



MVM view and approach

New Climate Economy Conference, Budapest

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MVM Group

Continuous growth in the past 5 years through acquisitions and the power business



ELECTRICITY

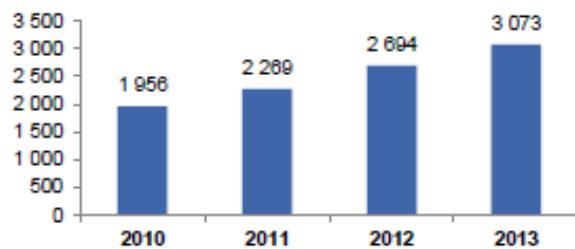
- Largest electricity producer (2903 MW)
- 2000 MW nuclear capacity
- Largest in electricity wholesale and retail
- Owner of the Transmission System Operator



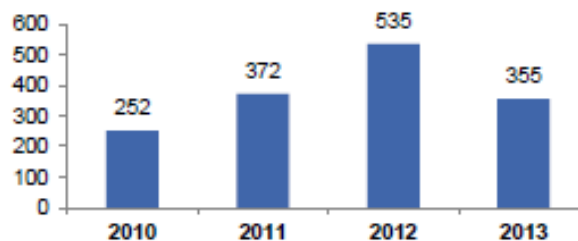
NATURAL GAS

- Market entry in 2011
- Largest trader (RU LTC)
- Largest storage operator
- Infrastructure projects
 - Hungarian Gas Transit Ltd.
 - South Stream Hungary Ltd.
 - AGRI LNG Project

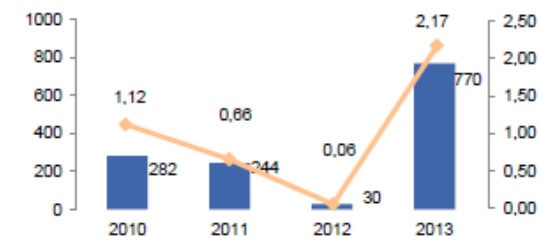
SALES REVENUE (EUR MILLION)



EBITDA (EUR MILLION)



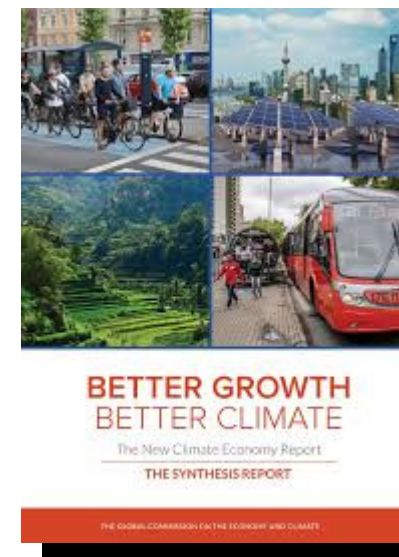
NET DEBT (EUR MILLION),
NET DEBT / EBITDA (X)





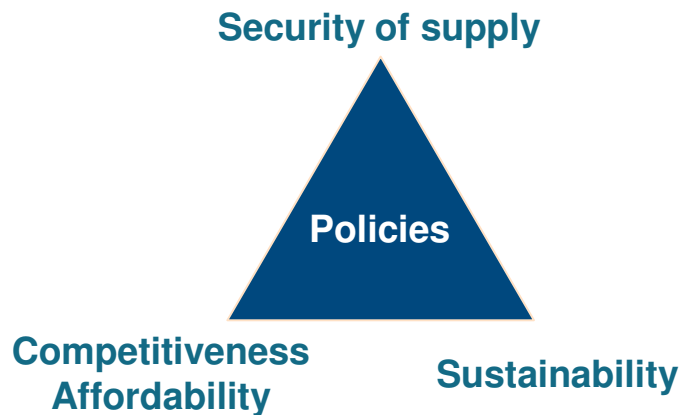
Relevance of the Report

- Conference of the Parties 21 – towards universal climate agreement
- The Report contributes to a **NEW VISION** how to address climate change
- **CHALLENGE** remains: translate the vision into goals and actions at regional and national levels and bridge difference
 - Different starting points
(economy, market, infrastructure maturity)
 - Different development priorities
 - Different resource (incl. financing) availability

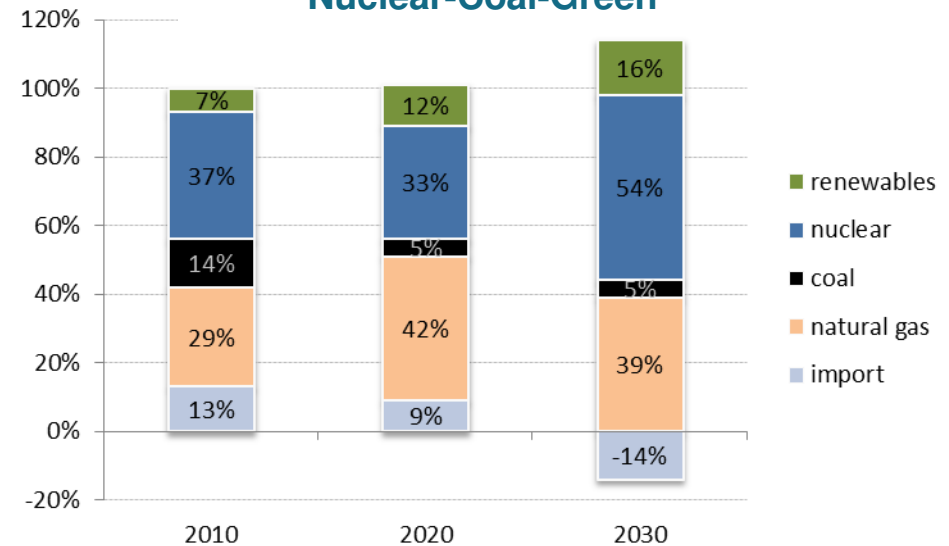




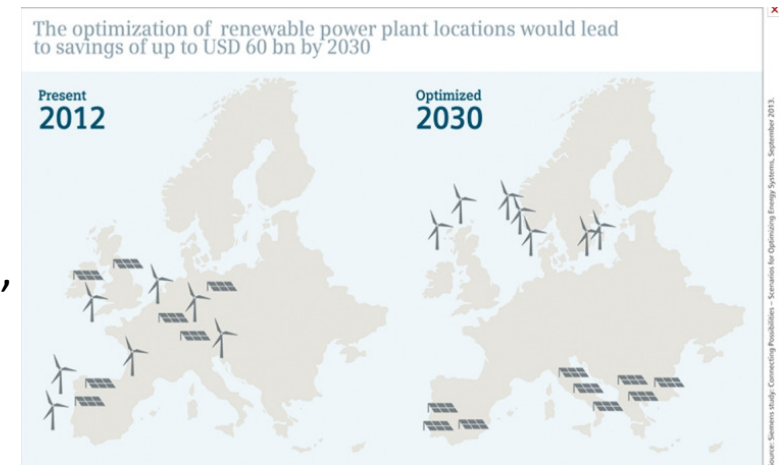
Energy choices



Hungarian Energy Strategy 2030 Nuclear-Coal-Green



- Hungary ranked 31 of 129 by WEC Energy Sustainability Index
- Abundant resource of low calorific value coal (lignite)
- Limited plausible renewable sources: biomass, geothermal, wind and solar
- Strategic importance of nuclear





Decarbonisation potential of the energy industry

The potential

giving priority to **low carbon power generation** technologies

utilizing **energy saving** potential in the whole energy supply chain

facilitating the **efficiency of energy consumption**

introducing **smart power supply** technologies and business models

supporting **e-mobility, low carbon mobility**

The MVM approach

- Nuclear capacity increase (1760MW→2000MW)
- Nuclear capacity life time extension (add. 20 years)
- Support to new-built nuclear
- 24 MW wind farm (MVM-HUNGAROWIND)

- Increasing generation efficiency
- Minimising transmission losses (MAVIR)

- Offering energy efficiency services to final customers (MVM Partner)

- Smart metering pilot project (MAVIR)

- Providing competitive low carbon electricity
- Piloting charging services

Formulating MVM Renewable Strategy

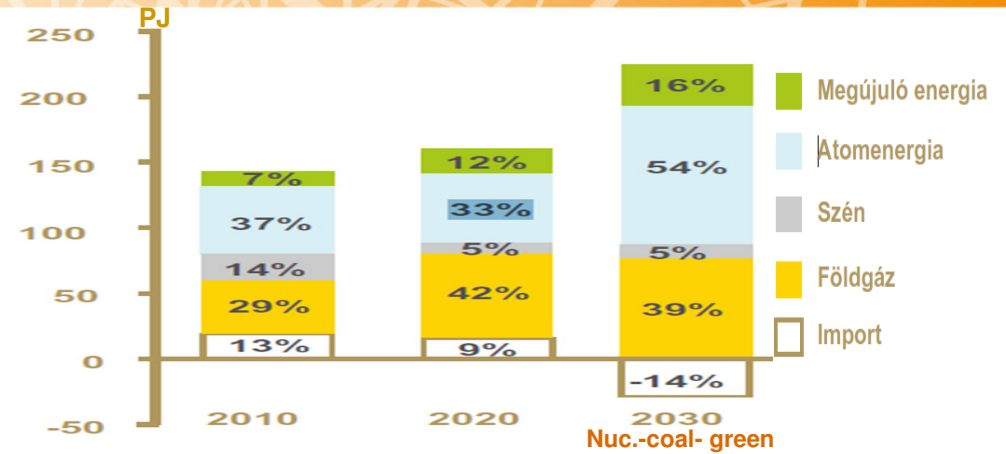
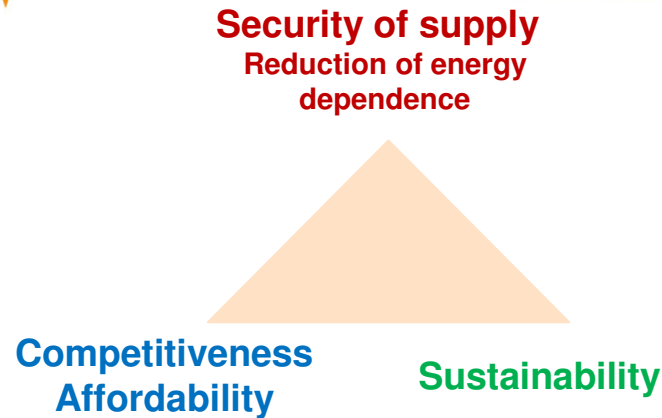


Q&A





The three pillars of energy policies



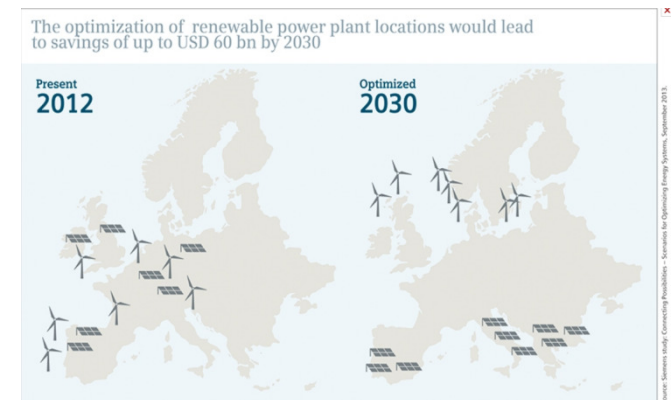
In a well balanced energy policy the three pillars get the right attention



The preferred generation energy mix in the Hungarian Energy Strategy up to 2030
Nuclear- Coal - Green

Hungary

- as concerns renewables, has competitive advantage in geothermal and biomass only, to be used mainly for heat production; and
- low calorific coal (lignite); therefore
- nuclear enjoys special attention





Decarbonisation objectives in MVM's strategy

- MVM Group's primary task is to support the goals of National Energy Strategy
- The chart below shows MVM's contribution to the decarbonisation process

	Key goals of the National Energy Strategy	Participation of the MVM Group
Nuclear-based production	<ul style="list-style-type: none"> • Besides maintaining and improving nuclear safety, the use of nuclear energy to ensure security of supply, to improve competitiveness of the national economy and to support climate policy goals 	Support maintaining nuclear capacity with <ul style="list-style-type: none"> • extension of operation period of Paks Nuclear Power Plant as well as with • supporting the preparation and realization of new nuclear power units
Energy efficiency and energy saving	<ul style="list-style-type: none"> • Minimize energy losses and use energy more efficiently in all areas 	Support energy efficiency and energy-saving by <ul style="list-style-type: none"> • renovation of low efficiency assets and by • decreasing network losses as well as by • supporting the development of the smart electricity supply
Develop a regional infrastructure platform	<ul style="list-style-type: none"> • Cooperate with neighbouring countries to increase price stability, source and route diversification, security of supply as well as network regulation capacity 	Support realization of regional infrastructure platform by construction and commercial support of cross-border capacities, gas pipelines, and other gas infrastructure, as well as by taking part in the operation of the regional electricity and gas exchanges
Renewable resources	<ul style="list-style-type: none"> • Increase the share of the renewable energy in the total energy consumption from 7% of 2010 to nearly 15% by 2020 	Take part in expansion of <ul style="list-style-type: none"> • renewable and • waste-based energy production