



REPUBLIC OF BULGARIA
Ministry of Economy, Energy and Tourism

The State Policy for the Development of the Power Sector in Bulgaria



BULGARIAN ENERGY POLICY AS A PART OF EUROPEAN ONE

BINDING TARGETS for EU - 27

**20% RENEWABLE
ENERGY**

**(-) 20% CO2
in comparison to 1990**

**20% ENERGY
EFFICIENCY
IMPROVEMENT**

PRIORITIES till 2020

**SUSTAINABLE
DEVELOPMENT**

ENERGY SECURITY

**ECO-EFFICIENT ECONOMY
ON THE BASIS OF A
COMPETITIVE
ENERGY MARKET**

NATIONAL TARGETS

**TO BE DEFINED
IN
NATIONAL
ENERGY
STRATEGY TILL
2020**



SECURITY OF ELECTRICITY SUPPLY

- **THE MAIN FUELS USED FOR ELECTRICITY GENERATION IN BULGARIA ARE NUCLEAR & COAL.**
- **BULGARIA'S ROLE AS AN ELECTRICITY EXPORTER IN THE SEE REGION HAS DIMINISHED SIGNIFICANTLY FOLLOWING THE CLOSURE OF FOUR OUT OF THE SIX NPP KOZLODUY'S NUCLEAR REACTORS.**
- **COAL FIRED POWER PLANTS ARE OLD & THE LARGEST EMITORS OF GREENHOUSE GASES IN THE COUNTRY.**

THE CHALLENGES:

- **PLANNED CONSTRUCTION OF NEW ELECTRICITY GENERATION CAPACITY TO BE BASED ON COST-BENEFIT ANALYSIS ("BELENE" PROJECT).**
- **FURTHER ATTRACTION OF PRIVATE INVESTMENTS IN ELECTRICITY GENERATION.**



NATIONAL ENERGY SECTOR – STRATEGIC ASPECTS (2)

SECURITY OF GAS SUPPLY

- **BULGARIA IS HIGHLY DEPENDENT ON IMPORTED NATURAL GAS AND HAS ONLY ONE GAS SOURCE & SUPPLY ROUTE – EXCLUSIVELY FROM RUSSIA VIA UKRAINE.**
- **THE COUNTRY HAS ONLY ONE GAS STORAGE FACILITY (CHIREN) WITH SMALL CAPACITY AND LIMITED DAILY WITHDRAWAL RATE.**
- **THE COUNTRY IS VULNERABLE TO SUPPLY DISRUPTION.**
- **INCREASING OF PENETRATION OF NATURAL GAS IN THE DOMESTIC CONSUMPTION - ONLY 1.5% OF BULGARIAN HOUSEHOLDS ARE CONNECTED TO THE GAS DISTRIBUTION NETWORKS.**
- **THE CHALLENGE IS TO INCREASE USE OF NATURAL GAS COMBINED WITH SOURCE & ROUTE DIVERSIFICATION TO MITIGATE SECURITY OF SUPPLY CONCERNS.**



NATIONAL ENERGY SECTOR – STRATEGIC ASPECTS (3)

ENERGY EFFICIENCY

- **DESPITE A SUBSTANTIAL DECREASE IN ENERGY INTENSITY IN THE PAST DECADE, ENERGY EFFICIENCY IS LOW, DRIVEN BY: LOW EFFICIENCY IN ENERGY SECTOR, EXTENSIVE USE OF ELECTRICITY FOR HEATING, LOW ENERGY PRICES WHICH DOES NOT ENCOURAGE ENERGY SAVING.**
- **ENERGY LOSSES ARE HUGE AND REQUIRE INVESTMENTS IN ENERGY EFFICIENT TECHNOLOGIES – PARTICIPATION OF POWER PLANTS IN EU GREENHOUSE GAS EMISSIONS TRADING SCHEME WILL BE THE KEY TO ENCOURAGE MARKET-ORIENTED INVESTMENTS.**
- **THE CHALLENGE IS TO PROVIDE AT GOVERNMENTAL LEVEL FOR EFFECTIVE MEASURES & INSTRUMENTS TO ACHIEVE THE FULL NATIONAL ENERGY SAVING POTENTIAL.**



INCREASING THE USE OF RENEWABLE ENERGY

- **BULGARIA HAS A LARGE UNTAPPED POTENTIAL OF RES.**
- **OUR COUNTRY HAS A BINDING NATIONAL TARGET – AS A EU MEMBER STATE – WHICH MUST BE MET BY 2020, NAMELY – 16% RES SHARE IN GROSS FINAL CONSUMPTION OF ENERGY.**
- **THIS TARGET, COMPARED WITH THE BASIC 9.4% RES SHARE IN 2005 REQUIRES CONSIDERABLE EFFORTS.**

THE CHALLENGE IS TO PROMOTE THE UTILIZATION OF RENEWABLE ENERGY THROUGH:

- **SETTING A CLEAR, TRANSPARENT SET OF PRINCIPLES FOR INTEGRATION OF RES INTO THE ELECTRICITY GRID.**
- **LIFTING THE ADMINISTRATIVE BARRIERS.**



LEGAL BACKGROUND FOR LIBERALIZATION

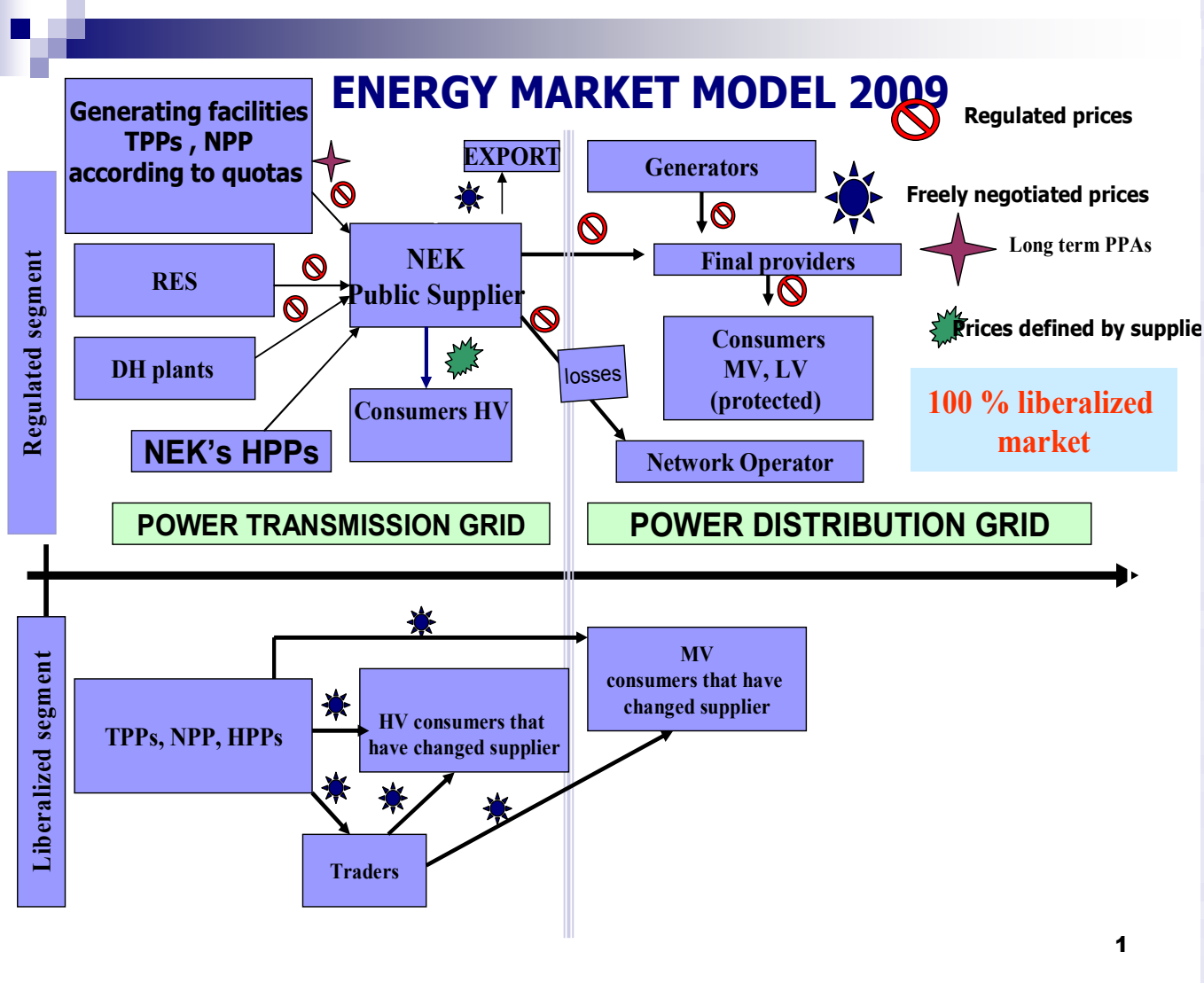
- **Liberalization of the power market is being carried out in line with the EU Directives requirements.**
- **The trading rules adopted in August 2004 provided the legislative basis ensuring the operation of the liberalized segment of the power market and the transition from regulated to freely negotiated prices.**
- **Each generator and supplier can make electricity transactions with eligible consumers, electricity traders and other generators.**
- **On 1 July 2007 all consumers became eligible and those not having outstanding debts could change their supplier and conclude contracts at freely negotiated prices.**
- **From a legal perspective, as of 1 July 2007 the power market is 100% liberalized.**



STRUCTURE OF THE POWER MARKET

Currently, two segments of the market operating in parallel:

- Regulated;
- Liberalized.





CURRENT STATUS

Market participants:

- **Generators;**
- **Consumers that have changed their supplier;**
- **Electricity traders,**
- **NEK (as supplier of balancing energy);**

Liberalization status:

Currently, the liberalized segment is around 17 %.

The trading rules were amended in mid-2009 introducing daily schedules.



FUTURE ACTIVITIES

- **Start up of the project together with NVE Norway;**
- **Unbundling the Electricity System Operator – ITO model;**
- **Adoption of new trading rules aimed at defining balancing groups and a power exchange mechanism;**
- **Putting in place a day-ahead market as the first step towards an organized power market.**



REPUBLIC OF BULGARIA
Ministry of Economy, Energy and Tourism

THANK YOU FOR YOUR KIND ATTENTION!

Henri Donchev
State expert at the Energy Markets and
Restructuring Department Energy Policies,
Strategies and Projects Directorate

E-mail: a.donchev@mee.government.bg

www.mee.government.bg