

Residential Training

Summer School on Regulation of Energy Utilities

30 June - 4 July 2025

Teatro - Badia Fiesolana, Via dei Roccettini 9 - San Domenico di Fiesole (Fiesole, Florence)

Course Director:

Prof. Carlos Batlle | Florence School of Regulation, RSCAS, EUI and Comillas University

Training Coordinator:

Elena Bondesan | Florence School of Regulation, RSCAS, EUI

Introduction

Europe has undertaken the great task of integrating the energy markets at the continental level. Much progress has been achieved thanks to comprehensive policy and regulatory efforts put forth to coordinate the objectives of all market participants in an open, fair and sustainable competitive market. Energy companies, Transmission System Operators, distribution utilities and every market agent has been tasked to align local policies and regulatory frameworks with an increasingly ever more comprehensive European regulatory framework that fosters cross-border exchange and cooperation.

The FSR Summer School on Regulation of Energy Utilities will provide the most up-to-date and comprehensive view of the key regulatory principles, actions and implications of the current regulatory framework, highlighting the key challenges for the alignment of the industry with the policy goals of sustainability and security of supply.

The Summer School balances theory with practice with key practical study cases illustrated directly by the agents and decision-makers involved, including former and current energy regulators, renowned academics and professionals from leading energy companies.



Draft Programme

30 June

Day 1

09:00 - 09:15 Introduction to the course and tour de table introduction of participants and their course expectations.

Carlos Batlle | Florence School of Regulation, RSCAS, EUI and Comillas University

09:15 - 10:45 Theory and principles of regulation. Models of regulation.

Alberto Pototschnig | Florence School of Regulation, RSCAS, EUI

10:45 - 11:00 *Coffee break*

11:00 - 12:30 *Jam session:* Restructuring of the energy power industry. Basic policies and features in Europe.

Alberto Pototschnig | Florence School of Regulation, RSCAS, EUI

Rudi Hakvoort | Delft University

Pippo Ranci | Florence School of Regulation, RSCAS, EUI

12:30 - 14:00 *Lunch*

14:00 - 15:30 Traditional regulation of energy utilities. Regulation of monopolistic activities. Approaches to price control.

Rudi Hakvoort | Delft University

15:30 - 15:45 *Coffee break*

15:45 - 17:15 Service Quality Regulation in Electricity Distribution Networks.

Elena Fumagalli | Copernicus Institute of Sustainable Development, Utrecht University

17:15 - 17:30 Wrap-up of first day.

Carlos Batlle | Florence School of Regulation, RSCAS, EUI and Comillas University

17:30 - 18:30 *Welcome cocktail*

1 July

Day 2

09:00-09:15 Introduction.

Carlos Batlle | Florence School of Regulation, RSCAS, EUI and Comillas University

09:15 - 10:45 Wholesale electricity markets and power exchanges.

Carlos Batlle | Florence School of Regulation, RSCAS, EUI and Comillas University

10:45 - 11:00 *Coffee break*

11:00 - 12:30 Case example on PXs: Price coupling of regions-PCR.

Juan Pérez | EPEX SPOT

12:30 - 14:00 *Lunch*

14:00 - 15:30	Gas markets. Tania Tholot The Brattle Group Iestyn Hayes The Brattle Group
15:30 - 15:45	<i>Coffee break</i>
15:45 - 17:15	Case example on gas markets. Tania Tholot The Brattle Group Iestyn Hayes The Brattle Group
17:15 - 17:30	Wrap-up of second day. Carlos Batlle Florence School of Regulation, RSCAS, EUI and Comillas University
20:00 -	<i>Group Dinner</i>
2 July	Day 3
09:00 - 09:15	Introduction. Carlos Batlle Florence School of Regulation, RSCAS, EUI and Comillas University
09:15 - 10:45	Natural Gas Network: An Overview of Main Aspects. Armelle Lecarpentier IFPEN and Cedigaz
10:45 - 11:00	<i>Coffee break</i>
11:00 - 12:30	Case example on gas networks: the EU gas systems. Nico Keyaerts ACER
12:30 - 14:00	<i>Lunch</i>
14:00 - 15:30	The electricity transmission and distribution networks. Goran Majstrović Energy Institut Hrvoje Požar
15:30 - 15:45	<i>Coffee break</i>
15:45 - 17:15	Power system security in a market environment: lessons learnt from the 2025 Spanish blackout. Carlos Batlle Florence School of Regulation, RSCAS, EUI and Comillas University
17:15 - 17:30	Wrap-up of third day. Carlos Batlle Florence School of Regulation, RSCAS, EUI and Comillas University
3 July	Day 4
09:00 - 09:15	Introduction. Carlos Batlle Florence School of Regulation, RSCAS, EUI and Comillas University
09:15 - 10:45	Fundamentals on energy tariff design.

Ellen Beckstedde | Florence School of Regulation, RSCAS, EUI

10:45 - 11:00 *Coffee break*

11:00 - 12:30 Retail regulation.

Carlos Batlle | Florence School of Regulation, RSCAS, EUI and Comillas University

12:30 - 14:00 *Lunch*

14:00 - 15:30 Retail market regulation, retail prices and competition.

Nico Keyaerts | ACER

15:30 - 15:45 *Coffee break*

15:45 - 17:15 Renewable energy integration: Long-term investment incentivisation through contracts-for-difference.

Lena Kitzing | Technical University of Denmark (DTU)

17:15 - 17:30 Wrap-up of fourth day.

Carlos Batlle | Florence School of Regulation, RSCAS, EUI and Comillas University

4 July **Day 5**

09:00 - 10:30 Case example on energy markets: Latin American energy markets.

Luiz Augusto Barroso | PSR Energy Consulting and Analytics

10:30 - 11:00 *Coffee break*

11:00 - 12:30 The role of an independent system operator in the energy transition.

Izzie Sunnucks | National Energy System Operator UK

12:30 - 14:00 Flexibility and consumer engagement in energy markets in Great Britain.

Laura Smart | Ofgem

14:00 - 14:15 Wrap-up and conclusions of the course.

Carlos Batlle | Florence School of Regulation, RSCAS, EUI and Comillas University

14:15 - *Farewell lunch*

Summer School on the Regulation of Energy Utilities



Alberto Pototschnig | Florence School of Regulation, RSCAS, EUI

Alberto Pototschnig is Executive Deputy Director, World of Practice. He is an economist with extensive experience in energy policy, regulation and market design issues, with a focus on European markets. Between 2010 and 2019 Alberto served as the first Director of the European Union Agency for the Cooperation of Energy Regulators (ACER). After seven years in the consultancy business with London Economics, Alberto joined the Italian Energy Regulatory Authority in 1997. As Director of Electricity Regulation, he was responsible for the design and implementation of technical and economic regulation for the electricity sector. In 2000 Alberto was appointed CEO of the Italian Electricity Market Operator, and later joined the Italian Transmission System Operator (TSO). From 2006 to 2010 he was a Partner in Mercados EMI, an international consultancy specialised in energy markets design and regulation. Alberto regularly teaches in FSR training courses on regulatory and market design issues and directs the 'Regulatory Policy Workshop Series', the longest-running FSR workshop series, investigating the most topical issues in the energy sector.



Rudi Hakvoort | Delft University

Rudi Hakvoort has in-depth knowledge and experience in the area of energy network regulation and market functioning. As an associate professor at the faculty Technology, Policy and Management of Delft University of Technology he currently studies the design and organisation of liberalised energy markets. From 1998–2005, he directed the department Market and Infrastructure of the Dutch Office for Energy Regulation where he was responsible for network quality and capacity development, interconnection, congestion management, market design and market development, market surveillance and also for the 2004 decision on behalf of the Dutch government on the NorNed-cable, the 700 MW DC electricity link between the Netherlands and Norway (to be commissioned in 2008). Rudi Hakvoort has been chairman of the working group on Congestion Management of the Council of European Energy Regulators (CEER) from 2000–2004. Furthermore, dr.ir. Hakvoort is regularly contributing to the Florence School of Regulation at the European University (Florence, Italy) and other training courses in the area of energy policy and regulation in Europe.



Pippo Ranci | Florence School of Regulation, RSCAS, EUI

Pippo Ranci is Professor of Economic Policy at the Università Cattolica in Milan. His research interests are in regulation and industrial and energy policy. Until 2008 Pippo was director of the Florence School of Regulation at the European University Institute in Florence. Before that, he was president of the Italian regulatory authority for electricity and gas for seven years (1996 – 2003), co-founder and vice-president of the Council of European Energy Regulators (2000-2003), and often a consultant to the Italian government (1972-1993).

He has advised the SESSA project on energy (in the "Scientific Support to Policies" series) promoted by the European Commission and in addition about 30 European Universities plus a number of industrial stakeholders.

He has also worked in non-profit organisations, setting up the Italian partner in the Johns Hopkins Comparative Non-profit Sector Project (1989-1994).



Elena Fumagalli | Utrecht University

Elena M. Fumagalli is a tenured Assistant Professor at Utrecht University, Copernicus Institute of Sustainable Development (The Netherlands) and a Part-time Professor at the European University Institute, Florence School of Regulation (Italy). She holds an M.Sc. in Nuclear Engineering from Politecnico di Milano (Italy) and a PhD in Energy Engineering from the University of Padua (Italy). Her research line is built on three pillars: incentive regulation, wholesale electricity market design, and energy access in the Global South.

On these topics, she has (co-)authored over 70 peer-reviewed journal and conference paper publications and one book.



Juan Perez | EPEX SPOT

Juan Perez is Director of Strategy at EPEX SPOT. The core business of EPEX SPOT consists in operating a power exchange for Central Western Europe, the United Kingdom, Poland and the Nordic countries.

Since December 2022, Juan is also a member of the Supervisory Board of ADEX Group, the first regional Power Exchange in Southern-Eastern Europe that currently covers Slovenia and Serbia. He joined Powernext in 2008 and had previously worked in several positions at RTE, the French Transmission System Operator. Juan holds an Executive MBA from HEC-Paris and MSc degrees on Power Systems from ICAI-Madrid and Supélec-Paris.



Tania Tholot | The Brattle Group

Tania Tholot specializes in regulatory and damages issues in international arbitration, state aid, and competition matters. She has worked on cases in Europe, Asia, and Africa, with a focus on the energy sector and regulated industries. Tania's experience includes many cases on the pricing of fossil fuels and renewable energy. In particular, she has performed complex analysis to value flexible deliveries of pipeline gas and LNG under long-term contracts throughout Europe, with valuation dates spreading over the past decade. Tania is currently involved in several cases related to under-deliveries of Russian gas to European buyers. Tania has a BA in Social Sciences and a BS in Mathematics. Tania holds a Masters in Economics and Public Policy from Sciences Po Paris.



Iestyn Hayes | The Brattle Group

Iestyn Hayes currently works as a Research Associate at Brattle, where he has been employed for five years. He has experience in arbitrations, state aid cases, and competition matters, with his main area of expertise being European gas markets. He has worked on gas price reviews in Spain, France, and Belgium; under-delivery of pipeline gas in Germany; terminations of LNG resale contracts; pre-emption rights on gas production; as well as modelling of gas forward prices and transport calculations.



Armelle Lecarpentier | Cedigaz/IFP Energies nouvelles

Armelle Lecarpentier holds a post-graduate degree in energy economics from the IFP School in the Paris suburb (France) and worked on the reference publication World Energy Outlook of the International Energy Agency (IEA) before joining CEDIGAZ in 2004. Armelle Lecarpentier is the Chief Economist at CEDIGAZ. CEDIGAZ is the International Information Center on Natural and Renewable Gases created in 1961 by a group of international oil and gas companies and IFP Energies nouvelles (IFPEN). Dedicated to the gas industry, CEDIGAZ collects and analyses worldwide economic and technical information on natural gas, LNG and renewable gases (hydrogen, biomethane) in an exhaustive and critical way. Armelle Lecarpentier is in charge of gas market analysis, energy projections and statistical databases. She produces a statistical study “Natural Gas in the World” every year. She regularly writes articles and newsletters, participates as speaker in international conferences, and gives training courses on the gas industry. She has a gas expertise role at IFP Energies nouvelles (IFPEN).



Nico Keyaerts | ACER

Nico Keyaerts is working since 2018 at the EU Agency for the Cooperation of Energy Regulators and currently leads the team that handles energy retail markets and electricity network tariffs. Before he covered electricity and gas infrastructure (TEN-E, TYNDP, scenarios, PCIs, electricity tariffs, investment incentives) and gas markets (capacity allocation and congestion management, gas tariffs). He is a former Research Fellow at the Florence School of Regulation, hosted at the European University Institute in Florence, Italy and at the Vlerick Business School, Belgium. His research mainly focused on policy and regulatory aspects of energy transmission infrastructure, bridging industry practice and academic knowledge. Nico holds a PhD in Mechanical Engineering and a Master in Business Engineering, both from KU Leuven in Belgium.



Goran Majstrovic | Energy Institut Hrvoje Požar

Dr. Goran Majstrovic is an Assistant Director and Head of Transmission and Distribution Department in the EIHP, Croatia where he has been working since 1998. EIHP is a non-profit scientific and energy consultancy institution. Field of Goran's interest is transmission system planning and analysis as well as electricity market design and RES integration. He served as a consultant for the World Bank, USAID, US Energy Association, European Commission, EBRD, KfW, Energy Community, regulatory agencies, power companies, TSOs, DSOs etc. As an author he published more than 120 studies and more than 90 papers.

Goran serves as a lecturer at the post-graduate MBA study Energy Economics at University of Rijeka, Croatia. He is a vice-president of Croatian CIGRE Committee and a Member of the Scientific Council for Energy in the Croatian Academy of Art and Science.



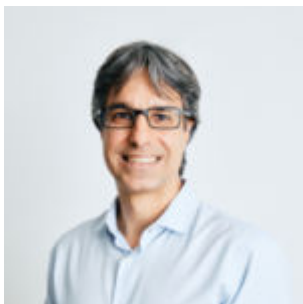
Ellen Beckstedde | Florence School of Regulation, RSCAS, EUI

Ellen is a research associate at the Florence School of Regulation (FSR), where she is co-director of the Evolution of Electricity Markets in Europe course. She holds a PhD in mechanical engineering from KU Leuven and Vlerick Business School, Belgium. During her PhD, she examined distribution network planning, flexibility mechanisms, and regulatory sandboxes using both quantitative and qualitative research methods. She graduated from KU Leuven as an engineer specialising in energy in 2019.



Lena Kitzing | Technical University of Denmark

Lena Kitzing is Associate Professor in Energy Economics and Policy, and Head of Section 'Society, Market and Policy' at the Technical University of Denmark (DTU), Department of Wind and Energy Systems. Her research spans across the energy-economy-society nexus and especially concerns the effective governance of energy systems through policy instruments, with particular focus on deployment and financing of renewables and their integration into the energy system. Lena is a leading expert in auction design for renewable energy procurement and the economics and policy for offshore wind energy. She has participated in and coordinated many international research projects, often gives scientific advice to public and private organisations, is regularly invited to key note speeches and panels, and appears in the Danish national media on energy related issues. Lena is an experienced lecturer, having developed and conducted university courses for more than ten years at five different institutions. Lena's work is highly impact-oriented. She has been board member of the Joint Programme for wind energy of the European Energy Research Alliance, and serves on the board on several energy initiatives in Denmark. Lena is member of the European Scientific Advisory Board on Climate Change, which advises European policymakers and stakeholders on climate and energy related decisions.



Luiz Barroso | PSR Energy Consulting and Analytics

Luiz Barroso is the managing director of PSR and a research affiliate of Comillas Pontifical University's Institute for Research in Technology in Madrid, Spain. His expertise spans areas where planning, policy, regulations, markets, modeling, finance, and risk management of energy systems overlap. He has worked in more than 30 countries in the Americas, Europe, Africa and Asia.

He is a past director general of the Energy Research Office, a government company connected to the Ministry of Energy that runs all the energy planning studies in the country to support its energy policy decisions. He was also a visitor in the International Energy Agency in France. He has also been involved in numerous academic and lecturing activities, including at the Florence School of Regulation, where he lectures since 2010. He has more than 150 academic publications and was associated editors of several peer in peer-reviewed journals.

Luiz is a Fellow of the IEEE for his analytical contributions on power system economics and regulation and the recipient of the 2010 IEEE Outstanding Young Engineer Award. He graduated in mathematics and received a Ph.D. degree in optimization from the Federal University of Rio de Janeiro, Brazil.



Izzie Sunnucks | NESO

Izzie Sunnucks is Connections Policy & Change Manager at NESO, where she is implementing GB's new connections process. Izzie was previously Market Strategy Manager, leading NESO's work on locational pricing in GB's Review of Electricity Market Arrangements.



Laura Smart | Ofgem

Laura is Deputy Director of Consumer Insights and Behavioural Science at Ofgem, Great Britain's energy regulator. She previously led teams of economists, behavioural scientists and policymakers across the UK regulatory landscape including the Financial Conduct Authority and Competition and Markets Authority, as well as working for the UK's Behavioural Insights Team ("nudge unit") and Consumer Scotland.



Carlos Battle | MIT Energy Initiative and Florence School of Regulation, RSCAS, EUI

Carlos Battle is Associate Professor at Comillas Pontifical University in Madrid, part-time Professor of the Florence School of Regulation (FSR) and Research Affiliate of MIT CEEPR. At Comillas he teaches Energy Economics and Electric Power Systems Regulation, and he is also member of the Institute for Research in Technology, where he leads research projects and supervises PhD and master dissertations. At the FSR, an institution under the aegis of the European University in Florence, he is member of the Training Program for European Energy Regulators and (among other courses) Director of the FSR Annual Training on the Regulation of Energy Utilities. From 2011 to 2024 he served at the MIT Energy Initiative and the MIT Sloan School of Management, teaching the course entitled "Engineering, Economics and Regulation of the Electric Power Sector" and also leading research projects and supervising master and PhD thesis. He has worked and lectured extensively on electric power systems regulation, with special focus on markets and end-user rate design. He has also a vast experience on the operation, planning, and risk management modeling of electricity generation. He has rendered consulting services for (mainly) governments and international regulatory institutions in over 30 countries. He has published over 40 papers in national and international journals and conference proceedings and authored 10 book chapters. He is also member of the Advisory Academic Panel of Ofgem, the UK energy National Regulatory Authority.