GDS ASSOCIATES, INC.

engineers and consultants

Review of Atmos 2015 Rate Stabilization Clause Filing

Prepared For:

Louisiana Public Service Commission

Prepared By:

GDS Associates, Inc.

1850 Parkway Place, Suite 800
Marietta, Georgia 30067
770.425.8100 | 770.426.0303 fax
www.gdsassociates.com

February 19, 2016

Ph: 770.425.8100
Paul Wielgus
Managing Director

GDS Associates, Inc.
Engineers and Consultants

Fax: 770.426.0303
paul.wielgus@gdsassociates.com

February 19, 2016

Mr. Brandon M. Frey
Louisiana Public Service Commission
Office of the General Counsel
602 North Fifth Street (Galvez Building) (70802)
Baton Rouge, Louisiana 70821-9154

RE: Review of Atmos' 2015 Rate Stabilization Clause Filing

Dear Mr. Frey:

Attached is GDS Associates, Inc.'s ("GDS") proposal in response to your letter dated February 10, 2016, seeking bids from independent technical consultants to assist the Louisiana Public Service Commission ("LPSC" or "Commission") in conducting a review of Atmos' 2015 Rate Stabilization Clause Filing and to work closely with in-house Legal and Auditing Staff. GDS has a wide range of experience and expertise in this area including experience in various jurisdictions. GDS is well positioned to fully meet the needs of the Commission as defined in the letter. In summary, GDS has:

- **Hands-on experience** and **expertise** with **rates and riders**
- Wide-ranging **regulatory and jurisdictional expertise in rates**
- Extensive and comprehensive **annual rate adjustment and auditing experience**
- Best practices **regulatory intervention and assistance expertise**
- **Full understanding of investor-owned utilities** and associated regulatory initiatives.

GDS will perform the services noted in your letter under a not-to-exceed $50,000 contract plus no more than 20% in expenses. GDS appreciates the opportunity to bid on this project. Please call me if you have any questions regarding our proposal. Thank you for your consideration.

Sincerely,

Paul Wielgus
Managing Director

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1 GDS' UNDERSTANDING OF THE SCOPE OF REPRESENTATION

The Louisiana Public Service Commission ("LPSC" or "Commission") is seeking the services of independent technical consultants to assist the Commission in conducting a review of Atmos' 2015 Rate Stabilization Clause ("RSC") Filing and to work closely with in-house Legal and Auditing Staff. GDS Associates, Inc. ("GDS") has a wide range of experience and expertise in this area including experience in various jurisdictions. GDS is well positioned to fully meet the needs of the Commission as defined in the letter signed by LPSC Executive Counsel, Mr. Brandon M. Frey, dated February 10, 2016. GDS proposes to assist the Commission's in-house Legal and Auditing Staff in the following tasks:

1) Review the filing submitted including the application and all supporting documentation

2) Work with Commission Staff to prepare data requests

3) Work with Commission Staff to provide data responses as part of the discovery process

4) Draft report identifying issues based on application review and data responses from all parties

5) Prepare pre-filed testimony and rebuttal testimony as required

6) Participate in status conferences as required

7) Support Legal Staff in cross-examination preparation as needed

8) Defend testimony in hearings as required

9) Assist Commission Staff in its ultimate recommendations

10) Perform other in scope work as requested

Greater detail as to GDS' approach to the review and analysis of Atmos' 2015 RSC filing is provided in Section 4 of this proposal.

GDS will work closely with the LPSC and its in-house Staff to identify how the above list of tasks is most effectively carried out. GDS will also contribute its insights and expertise based on its previous work in similar state regulatory proceedings in numerous States.

2 Overview of GDS Associates

2.1 Introduction and Background of GDS Associates, Inc.

GDS consultants are recognized leaders in their respective fields, dedicated to their clients, innovative in their approach to meeting unique challenges, and known for consistently being available when needed. Our broad range of expertise focuses on clients associated with, or affected by, electric, gas, water and wastewater utilities. In addition, we offer information technology, market research, and statistical services to a diverse client base.

OUR MISSION

"Help our clients succeed by anticipating and understanding their needs and by efficiently delivering quality services with confidence and integrity"

GDS is a multi-service consulting and engineering firm formed in 1986 and now employs a staff of more than 170 in six locations across the U.S. GDS' annual revenues in 2014 were over $40 million.

Corporate Headquarters
Marietta, Georgia

The following are brief descriptions of the services that GDS provides relevant to the scope of services to be provided by GDS as the regulatory consultant assisting the Commission in reviewing the long-term natural gas procurement plans submitted by the Electric IOUs. Given the range of issues that might arise as part of the review process, it is clear that any number of these services may become relevant to the analysis. The full range of GDS' services is listed in Appendix B | GDS Relevant Services

Regulatory and Restructuring Services

GDS provides comprehensive regulatory and restructuring services to generators, transmitters, distributors, and large users of energy. Numerous state and federal restructuring initiatives have made regulatory planning and strategy development essential. To assist our clients with this task, GDS brings decades of expert regulatory experience in key areas such as rate design and litigation, contract negotiation, fuel related expert testimony, and transmission access.

Financial Analysis and Rate Services

The recent pace of regulatory change and uncertainty is unrivaled in the utility industry and requires equally unparalleled flexibility in ratemaking and regulatory strategies. GDS has been at the forefront of industry restructuring policy, offering broad expertise in regulatory accounting, economics, finance, and ratemaking, including accounting for energy price hedges.

Natural Gas Consulting Services

GDS provides creative solutions to help our clients meet challenges arising in both regulated and competitive environments within the evolving natural gas industry. Our team of highly qualified professionals works to address complex economic, price, risk management, engineering, policy, and

regulatory, including expert testimony, issues with clients including consumer groups, publicly owned utilities, and regulatory authorities.

Enterprise Risk Management Services

Organizations can help achieve their goals in this volatile and uncertain business environment by implementing an effective enterprise risk management program. This program involves identifying, evaluating, and mitigating the risks that threaten business goals. GDS can design a risk management program that will assist leadership teams with this challenge. GDS understands that risk management includes energy price management and regulatory compliance, and that each client faces a unique set of risks and challenges. To fully understand and mitigate these risks and others, and their impact on cost structures, leadership teams should have a complete view of these exposures. GDS' approach incorporates quantitative and qualitative techniques to capture, assess measure, evaluate, and mitigate the risks that can impact objectives.

Decision Advisory Services

GDS understands that organizations sometimes need only specific experienced input, a quick critique of the process, or just a sounding board. GDS can provide the specific decision making help the Commission needs. We can customize the best fit to enable the LPSC or its Staff to make the best decision. Whether it's assisting with the decision analysis, working with Staff conducting the analysis, collaborating with counsel, or advising the Commission itself, GDS can help. Our expertise includes project analysis, valuation, life cycle costs, modeling, risk analysis, negotiations, and contracting. Our offering include experienced input, supplemental service, analysis team support, collaboration, advisory, process audit, and expert testimony.

Power Generation Services

Greater competition has made effective management of power generation costs and performance increasingly important. Over a span of many years, GDS has helped numerous power plant owners, co-owners and non-utility generators reduce costs and achieve improved performance by identifying inefficiencies in power plant construction, operation and maintenance practices, and providing practical solutions. These solutions include fuel contracting, pricing, and reliability.

Transmission Services

GDS Transmission Services assist load-serving entities, transmission providers, independent generating companies, and state regulatory agencies with their transmission issues and has the planning, operations, regulatory, and engineering experience necessary to assist its clients in navigating through these challenging times. In addition to today's competitive and RTO issues, GDS also offers expertise in the areas of transmission maintenance, equipment procurement, and cost-of-service issues including a power generator's fuel and pricing RTO risk management requirements and the implications of nonperformance in these areas on the generator's costs and RTO consequences.

Integrated Resource Planning, Energy Assurance Planning Services

Securing adequate and reliable energy resources is crucial to thriving in a more competitive electrical market. GDS has helped guide its clients through uncharted territory by providing power supply portfolio, integrated resource planning ("IRP"), transmission planning and reliability assessments, load forecasting, fuel planning and contracting, risk management, financial, wholesale and retail rate-making and competitive analysis services.

Load Forecasting Services

The load forecast is a key input for system and financial planning; as a result, the forecast must provide timely and reliable projections. GDS has provided load forecasting services since our inception in 1986. From day-ahead hourly forecasts to intermediate and long term forecasts, GDS has maintained the

appropriate level of staff, expertise and technological resources to meet our clients' forecasting needs. Proper load forecasting is required to help address the operational/volume risks associated with price hedging.

3 Personnel Qualifications and Roles

3.1 GDS Team Key Personnel

This section of our proposal identifies the key personnel making up the GDS Team. The GDS Team brings together seasoned energy professionals, each of whom brings a particular expertise to strengthen the diverse competencies that will be required to address the many issues that will arise as part of the Commission's review and audit and Atmos' 2015 RSC filing. We also identify the Principal Contact for the Commission and its Staff, who will be responsible for ensuring that the project is timely, responsive, and of superior quality.

The GDS consultants assigned to this project are listed below and short bios for each consultant are also provided. Full resumes of the GDS consultants assigned to this project are provided in Appendix A| Resumes of Key Personnel. Resumes describe relevant responsibilities from other projects that will help the bid evaluation team evaluate our qualifications and experience.

Name	Title	Years of Energy-Related Experience	Education	Professional Certifications	Related Experience
Paul Wielgus	Managing Director, GDS	30	B.S., Economics; M.S., Mineral Economics; M.B.A.; J.D.	Member of State Bar of Texas	Rate Case Intervention and Expert Testimony
Lori Schell	President, Empowered Energy	30	B.A. (Honors), Economics; Ph.D., Mineral Economics & Operations Research	Certified Energy Risk Professional	Rate Case Intervention and Expert Testimony
Matt King	Engineer, GDS	5	B.S. Industrial and Systems Engineering	Institute of Industrial Engineers	Rate Case Support and Analysis

3.1 Individual Personnel Qualifications and Roles

This section provides a clear description of the roles and responsibilities of each of the key personnel that make up the GDS Team for this project.

Paul Wielgus, BS, MS, MBA, JD, Managing Director | Mr. Paul Wielgus will be the Project Manager and Principal Contact for the Commission and its Staff. Mr. Wielgus' role is to provide overall project management and to direct the review and analysis required by the RSC filing by Atmos. Mr. Wielgus specializes in industry best practices and has more than 30 years of commercial experience in energy markets, with emphasis on regulatory matters including rate cases, fuel markets and contracting, energy transaction contracting, energy risk management, project development, power asset management, regulatory due diligence, and expert witness testimony.

Mr. Wielgus' experience includes working in the industrial end use, in power generation (with both regulated utilities and independent power producers), and in the local distribution company ("LDC") supply sectors, along with energy consulting for power entities on fuels, energy projects, and energy hedging and risk management transactions. Mr. Wielgus provided expert witness testimony in the areas of rates, fuels, power assets, risk management and hedging, pricing, and IRP and related matters. Mr. Wielgus has experience working directly with corporate boards of directors and public utility boards, public utility commissions, and public agencies.

Mr. Wielgus has specific commercial, electric and gas utility, and regulatory experience in Louisiana. Before joining GDS, Mr. Wielgus held senior commercial management positions with the electric utility affiliates of AEP and Entergy, and with NRG. Mr. Wielgus began his career in the fuels department of Gulf States Utilities and has commercial experience in the fuels area as a seller, buyer, advisor, and expert witness. He has experience in energy risk management including contracting, financials, swaps, pre-pays, and policies and procedures. Mr. Wielgus holds a B.S. degree in Economics, an M.S. degree in Mineral Economics, an MBA, and a JD. He is a licensed attorney in Texas.

Lori Schell, Ph.D., ERP, President | Dr. Lori Schell will provide the in-depth and detailed natural gas market analysis required to assess the efficacy of Atmos' 2015 RSC filing for its natural gas utility. Dr. Schell will work hand-in-glove with the Commission's Audit Staff in its review of the filing, with the twin goals of identifying potential inconsistences in the filing and assessing market risks that may undermine the proposed rate stabilization plan. Dr. Schell will also work with the Legal Staff to provide expert witness testimony related to her and the Audit Staff's findings as deemed necessary by the Commission and Staff.

Dr. Schell is highly numerate and specializes in both the detailed analysis of corporate and utility databases of all levels of complexity and in explaining the findings of her analyses in language that is understandable to regulators and policy makers and appropriate for regulatory proceedings. Dr. Schell has provided expert witness testimony related to public utilities at the Federal Energy Regulatory Commission, in several states, and in the province of Alberta. Dr. Schell and Mr. Wielgus have successfully applied their complementary skillsets of detailed analysis and policy oversight to numerous State regulatory proceedings over the past ten years.

Dr. Schell has 30 years of experience in energy-related economic, regulatory, risk management, and policy analysis, including work at the U.S. Department of Energy, Los Alamos National Laboratory, Air Products, Trigen Energy, and several consulting firms. Consulting clients have included natural gas producers, state regulatory agencies, emerging technology manufacturers, independent power producers, and university campuses. Dr. Schell holds a B.A. (Honors) in Economics and a Ph.D. in Mineral Economics and Operations Research. She is certified as an Energy Risk Professional ("ERP") by the Global Association of Risk Professionals ("GARP") and was featured in GARP's Membership Spotlight in September 2014. She is the current Vice President-Communications for the International Association for Energy Economics and a Senior Fellow and Past President of the U.S. Association for Energy Economics.

Matt J. King, **Engineer**| Mr. King has been working in the electric utility consulting industry for over five years. His work experience includes participation in RFP processes including evaluation of proposals in RTO & non-RTO environments throughout the United States, short & long term power supply planning, and asset valuation & economic feasibility of existing and proposed coal, natural gas, hydroelectric, solar, and biomass projects. Specific experience includes assistance with proposal evaluation and feasibility modeling for the 50 MW Woodville, TX biomass power project. Mr. King holds a Bachelor of Science in Industrial and Systems Engineering from the Georgia Institute of Technology.

4 Project Approach and Relevant Experience

4.1 Project Approach

GDS' Approach to its Review of Atmos' 2015 RSC Filing for its Natural Gas Utility

GDS takes a very methodical approach to its review of rate filings and rate audits, long-term natural gas procurement and hedging plans. This type of methodical approach is a subset of GDS' enterprise risk management ("ERM") services. This ensures that issues do not fall through the cracks during the review process.

The bullet points below describe how GDS' proven and proposed approach to the major steps required for the review of Atmos' RSC filing will be applied.

Filing Review and Audit of RSC

GDS has significant experience, from beginning to end, in the rate filing review and audit process.

GDS' approach to the RSC audit and review process includes the following major step reviews will focus on:

- Objectives of the RSC process
- Parameters of the RSC process
- Review of the filed RSC documents
- Adequacy of information provided
- Compliance with Commission rules
- Sufficient explanation of supporting information
- Review and analysis of all supporting documents
- Recommendations on key aspects and findings of RSC
- Preparation and submittal to the LPSC draft and final written direct testimony
- Respond to discovery requests in a timely and professional manner
- Prepare and submit to the LPSC written rebuttal/surrebuttal testimony
- Participate in settlement negotiations as directed by the LPSC
- Testify and submit to cross-examination at hearings before the LPSC
- Assist LPSC counsel with cross-examination of opposing witnesses at hearing
- Assist LPSC counsel as requested in the preparation of any case briefs
- Review the Commission's final order
- Participate in any requested review and discussions regarding possible appeal of the Commission's order

Where applicable, this process will be appropriately applied to GDS review of:

- The evaluation period
- Earned rate of return on equity

- Benchmark rate of return on rate base
- Evaluation period cost rate for equity
- Rate of return on equity bandwidth
- Total rider RSC revenue level
- Rider RSC revenue allocation
- Rate redetermination
- Provisions for other changes

4.2 Relevant Experience

Most Current Examples of Rate Filings and Case Related Regulatory Activities and Reviews by the GDS Team

OG&E and PSO Utility Regulatory Proceedings in Oklahoma

GDS was hired by the Oklahoma Attorney General's Office ("OAG") to advise the OAG in regulatory recent filings buy OG&E and PSO, two IOUs in the state of Oklahoma under the jurisdiction of the Corporation Commission of Oklahoma. GDS' scope of work included reviewing, analyzing, and making recommendations related to the general rate filing including special issues and rider approvals.

Paul Wielgus | Previous Public Utility Regulatory Experience

Mr. Wielgus and Dr. Schell have worked closely together on behalf of the Utah Office of Consumer Services. In addition, Mr. Wielgus spent a large portion of his career working regulatory issues in various state jurisdictions. Mr. Wielgus' regulatory activities included utility rate filing support in Louisiana (Gulf States Utilities) and Texas, natural gas LDC rate and service issues in numerous states while an energy buyer for Frito-Lay's plants nationwide, as a developer of merchant power plants along the Gulf Coast including Louisiana (RS Cogen Project at PPG in Lake Charles) and Texas, and as a consultant for GDS. Some relevant cases as a consultant with GDS are:

- Oklahoma Corporation Commission Docket No. 201500208– PSO. Mr. Wielgus is examining the natural gas costs and issues under PSO's filing.
- Oklahoma Corporation Commission Docket No. 201400229 – OG&E IRP. Mr. Wielgus examined the natural gas plans and pricing under OG&E's IRP.
- Oklahoma Corporation Commission Docket No. 200300226 – OG&E. Mr. Wielgus examined the natural gas competitive bidding issues in OG&E's filing and testified.
- Texas PUC Docket No. 26195 – CenterPoint Reconciliation of Fuel Costs. Mr. Wielgus examined CenterPoint's natural gas hedging activities and filed testimony on his findings.
- Texas PUC Docket No. 29526 – CenterPoint Cost Recovery. Mr. Wielgus examined the cost associated with Company's long term energy contracts and filed testimony on his findings.
- Georgia PSC Docket No. 36498 – Georgia Power IRP. Mr. Wielgus examined the natural gas plans and pricing under Georgia Power's IRP. Mr. Wielgus examined the Company's natural gas plans and forward pricing and filed testimony on his findings.
- Georgia PSC Docket No. 36498 – Georgia Power IRP – natural gas follow up monitoring. As a result of the Georgia PSC IRP Order, Mr. Wielgus was appointed by the Georgia PSC to serve as the Staff's monitor of the Company's long term natural gas supply planning for the Company's coal to natural gas plant conversions.

Lori Schell | Previous Public Utility Regulatory Experience

Dr. Schell served as an expert witness for the City of Calgary, Alberta, in Proceeding #2002-02 opposing the Regulated Rate Option ("RRO") application of ENMAX Power Corporation. Dr. Schell provided written evidence showing that the RRO did not properly reflect market conditions and defended those findings on oral cross-examination. The RRO application was denied by the regulator.

Dr. Schell and Mr. Wielgus worked together in Docket No. 03-11019 before the Public Utilities Commission of the State of Nevada ("PUCN") on behalf of the PUCN Regulatory Operations Staff. Dr. Schell provided the analytical support for testimony filed by Mr. Wielgus and another witness, with both witnesses recommending the disallowance of several natural gas and electricity hedges. The hedges were ultimately denied.

Dr. Schell and Mr. Wielgus have worked together on behalf of the Utah Office of Consumer Services ("OCS") for the past six years. Their work for OCS has covered multiple dockets involving the review of PacifiCorp Energy's Risk Management Policy and the auditing of actual natural gas and power hedging transactions. Both Dr. Schell and Mr. Wielgus have provided multiple rounds of testimony related to their transaction and policy analyses, and both have defended that testimony at hearing. They have also played a pivotal role in settlement negotiations related to long-term natural gas hedging transactions.

Dr. Schell served as an expert witness before the California Public Utilities Commission ("CPUC") on behalf of the American for Solar Power ("ASPv") in Docket No. R. 04-03-017. This docket had numerous phases, the most important of which was the development of a cost-benefit framework for distributed generation (e.g., rooftop solar photovoltaics). Dr. Schell provided and analysis and testified on the quantification of numerous attributes of solar photovoltaics ("PV") in support of the CPUC providing ratepayer-funded incentives to move the PV market forward in California. This analysis is widely considered to have contributed to the subsequent approval by the CPUC of the highly successful $2.3 billion California Solar Initiative incentive program for residential and commercial PV installations.

Dr. Schell and Mr. Wielgus have worked closely together on behalf of the Utah Office of Consumer Services, as described more fully in the preceding section.

Dr. Schell spent six years employed as an in-house expert witness working on interstate natural gas pipeline proceeding at the Federal Energy Regulatory Commission ("FERC") on behalf of Air Products and Chemicals, Inc., a large chemical and industrial gases manufacturer. Air Products had two flagship chemicals facilities located on the Gulf Coast, including one in New Orleans, Louisiana, and one near Pensacola, Florida. In additional, Air Products had a cogeneration facility located in Orlando, Florida.

Dr. Schell provided written testimony in rate cases involving Tennessee Gas Pipeline Company, Koch Gateway Pipeline Company, and Florida Gas Transmission. Dr. Schell worked closely with Air Products' Washington D.C.-based outside counsel in each of these FERC proceedings.

- Docket RP 95-362: Dr. Schell was one of the main witnesses against Koch Gateway's attempt to impose market-based rates on its pipeline system. Dr. Schell represented both Air Products and Sterling Fibers by providing several rounds of written testimony and defending her findings on oral cross-examination. The FERC denied Koch Gateway's attempt to impose market-based rates.
- Docket RP97-373: Dr. Schell was also a critical witness against Koch Gateway in successfully opposing Koch Gateway's attempt to switch from a postage stamp rate to zone-gate rates. Dr. Schell represented Air Products and eight other industrial natural gas users in this FERC proceeding.

5 Estimate of Costs

GDS will provide all consulting services required to complete this project at a not-to-exceed budget of $50,000 plus no more than 20% in Commission approved expenses. GDS understands that it will only be allowed to charge for actual hours of work performed and expenses incurred. GDS further understands that expenses incurred will be reimbursed at State authorized rates as specified in Policy and Procedure Memorandum 49 issued by the State of Louisiana, Division of Administration, in effect at the time such expenses are allowed. All bills will be rendered in strict accordance with the Commission's guidelines. All budgets will be agreed to and preapproved by Staff. All budgets will be strictly adhered to.

6 CONFLICT OF INTEREST

None of the key personnel, either individually or as representatives of their respective companies, have any current conflicts of interests that would prevent them from representing the Commission in an unbiased manner.

None of the key personnel, either individually or as representatives of their respective companies, have any past employment that could possibly result in a conflict of interest in representing the Commission.

None of the key personnel, either individually or as representative of their respective companies, currently represent any clients before the Commission.

7 Why Select the GDS Team

7.1 Current On-Point Experience

- Current rate case intervention supporting commission's staff
- Hands-on experience and expertise with IOU rate filings
- Wide range of regulatory and jurisdictional expertise
- Extensive and comprehensive rate case management experience
- Best practices regulatory analysis expertise
- Gulf Coast, including Louisiana, regulatory experience

7.2 Minimum Requirements

LPSC Experience Requirements	GDS Team Meets
Experienced in the presentation of recommendations involving public regulation.	✓
Experienced in rate stabilization regulatory work	✓
Experienced in other regulatory issues on administrative and judicial levels.	✓
Previous experience in regulatory rulemaking processes, success on appeals, publications of a regulatory nature and educational achievement.	✓
Achievement and other previous employment in the matters involving the above areas.	✓
Significant personal experience before regulatory agencies such as the SEC, FERC, FCC, or other similar entities.	✓

7.3 GDS Project Management Practices

1) Paul Wielgus, GDS Managing Director, will serve as the individual responsible for reviewing overall work assignments and project activities and he will serve as the executive Principal Contact for the Commission and its Staff for this project.

2) GDS will communicate with the Commission's project manager(s) on a regular basis as to the progress of the work, the results to date, and any problems or issues encountered. GDS suggests that a regular weekly conference call be held between GDS and the Commission Staff to discuss project progress and issues.

3) GDS will provide Commission Staff with drafts of all major deliverables for review, comment, and approval.

4) GDS will seek prior approval before undertaking any significant planning or development tasks. During the course of the GDS regulatory consulting project with the Commission, the GDS Team will seek ways to continuously improve our work and communications with the Commission, its counsel, and its Staff.

5) At the beginning of the project, the key GDS consultants will attend the kick-off teleconference with Staff to review the work plan and schedule. The GDS Team will communicate regularly by phone and e-mail with Commission Staff throughout this project.

6) The GDS Team will hold internal project staff meetings on a weekly basis to discuss work assignments and status, and any changes in the work plan, schedule, or individual assignments that may be necessary. Mr. Wielgus, as Principal Contact, will immediately report any delays or unforeseen difficulties to the Commission's project manager(s) if and when they develop.

7) The GDS Team will provide written project status reports to the Commission's project manager(s) per the schedule, summarizing but detailing project status by activity and identifying any difficulties or delays, and recommending corrective action, as needed.

8) Notes will be taken for all major meetings or teleconferences of the GDS Team and Commission Staff. Any work assignments or action items distributed at such meetings will be highlighted in meeting minutes. GDS Team members and appropriate Commission Staff will receive copies of these minutes.

9) GDS Team consultants will maintain copies of all time and expense records required by the Commission and will keep an accurate log of all hours worked on this project, as well as accurate records of travel and other expenses. GDS requires that its employees and consultants turn in receipts for all travel expenses and all non-labor expenses.

10) The GDS Team will make use of total quality management tools such as time lines, work schedules, budget reports, and percent work task completed reports to increase the efficiency and effectiveness of project management.

11) All deliverables will be subject to the GDS Team's internal quality review, before being submitted to the Commission Staff.

12) The GDS Team will work very closely with the Commission's project manager(s) to arrange meetings that are planned in the work plan.

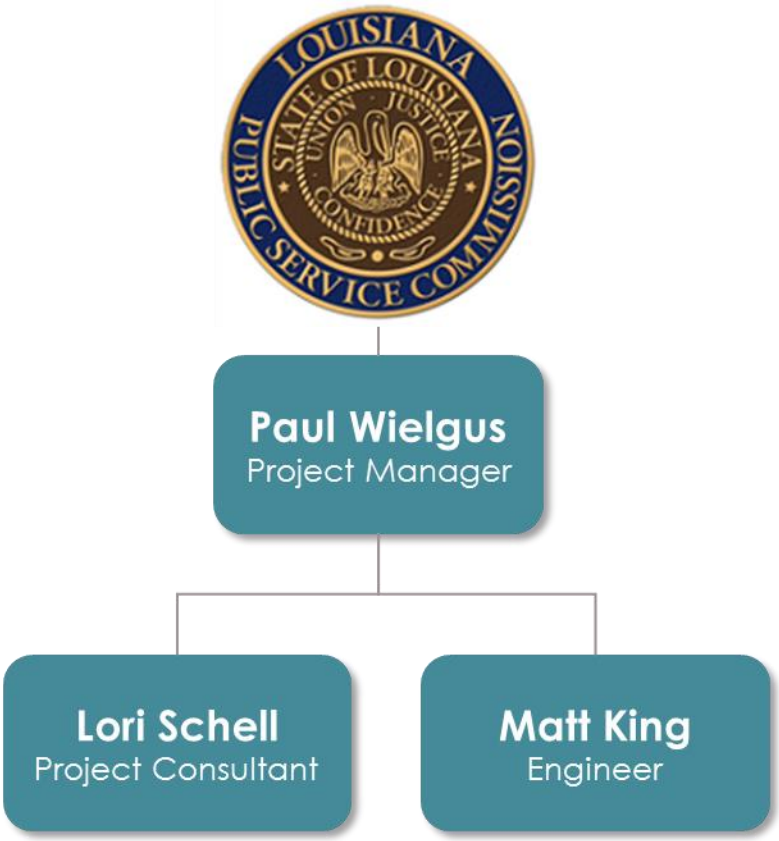
13) All project presentations will be made available to the Commission's project manager(s) for review before presentation.

14) The GDS Team will make it a high priority to respond to the needs of the Commission, its counsel, and its Staff as rapidly as possible.

7.4 Organization Chart

Figure 7-1 on the following page presents the GDS Team organization chart which specifies project leadership and reporting responsibilities.

Figure 7-1: GDS Team Organizational Chart



APPENDIX A | RESUMES OF KEY PERSONNEL

GDS Associates, Inc
ENGINEERS & CONSULTANTS

PAUL J. WIELGUS

Managing Director

EDUCATION

JD, 1996, licensed in Texas, South Texas College of Law, Houston, Texas

MBA, 1985, graduated with Honors, presented thesis on electric utility marketing to the IAEE North American Conference at MIT, Lamar University, Beaumont, Texas

MS, MINERAL ECONOMICS, 1979, awarded Federal Mining Fellowship, thesis analyzed coal transportation pricing and structures, West Virginia University, Morgantown, West Virginia

BS, ECONOMICS, 1977, energy economics concentration, West Virginia University, Morgantown, West Virginia

EXECUTIVE PROFILE

As a senior executive in the energy industry, engaged in the development and implementation of strategic business plans, directed the startup of multiple business units for top tier industry players in the power industry, and provided the commercial experience required to formulate the direction needed for the analysis, feasibility, approval, and closure of large transactions and capital projects. Developed associated risk management plans to support approvals and implementation. Work successfully with all stakeholders including governance boards, project owners, and regulators.

PROFESSIONAL EXPERIENCE

GDS Associates, Inc., Atlanta, Georgia, 2008 - Present
Managing Director
Report to Vice President. Practice areas include energy project development and management, asset evaluation, fuels, risk management, and regulatory including expert testimony. Projects include successful development and startup of a 50 MW biomass plant.

NRG Energy, New Roads, Louisiana, 2006-2008
Vice President – Development
Reported to Regional President. Developed and implemented project development and marketing plans for a 700 MW pulverized coal unit and a 200 MW pet coke, coal, and biomass fueled CFB repowering unit. Acquired conditional offtake and equity participation arrangements.

GDS Associates, Inc., Atlanta, Georgia, 2002-2006
Managing Director
Reported to founding partner. Developed a comprehensive power asset risk management service targeted for electric cooperatives and municipals. Practice areas included energy assets, supply, fuels, and regulatory activities. Secured long term gas supplies and interconnects for power projects in addition to supporting coal procurement and transportation.

Entergy Wholesale Operations, Houston, Texas, 1999-2002
Senior Vice President - Business Management
Reported to COO. Selected to head up newly created and expanded Business Management function responsible for the P&L and operations of asset fleet.

Senior Vice President - Business Development
Developed and implemented a strategic business plan for the start up of a regional IPP asset development program targeted at a 10 state market. Closed three gas fired power projects.

American Electric Power, Columbus, Ohio and Houston, Texas, 1997-1999
Vice President - Project Development - North America
Reported to Executive Vice President. Developed and implemented a strategic business plan for the North American market. Closed gas fired power project and member of gas pipeline acquisition team. Board member of pipeline company post acquisition.

Enron Capital and Trade, Houston, Texas, 1991-1997
Director
Reported to Vice President. Developed and implemented a wide range of commercial business activities focused on energy supply growth opportunities. Originated long term gas sales contracts to power utilities.

Pepsico (Frito-Lay), Plano, Texas, 1987-1991
Manager
Developed and implemented a national business plan that transitioned the company's 40+ manufacturing facilities from bundled regulated utility service to the then emerging unregulated direct purchase energy market including direct purchase gas and back up generation to support interruptible power service and rates.

Continuous record of prior professional experience provided upon request

LORI SMITH SCHELL, PH.D., ERP

President

SUMMARY

President of Empowered Energy, a woman-owned consulting firm providing energy-related Economic, Market, and Regulatory Analysis, Commodity Procurement and Contract Management, Risk Management, and Expert Witness Testimony. Formerly directed fuels/electricity Hedging for a major Combined Heat and Power company. Additional management experience for energy-intensive industrial firm in Cogen Asset Management, Regulatory Affairs, Price Forecasting, and Market Analysis; Due Diligence for Cogen Project Finance. Federal-level Policy and Economic Analysis experience. Senior Fellow and Past President, United States Association for Energy Economics (USAEE). VP-Communications, International Association for Energy Economics (IAEE). Certified Energy Risk Professional (ERP).

EXPERIENCE

EMPOWERED ENERGY www.EmpoweredEnergy.com, 2002-Present
A Colorado-based energy consulting firm focused on natural gas, renewables, power & emissions.

- Prepared, delivered, and facilitated a two-day energy markets/policy training session to a predominantly Korean audience in support of fuel cell technology commercialization efforts.
- Multi-year support for Utah Office of Consumer Services analyzing PacifiCorp price hedging strategy for natural gas and electricity; filed related testimony and defended same at hearing.
- Energy consultant to University of Colorado-Boulder for natural gas purchases, appropriate natural gas and electric rate schedules, and economic feasibility of existing cogen operations.
- Directed fuels procurement and hedging strategy and negotiated fuels supply and transportation contracts for University of Maryland-College Park cogeneration project.
- Provided analytical support in Nevada Public Utility Commission prudency review of natural gas and purchased power procurement practices of two western U.S. electric utilities.
- Quantified benefits and costs of stationary fuel cells in distributed generation (DG) and backup power applications in support of DG tariff and ratepayer funding proceedings in California.
- Expert witness in California distributed generation cost-benefit analysis proceeding, focusing on solar photovoltaic potential for peak shaving; related effort to determine value proposition and emissions savings for fuel cells in baseload, backup, and specialty vehicle markets completed.
- Provided economic analysis for University of California-Irvine on cost impacts of maximizing renewable energy and cogeneration integration into existing university micro grid.
- Economic analysis for industrial customers in support of feed-in tariffs for combined heat and power and renewable energy in proceedings before the California Public Utilities Commission.
- Economic analysis of value proposition of large-scale solar power and solar water heating in support of ratepayer-funded incentives for same in California.
- Expert witness for Appalachian natural gas producer in three royalty cases; responsible for analyzing Plaintiffs' damages claims and for providing independent calculations of same.
- Attorney's consultant for natural gas price manipulation litigation in California; analysis provided basis for settlement agreement between proponents of several competing damages claims.
- Attorney's consultant for industrial end-user plaintiff in natural gas supplier performance contract dispute in the Midwestern U.S.; settlement agreement reached prior to arbitration.

- Provided MATLAB-based economic modeling and analysis to assess the economics of potential utilization scenarios for use of available biogas from landfills and wastewater treatment plants in California, including various electrical generation, direct use, and transportation fuel alternatives.
- Created levelized cost of energy economic model for University of California-Irvine project as part of technical and economic impact assessment of increased levels of renewables; included several demand response strategies (e.g., building precooling, lighting and fan turndown).
- Analyzed potential benefits of Clean Air Act opt-in program for energy-intensive industrial client.
- Provided analysis and damages calculations for two natural gas contract disputes involving sale of customer accounts and appropriateness of projected load profiles based on historical usage.
- Expert witness in Alberta electric rate case dealing with appropriate hedging mechanisms and cost allocation between regulated and retail rates; instrumental in $14.8 million rate reduction. Participated in two subsequent, related rate cases, one of which went to negotiated settlement.

Trigen Energy Corporation, 1999-2002

A New York-based Combined Heat & Power Company with 37 North American operating units specializing in energy efficiency, on-site cogeneration, trigeneration, and district energy systems.

Director, Energy Risk Management, Project Advisory Group, 2000-2002

- Served on Board of Directors of Independent Power Producers of New York (IPPNY).
- Provided contractual support and oversight for electricity and primary energy purchases and sales for all Trigen operating units, including assessment of fuel arbitrage opportunities; major cogen facilities supported were located within the NYISO, PJM, and Cinergy/Entergy markets.
- Attempted QF contract restructuring for Trigen's flagship cogen facility (in PJM) to monetize the dispatch capabilities of the facility and maximize spark-spread arbitrage; lacked partner buy-in.
- Redesigned and negotiated changes to a contractual benchmark for a smaller cogen facility in PJM, avoiding immediate out-of-pocket fuel price exposure in excess of $1 million.
- As head of Risk Management Committee, helped develop and implement corporate-wide risk management policy for electricity, fuels, and emissions allowances; responsible for related hedging and controls, mark-to-market determinations, and FAS 133 effectiveness tests.
- Directed commodity market analyses and issued electricity and primary energy forecasts for budgeting and hedging; provided final assurance to Risk Management Committee that proposed hedges were properly reflected in operating unit financial models and provided targeted returns.
- Set peak sales price in vintage 2003/04 NOx emissions allowances market as a result of optimization of corporate portfolio of Ozone Transport Commission-affected operating units.
- Directed timely statistical determination of and regulatory justification for replacement contract indices necessitated by unanticipated local distribution company (LDC) tariff changes.

Director, Fuels Management, Division of Operating Assets, *1999-2000*

- Supported business development and existing operating assets with commodity and basis market analyses, forecasts, and in-depth natural gas pipeline and LDC tariff rate assessment.

Air Products and Chemicals, Inc., 1993-1999

A Pennsylvania-based Fortune 300 producer of industrial gases and chemicals around the globe, with production costs for all major products dominated by volatile electricity and natural gas prices.

Manager, Regulatory Affairs & Market Analysis, Corporate Energy, 1995-1999

- Assessed potential benefits of renegotiating long-term natural gas supply agreement for a 120-MW Florida QF; managed natural gas supply and transportation (including capacity release).

- Developed and defended primary energy price forecasts as critical input to regional electricity price forecasts and corporate macroeconomic models.
- Responsible for intervening, testifying, and being cross-examined at the Federal Energy Regulatory Commission (FERC) in proceedings directly impacting natural gas pipeline transportation costs to flagship Air Products facilities. Major cases addressed (i) market power and market-based rates, and (ii) appropriate pricing of pipeline expansions.
- Demonstrated inappropriate cost-shifting impact of zone-gate rates on a network natural gas pipeline system for a nine-member industrial coalition. Maintained coalition's direction and consensus while negotiating a 20 percent discount to settle the case.
- Cross-examined to defend several rounds of written testimony that analyzed and critiqued the market power analysis of Koch Gateway in the first major market power case brought before the FERC. Favorable decision for intervenors was ultimately upheld by the D.C. Circuit Court.
- Advocated interruptible transportation rate design changes and opposed incremental AFUDC calculations for natural gas pipeline expansion capacity in written testimony at the FERC.

Senior Principal Energy Analyst, Corporate Energy, *1993-1994*

- Supported development efforts for QF facilities through fuel supply market analyses.
- Directed FERC interventions in four natural gas pipeline restructuring proceedings.

Benjamin Schlesinger and Associates, Inc., 1988-1993

A Maryland-based boutique natural gas consulting firm providing project due diligence and natural gas market analysis, from exploration and production all the way downstream to the burnertip.

Project Manager/Senior Economist*, 1988-1993*

- Provided contractual, regulatory, and deliverability risk evaluation (wellhead-to-burnertip) for a dozen project-financed natural gas-fired QF cogeneration units developed under PURPA.
- Assessed competitive market entry analyses for new gas supplies, including LNG.
- Performed market valuation to support buy-out of a major international gas supply contract.
- Optimized seasonal fuel supply pricing for two Florida municipalities using linear programming.
- Performed numerous multi-client analyses on hedging energy commodity price risk, relating existing natural gas spot markets to the (then-developing) natural gas futures market.
- Developed and presented a competitive natural gas pricing seminar in Bulgaria.

U.S. Department of Energy (DOE), 1985-1986

Office of Policy, Planning, and Analysis, Division of Oil and Gas Analysis, Washington, D.C.

- Managed modeling input in support of Administration oil and gas policy initiatives; analyzed market impact of those initiatives and wrote associated position papers and briefings.

Los Alamos National Laboratory, Summers 1984/85

Economics Group, Los Alamos, New Mexico

- Oil & gas leasing program analysis; conservation assessment of Soviet steel making industry.

EDUCATION

Pennsylvania State University, Ph.D., Operations Research and Mineral Economics, 1988
University of Washington, B.A., Economics (Honors); elected to Phi Beta Kappa, 1979

Highly analytic; proficient in MATLAB, Microsoft Excel and Microsoft ACCESS.

Professional Organizations

- American Association of Petroleum Geologists (AAPG)
- Colorado Renewable Energy Society (CRES)
- Four Corners Geological Society (FCGS)
- Global Association of Risk Professionals (GARP)
- International Association for Energy Economics (IAEE)
- Leadership La Plata.

Publically Available Analyses

"Build-Up of Distributed Fuel Cell Value in California: 2011 Update, Background and Methodology," 24 July 2011, National Fuel Cell Research Center.
http://www.nfcrc.uci.edu/2/FUEL_CELL_INFORMATION/MonetaryValueOfFuelCells/Fuel_Cell_Value-Methodology_2011_FINAL_072411_Large-Units_Final.pdf

"Small-Scale Solar Photovoltaics in California: Incremental Value Not Captured in the 2009 Market Price Referent – Description of Methodology," 23 April 2010, California Solar Energy Industries Association.

"Value Proposition of Large-Scale Solar Power Technologies in California," May 2009, Center for Energy Efficiency and Renewable Technologies. http://www.ceert.org/PDFs/reports/LSSPValueProposition-0509.pdf

"The Value Proposition of Solar Water Heating in California, January 2009, California Solar Energy Industries Association.

"Build-Up of Distributed Fuel Cell Value in California: Background and Methodology," May 2008, National Fuel Cell Research Center.
http://www.nfcrc.uci.edu/2/FUEL_CELL_INFORMATION/MonetaryValueOfFuelCells/LargeFuelCellValue_May2008.pdf

"PEM Fuel Cells: Value in California, Background and Methodology," May 2008, National Fuel Cell Research Center.
http://www.nfcrc.uci.edu/2/FUEL_CELL_INFORMATION/MonetaryValueOfFuelCells/PEMFuelCellValue_May2008.pdf

Refereed Papers

Brown, Tim M., *et al*., "Economic Analysis of Near-Term California Hydrogen Infrastructure," International Journal of Hydrogen Energy 38 (2013), pp. 3846-3857.

Eichman, Joshua D., *et al*., "Exploration of the Integration of Renewable Resources into California's Electric System Using the Holistic Grid Resource Integration and Deployment (HiGRID) Tool," Energy 50 (2013), pp. 353-363 .

TESTIMONY

Before the Public Service Commission of Utah:

Docket No. 10-035-124: In the Manner of the Application of Rocky Mountain Power for Authority to Increase Its Retail Electric Utility Service Rates in Utah and for Approval of Its Proposed Electric Service Schedules and Electric Service Regulations, on behalf of the Utah Office of Consumer Services (OCS).

- Surrebuttal Testimony on the natural gas and electricity hedging practices of PacifiCorp Energy in connection with Rocky Mountain Power's General Rate Case, July 19, 2011.
- Rebuttal Testimony on the natural gas and electricity hedging practices of PacifiCorp Energy in connection with Rocky Mountain Power's General Rate Case, June 30, 2011.
- Direct Testimony on the natural gas and electricity hedging practices of PacifiCorp Energy in connection with Rocky Mountain Power's General Rate Case, May 26, 2011.

Docket No. 09-035-15: In the Manner of the Application of Rocky Mountain Power for Approval of its Proposed Energy Cost Adjustment Mechanism, on behalf of the Utah Office of Consumer Services (OCS).

- Oral Cross-Examination in defense of testimony and related calculations, August 17, 2010.
- Phase II, Part 1: Surrebuttal Testimony on the natural gas and electricity hedging practices and related metrics of PacifiCorp Energy, August 10, 2010.
- Phase II, Part 1: Direct Testimony on the natural gas and electricity hedging practices and related metrics of PacifiCorp Energy, June 16, 2010.
- Phase I: Direct Testimony on the natural gas and electricity hedging practices of PacifiCorp Energy, November 16, 2009.

Before the Circuit Court of Roane County, West Virginia:

Estate of Garrison G. Tawney, etc., et al. v. Columbia Natural Resources, LLC: On behalf of Columbia Natural Resources, LLC.

- Oral Cross-Examination in defense of damages calculations outlined in Expert Report, January 24-25, 2007.

Before the California Public Utilities Commission:

Docket R.04-03-017: On behalf of Americans for Solar Power (ASPv), funded in part by the National Renewable Energy Laboratory.

- Oral Cross-Examination in defense of cost-benefit framework proposed in written testimony, May 12, 2005.
- Reply Prepared Testimony supporting proposed cost-benefit framework and the inclusion of variables representing distributed value elements, April 28, 2005.

- Prepared Testimony on Itron Report on Framework for Assessing the Cost-Effectiveness of the Self-Generation Incentive Program, April 13, 2005.

- Opening Testimony on proposed cost-benefit framework for distributed generation, in support of distributed solar photovoltaic generation projects, October 4, 2004.

Before the Public Utilities Commission of the State of Nevada ("PUCN"):

Docket No. 03-11019: On behalf of the PUCN Regulatory Operations Staff.

- Provided analytical support for two witnesses filing Direct Testimony as part of a prudency review of Nevada Power Company for October 2002-September 2003; disallowance of several natural gas and electricity hedges was recommended.

Before the Electrical Utility Regulation Committee, City of Calgary, Alberta:

Proceeding #2002-02: On behalf of the General Manager, Corporate Strategy and Economics, City of Calgary:

- Oral Cross-Examination in defense of Written Evidence, April 10, 2003.

- Written Evidence opposing the Regulated Rate Option ("RRO") Application of ENMAX Power Corporation as not properly reflecting market conditions, March 7, 2003.

Before the New York State Energy Planning Board:

Testimony on the Draft 2002 New York State Energy Plan on behalf of the Independent Power Producers of New York, Inc., February 5, 2002.

Before the U.S. Federal Energy Regulatory Commission:

Docket RP97-373: On behalf of Air Products and Chemicals, Inc., Akzo Nobel Chemicals Inc., Armstrong World Industries, Boise Cascade Corp., International Paper Co., Jefferson Smurfit Corporation (U.S.), Prior Energy Corp., Solutia Inc., and Sterling Fibers, Inc.

- Cross-Answering Testimony demonstrating cost-shifting impact of zone-gate rates proposed by Koch Gateway Pipeline Company, February 5, 1998.

- Prepared Direct Testimony arguing against the applicability of zone-gate rates proposed by Koch Gateway Pipeline Company, December 11, 1997.

Docket RP95-362: On behalf of Air Products and Chemicals, Inc., and Sterling Fibers, Inc. (successor to Cytec Industries, Inc.)

- Oral Cross-Examination in defense of Prepared Direct Testimony and Prepared Surrebuttal Testimony, October 18, 1996

- Prepared Surrebuttal Testimony calculating extent of the downward bias in the market power analysis of Koch Gateway Pipeline Company, August 12, 1996.

- Prepared Direct Testimony analyzing and critiquing the market power analysis of Koch Gateway Pipeline Company, April 11, 1996.

Docket RP95-112: Prepared Direct Testimony advocating interruptible transportation rate design changes applicable to Tennessee Gas Pipeline Company, on behalf of Air Products and Chemicals, Inc., September 26, 1995.

Docket FA94-15: Prepared Answering Testimony opposing incremental AFUDC calculations for expansion capacity by Florida Gas Transmission Company, on behalf of Orlando CoGen Fuel, Inc., and Orlando CoGen (II), Inc., April 25, 1996.

DEPOSITIONS

Estate of Garrison G. Tawney, etc., et al. v. Columbia Natural Resources, LLC. Natural gas royalty determination and payment dispute. Deposed by Plaintiffs' counsel, Charleston, West Virginia, December 19, 2006.

Sempra Energy Trading Corp v. Trigen-Syracuse Energy Corp. Electricity power purchase contract dispute, prepped by King & Spalding, deposed by Sempra Energy Trading Corp. outside counsel, New York, New York, July 25, 2002.

TRAINING

"The ABCs of Energy Policy," International Association for Energy Economics, 32nd Annual North American Conference, Anchorage, Alaska, July 2013.

"The (Abbreviated) ABCs of Energy Policy," Durango Chamber of Commerce Lunch & Learn, Durango, Colorado, November 2013.

SPEECHES

"Reforming the Energy Vision: New York State's Response to Superstorm Sandy (Encore Presentation)," 2nd Annual Microgrid Global Summit, Irvine, California, March 2015.

"The Future of the Electricity Market in a Diversified Grid," International Colloquium on Environmentally Preferred Advanced Power Generation (ICEPAG) 2015, Irvine, California, March 2015.

"Reforming the Energy Vision: New York State's Response to Superstorm Sandy," Latin American Association for Energy Economics, 5th Bienniel Conference, Medellin, Colombia, March 2015.

"Unraveling the Paradox: The Economics of Using Otherwise Wasted Heat for Chilling," International Association for Energy Economics, 37th International Conference, New York, New York, June 2014.

"Natural Gas and Renewables: Bridge to the Future or Death Knell?," BIT's 1st Frontier Industrial Forum-2013, Qingdao, China, October 2013.

"Support Mechanisms for Low Carbon Technologies," Plenary Session, International Association for Energy Economics European Conference 2013, Düsseldorf, Germany, August 2013.

"Back to the Future? The Evolution of the North American Natural Gas Market," Latin American Association for Energy Economics, 4th Bienniel Conference, Montevideo, Uruguay, April 2013.

"Show Me the Numbers! Real-World Quantification of Emergy Technology Attributes," Women's Energy Network, 1st Biennial Conference, Houston, Texas, April 2013.

"Where Cars are King: The Economics of Transitioning to Hydrogen Filling Stations in California," International Association for Energy Economics, 31st Annual North American Conference, Austin, Texas, November 2012.

"The ABCs of Energy Policy," The Pagosa Verde Symposium, Pagosa Springs, Colorado, August 2012.

"Increased Renewables in California: Impact on Fossil Fuel Generation, Levelized Costs, and CO2 Emissions," International Association for Energy Economics, 35th Annual International Conference, Perth, Australia, June 2012.

"Technical and Cost Impacts of Integrating Renewables: A Case Study for California," International Association for Energy Economics, 30th Annual North American Conference, Washington, DC, October 2011.

"Quantifying the Value of Distributed Fuel Cells in California: A Case Study," 4th World Hydrogen Technologies Convention, Glasgow, Scotland, September 2011.

"Renewables and LPEA: The State of the Notion," La Plata Electric Association Board Meeting, Durango, Colorado, April 2011.

"The Importance of Being Earnest (or How to Inform the Policy Debate)," ICEPAG 2011, Costa Mesa, California, February 2011.

"Cap-and-Trade vs. Carbon Tax: What's Ahead for California?" ICEPAG 2011, Cost Mesa, California, February 2011.

"Clearing the Air: Cap-and-Trade vs. Carbon Tax," International Association for Enengy Economics, 29th Annual North American Conference, Calgary, Alberta, October, 2010.

"California's Market Price Referent: Setting the Bar for Renewables," University of California-Irvine, Distinguished Energy Lecturer, Irvine, California, May 2010.

"The Cost Effectiveness of Distributed Generation with and without CHP/CCHP," ICEPAG 2010, Costa Mesa, California, February 2010.

"Maximizing the Efficiency of Natural Gas Use: The Case for Solar Water Heating," 24th World Gas Conference, Buenos Aires, Argentina, October, 2009.

"Cap-and-Trade vs. Carbon Tax: Clearing the Air – Localizing the National Debate," Green Business Roundtable, Durango, Colorado, September 2009.

"Concentrating on the Future: The Benefits of Large-Scale Solar Technologies," International Association for Energy Economics, 32nd Annual International Conference, San Francisco, California, June, 2009.

"Economic Analysis of Large Stationary Fuel Cell Value in California," ICEPAG 2009, Newport Beach, California, February, 2009.

"Value Proposition of Solar Photovoltaics and Fuel Cells in California, " 65th Annual Convention, National Congress of American Indians, Phoenix, Arizona, October, 2008.

"Solar Photovoltaics and Fuel Cells: Valuing the Contribution of Distributed Energy Resources to the State of California, U.S.A.," 19th World Petroleum Congress, Madrid, Spain, June, 2008.

"Monetizing the Value Proposition for Emerging Advanced Power Generation Markets: A Case Study for California," ICEPAG 2008, Newport Beach, California, February 2008.

"Revealing the 'Hidden' Benefits of Distributed Generation," International Association for Energy Economics, 27th Annual North American Conference, Houston, Texas, September, 2007.

"NYMEX Natural Gas Futures: The Wild Ride Continues," International Association for Energy Economics, 26th Annual North American Conference, Ann Arbor, Michigan, September, 2006.

"Impact on Global LNG Markets of Balancing the North American Natural Gas Market," 18th World Petroleum Congress, Johannesburg, South Africa, September, 2005.

"Optimizing Incentive Programs for Renewable Energy," INFORMS Conference on O.R. Practice: Applying Science to the Art of Business, Palm Springs, CA, April, 2005.

"Balancing the North American Gas Market," Plenary Moderator, International Association for Energy Economics, 23rd Annual North American Conference, Washington, DC, July, 2004.

"Risk Management in Volatile Energy Markets: Focus on Natural Gas," Four Corners Oil & Gas Conference, Farmington, NM, May, 2004.

"Risk Management in Volatile Energy Markets: Focus on Natural Gas," Reusable Industrial Packaging Association Annual Meeting, San Antonio, TX, October, 2003.

"Identifying the Real Risks of Selling Financially Firm Power," International Association for Energy Economics, 22nd Annual North American Conference, Vancouver, BC, October, 2002.

"When Is A Monopolist No Longer a Monopolist?," International Association for Energy Economics, 18th Annual North American Conference, San Francisco, CA, September, 1997.

"The Incremental vs. Rolled-In Pricing Debate," Gas Daily's End-User Strategies Conference, Houston, TX, March, 1995.

"Natural Gas Pricing: Spot Markets vs. Long-Term Contracts," 5th Annual New Mexico Gas Marketing Conference and Trade Fair, Santa Fe, NM, May, 1992.

"The Transition to Open-Access Storage in U.S. Natural Gas Markets," IAEE, 12th Annual North American Conference, Ottawa, Ontario, October, 1990.

"Profit-Maximizing Utilization of Transmission and Storage Capacity by a Regulated Natural Gas Pipeline Firm," ORSA/TIMS Joint National Meeting, New York, NY, October, 1989.

"Whither Gas Supply Realignment Costs?," Gas Daily's Natural Gas Industry Restructuring Conference, Houston, TX, September, 1989.

Papers

"Quantifying the Value of Distributed Fuel Cells in California: A Case Study," 4th World Hydrogen Technologies Convention, Glasgow, Scotland, September 2011.

"Maximizing the Efficiency of Natural Gas Use: The Case for Solar Water Heating," 24th World Gas Conference, Buenos Aires, Argentina, October, 2009.

"Solar Photovoltaics and Fuel Cells: Valuing the Contribution of Distributed Energy Resources to the State of California, U.S.A.," 19th World Petroleum Congress, Madrid, Spain, June, 2008.

"Effectiveness of Varying PV Incentive Program Structures," with Shirley J. Neff, International Association for Energy Economics, Executive Summaries of the 29th IAEE International Conference, Potsdam, Germany, June, 2006.

"Natural Gas Prices: Who's Driving this Rollercoaster?," EnergyPulse online publication, http://www.energypulse.net/centers/article/article_display.cfm?a_id=878, December, 2004.

"Electricity Prices in Alberta: Is the Future in the Past?," International Association for Energy Economics, Proceedings of the 23rd Annual North American Conference, Mexico City, Mexico, October, 2003.

"Profit-Maximizing Utilization of Transmission and Storage Capacity by a Regulated Natural Gas Pipeline Firm," Ph.D. Dissertation (GAMS-based non-linear programming model) , December, 1988.

"Technical Characteristics of Soviet Iron- and Steelmaking Complexes," (with Robert W. Shultz), LA-UR-85-3894, Los Alamos National Laboratory, Los Alamos, NM, 1985.

Posters

"Quantifying the Value of Distributed Fuel Cells in California," World Hydrogen Technologies Convention 2007, Montecatini Terme, Italy, November, 2007.

Articles

"Solar Peaking," with Shirley J. Neff, Energy, Business Communications Co., Inc., Spring 2005, pp. 40-42.

MATT KING
Engineer

EDUCATION

Bachelor of Science, Industrial and Systems Engineering, Georgia Institute of Technology, 2012

PROFESSIONAL MEMBERSHIPS

Institute of Industrial Engineers

PROFESSIONAL EXPERIENCE

GDS Associates, Inc., Marietta, GA, 2009 to Present
Mr. King started work as a coop 2009 and began full-time employment in 2013. Currently employed as an Engineer, responsibilities include supporting the engineers in the Power Supply Services department. Specific experience includes RTO market integration & on-going application, economic feasibility analyses of long-term and short-term power supply alternatives for municipals, electric cooperatives and joint action agencies, operating budget preparation and projections, production cost dispatch modeling, and risk management and hedging strategies.

PROJECT EXPERIENCE

Regulatory Proceeding

Mr. King has provided expertise in the area of regulatory proceedings before the Federal Energy Regulatory Commission on Regional Transmission Operator market issues. Specific experience includes drafting testimony and providing expertise to client and legal staff on capacity market complaint that resulted in a favorable ruling. This type of work has been performed on behalf of the following clients:

- Southwestern Electric Cooperative

Power Supply Procurement

Mr. King has experience in supporting on economic analyses of power supply alternatives, including managing RFP processes, communication with respondents, and evaluation of proposals. This type of work has been performed on behalf of the following cooperative, municipal and state agency clients:

- Blue Ridge Power Agency
- City of Cleveland, Ohio
- City of North Little Rock, Arkansas
- City of Benton, Arkansas
- East Texas Electric Cooperative

Short/Long-Term Power Supply Strategic Planning

Mr. King has assisted with the development of short/long-term power supply strategic plans for clients through a complete assessment of forecasted electric load and resource requirements. This type of work has been performed on behalf of the following clients:

- Blue Ridge Power Agency
- City of North Little Rock, Arkansas
- City of Cleveland, Ohio

RTO Market Integration & Ongoing Application

Mr. King assisted with the integration-related activities of several utilities in the Entergy Integration into the Midcontinent Independent System Operator (MISO) in 2013. He continues to support those utilities with their day-to-day & annual MISO market requirements & processes. This includes invoice/settlements reporting & review, stakeholder group representation, congestion management rights registration & strategy, resource adequacy construct participation & strategy, and credit monitoring. This type of work has been performed on behalf of the following clients:

- City of Alexandria, Louisiana
- City of North Little Rock, Arkansas
- City of Benton, Arkansas
- East Texas Electric Cooperative

Power Invoice Reporting/Review Tool Development & Application

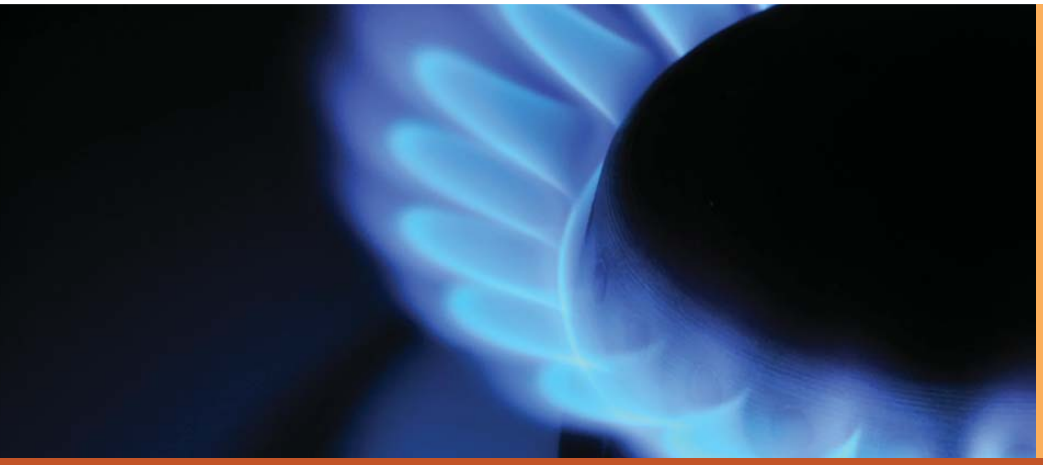
Mr. King has developed tools which provide for weekly & monthly invoice review & reporting. These tools utilize RTO market settlement and power invoice data to summarize wholesale power costs & highlight key risk management areas in a readily accessible format. Mr. King, with the assistance of these tools, also conducts the review of the monthly & weekly invoices and reports key issues to the client. This type of work has been performed on behalf of the following clients:

- East Texas Electric Cooperative
- City of North Little Rock, Arkansas
- Virginia Municipal Electric Agency

APPENDIX B | GDS RELEVANT SERVICES

GDS Associates, Inc.
ENGINEERS & CONSULTANTS

gdsassociates.com



OUR MISSION: To help our clients succeed by anticipating and understanding their needs and by efficiently delivering quality services with confidence and integrity.

The **Smart Choice** in Utility & Energy Consulting

Since 1986, GDS has been providing solid engineering and energy consultant services throughout the U.S. The size and depth of our firm permits us to offer clients multiple sources for assistance, ensuring **complete**, **competent**, and **timely service**.

We understand that our clients want to get it right the first time. Whether you are in the business of **electric**, **gas**, **water** or **wastewater** utilities, we know your time and resources are valuable. Our goal is to be a wise investment for you, while ensuring the consistent quality that is the foundation of our long-term relationships.

We serve a diverse client base with a variety of energy consulting services, as well as information technology, market research, and statistical services.

Our consultants are recognized leaders in their respective fields, dedicated to their clients, innovative in their approach to meeting unique challenges, and known for consistently being available when needed.

We're ready to show you the difference that over 28 years of experience can make.

CORE VALUES:

- We endeavor to identify, then meet or exceed our clients' needs
- We gauge our overall success in terms of our clients' success, by promoting a partnership perspective
- We will conduct our practice at all times with honesty and integrity
- Our consulting staff will possess the requisite knowledge and experience to solve our clients' problems
- Our services will be competently performed and our work product will be presented in a professional, understandable manner
- Our financial success is founded on long-term client relationships, proficient project management and efficient infrastructure
- We encourage professional development of our employees by providing opportunities for challenging work
- We promote a working environment of mutual respect and cooperation among our employees

GDS Consulting Services are listed on the following page.

Our long history of meeting client needs has established our reputation within the industry. In fact, most of our project assignments are derived from repeat work for existing clients or from client referrals.

Drawing upon many years of experience in problem-solving for both utility and non-utility clients, we have developed a keen insight into the causes and cures of our clients' challenges.

We deliver "right-fit" solutions for each client's particular situation.

GDS CONSULTING SERVICES INCLUDE:

ENERGY SUPPLY

Power Supply Planning

Generation Services

Renewable Energy Sources, Distributed Generation, & CHP

Energy Procurement

NATURAL GAS

Natural Gas Consulting

TRANSMISSION

Operations/Regulatory Planning

NERC/ERO Compliance

UTILITY DISTRIBUTION SERVICES

Planning, mapping, design, and training services are provided through our Hi-Line Engineering division.*

ENERGY USE & EFFICIENCY

Energy Efficiency & DSM

Residential EE Consulting

Industrial & Commercial

Agricultural

Municipal

Hospitality Industry

Public Housing Authority

ENVIRONMENT & SAFETY

Environmental Services & Management

Carbon Compliance Services

Clean Power Plan

FINANCIAL/RATES/LOAD

Rate, Regulatory & Financial

Load Forecasting & Statistics

Risk Management Services

Municipal Financial Services

RTO Settlement & Scheduling Services

Regulatory & Restructuring Services

OTHER SPECIALIZED SERVICES

Information Technology

Water & Wastewater Utility Consulting

Utility Privatization

gdsassociates.com

*Hi-Line Engineering, a division of GDS Associates, offers planning, mapping, and design services to the electric utility industry. They provide high-quality, personal service to rural electric cooperatives, investor-owned utilities, municipals, and the U.S. military.

Hi-Line also offers in-depth training courses geared to the electric utility industry all across the U.S. and via webinars.

For more information, contact **Paul Wielgus** at 770.799.2461 or paul.wielgus@gdsassociates.com

GDS Associates, Inc.
ENGINEERS & CONSULTANTS

The on-going pace of regulatory uncertainty and economic volatility is unrivaled in the utility industry and requires equally unparalleled flexibility in ratemaking and regulatory strategies. GDS has been at the forefront of industry rate and regulatory policy, offering broad expertise in regulatory ratemaking, accounting, economics, finance, and engineering.

Rate, Regulatory, and Financial Services

RETAIL RATE AND DISTRIBUTION SYSTEM SERVICES

The continuing evolution of retail power markets is causing electric distribution systems to seek innovative and aggressive means of maintaining financial stability, controlling costs, while maintaining efficiency and service reliability. GDS offers considerable expertise in the areas of:

- Retail Rates
- Revenue Requirements
- Unbundled Cost of Service Analysis
- Marginal Cost Analysis
- Traditional Retail Rate Design
- Time of Use and Innovative Rate Design
- Competitive Pricing Strategies
- Load Forecasting
- Financial Forecasting
- Policy Development
- Line Extensions
- Distributed Generation Interconnection and Net Metering
- Demand-Side Management Analysis
- Merger, Acquisition, and Valuation Studies

WHOLESALE RATE AND REGULATORY CONSULTING

Federal and state regulatory changes and increased competition require flexible and aggressive ratemaking and regulatory strategies. GDS offers broad expertise in ratemaking theories and has helped clients attain favorable rulings by providing expert testimony addressing major regulatory issues, including:

- Industry Restructuring
- Jurisdictional Cost Separation
- Cost of Service and Rate Design
- Integrated Resource Planning
- Power Plant and Transmission Line Certification
- System Dispatch and Fuel Procurement Analysis
- Cost of Capital Analyses
- OATT Tariffs/Rates

OPEN ACCESS/WHOLESALE AND RETAIL RESTRUCTURING

The formation and evolution of workable Regional Transmission Organizations and/or Independent System Operators is critical to truly fluid and competitive energy markets. Clients turn to GDS for guidance through the rapidly changing ground rules being shaped by federal and state regulators.

- OATT Tariffs/Rates
- Open Access Transmission Issues
- Retail Choice Strategies

FINANCIAL SERVICES

GDS offers specialized expertise in utility financial consulting. We have helped clients develop engineering and economic documentation to support loan applications for the financing of generation, transmission, and distribution projects.

For more information, contact **GDS** at **770.425.8100** or visit our website at **gdsassociates.com**

GDS Associates, Inc. • 1850 Parkway Place • Suite 800 • Marietta, Georgia 30067 • 770.425.8100 • **www.gdsassociates.com**
Georgia • Texas • Alabama • Wisconsin • New Hampshire • Florida • Maine

GDS Associates, Inc.
ENGINEERS & CONSULTANTS

GDS provides **creative solutions** to help our clients meet challenges arising in both **regulated** and **competitive environments** within the evolving natural gas utility industry.

Natural Gas Consulting Services

The GDS team of highly qualified professionals work to address complex economic, engineering, accounting, policy, and regulatory issues with clients including consumer groups, publicly-owned utilities, regulatory authorities, military and government agencies.

UTILITY RATE ANALYSIS/STUDIES

GDS conducts rate analyses and studies to determine the fairness and financial foundation of rate structures. We can evaluate, establish, and revise natural gas rates to meet increased costs of providing service and implementing regulatory initiatives, while balancing the requirements of the company and its customers. Several of the professionals at GDS are skilled witnesses who have provided expert testimony on a wide range of rate case topics and issues. Our services include:

- Cost of service studies
- Expert testimony
- Rate design evaluation
- Rate studies
- Rate case evaluation
- Cost of capital analyses
- City gate purchases
- Service rules and regulations
- Transportation rates

INNOVATIVE STRATEGIES AND SOLUTIONS

GDS offers specialized consulting to guide our clients through every stage of the planning and implementation cycle. We use our expertise to identify issues and develop strategies that result in solutions to the challenges created by today's constantly changing market. We assist our clients in the following areas:

- Merger and acquisition valuation (including technique selection)
- Industry restructuring
- Risk management (hedging, policy development, etc.)
- Financial analysis and competitive analysis
- Energy procurement strategies and negotiations assistance
- Unbundling services
- Plant conversion to natural gas

GASB 34 COMPLIANCE SERVICES

The engineering and accounting staff at GDS can assist municipal utilities in evaluating GASB 34 and how it may impact utility services. Based on client needs, we will:

- Review and/or modify depreciation methods
- Evaluate whether the "modified approach" is a practical option
- Review and improve capitalization policies and procedures
- Assist in the formulation of an asset management plan and long-term asset maintenance strategies
- Assist financial personnel with the MD&A

CLEAN POWER PLAN

GDS can help in navigating through the implementation:

- Impact analysis
- Conversions
- Regulatory intervention

For more information, contact **Paul Wielgus** at 770.799.2461 or paul.wielgus@gdsassociates.com

GDS Associates, Inc.
ENGINEERS & CONSULTANTS

Navigating in the energy markets is challenging. It's a task that can be daunting. With every day, every month, and every year, there are decisions to be made. Models are run, analyses are performed, and meetings are held. Whether it's strategic or tactical, short-term or long-term, human capital or capital assets, buy or build, the options are numerous and the consequences can be material and long lasting. Organizations owe it to their stakeholders to make the best decisions they can.

Decision Advisory Services

Organizations are more likely to achieve their goals by making the best decisions they can. Decision making is by far the lowest cost component of the total cost and consequences of any important decision an organization makes. Sometimes organizations don't have the full complement of resources that can help lead to the best decision, and even if their resources match the task, additional experience and input might just be the needed ingredient. Very often, a second opinion or an alternative point of view can be invaluable to the process and the ultimate end result.

GDS understands that organizations sometimes need only specific experienced input, a quick critique of the process, or just a sounding board. GDS can provide the specific decision making help your organization needs. We can customize the best fit to enable your organization to make the best decision. Whether it's assisting with the decision analysis, working with the team conducting the analysis, collaborating with senior management, or advising the organization's board of governance, GDS can help.

Our decision advisory service can incorporate quantitative and or qualitative processes, can be collaborative or one on one, or it can be a process audit to identify improvements for use by the organization in its decision-making going forward.

OUR EXPERTISE

- Project analysis
- Valuation
- Life cycle costs
- Modeling
- Risk analysis
- Negotiations
- Contracting

OUR OFFERINGS

- Experienced input
- Supplemental service
- Analysis team support
- Collaboration
- Advisory
- Process audit
- Expert testimony

OUR CAPABILITIES

- We have extensive capabilities to provide the complementing services
- We have the subject expertise needed to add value
- We have a track record of assisting leadership teams in meeting the challenges of maneuvering successfully through their decision process

For more information, contact **Paul Wielgus** at 770.799.2461 or paul.wielgus@gdsassociates.com

February 19, 2016

GDS PROPOSAL

Louisiana Public Service Commission

Review of Atmos' 2015 Rate Stabilization Clause Filing

770.425.8100 info@gdsassociates.com www.gdsassociates.com

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1850 Parkway Place, Suite 800
Marietta, Georgia 30067