



Energy networks play a key role in transporting energy between energy producers and consumers, typically as a monopoly activity in an area, with their costs comprising a significant portion of consumers' bills. As a result, energy network revenues and tariffs are set by European energy regulators to help ensure value for money and security of supply. There is also a focus on incentivising a high-quality network service.

In addition, there are now significant developments impacting on the network businesses, driving a re-think in tariff-setting by regulators. This includes increased levels of wind and solar generation, more integrated European wholesale markets, a move to increased demand-side flexibility and the growth of energy communities. Distribution System Operators are at the front-end of such changes, facilitated in many cases by the roll-out of Smart Meters.

Energy regulators must tread carefully in setting tariffs in this rapidly changing environment, balancing the traditional regulatory aims of efficient, secure and high-quality energy networks with the newer objectives and innovation that policy-makers seek for the sector.

Energy regulators need expertise in setting allowed network revenues - including an appropriate return on investments/capital - and the associated tariffs, to meet these (sometimes competing) objectives.

This tailor-made 3-day CEER training programme will help deliver energy regulators this expertise. The programme will cover the fundamental principles and future direction of tariff setting for transmission and distribution, in both electricity and gas. This will include specific relevant examples from countries across Europe. The programme will also focus on the impact of new developments and innovation on the tariff setting process for European energy regulators and how to design the new tariff structures to address the new challenges.

COURSE STRUCTURE

Participants live session 26 August 11:00 am

Week 1: 26 August – 5 September

Individual preparation for the participants Literature review, reading materials, preparation of coursework

Week 2:

Hybrid Class 1: 10:30-16:30 (CET) on 6 September 2022

Hybrid Class 2: 09:00-16:00 (CET) on 7 September 2022

Hybrid Class 3: 09:00-12:30 (CET) on 8 September 2022

Tuesday, 6 September 2022
10:30 – 16:30 (CET)

10:15-10:30 **Opening and welcome | Introduction of the programme, format and participants**

Alexander Luedtke-Handjery | BNetzA, Course Director

10:30-10:45 **Introducing the participants – platform orientation**

Rasha Zeina | CEER Programme and Training Coordinator

SESSION 1 FUNDAMENTAL PRINCIPLES OF NETWORK TARIFF REGULATION IN ELECTRICITY AND GAS

Traditionally, cost-plus and rate-of-return models were widely used by energy National Regulatory Authorities (NRAs) in electricity and gas network tariff regulation. However, these models were considered to lack incentives for regulated companies to minimise costs and, conversely, could lead to 'gold-plating' and inefficient investment choices. This led to the emergence of incentive-based regulatory approaches, including price controls, with penalty and reward tools linked to attempts to improve network performance.

A set of fundamental principles informs the work of energy NRAs in tariff-setting: system reliability, cost efficiency, non-discrimination, transparency, stability and predictability. These principles inform the key building-blocks for NRAs in setting allowed network revenues - including appropriate operational costs, investment levels and return on capital - and in designing the associated network tariffs, as discussed in this Session. In addition, there are now significant developments impacting on the network businesses, driving a re-think in tariff-setting by regulators.

10:45-11:45 **Fundamental principles and future direction of network tariff regulation in electricity and gas.**

- a) Key principles of economic regulation
- b) Relationship between revenues, tariffs, building blocks of regulation
- c) Future direction of network tariff structures in gas and electricity sectors and the Clean Energy Package.

Aria Rodgarkia Dara | Frontier Economics

Q&A

11:45-11:50 **Break**

11:50-12:50 **Some practical approaches in setting allowed network revenue**

(Calculation of key parameters of RAB, WACC, optimization of CAPEX, auditing of OPEX, etc.). Practical exercise.

Johan Allonsius | CREG – online

Q&A

12:50-13:45 *Lunch Break – CEER Office*

SESSION 2 DIFFERENT MODELS AND METHODOLOGIES FOR ELECTRICITY AND GAS NETWORK CHARGING IN EUROPE

While energy NRAs may use the fundamental principles and building blocks in designing electricity and gas network tariffs as explained in Session 1, the exact approach can differ in each country, as a function of the local circumstances and market / network structure. NRAs also try to address the new challenges in the transmission and distribution systems in gas and electricity in their new tariff design.

The different approaches applied in various European countries are explained in this Session

13:45-14:45 EU Harmonised Tariff Structures Network Code for gas.

- a) Aims, understanding and routes to progress
- b) Obstacles and challenges of implementation
- c) Results of reporting and monitoring and case studies at national level

Miguel Martinez- Rodriguez | ACER

Q&A

14:45-14:55 **Break**

14:55-15:45 EU Harmonised Tariff Structures Network Code for electricity.

- a) Aims, understanding and routes to progress
- b) Obstacles and challenges of implementation
- c) Results of reporting and monitoring and case studies at national level

Elaine O'Connell | EC (tbc)

15.45 -16.45 Group work Tariffication in the EU

Speaker TBC

16:45-17:00 Wrap up of Day 1.

17:00-18:30 Reception Drinks – all participants and lecturers are welcome to join.

- END FIRST DAY -

Wednesday, 7 September 2022
09:00-16:00 (CET)

Session 2 **DIFFERENT MODELS AND METHODOLOGIES FOR ELECTRICITY AND GAS NETWORK CHARGING IN EUROPE**

9:00-09:10 Wrap up of day 1 and introduction of day 2

9:10-10:00 **Case study 1:**

Tariff setting methodology for electricity distribution/transmission in the Austria

- a) Brief explanation of the model/methodology.
- b) The rationale for the tariff structure which is set up depending on capacity.

Gerald Roeder | E-control

Q&A

10:00-10:15 *Coffee break*

10:15-11:15 **Case study 2:**

New tariff structures to address new challenges in distribution systems

- a) in Norway.

Andrea Kråkenes Aase & Maren Wiig Eriksen | NVE-RME

Q&A

11:15-11:20 *Coffee break*

11:20-12:20 **Case study 3:**

Tariff setting methodology for electricity distribution/transmission in Slovenia

- a) Cost allocation by type of user, connection charging, ancillary services/balancing charges, and tariff structures
- b) Practical example on deciding tariff structures to meet the required objectives and principles and deal with pragmatic restrictions.

David Batic | Energy Agency (tbc)

Q&A

12:20-13:30 *Lunch Break – CEER Office*

13:30-14:30 **Case study 4:**

Tariff setting methodology for gas transmission/distribution in Italy.

b) Practical example on deciding tariff structures to meet the required objectives and principles and deal with pragmatic restrictions. Rationale and brief explanation of the methodology.

Marco La Cognata | ARERA

14:30-14:45 **Break**

SESSION 3 TARIFF SETTING IN THE CONTEXT OF NEW DEVELOPMENTS IN EUROPE

Electricity transmission and distribution businesses and tariff setting by regulators are being impacted on by a range of developments in Europe. In transmission, these developments include more integrated wholesale energy markets and cross-border security of supply considerations, increased levels of intermittent generation and the drive towards Smart Networks. Distribution System Operators are at the forefront of innovation in regulatory oversight given the dramatic increase in small-scale renewable generation and the desire by policy-makers for consumers to be able to play a more active role in the market, thus the growth of energy communities. A mass roll-out of electric vehicles would add another level of complexity to distribution tariff-setting. How NRAs design the new tariff structures to address the new challenges is discussed in this Session. It includes practical examples from countries across Europe.

14:45-15:45 **Case study 5:**

Capacity-based network tariffs for Italian electricity households: its contribution to address the challenges in distribution systems facing EV charging demand.

Emanuele Regalini | ARERA

Q&A

15:45-16:00 Wrap up of Day 2.

19:30- 21:30 Group dinner

- END SECOND DAY -

Thursday, 8 September 2022
09:00-12:30 (CET)

- 09:00-09:05** Wrap up of day 2 and introduction of day 3

Alexander Luedtke-Handjery, BNetzA, Course Director
- 09:05-09:50** How to design network charges in a context of high penetration of distributed resources, prosumers, on-site distributed generation and Energy Communities.

Tomás Gómez I Universidad Pontificia Comillas-
- Q&A**
- 09:50-10:00** *Coffee break*
- 10:00-11:30** Group work: specific new challenges from a regulatory perspective faced by DSOs on the issues discussed in the previous session.

Tomás Gómez I Universidad Pontificia Comillas
- Q&A**
- 11:30-11:50** Course Evaluation

Rasha Zeina I CEER
- 11:50- 13:00** **Goodbye Lunch**

- END THIRD DAY -