



Infrastructure Economic Consulting, LLC (IEC) helps private investors, States and state-owned entities, and law firms worldwide to navigate the economics of regulatory policies and international disputes in infrastructure-related industries – power, natural gas, coal mining, oil, roads, airports, railways, telecoms, water, and construction projects, among others.

IEC is led by Carlos Pabon-Agudelo, a US-based regulatory economist with extensive experience providing economic and damages expert support in international arbitration to energy and other infrastructure-related clients worldwide. Our consulting boutique has a group of well-seasoned professionals with decades of a thorough economic and regulatory knowledge of the infrastructure sector, and a deeper understanding of the process and practices in International Arbitrations. We provide expert testimony services in commercial and investment-state disputes and contract disputes resolution support in regulated and non-regulated industries. We also offer economic policy analysis, infrastructure restructuring, and economic regulation services, design and implementation of regulatory reforms and business, strategic and financial matters services.

## INTERNATIONAL ARBITRATIONS - PROJECT EXPERIENCE

**Power Plant Construction Project Dispute** We provided expert testimony in an international arbitration matter involving a power plant construction project. The case centered around a construction delay claim and associated market penalties. Mr. Pabon's team assessed the economic validity of the claim from a regulatory perspective and demonstrated that the economic and commercial decisions made by the plant operator led not only to the imposition of penalties but also to an increase in their magnitude. Mr. Pabon opined that the decisions of the operator were made in a complex regulatory environment and driven by its own risk profile and that those choices were not required by market economics or the technical limitations of the plant.

**Natural Gas Trading Practices Dispute** We filed expert reports and provided deposition testimony on behalf of the California Attorney General's office in *State of California ex rel. Christopher J. Schroen, et. al., v. BP America Production Company, et. al.* (Case No. CGC-12-522063) regarding the market value of natural gas transactions with embedded optionality. The case settled for \$102 million on the eve of trial.

**Investment Expropriation Dispute** We provided an expert report on damages in an international arbitration case about the seizure of Claimant's investments, the revocation of a tax exemption that had initially been enjoyed by Claimant, and, ultimately, the elimination of Claimant's opportunity to earn a return on and of his investment. Mr. Pabon's team assessed damages and economic implications of the expropriation of Claimant's investment, which included an assessment of country risk and interest.

**Valuation of Mineral Deposits in Central America** On behalf of a mining company it was valued six mineral deposits and two early exploration properties in Latin America. The dispute arose out allegations which were alleged to be in violation of the country's obligations and deprived the mining company of its mineral rights. Our team calculated damages under income and market approaches.



**Middle-East Breach of Contract Dispute** A power plant and associated coal mine project in the Middle East was cancelled after a government organization imposed new terms on the project's purchased power agreement. The Concessionaire filed a breach-of-contract claim before the International Centre for the Settlement of Investment Disputes. Mr. Pabon's team assisted the Concessionaire in both the jurisdictional and liability and damages phases of the case, demonstrating that the government's positions were inconsistent with good-faith commercial practices and undermined the project's financial feasibility.

**Private Investor on a BOO Power Plant Tender Dispute** We provided expert witness testimony representing a large US investor-owned utility in an alleged damages claim related to a build-own-operate power plant transaction in the Dominican Republic. The claim was centered on a breach of contract by not paying for advisory services allegedly provided by Claimant in support of Respondent's evaluation of a possible bid to build a thermal power plant. Mr. Pabon provided critical economic analysis on the restructuring of the power sector, demonstrated that Claimant's damages methodology was based on unsubstantiated and incorrect assumptions, and noted that Claimant's rationale was based on conjectures not representative of industry norms and practices.

**Latin American Transmission Tariff Dispute** A company claimed that the government had violated a Stability Agreement relating to discrimination in the setting process of electricity transmission tariffs. Mr. Pabon and his team represented the government, offering insight on economic fundamentals and demonstrating the fallacy of using regulatory arguments in contracts dispute in unregulated commercial settings. In addition, the team noted the integrated nature of the project and show previous benefits received by the project in other business segments.

**Natural Gas Price Manipulation Dispute** We provided pre-filed, deposition, and trial testimony as a rebuttal witness on behalf of FERC Enforcement staff in FERC proceedings in the Amaranth natural gas manipulation case involving allegations of settlement price manipulation. We evaluated at-issue price movements, Defendants' trading patterns, and the effect of fundamental supply and demand factors.

**Latin American Government in an Electricity Construction Project Dispute** We worked with a team representing a Latin American government against a company seeking contract reform and compensation related to a transmission line project. The company claimed that economic turmoil had made the project financially infeasible. The team provided critical economic analysis to the Tribunal hearing the case, including insight on economic fundamentals and an assessment that the economic turmoil did not adversely affect the company.

**A NAFTA Discrimination Claim in the Pulp & Paper Industry Addressing Electricity Regulation Issues** An investor sought compensation for alleged lost profits and diminution in value of its investment due to claimed discriminatory and unfair treatment by a government limiting the ability to arbitrage self-generated electricity against purchases from its regulated supplier. Mr. Pabon's team conducted regulatory and economic policy analyses on restrictions on the resale of electricity self-supplied and showed that Claimant's request was flawed because it did not follow regulatory policy and was inconsistent with economic efficiency principles. The team showed that the damages claim was without merit and that Claimant's request was not adding any capability to the utility's resource portfolio but just to Claimant's bottom line.





**Gas Royalty Dispute in Latin America** A company with an integrated energy project that monetizes isolated gas reserves by generating electricity and transmitting it to market claimed that natural gas market changes should trigger royalty formula adjustments. Mr. Pabon's team represented the respondent in the resulting dispute, conducting economic and commercial analyses of the royalty adjustment clause, and demonstrating that the company's claim for damages was baseless because it did not compete with other gas suppliers and that the project as defined did not constitute a market. Essentially, the team showed that the company was trying to create an alternative, flawed argument of contract infeasibility.

**The Delay in Construction of a Power Plant in a Nordic Jurisdiction** A major power reactor construction company filed for arbitration related to delay in the execution of construction work and project management issues against a power utility in a Northern European country. Mr. Pabon's team conducted economic and financial analysis related to the delay and the contractual obligations assumed by Respondent with third party electricity off-takers. By using a replacement cost approach, it was shown that Respondent suffered damages associated with the loss of energy and the capacity value arising from the delay in the construction of the generation asset.

**Asia Distribution Arbitration Dispute** An Asian State government argued that a "comfort letter" committed an international investor in a power distribution company to fund power costs owed to an energy supplier. Mr. Pabon worked with a team representing the investor in arbitration proceedings under local arbitration rules. The team analyzed the fundamentals of structural reform of the power sector, noted ways in which the government and regulator defaulted on their obligations, and demonstrated that funding operating losses through equity contributions was uncommon business practice.

**Spent Nuclear Fuel Disputes** As consulting experts to the U.S. Department of Justice in a claim against the federal government, we successfully demonstrated that the transaction price of a nuclear power plant was not adversely affected by the storage of spent nuclear fuel on-site at the facility, rather than at a long-term storage facility that the government must ultimately provide. In another claim against the federal government for its delay in accepting spent nuclear fuel for permanent storage, we provided consulting expertise to demonstrate that actual damages were substantially lower than claimed.

**A Road Toll Dispute in Latin America** We provided expert testimony in a road concession project. The international arbitration revolved around the interpretation of the Concession Contract adjustment mechanism and the alleged lost revenues due to the wrongful application of toll adjustments. Mr. Pabon's team assessed the economic validity of the claim and demonstrated that the Contract was the regulatory instrument that governs and protects the parties' relationship and that the adjustment mechanism, as suggested by Claimant, was based on a wrong reading of the Contract which would produce economic inconsistencies and outcomes. It was shown that the revenue shortfall claimed was baseless, and, that Claimant had over-collected revenues.

**Natural Gas Market Assessment for Commercial Client** We were retained by a multinational energy company to perform a strategic evaluation of their North American natural gas storage and trading organization. The resulting study identified impacts to the firm of the changing nature of natural gas demand arising from environmental regulations, energy efficiency programs, and the transportation sector; natural gas supply from the development of shale gas resources; and structural changes in the industry's seasonality.





## SELECTED TEAM MEMBERS - BIOS

**Carlos Pabon-Agudelo** is a regulatory economist providing policy analysis, advice, and litigation support to energy and other infrastructure-related clients worldwide. He has special expertise in utility regulation, market restructuring, structure and implementation of commercial and financing strategies, and the economic assessment of liability and damages in litigation and international disputes. For over 20 years, Mr. Pabon has worked with governments, state-owned utilities, and corporations in Latin America, South Asia, Africa, Europe, and the US.

Mr. Pabon has helped clients succeed in numerous liability and damages cases in a variety of international arbitrations in infrastructure industries and in cases involving economic utility decision-making, breach of confidentiality, contracting, market interaction, and contract disputes for governments and private investors. As an expert in the regulation of utilities, he has worked for private companies, regulatory agencies, and system operators on a range of issues, including advising on tariff policies at the distribution and transmission levels, and assessing strategic alternatives for utilities and Independent Power Producers.

In addition to his decades of international economic consulting experience, Mr. Pabon has served as an advisor to the Colombian Minister of Finance on regulatory issues, represented the Ministry before the Energy Regulatory Commission, and worked for several years in the Colombian coal industry. He is proficient in English, Spanish, Portuguese, and has basic knowledge in French.

Mr. Pabon holds a Bachelor's and a Master's degree in Economics from Universidad de los Andes, a certificate in Business Administration from Georgetown University and a Master in International Public Policy with emphasis in Energy and Emerging Markets from the Johns Hopkins University School of Advance International Studies – SAIS.

**Dr. Jennifer Vanderhart** is a Ph.D. Economist, affiliated to Infrastructure Economic Consulting, who provides a range of services, including litigation support services and economic consulting. She specializes in applied econometrics and microeconomic analysis, including theoretical and empirical analysis in the areas of intellectual property, antitrust, breach of contract, international arbitration proceedings, and commercial damages. Her clients include companies in wide range of industries and retail sectors.

Dr. Vanderhart has more than 20 years' experience in the evaluation and quantification of economic damages including claims arising from patent, copyright or trademark infringement, trade secret misappropriation, contract disputes, employment discrimination, and claims of expropriation by foreign governments. Dr. Vanderhart has testified in federal and state courts and in domestic and international arbitration proceedings. She has assisted companies in patent and trademark licensing negotiations, royalty investigations and calculations, and intellectual property and asset valuations

Dr. Vanderhart has published on valuation, damages and intellectual property and is a frequent speaker on these topics at conferences and lectures. She is fluent in Spanish.

**Kathleen King** has three decades of experience specializing in economic analysis of issues in the energy sector and in commodity and financial markets. She has testified and provided expert consulting support in litigation, arbitration, and investigations in cases involving the energy sector and other commodity and financial markets as the founder and President of Mosaic Economic Consulting, a Partner and Principal at Bates White Economic Consulting, and a Vice President at NERA Economic Consulting. Her work has included disputes over pricing of energy transactions, breach of contract, bankruptcy, modeling power markets, power plant construction, market manipulation and collusion in both commodity and financial markets, and other disputes related to trading and risk management.

Earlier, as Executive Director of Capstone Global Energy and as Director of Structuring and Research at Cinergy Capital and Trading, Dr. King conducted economic due diligence and assessed the risk of power plants, modeled energy markets and forecast power prices, and assessed contracts including fuel supply and transportation, sale of energy, as well as steam contracts for cogeneration plants.

Dr. King holds a PhD, MS, and BA in Economics from the University of Wisconsin—Madison.



**Jeff Bloczynski** is an Infrastructure Economic Consulting affiliate with over two decades of experience as an energy industry economist. As Managing Director of Mosaic Economic Consulting, he maintains expertise in the workings of the electric power and natural gas industries, and in the quantitative tools required to assess both value and risk in these markets. His clients include commercial energy firms, law firms dealing with contract or regulatory disputes, and energy policy advocates.

Mr. Bloczynski has provided expert consulting support for numerous cases involving the construction of energy infrastructure, including power plants and industrial facilities. He has also served as an expert for the federal government in litigation matters dealing with the storage and disposal of spent nuclear fuel from electric power plants.

Previously, Mr. Bloczynski was the lead economist for America's Power, an electric power trade association. There he was responsible for economic analysis of the coal mining and coal-fired electric power sectors, and for assessing the impact on these sectors of federal energy policy and regulations. Before that, he was a senior consultant at NERA Economic Consulting, where he served as a litigation consultant in proceedings at state regulatory agencies, domestic and international arbitration panels, and in federal court. He has also worked in capital markets, advising investment banks, private equity firms, and corporations involved in M&A activities.

Earlier in his career, Mr. Bloczynski served as manager of market assessment at PG&E National Energy Group, at the time one of the largest merchant energy companies in the country. There he oversaw the modeling and analysis used for the development of new power plants and energy infrastructure, the valuation of physical and financial commodity positions, and portfolio risk management.

Mr. Bloczynski holds BS and MS degrees in Systems Engineering from Case Western Reserve University, where he focused on economic and environmental systems.

**Dr. Juan Benavides** has worked in the energy sector and in the infrastructure industry in various capacities during the past 30 years. He has combined both academic and consultant activities in several Latin American countries and has served as a board member for electricity and gas companies, developing transformation strategies to incorporate renewable energies in current utilities investment portfolios. Dr. Benavides' expertise includes regulatory design, risk assessment and modeling, corporate and project finance, investment under uncertainty, valuation of venture capital and intangible assets, and corporate strategy formulation. He has worked as a Senior Infrastructure Specialist at the Inter-American Development Bank (IDB), as the Deputy Dean for Research of the Engineering School at Universidad de los Andes (Colombia), and is currently an Associate Researcher at Fedesarrollo, a think-tank in Colombia.

Dr. Benavides has published papers in a variety of well-known Journals, sector-specific magazines and has written chapters in books published by Stanford University Press, The Johns Hopkins University Press and the IDB, among others. He holds a B. Sc. Degree in Electrical Engineering (Universidad de los Andes), a second degree in Advanced Mathematics (Universidad Nacional of Colombia) and a Ph.D. in Mineral Economics from The Pennsylvania State University.

**Denzel Hankinson** is an infrastructure economist and public-private partnership (PPP) expert with extensive global experience in the electricity, water, natural gas, telecommunications, and transportation sectors. Mr. Hankinson has managed more than 100 projects in more than 70 countries over his 25 years as a consultant, focusing his global experience in sub-Saharan Africa, Eastern Europe, Central Asia, and the Pacific Islands.

Mr. Hankinson has worked with governments, ministries, and regulators to improve the policy and regulation of infrastructure services. He has helped develop tariff-setting procedures for the electricity, water, and district heating sectors and has worked with government PPP units to develop options studies, pipeline projects, policies, and tendering procedures. Mr. Hankinson is an expert in financial and economic analysis of investment projects and has helped several governments develop least-cost power generation plans. Mr. Hankinson has performed project- and program-level evaluations for multilateral development banks such as the World Bank, Millennium Challenge Corporation, and African Development Bank. He is a member of the American Evaluation Association. In addition, Mr. Hankinson has substantial experience providing research and analysis in support of litigation and testimony preparation. He has worked on issues related to the regulation of electricity prices, market power issues, infrastructure series tariffs, and gas price indices manipulation affecting long-term contract rates.

Mr. Hankinson began his career in 1997 with National Economic Research Associates (NERA) and has worked in the infrastructure advisory practices of EconOne Research and Castalia Strategic Advisors. He has an M.A. in Energy, Environment, Science and Technology from Johns Hopkins School of Advanced International Studies, and a B.A. in Political Science from the College of William & Mary. He is fluent in Spanish and German.

