

# Energy Sector of Ukraine: future outlook

MAXIM TIMCHENKO  
CEO OF DTEK

Energy  
in action

**DTEK**

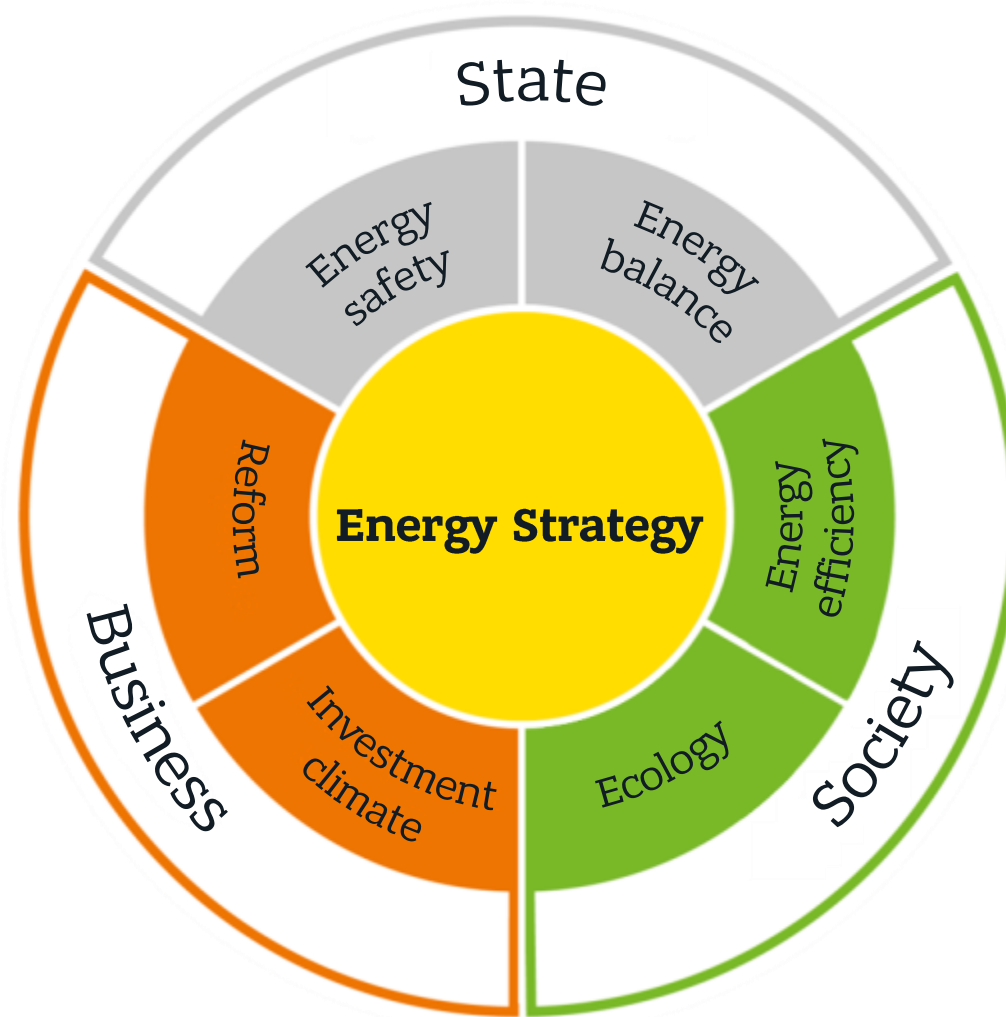
# Consequences of 2014-2015

Changes in the economy and politics require rethinking of energy development strategy

	Economic recession	Geopolitical instability	Disruption of world commodity markets
<b>Reduced power consumption</b>	↓ Falling demand for more than 20%	↓ Loss of territories, reduced electricity export by 63% in 2013	↓ Reduced exports in Mining and Metals Sector – 46% from 2013
<b>Capacity surplus</b>	↓ Surplus capacity of TPPs – 7 GW, investments suspension	↓ Several generating capacities are out of control – 4 GW	↑↓ Fall in export prices: of electricity by 35%, of coal - twice
<b>Coal surplus</b>	↓ Threat of mines closure (surplus of 7 million tons), lack of subsidies	↓ Loss of control over anthracites (with TPPs demand of 9 million tons)	↓ Reduced coal import prices to \$60/ton, cost of the state mines – \$100/ton
<b>Gas extraction</b>	↑ Reduced gas imports by 40% in 2 years	↑ Focus on gas imports from Europe, refusal of imports from Russia	↓ Fall of new drilling attraction
<b>Ecology</b>	↑↓ Reduction of emissions due to shutdown of TPPs	↑↓ Environmental requirements hardening	↓ Risk of thermal generation loss due to the National emission reduction plan
<b>European integration</b>	↓ Freezing of energy systems integration, no investment	↑ Strengthening of European integration vector	

# Energy Strategy

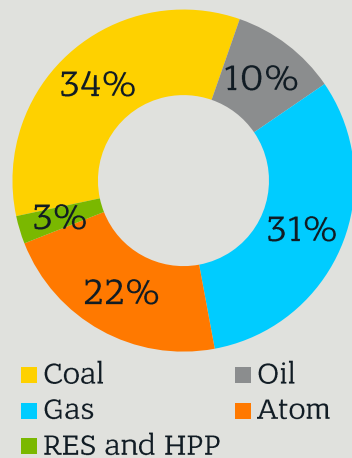
Energy Strategy of Ukraine should be part of long-term state policy and should not depend on the officials change



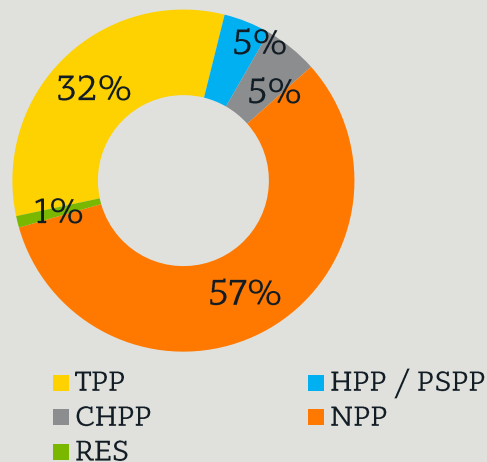
# State – energy security

Diversification of generation and fuel base, as well as maximum use of own resources provide energy security

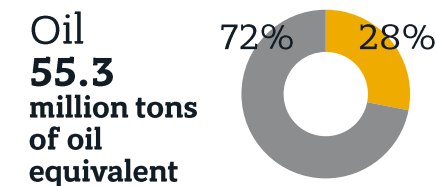
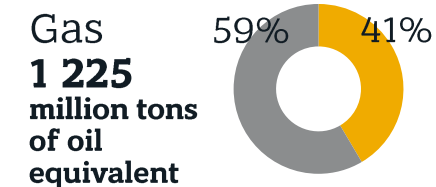
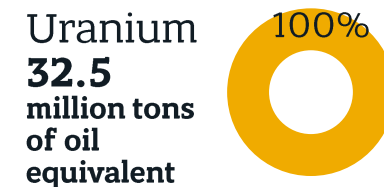
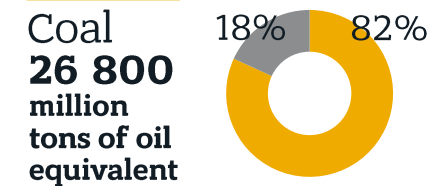
**Primary energy consumption (2015) \*, thousand tons of oil equivalent, %**



**Structure of electricity production in Ukraine (2015), mln kWh, %**



## Resources



Own resources  
Import

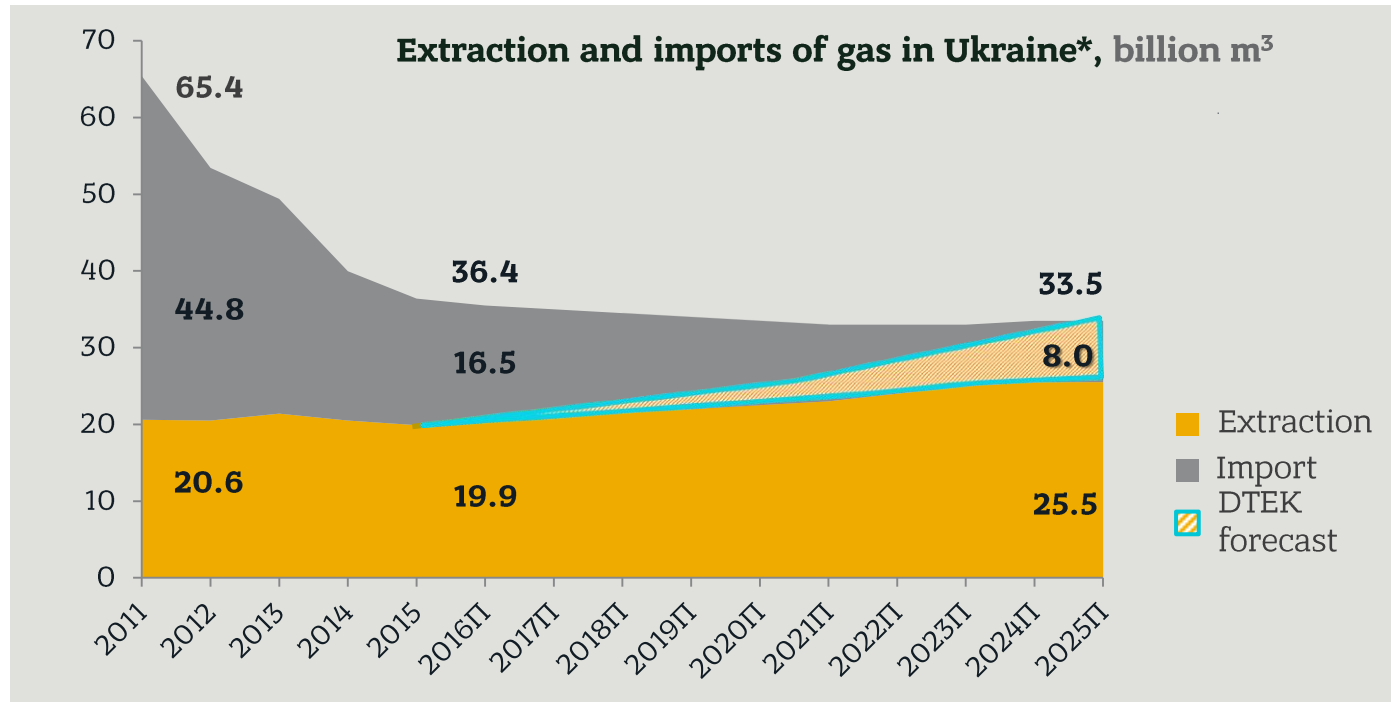
Directions for the energy security strengthening are, as follows:

- increase of domestic oil and gas production
- nuclear fuel supply diversification
- maintaining the share of thermal power generation and ensure supply of own coal

\* Preliminary estimate  
Sources – Ukrstat, Eurostat

# State – energy security

Increase of gas production is one of the most urgent and relatively easily implemented steps to ensure energy security

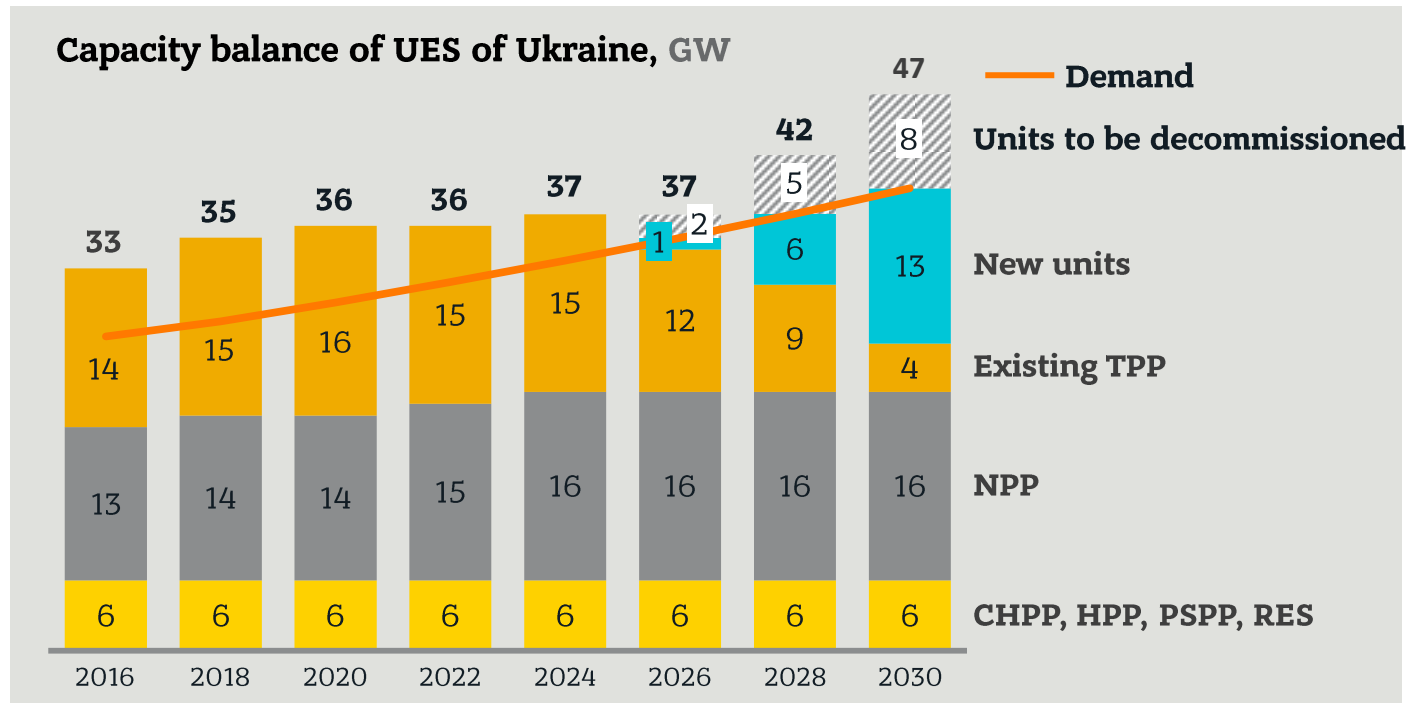


**According to IHS** estimated potential gas production in Ukraine – 25 billion m<sup>3</sup> by 2025.

By creating free gas market and optimal tax regime, Ukraine could completely refuse from the imports by the end of this period.

# State – energy balance

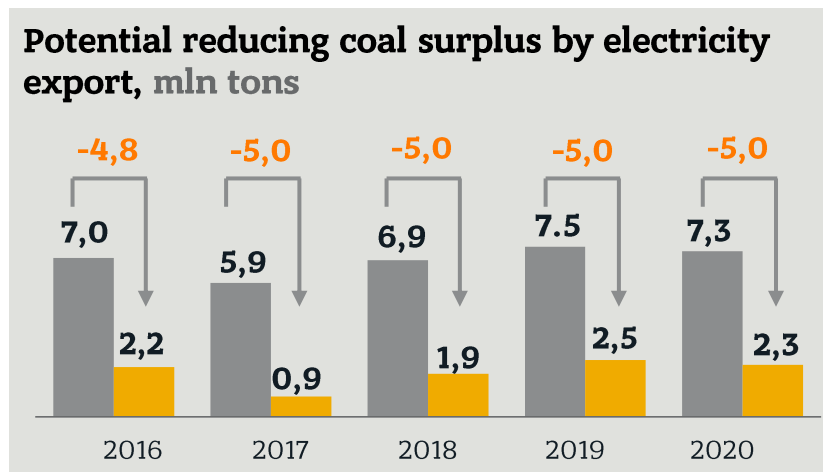
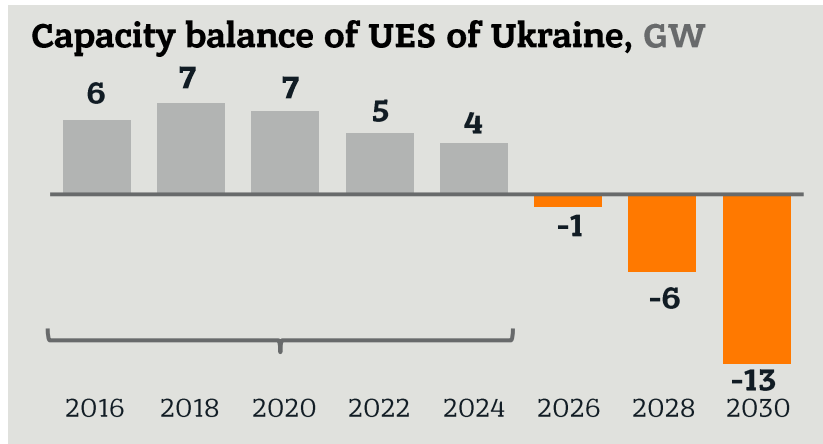
Market reform, and as a result, investment attraction – critical condition for the beginning of implementation of new facilities construction projects



- Nuclear power generation – the main producer of electricity in the base regime
- It is necessary to determine which generation will be in demand and establish mechanisms for attracting investment to cover the capacity shortage after 2025
- The role of the TPPs and the future of the coal mining industry should also be clearly defined

# State – energy balance

The well formed policy regarding the future of existing mines and TPPs – which capacities and in what volume will be demanded will give clear signals to national and foreign investors

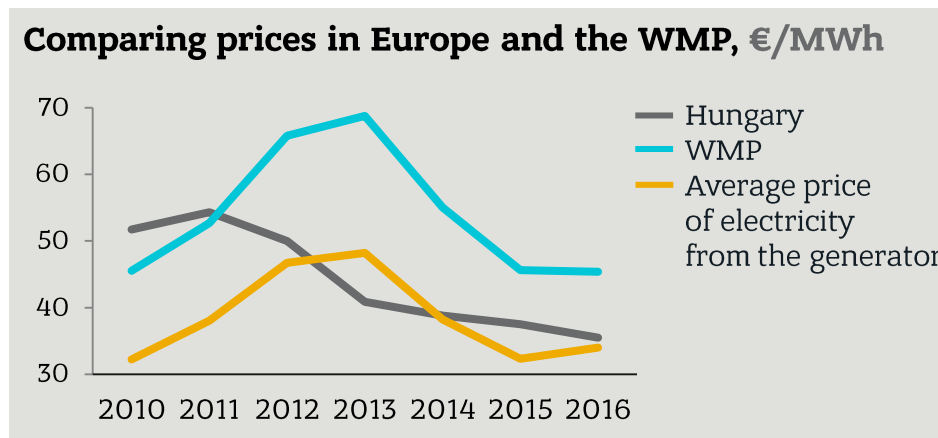
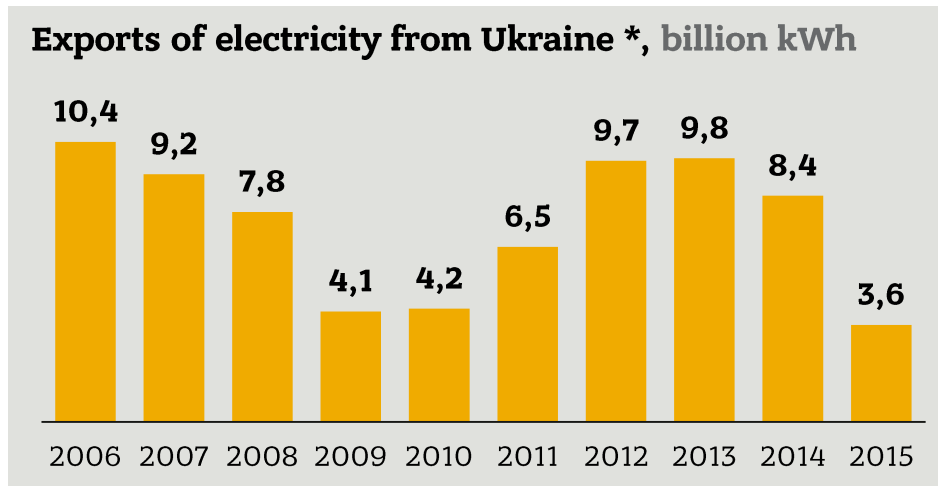


It is important take the following steps prior to 2025:

- to establish opportunities to increase exports
- to draw up the program of units conservation

# State – energy balance

Growth of electricity exports – possibility to retain part of power units and mines in conditions of TPPs surplus capacity and coal surplus



- The Ministry of Energy and Coal Industry sets the task to increase the export of electricity up to 11 billion kWh. Drop of tariffs in Europe makes this task difficult to implement
- Setting of exports tariffs at the level of electricity cost in Ukraine will increase the export by 8 billion kWh



# Business – reforms

Reforms in the energy sector is the basic requirement of the investors and international community

## Reform agenda for 2016



Adoption and transition to new calculating method of the wholesale market price, TPPs tariff, prices for steam coal

---



Adoption of the Law on Electricity Market and development of high priority secondary legislation

---



Transfer of all distribution companies to RAB-regulation with market return on the asset base

---



Transfer of heating and cogeneration companies to RAB-regulation

---



Ensuring equal access of private and public companies to the unallocated oil and gas sections

---



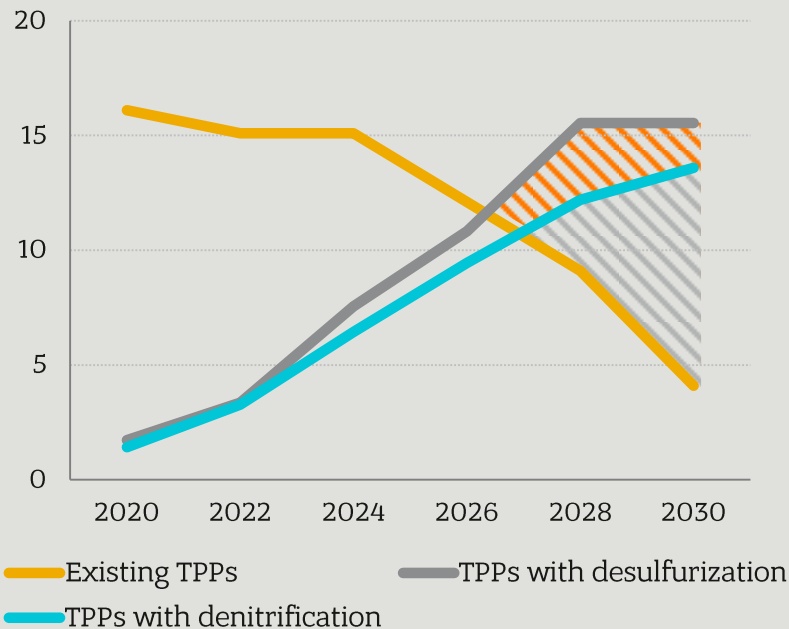
Adoption of subordinate acts on application of mechanisms of energy service contracts in the utilities sector

---

# Society – ecology

The National Emission Reduction Plan should be revised

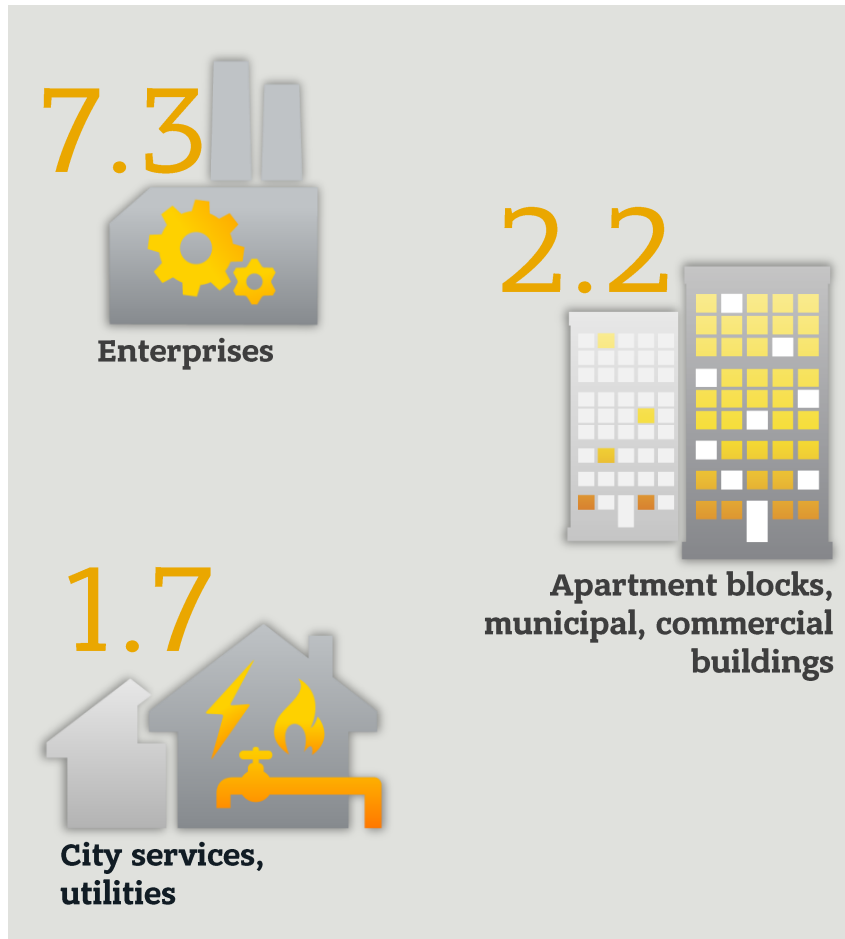
**Capacity of the existing TPPs and installation requirements of desulfurization and denitrification (GCP), according to the National Emissions Reduction Plan, GW**



- Volume of investments for the implementation of the approved in 2015 National Emission Reduction Plan for TPPs is about \$3 billion
- Installation of GCP on the old TPPs is impractical: due to reduced demand units will be decommissioned
- It is necessary to build new capacities with wastewater treatment technologies for compliance of environmental requirements and ensure demand for electricity

# Society – energy efficiency

Energy efficiency and reduction of costs – the point of interests intersection of business and customer



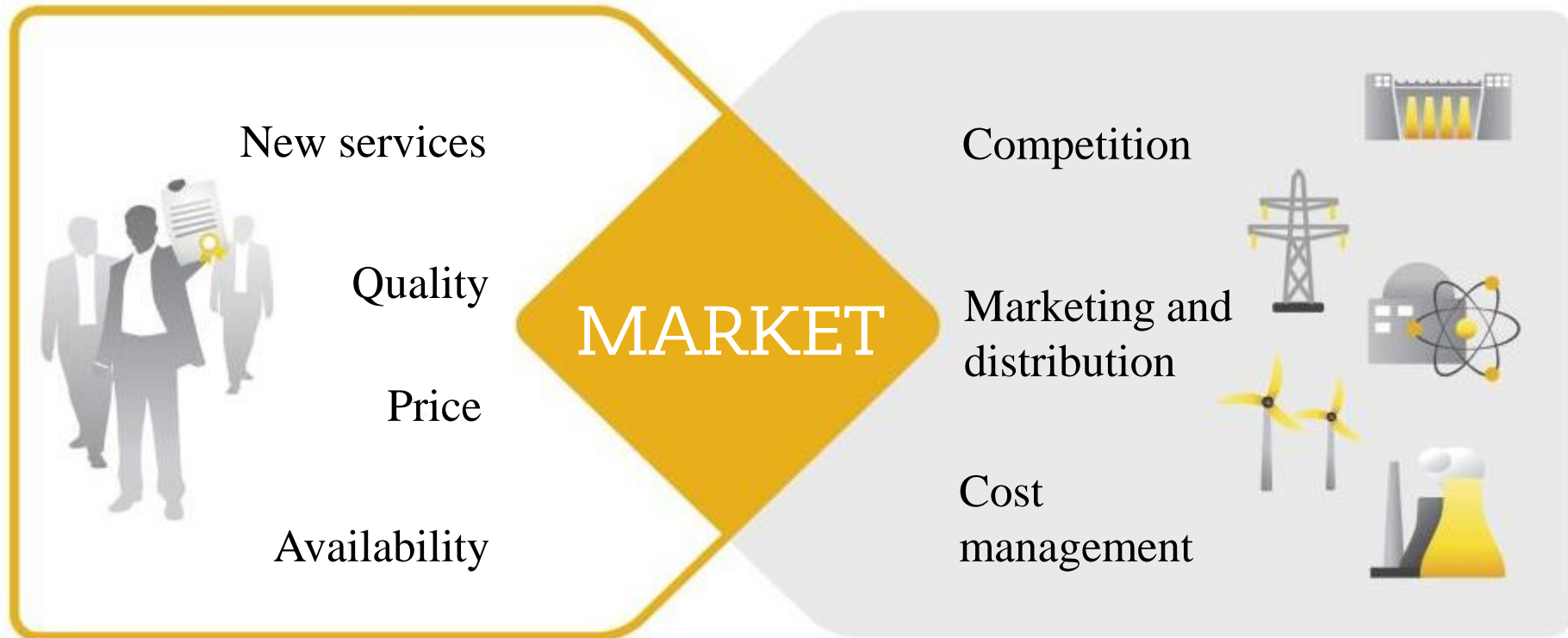
EUR **10** billion

can be saved by the industry and the buildings – the main consumers of energy with low energy efficiency level and lack of experience of energy saving system

DTEK, as well as international financial institutions, is ready to invest in energy-saving of consumers. It is important to finalize the regulatory acts for the launch of energy service contracts

# State – business – society

In the new market consumer will be the main beneficiary of deliberate government policy and the main factor of business success



**Thank you for your attention!**

Energy  
in action

**D.TEK**