



**WORLD BANK GROUP**

Energy & Extractives

# Bulgaria: Power Sector Transition to a Competitive Market

Reimbursable Technical Assistance

Sofia, June 29<sup>th</sup>, 2017

# Foreword

These presentations have been prepared by the World Bank under the “Power Sector Financial Stabilization and Market liberalization” the Reimbursable Technical Assistance financed by the Bulgarian Energy Holding.

The findings are intended to provide a platform for discussion in order to identify and assess options to improve the sector’s financial standing and move forward with the liberalization of the power market.

The assessment has been undertaken by the World Bank based on data provided by the Bulgarian Energy Holding, the State Water and Energy Regulatory Commission, and other privately owned sector entities.



# Outline

1. Diagnosis
2. Key considerations for the Bulgarian Power market design
3. Transitional measures to achieve market liberalization

# 1. Diagnosis

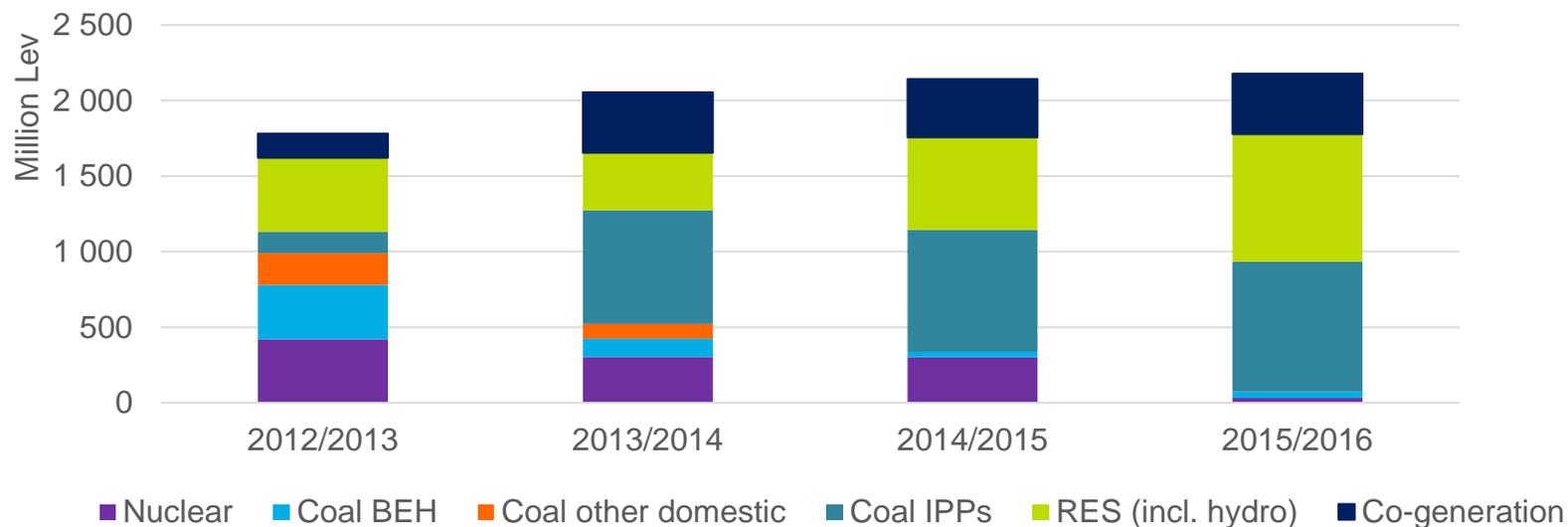


# Strengths of the Bulgarian power sector:

- Diversified power generation mix
- Comfortable supply margin
- Well developed infrastructure
- Significant cross border electricity trade
- Increasing share of electricity traded in the free market

# Growing system costs arising from contractual and legal obligations put pressure on tariffs

Revenue requirement for the purchase of electricity  
in the 2012/2015 regulatory periods



- Revenue requirement in the generation sector to cover for contractual and legal obligations increased by over 20% in the past four years
- Demand in the regulated sector shrank by over 35% due to the ongoing liberalization process over the same period.

# Diagnostic

- **Bulgaria is to continue the implementation of full market liberalization** in line with its commitments towards the EU
- **However, pre-requisites for full market liberalization and price deregulation are yet to be put in place.** Critical issues to be tackled include:
  - a) Establishment of a credible reference price resulting from a liquid and transparent organized market (IBEX)
  - b) Development of price market-based allocation of cross-border capacity to boost the development of the wholesale and export markets
  - c) Below cost tariffs in the regulated sector
  - d) Review of the institutional set-up to increase transparency and trust among sector participants

## 2. Key considerations for the Bulgarian Power Market



# Bulgarian Power Market Design

- The EU target model
  - Provides a long-term framework. Key elements include the development of day-ahead, intraday markets as well as market coupling
  - Critical role of IBEX and ESO in the implementation of the liberalized market model
- Bulgaria already started the implementation of a fully liberalized market
- Next steps to support market liberalization include :
  - Alignment of the day-ahead and balancing market to ensure no possible arbitrage
  - Implementation of an intraday market
  - Introduction of both day-ahead and longer- term OTC (either physical or financial – or both)

### 3. Transitional measures to implement market liberalization



# Rationale

- Transitional mechanisms to implement market liberalization are needed given the characteristics of the Bulgarian power market:
  - Regulated price is different from the one that may be expected in market conditions and does not provide for the needed resources to cover system costs
  - Large accumulated debt would need to be repaid
  - A large share of the generation (IPPs and RES) do not participate in the wholesale market
- Contracts for Difference (CfD) are usually established
  - They allow to make transition easier and less risky since it allows to generators and retailers to 'hedge price volatility'
  - Often times, they are imposed by the regulator
- A CfD is a financial instrument for energy supply from generators to retailers, specifying a two-way contract quantity and a contract price for a limited period. This is our focus here.

# Stepwise process to full market liberalization

## – initial phase

### Wholesale market:

- Ensure and adequate level of wholesale participation:
  - The DG COMP obligation on BEH affiliates
  - TSO/SO procurement of losses
  - Additional Public Service Obligation in addition to the DG COMP commitments
- Voluntary wholesale participation:
  - Any other market participant that is willing to buy/sell
- Additional measures should be assessed based on the liquidity of the market

### Retail market:

- Progressively expose consumers to market prices
- CfDs covering the gap between market prices and regulated tariff would help ensure a smooth tariff adjustment path compatible with social considerations

# Transitional measures

- Transitional mechanisms are desirable
- Forecasted dispatch pattern of all major units is reasonably stable over the years; revenue outcomes may vary considerably depending on load volatility.
- Progressively expose consumers under regulated prices to market prices would help ensure a smooth tariff adjustment path compatible with social considerations.
- At the same time, suppliers would be requested to source a growing share of their demand through the organized wholesale market.
- It would be important to ensure that the Security Fund is a creditworthy entity with adequate liquidity to cover for the differences.
- Pre-requisite of the implementation of the transitional measures is the development of a credible reference price in the organized day-ahead market, including measures to improve liquidity, and market coupling.

# Today's presentations

- The following presentations will give more details on the results of the assessment performed by the World Bank Team and we hope they provide a platform for discussion in order to identify and assess options to improve the sector's financial standing and move forward with the liberalization of the power market.
- Each presentations will last 20-25 minutes, followed by a 20 minutes Q&A session
  - **Consolidating the financial stabilization**
  - **Transition of a competitive market model**
  - **Mechanisms to transition to competitive markets: the case of CfDs**
  - **Affordability and measures to protect vulnerable population**



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