

Asian Energy Advisors

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Curriculum Vitae



James A. (Nick) Nichols, III

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Nick Nichols is a senior management advisor focusing on financial, regulatory, and market issues related to electric power sector participants. He addresses policy and corporate strategic issues, with a focus on bulk power transaction deal support, forward pricing and market assessment issues. His background includes technical operations and planning related to electric power distribution, transmission, and generation.

Mr. Nichols has worked in-country in Afghanistan, Australia, Canada, Chile, Guam, Hong Kong, Indonesia, Jamaica, the Philippines, Taiwan, and Vietnam as well as in all regions of the U.S. He served as Asia Regional Manager for Navigant Consulting, Inc. in Manila, Philippines where he focused on regulatory restructuring, tariffs, and forward pricing issues throughout Southeast Asia.

Mr. Nichols has presented expert witness testimony before the U.S. Federal Energy Regulatory Commission, the Philippine Energy Regulatory Commission, and the International Court of Arbitration on pricing, revenue requirement, and rate base issues and has provided expert opinions on damages related to generating plant delay.

Within Asia, his [clients](#) have included development agencies, law firms, public utilities, independent power developers, and government agencies.

Areas of Expertise

- Electricity supply in developing economies – rural, urban, and national issues related to pricing, planning, regulation, and privatization.
- Due diligence reports supporting financing and asset investment.

- Negotiations and structuring of power sales agreements and joint ownership and operating agreements.
- Financing, Regulatory and Pricing aspects of independent power producers, municipal and government-controlled utilities, tax-exempt joint-action agencies, electric distribution cooperatives, generation & transmission cooperatives, and investor-owned utilities.
- Support for Fair Market Value appraisals of electric power assets
- Enterprise and project risk assessments incorporating technical and market uncertainties using Monte Carlo and other techniques.
- Forward pricing and power market assessments including price volatility and uncertainty analysis, locational marginal pricing (LMP) and transmission congestion assessment.
- Corporate modeling, project financial modeling, and return on rate base revenue requirement determinations (cost of service).

Professional History

- Independent Consultant, Asian Energy Advisors
- Associate Director, Navigant Consulting, Inc.
- Senior Consultant, Ebasco Business Consulting
- Founding Partner, InterTech Systems, Inc.
- Manager, Coopers & Lybrand Utility Regulatory and Advisory Services
- Partner, Southern Engineering Company
- Generation Planning Engineer, Wabash Valley Power Association
- Transmission Planning Engineer, Southern Company Services and Georgia Power Company

Education

- Bachelor of Electrical Engineering, *with Honor*, [Georgia Tech](#), 1974
- MBA Program, University of Alabama
- EE Masters Program, Georgia Tech
- [Darlington School](#), *cum laude*, 1969

Honors and Fellowships

- Eta Kappa Nu (Electrical Engineering)
- Tau Beta Pi (Engineering)
- Phi Eta Sigma (Multi-disciplinary)
- Briarean Society
- Studies in German Philology, [University of Erlangen-Nuremberg](#)
- Advanced Power Systems Modeling Studies, University of Texas Arlington

Selected Professional Experience Profiles

»**Commercial Distribution Specialist, Afghanistan, World Bank, 2009.** Mr. Nichols is providing advisory to identify alternative business models to increase access to grid-based electricity, which are applicable to Afghanistan's situation. As lead commercial specialist, he is focusing on the commercial adaptability, feasibility and sustainability of such options.

»**Regulatory and Financial Expert, SunWest Water & Power Company,**

2009. Mr. Nichols is retained as power markets and regulatory consultant to SunWest, a Filipino-owned independent power provider (IPP) and developer of over 20 mini-hydroelectric projects in various stages of development and construction throughout the Philippines.

»**Rural Distribution and Financing Project, NRECA International, 2008–09.** Mr. Nichols is currently retained, part time, as In-Country Coordinator by NRECA International, prime contractor to the Philippine Rural Electric Financing Corporation (REFC) which is the recipient of a grant from the US Trade & Development Agency and NRECA for a three year technical advisory project focused on identifying, financing, and implementing projects to achieve reductions in technical system losses of the electric cooperatives.

»**Power Procurement Advisor, Northeast Luzon Electric Cooperative Association, 2009.** Mr. Nichols is advising four regional electric cooperatives on the competitive procurement and evaluation of power supply from IPPs.

»**Power Supply Procurement Advisor, Panay–Guimaras Power Supply Consortium, 2008.** Mr. Nichols was retained by PPSC to assist in the design of a procurement process to secure long-term base and intermediate load supply beginning in 2011 for the seven electric cooperatives on Panay and Guimaras.

»**Power Supply Consortium Advisor, NRECA International, Inc., 2008.** Mr. Nichols was retained as advisor to NRECA Philippines and the electric cooperatives on Panay and Guimaras regarding certain power supply and strategic issues regarding the development and implementation of power supply joint action through a consortium of ECs.

»**Expert Witness, Mirant Corporation Asset Recovery, LLC., 2007–2008.** Mr. Nichols was retained by Mirant Corporation Asset Recovery, LLC as an advisor and expert witness regarding certain issues impacting valuation of Mirant's former assets in Asia.

»**Capex Filing, Boheco II Electric Cooperative, 2007–2008.** Mr. Nichols is providing preparation assistance in the submittal to the Philippine Energy Regulatory Commission for approval of the ECs capital expenditure plan.

»**Electric Cooperative Sector Expert, International Finance Corporation, 2007.**

Mr. Nichols provided advisory services on the design and development of alternative market intervention initiatives (pilot projects) by the IFC for strengthening the Philippine electric cooperative sector.

»**Power Supply Contracts, Tarlac Power Corporation, 2007.**

Mr. Nichols provided advisory services related to the development of a contract with the National Transmission Company for the provision of ancillary services from TPC's diesel generator.

»**Power Supply Procurement, Boheco I Electric Cooperative, 2006.**

Prepared bid specifications adequate to meet ERC guidelines for competitive solicitation of power supply bids.

» **Vista Research, division of Standard & Poor's, 2006.**

Mr. Nichols is a member of Vista Research's Society of Industry Leaders, helping to keep their institutional investor clients informed and up-to-date on developing industry trends and issues in the Energy sector.

» **Market Issues Assessment, Duke Energy Asset Acquisition, 2005.** For a private equity group seeking to acquire certain U.S. generation assets of Duke Energy North America, Mr. Nichols provided lead analysis on Western Market Issues impacting valuation of the assets.

» **Independent Expert Report – International Court of Arbitration, 2005.** Mr. Nichols provided sworn testimony in the form of an Expert's Report regarding pricing issues under dispute between a subsidiary of Rolls-Royce Power Ventures and Coca-Cola Bottlers Philippines regarding the supply of electricity, steam, and CO₂ at the Santa Rosa, Philippines bottling plant.

» **State of California – Power Market Litigation, and Electricity Market Issues Assessment, 2003–2005.** Mr. Nichols assessed electricity market and system issues (regarding impacts on costs and reliability with particular focus on congestion and transition to nodal pricing market – LMPs) in support of the 2003, '04 and '05 Electric Revenue Requirement filings of the California Department of Water Resources (over \$5 Billion in annual revenue). Provided key market assessment services in support of the States' litigation settlement discussions and re-negotiations with a number of electricity and gas suppliers.

» **Damages Assessment, Siemens AG, 2003.** Mr. Nichols provided independent, expert analyses in preparation for an arbitration proceeding on issues related to the appropriateness of the level of contractual liquidated and ascertained damages related to the delay and start-up of the 1000 MW Santa Rita combined-cycle plant in the Philippines.

» **\$11 Billion Electric Revenue Bond Financing for the State of California, 2001–2002.** Mr. Nichols provided analyses, advisory, and due diligence review on numerous issues related to the California Electricity Markets for purposes of the Consulting Engineer's Report.

» **Consumer Impact Analysis, Department of Energy, Asian Development Bank, Manila, Philippines. 2001.** As Project Manager and Privatization Expert, conducted a one year technical assistance project to the Philippine Department of Energy to assess the impact on various vulnerable customer groups of the proposed electric sector restructuring and privatization of National Power Corporation. The engagement included the development of long run marginal cost tariff levels in each of the provincial utility franchise areas, the development of partial and general equilibrium models for the assessment of welfare impacts on consumer groups, and recommendation of mitigating measures to protect certain vulnerable customer groups.

» **Rural Electrification Policy – Philippines, World Bank, Washington, DC. 1999.** As Project Manager, prepared a report describing the situation of the Rural Electric Cooperatives in the Philippines, provided observations on their performance, discussed the impacts of planned power sector reforms on the electric cooperatives, and recommended areas where reforms or

measures to improve the performance of the cooperatives should be focused. This engagement was used as input to the Bank's development of its own Rural Power Sector Policy Note for the Philippines.

» **Sector Restructuring Advisory, Department of Energy, USAID, Manila, Philippines. 1999.** Participated on a panel of experts providing an advisory to the Philippine DOE regarding preparation of implementing rules and regulations for the planned electric sector restructuring legislation, including an analysis on timing and sequencing issues related to the restructuring.

» **IPP Project Re-financing Offering Memoranda, Private Project Developer. 1999.** Prepared, as support to owner's offering memoranda on debt re-financing, separate independent due diligence reports on power market in Visayas Grid and in Luzon Grid of Philippines, including assessment of future grid prices and dispatch of generation.

» **Valuation Appraisal of Tiwi and MakBan Geothermal Assets, Philippine Geothermal, Inc. (Unocal Corporation) and National Power Corporation, Manila, Philippines. 1999.** Directed and prepared an independent Fair Market Value Appraisal report on the electric generating and steam field assets of National Power Corporation at Tiwi and MakBan, Philippines in facilitation of negotiations between principals for the purchase and sale of the assets. Approaches included Income Analyses, Cost Analyses, and Market Analysis in the development of final opinion on value.

» **Asset Revaluation Project, National Power Corporation, Manila, Philippines. 1997.** As Project Manager, directed an asset appraisal of all the National Power Corporation's external assets including generation, transmission, and land. This project provided updated ratebase information by developing a revalued cost new (RCN) of all assets and updating the depreciated value through field investigation of actual condition of assets. In addition, a Fair Market Value analysis was conducted utilizing a discounted cash flow analysis of the production assets to support the upcoming privatization of National Power Corporation and market-based pricing for wholesale power. The project provided modifications to the Fixed Asset Register necessary to support unbundling of tariffs.

» **Vietnam Power Market Study – Conoco Philipps. 2000.** As Project Manager, prepared a Power Market Analysis of the Vietnam electricity sector. The study addressed the macro-economic variables driving electricity demand and addressed electricity supply, transmission, pricing, and regulatory issues and private sector involvement. Prepared a price model of bulk power pricing in the northern and southern regions of the country.

» **Due Diligence Review of Philippine Distribution Utility. Philippines. June 1998.** On behalf of a confidential, U.S.-based electric utility, Mr. Nichols was Project Manager on the due diligence review of all technical, human resource, commercial and legal issues regarding a possible equity investment in a private Philippine distribution utility through a private placement equity transaction.

- » **Open Access Transmission Reform World Bank/Philippine Energy Regulatory Board. Manila, Philippines. August–December 1995.** As Project Manager, led a technical assistance project to define a regulatory framework and pricing structure for the functional unbundling of the National Power Corporation, focusing on development of the appropriate methodologies for transmission access and the provision of reserve capacity and backup energy, including dispatch issues. The work included the development of an open transmission access tariff through use of Sector Working Group of all power sector participants as well as institutional strengthening consisting of several international study tours and formal training courses in Electric Transmission Pricing Methodologies and in Electric System Planning and Operations.
- » **Malangas Coal–Fired Power Plant Feasibility Study. Philippine National Oil Company. Mindanao, Philippines. Sep. 1994–Jan. 1995.** As project manager, directed the preparation of a technical, operational, and economic feasibility study of constructing a 200–MW mine–month coal–fired power plant near company’s coal reserves in Mindanao, Philippines. The study included development of detailed conceptual designs and cost estimates of the plant, site environmental review, and assistance in the preparation of client’s Build–Own–Transfer Bid submittal to the National Power Corporation.
- » **Tarelco IPP Project Feasibility Study, Manila, Philippines. March 1997.** As Project Manager, prepared technical, economic, and financial feasibility study of 30 MW diesel–fired IPP project. The project is to sell its full output to Tarlac Electric Cooperative in Central Luzon. Work involved making recommendations for modifications to existing power sales agreement to meet risk management requirements of financiers.
- » **Prudency Study of IPP Contracts, Manila Electric Company, Manila, Philippines. March 1996.** As financial advisor, participated on team evaluating the process Meralco used in entering into contracts with four independent power producers. Reviewed the contracts, assessed the selection criteria, reviewed the pricing provisions and compared results of Meralco’s procurements to other that took place in the same time frame.
- » **Regulatory Assistance in Evaluation of Independent Power Projects. World Bank/Philippine Energy Regulatory Board. Manila, Philippines. March 1994.** As a power supply planning advisor, prepared and presented seminars to provide the Philippines Energy Regulatory Board (ERB) staff with a framework for refining regulatory criteria to evaluate power purchase contracts from independent power developers. Provided day–to–day training to ERB staff and analysis of ongoing regulatory reviews of actual contracts.
- » **System Dispatch Analysis. Philippine Geothermal, Inc. Manila, Philippines. 1996.** As Project Manager, investigated the procedures and practices used by NPC in dispatching the geothermal–based electric power generating resources to the national grid.
- » **IPP Contracting. Philippine Electric Plant Owner’s Association. 1994.** As IPP specialist, presented seminar on procedures and techniques for

analyzing the technical and commercial aspects of power purchase contracts with power developers in the Philippines.

» **Java–Sumatra Interconnection Study. BPPT/USTDA. 1994.** Power generation planning advisor on study investigating the technical, socio–economic, and environmental feasibility of constructing 2,000 MW coal–fired plant on Sumatra with high–capacity HVDC transmission to Java.

» **Reactive Power Flow. Compania Chilena de Generacion Electrica (Chilgener). Santiago, Chile. 1990.** As project manager, provided engineering services and guidance regarding techniques and procedures for investigating and analyzing generation dispatch and transmission network issues related to problematic reactive power flow between Chilgener and Endesa, two generating and transmission utilities in Chile. Prepared recommendations on pricing of reactive power flow.

» **Gladstone Valuation Study (Consultant to Merrill Lynch). State of Queensland, Australia. Brisbane, Australia. 1992.** As engineering project manager and consultant to an investment banking firm, developed engineering and economic analysis of the impacts on electric consumers of the privatization of a 1600–MW coal–fired plant in Queensland, Australia. Specific issues addressed included the impact of the newly drafted Australian National Grid Code and system economic dispatch.

» **Electric Tariff Policy. China Light & Power. Kowloon, Hong Kong. 1990.** As project engineer, supported the analysis and development of a Five–Year Tariff Policy for a Hong Kong based utility, including analysis of rate recovery of dedicated transmission plant required for unit power purchase and partial ownership in a nuclear unit undergoing construction in the Guangdong province of China.

» **Fair Market Value Appraisal of Palo Verde Nuclear Units. Public Service Company of New Mexico. 1991.** As project manager and financial lead, managed the overall appraisal efforts and prepared income analyses in valuation of the Palo Verde Nuclear Units 1 & 2. These studies were undertaken to form an independent determination of Fair Market Value of the assets supporting sale/leaseback transactions. Investigations included remaining useful life of assets, residual value, and future value at end of lease term.

» **Fair Market Value Appraisal of North Anna Nuclear Units. Old Dominion Electric Cooperative. 1993.** As Project Manager conducted an independent assessment of Fair Market Value of the assets supporting determination of collateralized value. Analyses included assessment of remaining useful life and limited use property assessment.

» **Fair Market Value Appraisal of Seabrook 1 Generating Unit. United Illuminating Company. 1991.** As power systems and financial lead, prepared income analyses and overall fair market value in valuation of the Seabrook Generating Unit No. 1. These studies were undertaken to determine an independent determination of Fair Market Value of the assets supporting utility acquisition and merger proposals involving a sale/leaseback of the facilities.

- » **Fair Market Value Appraisal – Gavin Power Plant Flue–Gas Desulfurization Facility. American Electric Power Company. 1993.** As Project Manager conducted an independent assessment of Fair Market Value of the of assets supporting a Build–Own–Operate transaction on the Gavin FGD facility.
- » **Fair Market Value Appraisal – De Cordova, Morgan Creek, and Permian Basin Combustion Turbines. Texas Utilities Company. 1990.** As Project Engineer, developed Fair Market Value appraisal report for the sale–leaseback of the gas turbine facilities, including assessment of remaining useful life and residual value.
- » **Fair Market Value Studies – Zimmer Gas–Fired Repowering of Nuclear Unit. Dayton Power & Light Company. 1992.** As project engineer and financial lead, developed a preliminary assessment of the fair market value of a repowering of the Zimmer nuclear facility with combined–cycle gas turbines.
- » **Electric Cost of Service Filing. Gulf States Utilities. Beaumont, Texas. 1984/85.** Assisted in the preparation of retail cost of service filing before the Texas Commission. Focused on jurisdictional separation study between retail and wholesale activities and load research data underlying class load allocators.
- » **Federal Energy Regulatory Commission Testimony–Expert Witness. Allegheny Electric Cooperative, Southern Maryland Electric Cooperative. Harrisburg, Pennsylvania and Hugheville, Maryland. 1981.** As expert witness, researched and presented testimony before the Federal Energy Regulatory Commission in two filings (Niagara Mohawk Power Corporation and Potomac Electric Power Company) regarding proper transmission plant cost allocation procedures.
- » **AEP/AMP–Ohio Settlement. 1983.** As project engineer, performed economic analysis and prepared feasibility studies supporting settlement negotiations between American Electric Power (AEP) and 81 Ohio municipal electric systems. This study was prompted by the Securities and Exchange Commission’s restraining order of AEP’s acquisition of Columbus and Southern Ohio Electric Company. Economic analyses included development of future wholesale power and transmission wheeling costs from seven Ohio utilities and the acquisition of two coal–fired power plants.
- » **Wholesale Power Cost Projections. Various Clients. Various cities in the U.S. 1978–1984.** As project engineer, prepared long–range cost of wholesale power projections for firm power, back–up power, and transmission service from over 20 utilities in the United States.
- » **Economic and Financial Feasibility Studies. Various Clients. Various cities in the U.S. 1978–1984.** As project engineer, participated in negotiations regarding contractual terms and prepared technical and financial feasibility studies supporting financing for joint ownership in over 10 nuclear and fossil power plants and associated transmission on behalf of electric generation and transmission cooperatives in Michigan, Pennsylvania, Vermont, New Hampshire, and Indiana.

- » **Proscreen Cooperative Model–System Specifications. Energy Management Associates. Atlanta, Georgia. 1983.** As power systems engineer consultant, designed system specifications for electric cooperative rate settings and financing logic in Proscreen, a proprietary corporate modeling program developed by Energy Management Associates. Responsible for all U.S. marketing efforts of Proscreen to cooperatives.
- » **Wabash Valley Power Association, Indianapolis, Indiana. 1980.** Prepared feasibility studies and Federal Financing Bank loan support for financing ownership participation in Marble Hill Nuclear plant and joint-ownership of transmission and distribution assets.
- » **Florida 500–kV Interconnection Studies. Georgia Power Company. Atlanta, Georgia. 1977–1978.** As project engineer, performed feasibility studies investigating 500–kV interconnections between the Southern Company electric system and the Florida peninsular utilities.
- » **System Interconnection and Reliability Studies. Southern Company Services. Birmingham, Alabama. 1974–1976.** As power planning engineer, performed long–range planning studies on 500–kV interconnections between the Southern electric system and TVA, Virginia–Carolinas, and the Florida peninsula. These studies focused on inter–regional transfer capability and system reliability.