



Dixon Grant

Senior Consultant



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Professional Summary

Dixon Grant is a Senior Consultant in Guidehouse's ES&I segment. He has experience consulting for many types of clients including natural gas and electric utilities, governments and regulators. Dixon has worked on many projects related to natural gas demand side management, energy market research, regulatory compliance and other areas. Throughout his professional experience, Dixon has built extensive skills in research and analysis as well as financial and operational modelling. Dixon obtained a Bachelor of Commerce degree and a Bachelor of Science, biology, degree from Queen's University in Kingston, Ontario.

Areas of Expertise

- **Energy Efficiency / Demand Side Management and Emerging Technologies:** Supports clients in the evaluation, measurement and verification of energy efficiency programs, as well as in the development of energy efficiency potential studies.
- **Energy Market Assessment and Research:** Researches supply, demand, policy and macroeconomic factors that impact energy markets in Canada and the US. Research is used to develop wholesale electricity price, capacity market price and natural gas price forecasts for various jurisdictions.
- **Market and Regulatory Strategy:** Advises clients on the development of strategy to address disruptions in the industry, identify new markets or products to pursue, and address regulatory factors that will impact operations.
- **Process Improvement (Lean Six Sigma):** Obtained a green belt in six sigma and uses these skills to review advise clients on continuous business improvement. Duties include holding stakeholder interviews, leading kaizen events, process mapping and developing gap analyses and cost benefit analyses.
- **Data Mining and Data Manipulation:** Carries out in-depth analyses of large datasets to identify meaningful results for clients. Advanced data manipulation capabilities in Microsoft Excel. Intermediate capabilities in R, SQL and Python.



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Professional Experience

- **FortisBC, Energy Vision 2050** – Dixon was the lead analyst on a project to investigate the role of natural gas in an electrification future. The project involved the development two pathways to achieve 2030 and 2050 greenhouse gas reduction targets in British Columbia. As part of this, Dixon modeled the implementation of high-efficiency natural gas and electric equipment across BC's sectors (including gas and electric heat pumps, electric vehicles and others) in two distinct pathways for 2020-2050. The outputs of the model included BC-wide energy use, emissions intensities and costs to implement each of the two pathways. This data was aggregated to show the full societal impact of each pathway.
- **Ontario Energy Board (OEB), Natural Gas Guidelines** – Dixon is the lead analyst on an engagement supporting the OEB in the development of application guidance and filing requirements for natural gas facilities. As part of this project, Dixon is in charge of synthesizing information from various regulatory documents into one set of guidelines that aides natural gas distributors in the development of natural gas infrastructure.
- **Independent Electricity System Operator (IESO), Achievable Potential Study (APS)** – Dixon led the base year disaggregation (BYD) task for the IESO's 2019 Electric and Natural Gas APS. As part of this, Dixon was responsible for disaggregating provincial electricity and natural gas consumption to the sector, segment and end-use levels. In addition, Dixon was responsible for stakeholder facilitation and other operational tasks for the APS. The BYD results were used as a key input into the energy forecast for the APS.
- **Crown Investments Corporation (CIC) of Saskatchewan, Performance Benchmarking for SaskEnergy** – Dixon was the lead analyst in an engagement for CIC where Navigant was tasked with benchmarking SaskEnergy's performance metrics against other natural gas utilities across North America. The project culminated in a review of how SaskEnergy compares to these companies, and recommendations for additional performance indicators that SaskEnergy could employ to improve performance measurement.
- **Natural Resources Canada (NRCan), Market Transformation Road Map Development for Energy Efficient Space Heating, Water Heating, and Window Technologies** – Dixon supported NRCan in the development of a road map for achieving energy efficiency goals for space heating, water heating and window technologies. Technologies covered included air source / ground source heat pumps, and electric resistance heating as well as other energy efficient space and water heating and window technologies. As part of this engagement, Dixon facilitated multiple stakeholder interviews, and helped synthesize this feedback into key initiatives that were used in the road map for NRCan.



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Senior Consultant

Work History

- Senior Consultant, Guidehouse Toronto, ON, Canada Present
- Consultant, Navigant, Toronto, ON, Canada 2016 - 2018
- Analyst - Consulting (Summer Internship), MNP LLP, Toronto, ON, Canada 2015
- Business Analyst (Summer Internship), Century Energy International, Calgary, AB, Canada 2014

Certifications, Memberships, and Awards

- Navigant Consulting – Certified Six Sigma Green Belt

Education

- Bachelor of Commerce, Queen's University, Kingston, ON, Canada 2016
- Bachelor of Science, Biology, Queen's University, Kingston, ON, Canada 2016

Jim Young

Associate Director

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Professional Summary

Jim Young is an Associate Director in the Technology Innovation and Management group in the Energy Practice at Navigant. Jim has 9 years of experience in energy-related issues for building systems, including evaluation of emerging technologies, market assessments, and program support for utilities, government agencies, manufacturers, and private organizations. He has supported gas utilities in New York, California, and other U.S. states to evaluate gas technologies and develop program offerings around gas demand response, decarbonization, and other topics in response to local regulatory and policy drivers.

Areas of Expertise

- **Emerging Technology Evaluation:** Provides insight into the technical performance, cost-effectiveness, market feasibility, and other characteristics of new products and services in the areas of building energy efficiency, renewable energy systems, distributed energy resources, and advanced controls.
- **Market and Strategy Assessment:** Supports product development and strategic planning processes by characterizing market conditions, competitor activities, and key drivers, stakeholders, and challenges as well as identifying promising opportunities for initial introduction.
- **Technology Characterization and R&D Roadmaps:** Develops comprehensive reports on various building technologies that summarize current technology performance and market acceptance, identify industry R&D needs through stakeholder workshops and interviews, and describe high priority initiatives to overcome key technical and market barriers.

Professional Experience

- **Gas Demand Response (DR) Potential Analysis and Program Design** – Mr. Young supported a Northeast utility's evaluation of the potential benefits and cost-effectiveness of gas DR technologies, and subsequent program planning activities. The team identified a list of potential gas DR opportunities using equipment and building controls, and then characterized the peak day savings, incremental cost, applicable customer segments, and other attributes for use in the territory-wide potential model. In a subsequent project, the project team supported the utility in designing the gas DR program, developing an incentive strategy, and preparing the state utility commission filing.

Jim Young

Associate Director

- **Gas Technology Portfolio of the Future** – For over seven years, Mr. Young supported Southern California Gas Company's efforts to expand the utility's portfolio of energy efficiency technologies and programs, and increase the adoption of the most promising energy efficiency technologies. As part of this project, Jim analyzed various technologies by conducting manufacturer interviews, analyzing laboratory and field test results, and coordinating with various utility departments to develop the market and performance documentation required to incorporate the emerging technology into the energy efficiency portfolio. As part of this project, Jim evaluated several early-stage gas DR technologies, which SoCalGas eventually analyzed through laboratory testing and customer pilots.
- **Renewable Natural Gas Potential in Upstate New York** – Mr. Young conducted a forecasting analysis for a New York State utility to evaluate the potential for renewable natural gas (RNG) development in their service territory and surrounding region. The team collected county-level data on feedstock availability for agricultural products, food/animal wastes, and other resources, and estimated RNG production potentials by feedstock, county, and region. The team then developed several RNG production cost estimates, compared these to forecasted natural gas prices, and evaluated potential GHG emissions impacts under different carbon intensity assumptions. The analysis provided the utility with a realistic projection for regional RNG potential considering local constraints and will support their future planning activities and discussions with RNG developers.
- **Low-Carbon Gas Utility Roadmap** – Mr. Young supported New Mexico Gas Company (NMGC) to understand how its operations impacted GHG emissions in the state, and identified opportunities to reduce emissions in line with state policy goals. The team first conducted a GHG emissions inventory including emissions associated with the production, delivery, and use of natural gas in the state. The team then developed a low-carbon roadmap, which assessed NMGC's opportunities to reduce emissions through internal and customer focused initiatives such as RNG, energy efficiency, and CNG fleet vehicles, and described key action items, milestones, metrics, data needs, and barriers. NMGC included the roadmap within their fall 2019 rate case filing.
- **Future Space Cooling Demand in New York City** – Mr. Young is currently conducting an analysis for NYSERDA to better understand the impacts of climate change on indoor cooling needs in New York City, with focus on vulnerable populations and communities. The project team analyzed New York City's cooling energy demand in future years, including impacts of climate change, consumer behavior, and state and local policies around building energy efficiency, and developed a spreadsheet model to project impacts under different scenarios. The project team reviewed available public health literature on heat risks, current barriers to cooling equity, as well as technology and policy options to meet future cooling needs while minimizing increases in energy use and peak demand. The project team plans to hold discussions with community stakeholders to understand how best to deploy promising cooling solutions and ultimately recommend cost-effective pathways that address known barriers to equitable cooling.

Jim Young

Associate Director

- **California Buildings GHG Emissions Reduction Strategies** – Mr. Young conducted an analysis for a California utility that evaluated several GHG emissions reduction strategies for residential and commercial buildings, including appliance electrification, incremental energy efficiency, and renewable gas supply. The project team characterized a baseline projection for future years, which accounted for committed utility energy efficiency savings, renewable portfolio standard targets, and other factors. The project team then evaluated the GHG emissions savings from converting gas building loads to electricity in future years, and estimated the required amounts of renewable gas, energy efficiency, and other strategies to match this savings target. The team compared the cost-effectiveness of different strategies, and evaluated the sensitivities of different utility rate forecasts, technology adoption schedules, and infrastructure upgrade requirements. Full report is available ([Link](#)).
- **Zero-Net-Energy (ZNE) Homes with All-Electric and Mixed-Fuel Designs** – In a series of projects, Mr. Young evaluated the cost-effectiveness to reach ZNE status for new California homes using natural gas and electric appliances. Navigant conducted building energy simulations for mixed-fuel and electric-only home designs to support a California utility's understanding of the technical and economic impacts for appliance selection under different ZNE definitions, e.g., site energy, source energy, time dependent valuation (TDV). This study assessed the feasibility of natural gas appliances in reaching ZNE status by balancing efficiency measures with solar PV generation for different regions within the utility's service territory. The results of this study informed the utility's outreach efforts to builders developing ZNE homes and state regulators. A summary of this work is available ([Link](#)).
- **DOE Building Technology Roadmaps** – Mr. Young developed a R&D roadmap to assist the U.S. Department of Energy (DOE) identify R&D initiatives to advance the development of emerging HVAC technologies to meet DOE's energy savings and other program goals. As part of the roadmap process, the team conducted a one-day workshop with several dozen industry experts to identify current barriers and key R&D areas. The team then synthesized the stakeholder ideas, characterized each R&D initiative, and prioritized the most promising initiatives based on energy savings potential, fit with DOE mission, and other attributes. Mr. Young has developed similar DOE roadmaps and technology characterizations on several other building research areas.
- **Canadian Building Technology Roadmap** – Mr. Young developed a market transformation roadmap for windows, space heating, and water heating to support Natural Resources Canada's (NRCan) activities to reduce greenhouse gas emissions and promote clean, low-carbon economic growth. The project team conducted several workshops, interviews, and advisory sessions with Canadian stakeholders to identify strategies that overcome key technical and market barriers, and characterize initiative timelines, stakeholder roles, and indicators to track success. NRCan anticipates the roadmap will serve as the basis for collaborative government-stakeholder initiatives and activities through 2025. Full report is available ([Link](#)).

Jim Young

Associate Director

- **Utility Energy Efficiency Measure Scans** – In a series of projects, Mr. Young supported a Midwest electric and natural gas utility by identifying commercially available and emerging technologies for its residential, commercial, and industrial energy efficiency portfolio. Through a scan of other leading utilities and research organizations, the team characterized and prioritized promising technologies for near-and medium-term consideration. The team developed profiles for each technology including savings potential, cost effectiveness, technical and market risks, anticipated customer participation, as well as incentive and program strategies

Work History

- Associate Director, Navigant 2011-Present

Certifications, Memberships, and Awards

- Associate Member ASHRAE
- Board Member – Young Professionals in Energy (YPE), Chicago IL Chapter

Education

- Master of Science, Sustainable Engineering, Villanova University
- Bachelor of Science, Aerospace Engineering, University of Notre Dame

Judy Simon

Director



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Professional Summary

Judy, a director in Navigant's Energy practice in Toronto, has over 35 years of experience in energy efficiency program planning, program design, program delivery as well as related regulatory matters. Over the years she helped more than 50 Ontario electric utilities in CDM - to develop and obtain approval of their CDM plans, as well as design and deliver CDM programs. She advised the IESO on the design of the first generation CDM framework and well as the design of the first suite of provincial CDM programs. Most recently for electric LDCs, she led the design, business case approval with the IESO and the delivery on behalf of Hydro One and NPEI Ontario's first regional, and agricultural midstream program, Agripump Rebate Program, and on behalf of Toronto Hydro led the business case approval and delivery of Suite Saver, a direct install lighting program in Toronto condos and apartments. Most recently for the IESO, she led the review of the measures list for Deal Days which built on the work she had previously led on behalf of IESO's Residential Working Group (RWG) to update the measures and program design of Coupons Program, which became Deal Days. All this work required strong knowledge of cost-effectiveness tests and how to apply them to program design.

Early in her career Judy spent 6 years at the Ontario Ministry of Environment where she led the environmental assessment of energy infrastructure projects (transmission, generation, energy from waste) under the Environmental Assessment Act, which involved reviewing methodologies and their application for comparing, energy benefits and primarily qualitative, non-energy benefits of proposed infrastructure projects and their alternatives. Judy built on this expertise as an Ontario Energy Board member (part-time) for 10 years, where she adjudicated over 50 energy infrastructure applications (pipelines and related facilities), most of which required a comparison of energy and non-energy benefits, primarily qualitative non-energy benefits.

Judy has worked extensively since 2004 with the Low-income Energy Network and Housing Services Corporation. Most recently on behalf of both, she prepared a joint submission to the Ontario Energy Board on the next natural gas DSM framework. She also did work for Indigenous Services Canada on how to increase DSM and renewables in Manitoba's non-diesel communities.

Areas of Expertise

- **Frameworks, Planning and Program Design:** Provides project management, strategic support and technical expertise on the design of DSM/CDM and DER frameworks, integrated resources planning, as well as expertise in the design of DSM/CDM plans, portfolios and programs

Judy Simon

Director

- **Achievable Potential/Market Characterization/Energy Policy Analysis:** Provides project management, strategic support and technical expertise on provincial as well as local achievable potential studies, passive and targeted DSM/CDM, market characterization analysis, DSM/CDM best practices, and related rate design
- **Energy Professionals Training:** Designs and delivers training on DSM/CDM program planning, design, delivery, account management, DSM economics as well as policy and regulatory requirements related to electric utility distribution system planning
- **Low-income Energy Matters:** Provides project management, strategic support and technical expertise on low-income CDM/DSM energy matters, policy frameworks, CDM/DM program design and delivery as well as customer care
- **Program Evaluation:** Provides project management, strategic support and technical expertise on program and portfolio impact and process evaluation

Professional Experience

CDM Program Design and Delivery

- **New Gas DSM Framework – Low-income Energy Network and Housing Services Corporation. Toronto, 06-2019. Project Director and Lead Author.** Prepared a submission to the Ontario Energy Board on the new gas DSM framework and low-income energy related issues.
- **Review of Measures List for Save on Energy's Deal Days – Toronto Hydro and IESO's Residential Working Group, Toronto, 11/2018-02/2019. Project Director.** Work involved reviewing the existing set of measures, updating them and finalizing the measures list and the corresponding incentive levels based on modeling uptake, and then preparing the business case.
- **Review of Manitoba Hydro Rates in Diesel Communities – INAC 10/02/2018-03/31/2019. Project Director.** Reviewed rate-setting practices and related barriers to doing DSM and renewables to displace diesel generation and made recommendations on improvements to practices.
- **2015-2020 CDM Plan – Niagara Peninsula Energy Inc. (NPEI), Niagara Falls, Ontario 2015,2016,03/2018, 02.2019-03/30/2019 Project Director.** Prepared, in close collaboration with NPEI, the utility's 2015-2020 CDM Plan, a 2016 and a 2018 update. 2019 update was terminated due to withdrawal of NPEI from Save on Energy.

Judy Simon

Director

- **Electricity Conservation Potential Study for Ontario—Independent Electricity System Operator (formerly Ontario Power Authority - OPA), Ontario 03/2013 – 02/2014 Project Manager.** Led the electricity achievable potential study for 2012-2032 for the residential, commercial, institutional and industrial sectors. Results were by sector, subsector and end use and included supply curves, codes and standards, as well as cost- effectiveness test results.

Work History

- Director, Clean Energy Programs, Navigant. Toronto, Ontario. 07/2019 - present
- Principal, Strategic Energy, ICF. Toronto, Ontario. 06/2013 – 06/2019
- Principal, Economic Regulation & Conservation, Elenchus Research Associates. Toronto, Ontario. 10/2011 – 12/2012
- Vice President, IndEco Strategic Consulting. Toronto, Ontario. 01/1994 – 09/2011
- Board Member (part-time), Ontario Energy Board. Toronto, Ontario. 03/1992 – 03/2002
- Judy Simon & Associates. President and CEO. 04/1989 – 06/2019
- Ontario Ministry of Industry, Trade and Technology. Manager, Technology Policy Branch. Toronto Ontario. 1987-1989
- Ontario Ministry of Environment. Manager (1982-87), Environmental Planner (1981-1982) Environmental Assessment Branch. Toronto, Ontario. 1982-1987
- Ontario Ministry of Energy, Energy Planner. Conservation and Renewable Energy Group. Toronto, Ontario. 1980-1981

Education

- 2012 Mini-MBA (EDC – Cycle 1) McGill University Executive Institute
- 1980 Master of Environmental Design (Environmental Science), University of Calgary
- 1977 Bachelor of Science, University Scholar, Great Distinction, McGill University



Jeremy Newberger

Associate Director

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Professional Summary

Jeremy is an Associate Director for Guidehouse in the Clean Energy Program practice area. He has over 30 years of experience in the energy efficiency field, including 24 years of strategic planning, program design, cost effectiveness, and evaluation work at National Grid, in New England. His areas of expertise are in the fields of energy efficiency, grid modernization, and clean energy include policy, program design, integrated and distributed resources, resource valuation, stakeholder and regulatory engagement, evaluation, and reporting.

Areas of Expertise

- **Evaluation, Measurement & Verification:** Provides evaluation of energy efficiency program energy and demand savings, benefits streams, and attribution
- **Valuation:** Identifies the value of demand side resources for cost effectiveness testing and communicating value to customers and other stakeholders
- **DSM Integration:** Integrates energy efficiency with other distributed resources and non-wires solutions; determines customer value proposition and regulatory pathways to achieve this integration
- **Program Design & Regulatory Support:** Develops program strategies that meet customer, policy, and regulatory energy and non-energy objectives; engages and gains support from stakeholder communities, testifies before regulatory bodies

Selected Professional Experience

- Contributed to analysis of non-infrastructure alternatives to building a new gas pipeline in order to meet gas demand for a Northeast gas utility including savings estimation, implementation strategy, and research of regulatory framework; led tracking of public comment in response to analysis.
- Overseeing update to energy efficiency evaluation, measurement and verification framework for a NY-based utility, in the wake of new regulatory commission rules on the verification of savings.
- Reviewed bid specifications and provided oversight to solar and wind procurement process for a Midwest utility request for proposals/bid process.
- Supported strategic planning for gas energy efficiency and beneficial electrification for a NY-based utility client, focused on realistic assessment of savings and costs, analysis of baselines, research of realization rates, and review of technical reference manual information.
- Led strategic planning for \$1.2 billion electric and gas energy efficiency energy efficiency plan in Massachusetts, focusing on long term planning for 2019-21 energy efficiency investments, with annual budget in excess of \$400 million, and \$15 million shareholder incentive target.
- Guided initiative to develop third-party finance partnership for commercial and industrial projects. Identified gaps in project financing currently offered and screened candidates to find best fit to meet program needs.

Jeremy Newberger

Associate Director

- Consulted to group seeking to advance implementation of program design elements consistent with amendments to enabling statute for efficiency and clean energy in Massachusetts to include strategic electrification; wrote policy statements, record requests, and brief.
- Coordinated and managed New England regional avoided cost study six times and acted as key resource on cost effectiveness issues for energy efficiency.
- Managed cross-functional benefit-cost analysis (BCA) Team for Massachusetts' Grid Modernization Filing incorporating grid-facing and customer-facing strategies and testified before Massachusetts Department of Public Utilities.
- Managed group focused on energy efficiency and system reliability procurement (targeted non-wires alternatives projects) planning, evaluation, reporting, and stakeholder relations. Secured support from various stakeholder groups, and ultimately Rhode Island PUC, of utility's energy efficiency efforts with annual budgets up to \$130 million, and \$5.5 million shareholder incentive target.
- Led utility efforts in System Integration Rhode Island (SIRI) working group to create a Rhode Island-specific vision for the future of the grid in the state. Contributed to Power Sector Transformation strategy development in Rhode Island.
- Managed utility company's participation with energy efficiency and combined heat and power in ISO-New England's forward capacity market (FCM).
- Coordinated impact evaluations for large commercial and industrial customized energy efficiency projects.

Work History

- Associate Director, Guidehouse (NY)
- Independent consultant, E4the Future (MA)
- Director, Manager, Lead Analyst, Senior Analyst, National Grid (MA)
- Consultant, Sieben Energy Associates (IL)
- Senior Planner, Planner, Pacific Gas and Electric Company (CA)
- Consulting Engineer, Energy Investment Inc. (MA)

Certifications and Memberships

- Planning Committee, International Energy Program Evaluation Conference (IEPEC)
- Past Board member, Consortium for Energy Efficiency

Education

- Master of Science, Technology and Policy, Massachusetts Institute of Technology
- Bachelor of Science, Energy Engineering, University of Illinois-Chicago

Paul Moran

Associate Director



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Professional Summary

Paul Moran is Associate Director in Guidehouse's Energy, Sustainability and Infrastructure practice and is responsible for leading engagements for clients in the energy sector including electric and gas utilities, power generators, pipeline and midstream companies, gas storage operators, and LNG export project

developers.

Paul is an accomplished electric and gas utility professional with extensive background in the power and gas sectors including electric transmission and distribution, natural gas pipelines and distribution in addition to emerging energy technology, including Smart Grid technology assessments and evaluations. He has led several client engagements focused on the design, development and execution of innovative product and service offerings by electric and gas utilities for residential and commercial customers.

His 16 years of energy industry experience include providing subject matter expertise related to corporate strategic planning, power and natural gas market analysis and forecasting, business process improvement, organizational design and change management.

Professional Experience

Integrated Resource Planning and Natural Gas Supply Planning

- » For a large US Midwestern gas and electric utility, developed a long-term integrated resource plan which included a risk assessment to consider critical uncertainties including fuel prices, energy demand, technological changes in generation, including coal, natural gas, wind and solar, capital costs for new generation units, and wind output. In evaluating the various portfolio options, the analysis examined the tradeoffs between cost, risk, and environmental stewardship.
- » For a major US gas distribution company, assisted in the design, implementation and monitoring of demand-side management programs reduce natural gas consumption by improving the energy efficiency of buildings, space heating systems, water heating, and other gas appliances. Programs included conservation improvement programs designed at providing residential and commercial building developers and end-users with incentives to deploy more efficient heating systems and appliances.
- » Managed a cross-functional team to evaluate a software system replacement for gas supply, transportation, trading and risk management including documentation of business and technical requirements, vendor selection, user acceptance training, change management, process redesign and system implementation.

Paul Moran

Associate Director

Professional Experience

Electric and Natural Gas Market Analysis and Forecasting

- » Performed multiple assessments of North American electric and natural gas markets and developed long-term forecasts of supply and demand, electricity and natural gas prices to examine the impacts of market trends, i.e., coal retirements, clean power plan, renewable integration and transmission and pipeline expansions, on power and gas market markets using proprietary models in addition to the GPCM® natural gas forecasting model and PROMOD electricity market modeling software.
- » Performed multiple assessments of natural gas markets and developed long-term forecasts of supply and demand, gas prices and pipeline utilization using proprietary models in addition to the GPCM® natural gas forecasting model.
- » Assessed market fundamentals and economics of emerging supply basins to evaluate the competitive position of producer reserves in addition to developing growth and acquisition strategies for producers, pipelines and midstream/storage companies.
- » Provided an analysis of key regulatory developments and power market and natural gas market trends including projections of production, demand and natural gas prices and basis for a gas storage operator in Texas.
- » Conducted several strategic market assessment and valuations of major interstate natural gas pipelines in support of acquisitions. Developed models to evaluate multiple supply and demand scenarios, forecast pipeline flows and project re-contracting volumes and rates to assess the competitive position and projected performance of the pipelines.
- » Prepared a competitive assessment of LNG and steam coal procurement options in support of a fuel supply strategy for a power plant developer in Chile.
- » Developed a natural gas fuel supply and transportation strategy to source U.S. natural gas production for a power project in Mexico.
- » Advised in the screening, valuation and detailed due diligence of several LNG export facilities and natural gas midstream assets, throughout the U.S. on behalf of equity investors and lenders.
- » Managed a study to evaluate a comprehensive, long-term natural gas and transportation strategy for a U.S. based developer of two U.S. Gulf Coast LNG export facilities. Assessed natural gas market fundamentals and developed a long-term price forecast. Prepared and delivered recommendations to the executive management of the Company.
- » Performed strategic advisory services for a client interested in developing small-scale LNG liquefaction terminals in the U.S. Responsibilities included development of a model to analyze the investment strategy under different supply growth scenarios and capital constraints.

Paul Moran

Associate Director

Professional Experience

Regulatory and Compliance

- » Prepared and delivered expert witness testimony in support of gas pipeline business risk and tariff design before several regulatory commissions, including the Ontario Energy Board.
- » Developed a comprehensive review of the natural gas hedging program for a large electric utility in Canada. The scope of the review was to validate the program objectives and review the long-term approach in the context of changing natural gas market fundamentals. In addition, the review identified opportunities for improvement and recommendations on enhancements to strengthen the hedging program.
- » Managed a comprehensive review and assessment of a large electric utility's current regulatory compliance program and processes across operations, engineering, finance, risk management, customer service and regulatory reporting. Developed recommendations to improve and enhance the effectiveness of the program and implemented a multi-stage program to facilitate improved regulatory reporting and strengthen alignment between the regulatory affairs group and the business units
- » Conducted an independent review of a 3rd Party audit of a large electric utility's fuel adjustment mechanism that was commissioned by the public utility commission. Reviewed certain assertions related to organization, staffing and controls, and provided insights and perspective related to the organization and staffing of the fuel purchasing and risk management functions. In addition, provided expert witness testimony and evidence related to the report.
- » For a large, multi-year Advanced Metering and Smart Grid deployment, developed and managed a program to ensure compliance with regulatory reporting to U.S. Federal agencies and State public utility commissions.
- » Developed and implemented a regulatory compliance program for a U.S. electric retailer to ensure timely and accurate preparation of regulatory filings and compliance with requirements.
- » Managed financial analysis, review and development of regulatory filings and rate cases for a U.S. electric transmission and distribution and gas distribution company.
- » Prepared strategic reviews of gas procurement supply plans, commodity hedging programs and risk management strategies for gas utilities and electric power generators in addition to designing gas hedging programs for market participants.

Paul Moran

Associate Director

Professional Experience

Strategic Planning

- » Developed a robust financial planning tool for a non-regulated subsidiary of a Fortune 1000 U.S. energy company to forecast market capitalization, earnings, credit rating and debt capacity to evaluate the impact on major strategic acquisition and development initiatives and changes in market conditions on its financial position. Conducted workshops with members of the company's senior management team to facilitate all aspects of the strategic planning process.
- » Led client strategic planning engagements for IPPs, electric and gas utilities, midstream and pipeline companies and provided subject matter expertise for client engagements related to Corporate Strategic and Business Plans, generation resource plans, business process improvement, organizational design, change management and performance monitoring.
- » Developed and led the annual strategic planning process for a large Fortune 500 energy company across its pipeline, field services, natural gas distribution and electric business units. Facilitated senior executive strategic planning workshops on scenario analysis, market outlook, enterprise risk management and competitive intelligence.
- » Evaluated potential mergers, acquisitions and divestitures of pipelines, storage assets, gas trading books, electric utilities and gas distribution companies and conducted asset valuation, due diligence and financial analysis to support business cases. Delivered recommendations to senior executive management.
- » Designed and implemented a performance measurement and risk management process to measure and track key performance indicators to improve operating results and enhance financial performance.
- » Facilitated the development of corporate and business unit strategies designed to enable a Fortune 500 utility to achieve its earnings and growth targets as part of its annual strategic planning process.

New Business Development and Market Assessments

- » Developed business strategy for creation and execution of a \$20 million tax equity fund to participate in solar ventures. Negotiated lease terms with host sites. Negotiated strategic alliance with EPC contractor.
- » For a large electric and gas utility, led the evaluation and business case development for a new service offering to provide residential home appliance repair and warranty services.
- » Managed the evaluation of an entry into the retail electricity market including economic evaluation, market analysis, business case development and market-entry strategy which was approved by executive management and the Board of Directors.
- » Led the business case development for an Advanced Meter Reading/Smart Grid deployment totaling over \$1 billion in capital expenditures, including capital budgeting, forecasting and financial analysis.

Paul Moran

Associate Director

Work History

Associate Director, Navigant	2015 – Present
Principal, Wood Mackenzie	2013 – 2015
Director, Pace Global	2011 – 2013
Director of Strategic Planning, CenterPoint Energy	2006 – 2011
Lead Analyst, CenterPoint Energy	2003 – 2006

Education

B.A., Political Science	Providence College
MBA, Strategy & Finance	Indiana University