

Residential Training

Summer School on the Regulation of Energy Utilities 2022



@FSR_Energy #FSRSummerSchool

4 - 8 July 2022

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

Course Director:

Prof. Carlos Batlle | Florence School of Regulation, MIT Energy Initiative 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

4 July

Day 1

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

Carlos Batlle | MIT Energy Initiative, Florence School of Regulation

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 Restructuring of the energy power industry. Basic policies and features in Europe.

Pippo Ranci | Florence School of Regulation

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 Case example on regulation of electricity distribution (quality of service).

Rudi Hakvoort | Delft University

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

Carlos Batlle | MIT Energy Initiative, Florence School of Regulation

17:30 - 18:30 *Welcome cocktail*

5 July

Day 2

09:00 - 09:15 Introduction.

Carlos Batlle | MIT Energy Initiative, Florence School of Regulation

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

Carlos Batlle | MIT Energy Initiative, Florence School of Regulation

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.
Serena Hesmondhalgh | The Brattle Group

15:30 - 15:45 *Coffee break*

15:45 - 17:15 Case example on gas markets.
Serena Hesmondhalgh | The Brattle Group

17:15 - 17:30 Wrap-up of second day.
Carlos Batlle | MIT Energy Initiative, Florence School of Regulation

17:30 - *Guided tour of Florence*

6 July **Day 3**

09:00 - 09:15 Introduction.
Carlos Batlle | MIT Energy Initiative, Florence School of Regulation

09:15 - 10:45 Gas networks. Transmission, distribution, storage & LNG terminals.
Ilaria Conti | Florence School of Regulation

10:45 - 11:00 *Coffee break*

11:00 - 12:30 Case example on gas networks: the EU gas systems.
Nico Keyaerts | ACER

12:30 - 14:00 *Lunch*

14:00 - 15:30 The electricity transmission and distribution networks.
Goran Majstrović | Energy Institut Hrvoje Požar

15:30 - 15:45 *Coffee break*

15:45 - 17:15 Case example on electricity grids: The Trans-European Networks for Energy (TEN-E) policy.
Tim Schittekatte | MIT Energy Initiative, Florence School of Regulation

17:15 - 17:30 Wrap-up of third day.
Carlos Batlle | MIT Energy Initiative, Florence School of Regulation

20:00 - *Group dinner*

7 July **Day 4**

09:00 - 09:15 Introduction.
Carlos Batlle | MIT Energy Initiative, Florence School of Regulation

- 09:15 - 10:45 Fundamentals on energy tariff design.
Tim Schittekatte | MIT Energy Initiative, Florence School of Regulation
- 10:45 - 11:00 *Coffee break*
- 11:00 - 12:30 Retail regulation.
Carlos Batlle | MIT Energy Initiative, Florence School of Regulation
- 12:30 - 14:00 *Lunch*
- 14:00 - 15:30 Case example on energy markets: gas markets and the EU energy crisis.
Anne-Sophie Corbeau | Center on Global Energy Policy, Columbia University
- 15:30 - 15:45 *Coffee break*
- 15:45 - 17:15 Case example on energy markets: Assessment of the EU Electricity Market Design.
François Beaudé | ACER
- 17:15 - 17:30 Wrap-up of fourth day.
Carlos Batlle | MIT Energy Initiative, Florence School of Regulation
- 8 July** **Day 5**
- 09:00 - 10:30 Case example on the future of the electricity sector: Flexibility in distribution grids.
Leonardo Meeus | Florence School of Regulation
- 10:30 - 10:45 *Coffee break*
- 10:45 - 12:15 Case example on retail energy markets: Consumers in the EU energy transition.
Monika De Volder | BEUC
- 12:15 - 13:45 Case example on energy markets: Latin American energy markets.
Luiz Augusto Barroso | EPE - Energy Research Company
- 13:45 - 14:00 Wrap-up and conclusions of the course.
Carlos Batlle | MIT Energy Initiative, Florence School of Regulation
- 14:00 - *Lunch*

Summer School on the Regulation of Energy Utilities



Alberto Pototschnig | Florence School of Regulation, RSCAS, EUI

Alberto Pototschnig 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.



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



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.



Juan Perez | EPEX SPOT

Juan Perez is currently Director, Strategy and Business Development at Epex Spot. The core business of EPEX SPOT consists in operating a power exchange for Central Western Europe, the United Kingdom and the Nordic countries. The Paris-based company with offices in Amsterdam, Berlin, Bern, Brussels, London and Vienna has been created in 2008 through the merger of the power spot activities of the energy exchanges Powernext SA in France and EEX AG in Germany. In 2015, EPEX SPOT integrated with APX Group. He joined Powernext in 2008 and had previously worked in several positions at RTE EDF Transport SA. Juan holds an Executive MBA from HEC-Paris and MSc degrees on Power Systems from ICAI-Madrid and Supelec-Paris.



Serena Hesmondhalgh | The Brattle Group

Serena Hesmondhalgh is Principal at Brattle. She has worked as a consultant in the energy sector for more than 20 years, predominantly in the electricity and gas sectors. Her expertise includes litigation and arbitration, commercial damages, competition cases, asset valuation, the design of trading arrangements, and price controls.

Dr. Hesmondhalgh has also worked extensively with EU energy regulators, particularly in Great Britain, on competition and regulation issues. She has been involved with many of the investigations into potential electricity market abuse undertaken by the GB regulator. In addition, she has provided advice on the redesign of trading arrangements (GB, the Netherlands, Belgium), transmission network access (GB, Greece), market monitoring, quality of supply obligations (GB, Germany, Australia), and price controls and incentives (GB, Germany, Australia).



Ilaria Conti | Florence School of Regulation, RSCAS, EUI

Ilaria Conti is Head of Gas at the Florence School of Regulation. Her main fields of expertise concern EU institutional relations and EU electricity and gas regulation.

She spent about 9 years in Brussels, working for the the Permanent Representation of Italy at the EU, the United Nations and, from 2005 until 2013, for EFET, the “European Federation of Energy Traders”. She has been EFET Communications Director and Policy Advisor for the EFET Gas Committee, Task Force Iberia, Task Force CEE and the EFET Board.

In 2008 she founded EFET Italy, which she led until 2013. Before joining FSR, she worked from 2013 until 2015 for ENOI S.P.A., where she covered the new role of Institutional and Regulatory Affairs Manager.



Anne-Sophie Corbeau | Center on Global Energy Policy, Columbia University

Anne-Sophie Corbeau is a Global Research Scholar at the Center on Global Energy Policy at Columbia University’s School of International and Public Affairs. Her research focuses on hydrogen and natural gas. Anne-Sophie has over 20 years of experience in the energy industry and is a recognized expert on natural gas.

Prior to joining the Center, Mrs. Corbeau was a senior Leader and head of gas analysis at BP, where she was responsible for advising the Leadership Team on gas market developments and long term pricing assumptions. Before joining BP, she was a Research Fellow at KAPSARC (King Abdullah Petroleum Studies and Research Center) in Riyadh where she set up and expanded the natural gas program. She also worked for the

International Energy Agency (IEA) where she was responsible for managing the research on global gas markets, and for IHS CERA.



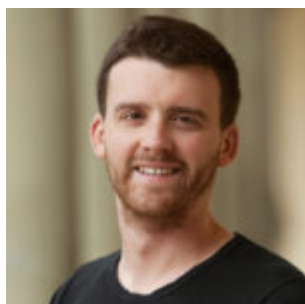
Nico Keyaerts | ACER

Nico Keyaerts is Policy Officer at European Union Agency for the Cooperation of Energy Regulators (ACER).



Goran Majstrović | Energy Institut Hrvoje Požar

Goran Majstrović is a Chief Project Officer and Head of Transmission and Distribution Department in the Energy Institute Hrvoje Pozar (EIHP), Zagreb, Croatia where he has been working since 1998. The Institute is non-profit state-owned company that provide consultancy support to energy sector reform processes, government institutions, regulatory agency and energy companies. EIHP grew upon a fifty-year old tradition of energy sector planning in Croatia. Field of Goran's interest is transmission system planning and analysis as well as electricity market design and RES integration. He's been actively participating in many international projects as a consultant for the World Bank, USAID, US Energy Association, European Commission, EBRD, KfW, Energy Community, power companies, energy regulatory agencies, Governments etc.



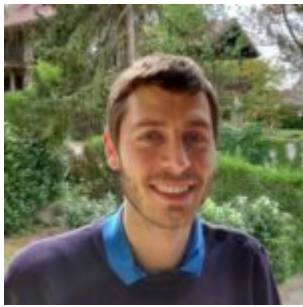
Tim Schittekatte | MIT Energy Initiative and Florence School of Regulation, RSCAS, EUI

Tim Schittekatte is a Postdoctoral Associate at the MIT Energy Initiative where he conducts research about power market design and regulation. He is one of the instructors of the MIT course "Engineering, Economics and Regulation of the Electric Power Sector". He is also a part-time assistant professor at the Florence School of Regulation (FSR), where before he was a research fellow for 5 years. Before joining FSR in May 2016, he was a visiting researcher at the Grid Integration Group of the Lawrence Berkeley National Lab and a junior economist at Microeconomix in Paris. He graduated as an engineer from Ghent University, Belgium and completed the EMIN program, an international master in economics. He holds a PhD in energy economics from University Paris-Sud XI.



Monika De Volder | BEUC

Monika De Volder is Senior Economic Officer at BEUC - The European Consumer Organisation.



Francois Beaudé | ACER

Francois Beaudé is team leader at the European Union Agency for the Collaboration of Energy Regulators in Ljubljana, Slovenia, covering electricity security of supply. He is a former Project Manager at RTE, the French electricity transmission system operator. Francois worked on various topics related to innovative ways efficiently to integrate renewables and new technologies into the electric system and markets. Francois holds a Master in Engineering from Ecole Polytechnique and a Master of Science in Nuclear Engineering and Engineering Physics from the University of Wisconsin, Madison.



Leonardo Meeus | Florence School of Regulation, RSCAS, EUI

Leonardo Meeus is Professor and Partner at Vlerick Business School in Brussels where he is the Director of the Energy Centre, and where he teaches strategy and corporate affairs. He is also a professor of the Florence School of Regulation at the European University Institute where he directs research and online courses on the latest regulatory trends in the energy sector. He is a member of the International Association for Energy Economics (IAEE). Leonardo is a business engineer with a PhD in electrical engineering from KU Leuven. He works as an expert for EU institutions, regulatory agencies, and companies via research contracts and advisory roles.



Luiz Barroso | EPE - Energy Research Company

Luiz Barroso is the CEO of PSR. From 2016 to 2018, he was the CEO of the Energy Research Office (EPE), 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. In 2018 he was also a visitor in the International Energy Agency (IEA) in France working in the IEA's Clean Energy Transitions Program, a multi-year plan backed by 13 countries to support clean energy transitions around the world. Before joining EPE, he was a partner and managing director at PSR, where he worked for 17 years, coordinating studies on power-gas systems planning, economics, operation, risk management, and market design in about 30 countries in the Americas, Europe and Asia.



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

Prof. Batlle joined the FSR in 2007, as Director of the "Summer School on Regulation of Energy Utilities". Currently he is Part-time Professor, Electricity Advisor, and Director of the "Annual Training on the Regulation of Energy Utilities" and the "Regulation of the Power Sector" courses.

Since 2011 he is member of the MIT Energy Initiative in 2011, where as part of the Electric Power Systems Low-Carbon Energy Center, he has been leading research projects, supervising PhD and master dissertations. He teaches the course entitled "Engineering, Economics and Regulation of the Electric Power Sector".

He is also part-time Professor at Comillas Pontifical University in Madrid, teaching Energy Economics and Electric Power Systems Regulation, and member of the Advisory Academic Panel of Ofgem, the UK energy National Regulatory Authority.

He has rendered consulting services for governments, international institutions, industrial associations, and utilities in over 30 countries.