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**European Union / Instrument for Pre-
Accession (IPA) Energy Sector
Technical Assistance Project**

EU IPA13/CS-02.a

**2013 ENERGY SECTOR PROGRAM
PHASE-2 PROJECT**

Energy Market Development

**Report on training on portfolio management
[English Version]
Revision 0**

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TABLE OF ACRONYMS AND TERMS

Acronym/Term	Definition
BOTAŞ	Petroleum Pipeline Corporation of Turkey
Consultant	The consortium of consultants carrying out this project
DSO	Distribution System Operator. The operator of a gas distribution grid
EMRA	Turkish Energy Markets Regulatory Authority
EU	European Union
LNG	Liquefied Natural Gas
MENR	Turkish Ministry of Energy and Natural Resources
MO	Market Operator
SO	System Operator
ToR	Terms of Reference for this project
TPA	Third Party Access. Access to the gas grid for commercial players, which do not own grid
TSO	Transmission System Operator. The operator of the gas transmission grid
TTF	Title Transfer Facility

1. BACKGROUND

The ToR specifies the Consultant shall organize a three-day course on portfolio management. The participants are up to 20 persons from BOTAŞ, EMRA and MENR.

The training on portfolio management took place 10–12 December 2018. The venue was a conference room at BOTAŞ's premises in Ankara at Yapracık Mahallesi, Eskişehir Yolu, 25. Km, Yapracık Köyü Mevkii.

On behalf of MRC Consultants and Transaction Advisors, Mr Anders Plejdrup Houmøller was the teacher at the course. This training report is produced by Mr Anders Plejdrup Houmøller.

In the following, you'll find:

- * A short description of the course.
- * The program for the course.
- * The PowerPoint slides shown at the course.
- * A list of the participants for the two last days (11–12 December 2018).

2. A DESCRIPTION OF THE COURSE

Gas and electricity are both grid bound energy commodities (although LNG may soften this somewhat for gas). Liberalized markets for these commodities tend to be very price volatile.

To illustrate this point, three cases were discussed:

- * The Nordic electricity market.
- * The Dutch TTF gas price index.
- * The USA Henry Hub gas price index.

Hence, in a liberalized gas market, any portfolio management must first and foremost aim at handling the price volatility.

In a team exercise, the participants discussed the potential, future price drivers for the Turkish gas market. For the participants, the challenge was that Turkey has so far not had much price volatility at the gas market.

Further, the following concepts were presented and explained:

- * Back-to-back hedging.
- * Open Position.
- * Volume risk.
- * Profile risk.

Oil indexing versus gas-to-gas competition was discussed.

The concept of imbalances was discussed, and it was emphasised that the imbalance settlement system is crucial for a liberalized gas market. The concept of imbalance settlement was new for many of the participants.

The division of work between the commercial players and the grid companies (TSO and DSOs) was discussed. The commercial players are responsible for setting the price of gas. The grid companies are responsible for the delivery of gas.

The security of supply and interruptible gas supply was discussed. It was demonstrated, how a suitable balancing system can provide Turkey with a price-signal for security of supply.

The Supplier of Last Resort was discussed.

Different systems for cross-border trading of gas were presented.

Price hedging and gas derivatives were discussed the third day. It was demonstrated, how gas derivatives can provide retailers and shippers with price hedging. Exchange trading of derivatives and clearing was presented. Gas derivatives was a new concept for many of the participants.

Lastly, transparency, market surveillance and TPA rules were discussed.