

10/14/2020 | Budapest Climate Summit - On the way to a carbon-free economy

## Future of MVM Group

Csaba Kiss, Phd.  
Deputy CEO for Generation, CTO and CNO  
MVM Ltd.

group



# OUR FUTURE AND STRATEGY

## MONITORING OWNERSHIP EXPECTATIONS AND INDUSTRY TRENDS DURING THE DEVELOPMENT OF OUR MID-TERM STRATEGY.

### Ownership expectations



The flagship of national energy and climate policy



Entrusted with ensuring the security of supply



„ National blue chip”



A catalyst for competitiveness



An entity augmenting the value of national wealth

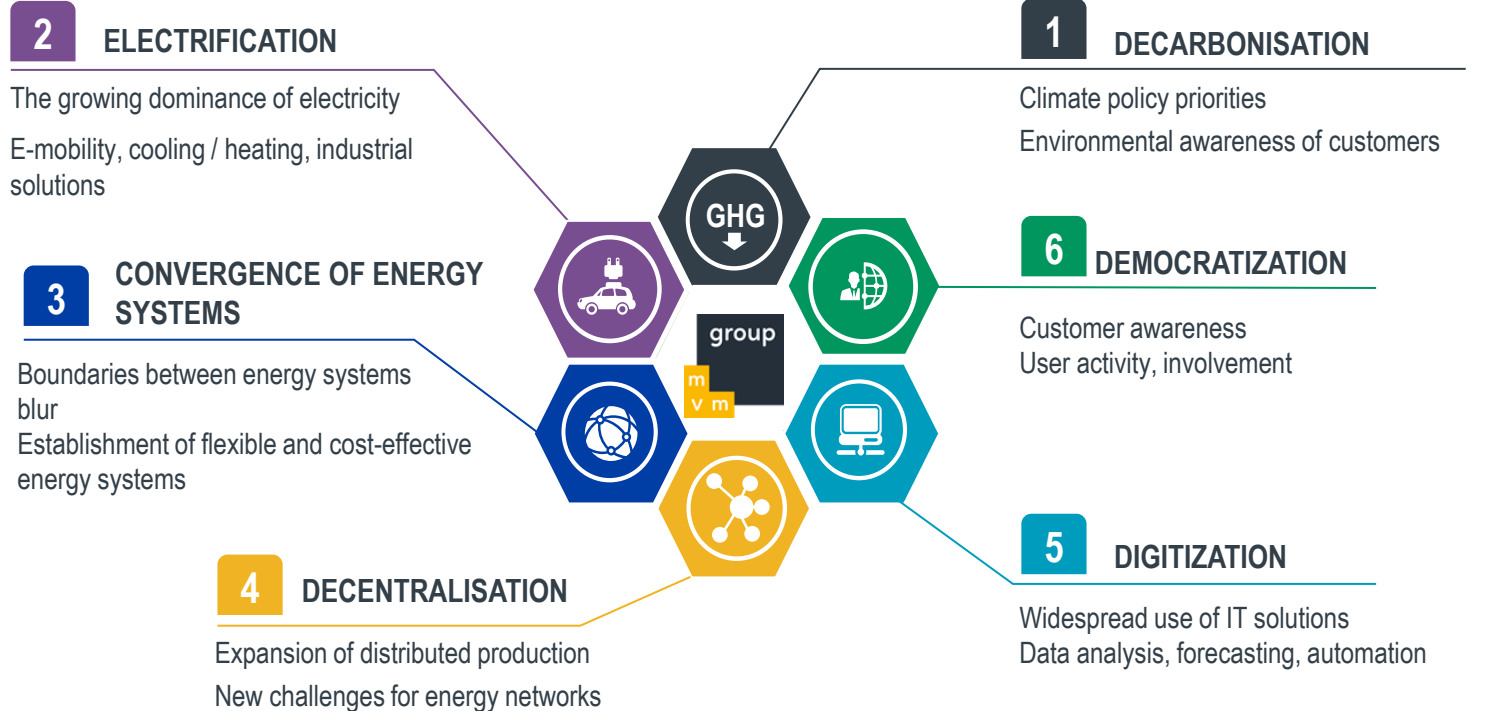


A socially responsible group



### Industry trends

#### Regulation in EU and Hungary

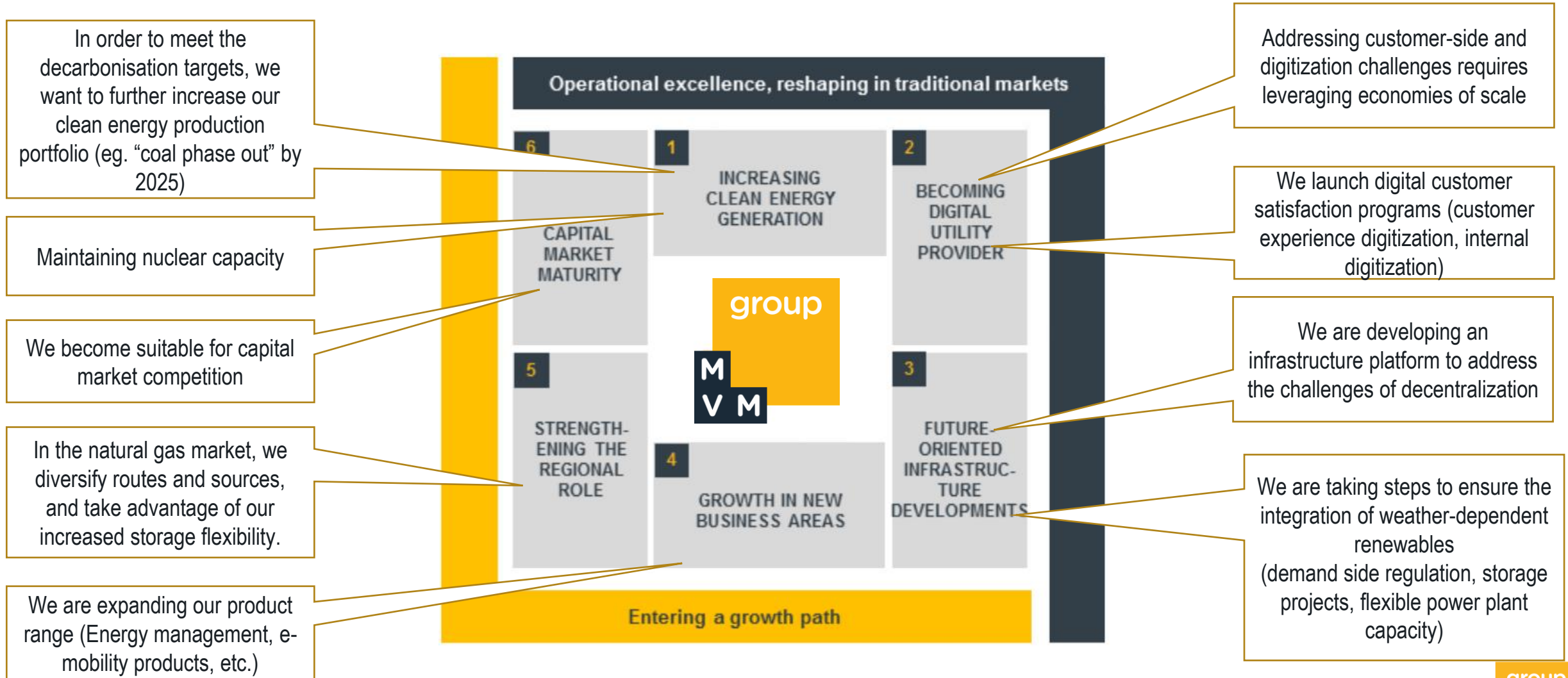


## OUR FUTURE

*"By 2025, as a national blue chip company, we will become a capital market-oriented energy and infrastructure provider based on carbon-neutral solutions, and we will provide our customers with end-to-end integrated solutions and we want to be a regional leader"*

## OUR FUTURE AND STRATEGY

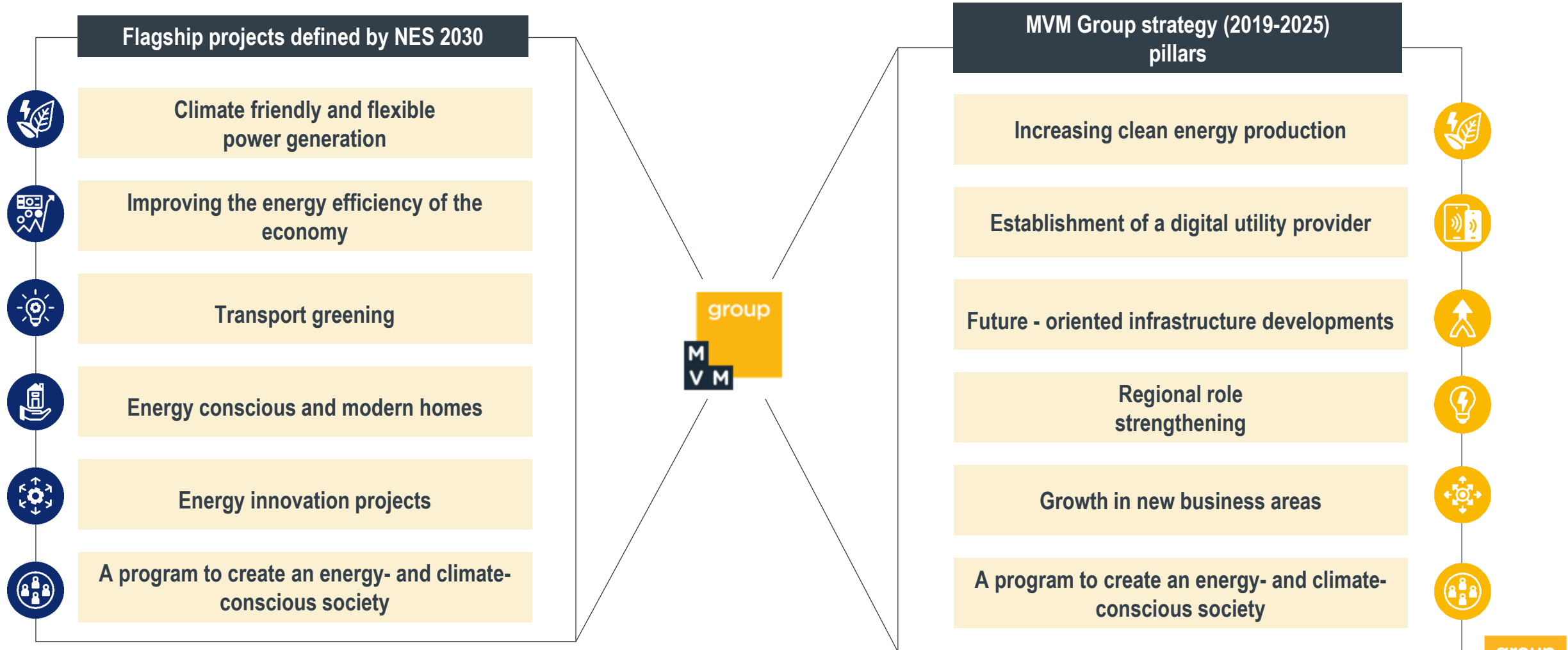
THE MVM GROUP'S NEW SIX PILLAR STRATEGY DEFINES THE TARGETS THROUGH WHICH WE CAN ACHIEVE OURS VISION: GROWTH REQUIRES RESHAPING TRADITIONAL OPERATIONS AND ENTERING NEW BUSINESS AND GEOGRAPHIC AREAS





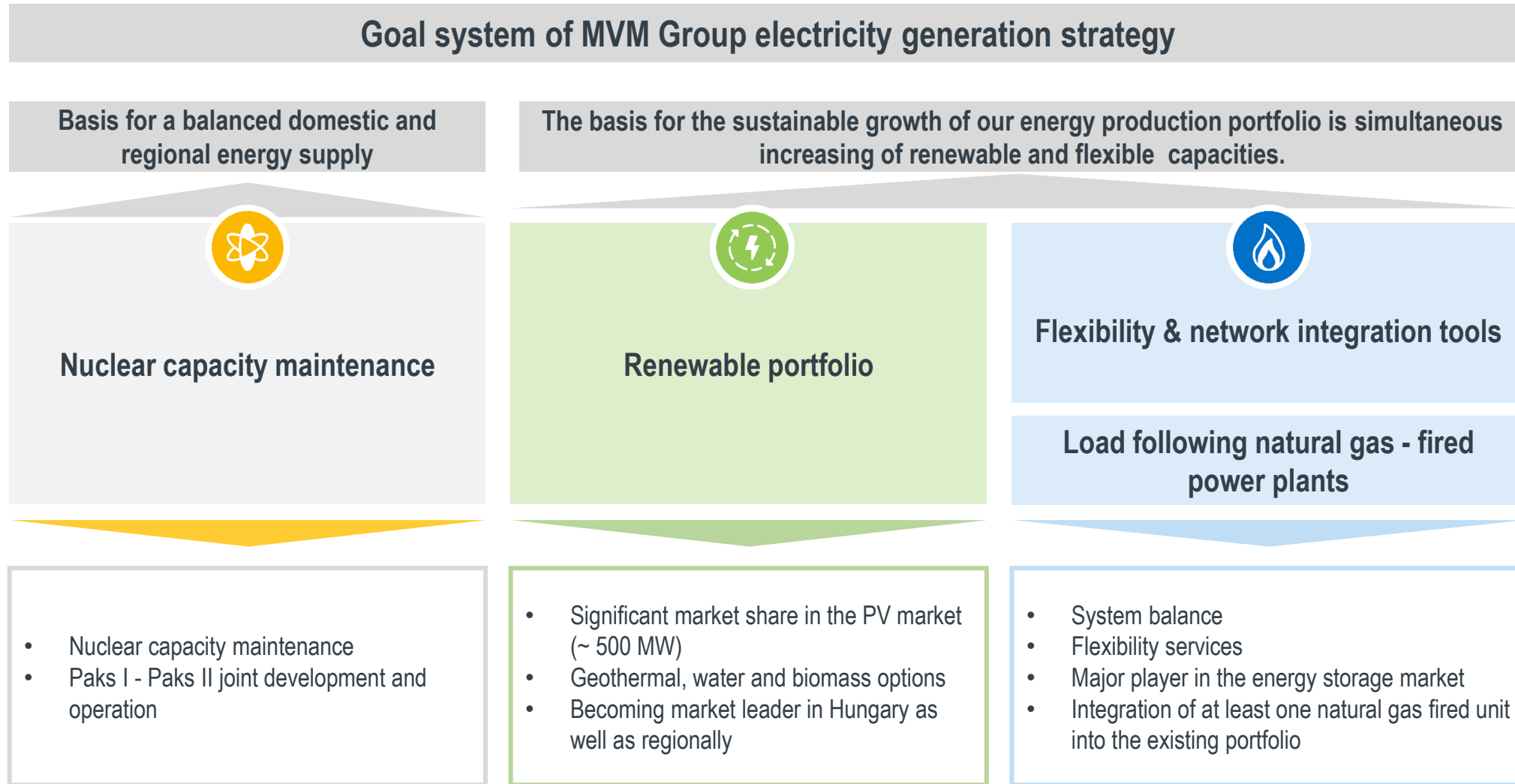
# FLAGSHIP PROJECTS DEFINED BY NES 2030 IN OUR STRATEGY

THE MVM STRATEGY SUPPORTS THE ACHIEVEMENT OF THE GOALS SET BY NES 2030 AT SEVERAL POINTS



# FLAGSHIP PROJECTS DEFINED BY NES 2030 IN OUR STRATEGY – 1. CLIMATE FRIENDLY AND FLEXIBLE POWER GENERATION 1/4

## NUCLEAR CAPACITY MAINTENANCE & RENEWABLE INTEGRATION

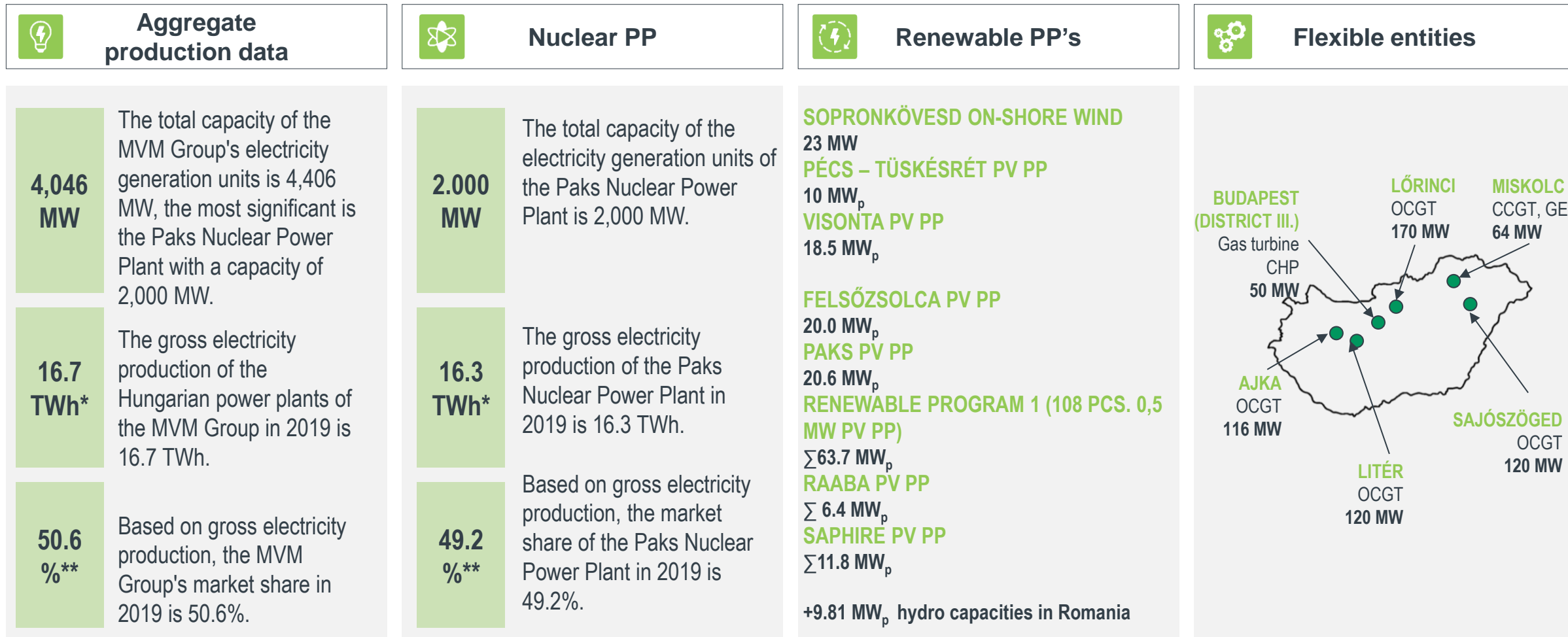


**The production vision follows: 1) maintaining nuclear capacity, 2) dynamic increasing renewable capacity, 3) a flexible, clean, load following portfolio**

# FLAGSHIP PROJECTS DEFINED BY NES 2030 IN OUR STRATEGY – 1. CLIMATE FRIENDLY AND FLEXIBLE POWER GENERATION 2/4

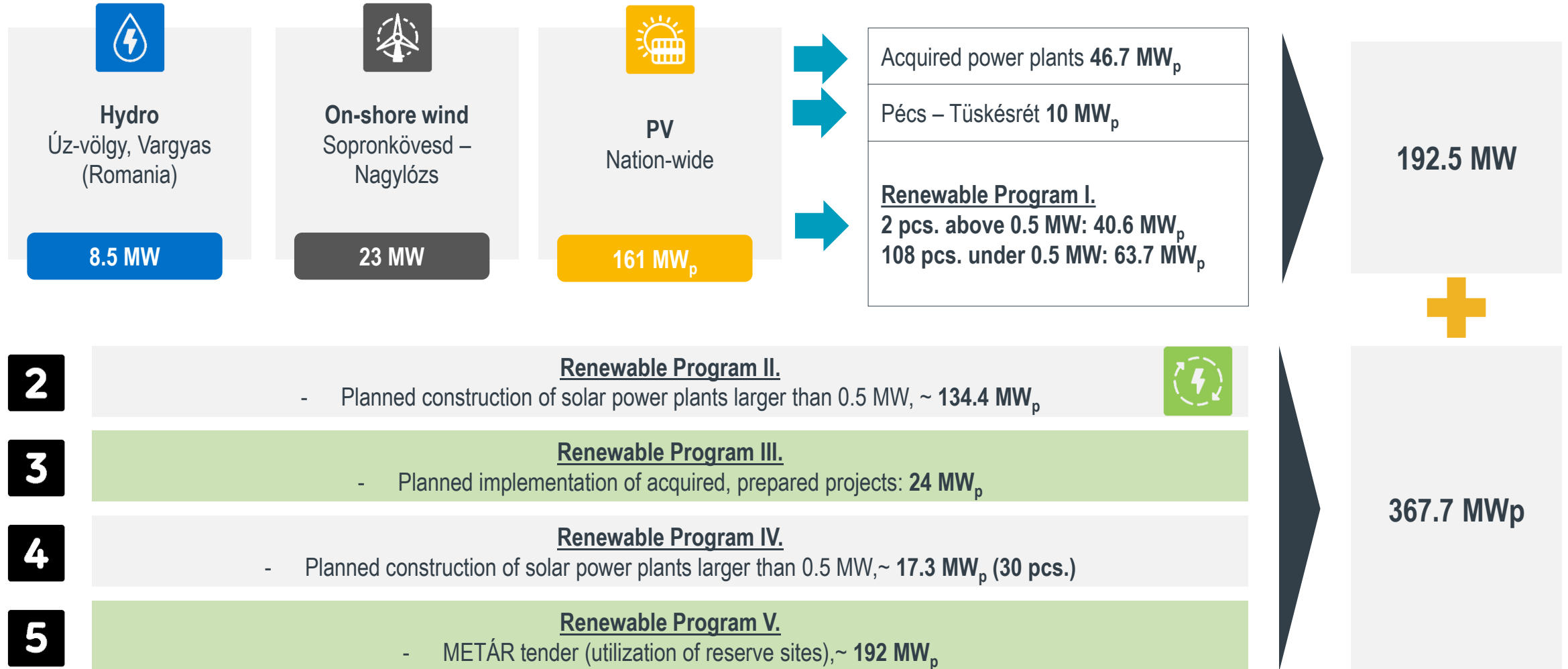
## OUR CARBON NEUTRAL AND FLEXIBLE PORTFOLIO

*MVM's mission is to provide affordable and clean energy to its customers in a sustainable manner, which meets the requirements and customer expectations of the 21st century.*



# FLAGSHIP PROJECTS DEFINED BY NES 2030 IN OUR STRATEGY – 1. CLIMATE FRIENDLY AND FLEXIBLE POWER GENERATION 3/4

## OUR RENEWABLE PROGRAMS



The MVM Group's renewable portfolio is constantly growing.



## I-VIII. MONTH (2020) - ELECTRICITY PRODUCED BY THE MVM GROUP

THE MVM GROUP'S CARBON-NEUTRAL ELECTRICITY GENERATION IS OUTSTANDING

Aggregate		Lignite	Gas	Oil	Nuclear	Solar	Wind	Hydro	RDF	Biomass
<b>12.4 TWh</b>		<b>1.9 TWh</b>	<b>200 GWh</b>	<b>20 GWh</b>	<b>10 GWh</b>	<b>180 GWh</b>	<b>32 GWh</b>	<b>14 GWh</b>	<b>80 GWh</b>	<b>88 GWh</b>
100%		14.9%	1.5%	0.1%	80.2%	1.5%	0.3%	0.1%	0.6%	0.7%
1 987 ktCO <sub>2</sub>		1 879 ktCO <sub>2</sub>	96 ktCO <sub>2</sub>	12 ktCO <sub>2</sub>						

- The amount of CO<sub>2</sub> not emitted by the MVM Group: 10,065 kt
- MVM Group's electricity production is ~ 83% carbon neutral in 2020 (YTD).
- After the decommissioning of the lignite-fired units of the Mátra Power Plant and the construction of the new CCGT unit, the CO<sub>2</sub> emissions of the MVM Group will be halved.



# FLAGSHIP PROJECTS DEFINED BY NES 2030 IN OUR STRATEGY – 1. CLIMATE FRIENDLY AND FLEXIBLE POWER GENERATION 4/4

## STRATEGIC TRANSFORMATION OF THE MÁTRA POWER PLANT AND COAL DISCHARGE



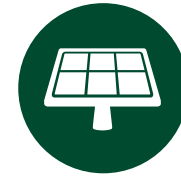
### CCGT

Establishment of natural gas-fired, high-efficiency, low-CO<sub>2</sub>-intensity and flexibly controllable electricity generation CCGT (~ 500 MW<sub>e</sub> or 2 x ~ 250 MW<sub>e</sub>) capacity, which in the future may be suitable for burning 5-30% mixed hydrogen, which will result in further significant CO<sub>2</sub> reduction .



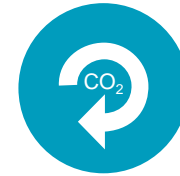
### Biomass/RDF

Construction of a new biomass / RDF (~ 30 MW<sub>e</sub>) unit for the further use of the currently burned annual biomass / RDF fuel, which will contribute to the achievement of the national waste strategic goals. Continuing the use of biomass / RDF at the site is a national waste strategy task (long-term fuel supply and guarantee of the takeover price)



### PV

Establishment of PV power plants (2 x ~ 100 MW<sub>e</sub>) in the area of the Visonta and Bükkábrány Mines after the partial closure and reclamation of the mines in order to increase the renewable capacities and reduce the reclamation costs.



### CCS pilot

Implementation of a pilot project using CCS (CO<sub>2</sub> capture and storage) technology. The aim of the project is to utilize a small amount of strategic lignite assets for pilot purposes, to burn “BLUE Hydrogen” (methane / hydrogen) produced from lignite gasification, in the planned CCGT block. The project could lay the groundwork for the construction of a later commercial-scale power plant block.



**Thank you for  
your  
attention!**

**M**

**V**

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**Providing energy**