

LITHUANIAN NATIONAL ENERGY INDEPENDENCE STRATEGY – A ROADMAP FOR THE FUTURE

2023-05-22



ENNEN

MINISTRY OF ENERGY
OF THE REPUBLIC OF LITHUANIA

ENERGY INDEPENDENCY – KEY NATIONAL GOAL SINCE 1990

Oil Terminal



At 1999 Butingė
Oil Terminal
becomes
operational

LNG Terminal



From 2014 –
diversification
from Russian gas

Power Links



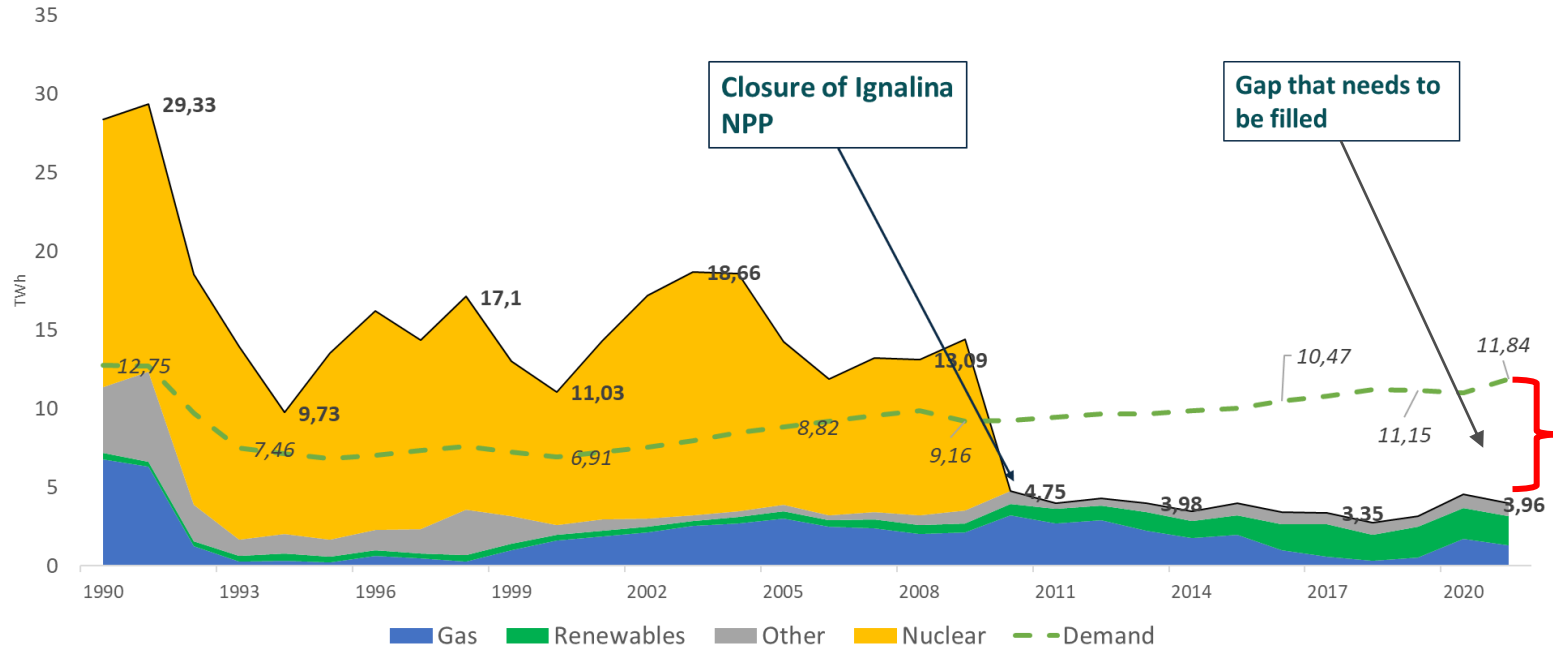
In 2015
connection with
Poland and next
year with Sweden

Biomass for DH



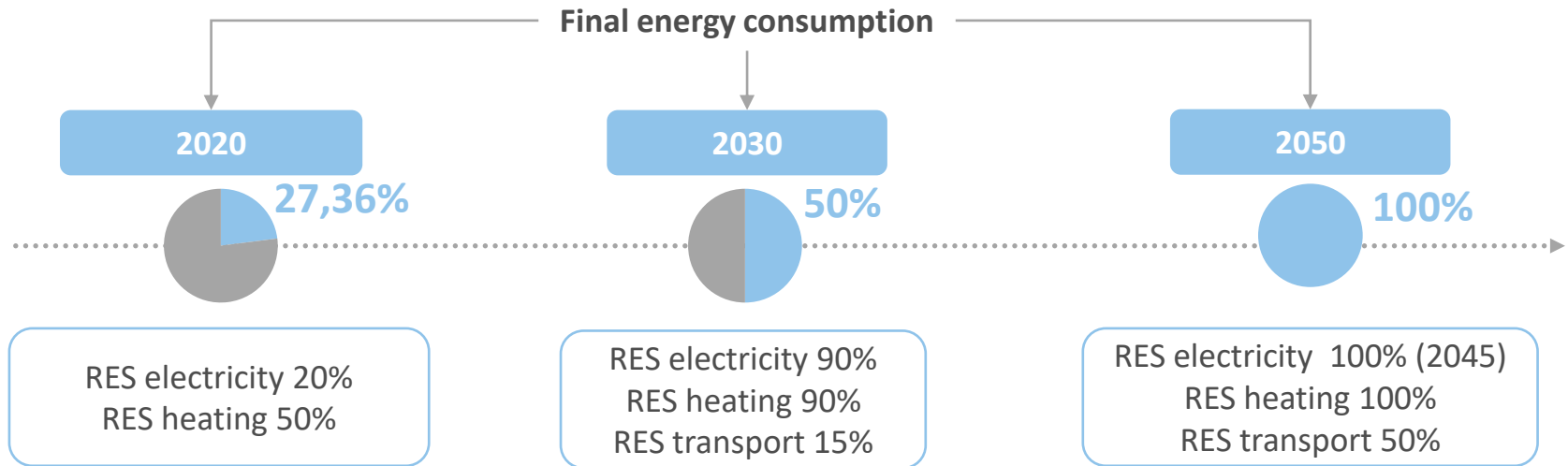
Transition from
gas to biomass

NEXT STEP – MORE LOCAL POWER GENERATION



Power generation in Lithuania 1990-2021

LITHUANIAN GREEN TRANSITION TARGETS



RENEWABLE GOALS



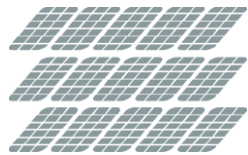
Offshore

1,4 GW 2030



Onshore

1,8 GW 2025
3,6 GW 2030



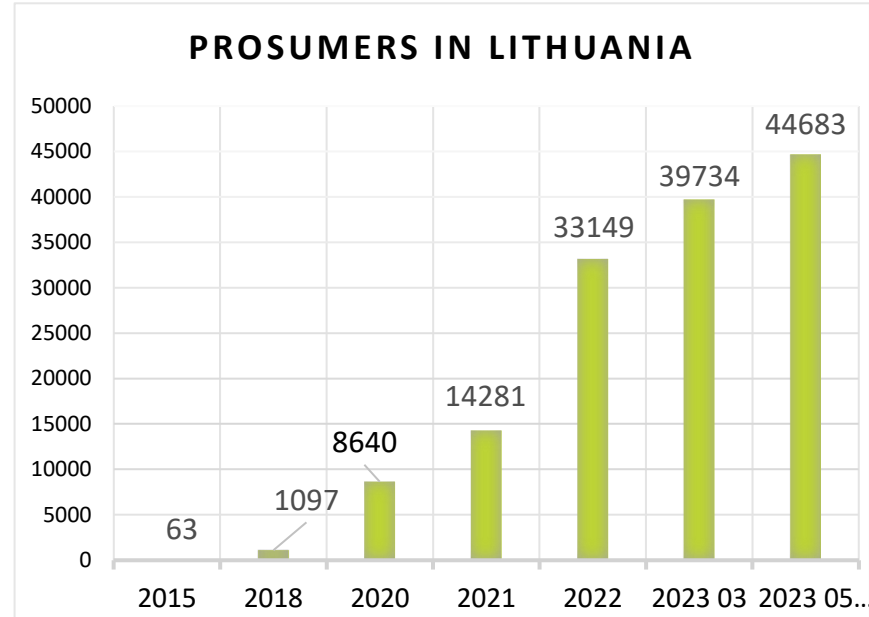
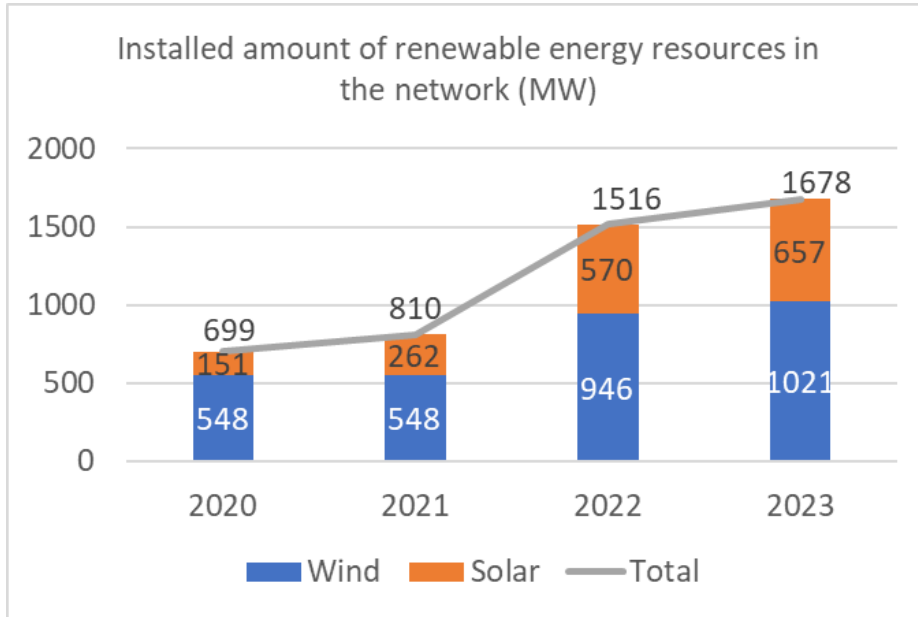
Solar

2 GW 2025
4 GW 2030

Installed
renewable
generation
capacity –
9 GW in
2030

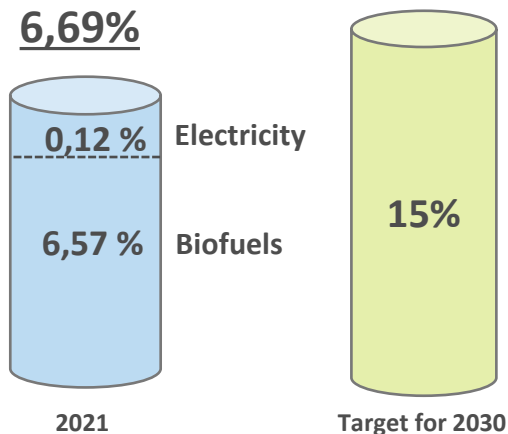


RENEWABLE GROWTH IN LITHUANIA



TRANSPORT SECTOR GOALS

Renewable fuels share in transport sector energy consumption



Biofuels

1st generation biofuels is the main source of renewable fuels in Lithuania. 1st and 2nd generation biofuels so far are the most efficient way for transport sector decarbonization. The goal for 2nd generation biofuels set at 3,5% level by 2030.

Electricity

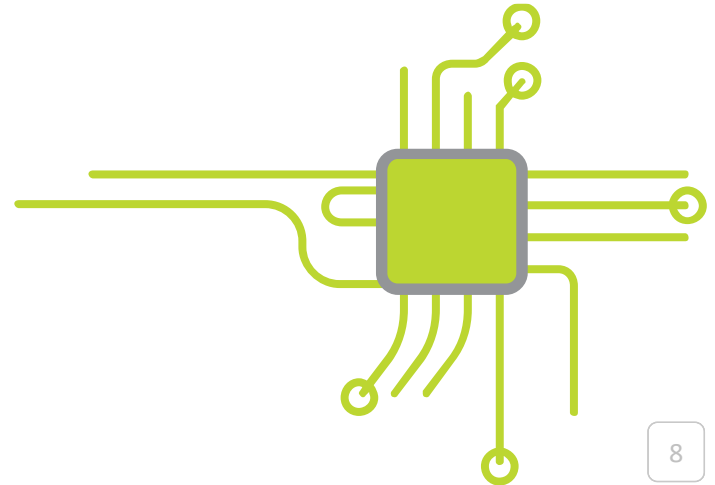
Electrification is increasing each year and in a near future it will be a main source of renewable energy in transport sector. Lithuania supports the deployment of charging infrastructure and electric vehicles. **The goal is to have 16% share of electric vehicles in car park by 2030.**

Renewable gases

Domestically produced biomethane and hydrogen will play a strong role in public and heavy duty transport decarbonization so infrastructure is being prepared in advance. **It is planned to increase the share of renewable gases in the transport sector by 5% until 2030.**

THE TOOL TO REACH THEM – NATIONAL STRATEGY

- Since 2008 – Lithuanian energy policy is guided by comprehensive national energy independence strategy
- Updated every 5 years
- New National Energy Independency Strategy - next year!
- Key objectives:
 - ✓ Energy independent by 2050 (or earlier);
 - ✓ 100% decarbonization;
 - ✓ Energy costs and affordability for everyone;
 - ✓ Become an energy exporter;
 - ✓ Pursue industrial growth;



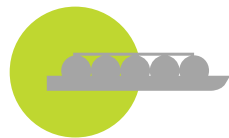
NATIONAL STRATEGY – INPUT FROM MANY SOURCES



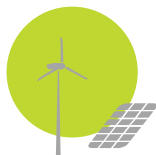
Scenarios for the Evolution of Lithuanian Power Sector for 2020 – 2050 (finished)



National Energy and Climate Action Plan of the Republic of Lithuania for 2021-2030 (in progress)

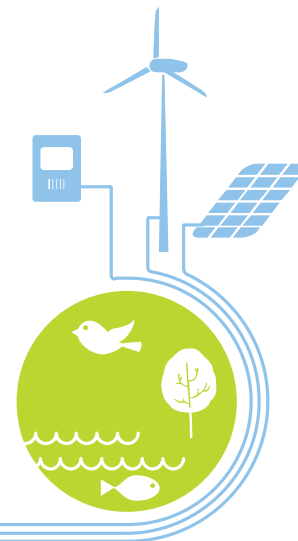


Lithuanian Energy Transformation 2050 Study (in progress)



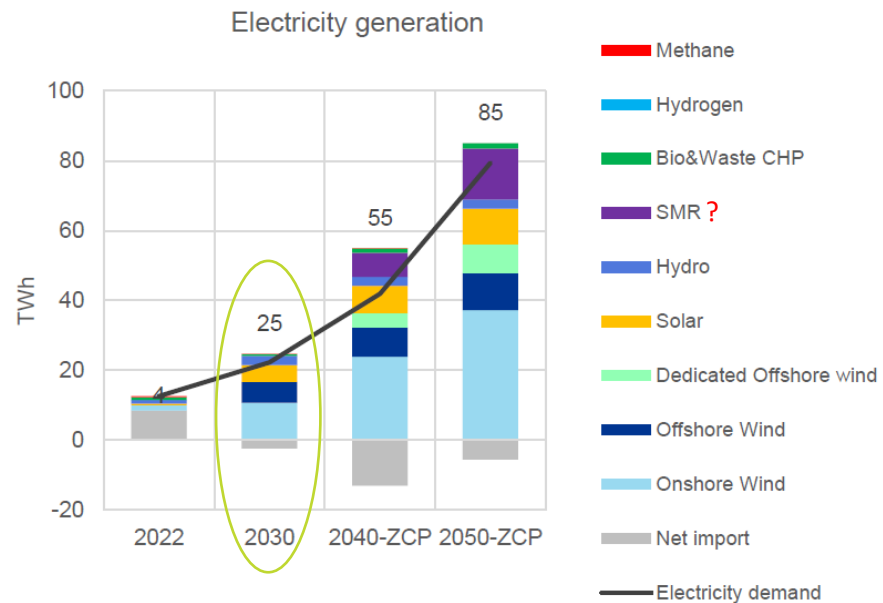
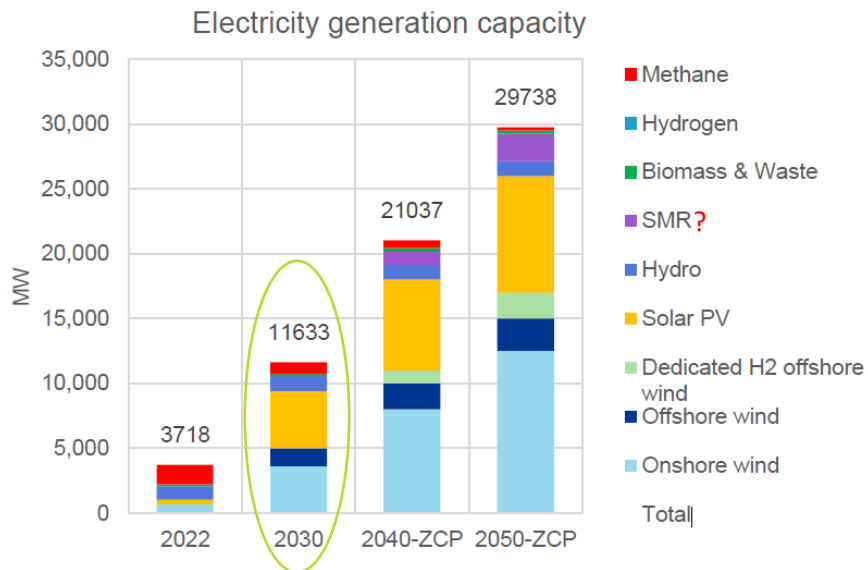
“Lithuania 100” study (in progress)

New National Energy Independence Strategy (2024)

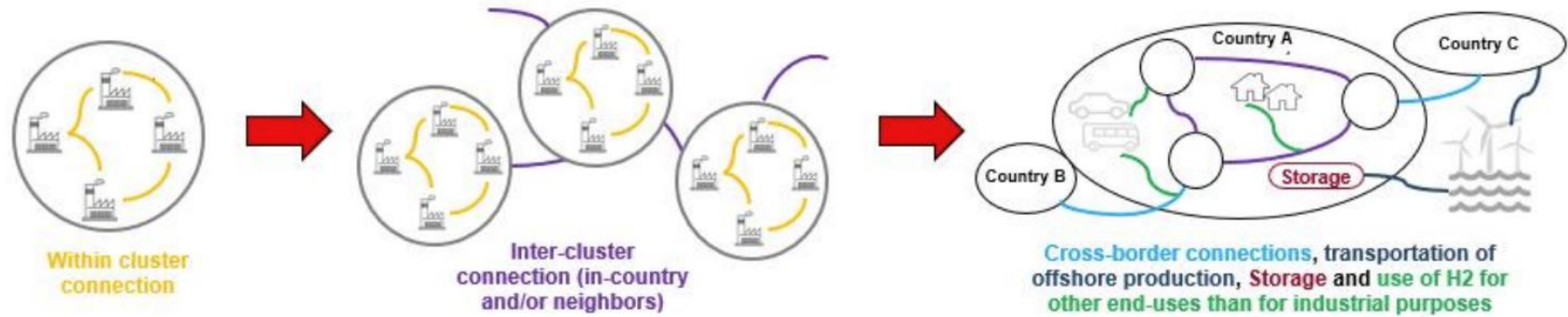


Including input from other studies: heating and cooling, hydrogen development, etc.

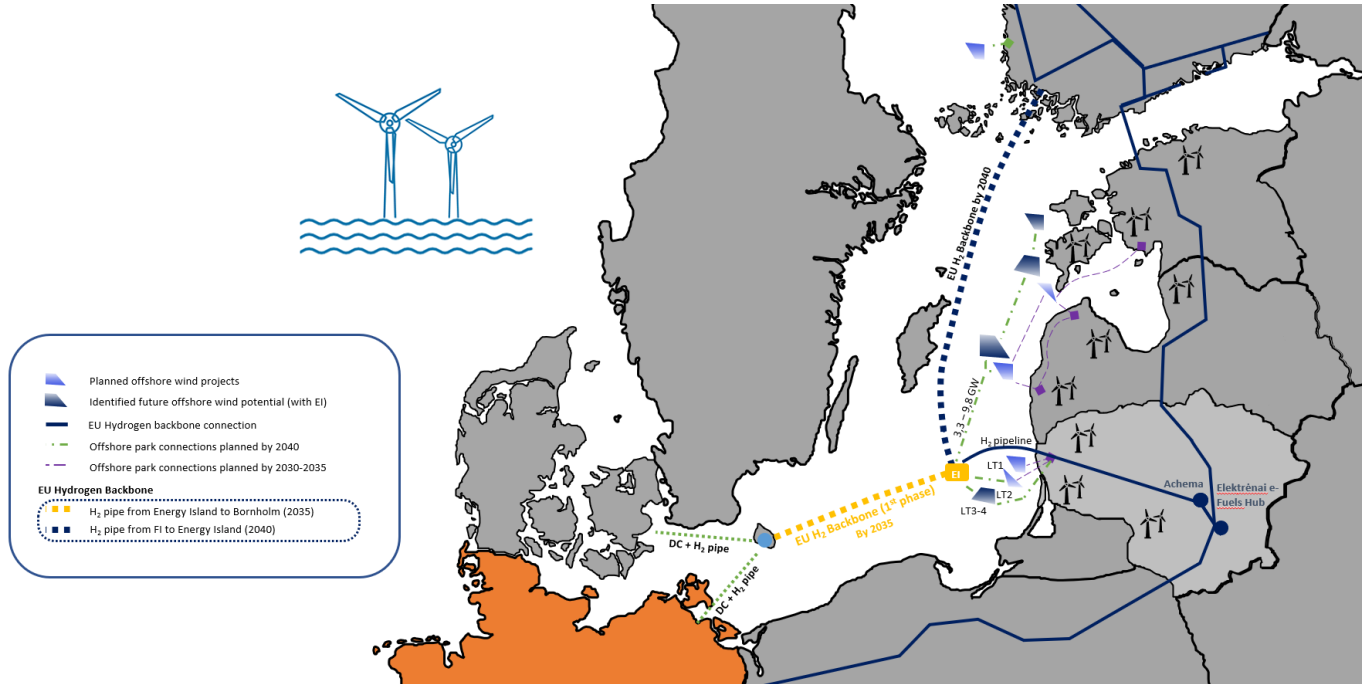
LITHUANIAN POTENTIAL 2022-2050



GRADUAL BUILD-OUT OF HYDROGEN ECONOMY

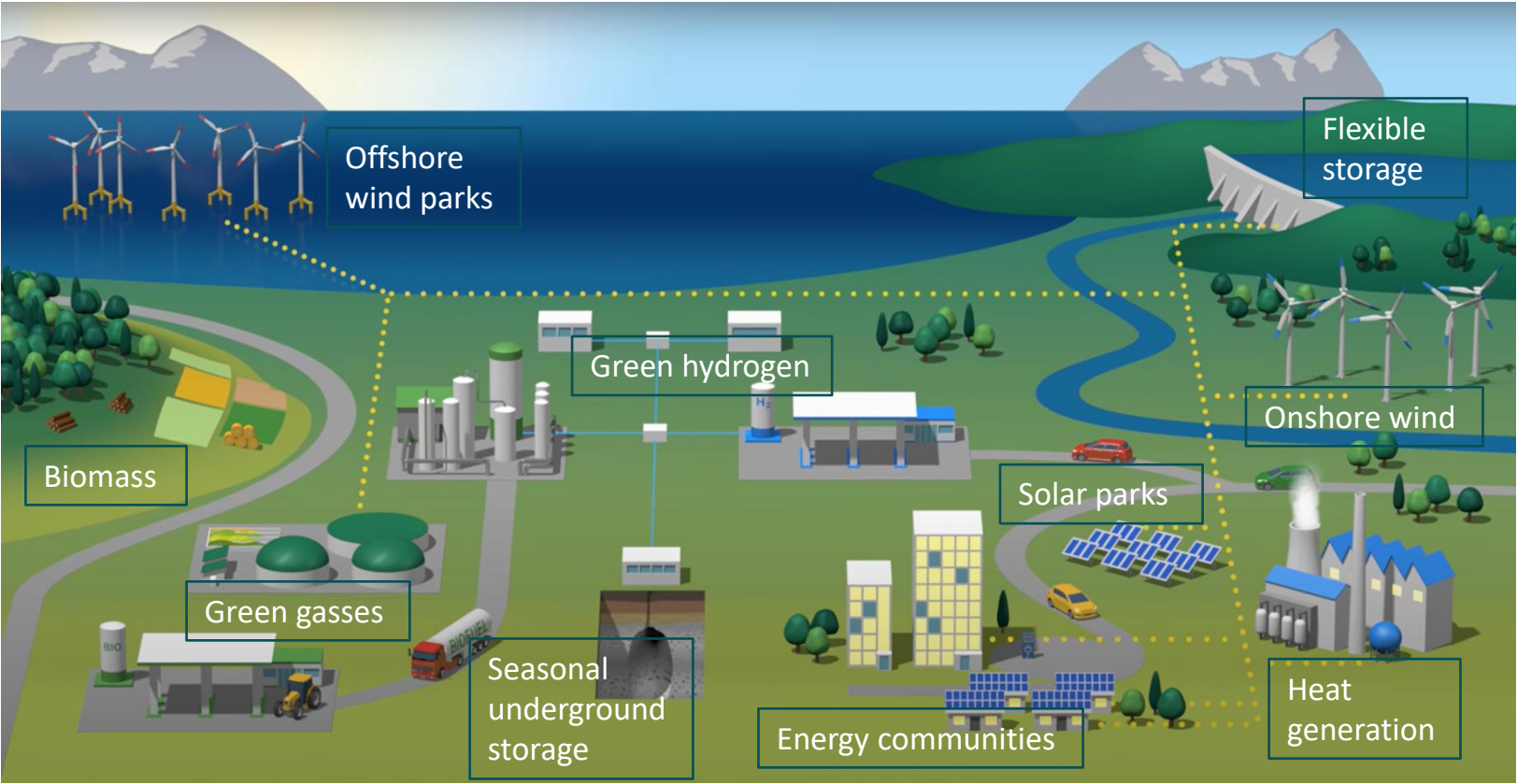


FLEXIBILITY SOLUTION - P2X



- Excess wind and solar – to hydrogen (and other e-fuels)
- Key player – energy islands
- H₂ - power provider during idle seasons
- Export of value-added products
- More cooperation between Baltics – bigger value for everyone

ENERGY STRATEGY – A WAY TO CONNECT EVERYTHING



THANK YOU FOR YOUR ATTENTION

