

Resume and Project Experience

Eric Fox

**Director, Forecast Solutions
Itron, Inc.**

Education

- M.A. in Economics, San Diego State University, 1984
- B.A. in Economics, San Diego State University, 1981

Employment History

- Director, Forecasting Solutions, Itron, Inc. 2002 - present
- Vice President, Regional Economic Research, Inc. (now part of Itron, Inc.), 1999 – 2002
- Project Manager, Regional Economic Research, Inc., 1994 – 1999
- New England Electric Service Power Company, 1990 – 1994
Positions Held:
 - Principal Rate Analyst, Rates
 - Coordinator, Load Research
 - Senior Analyst, Forecasting
- Senior Economist, Regional Economic Research, Inc., 1987 – 1990
- San Diego Gas & Electric, 1984 – 1987
Positions Held:
 - Senior Analyst, Rate Department
 - Analyst, Forecasting and Evaluation Department
- Instructor, Economics Department, San Diego State University, 1985 – 1986

Experience

Mr. Eric Fox is Director, Forecasting Solutions with Itron where he directs electric and gas analytics and forecasting projects and manages Itron's Boston office. Mr. Fox has over 30 years of forecasting experience with expertise in financial forecasting and analysis, long-term energy and demand forecasting, and load research.

Mr. Fox and his team focus on developing and implementing forecast applications to streamline and support utility business operations. This work includes directing development and implementation of Itron's integrated sales and revenue forecasting application (*ForecastManager.net*) and load research system (*LRS*). He also engages in forecast support work, which includes developing energy and demand forecasts for financial and long-term planning, billed and unbilled sales and revenue analysis, weather normalization for monthly sales variance analysis and rate case support, and analyzing technology and economic trends and their impact on long-term energy usage.

Mr. Fox has provided expert testimony and support in rate and regulatory related issues. This support has included developing forecasts for IRP and rate filings, weather normalizing sales and demand for rate filing cost of service studies, providing rate case support and direct testimony and conducting forecast workshops with regulatory staff. He is one of Itron's primary forecast instructors. He provides forecast training through workshops sponsored by Itron, utility on-site training programs, and workshops held by other utility organizations.

Prior to joining RER/Itron, Mr. Fox supervised the load research group at New England Electric where he oversaw systems development, directed load research programs, and customer load analysis. He also worked in the Rate Department as a Principal Analyst where he was responsible for DSM rate and incentive filings, and related cost studies. The position required providing testimony in regulatory proceedings.

Projects, Reports, and Presentations

Sales, Customer, and Revenue Forecast Through 2040, Green Mountain Power Company, with Oleg Moskatov and Mike Russo, April 2021

Reacting to a Changing Environment: Trends in Estimated Load Impacts of COVID-19 Mitigation Policies, submitted to National Association of Regulatory Utility Commissioners, March 2021, with Frank Monforte, Ph.D.

Accounting for COVID-19 in the Sales Forecast, March 2021, Itron Brownbag Presentation, with Andy Sukenik, and Mike Russo

Long-Term Data Center Demand Analysis and Forecast, Salt River Project, March 2021, with Mike Russo

Temperature Trend Study, Puget Sound Energy, November 2020, with Rich Simons

Vermont Long-Term Energy and Demand Forecast, Vermont Electric Power Company, October 2020, with Oleg Moskatov and Mike Russo

IRP Forecast Support and Data Center Forecast, Dominion Energy, September 2020

Long-Term Temperature Trend Analysis and Workshop, NV Energy, August 2020, with Rich Simons

Sales and Revenue Forecast for 2020 Rate Case, with Mike Russo, Hydro Ottawa, March 2020

New York ISO Climate Impact Study: Phase 1 Long-Term Load Impact, New York ISO, December 2019, with Rich Simons, Oleg Moskatov, and Mike Russo

Cold Climate Heat Pump Study, Sample Design, December 2019, with Rich Simons, Nova Scotia Power

Long-Term Energy and Demand Forecast, 2020 IRP, October 2019, with Mike Russo, Vectren (A CenterPoint Energy Company)

Fundamentals of Forecasting Workshop, October 2019, Washington DC

Development of Energy Efficiency Conservation Curves for Long-Term System Load Model, ISO New England, September 2019 with Mike Russo

Test-Year Weather Normalization and Filed Testimony, July 2019, with Oleg Moskotov, Liberty Utilities

Advanced Forecast Topics Workshop, Energy Forecasting Group 2019 Annual Meeting,
April 2, 2019, Boston NA

Long-Term Forecast Development and Modeling Workshop. Salt River Project, Tempe
Arizona, March 26-27, 2019

Sales and Revenue Forecast for 2019 Rate Filing, with Oleg Moskatov and Mike Russo,
Green Mountain Power Company, March 2019

Modeling Long-Term Peak Demand - Forecasting Workshop. ISO New England,
December 19, 2018

Testimony and Supporting Sales Weather-Normalization for the 2018 Kansas Rate Case.
Empire District Electric/Liberty Utilities, November 2018.

Load Research Training – Methods, Design, and LRS Applications. Colorado Springs
Utilities. November 29-30, 2018

2018 Benchmark Survey – Energy Trends, Projections, and Methods. Electric Utility
Forecaster Forum, November 13-14, 2018. Orlando, Florida

Forecasting Methods, Model Development, and Training. WEC Energy Group, Milwaukee
WI, September 20 -21, 2018.

*Development of Budget Sales and Customer Forecast Models, Report, and Forecast
Training*. Alectra Utilities, July 2018

Electricity Forecasting in a Dynamic Market. Presentation and Panel Participant,
Organization of MISO States, Forecast Workshop & Spring Seminar, Des Moines
Iowa, March 21 -23, 2018.

Load Research Methods and Results, IPL and Indiana Office of Utility Consumer
Counselor (OUCC), March 12, 2018

Sales Weather Normalization to Support the IPL 2018 Rate Case, with Richard Simons,
Indianapolis Power & Light, December 2017

Dominion Long-Term Electricity Demand Forecast Review. Dominion Energy Virginia,
September 15, 2017.

Dominion Long-Term Electricity Demand Forecast Review. Dominion Energy Virginia,
September 15, 2017.

Vermont Long-Term Energy and Demand Forecast, with Mike Russo and Oleg Moskatov,
Presented to the Vermont State Forecast Committee, August 1, 2017

Utility Forecasting Trends and Approaches, with Rich Simons and Mike Russo, Presented to the Energy Information Administration, July 27, 2017

Sales and Revenue Forecast Delivery and Presentation, with Mike Russo, Indianapolis Power & Light, July 13, 2017

Forecasting Gas Demand When GDP No Longer Works, Southern Gas Association Gas Forecasters Forum, June 13 to 17, Ft Lauderdale, Florida

Behind the Meter Solar Forecasting, with Rudy Bombien, Duke Energy, Electric Utility Forecaster Forum, May 3 to 5, 2017, Orlando, Florida

Advanced Forecast Training Workshop, with Mike Russo, EFG Meeting, Chicago Illinois, April 25th, 2017

Budget-Year Electric Sales, Customer, and Revenue Forecast, with Oleg Moskatov and Mike Russo, Green Mountain Power Company, March 2017

Solar Load Modeling, Statistic Analysis, and Software Training, Duke Energy, March 1 to 3, 2017

Development of a Multi-Jurisdictional Electric Sales and Demand Forecast Application, with Mike Russo and Rich Simons, Wabash Valley Power Cooperative, January, 2017,

Net Energy Metered Customer Sample Design and Training, Nevada Energy, December 1 – 2, 2016

Development of Long-Term Regional Energy and Demand Forecast Models, Tennessee Valley Authority, November 14, 2016

New York Energy Trends and Long-Term Energy Outlook, New York ISO Forecasting Conference, Albany New York, October 28, 2016

Fundamentals of Forecasting Workshop, with Mark Quan, Chicago, Illinois, September 26th – 28th, 2016

Building Long-Term Solar Capacity and Generation Model, Duke Energy, September 8 and 9th, Charlotte North Carolina

When GDP No Longer Works - Capturing End-Use Efficiency Trends in the Long-Term Forecast, EEI Forecast Conference, August 21 – 23rd, 2016, Boston Massachusetts

2016 Long-Term Electric Energy and Demand Forecast, Vectren Corporation, August 4, 2016

Forecasting Behind the Meter Solar Adoption and Load Impacts, with Mike Russo, Itron Brown Bag, July 12, 2016

2016 Long-Term Electric Energy and Demand Forecast, IPL, July 19, 2016

Long-Term Forecast Methodology, IPL Integrated Resource Plan Forecast, Presented to the Indiana Utility Regulatory Commission Staff, June 15, 2016

Long-Term Energy and Demand Forecast, Burlington Electric Vermont, May 2016

Statistical Mumbo Jumbo: It's Not Really, Understanding Basic Forecast Model Statistics, Electric Utility Forecasting Forum, Chattanooga, Tennessee, April 7 to 8, 2016

Solar Load Modeling and Forecast Review, NV Energy, Nevada Public Utilities Commission Staff, and Bureau of Consumer Protection, Reno Nevada, January 29, 2016

Statistically Adjusted End-Use Modeling Workshop, New York ISO, December 10, 2015

Long-Term Energy and Load Modeling Workshop, Chicago Illinois, October 29th – 30th

Integrating Energy Efficiency Program Impacts into the Forecast, Indiana Utility Regulatory Commission, Contemporary Issues Conference, September 1, 2015

Residential and Commercial End-Use Energy Trends (SAE Update), Itron Webinar for EFG Members, with Oleg Moskatov and Michael Russo, July 22, 2015

Capturing End-Use Efficiency Improvements through the SAE Model, 3rd CLD Meeting, Vaughan, Ontario, June 24 2015

Modeling New Technologies – When Regression Models Don't Work, Itron Webinar Brown Bag Series, with Oleg Moskatov and Michael Russo, June 9, 2015

Long-Term Demand Forecasting Overview and Training, KCP&L, April 2015

Budget Year 2016, Sales, Revenue, and Load Forecast, Green Mountain Power Company, March 2015

Forecast Review and Training for 2015 Rate Filing, PowerStream, January 2015

Rate Class Customer and Sales Forecast: 2015 Rate Filing, Hydro Ottawa, January 2015

Forecast Systems Implementation and Training, Entergy, January 2015

Long-Term Energy and Demand Forecasting, Ontario Ministry of Energy, January 2015

Load Research Sample Design, Nova Scotia Power, November 2014

Vermont Long-Term Energy and Demand Forecast, VELCO, November 2014

Energy Trends and Utility Survey Results, EUFF Meeting, October 2014

Fundamentals of Forecasting Workshop, Boston, MA, October 2014

Gas Forecasting Workshop with Minnesota PUC Staff, Integrys, September 2014

Load Research System Implementation and Training, NVEnergy, June 2014

Forecasting and Modeling Issues Workshop, Ontario, CA, July 2014

Unbilled Sales Analysis and System Implementation, KCP&L March 2014

Gas Sales and Revenue Forecast Model Development, TECo, December 2013

Forecast Model Development and Training, Duke Energy, October 2013

Sales and Revenue Forecast, GMP, August 2013

Forecast Support and Testimony, TECo, June 2013

Long-Term Energy and Demand Forecast, IRP Filing, GMP, May 2013

Long-Term Energy and Demand Forecast, IRP Filing, Vectren, March 2013

Statistical End-Use Model Implementation, Nova Scotia Power, December 2012

Fundamentals of Forecasting, Workshop, Boston, MA, November 2012

Rate Class Profile Development for Settlement Support, NYSEG and RGE (Iberdrola),
September 2012

Budget Forecasting System Implementation, and Training, Horizon Utilities,
August 2012

Commercial Sales Forecasting: Getting it Right, Itron Brownbag Web Presentation, June
2012

Long-Term Energy Trends and Budget Forecast Assessment, Tampa Electric Company,
June 2012

Budget-Year 2013 Sales and Revenue Forecast, Green Mountain Power, April 2012

Long-Term Residential and Commercial Energy Trends and Forecast, Electric Utility
Forecasting Week, Las Vegas, May 2012

NV Energy Forecast Workshop, with Terry Baxter, NV Energy, March 2012

Commercial Sales Forecasting, the Neglected Sector, Electric Utility Forecasting Forum,
Orlando, November 2011

Vermont Long-Term Energy and Demand Forecast, Vermont Electric Transmission
Company, November 2011

Fundamentals of Forecasting Workshop, Boston, September 2011

Forecasting Top 100 PPL Load-Hours, with David Woodruff, AEIC Summer Load
Research Conference, Alexandria, VA, August 2011

Budget and Long-Term Energy and Demand Forecast Model Development, Central
Electric Power Cooperative, April 2011

Development of an Integrated Revenue Forecasting Application, TVA, March 2011
Integrating Energy Efficiency Into Utility Load Forecasts, with Shawn Enterline, 2010
ACEE Summer Study on Energy Efficiency in Buildings, August 2010

Using Load Research Data to Develop Peak Demand Forecasts, AEIC Load Research
Conference, Sandestin, FL, August 2010

Development of a Long-term Energy and Demand Forecasting Framework, Consumer
Energy, October 2009

Review of Entergy Arkansas Weather Normalization Methodology for the 2009 Rate Case, Entergy Arkansas Inc., September 2009

Green Mountain Power Budget Year and Rate Case Sales and Revenue Forecast, Green Mountain Power, May 2009

Vectren Gas Peak-Day Design Day Load Forecast and Analysis, Vectren Energy, April 2009

Nevada Power, Long-Term Energy and Demand Forecast, NV Energy, March 2009

Estimating End-Use Load Profiles, Leveraging Off of Load Research Data, Western Load Research Conference, Atlanta, March 2009

Fundamentals of Load Forecasting Workshop, Orlando, March 2009

DPL Long-Term Energy and Demand Forecast, 2009 IRP Filing, Dayton Power & Light, February 2009

Development and Application of Long-Term End-Use Hourly Load Forecasting Model, AEP, October 2008

Load Research from the User's Perspective, AEIC Annual Load Research Conference, Oklahoma City, August 2008

OGE Weather Normalized Sales Study, Estimation of Weather Normalized Sales for 2007 Rate Case, July 2008

Vermont Long-Term and Zonal Demand Forecast, Vermont Power Company, July 2008

Budget Forecast System Implementation, Entergy June 2008

Approaches for Analyzing Electric Sales Trends, Electric Forecasting Group, Las Vegas, May 2008

Regulatory Experience

June 2020: Provided testimony and supporting analysis of weather trends and analysis as part of Nevada Power's 2020 general rate review.

July 2019: Provided testimony and supporting sales and weather-normalization for the 2020 Missouri rate case. Empire District Electric/Liberty Utilities.

November 2018: Provided testimony and supporting sales weather-normalization for the 2018 Kansas rate case. Empire District Electric/Liberty Utilities.

December 2017: Provided testimony and support related to sales weather-normalization for the 2018 rate case. Indianapolis Power & Light.

October 2017: Provided testimony and support for the Dominion Energy Virginia 2017 Integrated Resource Plan

Jan 2015 – Dec 2016: Assisted Power Stream with developing and supporting the 2015 rate case sales and customer forecast before the Ontario Energy Board

Jan 2015 – Dec 2016: Assisted Hydro Ottawa with developing and supporting the 2015 rate case sales and customer forecast before the Ontario Energy Board

September 2015: Provided testimony and support related to sales weather-normalization for the 2015 rate case. Indianapolis Power & Light

October 2014 – July 2015: Assisted Entergy Arkansas with developing and supporting weather adjusted sales and demand estimates for the 2015 rate case.

September 2014: Assisted with developing the budget sales and revenue forecast and provided regulatory support related Horizon Utilities 2014 rate filing before the Ontario Energy Board

August 2013: Reviewed and provided testimony supporting Sierra Pacific Power Company's forecast for the 2013 Energy Supply Plan before the Nevada Public Utilities Commission

July 2013: Reviewed and provided testimony supporting Tampa Electric's forecast for the 2013 rate case before the Florida Public Service Commission

March 2013: Reviewed and provided testimony supporting Entergy Arkansas sales weather normalization for the 2013 rate filing before the Arkansas Public Service Commission

- June 2012: Reviewed and provided testimony supporting Nevada Power Company's 2012 Long-Term Energy and Demand Forecast before the Nevada Public Utilities Commission
- May 2010: Provided testimony supporting Sierra Pacific Power's Company's 2010 Long-Term Energy and Demand Forecast before the Nevada Public Utilities Commission
- March 2010: Assisted with development of the IRP forecast and provided testimony supporting Nevada Power Company's 2010 Long-Term Energy and Demand Forecast before the Nevada Public Utilities Commission
- August 2009: Reviewed Entergy Arkansas weather normalization and provided supporting testimony before the Arkansas Public Service Commission
- February 2006: Developed long-term forecast and provided testimony to support Orlando Utilities Commission *Need for Power Application* before the Florida Public Service Commission
- July 2005: Developed sales and customer forecast and provided testimony to support Central Hudson's electric rate filing before the New York Public Service Commission
- April 2004: Held Weather Normalization Workshop with the Missouri Public Service Commission Staff
- July 2001: Conducted workshop on long-term forecasting with the Colorado Public Utilities Commission Staff
- October 1993: Submitted testimony in support of DSM earned incentives and related rate design before the Massachusetts Department Public Utilities, and Rhode Island Public Utilities Commission. Position: Principal Analyst, Rate Department, New England Power Service Company. Supervisor: Mr. Larry Reilly.
- June 1993: Testified in matters related to the annual Energy Conservation Services Charge before Massachusetts Department Public Utilities. Position: Principal Analyst, Rate Department, New England Power Service Company. Supervisor: Mr. Larry Reilly.
- June 1990: Submitted testimony in Nevada Power's behalf in matters related to gas transportation rates proposed by Southwest Gas in Southwest Gas rate proceedings before Nevada Public Utilities Commission. Position: Sr. Analyst, Regional Economic Research, Inc.
- October 1988: Testified to development and application of a Gas Marginal Cost of Service Study for unbundling natural gas rates as part of a generic hearing to restructure the natural gas industry in California before the California Public Utilities Commission. Position: Sr. Analyst, Rate Department, San Diego Gas & Electric. Supervisor: Mr. Douglas Hansen