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EDUCATION

2008, *M.Sc. in Economics*, IFP-School, France
2008, *M.Sc. in Engineering*, Ecole des Ponts ParisTech (ENPC), France

PROFESSIONAL EXPERIENCE

2022 - Present, *Vice President*, Compass Lexecon, Paris
2018 - 2022, *Head of electricity transmission department*, Commission de Régulation de l'Énergie, Paris
2015 - 2018, *Vice President*, Compass Lexecon, Paris
2015, *Senior Economist*, Compass Lexecon, London
2013 - 2015, *Senior Economist*, Compass Lexecon, Paris
2011 - 2013 *Head of Department*, Commission de Régulation de l'Énergie, Paris
2008 - 2010, *Analyst*, Commission de Régulation de l'Énergie, Paris
2007, *Engineer in renewable energy*, EDF Energies Nouvelles, Paris La Défense
2006, *Engineer in numerical analysis and modelling*, MBDA, Châtillon
2005, *Engineer in numerical analysis*, Instituto Eduardo Torroja, Madrid, Spain

SELECTED CONSULTING EXPERIENCE

- CRE (2018)
Provided an impact assessment of the reform of imbalance settlement for the electricity balancing market in France in order to define the adequate implementation roadmap.
- CRE (2018)
Provided a study on power market design in the US, including locational marginal pricing with central dispatch, co-optimisation of balancing reserves, capacity mechanisms and scarcity pricing or independent system operators. Analysed lessons learnt and applicability in the French and European context.
- UFE (2018)
Provided specific analyses and organised expert workshops on various key power market design issues, such as wholesale markets, investment signals and coordination, network and generation coordination or grid tariffs.
- Statnett (2018)
Provided an analysis of the Nordic balancing concept and of its compliance of the European electricity balancing guidelines.
- MacQuarie Investment Fund (2018)
Review of market potential for storage and demand response in Europe. Mapped potential companies in need of investment and provided critical assessment of their business model to define shortlist of targets to approach.
- OPC Rotem (2018)
Analysed market design options to foster the liberalisation of the Israeli power market and their impact on our client, an independent power producer.
- EDF (2014-2018)

Supported EDF for the definition and implementation of managers' training program. Developed program reviewing the history of the European electricity industry, the impact of liberalisation, and key competitors' strategies. Animated training sessions.

- Meridiam (2017-2018)
Conducted a study on the regulatory framework and business opportunities of demand response and flexibility in France. Analysed various business development options for a demand response operator and assessed value opportunities.
- ELIA (2016-2018)
Analysed options to secure electricity supply in Belgium in the medium to long term and provided economic analysis on the design of a capacity mechanism.
- Fluxys (2017-2018)
Studied the future role of gas in the energy transition in Belgium, including in transportation, heating, industry and power generation. Assessed the potential for green gas and hydrogen in Belgium.
- IFC World Bank (2017)
Conducted a study on the design of connection procedures and tariffs in Tunisia, in the context of policy reforms of the Tunisian government to foster the development of renewable energy sources and the introduction of competition for new projects. Drafted a template connection agreement.
- RTE (2017)
Provided a detailed study of recent power market reforms in the UK, including the introduction of competition in network development, including onshore grid reinforcements and offshore wind connection, implementation of an independent system operator and network tariffs' new model.
- CRE (2017)
Conducted a critical review of the incentive regulatory scheme for quality of supply of public electricity transmission and distribution network operators in France as part of the preparatory work of the French energy regulator CRE for the new tariff period "TURPE 5". Provided a benchmark of European practices.
- EPEX – European Power Exchange (2017)
Analysed the impacts of Nominated Electricity Market Operators' cost recovery schemes for the operation of cross-border power market coupling across Europe.
- EPEX – European Power Exchange (2017)
Audited a quantitative assessment of the benefits of competition between Nominated Electricity Market Operators in the development of cross-border trading and power markets in Europe.
- PKEE (2017)
Assessed the impact of the Polish capacity mechanism on electricity markets in the context of the State aid inquiry by the European Commission.
- PSE (2017)
Assessed options for cross-border participation in the Polish capacity mechanism in the context of the State aid inquiry by the European Commission.
- PSE (2017)
Audited the generation adequacy outlook of the Polish market in the context of the State aid inquiry of the Polish capacity mechanism by the European Commission.
- ENTSO-E (2017)
Analysed the value creation of network codes and related policies. Prepared a presentation for the ACER-ENTSO-E-EC conference on network code to highlight key figures and present case studies showing the value creation of network codes.
- ELIA (2017)
Provided economic support in the context of the European Commission's State aid inquiry on the strategic reserve in Belgium.
- Pentalateral TSOs (2016-2017)



Evaluated different approaches for cross-border participation in capacity mechanisms, including centralised and decentralised capacity markets and strategic reserves.

- E-Control (2016-2017)
Provided economic support in the context of the bidding zone review in Europe, including the analysis of the methodology to assess bidding zones' configuration.
- Alpiq (2016-2017)
Reviewed the Swiss electricity market design and analysed potential reforms to foster reinvestments in hydro power plants.
- Mitsubishi (2016)
Assessed the potential pricing strategies of different technologies and provided price forecasts on UK Enhanced Frequency Response Market.
- ENTSO-E (2016)
Analysed options as regards the future of system operation and the role of regional coordination, as well as the coordination of policies and regulations, in the context of the Commission's preparatory work of the Clean Energy Package. Developed a proposal based on regional security coordinators and on the concept of policy regions to further enhance coordination.
- EDF Energy (2016)
Reviewed policy options for distribution network regulation and tariffs and assessed applicability to the UK power system.
- CREG (2016)
Assessed the impact of renewable energy sources' development on wholesale market prices, cross-border flows and CO2 emissions in Belgium and in the Central West region.
- ELIA (2016)
Reviewed real-time power market designs and scarcity pricing in the US and assessed applicability to Europe.
- Caisse des Dépôts et Consignations (2016)
Provided a regulatory due diligence of RTE, the French TSO. Analysed the regulatory framework, including the network charges and incentive schemes, as well as investment and operating charges, and assessed possibilities in terms of improving efficiency. Our client made an offer on that basis and purchased 49.9% of RTE.
- APG (2016)
Analysed various system operation reforms and impact of regional cooperation models. Presented detailed case studies. Organised a workshop with the clients' experts and executives to discuss results and potential implications on their activity.
- Terna (2016)
Provided advice to the Italian TSO in the context of the implementation of the Italian market for reliability options in order to justify the compatibility of the mechanism with European state aid regulation, including long term contracts for new entrants.
- Enedis (2016)
Analysed different network tariffs' design options and benchmarked a number of European countries to identify best practice. Provided alternative approaches for the evolution of the distribution tariff structure recognizing the new challenges faced by DSOs.
- CRE (2016)
Assessed the weighted average cost of capital of regulated gas companies – gas transmission, storage and liquified natural gas terminals – in the context of the tariff definition.
- UPM (2016)
Analysed market design and business opportunity for flexibility services and demand response in the Nordic power markets.



- ENEL (2016)
Assessed demand response and energy storage business models and their suitability within key global markets.
- RTE (2016)
Analysed the competition impact of the French capacity mechanism and the potential measures to address related issues, in the context of the State aid review by the European Commission.
- RTE (2015-2016)
Assessed the impact of the French capacity mechanism on power prices in France and neighbouring countries using CL's proprietary models, in the context of the State aid review by the European Commission. Analysed and compared the impact of other types of market interventions including renewables support policies, the UK carbon price floor, or the implementation of a strategic reserve in Germany.
- Multi-client study (2015)
Provided a diagnosis of issues in the EU power market design and regulatory framework and analysed potential options to improve them. Reviewed international experiences to improve short and long-term incentives and price signals and improve investment coordination. Organised workshops with EU stakeholders. Suggested policy recommendations in the context of the preliminary discussions on the clean energy package.
- Gas producer (2015)
Provided economic support to a client suspected of abuse of market dominance in several gas markets in Europe.
- ELIA (2015)
Reviewed different regulatory models for demand response participation in power markets, including a benchmark of practices in European and US markets. Provided detailed analysis regarding contractual relationships between the aggregator, the supplier, and the TSO, as well as the balancing obligations on aggregators and evaluated the pros and cons of the different models.
- Direct Energie (2015)
Provided economic consulting support to justify the compatibility of the long-term power purchase agreement with State aid rules for a gas plant in Brittany during an inquiry of the European Commission.
- PPC (2015)
Advised a Greek generator PPC on the design of a capacity remuneration mechanism that best fits the specificities of the national electricity industry context.
- ELIA (2015)
Evaluated different approaches for cross-border participation in capacity mechanisms. Investigated in particular the issues associated with coincidental scarcity situations and the interface with market coupling. Developed a multicriteria assessment of the different approaches and evaluated the best option in the specific case of Belgium. We also investigated the strategic implications for our client and proposed a set of concrete actions.
- IUK gas interconnector (2015)
Provided economic support to the client on various topics. Assessed the benefits of the IUK interconnector. Assessed regulatory regime options.
- National Grid Interconnectors (2014-2015)
Analysed options for cross-border participation in the UK capacity mechanism. Provided economic support to the client on various topics. Analysed implementation options for the participation of interconnectors in the UK capacity mechanism.
- EDF Energy (2014-2015)
Provided economic support in the State Aid review process by the European Commission of the contract for difference for the Hinkley Point C nuclear power plant in the UK. Provided economic evidence and supported our client in their interactions with DG Competition officials during the State Aid investigation process.
- Sun'R Smart Energy (2014-2015)
Provided support to build and calibrate a dispatch model as well as a model of the French power reserves and capacity markets.
- Sun'R Smart Energy (2014-2015)



Mapped the regulatory arrangements for demand response and storage in different European countries North Africa and presented detailed case studies (France, Belgium, the UK, and Germany). Identified best practices and potential markets to target. Elaborated business model options for a combined aggregation, storage, and renewables solution, conducting surveys on various producers and aggregators to identify their positioning and their offering.

- EDF (2014)
Assessed external costs associated with different power generation technologies (thermal plants, renewables, nuclear) in response to a study from the European Commission. Quantified the associated costs based on a literature review, with particular attention to the costs associated with nuclear front end and back end of the nuclear fuel cycle, as well as the costs associated with the grid integration of intermittent renewable energy sources.
- Linklaters (2014)
Drafted a public report investigating the impacts of capacity mechanisms and State Aid issues associated with their deployment in different European countries. The study was published as a thought leadership report from Linklaters and a couple of marketing events organized in Brussels and in London to present the key findings to relevant stakeholders.
- PPC (2014)
Provided an audit of the existing market arrangements. Reviewed the French experience with regulation of nuclear assets and virtual power plants (VPP), and discussed the applicability in the Greek market to regulate hydro units.
- MacQuarie Investment Fund (2014)
Analysed the impact of long-term contracts for new build plants in the UK capacity market, including the potential distortions introduced by the differentiated treatment of existing and new build plants as well as their impact on the UK capacity market dynamic and prices.
- PPC (2014)
Advised the Greek generator PPC on the power market reform proposed by the national regulator to ensure compliance with the European Target Model.
- Direct Energie (2014)
Conducted a study for a supplier in the French energy market on the relevance of introducing locational signals to give better incentives for production, scheduling and location of investments in France and Europe. Analysed different approaches, notably network tariffs, nodes / market areas or connection conditions. Provided case studies. Analysed applicability to the French energy market.
- UFE (2014)
Provided an outlook for the security of electricity supply in France and Germany and evaluated the pros and cons of a common approach for a capacity mechanism.

PUBLICATIONS

Verhaeghe C., Perekhodtsev D., Gérard A., Roques F., « *Système de prix nodaux : expérience américaine et perspectives pour l'Europe* », report for the Commission de régulation de l'énergie, 2018, available at: www.cre.fr/content/download/19975/255520.

Verhaeghe C., Duquesne G., Gérard A., « *Détermination du calendrier optimal de mise en œuvre de la réforme du pas de règlement des écarts en France* », report for the Commission de régulation de l'énergie, 2018, available at: www.cre.fr/content/download/20054/258220.

Roques F., Verhaeghe C., Dezobry G., « *Cross-border participation in Capacity Mechanisms: Legal and Economics Issues* », State Aid and the Energy Sector, Hart, pages 179-200, 2018.

Roques F., Verhaeghe C., Le Thieis Y., Li Y., « *Le mécanisme de capacité français : quel impact sur la sécurité d'approvisionnement, les prix et les revenus des producteurs ?* », Revue de l'Énergie, January-February 2017.

Roques F., Verhaeghe C., « *Options for the Future of Power System Regional Coordination* », report for ENTSO-E, 2016, available at: https://eepublicdownloads.entsoe.eu/clean-documents/Publications/Position%20papers%20and%20reports/entsoe_fti_161207.pdf.



Roques F., Verhaeghe C., « *Different Approaches for Capacity Mechanisms in Europe: Rationale and Potential for Coordination?* », Capacity Mechanisms in the EU Energy Market – Law, Policy, and Economics, Oxford, pages 79-94, 2015.

Verhaeghe C., Duquesne G., Gérard A., « *Etude sur la régulation incitative de la qualité d'alimentation des gestionnaires de réseaux publics de transport et de distribution d'électricité* », report for the Commission de régulation de l'énergie, 2015, available at: <https://www.cre.fr/Documents/Consultations-publiques/Prochains-tarifs-d-utilisation-des-reseaux-publics-d-electricite-dans-le-domaine-de-tension-HTB-dits-TURPE-5-HTB>.

Roques F., Verhaeghe C., Perekhodtsev D., « *Vers un nouveau modèle pour les marchés électriques européens* », Revue de l'Energie, N° 626, juillet-août 2015.

Roques F., Verhaeghe C., Perekhodtsev D., « *Toward the target model 2.0* », multi-client study, 2015, available on FTI Intelligence.

Linklaters, Roques F., Verhaeghe C., « *Capacity mechanisms - reigniting Europe's energy market* », 2014, available at: https://www.linklaters.com/pdfs/mkt/london/6883_LIN_Capacity_Markets_Global_Web_Single_Final_1.pdf.

LANGUAGE SKILLS

- French – Native
- English – Advanced
- Spanish – Advanced
- German – Basic

