

**BEFORE THE SOUTH DAKOTA PUBLIC UTILITIES COMMISSION
OF THE STATE OF SOUTH DAKOTA**

RECEIVED
JAN 07 2005

**IN THE MATTER OF THE FILING BY)
SUPERIOR RENEWABLE ENERGY LLC ET AL.)
AGAINST MONTANA-DAKOTA UTILITIES CO.)
REGARDING THE JAVA WIND PROJECT) DOCKET NO. EL04-016**

SOUTH DAKOTA PUBLIC
UTILITIES COMMISSION

**TESTIMONY OF KENNETH J. SLATER ON BEHALF OF
SUPERIOR RENEWABLE ENERGY LLC**

I. INTRODUCTION AND QUALIFICATIONS

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Kenneth J. Slater. My business address is 3370 Habersham Road, Atlanta, Georgia 30305.

Q. BY WHOM AND IN WHAT CAPACITY ARE YOU EMPLOYED?

A. I am President of Slater Consulting, which I founded in August 1990. The firm is an engineering-economic and management consultancy with particular expertise in energy and public utility matters. The services, which the firm offers to various participants in the utility business, include analysis of supply/demand options, reliability, operating situations and events, new technologies and industry developments, strategic decisions, public policy matters and ratemaking issues.

Q. WHAT IS YOUR EDUCATIONAL BACKGROUND?

A. I obtained a Bachelor of Science degree in Pure Mathematics and Physics in 1960 and a Bachelor of Engineering degree in Electrical Engineering in 1962, both at the University of Sydney, Australia. I also received a Master of Applied Science degree in Management Sciences at the University of Waterloo in Ontario, Canada in 1974.

Q. PLEASE PROVIDE A BRIEF DESCRIPTION OF YOUR PROFESSIONAL EXPERIENCE.

A. I have over forty years of experience in the energy and utility industries in the United States, Canada and Australia.

Prior to founding Slater Consulting, I was Senior Vice President and Chief Engineer at Energy Management Associates, Inc. ("EMA") in Atlanta, where I worked from 1983 to 1990. At EMA, after initially contributing to the firm's utility software development functions, I became the head of its consulting practice, leading or making significant contributions to a number of consulting engagements related to valuation or analysis of power supplies and power supply contracts, supply/demand planning, damages assessments, operating reserve requirements, replacement power cost calculations, utility merger valuations, operational integration of utility systems, power pooling, system reliability, ratemaking, power dispatching and gas supply studies.

From 1969 until 1983, I worked in the Canadian utility industry, initially at Ontario Hydro, where I headed the Production Development Section of the utility's Operating Department. There I developed computer models, including one which, for more than 20 years, produced the daily generation schedules for the Ontario Hydro

system, and another, the original PROMOD, which was used for coordination and optimization of production planning and resource management. Subsequently, I worked as Manager of Engineering at the Ontario Energy Board (the utility regulatory commission) and as Research Director for the Royal Commission on Electric Power Planning.

From 1976 to 1983, I ran my own firm, Slater Energy Consultants, Inc., in Toronto, Canada and consulted widely in Canada and the United States for utilities, governments, public enquiry commissions, utility customers and other consulting firms. It was during this time and my time at EMA that I was a major developer of PROMOD III® (now renamed PROMOD IV®) a widely recognised electric utility planning and reliability model.

Prior to 1969, I was employed by the Electricity Commission of New South Wales, the largest electric utility in Australia, where I was responsible for the day-to-day operation of one of the six regions comprising that system. A copy of my resume is included as Exhibit KJS-1.

Q. HAVE YOU TESTIFIED AS AN EXPERT WITNESS IN THE PAST?

A. Yes. I have provided expert testimony in regulatory proceedings in California, Delaware, Florida, Georgia, Idaho, Indiana, Iowa, Louisiana, New Mexico, New York, North Carolina, Nova Scotia, Ontario, Pennsylvania, Prince Edward Island, South Carolina, Texas, Virginia and Wisconsin, and at the Federal Energy Regulatory Commission (“Commission”). As well as providing opinion to the Surface Transportation Board, I have appeared in United States Federal Court, Federal Bankruptcy Court, State Courts in

Florida, Missouri, Nebraska, Texas and Virginia, and in civil arbitration proceedings in Georgia, Louisiana, Nevada, Pennsylvania and Texas. I have also served on many occasions as an expert examiner for a Royal Commission in Ontario, which was enquiring into the electric power planning in the Province of Ontario. A list of my testimony since 1983 is attached to this testimony as Exhibit KJS-2.

Q. HAS YOUR TESTIMONY INCLUDED AVOIDED COSTS AND OTHER MATTERS PERTAINING TO QUALIFYING FACILITIES?

A. Yes. I have provided testimony on avoided costs and other QF matters in about thirteen proceedings before regulatory commissions in Florida, Georgia, New York, North Carolina and South Carolina, in an arbitration proceeding in Nevada and also before The United States Bankruptcy Court.

II. PURPOSE OF TESTIMONY

Q. FOR WHOM ARE YOU APPEARING IN THIS PROCEEDING?

A. I am appearing on behalf of Superior Renewable Energy LLC (Superior), which is proposing to build the Java Wind Project, with a nameplate rating of 31.5 MW, in Montana-Dakota Utilities's (MDU's) service territory. Superior initiated this proceeding by filing a complaint on May 12, 2004, requesting the Commission to settle a dispute regarding the long-term purchase price of electricity generated by the Java Project pursuant to Public Utility Regulatory Policies Act of 1978 (PURPA).

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. The purpose of my testimony is to provide input to the Commission on matters relating to the avoided costs associated with the Java Project. In particular, I will:

- (a) examine the estimated avoided cost analysis presented by MDU on October 20, 2004 and evaluate whether it fulfills the requirements of the South Dakota Public Utilities Commission's (SDPUC's) Decision and Order, (F-3365), dated December 14, 1982; and,
- (b) present certain problems which I see regarding the capacity and energy payments specified in the MDU estimated avoided cost analysis.

Q. HAVE YOU COMPLETED YOUR EXAMINATION OF THE AVOIDED COST ANALYSIS PRESENTED BY MDU?

A. Not yet. I have not been able to complete my examination of MDU's avoided cost analysis for the Java Project because Superior has not yet received certain data and other information from MDU in response to Superior's Third Set of Interrogatories. Once I receive that data and information, I will complete my examination of MDU's estimated avoided cost analysis and present any additional conclusions and recommendations to the Commission in the form of supplemental testimony on or about January 17, 2005.

Q. HAVE YOU PROVIDED YOUR OWN ESTIMATE OF MDU'S AVOIDED COSTS?

A. Again, not yet. Once I receive the requested data and information, I will produce my own estimate of MDU's avoided cost for the Java Project and include it in that supplemental testimony.

Q. TO WHAT INFORMATION HAVE YOU HAD ACCESS IN CONNECTION WITH THE PREPARATION OF YOUR TESTIMONY?

A. I have had access to all of MDU's replies to interrogatories submitted thus far in this proceeding, MDU's 2003 Integrated Resource Plan documents submitted to this Commission, the MDU/Westmoreland May 2004 application for a permit to construct the Gascoyne generating station and mine, and to the PROSYM database used by MDU to calculate the system marginal cost values it represents to be the Java avoided energy cost.

Q. HAVE YOU RELIED ON ANY OTHER INFORMATION IN YOUR EXAMINATION OF THE ISSUES IN THIS CASE?

A. Yes. I have drawn on the knowledge and experience I have gained in a number of regulatory, civil litigation and arbitration proceedings involving QFs, on the work I have done in the calculation of avoided costs, and on my forty seven years in the electricity industry.

III. THE SDPUC'S PURPA REGULATIONS

Q. WHAT DO THE SDPUC'S PURPA REGULATIONS REQUIRE REGARDING AVOIDED COST PAYMENTS TO QFS OF GREATER THAN 100 KW CAPACITY?

A. In brief, the PURPA regulations of the SDPUC as laid out in the Decision and Order, (F-3365), dated December 14, 1982, require the following.

- (i) Rates for purchases from a QF with design capacity of more than 100 kW should be set by contract negotiated between the QF and the electric utility.
- (ii) The Commission should play a minimal role in the negotiation of such contracts, a role limited to resolving any contract disputes which arise between the parties.
- (iii) The Commission should set certain parameters for the negotiation of contracts between QFs and electric utilities. These parameters were set as follows.
 - (a) For short-term contracts, (less than 10 years), contractual capacity credits should be based on avoided capacity costs associated with turbine peaking power and short-term purchases.
 - (b) For long-term contracts, (10 years or more), contractual capacity credits should be based on avoided capacity costs associated with base load capacity, and should reflect the average kW supplied by the QF for each month during the utility's on-peak period.

- (c) Energy credits for both short-term and long-term contracts should be based on “the average of the expected hourly incremental avoided costs calculated over the hours in the appropriate on-peak and off-peak hours as defined by the utility.
- (iv) The Commission also recognized that there was a mandate by Congress and the FERC for each electric utility “to purchase all electric energy and capacity made available from qualifying facilities with which the electric utility is directly or indirectly connected”, except in situations where safety and security are at risk, or under certain specific conditions which result in the utility experiencing negative avoided energy costs. These specific conditions are rare, and MDU has not alleged their presence in the case of the Java Project. The Commission further found that capacity credits should be based on capacity actually avoided, and if the purchase does not enable a utility to avoid capacity costs, capacity credits should not be allowed.

IV. MDU'S OCTOBER 20, 2004 ESTIMATED AVOIDED COSTS

Q. DO THE MDU OCTOBER 20, 2004 ESTIMATED AVOIDED CAPACITY COSTS AND ENERGY COSTS FULFILL THE REQUIREMENTS OF THE SOUTH DAKOTA SDPUC?

A. No. Neither the avoided capacity costs nor the avoided energy costs meet the requirements of the SDPUC.

Q. IN WHAT WAYS DO THE ESTIMATED AVOIDED CAPACITY COSTS FAIL TO MEET THE SDPUC'S REQUIREMENTS?

A. There are a number of ways in which these estimated avoided capacity costs fail to meet the SDPUC'S requirements.

First, MDU represents the avoided capacity costs as being zero through 2009. This could only be correct if MDU had sufficient capacity to meet its load and reserve obligation in the years through 2009. But, this is not the case. When offered the output from the Java Wind Project, MDU had forecast capacity deficiencies for the summers of 2007, 2008 and 2009 of greater magnitude than the capacity offered by Java. See, for example, MDU's reply to Superior's second data request, No. 13, attached hereto as KJS-3. Further, after having been approached by Java, MDU contracted for firm summer capacity, ("Product K"), from Saskatchewan together with related transmission for the years 2005 and 2006. Altogether, this shows that the Java Wind Project presented an offer of capacity which could have avoided actual MDU capacity from 2005 onward. Because the Java output was offered for 20 years, the appropriate avoided cost, on which

to base contractual capacity credits, would be the cost of the next planned base load resource, the “LV 21 unit,” but costed and levelized from the in-service date of Java.

Second, the avoided capacity costs utilized by MDU appear to represent only the capital cost of the LV 21 unit, excluding “interest during construction,” cost of land, development expenditures, and possibly interconnection costs. See, for example, the reply to Superior’s first data request, No. 28c, attached hereto as KJS-4. All of these costs are real costs of capacity and should be included in avoided costs.

Third, because the avoided capacity costs utilized by MDU are developed from just a capital cost and a levelized fixed charge rate, it appears that they exclude fixed O&M items such as insurance, operating labor and non-variable maintenance expenses. See for example the fixed charge rates developed in Appendix L to MDU’s 2003 Integrated Resource Plan, attached hereto as KJS-5. Again, all of these costs are real costs of capacity and should be included in avoided costs.

Q. TO WHAT CAPACITY SHOULD THE MDU AVOIDED BASE LOAD CAPACITY COST BE APPLIED?

A. In keeping with the SDPUC’s findings, the avoided base load capacity credits should “reflect the average kW supplied by the QF for each month during the utility’s on-peak period.” In this case, MDU peaks in the Summer months. Thus, the appropriate capacity to consider is the average summer month MAPP accredited capacity of the Java Wind Project.

Q. THE JAVA WIND PROJECT PROVIDES A HIGHER MAPP ACCREDITED CAPACITY DURING THE WINTER MONTHS THAN DURING THE SUMMER MONTHS. SHOULD THIS FACT BE RECOGNISED IN DETERMINING CONTRACTUAL CAPACITY CREDITS?

A. If this extra capacity can be used by MDU to reduce its capacity purchase costs during winter months, (or increase its capacity sales revenue during the winter months,) then I believe that it would be appropriate for the Java Wind Project to receive capacity credits, based on short-term seasonal capacity prices, for this additional winter capacity

Q. IN WHAT WAYS DO THE ESTIMATED AVOIDED ENERGY COSTS FAIL TO MEET THE SDPUC'S REQUIREMENTS?

A. There are a number of ways in which MDU's estimated avoided energy costs fail to meet the SDPUC's requirements.

First, MDU has not calculated avoided energy costs applicable to the Java Project. In its October 20 document MDU states that it used PROSYM to calculate marginal costs on the MDU system after subtracting a representation of the Java energy production from the MDU system load. However, marginal costs are not avoided costs. Marginal costs are the expected cost of producing the next kWh, in each hour, using those resources which optimally provide the generation for the system load, and do not necessarily capture the full avoided cost attributable to an increment of generation. Avoided costs, relative to the Java Project, are the difference between total system production costs on the MDU system determined with and without the generation from the Java Project. Simply put, this could be calculated as the difference between the total production costs

from two PROSYM runs, one without the Java generation, and the other with the Java generation.

Second, MDU's representation of the Java output is incorrect. The annual generation profile should be calculated from as much wind regime information as is available, not just from the latest year as MDU has done. Further, dividing the generation profile by 1.15 (1 plus the 15% required installed capacity reserve margin), as MDU has done, is just plain wrong. The installed capacity reserve margin is simply a requirement for MDU to have 15% more capacity resources than it has forecast peak load. It does not mean that any of its generation resources must produce 15% more energy than is required. The Java generation profile should be used unchanged.

Third, the PROSYM database does not represent the current generation plan of MDU because it is simply outdated.

Fourth, the PROSYM database does not include the cost (or opportunity cost), of atmospheric emission allowances associated with MDU generation resources. Therefore avoided emission costs could not be captured in any calculation of avoided costs using this database. Avoided emission costs are real avoided costs in just the same way as fuel costs are real avoided costs and should be included in any estimate of avoided energy costs.

V. RECOMMENDATIONS

Q. WITH THE INFORMATION AVAILABLE THUS FAR, DO YOU HAVE RECOMMENDATIONS FOR THIS COMMISSION?

A. Yes. Until I am able to complete my work in this matter, I respectfully recommend to the Commission that it require MDU to;

- (i) recalculate its avoided base-load capacity costs, relative to the LV 21 unit, as levelized annual costs from the projected in-service date of the Java Project, to include all costs associated with completing the unit, including interest during construction and all land, project development and interconnection costs, and also including all fixed O&M costs such as insurance, operating labor and non-variable maintenance expenses.
- (ii) calculate short-term avoided capacity costs appropriate to the additional capacity available from the Java Project during winter peak months.
- (iii) use PROSYM to recalculate its avoided energy costs employing a “two run” approach, to fully capture the avoided energy costs, and a database representing its current generation plan.
- (iv) based on (i), (ii) and (iii) above, draft a Power Purchase Agreement for the Java Project, protecting the interests of both its customers and the QF, in accordance with the December 14, 1982 Decision and Order of the Commission (F-3365).

When I complete my work, I will provide further recommendations to this Commission on avoided costs for the Java Wind Project which fully comply with the SDPUC's December 14, 1982 order

Q. DOES THAT CONCLUDE THIS PORTION OF YOUR TESTIMONY?

A. Yes, it does.

**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF SOUTH DAKOTA**

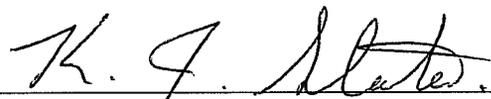
_____)
IN THE MATTER OF THE COMPLAINT FILED)
BY SUPERIOR RENEWABLE ENERGY LLC)
ET AL. AGAINST MONTANA DAKOTA)
UTILITIES CO. REGARDING THE JAVA)
WIND PROJECT)
_____)

Docket No. EL04-016

AFFIDAVIT

County of Broward
State of Florida

Kenneth J. Slater, President of Slater Consulting, being first duly sworn, deposes and says that the Testimony of Kenneth J. Slater on Behalf of Superior Renewable Energy LLC submitted in the above-captioned proceeding was prepared by him, with the assistance of others working under his direction and supervision, that he is familiar with the contents thereof, and that the statements set forth therein are true and correct to the best of his knowledge, information and belief.



Kenneth J. Slater

Subscribed and sworn before me

this 5 day of January 2005.



Notary Public



DAVID SINGER
MY COMMISSION # DD 353654
EXPIRES: October 13, 2008
Bonded Thru Budget Notary Services

My Commission Expires: 10/13/08

Technical Qualifications
and
Professional Experience

Kenneth John Slater

EDUCATION

B.Sc.,	Pure Mathematics and Physics,	Sydney University, 1960
B.E.,	Electrical Engineering,	Sydney University, 1962
M.A.Sc.,	Management Sciences,	University of Waterloo, 1974

PROFESSIONAL AFFILIATIONS

- Association of Professional Engineers of Ontario
 - Registered Professional Engineer
- Institute of Electrical and Electronics Engineers
 - Member of Power Engineering Society
 - Past member of Power System Engineering Committee
 - Past member of System Economics subcommittee and working group

EXPERIENCE

1957-62 Mr. Slater was a Junior Professional Officer at the Electricity Commission of New South Wales attending university and undergoing on-the-job training in power station and substation design, construction, protection, maintenance, and operation.

1962-67 Mr. Slater was a Professional Engineer Grades 1 and 2 at The Electricity Commission of New South Wales, engaged in a variety of functions within the areas of Power Station Construction, Generation Planning, System Operation and Load Dispatch.

1967-69 As Assistant Engineer Area Operation/Sydney West (Professional Engineer, Grade 3) with the Electricity Commission of New South Wales, Mr. Slater was responsible for the day-to-day operation of the Sydney West Area (approximately 20% of the State System).

He supervised the day-to-day work of more than 18 operators as they provided safe working conditions for Commission staff and others on system apparatus, and as they provided safe, secure, reliable and economic operation of this portion of the State System.

He performed the liaison function with head office staff, other divisions and customers on all operating activities, directed the performance of complicated operating procedures and trained both regular and emergency operators.

While he was in this and his previous position, Mr. Slater was responsible for the design and manufacture of the live line testing devices used by the Commissions' operators and linemen.

As well, he assumed responsibility for the preparation and execution of "black start" exercises and for the arrangement and detailing of complicated switching for major rearrangements and commissionings on the State System. He also developed original computer applications.

1969-74

As Engineer, and then Senior Engineer, heading the Production Development Section of Ontario Hydro's Operating Department, Mr. Slater was engaged in developing computational procedures and computer programs for Production Economics and Resource Management.

Major contributions included (1) the development and implementation of the computer program which, for more than 20 years, produced the daily generation schedule for the Ontario Hydro System, (2) the formulation of a Stochastic System Model to coordinate and optimize the production planning, maintenance planning, interchange planning and resource management of the Ontario Hydro System, and (3) the development of PROMOD, a Probabilistic Production Cost and Reliability model, the first version of the "core" of the Stochastic Model in (2) above.

As a member of the project group implementing the Operating Department's Data Acquisition and Computer System, he headed a work unit responsible for providing the application programs related to generation scheduling, power interchange and resource management. Also, he held responsibilities in the areas of policy determination, analytical techniques and the planning of future applications.

1974-75 As Manager of Engineering at the Ontario Energy Board, Mr. Slater was heavily involved in public hearings into Ontario Hydro's System Expansion Plans and Financial Policies, and into Ontario Hydro's Bulk Power Rates.

During this time, he provided much of the power system engineering input necessary for the start-up and formulation of the public hearing process related to Ontario Hydro. He also provided the engineering input for the regulation of Ontario's three major investor owned gas utilities.

1975-76 For 12 months, Mr. Slater was a private consultant contracted to the Royal Commission on Electric Power Planning, in Ontario, as its Research Director. During this time, he directed and participated in various studies of different aspects of electricity supply. He was also a member of the panel of expert examiners in a number of the Royal Commission's public hearings.

1976-83 As President of Slater Energy Consultants, Inc., in Toronto, Mr. Slater performed or made major contributions to a number of important assignments at the forefront of the electrical energy industry. These included:

- The Export of Electrical Power
....a study for the Ontario Ministry of Industry and Tourism.
- Load Management Studies
....for the Detroit Edison Company.
- California Utilities Increased Integration Study
....for San Diego Gas & Electric Company, Southern California Edison Company, Los Angeles Department of Water and Power, and Pacific Gas and Electric Company.
- Bradley-Milton 500kV Transmission Lines
....a study for the Ontario Ministry of Energy and the Interested Citizens Group (Halton Hills).
- Solar Energy and the Conventional Energy Industries
....a study for the Canadian Ministry of Energy, Mines and Resources.
- The Expert Examiner for the Ontario Royal Commission on Electric Power Planning during hearings into Priority Projects.

- Various Studies into Unconventional Electrical Resources
....for the P.E.I. Institute of Man and Resources and the P.E.I. Energy Corporation.
- Analysis and Expert Testimony in Support of Lower Demand Rates for Lake Ontario Steel Company, Ivaco Industries Limited and Atlas Steels.
- Claims for Consequential Damages of the Roseton Boiler Implosions
....for Consolidated Edison Company, Central Hudson Power Company and Niagara Mohawk Power Corporation.
- A study of the Potential for Megawatt Scale Wind Power Plants in Electrical Utilities
....for the Canadian Ministry of Energy, Mines and Resources.

These studies have included the need to create special and unique power system models and solution techniques and have addressed significant issues of major importance in the electrical supply industry. Mr. Slater also has carried out assignments for the following clients:

Nova Scotia Power Corporation.
The Government of Prince Edward Island.
The New Brunswick Electric Power Commission.
Ontario Energy Corporation.
Ontario Energy Board.
Go-Home Lake Cottagers Associations.
Saskatchewan Power Corporation.
FMC Corporation.
FMC of Canada Limited.
ERCO Industries Limited.
Canadian Occidental Petroleum Ltd.
State Energy Commission (Western Australia).
Toronto District Heating Corporation.

In connection with his consulting activities, Mr. Slater gave expert testimony in the state of Idaho and in the provinces of Ontario and Prince Edward Island.

Mr. Slater also was a principal developer of PROMOD III[®], a proprietary electric utility production cost and reliability model owned by Energy Management Associates, Inc. This model was used by over seventy utilities in Canada, the United States, Japan and Australia. Its wide acceptance made it the “Industry Standard” in the U.S..

1983-90

As Vice President and Chief Engineer for Energy Management Associates, Inc., Mr. Slater was responsible for giving technical direction for the development and maintenance of Energy Management Associates, Inc.’s state-of-the-art software products. As Senior Vice President and Chief Engineer, Mr. Slater was head of Energy Management Associates, Inc.’s utility consulting practice. He led or made significant contributions to a number of important consulting engagements, including:

- Study and regulatory testimony concerning the value to the Idaho Power Company system of the interruptibility provisions in F.M.C.’s supply contract.
- Generation planning studies for Cincinnati Gas and Electric Company, San Diego Gas & Electric Company and the City of Austin Electric Utility Department.
- Assistance to legal counsel during regulatory litigation regarding the hostile takeover of a major Canadian gas utility holding company (union Enterprises), including definition and examination of issues, selection of witnesses, and analysis of the opposing case.
- Development and demonstration of a method for the allocation of Inland Power Pool’s operating reserve requirement among its members.
- Analysis of replacement power costs during the outage of Niagara Mohawk Power Corporation’s Nine Mile Point #1 nuclear unit.
- Reserve margin assessments for Public Service Company of Indiana, Alleghany Power System Inc., Iowa Electric Light & Power Company, San Diego Gas & Electric Company, and El Paso Electric Company.
- Examination of the gas supply situation in Southern California and regulatory testimony regarding “unbundling” of storage service.

- Evaluation of the operational, planning and financial impacts of merging two large Eastern U.S. electric utilities.
- Study and regulatory testimony regarding the value and appropriate level of interruptible demand for the Union Gas system.
- Evaluation of the benefits of increased operational integration of a group of electric utilities.
- Assistance for Tucson Electric Power Co. and its legal counsel during arbitration of its dispute with San Diego Gas and Electric Company regarding the operation of a large power sale agreement.
- Analysis of the economics of a third A/C transmission line linking California and Oregon.
- A seminar on “Power Pooling and Inter-Utility Interconnections” for the management of the Central Electricity Generating Board and other parties involved in U.K. privatisation.
- Determination of the benefits of pool membership for two electric utilities in the Northeast U.S..
- Assistance for Riley Stoker Corporation and its legal counsel with the arbitration of direct and consequential damages arising out of the late completion and early poor performance of two major coal-fired generating units. The work included case examination and development, detailed reconstruction of events, analysis of all financial and economic consequences of project delay and performance with separation of fault, analysis of opponent’s case and assistance with cross-examination, direct and rebuttal testimony, and assistance with oral and written argument.

Mr. Slater’s consulting assignments included the areas of power system planning, operations, reliability, economics, ratemaking and assessment of the worth of unconventional resources. He appeared as an expert witness in regulatory hearings in Idaho, Iowa, Indiana, Florida, California, Texas, Ontario and Nova Scotia and in civil arbitration proceedings in Louisiana and Pennsylvania.

Mr. Slater continued to contribute to the development of E.M.A.'s utility software products. His contributions included being a principal developer of SENDOUT[®], E.M.A.'s proprietary supply model for gas utilities.

1990-

In August 1990, Mr. Slater returned to working in his own practice, in Atlanta, where he heads a small corporation, Slater Consulting, which provides consulting services and expert testimony for various different participants in the utility industry.

Slater Consulting assignments, led by Mr. Slater, have included:

- Assistance to legal counsel for creditors of a bankrupt utility.
- Analysis and testimony for Texas – New Mexico Power Company regarding prudent alternatives to their decision to build TNP ONE Unit 2.
- Assistance and analysis for a utility and its legal counsel during litigation regarding damages sustained because of interference in a proposed merger of that utility with another utility.
- Analyses and testimony before the New York PSC for Sithe Energies, Inc., in certification proceedings and in numerous avoided cost and buy-back rate proceedings.
- Analyses and testimony for the Independent Power Producers of New York in QF curtailment, buy-back rate and back-up rate proceedings before the New York PSC.
- Analysis and testimony for Southwestern Public Service Co. at FERC and before the New Mexico Public Service Commission regarding the lack of production cost savings from the proposed merger of Central & South West Utilities with El Paso Electric Company.
- Analyses and testimony before the Public Service Commission for Independent Power Producers in Florida regarding QF curtailment.
- Analyses and testimony in Civil Court cases for Independent Power Producers in Florida regarding the correct implementation of contractual dispatchability provisions.

- Testimony before regulatory commissions in New York, Pennsylvania, Texas, Florida and Louisiana regarding various aspects of emerging competition.
- Analyses and testimony before the Georgia Public Service Commission on behalf of Mid-Georgia Co-gen and others regarding avoided costs on the Georgia Power / Southern Company system.
- Analysis and testimony before the Georgia Public Service Commission on behalf of Georgia Power Company regarding the Prudence of Georgia Power's 1978-1980 investment in the Rocky Mountain pumped storage plant.
- Testimony before the regulatory commissions of Texas, Virginia and Wisconsin regarding the fair allocation of utility revenue requirements to individual customer classes.
- Testimony before the United States Bankruptcy Court regarding the value of the non-nuclear assets of Cajun Electric Power Co-operative, Inc.
- Analyses for Sithe Energies, Inc. of the future dispatch and associated energy revenues for numerous generating resources in the Northeast United States.
- Operational planning analyses for Sithe Energies, Inc. regarding numerous existing and new generating resources in the Northeast United States.
- Analyses and testimony in Courts and before arbitrators for the non-operating owners of the South Texas Nuclear Project, the Cooper nuclear unit in Nebraska, and the Millstone 3 nuclear unit in Connecticut concerning the replacement power costs during extended outages.

In connection with these and other assignments, Mr. Slater has appeared as an expert in regulatory proceedings in Florida, Georgia, Louisiana, New Mexico, New York, Pennsylvania, South Carolina, Virginia, Wisconsin and Texas, and at the Federal Energy Regulatory Commission. He has also appeared in Federal Bankruptcy Court, state courts in Virginia, Nebraska, Texas and Florida, and civil arbitration proceedings in Nevada and Pennsylvania.

PUBLICATIONS & PRESENTATIONS

- “Meeting System Demand”
Canada-USSR Electric Power Working Group Electrical Seminar,
Montreal, March, 1973.
- “Stochastic Model for Use in Determining Optimal Power System Operating Strategies.”
Power Devices and Systems Group, Electrical Engineering Department,
University of Toronto – 1973.
- “Economy-Security Functions in Power System Operations”
IEEE Power System Economic Subcommittee Work Group Paper
IEEE T.P.A.S. Sept/Oct 1975 p. 1618.
- “A Large Hydro-Thermal Scheduling Model”
TIMS/ORSA
Miami, November 1976.
- “Generation System Modeling for Planning and Operations”
Atlantic Regional Thermal Conference
Charlottetown, June 1978.
- “The Feasibility of Electricity Export from CANDU Nuclear Generation”
Canadian Nuclear Association
Ottawa, June 1978.
- “Evaluation of the Worth of System Scale Wind Generation to the Prince Edward Island Electrical Grid.”
IEEE Canadian Conference
Toronto, Ontario 1979.
- “The Results of a Study Examining the Possible Impact of Solar Space Heating on the Electrical Utility in New Brunswick.”
The Potential Impacts of the Deployment of Solar Heating on Electrical Utilities – A workshop sponsored by the Canadian Department of Energy, Mines and Resources
Ottawa, May 1980.
- “Reliability Indices: Their Meaning and Differences”
Planmetrics/Energy Management Associates, Inc. 8th Annual National Utilities Conference
Chicago, May 1980.

“Description and Bibliography of Major Economy-Security Functions

Part I - Description

Part II - Bibliography (1959-1972)

Part III - Bibliography (1973-1979)”

IEEE Power System Economics Subcommittee Working Group
Papers (3).

IEEE TPAS January 1981, p.211, p.214, p. 224.

“PROMOD III[®] Evaluation of the Worth of Grid Connected WECS.”

Fifth Annual Wind Energy Symposium, Ryerson Polytechnical Institute
Toronto, December 1982.

“Probabilistic Simulation in Power System Production Models”

China-U.S.A. Power System Meeting, Electrical Power Research Institute
of China

Tianjin, China, June 1985.

“Computer Modeling of Wheeling Arrangements”

Electricity Consumers Resource Council Seminar
Washington, D.C., September 1985.

“Power Systems Reliability Improvement Benefits – A Framework for Analysis”

ASME Energy-Sources Technology Conference
Dallas, February 1987.

Kenneth J. Slater

List of Expert Testimony (1983-2004)

1. Idaho Public Utilities Commission Case No. U-10006-185
Re: Value of Interruptibility Provisions in FMC Power Supply Contract
For: FMC Corporation

2. Idaho Public Utilities Commission Case No. U-10006-197
Re: Idaho Power Company Generation Planning
For: FMC Corporation

3. Iowa State Commerce Commission Docket No. RPU-83-23
Re: Appropriate Generation Reserve Margin for Iowa Electric Light and Power Company
For: Iowa Electric Light and Power Company

4. Idaho Public Utilities Commission Case No. U-10006-265
Re: Usefulness of Power Supply Models
For: FMC Corporation

5. Idaho Public Utilities Commission Case No. U-10006-265A
Re: Value of Interruptibility of FMC Load
For: FMC Corporation

6. Florida Public Service Commission Case No. 830470-EI
Re: Ratemaking Treatment for New Generation Asset (Crystal River 5) and Reasonableness of Certain FPC PROMOD III® Analyses
For: Florida Power Corporation

7. Indiana Public Service Commission Cause No. 37414
Re: Appropriate Reserve Margin
For: Public Service Company of Indiana

8. American Arbitration Association Case 71 199 0072 84
Cajun Electric Power Cooperative, Inc., and Riley Stoker Corporation
Re: Project delay, Operational Problems and Replacement Power Costs
For: Riley Stoker Corporation

9. Ontario Energy Board
Takeover of Union Gas Corporation by Unicorp Canada Corporation
Re: Utility Management
For: Unicorp Canada Corporation

10. Florida Public Service Commission Case No. 870220-EI
Re: Ratemaking Treatment for Nuclear Generation Asset,
(Crystal River 3)
For: Florida Power Corporation

11. California Public Utilities Commission Docket No. I 87-03-036
Re: Unbundling of Gas Storage Service
For: San Diego Gas & Electric Company

12. Texas Public Utility Commission Docket No. 8363
Re: Generation Reliability
For: El Paso Electric Company

13. Nova Scotia Board of Commissioners of Public Utilities
- Application of Nova Scotia Power Corporation for Approval to Change Rates.
{Approximately 1989}
Re: Rate Design Issues
For: Nova Scotia Power Corporation

14. Texas Public Utility Commission Docket No. 8702 et al
Re: "Used and Useful" & Generation Planning
For: Gulf States Utilities Company

15. Ontario Energy Board
 - Re: Value of Interruptible Customers
 - For: Union Gas Corporation

16. Texas Public Utility Commission No. 9945
 - Re: Generation Reliability
 - For: El Paso Electric Company

17. Texas Public Utility Commission Docket No. 10200
 - Re: Generation Alternatives to TNP One Unit 2
 - For: Texas - New Mexico Power Company

18. American Arbitration Association Case 55 110 0044 91
P. J. Dick Contracting Company v's D/R Hydro Company and Voith Hydro, Inc.
 - Re: Performance of Hydro-Electric Turbines
 - For: P. J. Dick Contracting Company

19. New York Public Service Commission Case No. 92-E-0814 et al
 - Re: Need to Curtail Qualifying Facilities
 - For: Independent Power Producers of New York

20. New York Public Service Commission Case No. 92-T-0114
 - Re: Avoided Production Costs
 - For: Sithe Energies, Inc.

21. New York Public Service Commission Cases 93-E-0376 and 93-E-0378.
 - Re: Calculation of Avoided Energy Costs
 - For: Sithe Energies, Inc.

22. New York Public Service Commission Case No. 94-E-0098 et al
 - Re: Setting of Buyback Rate
 - For: Independent Power Producers of New York

23. New York Public Service Commission Case No. 94-E-0334
 - Re: Calculation of Avoided Energy Costs
 - For: Sithe Energies, Inc.

24. Texas Public Utility Commission Docket No. 11735
Re: Revenue Requirement Allocation
For: Association for Equitable Rates

25. Florida Public Service Commission Case No. 930548-EG et al
Re: Integrated Resource Planning
For: Competitive Energy Producers Association

26. Georgia Public Service Commission Docket No. 4900-U
Re: Avoided Costs
For: Mid-Georgia Cogen L.P.

27. Georgia Public Service Commission Docket No. 4822-U
Re: Avoided Costs
For: North Canadian Power Corporation and International Power Systems Incorporated

28. FERC Docket No. EC94-7-000
Re: CSW/El Paso Electric merger related system production savings
For: Southwestern Public Service Company

29. Texas Public Utility Commission Docket No. 12065
Re: Backup power rates
For: Texas - New Mexico Power Company

30. New Mexico Public Service Commission Case No. 2575
Re: CSW/El Paso Electric merger related system production savings
For: Southwestern Public Service Company

31. New York Public Service Commission Cases 93-E-0912 and 93-E-1075
Re: Calculation of Fuel Targets and Avoided Energy Costs
For: Sithe Energies, Inc.

32. New York Public Service Commission Cases 94-E-0614 & 95-E-0172
Re: Backup power rates
For: Independent Power Producers of New York

33. Florida Public Service Commission Docket No. 941101-EQ
Re: Need to Curtail Qualifying Facilities
For: Orlando CoGen Limited, L. P.

34. District Court of Harris County, Texas, 11th. Judicial District, Case No. 94-007946
City of Austin and City of San Antonio v's Houston Lighting & Power Company
Re: Replacement Power Cost Damages
For: The City of Austin

35. South Carolina Public Service Commission Docket No. 95-1192-E
Re: Avoided Costs
For: Consolidated Hydro Southeast, Inc.

36. Circuit Court of the City of Richmond, Virginia Case No. LA 2266-4
Gordonsville Energy, L.P. v's Virginia Electric and Power Company
Re: Virginia Power Damages due to NUG outage.
For: Gordonsville Energy, L.P.

37. United States Bankruptcy Court, District of New Jersey, Case No. 95-28703
Kamine/Besicorp Allegany, L.P. v's Rochester Gas & Electric Corporation
Re: Value of Plant Output
For: Kamine/Besicorp Allegany, L.P.

38. Texas Public Utility Commission Docket No. 15638
Re: Texas Utilities' Transmission and Ancillary Service Rates
For: Texas-New Mexico Power Company

39. Texas Public Utility Commission Docket No. 15639
Re: H L & P's Transmission and Ancillary Service Rates
For: Texas-New Mexico Power Company

40. New York Public Service Commission Case 96-E-0891
Re: Retail Service Competition
For: Independent Power Producers of New York

41. United States District Court, Western District of Pennsylvania,
Civil Action No. 95-0658
Washington Power Company, L.P. v's Allegheny Power System, Inc. et al.
Champion Processing, Inc., et al v's Allegheny Power System, Inc. et al.
Re: Non-performance of contract terms and associated damages
For: Washington Power Company, LP- Champion Processing, Inc., et al

42. American Arbitration Association, Case 79 Y 199 00070 95
Las Vegas Cogeneration L.P. v's Nevada Power Co.
Re: Curtailment of contract deliveries and associated damages
For: Las Vegas Cogeneration L.P.

43. United States Bankruptcy Court, Middle District of Louisiana, Case No. 94-11474
United States District Court, Middle District of Louisiana, Case No. 94-2763
Cajun Electric Power Co-operative, Inc. Debtor
Re: Value of non-nuclear assets of Cajun Electric Power Co-operative
For: Enron Capital & Trade Resources

44. Louisiana Public Service Commission Docket U-21453
Re: Retail Service Competition
For: Alliance for Lower Electric Rates Today

45. Georgia Public Service Commission Docket No. 6739-U
Re: Prudence of investment in Rocky Mountain pumped storage
plant
For: Georgia Power Company

46. Pennsylvania Public Utility Commission Docket No. P-00971265
Re: Market prices for retail generation services
For: Enron Energy Services Power Inc.

47. State Corporation Commission of Virginia Case No. PUE960296
Re: Revenue Requirement Allocation
For: Coalition for Equitable Rates

48. Public Service Commission of Wisconsin Docket 6630-UR-110
Re: Revenue Requirement Allocation
For: Coalition for Equitable Rates

49. District Court of Lancaster County, Nebraska, Docket 528, Page 69
City of Lincoln d/b/a Lincoln Electric System v's Nebraska Public Power District
Re: Replacement Power Cost Damages
For: Lincoln Electric System

50. District Court of Lake County, Florida, (1999)
NCP Lake Power/Lake Cogen, Ltd. v's Florida Power Corporation
Re: Breach of Contract and associated damages
For: NCP Lake Power/Lake Cogen, Ltd.

51. Fourth Judicial Circuit Court, in and for Duval County, Florida, Case 97-07037-CA
Cedar Bay Generating Company, L.P. v's Florida Power & Light Company
Re: Breach of Contract and associated damages
For: Cedar Bay Generating Company, L.P.

52. Arbitration
Massachusetts Municipal Wholesale Electric Company, et al
v's The Connecticut Light and Power Company
and Western Massachusetts Electric Company
New England Power Company v's The Connecticut Light and Power Company
and Western Massachusetts Electric Company
Re: Replacement power costs for the outage of Millstone 3 nuclear unit
For: The Non-operating Co-owners of Millstone 3

53. Florida Public Service Commission Docket No. 981890-EU
Re: Peninsula Florida Generation Reserve Margins
For: Duke Energy

54. United States District Court For The District Of Nebraska, Case 9:98CV345
Entergy Services, Inc. and Entergy Arkansas, Inc.
vs Union Pacific Railroad Company
Re: Replacement Power Costs
For: Union Pacific Railroad

55. Florida Public Service Commission Docket No. 001748-EC
Re: Petition for Determination of Need for the Osprey Energy Center
For: Calpine Construction Finance Company, L.P.

56. New Orleans City Council No. UD99-2
Re: Customer Complaints of Overcharging by Entergy New Orleans
For: Reverend C. S. Gordon, Jr. et al
57. United States District Court for The Northern District of California, San Jose Division
Case Number C 99-21242 SW PVT ENE
ABB Power T&D Company v. Alstom Esca Corporation
Re: Intellectual Property Dispute
For: Alstom Esca Corp.
58. United States District Court For The District Of Kansas, Civil Action 00-2043CM
Western Resources, Inc. v. Union Pacific Railroad Company and The Burlington
Northern And Santa FE Railway Company
Re: Replacement Power Costs and other damages
For: Union Pacific Railroad
59. United States District Court For The Southern District of New York, Case No 01
Civ. 1893 (JGK) (HP)
Consolidated Edison, Inc. v. Northeast Utilities
Re: Failed Merger
For: Northeast Utilities.
60. New York Public Service Commission Case 01-E-1847
Re: NMPC Standby Service Rates
For: Independent Power Producers of New York
61. Wisconsin Public Service Commission Docket Nos. 05-AE-109, 05-CE-117,
05-CE-130, 6650-CG-211, 137-CE-104
Re: CPCN for Port Washington CC's
For: PGE National Energy Group
62. Florida Public Service Commission Docket Nos. 020262-EI and 020262-EI
Re: Petitions to determine the need for additional power plant by
Florida Power & Light Company
For: Florida Partnership for Affordable Competitive Energy

63. North Carolina Utilities Commission Docket No. E-100, SUB 96
Re: Biennial Determination of Avoided Cost Rates for QFs.
For: Cogentrix Energy, Inc.
64. Arbitration
Morgan Stanley Capital Group v's Cobb Electric Membership Corporation, and
Snapping Shoals Electric Membership Corporation
Re: Disputed electricity trades.
For: Cobb & Snapping Shoals EMCs.
65. FERC Docket No. EL01-88-000
Re: Entergy System Agreement
For: Arkansas Electric Energy Consumers, Inc.
66. FERC Docket No. ER03-713-000
Re: Southern Power Company affiliate PPAs
For: Calpine Corporation
67. Circuit Court of Jackson County, Missouri, Case No. 01CV207987
KCPL v's Bibb & Associates, Inc. et al.
Re: Damages resulting from explosion
For: Defendants
68. Commercial Arbitration No. 71 198 00323 01-The American Arbitration Association
Brazos Electric Power Cooperative, Inc. v's Tenaska IV Texas Partners, Ltd.
Re: Disputes arising out of a Power Purchase Agreement
For: Tenaska IV Texas Partners, Ltd.

**MONTANA-DAKOTA UTILITIES CO.
SUPERIOR RENEWABLE ENERGY, LLC
SECOND DATA REQUEST
DATED NOVEMBER 15, 2004
DOCKET NO. EL04-016**

13. If you have denied any request for admission set forth below, explain in detail the reason for your denial.

REQUESTS FOR ADMISSIONS

1. Admit or deny that MDU relied upon the OPPD Contracts in calculating the avoided cost of capacity shown on Exhibit "A."
2. Admit or deny that MDU relied upon the Product K contract in calculating the avoided cost of capacity shown on Exhibit "A."
3. Admit or deny that MDU's September 1, 2004 response to Superior's Interrogatory Request No. 1 was true and complete and not misleading in any respect.
4. Admit or deny that all of the information contained in Exhibit "A," including but not limited to the avoided costs of capacity shown on Table 2, is true and complete and not misleading in any respect.
5. Admit or deny that the OPPD Contracts contain a term or condition that provides for a twelve-month period to secure firm transmission service.
6. Admit or deny that at or before the time at which you answered Superior's interrogatories on July 16, 2004, you knew that the parties' performance under the OPPD Contracts was conditioned or otherwise contingent upon MDU and/or OPPD obtaining firm transmission service.
7. Admit or deny that at or before the time at which you answered Superior's interrogatories on July 16, 2004, you knew that no such firm transmission service had been obtained.
8. For each of the years 2004, 2005, 2006, 2007, 2008 and 2009, admit or deny that without purchases of energy and capacity under the OPPD Contracts and the Product K Agreement, MDU needs additional capacity on its integrated electric system.
9. Admit or deny that the capacity that is the subject of the Product K Agreement is not base load generating capacity.
10. Admit or deny that the capacity that is subject of the OPPD Contracts is not base load generating capacity.

Responses:

1. Admit.
2. Deny. The Product K contract was not included in Exhibit A calculations.
3. Montana-Dakota objects to this request because it is argumentative and does not call for Montana-Dakota to admit or deny any facts. Without waiving the objection, and seeking to fairly meet the substance of the requested admission, Montana-Dakota states that the response was true and complete.

**MONTANA-DAKOTA UTILITIES CO.
SUPERIOR RENEWABLE ENERGY, LLC
SECOND DATA REQUEST
DATED NOVEMBER 15, 2004
DOCKET NO. EL04-016**

4. Montana-Dakota objects to this request because it is argumentative and does not call for Montana-Dakota to admit or deny any facts. Without waiving the objection, and seeking to fairly meet the substance of the requested admission, Montana-Dakota states that the response was true and complete.
5. Deny. The contracts specify the period available to secure firm transmission which time extends to December 31, 2004.
6. Admit.
7. Admit.
8. Based on Montana-Dakota's current load forecast, the Electric Load Forecast 2004-2023 published in December, 2003, and projected accredited capability as of October 1, 2004, without purchases of energy and capacity under the Product A, J and K Agreements, Montana-Dakota would need additional capacity on its integrated electric system as follows:
2004- Deny
2005- Deny
2006- Deny
2007- Admit
2008- Admit
2009- Admit
9. Admit.
10. Deny. The Product J agreement is for short-term seasonal capacity which would not be considered base load capacity however, the Product A agreement is specific to named coal units, and could be considered base load capacity.

CONFIDENTIAL Exhibit KJS – 4
Sealed and provided only to
Montana Dakota-Dakota Utilities Co.'s Attorney,
David Gerdes and the South Dakota PUC

Computation of Levelized Fixed Charges -- Page 1 of 3
 Date & Time: Thu Mar 6 13:46:16 2003

Levelized Fixed Charged Rate for the 2003 Integrated Resource Planning Study
 Book Life = 33 years

Basic assumptions used in this study are shown below:
 Conventional bond financing is used.

Weighted cost of capital

Debt	0.03700	
PPD	0.00000	
Common	0.05600	
Composite		0.07857 (at 39.00% tax rate)

Capitalization Ratios

Long term debt	=	50.00 %
Preferred stock	=	0.00 %
Common stock	=	50.00 %

Interest rates

Bonds	=	7.40 %
Preferred stock	=	0.00 %
Common stock	=	11.20 %

Tax rates

Income taxes	=	39.00 %
Deferred federal income tax	=	35.00 %
Investment credit	=	0.00 % Amortized over 0 years

Book life = 33 years Tax life = 20 years
 Depreciation method used for tax purposes is TABLE-87
 Deferred federal income tax reflects normalization
 Salvage value = 0.00 %
 General tax rate = 1.52 % on gross plant
 Insurance and O&M = 0.00 % on gross plant

The results obtained based on the foregoing assumptions are as follows:

Sum of P.W. values	Capital recovery factor	Levelized fixed charge
133.637	0.09822	13.126
Levelized income tax	Levelized return on capital	
2.310	6.260	
2.310	6.260	

CONFIDENTIAL

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