

# David A. Schlissel

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## SUMMARY

I have worked since 1974 as a consultant, an expert witness, and initially, an attorney on financial, engineering and rate-making issues in the fields of energy and climate change. My work in recent years has focused on the technical and financial viability of new, and for the most part untested, technologies currently being marketed as effective tools for decarbonizing the economy. These technologies include small modular reactors (SMRs), large reactors, carbon capture and storage (CCS), producing hydrogen from methane, and generating electricity by burning green hydrogen (produced using electricity from renewable resources) in turbines.

I have been retained by regulatory commissions, environmental organizations, consumer advocates, publicly-owned utilities, non-utility generators, states and cities. I have presented expert testimony in more than 180 cases before regulatory boards and commissions in 39 states, federal agencies, and in state and federal court proceedings.

I hold BS and MS degrees in Astronautical Engineering from the Massachusetts Institute of Technology (MIT) and Stanford University. In addition, I received a Juris Doctor degree from Stanford University School of Law. I also studied Nuclear Engineering and Project Management in a non-degree program at MIT.

## PROFESSIONAL EXPERIENCE

**Proposed Decarbonization Technologies** – Investigated how expensive proposed resources such as new reactors (both small and large), carbon capture and storage (CCS), producing hydrogen from methane, burning green hydrogen in turbines to generate electricity, and renewable energy parks (featuring solar and wind, battery storage, thermal storage, and flexible loads) will be, how long it will be before they can be in operation, and how effective they will be as tools for decarbonizing the U.S. economy.

**Small and Large Nuclear Reactors** – Studied whether currently proposed reactors should be expected to experience cost and schedule overruns similar to those that plagued earlier U.S. reactors. Compared the likely costs of power from new reactors with the projected costs of renewable wind and solar resources with battery storage. Testified on whether existing reactors had been prudently planned, designed and constructed. Evaluated the causes and costs of approximately one hundred power plant outages, major equipment failures and expensive maintenance projects.

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**Carbon Capture and Storage** – Researched the financial and technical risks and uncertainties of adding carbon capture to existing or proposed fossil-burning plants. Explored the real world carbon dioxide (CO<sub>2</sub>) capture rates at existing power and industrial plants and the likely costs of capturing CO<sub>2</sub> at proposed facilities. Examined the full life cycle emissions of methane, CO<sub>2</sub> and hydrogen associated with power plants and hydrogen production facilities. Found that using the CO<sub>2</sub> captured at power plants and industrial facilities for use in Enhanced Oil Recovery (EOR) is a bad idea that will not reduce overall CO<sub>2</sub> emissions. Researched the impact of adding carbon capture on the water usage at fossil-burning power plants.

**Hydrogen** – Studied the efficiency of burning green hydrogen (produced using the electricity from solar and wind resources) to generate electricity. Investigated whether producing hydrogen from the methane in natural gas will be clean or low carbon. Found that producers of hydrogen from methane, such as Air Products, will likely receive billions of dollars in 45Q carbon capture credits even though the production and use of their hydrogen will increase, not decrease, total U.S. greenhouse gas emissions.

**Electric Resource Planning** – Analyzed the costs and benefits of renewable and battery resources. Evaluated whether existing or new generation facilities and/or transmission lines are needed to ensure adequate levels of system reliability. Investigated the economic and system reliability consequences of retiring existing electric generating facilities. Evaluated whether new electric generating facilities are used and useful.

**Fossil-fired Generation** – Evaluated the economic and financial risks of investing in, constructing, and operating new coal- or gas-fired power plants or of making expensive upgrades (such as adding CCS) to existing plants. Examined whether there are lower cost, lower risk alternatives than continuing to operating existing, or building new, fossil-burning power plants. Investigated whether plant owners had adequately considered the full range of risks associated with building new fossil-burning power plants.

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## **TESTIMONY, AFFIDAVITS, DEPOSITIONS AND COMMENTS**

### **Colorado Public Utilities Commission (Proceeding No. 24A-0442E)**

Why small modular reactors, gas turbines with carbon capture, and burning hydrogen in turbines will not be effective and efficient tools for decarbonization.

### **Public Service Commission of Wyoming (Docket No. 20000-616-EA-22) – August and September 2022**

The risks associated with the potential retrofitting of Rocky Mountain Power Company's Dave Johnson Unit 4 and Jim Bridger Units 3 and 4 for carbon capture and storage or reuse.

### **Arizona Corporation Commission (Docket No. E-01345-19-0236) – October and December 2020**

Whether Four Corners Power Plant should be retired earlier than 2031.

### **New Mexico Public Regulation Commission (Case No. 19-00195-UT) – January 2020**

Whether retrofitting San Juan Generating Station with a system to capture the plant's CO<sub>2</sub> emissions and then selling the captured CO<sub>2</sub> for Enhanced Oil Recovery is financially feasible.

### **Indiana Utility Regulatory Commission (Cause No. 45253) – December 2019**

Whether continued operation of the Edwardsport facility as an Integrated Gasification Combined Cycle plant is in the economic interest of Duke Energy Indiana's ratepayers.

### **New Mexico Public Regulation Commission (Case No. 19-00018-UT) – November 2019**

Whether retrofitting San Juan Generating Station with a system to capture the plant's CO<sub>2</sub> emissions and then selling the captured CO<sub>2</sub> for Enhanced Oil Recovery is financially feasible.

### **Montana Public Service Commission (Docket No. D.2018.2.12) – February 2019**

Whether \$303 million represents the current fair market value of Northwestern Energy's 30 percent ownership share of Colstrip Unit 4.

### **U.S. Bankruptcy Court, Northern District of Ohio, Eastern Division (Case No. 18-50757) – September 2018**

Whether FirstEnergy Solutions, Inc., will have sufficient assets to properly and completely decommission and environmentally clean up and remediate the sites of three coal plants after they are retired.

### **Indiana Utility Regulatory Commission (Cause Nos. 43114 IGCC 17) – July and October 2018**

The operating performance of the Edwardsport Integrated Gasification Combined Cycle Plant, and the economic impact that the plant has had, and will continue to have, on Duke Energy Indiana's ratepayers.

### **West Virginia Public Service Commission (Case No. 17-0296-E-PC) – August 2017**

The reasonableness of Monongahela Power's proposed acquisition of the 1,300 MW Pleasants Power Plant.

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**Indiana Utility Regulatory Commission (Cause No. 44794) – October & December 2016**  
The economic viability of proposed environmental upgrades at the Petersburg Power Station.

**Montana Public Service Commission (Docket Nos. D2013.5.33 and D2014.5.46) – May 2015**  
The circumstances surrounding the extended outage of Colstrip Unit 4 from July 1, 2013 through January 23, 2014.

**Indiana Utility Regulatory Commission (Cause Nos. 43114 IGCC 12 & 13) – December 2014**  
Whether Duke Energy Indiana's Edwardsport IGCC Project was in service between June 7, 2013 and March 31, 2014 and the Project's current operational performance and cost status and future prospects.

**Public Service Commission of West Virginia (Case No. 14-0546-E-PC) – August 2014**  
The reasonableness of American Electric Power's proposed transfer of 50 percent of the Mitchell Coal Plant to its regulated affiliates in West Virginia.

**Mississippi Public Service Commission (Docket No. 2013-UN-189) – March and June 2014**  
The prudence of Mississippi Power Company's management of the planning for the Kemper County IGCC Plant.

**Indiana Utility Regulatory Commission (Cause Nos. 43114 IGCC 8, 10, and 12) – June 2012, April 2013 and April 2014**  
Startup and pre-operational testing delays at Duke Energy Indiana's Edwardsport IGCC Project.

**Public Service Commission of West Virginia (Case No. 12-1655-E-PC) – June 2013 and July 2013**  
The reasonableness of Appalachian Power Company's proposed acquisition of 2/3 of Unit 3 of the John E. Amos power plant and ½ of the two unit Mitchell power plant.

**Public Service Commission of West Virginia (Case No. 12-1571-E-PC) – April 2013**  
The reasonableness of Monogahela Power Company's proposed acquisition of 80 percent of the Harrison Power Station.

**Virginia State Corporation Commission (Case No. PUE-2012-00128) – March 2013**  
Whether Dominion Virginia Power's proposed Brunswick Project natural gas-fired combined cycle power plant is needed and in the public interest.

**Arizona Corporation Commission (Docket No. E-01922A-12-0291 – December 2012**  
Reasonableness of Tucson Electric Power's proposed Environmental Compliance Adjustor mechanism.

**U.S. Nuclear Regulatory Commission (Docket Nos. 50-247-LR and 50-286-LR) – June 2012**  
Reply to testimony filed by Entergy Nuclear and NRC Staff concerning the relicensing of Indian Point Units 2 and 3.

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**Mississippi Public Service Commission (Docket No. 2009-UA-014) – March 2012**  
Petition to Reopen the docket for the Kemper County IGCC Plant based on changed circumstances.

**Mississippi Public Service Commission (Docket No. 2009-UA-279) – February 2012**  
The financial and economic risks of retrofitting Mississippi Power Company's Plant Daniel Coal Plant.

**Georgia Public Service Commission (Docket No. 34218) – November 2011**  
The reasonableness of Georgia Power Company's proposed fossil plant decertification/retirement plan.

**Missouri Public Service Commission (Case No. EO-2011-0271) – October 2011**  
Reasonableness of Ameren Missouri's 2011 Integrated Resource Plan filing.

**Maryland Public Service Commission (Case No. 9271) – October 2011**  
The reasonableness of Constellation Energy Group's proposed divestiture of three coal-fired power plants as mitigation for market power concerns arising from its proposed merger with Exelon Corporation.

**Minnesota Public Utilities Commission (Docket No. E017/M-10-1082) – August and September 2011**  
Whether the proposed addition of the Big Stone Plant Air Quality Control System is a lower cost alternative for the ratepayers of Otter Tail Power Company than retirement of the Plant and replacement by a natural gas-fired combined cycle unit possibly combined with new wind capacity.

**Indiana Utility Regulatory Commission (Cause No. 43114 IGCC 4S1) – June, July, and October 2011 and June 2012**  
Duke Energy Indiana's imprudence and gross mismanagement of Edwardsport IGCC Project.

**Kansas State Corporation Commission (Docket No. 11-KCPE-581-PRE) – June 2011**  
The reasonableness of the proposed environmental upgrades at the La Cygne Generating Station Units 1 and 2.

**Arizona Corporation Commission (Docket No. E-01345A-10-0474) – May 2011**  
The reasonableness of Arizona Public Service Company's proposed acquisition of Southern California Edison's share of Four Corners Units 4 and 5.

**Public Utility Commission of Colorado (Docket No. 10M-245E) – September, October and November 2010**  
The reasonableness of Public Service of Colorado's proposed Emissions Reduction Plan.

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**Indiana Utility Regulatory Commission (Cause No. 43114 IGCC 4S1) – July, November and December 2010**

The reasonableness of Duke Energy Indiana’s new analyses of the economics of completing the Edwardsport Project as an IGCC plant.

**Oregon Public Utility Commission (Docket LC 48) – May and August 2010**

Comments and Reply Comments on Portland General Electric Company’s 2009 Integrated Resource Plan.

**South Dakota Public Service Commission (Docket No. EL-09-018) – April 2010**

The reasonableness of Black Hills Power Company’s 2007 Integrated Resource Plan and the Company’s decision to build the Wygen III coal-fired power plant.

**Michigan Public Service Commission (Docket No. U-16077) – April 2010**

Comments on the City of Holland Board of Public Works’ 2010 Power Supply Study.

**Illinois Commerce Commission (Tenaska Clean Coal Facility Analysis) – April 2010**

Comments on the Facility Cost Report for the proposed Taylorville IGCC power plant.

**North Carolina Utilities Commission (Docket No. E-100, Sub 124) – February 2010**

The reasonableness of the 2009 Integrated Resource Plans of Duke Energy Carolinas and Progress Energy Carolinas.

**Mississippi Public Service Commission (Docket No. 2009-UA-014) – December 2009**

The costs and risks associated with the proposed Kemper County IGCC power plant.

**Public Service Commission of Wisconsin (Docket No. 05-CE-137) –December 2009 and January 2010**

The costs and risks associated with the proposed installation of emissions control equipment at the Edgewater Unit 5 coal-fired power plant.

**Public Service Commission of Wisconsin (Docket No. 05-CE-138) –September and October 2009**

The costs and risks associated with the proposed installation of emissions control equipment at the Columbia 1 and 2 coal-fired power plants.

**Public Service Commission of Michigan (Docket No. U-15996) – July 2009**

Comments on Consumer Energy’s Electric Generation Alternatives Analysis for the Balanced Energy Initiative including the Proposed Karn-Weadock Coal Plant.

**Public Service Commission of Michigan (Docket No. U-16000) – July 2009**

Comments on Wolverine Power Cooperative’s Electric Generation Alternatives Analysis for the Proposed Rogers City Coal Plant.

**Georgia Public Service Commission (Docket No. 27800-U) – December 2008**

The possible costs and risks of proceeding with the proposed Plant Vogtle Units 3 and 4 nuclear power plants.

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**Public Service Commission of Wisconsin (Docket No. 6680-CE-170) – August and September 2008**

The risks associated with the proposed Nelson Dewey 3 baseload coal-fired power plant.

**Indiana Utility Regulatory Commission (Cause No. 43114 IGCC 1) – July 2008**

The estimated cost of Duke Energy Indiana's Edwardsport Project.

**Public Service Commission of Maryland (Case 9127) – July 2008**

The estimated cost of the proposed Calvert Cliffs Unit 3 nuclear power plant.

**Ohio Power Siting Board (Case No. 06-1358-EL-BGN) – December 2007**

AMP-Ohio's application for a Certificate of Environmental Compatibility and Public Need for a 960 MW pulverized coal generating facility.

**U.S. Nuclear Regulatory Commission (Docket Nos. 50-247-LR, 50-286-LR) – November 2007 and February 2009**

The available options for replacing the power generated at Indian Point Unit 2 and/or Unit 3.

**West Virginia Public Service Commission (Case No. 06-0033-E-CN) – November 2007**

Appalachian Power Company's application for a Certificate of Public Convenience and Necessity for a 600 MW integrated gasification combined cycle generating facility.

**Iowa Utility Board (Docket No. GCU-07-01) – October 2007**

Whether Interstate Power & Light Company's adequately considered the risks associated with building a new coal-fired power plant and whether that Company's participation in the proposed Marshalltown plant is prudent.

**Virginia State Corporation Commission (Case No. PUE-2007-00066) – November 2007**

Whether Dominion Virginia Power's adequately considered the risks associated with building the proposed Wise County coal-fired power plant and whether that Commission should grant a certificate of public convenience and necessity for the plant.

**Louisiana Public Service Commission (Docket No. U-30192) – September 2007**

The reasonableness of Entergy Louisiana's proposal to repower the Little Gypsy Unit 3 generating facility as a coal-fired power plant.

**Arkansas Public Service Commission (Docket No. 06-154-U) – July 2007**

The probable economic impact of the Southwestern Electric Power Company's proposed Hempstead coal-fired power plant project.

**North Dakota Public Service Commission (Case Nos. PU-06-481 and 482) – May 2007 and April 2008**

Whether the participation of Otter Tail Power Company and Montana-Dakota Utilities in the Big Stone II Generating Project is prudent.

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**Indiana Utility Regulatory Commission (Cause No. 43114) – May 2007**

The appropriate carbon dioxide (“CO<sub>2</sub>”) emissions prices that should be used to analyze the relative economic costs and benefits of Duke Energy Indiana and Vectren Energy Delivery of Indiana’s proposed Integrated Gasification Combined Cycle Facility and whether Duke and Vectren have appropriately reflected the capital cost of the proposed facility in their modeling analyses.

**Public Service Commission of Wisconsin (Docket No. 6630-EI-113) – May and June 2007**

Whether the proposed sale of the Point Beach Nuclear Plant to FPL Energy Point Beach, LLC, is in the interest of the ratepayers of Wisconsin Electric Power Company.

**Florida Public Service Commission (Docket No. 070098-EI) – March 2007**

Florida Light & Power Company’s need for and the economics of the proposed Glades Power Park.

**Michigan Public Service Commission (Case No. 14992-U) – December 2006**

The reasonableness of the proposed sale of the Palisades Nuclear Power Plant.

**Minnesota Public Utilities Commission (Docket No. CN-05-619) – November 2006, December 2007, January 2008 and November 2008**

Whether the co-owners of the proposed Big Stone II coal-fired generating plant have appropriately reflected the potential for the regulation of greenhouse gases in their analyses of the facility; and whether the proposed project is a lower cost alternative than renewable options, conservation and load management.

**North Carolina Utilities Commission (Docket No. E-7, Sub 790) – September 2006 and January 2007**

Duke’s need for two new 800 MW coal-fired generating units and the relative economics of adding these facilities as compared to other available options including energy efficiency and renewable technologies.

**New Mexico Public Regulatory Commission (Case No. 05-00275-UT) – September 2006**

Report to the New Mexico Commission on whether the settlement value of the adjustment for moving the 141 MW Afton combustion turbine merchant plant into rate base is reasonable.

**Arizona Corporation Commission (Docket No. E-01345A-0816) – August and September 2006**

Whether APS’s acquisition of the Sundance Generating Station was prudent and the reasonableness of the amounts that APS requested for fossil plant O&M.

**U.S. District Court for the District of Montana (Billings Generation, Inc. vs. Electrical Controls, Inc, et al., CV-04-123-BLG-RFC) – August 2006**

Quantification of plaintiff’s business losses during an extended power plant outage and plaintiff’s business earnings due to the shortening and delay of future plant outages.  
[Confidential Expert Report]



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**Deposition in South Dakota Public Utility Commission Case No. EL05-022 – June 14, 2006**

**South Dakota Public Utility Commission (Case No. EL05-022) – May and June 2006**

Whether the co-owners of the proposed Big Stone II coal-fired generating plant have appropriately reflected the potential for the regulation of greenhouse gases in their analyses of the alternatives to the proposed facility; the need and timing for new supply options in the co-owners' service territories; and whether there are alternatives to the proposed facility that are technically feasible and economically cost-effective.

**Georgia Public Service Commission (Docket No. 22449-U) – May 2006**

Georgia Power Company's request for an accounting order to record early site permitting and construction operating license costs for new nuclear power plants.

**California Public Utilities Commission (Dockets Nos. A.05-11-008 and A.05-11-009) – April 2006**

The estimated costs for decommissioning the Diablo Canyon, SONGS 2&3 and Palo Verde nuclear power plants and the annual contributions that are needed from ratepayers to assure that adequate funds will be available to decommission these plants at the projected ends of their service lives.

**New Jersey Board of Public Utilities (Docket No. EM05020106) – November and December 2005 and March 2006**

Joint Testimony with Bob Fagan and Bruce Biewald on the market power implications of the proposed merger between Exelon Corp. and Public Service Enterprise Group.

**Virginia State Corporation Commission (Case No. PUE-2005-00018)– November 2005**

The siting of a proposed 230 kV transmission line.

**Iowa Utility Board (Docket No. SPU-05-15) – September and October 2005**

The reasonableness of IPL's proposed sale of the Duane Arnold Energy Center nuclear plant.

**New York State Department of Environmental Conservation (DEC #3-3346-00011/00002) – October 2005**

The likely profits that Dynegy will earn from the sale of the energy and capacity of the Danskammer Generating Facility if the plant is converted from once-through to closed-cycle cooling with wet towers or to dry cooling.

**Arkansas Public Service Commission (Docket 05-042-U) – July and August 2005**

Arkansas Electric Cooperative Corporation's proposed purchase of the Wrightsville Power Facility.

**Maine Public Utilities Commission (Docket No. 2005-17) – July 2005**

Joint testimony with Peter LanzaLotta and Bob Fagan evaluating Eastern Maine Electric Cooperative's request for a CPCN to purchase 15 MW of transmission capacity from New Brunswick Power.

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**Federal Energy Regulatory Commission (Docket No. EC05-43-0000) – April and May 2005**  
Joint Affidavit and Supplemental Affidavit with Bruce Biewald on the market power aspects of the proposed merger of Exelon Corporation and Public Service Enterprise Group, Inc.

**Maine Public Utilities Commission (Docket No. 2004-538 Phase II) – April 2005**  
Joint testimony with Peter Lanzalotta and Bob Fagan evaluating Maine Public Service Company's request for a CPCN to purchase 35 MW of transmission capacity from New Brunswick Power.

**Maine Public Utilities Commission (Docket No. 2004-771) – March 2005**  
Analysis of Bangor Hydro-Electric's Petition for a Certificate of Public Convenience and Necessity to construct a 345 kV transmission line

**United States District Court for the Southern District of Ohio, Eastern Division (Consolidated Civil Actions Nos. C2-99-1182 and C2-99-1250)**  
Whether the public release of company documents more than three years old would cause competitive harm to the American Electric Power Company. [Confidential Expert Report]

**New Jersey Board of Public Utilities (Docket No. EO03121014) – February 2005**  
Whether the Board of Public Utilities can halt further collections from Jersey Central Power & Light Company's ratepayers because there already are adequate funds in the company's decommissioning trusts for the Three Mile Island Unit No. 2 Nuclear Plant to allow for the decommissioning of that unit without endangered the public health and safety.

**Maine Public Utilities Commission (Docket No. 2004-538) – January and March 2005**  
Analysis of Maine Public Service Company's request to construct a 138 kV transmission line from Limestone, Maine to the Canadian Border.

**California Public Utilities Commission (Application No. AO4-02-026) – December 2004 and January 2005**  
Southern California Edison's proposed replacement of the steam generators at the San Onofre Unit 2 and Unit 3 nuclear power plants and whether the utility was imprudent for failing to initiate litigation against Combustion Engineering due to defects in the design of and materials used in those steam generators.

**United States District Court for the Southern District of Indiana, Indianapolis Division (Civil Action No. IP99-1693) – December 2004**  
Whether the public release of company documents more than three years old would cause competitive harm to the Cinergy Corporation. [Confidential Expert Report]

**California Public Utilities Commission (Application No. AO4-01-009) – August 2004**  
Pacific Gas & Electric's proposed replacement of the steam generators at the Diablo Canyon nuclear power plant and whether the utility was imprudent for failing to initiate litigation against Westinghouse due to defects in the design of and materials used in those steam generators.

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**Public Service Commission of Wisconsin (Docket No. 6690-CE-187) – June, July and August 2004**

Whether Wisconsin Public Service Corporation's request for approval to build a proposed 515 MW coal-burning generating facility should be granted.

**Public Service Commission of Wisconsin (Docket No. 05-EI-136) – May and June 2004**

Whether the proposed sale of the Kewaunee Nuclear Power Plant to a subsidiary of an out-of-state holding company is in the public interest.

**Connecticut Siting Council (Docket No. 272) – May 2004**

Whether there are technically viable alternatives to the proposed 345-kV transmission line between Middletown and Norwalk Connecticut and the length of the line that can be installed underground.

**Arizona Corporation Commission (Docket No. E-01345A-03-0437 – February 2004**

Whether Arizona Public Service Company should be allowed to acquire and include in rate base five generating units that were built by a deregulated affiliate.

**State of Rhode Island Energy Facilities Siting Board (Docket No. SB-2003-1) – February 2004**

Whether the cost of undergrounding a relocated 115kV transmission line would be eligible for regional cost socialization.

**State of Maine Department of Environmental Protection (Docket No. A-82-75-0-X) – December 2003**

The storage of irradiated nuclear fuel in an Independent Spent Fuel Storage Installation (ISFSI) and whether such an installation represents an air pollution control facility.

**Rhode Island Public Utility Commission (Docket No. 3564) – December 2003 and January 2004**

Whether Narragansett Electric Company should be required to install a relocated 115kV transmission line underground.

**New York State Board on Electric Generation Siting and the Environment (Case No. 01-F-1276) – September, October and November 2003**

The environmental, economic and system reliability benefits that can reasonably be expected from the proposed 1,100 MW TransGas Energy generating facility in Brooklyn, New York.

**Wisconsin Public Service Commission (Case 6690-UR-115) - September and October 2003**

The reasonableness of Wisconsin Public Service Corporation's decommissioning cost collections for the Kewaunee Nuclear Plant.

**Oklahoma Corporation Commission (Cause No. 2003-121) – July 2003**

Whether Empire District Electric Company properly reduced its capital costs to reflect the write-off of a portion of the cost of building a new electric generating facility.

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**Arkansas Public Service Commission (Docket 02-248-U) – May 2003**

Entergy's proposed replacement of the steam generators and the reactor vessel head at the ANO Unit 1 Steam Generating Station.

**Appellate Tax Board, State of Massachusetts (Docket No C258405-406) – May 2003**

The physical nature of electricity and whether electricity is a tangible product or a service.

**Maine Public Utilities Commission (Docket 2002-665-U) – April 2003**

Analysis of Central Maine Power Company's proposed transmission line for Southern York County and recommendation of alternatives.

**Massachusetts Legislature, Joint Committees on Government Regulations and Energy – March 2003**

Whether PG&E can decide to permanently retire one or more of the generating units at its Salem Harbor Station if it is not granted an extension beyond October 2004 to reduce the emissions from the Station's three coal-fired units and one oil-fired unit.

**New Jersey Board of Public Utilities (Docket No. ER02080614) – January 2003**

The prudence of Rockland Electric Company's power purchases during the period August 1, 1999 through July 31, 2002.

**New York State Board on Electric Generation Siting and the Environment (Case No. 00-F-1356) – September and October 2002 and January 2003**

The need for and the environmental benefits from the proposed 300 MW Kings Park Energy generating facility.

**Arizona Corporation Commission (Docket No. E-01345A-01-0822) – May 2002**

The reasonableness of Arizona Public Service Company's proposed long-term power purchase agreement with an affiliated company.

**New York State Board on Electric Generation Siting and the Environment (Case No. 99-F-1627) – March 2002**

Repowering NYPA's existing Poletti Station in Queens, New York.

**Connecticut Siting Council (Docket No. 217) – March 2002, November 2002, and January 2003**

Whether the proposed 345-kV transmission line between Plumtree and Norwalk substations in Southwestern Connecticut is needed and will produce public benefits.

**Vermont Public Service Board (Case No. 6545) – January 2002**

Whether the proposed sale of the Vermont Yankee Nuclear Plant to Entergy is in the public interest of the State of Vermont and Vermont ratepayers.

**Connecticut Department of Public Utility Control (Docket 99-09-12RE02) – December 2001**

The reasonableness of adjustments that Connecticut Light and Power Company seeks to make to the proceeds that it received from the sale of Millstone Nuclear Power Station.

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**Connecticut Siting Council (Docket No. 208) – October 2001**

Whether the proposed cross-sound cable between Connecticut and Long Island is needed and will produce public benefits for Connecticut consumers.

**New Jersey Board of Public Utilities (Docket No. EM01050308) - September 2001**

The market power implications of the proposed merger between Conectiv and Pepco.

**Illinois Commerce Commission Docket No. 01-0423 – August, September, and October 2001**

Commonwealth Edison Company's management of its distribution and transmission systems.

**New York State Board on Electric Generation Siting and the Environment (Case No. 99-F-1627) - August and September 2001**

The environmental benefits from the proposed 500 MW NYPA Astoria generating facility.

**New York State Board on Electric Generation Siting and the Environment (Case No. 99-F-1191) - June 2001**

The environmental benefits from the proposed 1,000 MW Astoria Energy generating facility.

**New Jersey Board of Public Utilities (Docket No. EM00110870) - May 2001**

The market power implications of the proposed merger between FirstEnergy and GPU Energy.

**Connecticut Department of Public Utility Control (Docket 99-09-12RE01) - November 2000**

The proposed sale of Millstone Nuclear Station to Dominion Nuclear, Inc.

**Illinois Commerce Commission (Docket 00-0361) - August 2000**

The impact of nuclear power plant life extensions on Commonwealth Edison Company's decommissioning costs and collections from ratepayers.

**Vermont Public Service Board (Docket 6300) - April 2000**

Whether the proposed sale of the Vermont Yankee nuclear plant to AmerGen Vermont is in the public interest.

**Massachusetts Department of Telecommunications and Energy (Docket 99-107, Phase II) - April and June 2000**

The causes of the May 18, 1999, main transformer fire at the Pilgrim generating station.

**Connecticut Department of Public Utility Control (Docket 00-01-11) - March and April 2000**

The impact of the proposed merger between Northeast Utilities and Con Edison, Inc. on the reliability of the electric service being provided to Connecticut ratepayers.

**Connecticut Department of Public Utility Control (Docket 99-09-12) - January 2000**

The reasonableness of Northeast Utilities plan for auctioning the Millstone Nuclear Station.

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**Connecticut Department of Public Utility Control (Docket 99-08-01) - November 1999**  
Generation, Transmission, and Distribution system reliability.

**Illinois Commerce Commission (Docket 99-0115) - September 1999**  
Commonwealth Edison Company's decommissioning cost estimate for the Zion Nuclear Station.

**Connecticut Department of Public Utility Control (Docket 99-03-36) - July 1999**  
Standard offer rates for Connecticut Light & Power Company.

**Connecticut Department of Public Utility Control (Docket 99-03-35) - July 1999**  
Standard offer rates for United Illuminating Company.

**Connecticut Department of Public Utility Control (Docket 99-02-05) - April 1999**  
Connecticut Light & Power Company stranded costs.

**Connecticut Department of Public Utility Control (Docket 99-03-04) - April 1999**  
United Illuminating Company stranded costs.

**Maryland Public Service Commission (Docket 8795) - December 1998**  
Future operating performance of Delmarva Power Company's nuclear units.

**Maryland Public Service Commission (Dockets 8794/8804) - December 1998**  
Baltimore Gas and Electric Company's proposed replacement of the steam generators at the Calvert Cliffs Nuclear Power Plant. Future performance of nuclear units.

**Indiana Utility Regulatory Commission (Docket 38702-FAC-40-S1) - November 1998**  
Whether the ongoing outages of the two units at the D.C. Cook Nuclear Plant were caused or extended by mismanagement.

**Arkansas Public Service Commission (Docket 98-065-U) - October 1998**  
Entergy's proposed replacement of the steam generators at the ANO Unit 2 Steam Generating Station.

**Massachusetts Department of Telecommunications and Energy (Docket 97-120) - October 1998**  
Western Massachusetts Electric Company's Transition Charge. Whether the extended 1996-1998 outages of the three units at the Millstone Nuclear Station were caused or extended by mismanagement.

**Connecticut Department of Public Utility Control (Docket 98-01-02) - September 1998**  
Nuclear plant operations, operating and capital costs, and system reliability improvement costs.

**Illinois Commerce Commission (Docket 97-0015) - May 1998**  
Whether any of the outages of Commonwealth Edison Company's twelve nuclear units during 1996 were caused or extended by mismanagement. Whether equipment problems, personnel performance weaknesses, and program deficiencies could have been avoided or addressed prior to plant outages. Outage-related fuel and replacement power costs.

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**Public Service Commission of West Virginia (Case 97-1329-E-CN) - March 1998**

The need for a proposed 765 kV transmission line from Wyoming, West Virginia, to Cloverdate, Virginia.

**Illinois Commerce Commission (Docket 97-0018) - March 1998**

Whether any of the outages of the Clinton Power Station during 1996 were caused or extended by mismanagement.

**Connecticut Department of Public Utility Control (Docket 97-05-12) - October 1997**

The increased costs resulting from the ongoing outages of the three units at the Millstone Nuclear Station.

**New Jersey Board of Public Utilities (Docket ER96030257) - August 1996**

Replacement power costs during plant outages.

**Illinois Commerce Commission (Docket 95-0119) - February 1996**

Whether any of the outages of Commonwealth Edison Company's twelve nuclear units during 1994 were caused or extended by mismanagement. Whether equipment problems, personnel performance weaknesses, and program deficiencies could have been avoided or addressed prior to plant outages. Outage-related fuel and replacement power costs.

**Public Utility Commission of Texas (Docket 13170) - December 1994**

Whether any of the outages of the River Bend Nuclear Station during the period October 1, 1991, through December 31, 1993, were caused or extended by mismanagement.

**Public Utility Commission of Texas (Docket 12820) - October 1994**

Operations and maintenance expenses during outages of the South Texas Nuclear Generating Station.

**Wisconsin Public Service Commission (Cases 6630-CE-197 and 6630-CE-209) - September and October 1994**

The reasonableness of the projected cost and schedule for the replacement of the steam generators at the Point Beach Nuclear Power Plant. The potential impact of plant aging on future operating costs and performance.

**Public Utility Commission of Texas (Docket 12700) - June 1994**

Whether El Paso Electric Company's share of Palo Verde Unit 3 was needed to ensure adequate levels of system reliability. Whether the Company's investment in Unit 3 could be expected to generate cost savings for ratepayers within a reasonable number of years.

**Arizona Corporation Commission (Docket U-1551-93-272) - May and June 1994**

Southwest Gas Corporation's plastic and steel pipe repair and replacement programs.

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Northeast Utilities management of the 1992/1993 replacement of the steam generators at Millstone Unit 2.

**Connecticut Department of Public Utility Control (Docket 92-10-03) - August 1993**  
Whether the 1991 outage of Millstone Unit 3 as a result of the corrosion of safety-related plant piping systems was due to mismanagement.

**Public Utility Commission of Texas (Docket 11735) - April and July 1993**  
Whether any of the outages of the Comanche Peak Unit 1 Nuclear Station during the period August 13, 1990, through June 30, 1992, were caused or extended by mismanagement.

**Connecticut Department of Public Utility Control (Docket 91-12-07) - January 1993 and August 1995**  
Whether the November 6, 1991, pipe rupture at Millstone Unit 2 and the related outages of the Connecticut Yankee and Millstone units were caused or extended by mismanagement. The impact of environmental requirements on power plant design and operation.

**Connecticut Department of Public Utility Control (Docket 92-06-05) - September 1992**  
United Illuminating Company off-system capacity sales. [Confidential Testimony]

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**Connecticut Department of Public Utility Control (Docket 92-01-05) - August 1992**  
Whether the July 1991 outage of Millstone Unit 3 due to the fouling of important plant systems by blue mussels was the result of mismanagement.

**California Public Utilities Commission (Docket 90-12-018) - November 1991, April 1992, June and July 1993**  
Whether any of the outages of the three units at the Palo Verde Nuclear Generating Station during 1989 and 1990 were caused or extended by mismanagement. Whether equipment problems, personnel performance weaknesses and program deficiencies could have been avoided or addressed prior to outages. Whether specific plant operating cost and capital expenditures were necessary and prudent.

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*The Impact of Retiring the Indian Point Nuclear Power Station on Electric System Reliability.* A Synapse Report for Riverkeeper, Inc. and Pace Law School Energy Project. May 7, 2002.

*Preliminary Assessment of the Need for the Proposed Plumtree-Norwalk 345-kV Transmission Line.* A Synapse Report for the Towns of Bethel, Redding, Weston, and Wilton Connecticut. October 15, 2001.

*ISO New England's Generating Unit Availability Study: Where's the Beef?* A Presentation at the June 29, 2001 Restructuring Roundtable.

*Clean Air and Reliable Power: Connecticut Legislative House Bill HB6365 will not Jeopardize Electric System Reliability.* A Synapse Report for the Clean Air Task Force. May 2001.

*Room to Breathe: Why the Massachusetts Department of Environmental Protection's Proposed Air Regulations are Compatible with Reliability.* A Synapse Report for MASSPIRG and the Clean Water Fund. March 2001.

*Generator Outage Increases: A Preliminary Analysis of Outage Trends in the New England Electricity Market,* a Synapse Report for the Union of Concerned Scientists, January 7, 2001.

*Cost, Grid Reliability Concerns on the Rise Amid Restructuring,* Co-written with Charlie Harak, Boston Business Journal, August 18-24, 2000.

*Report on Indian Point 2 Steam Generator Issues,* Schlissel Technical Consulting, Inc., March 10, 2000.

*Preliminary Expert Report in Case 96-016613, Cities of Wharton, Pasadena, et al v. Houston Lighting & Power Company,* October 28, 1999.

*Comments of Schlissel Technical Consulting, Inc. on the Nuclear Regulatory Commission's Draft Policy Statement on Electric Industry Economic Deregulation,* February 1997.

*Report to the Municipal Electric Utility Association of New York State on the Cost of Decommissioning the Fitzpatrick Nuclear Plant,* August 1996.

*Report to the Staff of the Arizona Corporation Commission on U.S. West Corporation's telephone cable repair and replacement programs,* May, 1996.

*Nuclear Power in the Competitive Environment,* NRRI Quarterly Bulletin, Vol. 16, No. 3, Fall 1995.

*Nuclear Power in the Competitive Environment,* presentation at the 18th National Conference of Regulatory Attorneys, Scottsdale, Arizona, May 17, 1995.

*The Potential Safety Consequences of Steam Generator Tube Cracking at the Byron and Braidwood Nuclear Stations,* a report for the Environmental Law and Policy Center of the Midwest, 1995.

*Report to the Public Policy Group Concerning Future Trojan Nuclear Plant Operating Performance and Costs,* July 15, 1992.

*Report to the New York State Consumer Protection Board on the Costs of the 1991 Refueling Outage of Indian Point 2,* December 1991.

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*Preliminary Report on Excess Capacity Issues to the Public Utility Regulation Board of the City of El Paso, Texas, April 1991.*

*Nuclear Power Plant Construction Costs*, presentation at the November, 1987, Conference of the National Association of State Utility Consumer Advocates.

*Comments on the Final Report of the National Electric Reliability Study*, a report for the New York State Consumer Protection Board, February 27, 1981.

## **SIGNIFICANT INVESTIGATIONS WITHOUT REPORTS**

Reviewed the salt deposition mitigation strategy proposed for Reliant Energy's repowering of its Astoria Generating Station. October 2002 through February 2003.

Assisted the Connecticut Office of Consumer Counsel in reviewing the auction of Connecticut Light & Power Company's power purchase agreements. August and September, 2000.

Assisted the New Jersey Division of the Ratepayer Advocate in evaluating the reasonableness of Atlantic City Electric Company's proposed sale of its fossil generating facilities. June and July, 2000.

Investigated whether the 1996-1998 outages of the three Millstone Nuclear Units were caused or extended by mismanagement. 1997 and 1998. Clients were the Connecticut Office of Consumer Counsel and the Office of the Attorney General of the Commonwealth of Massachusetts.

Investigated whether the 1995-1997 outages of the two units at the Salem Nuclear Station were caused or extended by mismanagement. 1996-1997. Client was the New Jersey Division of the Ratepayer Advocate.

Assisted the Associated Industries of Massachusetts in quantifying the stranded costs associated with utility generating plants in the New England states. May through July, 1996

Investigated whether the December 25, 1993, turbine generator failure and fire at the Fermi 2 generating plant was caused by Detroit Edison Company's mismanagement of fabrication, operation or maintenance. 1995. Client was the Attorney General of the State of Michigan.

Investigated whether the outages of the two units at the South Texas Nuclear Generating Station during the years 1990 through 1994 were caused or extended by mismanagement. Client was the Texas Office of Public Utility Counsel.

Assisted the City Public Service Board of San Antonio, Texas in litigation over Houston Lighting & Power Company's management of operations of the South Texas Nuclear Generating Station.

Investigated whether outages of the Millstone nuclear units during the years 1991 through 1994 were caused or extended by mismanagement. Client was the Office of the Attorney General of the Commonwealth of Massachusetts.

Evaluated the 1994 Decommissioning Cost Estimate for the Maine Yankee Nuclear Plant. Client was the Public Advocate of the State of Maine.

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Evaluated the 1994 Decommissioning Cost Estimate for the Seabrook Nuclear Plant. Clients were investment firms that were evaluating whether to purchase the Great Bay Power Company, one of Seabrook's minority owners.

Investigated whether a proposed natural-gas fired generating facility was need to ensure adequate levels of system reliability. Examined the potential impacts of environmental regulations on the unit's expected construction cost and schedule. 1992. Client was the New Jersey Rate Counsel.

Investigated whether Public Service Company of New Mexico management had adequately disclosed to potential investors the risk that it would be unable to market its excess generating capacity. Clients were individual shareholders of Public Service Company of New Mexico.

Investigated whether the Seabrook Nuclear Plant was prudently designed and constructed. 1989. Clients were the Connecticut Office of Consumer Counsel and the Attorney General of the State of Connecticut.

Investigated whether Carolina Power & Light Company had prudently managed the design and construction of the Harris nuclear plant. 1988-1989. Clients were the North Carolina Electric Municipal Power Agency and the City of Fayetteville, North Carolina.

Investigated whether the Grand Gulf nuclear plant had been prudently designed and constructed. 1988. Client was the Arkansas Public Service Commission.

Reviewed the financial incentive program proposed by the New York State Public Service Commission to improve nuclear power plant safety. 1987. Client was the New York State Consumer Protection Board.

Reviewed the construction cost and schedule of the Hope Creek Nuclear Generating Station. 1986-1987. Client was the New Jersey Rate Counsel.

Reviewed the operating performance of the Fort St. Vrain Nuclear Plant. 1985. Client was the Colorado Office of Consumer Counsel.

## **WORK HISTORY**

2025- Schlissel Technical Consulting  
2012-2024 Director of Resource Planning Analysis, Institute for Energy Economics and Financial Analysis  
2010 - 2012 President, Schlissel Technical Consulting  
2000 - 2009: Senior Consultant, Synapse Energy Economics, Inc.  
1994 - 2000: Schlissel Technical Consulting, Inc.  
1983 - 1994: Schlissel Engineering Associates  
1979 - 1983: Private Legal and Consulting Practice



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1975 - 1979: Attorney, New York State Consumer Protection Board  
1973 - 1975: Staff Attorney, Georgia Power Project

## **EDUCATION**

1983-1985: Massachusetts Institute of Technology  
Special Graduate Student in Nuclear Engineering and Project Management,

1973: Stanford Law School,  
Juris Doctor

1969: Stanford University  
Master of Science in Astronautical Engineering,

1968: Massachusetts Institute of Technology  
Bachelor of Science in Astronautical Engineering,