

## CEER Specialised Training on Network Tariffs for Transmission and Distribution

12-13 June 2018

CEER Office, Cours Saint-Michel 30a (5th floor), 1040 Brussels

### COURSE PROGRAMME

*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 progress towards Smart Networks. 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 tailored-made 2-day CEER training programme will help deliver energy regulators this expertise. The programme will cover the fundamental principles 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.*

**Tuesday, 12 June 2018**

**10:30-17:45**

#### WELCOME AND INTRODUCTION

**10:30-10:45** Opening remarks and round-table introduction of the participants.

- **Mr Alexander Luedtke-Handjery, BNetzA, Course Director**

**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. Gas and electricity networks face distinct sets of needs and challenges which must be taken into account when setting allowed network revenues and designing the tariff model. Meanwhile there are similarities and differences between regulating transmission and distribution networks (TSOs vs. DSOs).

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

- a) Key principles of economic regulation
- b) Relationship between revenues, tariffs, building blocks of regulation
- c) Similarities and differences between tariffs in gas and electricity sectors, tariffs for TSOs and DSOs.

▪ **Mr Benoit Esnault, CRE**

**Q&A**

**11:45-12:45** Some practical approaches in setting allowed network revenues (calculation of key parameters of RAB, WACC, optimization of CAPEX, auditing of OPEX, etc.). Practical exercise.

▪ **Mr Johan Allonsius, CREG**

**Q&A**

**12:45-13:45 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.

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

**13:45-14:45 Case study 1:**

Tariff setting methodology for gas transmission/distribution in Italy.

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

- **Mr Marco La Cognata, ARERA**

**Q&A**

**14:45-15:45** EU Harmonised Tariff Structures Network Code for gas.

- a) Aims, understanding and routes to progress
- b) Obstacles and challenges of implementation
- c) Case study
- d) Other issues

- **Mr Benoit Esnault, CRE**

**Q&A**

**15:45-16:00** *Coffee break*

**16:00-16:45 Case study 2:**

Tariff setting methodology for electricity distribution/transmission in Germany.

- 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.

- **Mr Alexander Luedtke-Handjery, BNetzA, Course Director**

**Q&A**

**16:45-17:30** Group work: exploring different types and components of network tariffs - national similarities and differences.

- **Moderator: Mr Alexander Luedtke-Handjery, BNetzA, Course Director**

**17:30-17:45** Wrap up of Day 1.

- **Mr Alexander Luedtke-Handjery, BNetzA, Course Director**

**17:45-18:45** Reception Drinks – all participants and lecturers are welcome to join.

**- END FIRST DAY -**

**Wednesday, 13 June 2018**  
**09:00-16:15**

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

**09:00-10:00 Case study 3:**

Tariff setting methodology for electricity distribution/transmission in the Netherlands.

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

▪ **Mr Paul Adriaansen, ACM**

**Q&A**

**10:00-11:00 Case study 4:**

Tariff setting methodology for electricity distribution/transmission in the UK.

- a) Practical example on deciding tariff structures to meet the required objectives and principles and deal with pragmatic restrictions.
- b) The rationale for an incremental cost model – tariffs set up by reference to the cost of increasing demand during peak hours.
- c) Brief explanation of the incremental cost model and the ad-hoc methodology between energy and fixed component.

▪ **Ms Lynda Carroll, Ofgem**

**Q&A**

*11:00-11:15 Coffee break*

## **SESSION 3 DEVELOPMENTS IMPACTING ON ELECTRICITY AND GAS TRANSMISSION AND DISTRIBUTION NETWORK CHARGING 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 flexible role in the market, including

via Smart Meters. A mass roll-out of electric vehicles would add another level of complexity to distribution tariff-setting. The impact of such developments is discussed in this Session.

**11:15-12:15** Impact of developments and innovation on electricity transmission and distribution businesses, including tariff setting. Similarities and differences of impacts on transmission and distribution networks.

- **Mr Luca Lo Schiavo, ARERA**

**Q&A**

**12:15-13:15** *Lunch Break*

**13:15-14:15** CEER Guidelines of Good Practice on Electricity Distribution Network Tariffs: How different electricity network tariff structures may be used to manage future distribution network challenges such as integration of embedded generation and increased self-consumption. The challenges of dynamic network tariffs. What is proposed in the Clean Energy Package regarding network tariffs?

- **Ms Lynda Carroll, Ofgem**

**Q&A**

**14:15-15:15** How to design network charges in a context of high penetration of distributed resources, prosumers, on-site distributed generation and Local Energy Communities. The challenges of feed-in network tariffs.

- **Dr. Rafael Cossent, Universidad Pontificia Comillas**

**Q&A**

**15:15-16:00** Group work: specific new challenges from a regulatory perspective faced by DSOs on the issues discussed in the previous session.

- **Moderator: Dr. Rafael Cossent, Universidad Pontificia Comillas**

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

- **Mr Alexander Luedtke-Handjery, BNetzA, Course Director**

**- END SECOND DAY -**