

Fernando Bañez

SENIOR ASSOCIATE

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Dr. Bañez has experience in arbitration, regulatory, finance, and market manipulation projects, particularly in the energy sector. He has provided expert testimony before key arbitration venues and national courts.

Dr. Bañez has worked on projects related to a wide range of industries, including conventional and renewable energy power plants, oil and gas, district heating, financial services, real estate, hospitality, and transport. He advises private and public sector clients on valuation, pricing, and regulatory matters in different geographies spanning Europe, North and South America, the Middle East, Africa, and Oceania. Dr. Bañez also has experience performing sophisticated electricity price and financial modeling.

He has provided expert testimony for arbitrations and Spanish litigations amounting to damages claims of more than €1.5 billion. Additionally, Dr. Bañez has contributed to expert reports on multiple international arbitrations on matters before the International Centre for Settlement of Investment Disputes (ICSID), United Nations Commission on International Trade Law (UNCITRAL), International Chamber of Commerce (ICC), London Court of International Arbitration (LCIA), Stockholm Chamber of Commerce (SCC), and Spanish, English, US, and New Zealand courts.

Prior to joining Brattle, Dr. Bañez worked as a researcher at Comillas Pontifical University (ICAI), where he obtained his PhD in engineering. His research focused on the functioning and regulation of the power system and the expansion of the transmission network. His work has appeared in scientific journals, including *Energy* and *Applied Energy*.

AREAS OF EXPERTISE

- International Arbitration and commercial litigation
- Disputes in restructuring processes
- Energy
- Finance

EDUCATION

- **Comillas Pontifical University, ICAI (Madrid, Spain)**
PhD in Engineering (Excellent), Masters in Power Systems, and BSc and MSc in Industrial Engineering
- **Massachusetts Institute of Technology**
Research Stay

PROFESSIONAL EXPERIENCE

- **The Brattle Group (2017–Present)**
Senior Associate (2024–Present)
Associate (2018–2023)
Research Associate (2017–2018)
- **Institute for Research in Technology (IIT), Comillas Pontifical University (Madrid, Spain) (2010–2017)**
Assistant Researcher

EXPERT TESTIMONY

- **Regulatory changes to renewable energy plants in Romania**
Provided expert testimony in ICSID arbitrations between shareholders in renewable energy plants in Romania and the Kingdom of Romania. Provided regulatory expert opinion and estimated damages to shareholders derived from the application of changes to the Romanian green certificate scheme that cut the plants' financial support. The analysis involved the modeling of the green certificate market under the original and revised scheme, and the valuation of a large portfolio of renewable assets.
- **Early closure of a coal power plant**
Co-authored an expert report in an ICSID arbitration concerning the phase-out of coal plants in the Netherlands. Calculated the value of the coal plant and assessed its scope for conversion to a biomass plant. The analysis included the development of a

sophisticated model and Monte Carlo simulation accounting for “real options” to forecast electricity, commodity, and carbon prices, and considered different damages methodologies.

- **Capital call default in an investment fund**

Co-authored an expert report in an ICC arbitration concerning the capital call default of shareholders in a fund focused on the hospitality sector. Provided an opinion explaining the role of capital calls within an investment fund and calculated damages due to the capital call default to the fund itself and its general partner: the reduction in the manager’s fee, the signal transmitted to the market causing the venture firm’s valuation drop and the delay developing the hospitality projects. We used standard financial techniques and recent economic research on venture firms.

- **Restructuring of a maritime transport company**

For a restructured company, co-authored an expert report assessing the restructuring approved by the Spanish national courts and responded to the issues raised by a group of minority bondholders. Assessed the contentious points of the company’s valuation and the capacity of the company to incur more debt.

SELECTED CONSULTING EXPERIENCE

INTERNATIONAL ARBITRATION – INVESTOR-STATE

- **Regulatory changes to renewable energy plants in Spain**

Worked in several ICSID arbitrations between shareholders in Spanish renewable plants and the Kingdom of Spain on behalf of the claimants. Estimated damages to investors in Spanish renewable plants resulting from cuts to their financial support. The analysis included an assessment of the previous regulatory regime and an analysis of the financial impact of the measures introduced by Spain.

- **Regulatory changes to district heating concessions in Eastern Europe**

Worked in ICSID and SCC arbitrations between shareholders of an eastern European company and the host country on behalf of the claimants. I worked on the estimation of damages derived from the regulatory and contractual changes from the government of an Eastern European country on a series of concessions on the district heating infrastructure.

- **Economic benefits of oil development**

Worked in an arbitration concerning the economic value of hydrocarbon reserves in a dispute regarding the value of a land lease. Valued oil and gas fields in the region. The analysis included long-term forecasting of oil and regional gas prices.

- **Long-term concession of a high-speed rail link between two European countries**

For an international investor, worked on the estimation of damages for the bankruptcy

of the project because the governments failed to invest in the infrastructure associated to the high-speed rail link. The analysis assessed the original business plan of the project and estimated the traffic increase thanks to the investment in the infrastructure, and valued the project using the Adjusted Present Value Approach.

- **Termination of a contract to build a hydropower plant in Georgia**

For an international investor, worked on the damages estimation for the termination of the contract to build a hydropower plant in Georgia due to contract violations. For the valuation, the expert report modelled the region's electricity system, forecasting electricity prices for 100 years. The valuation incorporates the pre-operational stage of the power plant, including pre-construction risks, such as permitting, land or financing, and construction risks, with a detailed analysis of cost overruns and delays. The valuation also analyses the specific protections of the contracts signed (Build, Own and Operate, PPA, EPC, insurance).

INTERNATIONAL ARBITRATION – COMMERCIAL

- **Termination of franchise agreements in the hospitality sector in the Middle East**

In an ICC arbitration, worked on behalf of the franchisee of a well-known restaurant brand in the Middle East in a dispute concerning terminating the franchise agreements. Calculated damages for the franchisee, potential mitigation actions and the potential royalty payments lost by the franchisor.

- **Multi-billion capital increase and distribution of dividends of a bank in Brazil**

Worked on a case analysing the capital planning of a bank, the reasons for the capital increase, the evolution of its loan portfolio, the price formula used to estimate the share price in the capital increase, and the reasonableness of the bank's dividend retention during several years. The case settled after the delivery of the expert report.

- **PPA of a Spanish PV plant**

Worked in an ICC arbitration to renegotiate the terms of a PPA. Assessed the distribution of risks between the parties under PPA agreements in the Spanish PV industry. The analyses assessed the economic harm arising from alleged breaches of the terms of the PPA by one of the Parties and potential measures to re-establish the balance of the PPA.

- **Sale of a credit card portfolio**

In an ICC arbitration, worked on behalf of the previous shareholder in a credit card company in a dispute with the new shareholder. Assessed the sharing of risks pursuant to the sale of the shares in the credit card company. Analysed the share purchase agreement and the value of the credit card portfolio at the date of the sale.

- **Bonus schemes in a banking institution in Saudi Arabia**

For a multinational bank, worked analysing the allegations that senior executives permitted fraudulent bonus payments for deposit generation in Saudi Arabia. The

analysis assessed fluctuations in deposits over time, broader market conditions, and the performance of individual depositors. The analysis estimated the market cost of deposits at the height of the liquidity crisis in 2015–2016, and the resulting reduction in the profitability of the Saudi Arabian business. The case settled after the delivery of the expert report.

- **Breach of the supplier’s contract conditions of a multinational company**
For a multinational company, worked in two arbitrations that estimated damages due to the failure of several suppliers to comply with their contractual conditions.
- **Contractual modifications to a long-supply contract of a CHP plant in the UK**
Worked on several reports of a commercial arbitration proposing a change in the contract and estimating damages due to the late application of the changes.
- **Long-term natural gas supply contract in Western Europe**
In the renegotiation of a gas contract, analysed the difference between “netback pricing” and pricing by reference to wholesale market benchmarks. Discussed the way that different pricing principles allocate risks and returns between the parties, and provided incentives for the development of competition. In addition, the analysis also evaluated the development of liquid wholesale markets for natural gas in Europe, and on the practices for indexing contracts to published spot prices. The analysis also involved the assessment of the gas flexibility provided by the long-term contract.
- **Extension of long-term natural gas supply contracts in the Caribbean**
Provided analyses in two international arbitrations concerning the failure of one of the parties to comply with the extension of the long-term natural gas supply contract under the basis that there was not enough gas available at an economic price. The reports analysed whether there was sufficient gas available at an economic price and estimated this economic price. The reports also discussed the measures the gas seller could have taken to ensure the availability of gas.
- **Natural gas contract in Africa**
Worked to determine whether one of the parties of a natural gas contract suffered economic hardship during a relevant period, and whether the hardship was due to a failure of the company.
- **Long-term LNG contract in the South of Europe**
Provided damages estimate regarding the significant reduction of deliveries by the gas supplier. The report analysed the original economic balance of the contract between the parties, assessed if recent events changed the economic balance, and calculated damages.

LITIGATION AND CRIMINAL PROCEEDINGS

- **Construction delay of a nuclear power plant in the US and its impact on auditor's opinion in 10-K disclosures**

Worked on a case in the US courts concerning the auditor disclosure regarding construction delays and problems in a nuclear power plant in the US. The expert report explained the role of project schedules in forecasting completion of megaprojects and analysed contemporaneous project schedules to confirm that 10-K disclosures were reasonable.

- **Concession agreement in New Zealand**

Worked on a case in the New Zealand courts concerning the economic implications of two proposals to determine the compensation sum to be payable due to the early termination of a concession agreement.

- **Equity issue of a multinational company**

For the shareholders of a multinational company, worked in the damages claim in relation to large Spanish construction company. The claim related to the conduct of one of the underwriters of an equity issuance. The Brattle team assessed the consequences of the underwriter's conduct, explained the underwriter's importance in an equity issue and documented the market reaction. The team also explained the difference between liquidity and insolvency and analysed several liquidity crisis. The analysis involved valuing the company using the "sum of the parts" approach, the Adjusted Present Value approach, and a discounted cash flow analysis, as well as financial techniques to assess the impact of events in stock prices. The analysis also analysed the liquidity of the shares of the company and inferred the company's probability of default using the Credit Default Swaps.

- **Failure of a machine in a mine in Chile**

Provided damages estimation to help in the settlement process between the owner of the mine and the machine provider.

- **Alleged manipulation of the electricity market in Spain**

For a multinational company, supported testifying experts in criminal proceedings assessing the allegations of market manipulation in the Spanish electricity market in 2013–2014. Assessed the renewable regulatory regime in Spain in 2013–2014 and the incentives a utility might have had to manipulate the electricity market to obtain a benefit from its renewable assets.

- **Disclosure of negative news affecting a multinational company**

Worked on a report assessing the impact of the disclosure of negative news in the digital and physical press about a multinational company. The analysis involved assessing the effect of the news on the share price of the company.

- **Debt restructuring process of a multinational company**
For the shareholders of a multinational company in a criminal proceeding, assessed the debt restructuring proposed by debtholders and approved by management. The report analysed the instruments proposed in the restructuring, including convertible bonds and options, and discussed its typical uses and benefits. The report also discussed the potential conflict of interests under the proposed restructuring, and assessed its value to shareholders.
- **Debt restructuring of a multinational company due to the Covid-19 crisis**
In a dispute concerning the impact that a debt restructuring would have on different debtholders, provided analysis on behalf of a group of subordinated debtholders. The analysis implied the valuation of the company and the debt, and the reasonableness of the value recoveries for debtholders with and without the proposed restructuring.
- **Allegation of “excessive profits” in UK pumped hydro bids**
For an electricity company, analysed allegations by the regulator, Ofgem, of “excessive profit” from the intraday and balancing bids in a period of congestion on the transmission network. The analysis included a stochastic model to estimate the opportunity cost for bidding to reduce generation and pump.

ELECTRICITY AND GAS REGULATION

- **Hydro generation plants’ bids from a utility**
For a major Spanish utility, contributed to a report assessing (i) the bids and reservoir levels of its hydropower plants and explained the rising electricity prices, and (ii) the compliance process of the utility. Based on this work, it made recommendations to ensure that bids were competitive, conformed to best market practice and could be properly documented to the competition authorities, avoiding accusations of abuse of dominance and price manipulation.
- **Analysis of the impact of a new law on wind and solar power plant bids**
For a major Spanish utility, worked on a report assessing the bids of its wind and solar power plants, explaining the impact of a new law – which reduced plant revenues based on the increase in gas prices – and that the lack of production from these plants on some days is due to the embedded increasing costs of the plants.
- **Assessment of the incentives of a company to manipulate the market**
For a multinational company, assessed the incentives a utility might have to manipulate the electricity market through its hydropower assets to obtain benefits from its retailing operations.
- **Valuation of power plants in the United Kingdom for a possible sale**
Participated in the due diligence process for a potential sale of power plants in the UK.

- Due diligence for the sale of a gas distribution network in Spain**
 Participated in the regulatory due diligence of the potential sale of Gas Natural-Fenosa's gas distribution network in Spain to a consortium of international investors.
- Analysis of the electric vehicles' integration in Spain**
 For Iberdrola Renovables, worked on a report that assessed the impact of the electric vehicle's integration in the power system operation, including the security of supply and prices. The report also evaluated different optimal strategies for the management of the power system, and for the charging of electric vehicles.
- Analysis of the electric vehicles' integration in Europe**
 For the European Commission, worked on a project that assessed the impact of the electric vehicle's integration under different charging strategies in several European countries.
- Design of feasible policies for the harmonization of renewable energy sources support mechanisms in Europe**
 For the European Commission, contributed to a project that quantitatively assessed the support mechanisms to renewable energy sources using self-developed models. The performance of the support mechanisms for the post-2020 horizon was assessed qualitatively. The project considered the technical and economic effects in the power system operation and in the expansion of the transmission network.
- Impact study of the renewable energy sources support mechanisms on the power system**
 For the European Commission, analysed the adequacy of the actual market design in Europe to incentivise renewable generation investment to meet the established targets after 2020. The project estimated the revenues the renewable generations would obtain and if they would recover the investment.
- Generation-network model estimating nodal prices in the Mexican power system**
 For an international investor, developed a tailored model for the Mexican power system able to represent accurately the transmission network. The model was used to estimate the prices in the power system.

EXPANSION OF THE TRANSMISSION NETWORK

- Developed a methodology for the long-term planning of transmission network**
 For the European Commission, participated in the development of an advanced methodology for the transmission expansion planning of the network in the 2020–2050 period. The methodology should reduce the European power system into zones based on the identification of the transmission lines that are most important for the network expansion using clustering techniques. The project applied the methodology developed to a European case study.

- **Assessed transmission network reinforcements required to interconnect the power systems of the Middle East & North Africa region with Europe**

For a consortium of international investors, worked on a study to assess the network expansion in South-West Europe (Spain, France, and Portugal) in the 2030 and 2050 periods with technical and economic criteria. The study used clustering techniques to select the important periods to consider for the network expansion.

ARTICLES & PUBLICATIONS

- “Quantum in Extractive Sector Disputes: Oil and Gas and Mining,” with Darrell Chodorow and Florin Dorobantu, *GAR - The Guide to Damages in International Arbitration; Sixth Edition*
- “Reasonable Return Framework for RES in the Current Context,” with Richard Caldwell, *Jus Connect’s 2023 Energy Arbitration Report*
- “Spain,” with Pedro Marín and José Antonio García, *The Energy Regulation and Markets Review; 12th Edition*
- “Quantum in Oil and Gas and Mining Disputes,” with Darrell Chodorow and Florin Dorobantu, *GAR - Damages in International Arbitrations Guide; Fifth Edition*
- “Large-scale transmission expansion planning: from zonal results to a nodal expansion plan,” with Sara Lumbreras, Andrés Ramos, Luis Olmos, Patrick Panciatici, Camille Pache, and Jean Maeght, J., *IET Generation Transmission & Distribution*, vol. 11, pp. 2778–2786 (September 2017)
- “Beneficiaries of Transmission Expansion Projects of an Expansion Plan: An Aumann-Shapley Approach,” with Luis Olmos, Andrés Ramos, and Jesus M. Latorre, *Applied Energy*, vol. 195, pp. 382–401 (June 2017)
- “Optimal transmission network expansion planning in real-sized power systems with high renewable penetration,” with Sara Lumbreras and Andrés Ramos, *Electric Power Systems Research*, vol. 149, pp. 76–88 (April 2017)
- “Estimating the benefits of transmission expansion projects: An Aumann-Shapley approach,” with Luis Olmos, Andrés Ramos, and Jesus M. Latorre, *Energy*, vol. 118, pp. 1044–1054 (November 2016)
- “Impact of support schemes and market rules on renewable electricity generation and system operation: application to the Spanish case,” with José Pablo Chaves-Avila and Andrés Ramos, *IET Renewable Power Generation*, vol. 11, number 3, pp. 238–244 (July 2016)

- “Implications from changing the priority dispatch for intermittent energy sources to a market based approach: application to the Spanish case,” with José Pablo Chaves-Avila, Kristin Dietrich, and Andrés Ramos, presented at the event “14th International Workshop on Large-scale Integration of Wind Power into Power Systems as well as on Transmission Networks for Offshore Wind Power Plants - Wind Integration Workshop 2015” (October 2015)
- “Analysis of the Impact of Increasing Shares of Electric Vehicles on the Integration of RES Generation,” with Andrés Ramos, Kristin Dietrich, Luis Olmos, and Jesus M. Latorre, chapter of the book “Use, Operation and Maintenance of Renewable Energy Systems: Experiences and Future Approaches” (2014)
- “Smart charging profiles for electric vehicles,” with Jesus M. Latorre and Andrés Ramos, *Computational Management Science*, vol. 11, number 1–2, pp. 87–110 (July 2013)
- “Modeling the Operation of Electric Vehicles in an Operation Planning Model,” with Andrés Ramos, Jesus M. Latorre, Angel Hernández, Germán Morales-España, Kristin Dietrich, and Luis Olmos, presented at the *17th Power Systems Computation Conference - PSCC'11* (August 2011)

REPORTS PUBLISHED

- “Report on the quantitative evaluation of policies for post-2020 RES-E targets” (September 2016), report prepared for the European Commission (Market4RES project)
- “Report on the Roadmap for RES penetration under the current Target Model high-level principles (2014–2020) - Part 2: recommendations about other short term market topics” (July 2016), report prepared for the European Commission (Market4RES project)
- “Detailed enhanced methodology for long-term grid planning” (November 2015), report prepared for the European Commission (e-Highway 2050 project)
- “Prototype for the definition of optimal grid architectures for 2050” (September 2015), report prepared for the European Commission (e-Highway 2050 project)
- “Enhanced methodology to define optimal grid architectures for 2050” (July 2015), report prepared for the European Commission (e-Highway 2050 project)
- “Final report of the beyond2020 project - approaches for a harmonisation of RES(-E) support in Europe” (February 2014), report prepared for the European Commission (Beyond2020 project)
- “Evaluation of the impact that a progressive deployment of EV will provoke on electricity demand, steady state operation, market issues, generation schedules and on the volume

of carbon emissions” (February de 2012), report prepared for the European Commission (MERGE project)

- “Quantification of the increase in the amount of renewable power sources, namely wind power, that can be safely integrated in some EU countries” (February 2012), report prepared for the European Commission (MERGE project)
- “Report on the adequacy of generation and transmission systems for 2020 and 2030 considering the presence of EV and RES” (February 2012), report prepared for the European Commission (MERGE project)
- “Functional specification for tools to assess steady state and dynamic behaviour impacts, impact on electricity markets and impact of high penetration of EV on the reserve levels” (February 2011), report prepared for the European Commission (MERGE project)

PRESENTATIONS & SPEAKING ENGAGEMENTS

- “Effects of moving the timing of day-ahead markets towards real time,” presented at the event “How to pave the road into the renewable future: Electricity market analyses and policy implications for 2020–2030,” Brussels (19 May 2016)
- “Effects of RES support mechanisms on short-term markets,” presented at the event “How to pave the road into the renewable future: Electricity market analyses and policy implications for 2020-2030,” Brussels (19 May 2016)
- “Network partition based on critical branches for large-scale transmission expansion planning,” presented at the conference “PowerTech 2015,” Eindhoven, the Netherlands (29 June – 2 July 2015)
- “Smart charging profiles for electric vehicles,” presented at 9th International Conference on Computational Management Science,” Imperial College London (20 April 2012); awarded best student paper

LANGUAGES

- Spanish
- English