analysis. Ms. Nieto involved in the implementation of default service auctions on behalf of utilities in Illinois, Pennsylvania and Spain, as well as on the design of renewable resources in Mexico.

Ms. Nieto directs the Utility of the Future Rates Group (UFRG), a membership-based utility working group attended by senior executives from North American energy utilities. The group provides a forum for discussion of innovative rates, cost analyses and regulatory reforms to adapt to the expansion of distributed energy resources. For over ten years, she has conducted seminars on electricity marginal cost of service methods and best practice electricity ratemaking. These seminars were attended by energy utilities and state commissions from the US and overseas.

Ms. Nieto has published energy papers in The Electricity Journal and frequently speaks on energy regulatory topics at various industry forums.

Professional Experience

Economists Incorporated (San Francisco)

Senior Vice President

Dec 2017 – present

NERA Economic Consulting

Associate Director / Vice President (Los Angeles)	2000 – 2017
Consultant (Madrid, Spain)	1997 - 1999

Education

Master's Degree in Economics, Institute for Fiscal Studies, Madrid, Spain

Advanced microeconomics, macroeconomics, econometrics and micro-econometrics, public policy and optimal fiscal theory.

B.A., Economics (Honors), University of Carlos III, Madrid, Spain

Concentration on microeconomics, competition and industrial economics, financial analysis, econometrics.

Selected Consulting Assignments

Renewable Energy Resources

City of Palo Alto, California. Development of pricing schemes for renewable-based microgrids.

Ministry of Energy (SENER), Mexico: Advisor to SENER regarding the development of a procurement auction to procure multiple renewable technologies across a variety of time-frames.

Iberdrola, California, US. Reviewed long-term forecasts of fuel costs, energy market conditions, and regulatory policy to assess the potential growth outlook for wind and solar generation resources in California over a 20-year horizon.

Regulatory Office for Network Industries (RONI), Slovakia. Directed the team that assisted the Slovakian regulatory commission on the design of efficient support mechanisms for renewable energy sources and a reliable system of issuing guarantees of origin for RES. Trained the commission staff on best practice RES regulation.

Illinois Power Agency (IPA), US. Assessment of parameters and benchmark analysis for Solar Renewable Energy Credits (SRECs) in the context of the auction held by Ameren Illinois Company and Commonwealth Edison to procure RECs from solar distributed generation resources.

Southern California Edison, Los Angeles, California, US. Member of the team that advised the utility's Supply Group on improvements to the mechanism for contracting with renewable generation resources.

Electricity Cost Studies, Rate Design, Pricing for Distributed Energy Resources

Various North American Electric Utilities, 2000 – present. Advised and testified on the development of electricity marginal cost studies, analysis of the value of new demand response rates, solar PV, customer contracts, design of time of use electricity tariffs, standby rates. Examples of utility clients include:

- Central Maine Power Company, Maine
- Eversource Energy, New Hampshire
- Rochester Gas and Electric, New York
- New York Service Electric and Gas, New York
- Sierra Pacific Power Company and Nevada Power d/a/a NV Energy, Nevada
- Sacramento Municipal Utility District (SMUD), California
- Los Angeles Department of Water and Power (LADWP), California
- Salt River Project (SRP), Arizona
- Con Edison, New York
- Otter Tail Power (OTP), Minnesota, North Dakota, South Dakota
- Xcel Energy, Minnesota
- MidAmerican Energy Company, Iowa
- Eugene Water and Electric Board, Oregon
- Iberdrola, Spain
- NB Power, New Brunswick, Canada
- Manitoba Hydro, Manitoba, Canada
- BC Hydro, British Columbia, Canada
- Newfoundland Labrador & Hydro, Newfoundland, Canada

Avangrid, New York. Advised in setting the basis and workplan to develop a locational distribution marginal cost study, to be used for a compensation of Distributed Energy Resources (DERs), as directed by the Commission VDER Order within the Reforming the Energy Vision (REV) proceeding.

Southern Company, US. Reviewed the company's proposed approach to undertake loss of load expectation analysis and recommended improvements. Provided guidance to develop capacity cost allocation factors for demand response programs and new customer evaluation.

NB Power, New Brunswick, Canada. Recommended approach to estimate the incremental costs to the utility when customers opt-out of smart metering, taking into account the pace of smart meter deployment plans. Provided rate design recommendations in the light of smart grid investments.

Abu Dhabi, UEA. Advised on the reform of distribution rates and suitable mechanism to undertake cost allocation based on marginal costs. Proposed revision to existing electricity cross-subsidies.

Electricity Regulatory Board (ERB), Kenya, Africa. Co-authored an Electricity Tariff Policy for ERB, aimed at improving the financial health of the sector and promoting the efficient expansion of electricity service. Developed financial models for calculation of utility revenue requirement and provided on-site training to the ERB staff. Designed the pricing terms of a new sample Power Purchase Agreement between the incumbent generator (KenGen) and the distribution utility (KPLC).

Barbados Federal Trade Commission, Barbados. Directed the team advising the Barbados energy regulatory commission during Barbados Power and Light (BP&L)'s rate application. Assessed the utility's estimated cost of capital and revenue requirement, the embedded and marginal electricity cost methods used by the utility to allocate costs to customer classes and time of use rate proposals.

Iberdrola, Spain. Member of the energy practice team advising a large Spanish electric utility regarding its regulatory strategy in preparation for the restructuring of the electricity sector in Spain as well as general advise in a broad range of regulatory issues involving retail access, stranded cost analysis and open access tariffs. Participated in industry working groups in charge of proposing detailed policy rules.

Wholesale Market Design, Competition Analysis

Analysis of utility mergers, various utilities, US. Review the competitive impact on electricity markets of a number of proposed utility mergers. Analyzed potential horizontal and vertical market power impacts.

Commission for Energy Regulatory of Ireland, Ireland: Member of the market design team for the all-island electricity market. Design of options for a Capacity Payment Mechanism on the island of Ireland that would be viable and sensible in the context of the Irish electricity market.

Independent System Operator (ISO) of New England, US. Advised the ISO-NE on revisions to ISO's Forward Capacity Market (FCM), with regard to the *Alternative Capacity Price Rule*.

Ministry of Energy, Argentina. Comprehensive review of the Argentine wholesale electricity market and their impact on competition. Recommended revisions to market rules.

PECO Energy Company, Pennsylvania, US. Manager of the Independent Evaluator team that administered the Default Service Supply auctions on behalf of PECO Energy Company. Prepared assessment report evaluating the competitiveness of the auction and results for the Commission's review.

First Energy, Philadelphia, US. Administered Default Service Supply solicitations via a descending-clock auction on behalf of Met-Ed and Penelec utilities in Pennsylvania. Authored the report evaluating the competitiveness of the auction and results for the Commission's review.

Spanish National Energy Commission (CNE), Madrid, Spain. Administered the default service electricity supply ("CESUR") auctions on behalf of the large distribution companies in Spain and Portugal. Assessed the bidders' competitive behavior and prepared an assessment report. Advised the Commission during the discussions that led to major energy sector restructuring legislation.

Incentive-Based Regulation of Distribution Networks

UK Energy Networks Association, UK. Advisor to the Association on evaluating a potential reform of electricity distribution network planning standards to account for new developments, such as the emergence of smart grids and distributed resources.

Grid Australia, Sydney, Australia. Advisory services regarding Performance-Based Regulation (PBR) methods for electricity network.

Edison Electric Institute (EEI), US. Co-author of report "Making a Business of Energy Efficiency: Sustainable Business Models for Utilities". A report on incentive mechanisms to achieve utility goals for energy efficiency and demand response.

Various utilities, USA. Provided assessment of impact of solar distributed generation on the utility's avoided costs and net revenues. Recommended or evaluated revisions to tariff structures to avoid large cost shifting among customers and inequity concerns.

Transmission Planning and Cost Allocation

Australian Energy Market Commission, Australia. Critiqued the proposed revisions to the electricity market rules in Australia regarding firm transmission access and rights. Analyzed the suitability of Financial Transmission Rights, or their equivalent, for the

Australian market. Conducted a survey of international transmission planning and cost-allocation methodologies in an earlier assignment.

TransGrid, Australia. Reviewed transmission planning and pricing policies, including arrangements to introduce competitive solicitations and non-wires alternatives in long-term transmission planning.

Alberta Electric System Operator (AESO), Calgary, Alberta. Analyzed AESO's cost study and recommended revisions to improve transmission tariffs and cost allocation approach.

Commission for Energy Regulatory of Ireland, Ireland. Participated in the drafting of the all-island electricity market rules and recommended changes to the Transmission Use of System (TUoS) charges for the Republic of Ireland.

NYISO, New York, US. Provided recommendations to the New York Independent System Operator for a reform of their Black Start service compensation mechanism as part of the ISO Tariff.

SELECTED TESTIMONIES AND EXPERT REPORTS

"Otter Tail Power Company's Marginal Cost of Generation, Transmission and Distribution Service, Final Report." February 16, 2018. Report submitted to support OTP's 2018 South Dakota electricity rate case.

"Otter Tail Power Company's Marginal Cost of Generation, Transmission and Distribution Service, Final Report." November, 2017. Report submitted to support OTP's 2018 North Dakota electricity rate case.

"Central Maine Power Company's Marginal Cost of Electricity Distribution Service, Final Report." October 30, 2017. Study report submitted in preparation of CMP's 2018 distribution rate case.

Expert Report: "A Review of Southern Company's Generation Reserve Margin Methodology and Capacity Worth Factor Approach". Prepared for Southern Company, October 9, 2017.

Expert Report, SRP's Board of Directors: "Review of Salt River Project's Electricity Marginal Cost of Service Study and Proposed Rates for Net Metering Customers", August 2017.

Expert Report: "Review of Sacramento Municipal Utility District's Marginal Cost Study and Proposed Design of Residential Time of Use Rates". November 27, 2016.

Before the Public Utilities Commission of Nevada, Rebuttal Testimony: "Marginal Costs, Revenue Reconciliation and Rate Design for Net Metering Customers", In the Matter of

the Application of Sierra Pacific Power Company d/a/a NV Energy for Authority to Reform Rates for Electric Utility Service in 2016 General Rate Case. October 31, 2016

Before the Public Utilities Commission of the State of Minnesota, Rebuttal Testimony: “Fixed Charges, Marginal Cost Study and Rate Design Policy”, In the Matter of the Application of Otter Tail Power Company for Authority to Increase Rates for Electric Utility Service in Minnesota, September 12, 2016.

Salt River Project vs. Solar City, Law Suit, US. Deposition testimony regarding expert report and analysis of SRP’s rate reform for solar customers. August 2016.

Before the Public Utilities Commission of the State of Minnesota, Testimony: “Fixed Charges and Rate Design Policy”, In the Matter of the Rate Application of Otter Tail Power Company in Minnesota, February 2016.

Before the Modesto Irrigation District Board of Directors, expert presentation: “Review of MID’s Solar PV Cost-Shifting Analysis”, California, April 2016.

Expert Report: “Assessment of Otter Tail Power Company’s Interruptible Rate Portfolio and Development of Dynamic Rates”, prepared for Otter Tail Power Co. November 2015.

Before the New York State Public Service Commission, Direct Testimony: “Rochester Gas & Electric Corporation Electricity and Natural Gas Marginal Cost of Service Studies”, June 2015.

Before the New York State Public Service Commission, Direct Testimony: “New York State Electric and Gas Electricity and Natural Gas Marginal Cost of Service Studies”, June 2015.

Before the Salt River Project Board of Directors, Testimony: “Review of SRP Proposed Residential Customer Generation Price Plan”, February 2015.

Before the State of North Carolina Utilities Commission, Testimony: “Review of Alternative Application of the Peaker Method Proposed by EPCOR USA North Carolina LLC with respect to Computation of Avoided Energy and Capacity Costs”, July 23, 2010.

Before the New Brunswick Board of Commissioners of Public Utilities, Testimony, with Wayne Olson: “The Role of DSM and Demand Response in Load Forecasting and Integrated Resource Planning”, on behalf of the New Brunswick Public Intervener, November 9, 2006.

SELECTED PRESENTATIONS

“Examining the Key Pricing Policy Elements of New York’s Reforming the Energy Vision”, presented at the 31st Annual Western Conference (CRRI), Monterey, California, June 28, 2018.

“Estimating the Value of Distributed Energy Resources and Implications for Rates”, presented at the California Municipal Utility Rates Group, May 2018.

“Marginal Cost Methods and Efficient Rate Design”, presented at the Utility of the Future Rates Group, San Francisco, California, April 2018.

“Value-Based Tariff Model for Distributed Energy Resources: Principles and Framework Options”. Presented at 30th Annual Western Conference (CRRI), Monterey, California, June 28, 2017.

“Regulatory Incentive Methods for Electricity Distributors: Emerging Trends”, with Richard Druce. Presented at Rutgers University’s 29th Annual Western Conference (CRRI), Monterey, California, June 23, 2016.

“Renewable Microgrids: Getting the Pricing Right”. Presented at the Marginal Cost Working Group (MCWG), Washington, D.C., May 5, 2016.

“Policy Options to Address Cross Subsidies from Self-Generation”. Presented at the 12th Annual National Law Seminars International Conference on Electric Utility Ratemaking, Las Vegas, Nevada, March 14, 2016.

“Demand Charges and their Role in Net Energy Metering”. Presented at the “Residential Demand Charges Symposium”, EUCI, Calgary, Canada, December 1, 2015.

“Utility Regulation in the Era of Distributed Renewables: Is There a Need for a New Business Model?”. Presented at Rutgers University’s 28th Annual Western Conference (CRRI), Monterey, California, June 26, 2015.

“Solar Distributed Generation and Rate Restructuring”. Presented at the California Municipal Rates Group (CMRG), Sacramento, California, May 18, 2015.

“Integrating Renewable Resources through Capacity Markets: The Case of California”. Presented at Law Seminars International’s Energy in California Conference, San Francisco, California, September 16, 2014.

“Rate Design Options to Deal with Solar Net Metering Concerns”. Presented at the California Municipal Rates Group (CMRG), Sacramento, California, April 25, 2014.

“Capacity Markets Put to the Test: New Approaches to Meet Evolving Reliability Needs”. Presented at Rutgers University’s 27th Annual Western Conference (CRRI), Monterey, California, June 26, 2014.

“Connecting Wholesale and Retail Pricing: A Look at Required Policy and Market Design Decisions”. Presented at the Harvard Electricity Policy Group (HEPG), Dana Point, California, March 7, 2013.

“Demand Response and its Role within Wholesale Energy and Capacity Markets”. Presented at Rutgers University’s 25th Annual Western Conference (CRRI), Monterey, California, June 2012.

“Achieving Efficient Demand Response through Dynamic Rates”. Presented at Law Seminars International’s Electric Ratemaking Conference, Las Vegas, Nevada, February 9, 2009.

“Critical Peak Pricing: A Marginal Cost Approach”. Presented at the Marginal Cost Working Group (MCWG), Phoenix, Arizona, April 2008.

“Electricity Rate Structure Design: Sector Issues in Rate Design, Marginal and Embedded Cost Studies”. Delivered at the University of PURC’s World Bank International Training Program on Utility Regulation and Strategy, Florida, January 16, 2007.

“Demand Bidding Programs in ISO/RTO Environments”. Presented at the Marginal Cost Working Group (MCWG), Austin, Texas, October 12, 2006.

“Responding to EPAct 2005: Looking at Smart Meters for Electricity, Time-Based Rate Structures, and Net Metering”. Sponsored by Edison Electric Institute, May 2006.

“Locational Generation Capacity Payments in New England”. Presented at the Marginal Cost Working Group (MCWG), Albuquerque, New Mexico, April 27, 2005.

“Analysis of the International Experience with Performance Based Regulation”. Presented at the Marginal Cost Working Group (MCWG), Nevada, April 3-5, 2000.

SELECTED ENERGY PUBLICATIONS

“Optimizing Prices for Small-Scale Distributed Generation Resources: A Review of Principles and Design Elements”, *The Electricity Journal*, April 2016.

“Wholesale Energy Markets: Setting the Right Framework for Price Responsive Demand”. *The Electricity Journal*, December 2012.

“The Role of Demand Response in the Efficiency of Electricity Wholesale Markets”. *Papeles de Economía Española*, Madrid. Issue 134, December 2012.

“Locational Electricity Capacity Markets: Alternatives to Restore the Missing Signals”. *The Electricity Journal*, Volume 20, March 2007.

“The Line in the Sand: The Shifting Boundary between Markets and Regulation in

Network Industries.” Co-author. NERA book, September 2007.

“Performance-Based Regulation of Electricity Transmission in the US: Goals and Necessary Reforms”. NERA’s Newsletter *Energy Regulation Insights*, Issue 28, March 2006.

“Analysis of the Electricity Sector in Spain”. Utility Regulation in the EU. Privatisation International and Centre for the Study of Regulated Industries (CRI), *Utility Regulation 2000 Series*, Volume 1, June 2000.

LANGUAGES

English (fluent), Spanish (fluent)