

## **CEER Specialised Training on Electricity Market Design and Renewables**

**8-10 September 2021**

### **ONLINE CLASSES:**

**Wednesday, 8 September 2021 – 14:00-17:00 (CEST)**

**Thursday, 9 September 2021 – 14:00-17:00 (CEST)**

**Friday, 10 September 2021 – 14:00-17:00 (CEST)**

### **Level B: Specialised Course**

The "Clean Energy for All Europeans" Package (CEP) which was adopted in July 2019 aims to introduce an improved electricity market design in Europe. Since 1 January 2020, all provisions of the new Electricity Regulation (EU) 2019/943 have started to be applicable to the electricity markets and the provisions of the new Electricity Directive (EU) 2019/944 are on their way to be transposed into the national laws at the latest by 31 December 2020. Despite the early preparations, National Regulatory Authorities (NRAs) still face numerous challenges in implementing the new legislative package. Some open issues still have to be solved and common understandings and approaches still have to be developed.

This tailor-made CEER online training programme is designed for experts from NRAs with a general background or previous experience in the electricity markets who would like to improve or update their knowledge and expertise in order to succeed with the implementation phase of the Clean Energy Package and the related electricity market design challenges. Other experts from European Institutions (ACER, European Commission) are also invited to attend.

Participants will revisit fundamentals of electricity market design, benefit from the input of academics on new key developments and challenges, and receive up-to-date information about important issues currently discussed and developed by NRAs.

**All sessions will allow time at the end for Q&A, discussions and exchanges with the trainers and other participants.**

## ONLINE CLASS 1 – Wednesday, 8 September 2021 – 14:00-17:00 (CEST)

### **14:00-14:15 Opening remarks** **Introduction of the participants, the programme and the online format**

Alain Marien, CREG, Future Policy Work Stream Co-Chair, Course Director  
Silke Huber, CEER Training Manager

### **SESSION 1 GENERAL PRINCIPLES OF ELECTRICITY MARKET DESIGN AND APPLICATION TO EUROPE**

What are the general principles of electricity market design in Europe? Is the EU target model delivering the two main objectives of a good market design? What are the difficulties in the implementation of the target model in Europe? This session will provide an academic overview of the general principles and challenges in the implementation of the electricity market design in Europe.

### **14:15-14:25 General introduction**

Alain Marien, CREG, Future Policy Work Stream Co-Chair, Course Director

### **SESSION 2 WHAT WILL CHANGE WITH THE EUROPEAN GREEN DEAL AND RECENT INITIATIVES ON ELECTRICITY MARKET DESIGN?**

The improved electricity market design introduced by the Clean Energy Package focuses on upgrading short-term markets, increasing EU risk preparedness, promoting a fair deal for consumers and fostering regional cooperation. Regarding the wholesale electricity market, the Clean Energy Package introduced provisions in order to enable more flexibility to accommodate an increasing share of renewable energy in the electricity grid, foster more market-based investments in the sector, while decarbonising the EU energy system and improve planning to anticipate and respond to electricity market crisis situations, including through cross-border cooperation. What are the specific rules and changes to the electricity market design introduced by the Clean Energy Package? This session will focus on the main changes regarding network access and congestion management, capacity allocation, bidding zone assessment, (introducing CACM 2.0) resource adequacy and capacity mechanisms.

### **14:25-15:05 The European Green Deal, the Clean Energy packages and expected legislative evolution: General context and main focus**

Mathilde Lallemand, European Commission, DG ENER

### **15:05-15:20 Break**

**15:20-15:50 Electricity trading properties, price formation and re-dispatching challenges**

Alain Marien, CREG, Future Policy Work Stream Co-Chair, Course Director

**15:50-16:15 Compatibility of renewable support schemes with the market**

Dr Pablo Rodilla, Comillas University

**16:15-17:00 Discussion in group breakout sessions  
Wrap up of Day 1**

Alain Marien, CREG, Future Policy Work Stream Co-Chair, Course Director  
Dr Pablo Rodilla, Comillas University

**ONLINE CLASS 2 – Thursday, 9 September 2021 – 14:00-17:00 (CEST)**

**SESSION 3 IMPLEMENTATION OF THE EUROPEAN GREEN DEAL: ACADEMIC INPUT AND CASE STUDIES**

The integration of massive amounts of renewables raises fundamental challenges for the functioning of electricity markets. In particular, challenges related to the implementation of offshore renewables will be identified together with potential solutions. Academics will provide possible answers to two of these challenges: the impact of prices and the necessary coordination between TSOs and DSOs.

**14:00-14:40 Scarcity pricing design using multi-agent reinforcement learning**

Gilles Bertrand, CREG

**14:40-15:20 Market approaches for TSO-DSO coordination in Norway**

Prof Anthony Papavasiliou, UCLouvain

**15:20-15:30 Break**

**15:30-15:50 Reaction to the Commission Guidance on a future-proof market design for offshore renewable hybrid projects**

Sven Kaiser, E-Control, Co-chair of the FP WS

**15:50-16:20 Pricing challenges & bidding formats**

Dr Pablo Rodilla, Comillas University

**16:20-17:00 Discussion in group breakout sessions**  
**Wrap up of Day 2**

Alain Marien, CREG, Future Policy Work Stream Co-Chair, Course Director  
Dr Pablo Rodilla, Comillas University

**ONLINE CLASS 3 – Friday, 10 September 2021 – 14:00-17:00 (CEST)**

**SESSION 4 IMPLEMENTATION OF THE EUROPEAN GREEN DEAL AND CASE STUDIES**

Since 1 January 2020, all provisions of the new Electricity Regulation (EU) 2019/943 have started to be applicable to the electricity markets and the provisions of the new Electricity Directive (EU) 2019/944 are on their way to be transposed into the national laws at the latest by 31 December 2020. The full implementation of the Clean Energy Package may require some adaptation of existing legislation and /or in depth development of some provisions of the Clean Energy Package. Latest developments related to CACM 2.0 will be presented together with recent developments related to adequacy.

**14:00-14:50 CACM 2.0**

Mathieu Fransen, ACER

**14:50-15:00 Break**

**15:00-16:00 Recent developments in resource adequacy and ACER views**

Mathilde Carbonnelle, European Commission, DG ENER  
François Beaudé, ACER

**16:00-17:00 Discussion in group breakout sessions**  
**Wrap up of Day 3 and the overall training**

Alain Marien, CREG, Future Policy Work Stream Co-Chair, Course Director  
Silke Huber, CEER Training Manager