EXHIBIT 32

DOCKET NO. 080407-EG - Commission review of numeric conservation goals (Florida Power & Light Company)

DOCKET NO. 080408-EG - Commission review of numeric conservation goals (Progress Energy Florida)

DOCKET NO. 080409-EG - Commission review of numeric conservation goals (Tampa Electric Company)

DOCKET NO. 080410-EG - Commission review of numeric conservation goals (Gulf Power Company)

DOCKET NO. 080411-EG - Commission review of numeric conservation goals (Florida Public Utilities Company)

DOCKET NO. 080412-EG - Commission review of numeric conservation goals (Orlando Utilities Commission)

DOCKET NO. 080413-EG - Commission review of numeric conservation goals (JEA)

WITNESS: Direct Testimony Of Richard F. Spellman, President of GDS Associates, Inc. and Caroline Guidry, Engineer – Energy Efficiency & Demand-Side Management for GDS Associates, Inc., Appearing on Behalf of the Staff of the Florida Public Service Commission

DATE FILED: July 17, 2009

EXHIBIT 32

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1.0 QUALIFICATIONS

Q: Mr. Spellman, please state your name, position and business addresses.

A: My name is Richard F. Spellman and I am the President of GDS Associates, Inc. (GDS), an engineering and management consulting firm. My business address is Suite 800, 1850 Parkway Place, Marietta, Georgia 30067.

Q: Please describe GDS Associates, Inc.

A: GDS is an engineering and management consulting firm with over 170 employees in the United States (U.S.). GDS specializes in energy supply and energy efficiency planning and analysis issues with clients in the U.S. and Canada. Our services include:

(1) energy efficiency, renewable energy and demand response program design, implementation and evaluation;

(2) integrated resource planning;

(3) electric generation, transmission and distribution system planning;

(4) wholesale and retail rate studies; and

(5) other planning and implementation projects for electric and natural gas utilities and government agencies.

In addition to providing energy efficiency program planning and evaluation services, GDS is implementing energy efficiency and demand response programs for clients in several states.

Q: Are these government or utility clients?

A: Both. GDS provides engineering and energy consulting services to electric and natural gas utilities, government agencies, non-profit organizations, commercial organizations, other consulting firms, and homeowners.

Q: Please state your educational background and work experience.

A: My educational background and work experience are provided in my resume, which is attached as Exhibit RFS-1.

Q: Please summarize your work experience in the area of energy efficiency.

A: During my sixteen years at GDS, I have managed several large-scale consulting projects for GDS clients relating to the design, implementation and evaluation of energy efficiency and demand response programs. I have completed over thirty-six energy efficiency potential studies across the U.S., and I have completed numerous program evaluation and market assessment studies (including end-use metering studies, mail and phone surveys, internet-based surveys, in-depth interviews, focus groups, etc.). I have completed impact and process evaluations of energy efficiency, demand response and load management programs. I have testified on energy efficiency potential studies and other related planning issues before state regulatory commissions in Connecticut, Georgia, Maine, New Hampshire, New Mexico, North Carolina, Texas, Utah, and Vermont. My clients include electric and natural gas utilities, government agencies, non-profit organizations, and other commercial businesses.

Before joining GDS in 1993, I was the Manager of Marketing and Product Development at Central Maine Power Company (CMP) where I managed the design and implementation of CMP's energy efficiency and demand response programs (with a budget of over $26 million annually). I served as the chairman of the New England Power Pool DSM Planning Committee in 1991 and 1992, and I serve on the Board of Directors of the Association of Energy Services Professionals (AESP). My education includes a BA degree with distinction in Math/Economics from Dartmouth College (graduated cum laude and with distinction) and an MBA from the Thomas College Graduate School of Business. I am a graduate of the University of Michigan Graduate School of Business Administration Management II Program, the Electric Council of New England Skills of Utility Management Program, and I am a member of the Association of Energy Services Professionals.

Q. Mr. Spellman, please explain the portion of your panel's testimony for which you have responsibility.

A. I have the responsibility for all issues relating to the selection of cost effectiveness tests for Florida and for all issues relating to recommendations for energy efficiency goals for the seven FEECA utilities and other policy recommendations. In addition, Caroline Guidry and I are jointly responsible for the portion of the testimony relating to the review and analysis by GDS of the energy efficiency technical, economic, and achievable potential estimates developed by the seven FEECA utilities.[1]

[1] Utilities subject to FEECA include Florida Power & Light Company, Progress Energy Florida, Inc., Tampa Electric Company, Gulf Power Company, Florida Public Utilities Company, JEA, and OUC.

including utility incentives and participant contributions;

- Consider the need for incentives to promote both customer-owned and utility-owned energy efficiency and demand-side renewable energy systems;
- Consider costs imposed by state and federal regulations on the emission of GHGs; and
- Evaluate the technical potential of all demand-side and supply-side energy conservation measures, including demand-side renewable energy systems.

In addition, the Commission is permitted by Section 366.82 F.S., to:

- Allow efficiency investments across generation, transmission, and distribution as well as efficiencies within the user base; and
- Authorize financial rewards or penalties for those utilities over which it has rate-setting authority for exceeding or failing to meet the goals, respectively.

Q. What impact do these changes have on the conservation goal-setting process which is the subject of this proceeding?

A. By amending Section 366.82, F.S., in 2008, the Florida Legislature has directed the Commission to place increased emphasis on the level of energy efficiency goals in order to reduce and control the growth rates of electric consumption. The changes give the Commission broader authority to maximize the achievement of energy efficiency in Florida.

4.0 CURRENT AND HISTORICAL FLORIDA ENERGY EFFICIENCY AND LOAD MANAGEMENT PROGRAMS

Q. Have the FEECA utilities' energy efficiency and load management programs been successful in the past?

A. Yes, however, in the past, more focus has been placed on kilowatt (kW) savings than on kilowatt-hour (kWh) savings.

Q. How have the FEECA utilities historically ranked in the nation in terms of absolute kW savings from load management programs in the past?

A. In 2007, based on incremental annual kW savings from load management programs reported by each utility in the U.S. Energy Information Administration (EIA) Form 861 Database, out of the 192 utilities reporting absolute savings of over zero kW, the FEECA utilities received the following ranks:

- Progress Energy Florida, Inc. (formerly Florida Power Corp.): 2
- Florida Power & Light Company: 5
- Gulf Power Company: 39
- Tampa Electric Company: 70
- Florida Public Utilities Company: Not Reported
- JEA: Not Reported
- OUC: Not Reported

A graphical representation of all of the reporting utilities and the rank of the FEECA utilities according to absolute kW savings reported for years 2005, 2006, and 2007 can be found in Exhibit RFS-3. This exhibit also contains a listing of the top 20 utilities for these three years.

Q. In the past, how have the FEECA utilities historically ranked in the nation in terms of relative load management kW savings as a percentage of summer peak loads?

A. In 2007, based on cumulative annual kW savings from load management programs as a percentage of summer peak loads reported by each utility in the U.S. EIA Form 861 Database, out of the 192 utilities reporting annual effects of over zero kW, the FEECA utilities received the following ranks:

- Progress Energy Florida, Inc. (Florida Power Corp.): 38
- Florida Power & Light Company: 124
- Gulf Power Company: 141
- Tampa Electric Company: 180
- Florida Public Utilities Company: Not Reported
- JEA: Not Reported
- OUC: Not Reported

A graphical representation of all of the reporting utilities and the rank of the FEECA utilities according to relative cumulative kW savings as a percentage of summer peak load reported for years 2005, 2006, and 2007 can be found in Exhibit RFS-4. This exhibit also contains a listing of the top 20 utilities for these three years. In ranking utilities on their energy efficiency and load management achievements, it is important to consider the magnitude of the kWh and kW savings in proportion to each utility's annual kWh sales and peak load, and not just on the level of kW savings alone.

Q. How have the FEECA utilities historically ranked in the nation in terms of energy efficiency program savings in the past?

A. In 2007, based on incremental annual kWh savings from energy efficiency programs

reported by each utility in the U.S. EIA Form 861 Database, out of the 279 utilities reporting incremental savings of over zero kWh, none of the FEECA utilities scored in the top 100 electric utilities. The FEECA utilities received the following ranks for 2007:

- Florida Power & Light Company: 107
- Progress Energy Florida, Inc. (Florida Power Corp.): 133
- Gulf Power Company: 146
- JEA: 154
- Tampa Electric Company: 158
- Florida Public Utilities Company: 177
- OUC: Not Reported

A graphical representation of all of the reporting utilities and the rank of the FEECA utilities according to annual incremental kWh savings reported as a percentage of total sales for years 2005, 2006, and 2007 can be found in Exhibit RFS-5. This exhibit also contains a listing of the top 20 utilities for these three years.

Q. Have other electric utilities in Florida implemented energy efficiency programs?

A. Yes. According to the U.S. EIA Form 861 Database, seven other Florida electric utilities, in addition to the FEECA utilities, have reported kWh savings from energy efficiency programs. Exhibit RFS-6 shows the reported incremental kWh savings as a percentage of total retail sales for years 2005, 2006, and 2007 for all of the Florida utilities that reported energy efficiency savings for those years.

Q. How do the energy efficiency program savings of the non-FEECA utilities in Florida compare to the Florida FEECA utility energy efficiency program savings?

A. The top three "non-FEECA" electric utilities in Florida reporting savings in 2007 – Reedy Creek Improvement District (Reedy Creek), Gainesville Regional Utilities (GRU), and City of Tallahassee (Tallahassee) – achieved annual kWh savings of 0.98 percent, 0.76 percent, and 0.34 percent, respectively, of total 2007 kWh sales. FPL, which is the highest ranking FEECA utility, achieved incremental annual kWh savings as a percent of retail kWh sales in 2007 of only 0.20 percent, which is significantly less that the savings achieved by Reedy Creek, GRU, and Tallahassee. As shown on Exhibit RFS-6, out of the total 13 utilities reporting energy efficiency programs savings in Florida for 2007, the FEECA utilities are ranked as follows:

- Florida Power & Light Company: 4
- Progress Energy Florida, Inc.(Florida Power Corp.): 6
- Gulf Power Company: 7
- JEA: 8
- Tampa Electric Company: 9
- Florida Public Utilities Company: 11
- OUC: Not Reported

This comparison of kWh savings data for Florida electric utilities raises the question of why the seven FEECA utilities do not achieve annual kWh savings as high as that achieved by Reedy Creek, GRU, or Tallahassee. Furthermore, the 0.76 percent of annual kWh sales saved in just one year (2007) by GRU is as high as what some of the FEECA utilities propose to save over a 10-year period.

Q. Why is it important for Florida's electric utilities to increase the level of energy efficiency and conservation?

A. The following factors make aggressive implementation of electric energy efficiency programs imperative for the State of Florida:

- According to the Florida Reliability Coordinating Council, Inc.'s (FRCC) 2009 Regional Load and Resource Plan,[2] consumption of electricity in Florida (as measured by growth in net energy for load) is expected to experience an average annual compound growth rate of 1.8 percent over the period from 2009 to 2018. Energy efficiency programs can help reduce the demand for electricity at a levelized cost per lifetime kWh saved that is much less expensive than building and operating a new nuclear power plant or power plant fueled with clean coal. A main objective of FEECA is to decrease the rate of growth in electricity consumption. Implementation of aggressive energy efficiency programs can help meet this objective.
- Having more energy efficiency resources in the utilities' energy resource plans provides a more diversified, less costly and less risky mix of energy resources.
- Investing more in cost-effective energy efficiency can help reduce Florida's consumption of fossil fuels. This is a key objective of the FEECA statute.
- Investing more in cost-effective energy efficiency can help Florida increase its energy independence and make the state less reliant on outside sources of energy supply.
- Investing more in cost-effective energy efficiency can help reduce emissions

[2] Florida Reliability Coordination Counsel, Inc.'s (FRCC) 2009 Regional Load and Resource Plan (July 2009), page 1. Available at: https://www.frcc.com/Planning/Shared%20Documents/Load%20and%20Resource%20Plans/2009%20LRP_Web.pdf

of SO_2, NO_X, CO_2, and particulates in Florida. Unlike coal and gas-fired plants, energy efficiency investments do not produce carbon dioxide, a major greenhouse gas.

- Investing more in cost-effective energy efficiency can help increase "green" jobs in the State of Florida.

5.0 EVALUATION OF POTENTIAL STUDIES

Q. Has GDS reviewed the potential studies completed by the seven FEECA utilities?

A. Yes. GDS has reviewed the technical potential studies for all seven FEECA utilities as well as the statewide technical potential report. GDS has also reviewed the methodology and results of the economic and achievable potential studies, which are described in the testimonies filed by witnesses for each utility.

Q. What methodological requirements should be utilized in the potential studies used as a basis to set goals for the FEECA utilities?

A. The potential studies should reflect the primary objectives of FEECA which are to: (1) reduce the growth rates of Florida's weather-sensitive peak demand, (2) reduce and control the overall growth in electricity consumption, and (3) reduce consumption of scarce fossil fuels. Additionally, pursuant to Section 366.82, F.S., the Commission, in developing the goals, should also evaluate the technical potential of all demand-side and supply-side energy conservation measures, including demand-side renewable energy systems. Because of the nature of the objectives and the audience, the potential studies should be thorough, reflect the environment and market of the service territory, be accurate in their approximations of technical potential savings and market potential, and be transparent so that technically oriented and non-technically oriented stakeholders may

EDUCATION: Management II Program, University of Michigan, Graduate School of Business, 1987
M.B.A., Thomas College, 1980
Amos Tuck Graduate School of Business, 1974-75
B.A., Math/Economics, Dartmouth College, 1974 (graduated with distinction)

PROFESSIONAL MEMBERSHIP: Association of Energy Service Professionals,
Board of Directors of AESP – 2005 to Present
Chair of AESP Policy Committee – 1997 & 1998,
Vice Chair AESP Policy Committee – 1995 & 1996

EXPERIENCE:

Mr. Spellman is the President of GDS Associates and the Chair of the GDS Board of Directors. He has over 30 years of energy industry experience. He has managed natural gas and electric energy efficiency, demand response and renewable energy consulting projects in such states as California, Connecticut, Georgia, Florida, Hawaii, Indiana, Louisiana, Maine, Massachusetts, Nebraska, New Hampshire, New Mexico, New York, North Carolina, North Dakota, Oregon, Pennsylvania, Rhode Island, South Carolina, Texas, Utah, Vermont, Virginia, and Wisconsin for GDS clients.

Mr. Spellman has also completed over three dozen electric and natural gas energy efficiency technical potential studies for clients across North America. He has also served in project management positions for energy efficiency and demand response implementation projects for electric utility clients, Wisconsin Focus on Energy and Efficiency Maine. From 1999 to December 2002, Mr. Spellman served as the Program Manager for the Wisconsin Focus on Energy Commercial and Industrial pilot energy efficiency programs (Systems Benefit Charge funded) implemented in a 23-county area in Northeast Wisconsin, and he served as the Deputy Project Director for the $60 million Wisconsin Focus on Energy Business Program from March of 2001 until June of 2003. He also served as the Deputy Program Manager for the Efficiency Maine Small Business Program from 2003 through 2007.

He has designed and implemented **DSM bidding programs** for such clients as Central Maine Power Company, the Business Program of Wisconsin Focus on Energy, and the East Texas Electric Cooperative. Mr. Spellman has also chaired several committees to review energy efficiency and demand response proposals received in response to DSM RFPs (for Central Maine Power Company, Wisconsin Focus on Energy, East Texas Electric Cooperative, etc.).

In addition to program implementation projects, Mr. Spellman has completed renewable energy and conservation program market assessments, technical potential studies, market research, program designs, and Integrated Resource Plans for a number of the firm's clients. He has served as the Chair of the Policy Topic Committee of the Association of Energy Services Professionals (AESP) and he is currently a member of the Board of Directors of AESP.

Before joining GDS in Atlanta, Mr. Spellman was the Manager of Marketing and Product Development at Central Maine Power Company, where he was employed from 1977 to 1993. He has extensive experience working with collaboratives and community organizations on conservation and renewable energy issues. While at CMP he managed CMP's $26 million portfolio of energy efficiency programs. He also worked on CMP's market transformation program efforts with appliance and building standards, energy efficient lighting and motors, new construction and renewable energy programs. He worked on national market transformation programs such as the Super Efficient Refrigerator Program, and the EPA's Green Lights and Energy Star Programs. Finally, he has a solid track record testifying for clients before Commissions and legislative

committees on energy issues. He was also the chairperson of the New England Power Pool DSM Planning Committee for several years, and worked on a wide range of regional DSM and renewable energy projects in New England during his sixteen years at CMP.

His education includes a BA degree with distinction in Math/Economics from Dartmouth College (graduated cum laude) and a Masters in Business from Thomas College Graduate School of Business. He is a graduate of the University of Michigan Graduate School of Business Administration Management II Program (1987), and the Electric Council of New England Skills of Utility Management Program (1986). In 1974 Mr. Spellman was awarded a research grant by the Richard King Mellon Foundation to study how colleges and universities in the Northeast were responding to the 1973-1974 U.S. energy crisis.

Specific Experience Includes:

1993-Present GDS Associates, Inc.

At GDS Associates, Mr. Spellman has directed and completed numerous management consulting, IRP, renewable energy, DSM planning and implementation, market research, load research and market planning assignments for the firm's clients, which include electric and natural gas utilities, municipal utilities, electric cooperatives, government agencies, and large commercial and industrial organizations.

Listed below are examples of consulting projects completed by Mr. Spellman relating to energy efficiency technical, economic and achievable potential studies:

1. **Consolidated Edison of New York** – Consolidated Edison Company of New York retained GDS to prepare an assessment of the natural gas energy efficiency potential in its service area and to develop a portfolio of natural gas energy efficiency programs. GDS developed this Gas Efficiency Plan for Con Ed, and the Plan was filed with the New York Public Service Commission in March 2009. The program plans included detailed benefit/cost calculations using the Total Resource Cost test. The plan also included a detailed plan for evaluation of each individual program, including details on the scope and method of measurement and verification activities pursuant to the Commission's rules and regulations.
2. **District of Columbia Energy Office** - In September 2007, GDS Associates and Ed Meyers Consulting completed a detailed assessment of energy use in the District of Columbia, and developed findings and recommendations for cost effective electric and natural gas energy efficiency programs for the District. The report included detailed information on residential energy measures recommend for consideration in the upcoming Comprehensive Energy Plan IV for DC (CEP-IV) as well as energy efficiency programs and measures for DC Government facilities. The report found that the effectiveness of the District's programs can be increased working with the Metropolitan Washington Council of Governments (MWCOG) to leverage resources with federal agencies and coordinate policies and programs throughout the region to produce mutually targeted results. Such regional cooperation also reduces administrative costs per program unit delivered, as costs are amortized over more clients served. One particularly promising opportunity may involve regional government purchasing of energy efficiency products, where each governmental unit would gain from regional quantity discounts. The report determined the successful energy conservation programs can yield about 6,000 new jobs in the District of Columbia over a fifteen year period. DC's job creation totals in energy efficiency can be boosted for DC residents through First Source Employment Agreements and LSDBE requirements, when businesses receive tangible benefits from the DC government (for example, low-interest loans or down payment assistance).

3. **New Hampshire Public Utilities Commission** - In 2008, GDS in partnership with RLW Analytics, Research Into Action and RKM Research and Communications was retained by the New Hampshire Public Utilities Commission to conduct a thorough assessment of the potential for electric and natural gas energy efficiency in the state of New Hampshire. To support the energy efficient potential analysis, the GDS Team conducted residential and small commercial telephone surveys and large C&I site visits. The data collected will help determine key study inputs such as equipment saturations and baseline efficiency levels. The GDS Team has identified hundreds of electric and natural gas energy efficiency measures which are being analyzed to identify cost-effective measures. Estimates of the technical, economic and achievable electric and natural gas savings potential over the next ten years and the cost necessary to achieve these savings will then be developed.
4. **Hoosier Energy** - GDS was retained by Hoosier Energy to conduct a thorough assessment of the cost effective achievable potential for electric energy efficiency and demand response measures in service area of Hoosier Energy in southern Indiana. GDS collected and analyzed extensive information on over 200 energy efficiency measures and 25 demand response measures, developed supply curves to show the achievable potential and completed a report by December 2008.
5. **Brazos Electric Cooperative** - GDS was retained by Brazos Electric Cooperative to conduct a thorough assessment of the cost effective achievable potential for electric energy efficiency and demand response measures in the service area of this large electric cooperative in Eastern Texas. GDS collected and analyzed extensive information on over 200 energy efficiency measures and 25 demand response measures, developed supply curves to show the achievable potential and completed a draft report by September 2008.
6. **Arkansas Electric Cooperative Corporation** - GDS was retained by Arkansas Electric Cooperative Corporation to conduct a thorough assessment of the cost effective achievable potential for electric energy efficiency and demand response measures in the service area of this large electric cooperative in Arkansas. GDS collected and analyzed extensive information on over 200 energy efficiency measures and 25 demand response measures, developed supply curves to show the achievable potential and completed a draft report by September 2008.
7. **Central Maine Power Company (CMP)** - As a subcontractor to La Capra Associates, GDS was retained by CMP to conduct an assessment of the potential for cost-effective electric energy efficiency and demand response as an alternative to transmission system expansion in 5 sub-areas of the CMP service area. GDS collected and analyzed extensive information on over 100 energy efficiency and conservation measures, developed supply curves to show the achievable potential and is in the process of developing a draft findings report.
8. **Bonneville Power Administration (BPA)** - GDS was retained by BPA to conduct an assessment of their Non-Wires Solutions initiative development process and the current state of the initiative. The BPA Non Wires Solutions Program assesses the feasibility of energy efficiency and demand response programs as an alternative to building new electric transmission lines in the BPA service area. GDS reviewed program materials and reports, designed an interview guide and conducted in-depth, interviews with key BPA staff. Our analysis identified program strengths, weaknesses and potential improvements in key program areas including design, implementation, planning, cost impact & allocation and resources. A final report was delivered on June 8, 2007.
9. **Reading Municipal Light Department (Reading, Massachusetts)** - GDS was retained by the RMLD to assess the technical, economic, and market potential for reducing (avoiding) electricity use and peak demand, and reducing fossil-fueled electricity use and peak demand, in RMLD's service territory by implementing a wide range of end-use efficiency

measures and renewable energy resource technologies. GDS collected and analyzed extensive information on over 100 energy efficiency, conservation and demand-response measures and renewable energy technologies, developed supply curves to show the achievable potential and is in the process of developing a draft report.

10. **Concord Municipal Light Department, Concord, Massachusetts** – GDS completed a detailed study for the potential for energy efficiency and renewable energy technologies for the Concord Municipal Light Department (CMLD). GDS's specific responsibilities for this project include identification and analysis of demand-side alternatives, including distributed generation and other demand response technologies (i.e., direct load control).
11. **North Carolina Electric Membership Corporation (NCEMC)** - GDS was retained by the NCEMC to conduct a thorough assessment of the cost effective achievable potential for electric energy efficiency and conservation resources in service area of the North Carolina Electric Membership Corporation (NCEMC). GDS collected and analyzed extensive information on over 200 energy efficiency and conservation measures, developed supply curves to show the achievable potential and completed a final report in 2007.
12. **Central Electric Power Cooperative Inc. (CEPCI)** - GDS was retained by the CEPCI to conduct a thorough assessment of the cost effective achievable potential for electric energy efficiency, conservation and demand response resources in the service area of CEPCI. GDS collected and analyzed extensive information on over 200 energy efficiency and conservation measures, developed supply curves to show the achievable potential and completed a final report in August 2007.
13. **Maine** – GDS recently completed a technical potential study for high efficiency residential lighting equipment for the Efficiency Maine Residential Lighting Program. GDS conducted this study for the Maine Public Utilities Commission.
14. **North Carolina Public Utilities Commission** -GDS was retained by the North Carolina PUC to conduct an assessment of the cost effective achievable potential for electric energy efficiency and conservation resources in the State of North Carolina. GDS collected and analyzed extensive information on over 100 energy efficiency and conservation measures, developed supply curves to show the achievable potential and completed a final report in December 2006.
15. **Vermont Department of Public Service** - GDS was retained by the Vermont Department of Public Service to conduct a thorough assessment of the cost effective achievable potential for electric energy efficiency and conservation resources in the State of Vermont. GDS collected and analyzed extensive information on over 100 energy efficiency and conservation measures, developed supply curves to show the achievable potential and completed a final report in January 2007. GDS also conducted market research with energy services providers in Vermont to collect information on baseline levels of energy efficiency in the State.
16. **Big Rivers Electric Corporation – 2005 Energy Efficiency Technical Potential Study - Kentucky** - During 2005, GDS completed a study of the technical and maximum achievable cost effective economic potential of energy efficiency measures and programs for the service area of the Big Rivers Electric Corporation, a large Generation and Transmission electric utility in Ohio. This technical and economic potential study was completed as part of the comprehensive analysis of supply-side and demand-side options for the latest BREC Integrated Resource Plan filing with the Kentucky Public Service Commission.
17. **Public Service of New Mexico** – GDS completed this natural gas DSM technical and achievable potential study in May 2005. This study presents estimates of the maximum achievable cost-effective potential for natural gas Demand-Side Management (DSM)

opportunities in the service area of Public Service of New Mexico. The main output of this study is a concise, fully documented report on the opportunities for achievable, cost effective natural gas energy efficiency programs in New Mexico.

18. **Utah Energy Office and Questar Gas Company** – GDS completed this natural gas DSM technical and achievable potential study in June 2004. This study presents estimates of the maximum achievable cost-effective potential for natural gas Demand-Side Management (DSM) opportunities in the State of Utah. The main output of this study is a concise, fully documented report on the opportunities for achievable, cost effective natural gas energy efficiency programs in Utah. This study assessed the impacts that gas DSM measures and programs can have on natural gas use, assesses the economic costs and benefits of DSM programs, and assesses the revenue impacts to Questar Gas Company. The final report also includes an assessment of the environmental impacts of the achievable DSM options identified in this study.
19. **Energy Efficiency Potential in Georgia – Study for the Alliance to Save Energy** – GDS completed this study for the Alliance to Save Energy in July 2004. This study provides estimates of the maximum achievable cost effective potential in the State of Georgia for several "top-ranked" energy efficiency programs. In addition, GDS presented expert witness testimony on behalf of the ASE before the Georgia Public Service Commission that covered the following issues:
    - the potential net present value dollar savings to ratepayers in Georgia due to the implementation of cost effective energy efficiency programs.
    - the cost effectiveness of these energy efficiency programs
    - energy efficiency tariffs that could be implemented in Georgia to save energy
    - up-to-date information on energy efficiency and DSM success stories and energy savings in other regions of North America and the technical potential for DSM in Georgia
    - improvements that could be made in the DSM measure screening process in Georgia.
    - recommendations for DSM cost recovery and shareholder incentive mechanisms.
20. **Energy Efficiency Potential in Florida – Study for the Alliance to Save Energy and the Southern Alliance for Clean Energy** – GDS completed this study for the Alliance to Save Energy in July 2004. This study provides estimates of the maximum achievable cost effective potential in the State of Florida for several "top-ranked" energy efficiency programs
21. **Connecticut Energy Conservation Management Board** – In March 2003, GDS was retained by the Connecticut Energy Conservation Management Board to conduct a thorough assessment of the cost effective maximum achievable technical potential for energy efficiency and conservation resources in the State of Connecticut and two sub-regions of the State. GDS collected and analyzed extensive information on over 250 energy efficiency and conservation, and developed supply curves to show the maximum achievable potential. GDS completed the final report in June 2004.
22. **Alliant Energy Corporate Services** - As an update to an assessment of potential customer-sited/distributed generation technology applications in all categories (residential, small/large commercial, industrial, and agricultural) conducted by GDS in 2001, Alliant requested that modeling assumptions be reviewed and revised, as necessary. In addition, the Distributed/Onsite Generation Screening (DOGS) tool was reviewed by MN Department of Commerce as part of a filing in 2001 and they requested expansion of applicable technologies and fuels, including: bio-diesel and methane from landfills and digesters to fuel reciprocating engines; methanol, ethanol, gasoline, and methane for electricity production from fuel cells. The revised model results will be used to estimate the market potential for

distributed/onsite generation within Alliant's Minnesota service territories.

23. **Massachusetts GasNetworks** – In January of 2004, GDS was hired by GasNetworks (a network of several natural gas utilities in Massachusetts) to develop benefit/cost analyses and energy savings potential estimates for GasNetworks' regional market transformation and demand-side management programs. Benefit/cost ratios and energy savings potential estimates were developed for several regional gas energy efficiency programs using a spreadsheet model, and similar data were developed for each program for each service area for each natural gas utility participating in this study.
24. **Northern Utilities (Gas Company)** – In 2002 GDS was hired by Northern Utilities to prepare benefit/cost analyses and energy savings potential estimates of a portfolio of energy efficiency programs proposed for implementation in their New Hampshire service area. This project was completed during September 2002 and a final report was filed with the New Hampshire PUC. A workshop was conducted at the NH Public Utilities Commission early in 2003 to review cost-effectiveness methodologies and key model input/output requirements.
25. **KeySpan Energy Delivery (Gas Company)** – In 2002 GDS was hired by KeySpan Energy Delivery – New Hampshire to prepare benefit/cost analyses and energy savings potential estimates of ten energy natural gas energy efficiency programs proposed for implementation in the KeySpan New Hampshire service area. This project was completed during September 2002 and a final report was filed with the New Hampshire PUC that month.
26. **Big Rivers Electric Corporation – 2002 Energy Efficiency Technical Potential Study - Kentucky** - During 2002, GDS completed a study of the technical and economic potential of energy efficiency and load management measures and programs for the service area of the Big Rivers Electric Corporation, a large Generation and Transmission electric utility in Ohio. This technical and economic potential study was completed as part of the comprehensive analysis of supply-side and demand-side options for the latest BREC Integrated Resource Plan filing with the Kentucky Public Service Commission.
27. **City of Grand Island, Nebraska – Municipal Utility – Energy Efficiency Technical Potential Study** - GDS completed a study of the technical and economic potential for energy efficiency and load management measures and programs for the service area of this large municipal electric utility in Nebraska. This technical and economic potential study was completed as part of the comprehensive analysis of supply-side and demand-side options for an Integrated Resource Plan for this utility.
28. **City of Lafayette, Louisiana – Municipal Utility – Energy Efficiency Technical Potential Study** - GDS completed a study of the technical and economic potential for energy efficiency and load management measures and programs for the service area of this large municipal electric utility in Louisiana. This technical and economic potential study was completed as part of the comprehensive analysis of supply-side and demand-side options for an Integrated Resource Plan for this utility.
29. **New York State Energy Research and Development Authority (NYSERDA) - Energy $mart℠ Program Evaluation Services:** In the fall of 1999, GDS was retained by NYSERDA to be the prime evaluation contractor for the New York Energy $mart℠ program. During the years 2000, 2001, 2002, and 2003, GDS has been responsible for providing energy efficiency program and measure data collection, analysis, and report writing services to NYSERDA in support of their overall evaluation and market assessment efforts, and to determine actual savings of the programs. To date, GDS team evaluation activities have included development of a Gap Analysis for the purpose of setting priorities and allocating evaluation resources to the various New York Energy $mart℠ project areas; and numerous

evaluation activities leading to development of a draft and final Program Evaluation Status report which provided the New York Public Service Commission with sufficient information to determine the future of SBC-funded public benefits programs beyond its initial three-year transition period which ended July, 2001.

30. **Distributed Generation Technical Potential Assessment for Minnesota and Iowa:** During the fall of 2001, GDS assessed the technical potential of customer-sited distributed generation technology applications for Alliant, a major investor owned utility located in the MidWest. The analysis covered the residential, small/large commercial, industrial, and agricultural sectors. GDS developed a Distributed/Onsite Generation Screening spreadsheet model to determine the cost-effectiveness of various distributed generation options; used the model to assess the potential for various customer groups and then scaled results using customer profiles. Model results were also used to estimate the technical potential for distributed/onsite generation within Alliant's Minnesota and Iowa service territories.
31. **Renewable Electric Energy and Peak Demand Savings Methodology Reviews - Wind Power and Photovoltaics Programs:** GDS performed detailed reviews of NYSERDA's methodologies for estimating electric energy savings and peak demand reduction benefits associated with NYSERDA's Wind Power Research & Development Program and two Photovoltaic (PV) programs. These Savings Methodology reviews entailed three-components: 1) a review of the current method used by NYSERDA for estimating savings (including algorithms and inherent assumptions), 2) a review of the methods and assumptions used by other utilities and program administrators for estimating savings from similar programs being implemented elsewhere in the country, and 3) a presentation of key findings and recommendations.
32. **Evaluation Services for Commercial/Industrial Program Areas and Technical Assistance Reviewing Engineering Analyses- Efficiency Vermont:** GDS Associates is the lead contractor in a team that has been hired to assist the VT DPS in evaluating a statewide portfolio of energy efficiency programs targeted to the Commercial and Industrial market sectors. The GDS team is also providing technical engineering and review assistance, on an "on-call" basis, to the administrator of Vermont's energy efficiency programs.
33. **Development and Implementation of Five-Year Energy Efficiency Plan – Boston Edison:** GDS Associates was retained by Boston Edison to assist BECo staff with the development of program designs, evaluation plans, technical potential estimates and budgets for the Company's Five Year Energy Efficiency Plan. For this project GDS performed energy efficiency technology screenings to identify potentially viable measures for utility funding/support, and developed the program designs for a number of new initiatives, including over a dozen new market transformation programs. GDS also conducted cost effectiveness screening for all of the new DSM initiatives included in the plan.
34. **Energy Efficiency Technical and Market Potential Analysis:** This report presented the results of a technical and market potential study for energy efficiency options for the East Texas Electric Cooperative, Inc. (ETEC). The purpose of this report was to review energy efficiency options that comply with the Public Utility Commission of Texas (PUCT) orders issued in Northeast Texas Electric Cooperative (NTEC), Sam Rayburn Electric Cooperative (SRG&T) and Tex-La Electric Cooperative of Texas (Tex-La) rate cases. This study presented cost effectiveness findings and recommendations on energy efficiency options and programs for ETEC and its member generation and transmission electric cooperatives (NTEC, SRG&T, and Tex-La). In this study, GDS evaluated the cost effectiveness of over

90 energy efficiency options and found many of them to be cost effective according to the Total Resource Cost Test.

35. **Technical and Market Potential Analysis for Load Management and Energy Efficiency Options:** GDS was retained to update energy efficiency and load management technical and market potential analyses completed in the mid 1990's time period, and to develop recommendations relating to cost effective DSM programs for electric cooperatives in East Texas. This study identified energy efficiency and load management (DSM) options that were viable based on economic tests presented in the California Standard Practice Manual for Economic Analysis of Demand-Side Management Programs. DSM options that had a Total Resource Cost test benefit/cost ratio greater than 1.3 and a positive net present value for the participant were ones that were recommended by GDS for further program development.

8/90-5/93 **Central Maine Power Company - Manager of Marketing Services/Marketing and Product Development**

From 8/90 to 8/92 - Responsible for managing the design and implementation of CMP's residential, commercial, and industrial demand-side management programs. Also responsible for corporate market research, five-year DSM implementation plans, testifying on DSM topics before regulatory agencies, and for participating in integrated resource planning activities. Accountable for managing a $26 million DSM budget and a staff of 50 persons. Served on three person lead team from 1989 to 1992 to develop CMP's first integrated resource plan. During 1991 traveled to Czechoslovakia and Poland to provide consulting to foreign utilities on DSM issues.

From 8/92 to 5/93, responsible for identifying and developing marketing strategies for products and services which would improve the competitiveness of CMP's customers, increase the efficiency of energy use, increase CMP's profitability, and which would reduce the rate of growth of electricity prices for all customers. Directly responsible for the design of renewable energy and demand-side management programs, integrated resource planning, research on new technologies, and managing marketing and product development staff. Also provided consulting services to utilities in New Zealand, Australia, and Bulgaria relating to DSM program design and implementation.

6/86-8/90 **Central Maine Power Company - Director of Market Research and Forecasting**

Responsible for managing twenty-five professional employees. Duties included supervising DSM program evaluation activities, short and long range load forecast development, local area energy and peak load forecasts, market and load research, economic forecasting, and developing and updating DSM assumptions for use in the Company's long range planning models. Also participated in the development of the first Power Partners RFP, and in the evaluation and selection of proposals submitted in response to this RFP.

5/85-5/86 **Central Maine Power Company - Corporate Economist**

Responsible for monitoring and forecasting energy and economic trends in the CMP service area and in the New England Region. Duties included development of corporate short-term kWh sales and revenue forecasts, market research studies, and CMP's energy management strategy. Instrumental in promoting the use of state-of-the art PC-based computer models for integrated resource planning (UPLAN). Authored a second report on CMP's DSM strategy in April 1986. Also responsible for supervising several analysts.

5/77-5/85 **Central Maine Power Company - Staff Economist**

(5/77 to 5/78) Joined CMP in May 1977 and worked in the Customer Services Department. Responsibilities included short-term forecasting, annual appliance saturation surveys, and preparation of the 1977 and 1978 long-range energy and peak load forecasts.

(5/78 to 12/80) In May of 1978, selected to join a new group, the Corporate Financial Model Staff, to develop a new corporate financial model for CMP. Had major responsibility for development of a revenue forecasting model, and assisted with development of models to produce income statement, balance sheet, and sources and uses of funds forecasts. In addition to corporate model development, responsibilities included short-term forecasting and market research.

(12/80 to 5/85) In December of 1980, moved to CMP's Research Department and worked for Phil Hastings for five years. Responsible for all corporate market research, short-term kWh sales and revenue forecasts, economic analyses and forecasts, and forecasts of key corporate planning assumptions. Prepared and published CMP's first DSM strategy study in March 1985.

Other Professional Activities:

- Board of Directors, Association of Energy Services Professionals (AESP), 2005 to 2010
- Member of the Association of Energy Service Professionals (1993 to Present), Vice Chairman of the Policy Committee (1995-1996), Chair of Policy Committee (1997 and 1998)
- Panel Leader, 1992 American Council for an Energy Efficient Economy (ACEEE) Summer Study on Building Energy Efficiency.
- Chairman of the NEPOOL Demand-Side Management Planning Committee, September 1989 to September 1990, August 1991-July 1992.
- Vice Chairman of the NEPOOL Demand-Side Management Committee - January to August 1989, July 1990 - July 1991.
- Member of the NEPOOL Demand-Side Management Task Force (1986-1988).
- Member of the Load Research Committee of the Association of Edison Illuminating Companies (1988-1991).
- Alternate to the NEPOOL Governor's Liaison Committee (1986-1988).
- State Forecast Analyst for the NEPOOL Load Forecasting Model (1979-1986).
- Maine Model Manager of the New England Economic Project economic forecasting model, 1983-1986.
- Member of the Statistical Research Committee of the Electric Council of New England (Chairperson 1982-1983, member 1977-1986).
- Member of the Edison Electric Institute Economics Committee (1986-1991).
- Past member of the International Association of Energy Economists.

Publications:

1. Spellman, Richard F., *Modeling of Energy Management Strategies with the Utility Systems Analysis Model*, paper presented at the International Load Management Conference, November 1984, Chicago, Illinois

2. Spellman, Richard F., *Use of Computer Models and Load Research Data for Developing Energy Management Strategies*, paper presented at the Fifth Annual Northeast Load Research Conference, September 10-12, 1986, Farmington, Connecticut
3. Spellman, Richard F., *Potential Market Penetration of DSM Programs at Central Maine Power*, paper presented at Third National Conference on Utility DSM Programs, June 16-18, 1987, Houston, Texas
4. Spellman, Richard F., *Demand-Side Management Market Penetration: Modeling and Resource Planning Perspectives from Central Maine Power Company*, paper presented at the Fourth National Conference on Utility DSM Programs, May 2-4, 1989, Cincinnati, Ohio
5. Spellman, Richard F., *Using Program Evaluation Data for Long-Range Resource Planning at Central Maine Power Company*, paper presented at the Canadian Electrical Association's Conference on Enhancing Electricity's Value to Society, October 22-24, 1990, Toronto, Canada
6. Spellman, Richard F., *Demand-Side Management from a North American Perspective*, Keynote Address to the International Energy Agency Conference on Advanced Technologies for Electric Demand-Side Management, written for Joe C. Collier, Jr., President and Chief Executive Officer of Central Maine Power Company, paper presented in Sorrento, Italy on April 3, 1991
7. Leamon, Ann K., and Spellman, Richard F., *From the Bottom Up: T&D and DSM*, paper presented at the 5th National Demand-Side Management conference, July 30 - August 1, 1991, Boston, Massachusetts
8. Haeri, M. Hossein, and Spellman, Richard F., *Integration of Evaluation Results into the Resource Planning Process*, paper presented at the 5th National Demand-Side Management Conference, July 30 - August 1, 1991, Boston, Massachusetts
9. Spellman, Richard F., *Does Fuel Switching Make Sense for an Electric Utility?*, paper presented at the 1992 International Energy Efficiency and DSM Conference, October 22, 1992, Toronto, Ontario
10. Spellman, Richard F., and Brunette, Marguerite, *Market Research for the Design, Implementation, and Evaluation of a Compact Fluorescent Lighting Program*, paper presented at the EPRI/EUMRC Market Research Symposium, November 17-20, 1992, Dallas, Texas
11. Spellman, Richard F., Forum For Applied Research and Public Policy/Fall 1992, *Energy Management: A View from Maine* (Journal Article)
12. Spellman, Richard F., *DSM Incentives Plus Electric Rate Adjustment Mechanisms Equal Bottom Line Impact*, paper presented at the 6th National Demand-Side Management Conference, March 24-26, 1993, Miami Beach, Florida
13. Spellman, Richard F., Van Wie, David A., Peaco, Daniel E., Lawrence, and Dennis R., *Optimizing Demand-Side and Supply Resources Using Linear Programming*
14. Spellman, Richard F., Utility Experience With Load Management in Texas, EPRI/Houston Lighting and Power Co. Load Management Conference, May 3, 1994, Houston, Texas.
15. Spellman, Richard, F., The Role of DSM in the Privatized Electricity Sector in England and Wales, and New Zealand, Paper Presented at the Association of Demand-Side Management Professionals Annual Meeting, Orlando, Florida, December 1994.
16. Spellman, Richard, F., Energy Services in A Global Environment, Paper Presented at the Association of Energy Services Professionals Annual Meeting, Phoenix, Arizona, December 1995.

17. Spellman, Richard, F., Value Added Services as Profit Centers in Texas, Paper Presented at the Association of Energy Services Professionals Annual Meeting, Beverly Hills, California, December 1996.
18. Spellman, Richard, F., "Preparing for Competition by Updating Corporate Marketing Strategies", Paper Presented at the Association of Energy Services Professionals Annual Meeting, Boca Raton, Florida, December 1997.
19. Megdal, Lori, Spellman, Richard, F., Johnson, Bruce "Methods and Measurement Issues for a DSM Evaluation versus a Market Transformation Market Assessment and Baseline Study", Paper Presented at the 1999 Energy Program Evaluation Conference, Denver, Colorado, August 1999.
20. Spellman, Richard F., Shel Feldman, Bruce Johnson, Lori Megdal, "Measuring Market Transformation Progress & the Binomial Test: Recent Experience at Boston Gas Company", Paper presented at the ACEEE Summer Study on Building Energy Efficiency, August 2000.
21. Spellman, Richard F., Giffin, Thomas M., Sheil, Jolene A., Nicol, John, "Experience and Lessons from the Wisconsin Industrial Focus on Energy Program: Transformation in Industrial Energy Efficiency Markets", presented at American Council for and Energy Efficient Economy Summer Study on Energy Efficiency in Buildings, Tarrytown, New York. July 25-27, 2001
22. Spellman, Richard F., Shel Feldman, Bruce Johnson, Lori Megdal, "Transition Strategies for Market Transformation Programs: Recent Experience at KeySpan Energy Delivery", Paper presented at the December 2001 12th National Energy Services Conference.
23. Rooney, Thomas; Spellman, Richard; Rufo, Michael; Schlegel, Jeff; "Estimating the Potential for Cost Effective Electric Energy and Peak Demand Savings in Connecticut", Paper presented at the 2004 American Council for an Energy Efficient Economy Summer Study in Pacific Grove, California, August 2004.
24. Spellman, Richard F., Goldfarb, Lynn K., Barnes, Harley, "Using Market Research to Improve Program Design and Delivery of Residential Lighting Programs in the US Northeast Region", Paper presented at the 15th National Energy Services Conference, December 7, 2004, Clearwater Beach, Florida.
25. Spellman, Richard F.; Goldfarb, Lynn K.; Huber, Jeffrey; "IS THERE A POTENTIAL NATIONAL MARKET FOR TRADING ENVIRONMENTAL CREDITS BASED ON THE ENVIRONMENTAL SAVINGS ACHIEVED THROUGH ENERGY EFFICIENCY SAVINGS?", Paper presented at the 16th National Energy Services Conference, December 2005.
26. Spellman, Richard F.; Rooney, Thomas; Burks, Jeffrey; Bean, Stephen; "Potential for Natural Gas Savings in the Southwest", Paper presented at the 2006 ACEEE Summer Study on Building Energy Efficiency, held at Pacific Grove, California.

Direct Testimony of Richard F. Spellman:

1. On Behalf of Central Maine Power Company, Before the State of Maine Public Utilities Commission, Docket Nos. 85-48, 85-82, 85-83, filed July 7, 1986. Subject Matter: Economics of Commercial and Industrial Conservation Programs in the CMP Service Area
2. On Behalf of Central Maine Power Company, Before the State of Maine Public Utilities Commission, Docket Nos. 88-111 and 87-261, filed November 6, 1987. Subject Matter: DSM Assumptions for Central Maine Power Company in Long Term Avoided Cost Filing.
3. On Behalf of Central Maine Power Company, Before the State of Maine Public Utilities Commission, Docket Nos. 88-111 and 87-261, filed June 22, 1988. Subject Matter: DSM Potential and Cost Effectiveness in the CMP Service Area.
4. On Behalf of Central Maine Power Company, Before the State of Maine Public Utilities

Commission, Docket No. 89-68, filed May 19, 1989. Subject Matter: Review and explain the basis for the updated short-term kWh sales forecast on which CMP's revised Attrition Study is based.

5. On Behalf of Central Maine Power Company, Before the State of Maine Public Utilities Commission, Docket No. 89-68, filed October 24, 1989. Subject Matter: Review and explain the basis for the short-term kWh sales forecast on which CMP's Attrition Study is based.
6. On Behalf of Central Maine Power Company, Before the State of Maine Public Utilities Commission, Docket No. 91-213, filed November 15, 1991. Subject Matter: Present CMP's conclusions regarding the advisability of inaugurating a residential space heat conversion program in the Company's service territory.
7. On Behalf of Central Maine Power Company, Before the State of Maine Public Utilities Commission, Docket No. 91-213, filed July 31, 1992. Subject Matter: Present updated information regarding the advisability of inaugurating a residential space heat conversion program in the Company's service territory.
8. On Behalf of Tex-La Electric Cooperative of Texas, Inc. Before the Public Utilities Commission of Texas, Docket No. 12289, filed July 1993. Subject Matter: Tex-La's DSM activities and updating of TEX-LA Energy Efficiency Plan.
9. On Behalf of Tex-La Electric Cooperative of Texas, Inc. Before the Public Utilities Commission of Texas, Docket No. 12289, filed July 1993. Subject Matter: Rebuttal testimony relating to TEX-LA's DSM activities.
10. On Behalf of H.E. Butt Grocery Company, Before the Public Utilities Commission of Texas, Docket No. 12820, Filed October 17, 1994. Subject Matter: Proposed modifications to Central Power and Light DSM Programs.
11. On Behalf of The Coalition of Cities and The City of Houston, Before the Public Utilities Commission of Texas, Docket No. 12065, filed November 15, 1994. Subject Matter: Proposed changes to Houston Lighting and Power Company's DSM programs.
12. On Behalf of the Georgia Public Service Commission Staff IRP Adversary Team, Before the Georgia Public Service Commission, Docket NO. 5602-U, filed May 8, 1995. Subject Matter: Proposed modifications to DSM programs proposed by Georgia Power Company in Integrated Resource Plan filed by the Company in January 1995.
13. On Behalf of the Georgia Public Service Commission Staff IRP Adversary Team, Before the Georgia Public Service Commission, Docket NO. 5601-U, filed May 8, 1995. Subject Matter: Proposed modifications to DSM programs proposed by Savannah Electric and Power Company in Integrated Resource Plan filed by the Company in January 1995.
14. On Behalf of the Sam Rayburn G&T Electric Cooperative, Inc., Before the Public Utilities Commission of Texas, Docket No. 14893, filed September 1995. Subject Matter: Description of SRG&T Compliance with prior Commission orders relating to SRG&Ts DSM activities.
15. On Behalf of the Sam Rayburn G&T Electric Cooperative, Inc., Before the Public Utilities Commission of Texas, Docket No. 14893, filed January 1996. Subject Matter: Rebuttal testimony relating to SRG&Ts DSM activities.
16. On Behalf of the Sam Rayburn G&T Electric Cooperative, Inc., Before the Public Utilities Commission of Texas, Docket No. 14893, filed March 1996. Subject Matter: Surrebuttal testimony relating to SRG&Ts DSM activities.
17. On Behalf of the Georgia Public Service Commission Staff IRP Adversary Team, Before the Georgia Public Service Commission, Docket Nos. 6315-U and 6325-U, filed April 5, 1996. Subject Matter: Evaluation of Benefits and Costs of Residential Load Management Program

Proposed by Georgia Power Company.

18. On Behalf of Green Mountain Power Company, Before the Vermont Public Service Board, Docket No. 5983, filed December 8, 1997. Subject Matter: Rebuttal Testimony relating to the effectiveness of the Company's historical DSM activities.
19. On Behalf of the Georgia Public Service Commission Staff IRP Adversary Team, Before the Georgia Public Service Commission, Docket NO. 8708-U, filed May 29, 1998. Subject Matter: DSM programs proposed by Georgia Power Company in Integrated Resource Plan filed by the Company in 1998.
20. On Behalf of the Georgia Public Service Commission Staff IRP Adversary Team, Before the Georgia Public Service Commission, Docket NO. 8709-U, filed May 29, 1998. Subject Matter: Proposed modifications to DSM programs proposed by Savannah Electric and Power Company in Integrated Resource Plan filed by the Company in January 1995.
21. On Behalf of the Georgia Public Service Commission Staff IRP Adversary Team, Before the Georgia Public Service Commission, Docket No. 8709-U, filed May 29, 1998. Subject Matter: Proposed modifications to DSM programs proposed by Savannah Electric and Power Company in Integrated Resource Plan filed by the Company in January 1998.
22. On Behalf of the Georgia Public Service Commission Staff IRP Adversary Team, Before the Georgia Public Service Commission, Docket No. 13305-U, filed May 11, 2001. Subject Matter: DSM programs proposed by Georgia Power Company in Integrated Resource Plan filed by the Company in January 2001.
23. On Behalf of the Georgia Public Service Commission Staff IRP Adversary Team, Before the Georgia Public Service Commission, Docket No. 13306-U, filed May 11, 2001. Subject Matter: Proposed modifications to DSM programs proposed by Savannah Electric and Power Company in Integrated Resource Plan filed by the Company in January 2001.
24. On Behalf of the Alliance to Save Energy, Before the Georgia Public Service Commission, Docket Nos. 17687 & 17688-U, filed May 14, 2004. Subject Matter: Proposal for new energy efficiency programs to be paid for and implemented by Savannah Electric and Power Company and Georgia Power Company (this was intervener testimony filed in the Integrated Resource Plan dockets heard before the Georgia Commission during 2004).
25. On Behalf of the Southern Alliance for Clean Energy, Before the Georgia Public Service Commission, Docket Nos. 4822-U & 19279-U, filed November 12, 2004. Subject Matter: Provided comments on the rules of the Georgia Commission relating to the methodology for the calculation of electric energy and capacity avoided costs that would apply to renewable energy producers in the State of Georgia.
26. On behalf of the Public Staff of the North Carolina Utilities Commission, Before the North Carolina Public Service Commission, Docket No. E-7, Sub 831, June 26, 2008, Subject Matter: The purposes of this testimony were the following: (1) to determine whether the SAVE-A-WATT (SAW) approach was in the public interest of the ratepayers of Duke Energy Carolinas, LLC (Duke or the Company); (2) to determine whether the SAW program administrator costs per lifetime kWh saved were reasonable and whether projected utility margins for energy efficiency and demand response resources under the proposed SAVE-A-WATT approach were reasonably based; (3) to determine whether the SAW approach would achieve the maximum achievable cost-effective potential for kilowatt-hour (kWh) and kilowatt (kW) savings in the Company's service area in North Carolina.; (4) to determine whether any additional cost-effective energy efficiency and demand response programs should be included in the Company's Energy Efficiency Plan; (5) to determine whether an alternative to SAW exists that provides superior electricity and dollar savings to the Company's ratepayers at a

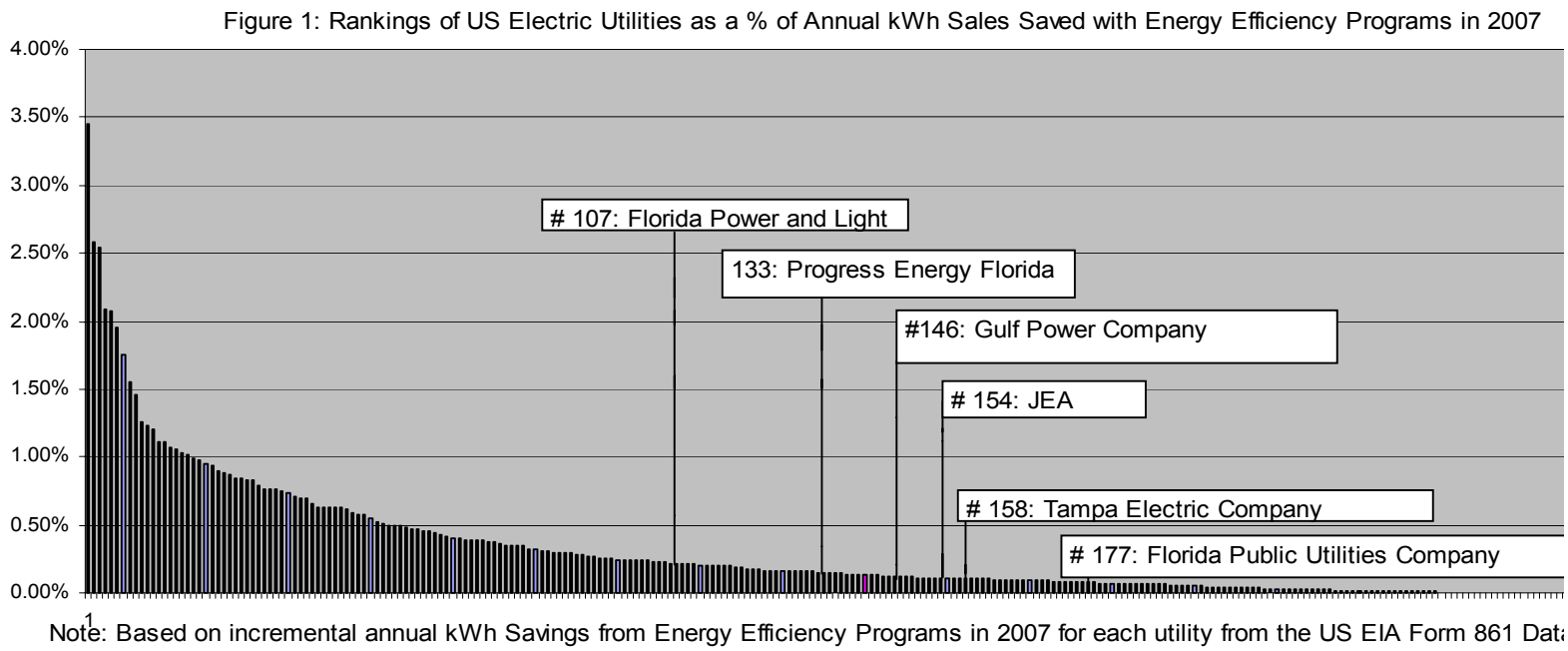
much lower cost to them.

27. On behalf of Communities Against Regional Interconnect, Before the State of New York Public Service Commission, Case No. 06-T-0650, Filed January 9, 2009, Subject Matter: The purpose of this testimony were the following: to present the achievable, cost effective non-route alternatives to construction of the New York Regional Interconnect (NYRI) project and to demonstrate that with the implementation of the proposed non-route alternatives there is no real need for the NYRI project.

28. On behalf of Connecticut Natural Gas Corporation, Before the State of Connecticut Department of Public Utility Control, Docket No. 08-12-06, Filed January 16, 2009, Subject Matter: The purposes of this testimony were the following: (1) describe how the new Connecticut Natural Gas (CNG) energy efficiency programs will strengthen the partnership with customers through expanded communication and outreach, consistent with the state's policy encouraging energy efficiency; (2) present an overview of existing CNG energy efficiency programs; (3) present information on best practice natural gas energy efficiency programs in other States; (4) describe CNG's proposal to expand energy efficiency program offerings; (5) provide a summary of proposed budgets, energy savings and cost effectiveness of proposed program offerings; (6) describe staffing needs to support the proposed programs; (7) present information on the impact of proposed programs on natural gas use per customer; (8) describe the regulatory mechanism for recovery of program costs.

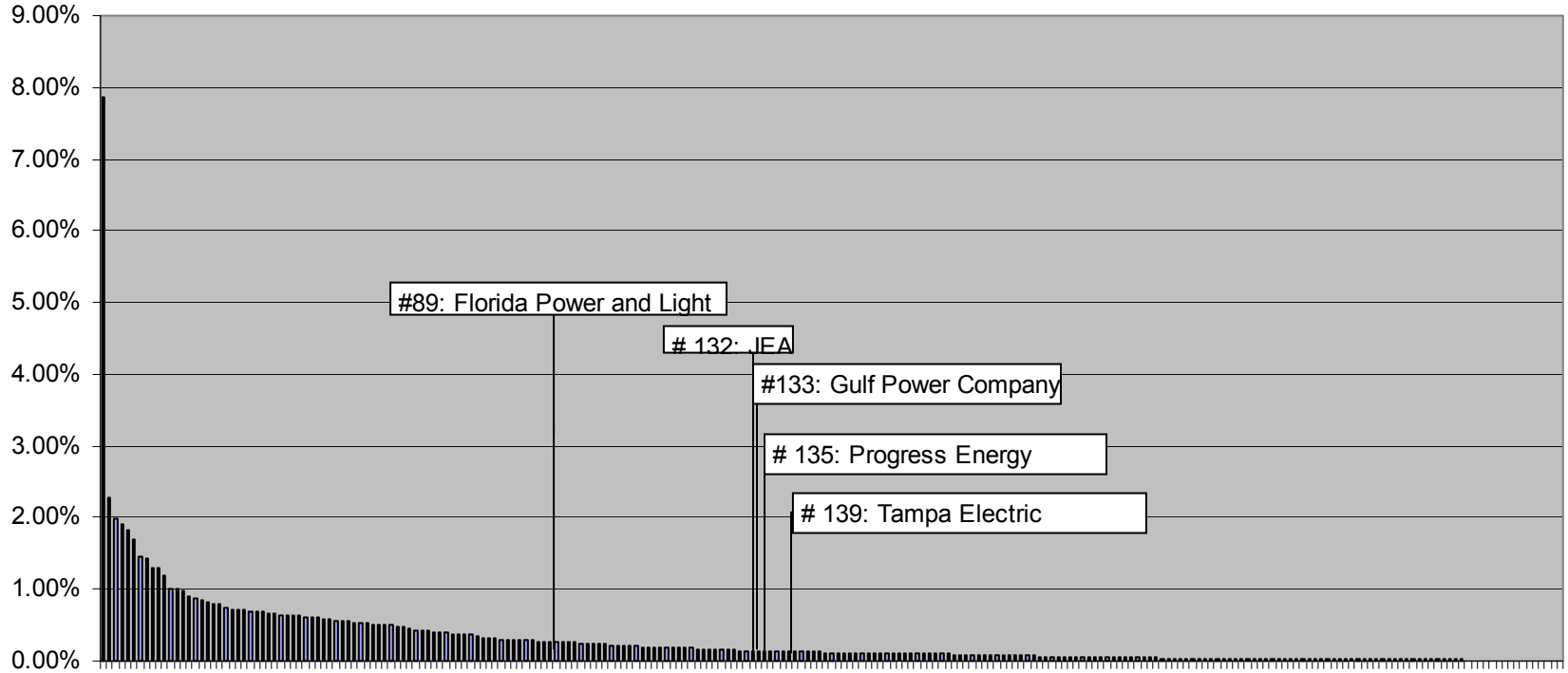
29. On behalf of the Southern Connecticut Gas Company, Before the State of Connecticut Department of Public Utility Control, Docket No. 08-08-17, Filed January 20, 2009, Subject Matter: The purposes of this testimony were the following: (1) describe how the new Southern Connecticut Gas Company (SCG) energy efficiency programs will strengthen the partnership with customers through expanded communication and outreach, consistent with the state's policy encouraging energy efficiency; (2) present an overview of existing SCG energy efficiency programs; (3) present information on best practice natural gas energy efficiency programs in other States; (4) describe SCG's proposal to expand energy efficiency program offerings; (5) provide a summary of proposed budgets, energy savings and cost effectiveness of proposed program offerings; (6) describe staffing needs to support the proposed programs; (7) present information on the impact of proposed programs on natural gas use per customer; (8) describe the regulatory mechanism for recovery of program costs.

Exhibit RFS - 5: Ranking of FEECA Utilities by Incremental Annual kWh Savings as Percent of Sales



Note: Orlando Utility Company did not report savings for 2007.

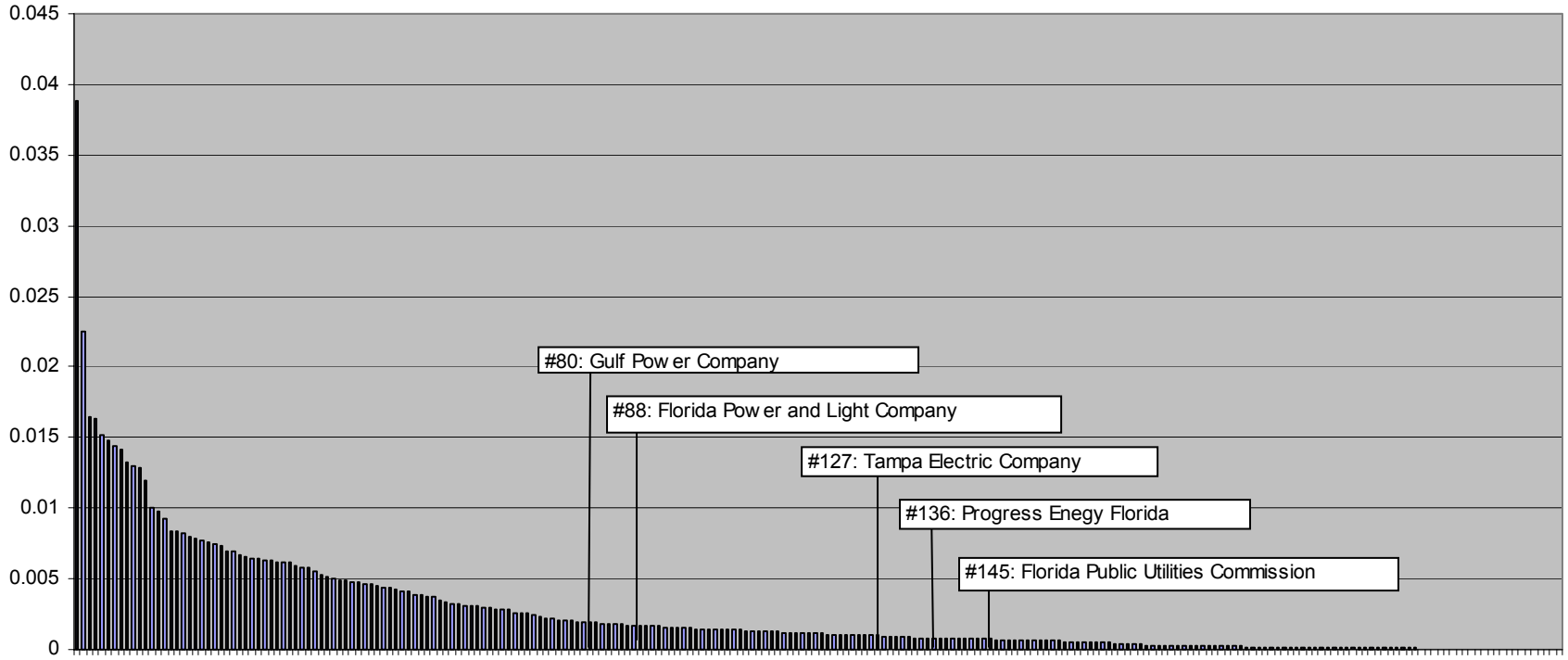
Figure 2: Rankings of US Electric Utilities as a % of Annual kWh Sales Saved with Energy Efficiency Programs in 2006



1 Note: Based on incremental annual kWh Savings from Energy Efficiency Programs in 2006 for each utility from the US EIA Form 861 Database

Note: Orlando Utility Company and Florida Public Utilities Company did not report savings for 2006.

Figure 3: Rankings of US Electric Utilities as a % of Annual kWh Sales Saved with Energy Efficiency Programs in 2005



Note: Based on incremental annual kWh Savings from Energy Efficiency Programs in 2005 for each utility from the US EIA Form 861

Note: Orlando Utility Company and JEA did not report savings for 2005.

Figure 4: Top Twenty Utilities Ranked by Annual 2007 Energy Savings as a Percentage of Annual kWh Sales

Utility Code	Rank	Utility Name	State	2007 Energy Efficiency Savings (kWh) Incremental	2007 Annual Retail kWh Sales	Annual 2007 Energy Efficiency Savings as a % of Annual kWh Sales
2182	1	City of Breckenridge	CO	1,462,000	42,336,000	3.45%
7303	2	Glidden Rural Electric Coop	IA	2,606,000	101,177,000	2.58%
2548	3	Burlington City of	VT	9,276,000	364,586,000	2.54%
14328	4	Pacific Gas & Electric Co	CA	1,662,875,000	79,450,903,000	2.09%
20806	5	City of Windom	MN	1,480,000	71,208,000	2.08%
17609	6	Southern California Edison Co	CA	1,551,503,000	79,505,231,000	1.95%
4176	7	Connecticut Light & Power Co	CT	281,367,000	16,054,317,000	1.75%
11804	8	Massachusetts Electric Co	MA	195,357,000	12,543,637,000	1.56%
19497	9	United Illuminating Co	CT	86,011,000	5,917,448,000	1.45%
10768	10	Laurens Electric Coop, Inc	SC	12,519,000	996,410,000	1.26%
20455	11	Western Massachusetts Elec Co	MA	25,873,000	2,098,952,000	1.23%
16181	12	Rochester Public Utilities	NY	15,815,000	1,307,897,000	1.21%
12312	13	Merced Irrigation District	CA	4,709,000	422,674,000	1.11%
6374	14	Fitchburg Gas & Elec Light Co	NH	3,049,000	276,004,000	1.10%
405	15	City of Alta	IA	166,000	15,587,000	1.06%
24590	16	Unitil Energy Systems	CT	9,983,000	941,779,000	1.06%
15500	17	Puget Sound Energy Inc	WA	222,310,000	21,626,537,000	1.03%
1015	18	Austin Energy	TX	117,649,000	11,546,977,000	1.02%
6022	19	Eugene City of	OR	26,914,000	2,728,684,000	0.99%
15776	20	Reedy Creek Improvement Dist	FL	11,607,000	1,183,620,000	0.98%
Weighted Average Annual kWh Savings as a Percent of Annual Retail kWh Sales				4,230,924,000	236,012,344,000	1.79%

Figure 5: Top Twenty Utilities Ranked by Annual 2006 Energy Savings as a Percentage of Annual kWh Sales

Utility Code	Rank	Utility Name	State	2006 Energy Effciency Savings (kWh) Incremental	2006 Annual Retail kWh Sales	Annual 2006 Energy Efficiency Savings as a % of Annual kWh Sales
14534	1	City of Pasadena	CA	96,632,000	1,229,963,000	7.86%
7303	2	Glidden Rural Electric Coop	IA	2,243,000	98,493,000	2.28%
11804	3	Massachusetts Electric Co	MA	256,956,000	12,990,328,000	1.98%
20455	4	Western Massachusetts Elec Co	MA	43,298,000	2,276,376,000	1.90%
2548	5	Burlington City of	VT	6,604,000	359,268,000	1.84%
2182	6	City of Breckenridge	CO	682,000	40,123,000	1.70%
12312	7	Merced Irrigation District	CA	5,451,000	375,279,000	1.45%
13214	8	Narragansett Electric Co	RI	96,048,000	6,707,930,000	1.43%
10768	9	Laurens Electric Coop, Inc	SC	12,433,000	951,468,000	1.31%
19497	10	United Illuminating Co	CT	76,242,000	5,919,000,000	1.29%
4176	11	Connecticut Light & Power Co	CT	264,916,000	22,109,070,000	1.20%
14328	12	Pacific Gas & Electric Co	CA	779,603,000	76,817,131,000	1.01%
17609	13	Southern California Edison Co	CA	787,563,000	78,863,143,000	1.00%
3477	14	Chicopee City of	MA	4,438,000	458,566,000	0.97%
6374	15	Fitchburg Gas & Elec Light Co	NH	2,548,000	283,887,000	0.90%
24590	16	Unitil Energy Systems	NH	9,210,000	1,048,943,000	0.88%
9417	17	Interstate Power and Light Co	IA	134,177,000	16,026,131,000	0.84%
16181	18	Rochester Public Utilities	MN	10,417,000	1,266,716,000	0.82%
17166	19	Sierra Pacific Power Co	NV	69,404,000	8,726,238,000	0.80%
15500	20	Puget Sound Energy Inc	WA	166,254,000	21,091,533,000	0.79%
Weighted Average Annual kWh Savings as a Percent of Annual Retail kWh Sales				2,562,817,000	236,548,053,000	1.08%

Figure 6: Top Twenty Utilities Ranked by Annual 2005 Energy Savings as a Percentage of Annual kWh Sales

Utility Code	Rank	Utility Name	State	2005 Energy Efficiency Savings (kWh) Incremental	2005 Annual retail kWh Sales	Annual 2005 Energy Efficiency Savings as a % of Annual kWh Sales
10768	1	Laurens Electric Coop, Inc	SC	35,951,000	924,781,000	3.89%
7303	2	Glidden Rural Electric Coop	IA	2,008,000	89,156,000	2.25%
17609	3	Southern California Edison Co	CA	1,239,175,000	75,301,581,000	1.65%
14328	4	Pacific Gas & Electric Co	CA	1,191,221,000	72,727,705,000	1.64%
12647	5	Minnesota Power Inc	MN	137,033,000	9,051,942,000	1.51%
1998	6	Boston Edison Co	MA	160,406,000	10,888,695,000	1.47%
4089	7	Commonwealth Electric Co	MA	31,760,000	2,210,570,000	1.44%
21013	8	City of Worthington	MN	2,634,000	186,896,000	1.41%
19497	9	United Illuminating Co	CT	80,931,000	6,106,000,000	1.33%
20455	10	Western Massachusetts Elec Co	MA	40,238,000	3,113,996,000	1.29%
11804	11	Massachusetts Electric Co	MA	199,421,000	15,491,461,000	1.29%
6374	12	Fitchburg Gas & Elec Light Co	NH	3,986,000	332,612,000	1.20%
1015	13	Austin Energy	TX	111,000,000	10,997,914,000	1.01%
4176	14	Connecticut Light & Power Co	CT	236,818,000	24,125,638,000	0.98%
13214	15	Narragansett Electric Co	RI	66,093,000	7,115,094,000	0.93%
12312	16	Merced Irrigation District	CA	2,905,000	345,224,000	0.84%
15500	17	Puget Sound Energy Inc	WA	171,390,000	20,465,557,000	0.84%
6022	18	Eugene City of	OR	22,030,000	2,663,174,000	0.83%
2886	19	Cambridge Electric Light Co	MA	8,845,000	1,117,811,000	0.79%
13441	20	New Hampshire Elec Coop Inc	NH	5,878,000	747,260,000	0.79%
Weighted Average Annual kWh Savings as a Percent of Annual Retail kWh Sales				3,749,723,000	264,003,067,000	1.42%