



This project is funded by the European Union

Technical Assistance for Improvement of Performance-Based Tariff Regulation of EMRA for Turkish Energy Markets Through Introducing an Enhanced Monitoring System



Training in relation with Task 2 – Improvement of energy market monitoring system that will enhance monitoring

Summary of the project and training:

Overall Project Objective is to improve the functioning of electricity and gas markets in line with EU requirements.

Project Purpose is to improve the capacity of EMRA by the development of a new performance-based tariff calculation mechanism, including a social tariff.

The project aims at three main **results**:

1. Methodology for performance-based tariff calculation is developed.
2. Energy market monitoring system of EMRA is improved.
3. EMRA's capacity to regulate market through the use of performance-based tariffs is enhanced.

This training is the **third activity under Task 2** – Improvement of energy market monitoring system that will enhance monitoring. The purpose of the training is to strengthen the institutional capacity with respect to monitoring the data flows between distribution companies and EMRA.

The **training** will provide instruction on experiences in other countries, e.g. The RIIO model in the UK and the regulatory model in Italy. These two countries are chosen, because their application with performance-based tariffs seems well developed as compared to other EU countries. Also, they have a comparable market size to Turkey. The focus will be on data analytics, namely how the relevant data flows are managed, how the quality of the data is established and how the data is used for benchmarking purposes and other activities of the regulator. In addition, the Regulation on Wholesale Energy Market Integrity and Transparency (REMIT) will be included in the training course.

There will be audio-based Turkish-English simultaneous interpretation available during the training. Both days will be focusing on two separate country examples in the EU (UK and Italy) and will focus both on electricity and natural gas.

Participants from EMRA, MENR, BOTAS, TEIAS, etc. are herewith invited to attend this training and to benefit from the ongoing work in the Tariff project for EMRA.





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9-10 March 2020, Wyndham Hotel, Ankara

AGENDA 9 March 2020 – Data monitoring; Italian case and quantitative methods		
Time	Agenda item	Presenter/Moderator
10:00 – 10:15	Opening and Task summary	Emre Ertürk, senior NKE Melih Durukan, senior NKE
10:15 – 11:00	Data monitoring: data collection and examples from Italy	Wietze Lise, team leader
11:00 – 11:30	Coffee break	
11:30 – 12:00	Data monitoring: data quality control and examples from Italy	Wietze Lise, team leader
12:00 – 12:30	Data analytics and benchmarking methods: examples from Italy	Wietze Lise, team leader
12:30 – 14:00	Lunch break	
14:00 – 15:00	Data analytics and benchmarking methods: OLS, and MOLS, etc.	Prof Uğur Soytaş, senior NKE
15:00 – 16:00	Data analytics and benchmarking methods: DEA and SFA.	Dr Gülşah Karakaya, junior NKE
16:00 – 16:30	Data analytics and benchmarking methods: methods used elsewhere in Europe	Esin Emer, junior NKE





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9-10 March 2020, Wyndham Hotel, Ankara

AGENDA 10 March 2020 – Data monitoring; UK case		
Time	Agenda item	Presenter/Moderator
10:00 – 10:15	Opening and Task summary	Wietze Lise, team leader Melih Durukan, senior NKE
10:15 – 11:15	Data monitoring: data collection and examples from UK	Gareth Davis, senior NKE
11:15 – 11:30	Coffee break	
11:30 – 12:15	Data monitoring: data quality control and examples from UK	Gareth Davis, senior NKE
12:15 – 13:00	Data analytics and benchmarking methods: Examples from UK	Gareth Davis, senior NKE
13:00 – 14:00	Lunch break	
14:00 – 15:45	Overview of the RIIO framework	Gareth Davis, senior NKE
15:45 – 16:00	Coffee break	
16:00 – 17:00	Q&A Session for Overview of the RIIO framework	Gareth Davis, senior NKE





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Details on the training programme can be found below:

1. Data collection:

Business plan for planning the next regulatory period. (setting the performance-based tariffs)

Regulatory reporting packages on an annual basis. (this is used for ex-post monitoring activities and could lead to adjustments around the incentives)

Data is collected on the following key subjects:

- **Reliability:** Improve network reliability and reduce the number and duration of power interruptions.
- **Connections:** Provide a better service for customers wanting to connect to the network.
- **Customer Service:** Deliver good customer service and listen to stakeholders.
- **Social Obligations:** Do more to help vulnerable customers, particularly during power interruptions.
- **Environmental:** Reduce carbon emissions and other environmental impacts.
- **Safety:** Ensure the network remains safe and meets Health and Safety Executive standards.

2. Data quality control:

High level quality control via incentives for business plans.

Detailed level quality control through expert review of the data.

Regulatory instructions and guidelines are formulated for the data that needs to be delivered.

Tools have been developed to take the data from business plans to be used for cost assessments.

This is often an iterative process to clarify issues.

For instance, “out of trend cost” projections will be categorized as low confidence costs.

Both UK and IT have solid data and long experience, this leads to long time series of cost data that can be used for various purposes in performance-based tariffs.

Lessons for Turkey: start from information which is available and already produced via business plans and planning of the regulated companies.

Next a plan is needed on how to transition to the desired a situation with respect to data quality, data harmonization and data quality control.

3. Data Analytics

High level overview of the cost assessment process.

Models used.

Range of tools used

Econometric methods





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4. Benchmarking tools

During this session the following topics will be covered, with respect to DEA and SFA:

- What is DEA and SFA?
- How is it applied?
- What are the advantage and disadvantages?
- What is the current application in Turkey?
- Comments on its strengths and weaknesses.
- Suggestions for an improved DEA and SFA specification and the related data needs.

In addition, the following topics will be covered for other benchmarking tools:

- What is OLS, cointegration and MOLS?
- How is it applied?
- What are the advantage and disadvantages?
- Applicability to Turkey, given data restrictions.
- Comments on its strengths and weaknesses.
- Suggestions for OLS, cointegration and MOLS specifications and the related data needs.

