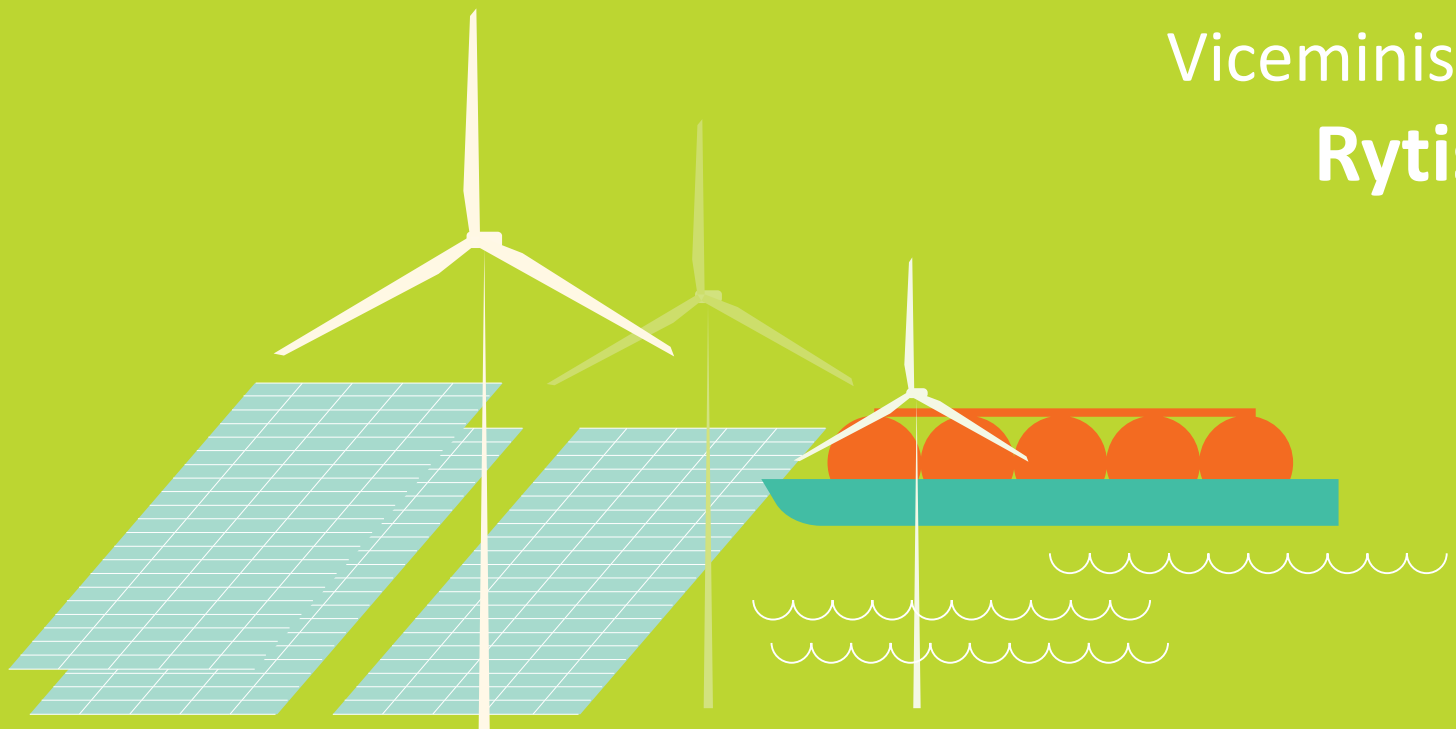
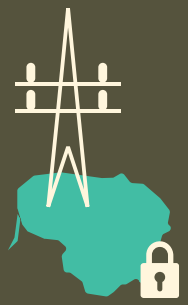
Energy 2050:
Transforming Energy Sector in Lithuania

Viceminister of Energy
Rytis Kėvelaitis

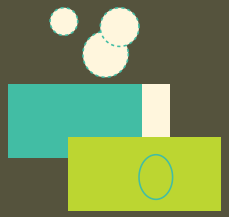


Strategic pillars in the energy field



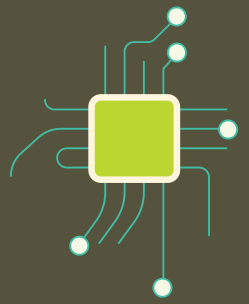
Completing **energy security** projects

Focusing on **competitiveness**

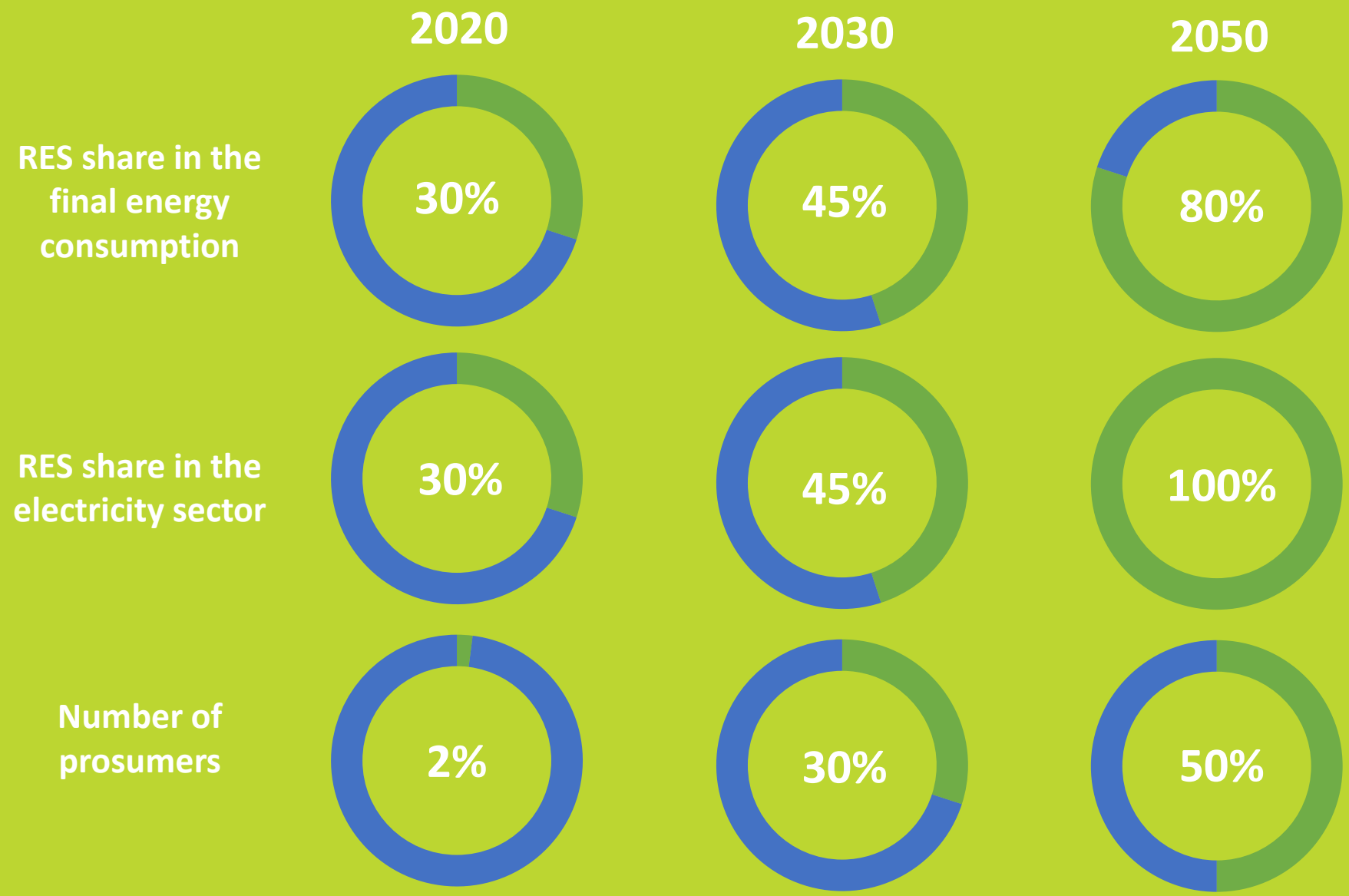


Reducing the **impact on the environment**

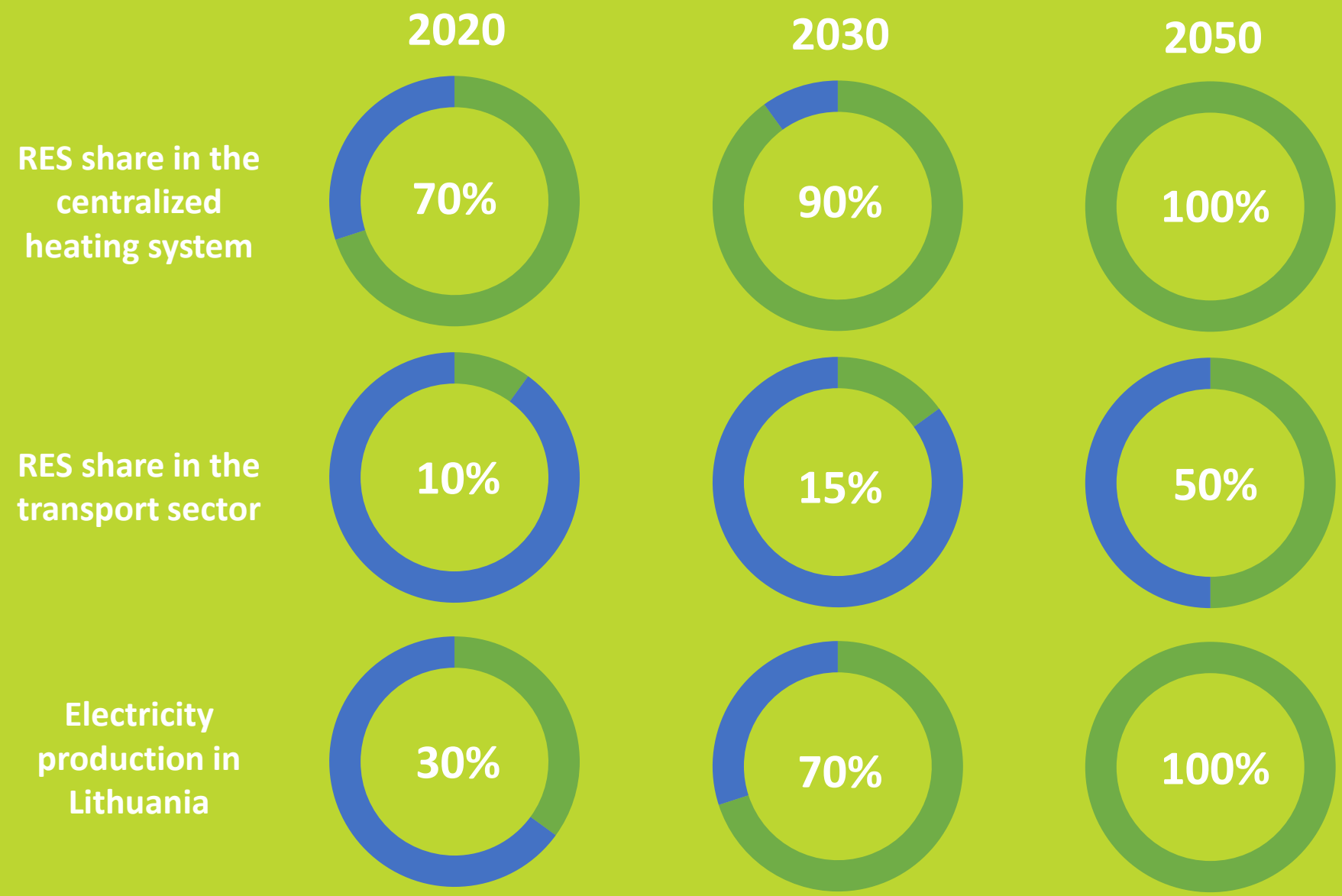
Innovations in energy



Key targets for energy sector



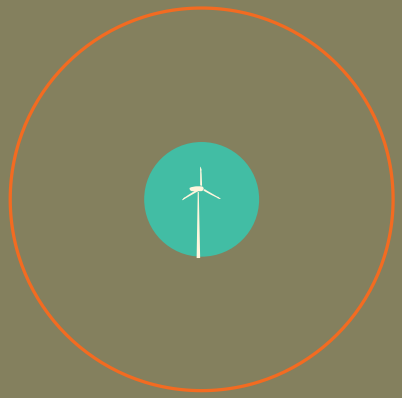
Key targets for energy sector (cont.)



RENEWABLE ENERGY

The long-term vision of renewable energy development

By 2050 renewable energy will dominate in the sectors of electricity, heating and transport



2020 – up to 30%

2030 – up to 45%

2050 – up to 80%

Part of renewable energy in the gross energy consumption

Renewable energy in Lithuania today

Surpassed 2020 EU targets in 2016[1]

Achievement in 2016

26%

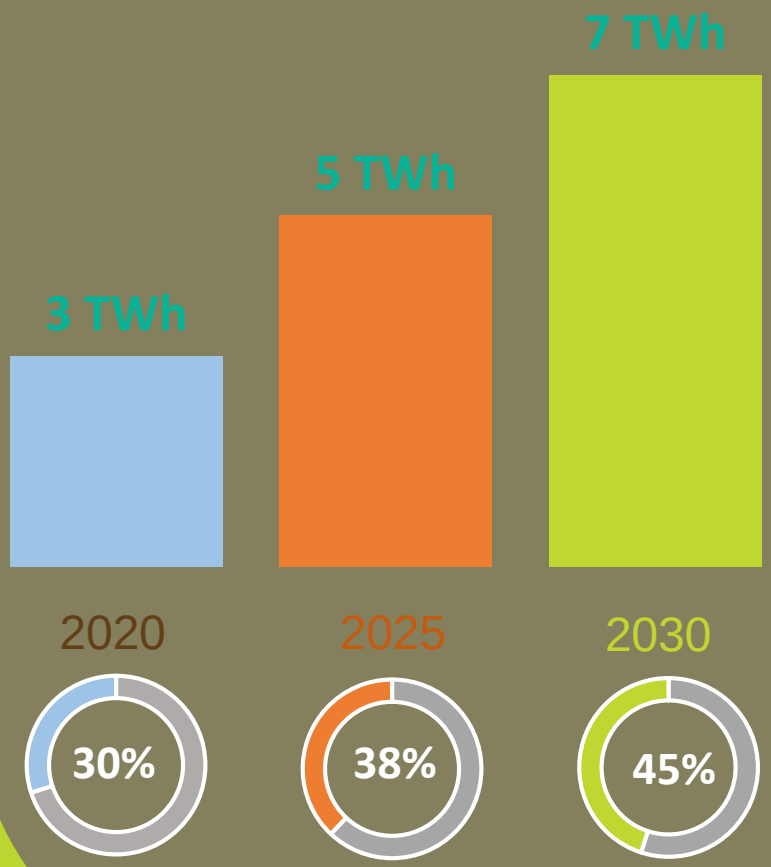
Target for 2020

23%

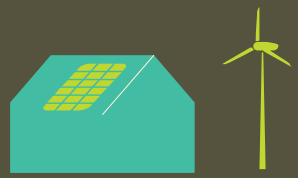
First in the EU to sell the surplus of renewable energy

Source 1: Eurostat, 2018

Plans & targets in renewable electricity



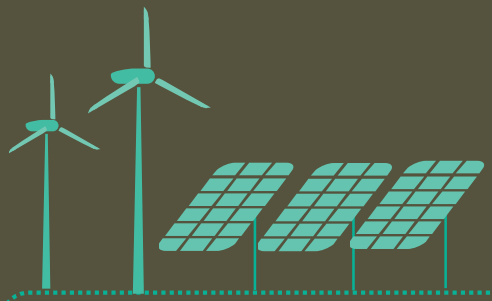
By 2030 – 53 % electricity from wind and 23 % solar



Development principles:

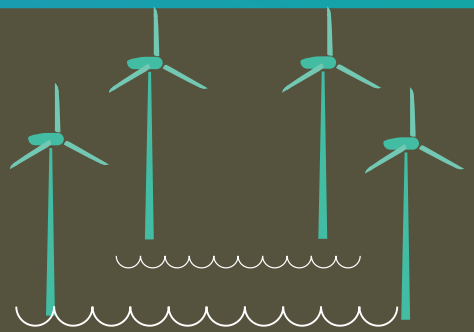
- Gradual integration into the market
- Cost effectiveness
- Competitive support allocation

How we will produce electricity?



Large scale (auctions)

Small scale (prosumers)



Offshore wind

Until 2025

Up to +500 MW

Auction each year

Until 2021

+200 MW

Until 2028

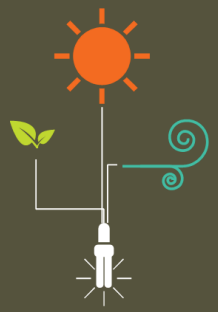
+350/700 MW

Large-scale renewable energy: 2x renewable energy production until 2025

2019 Q3
First 0.3 TWh auction started

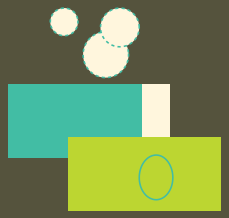
3 year plans
For auctions to be announced

2.5TWh
Electricity to be produced in 2025



Technology neutral

Market premium
3,86 ct/kW

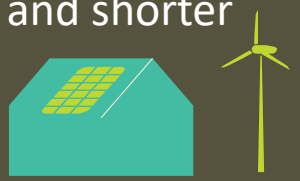


12 year
Support period

Small-scale renewable energy: the rise of prosumers

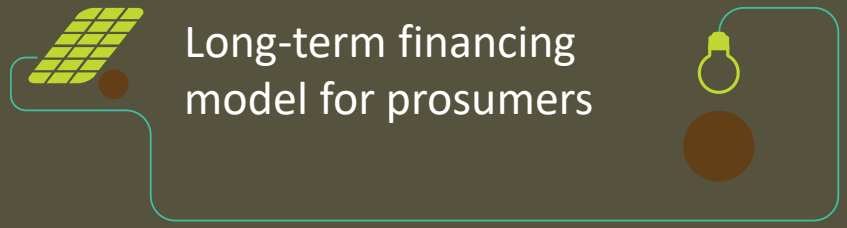
1 STEP: **from 2018.01.01**

Net-metering, removal of regulatory restrictions and shorter procedures



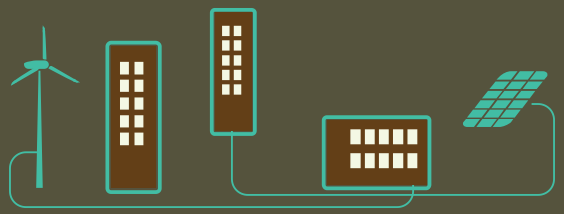
2 STEP: **from 2018.07.01**

Long-term financing model for prosumers



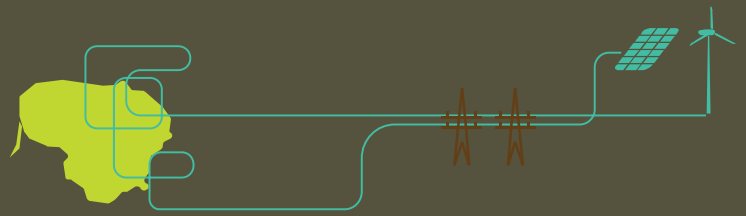
3 STEP: **from 2019.10.01**

Regulatory framework for prosumers in the multi-apartment buildings

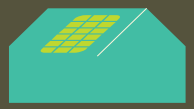


4 STEP: **from 2020**

Prosumers become a part of the electricity market



Small scale PV installations: virtual prosumers



1

On spot power plant

- Power plant at the property
- On spot consumption

2

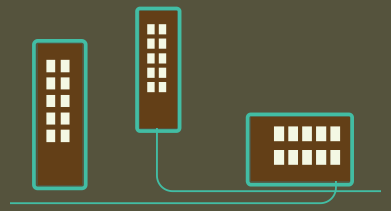
Virtual power plant

- Distant power plant at the property (e.g. summer house)
- No on spot consumption- 100% grid „storage“

3

Part of power plant in solar parks

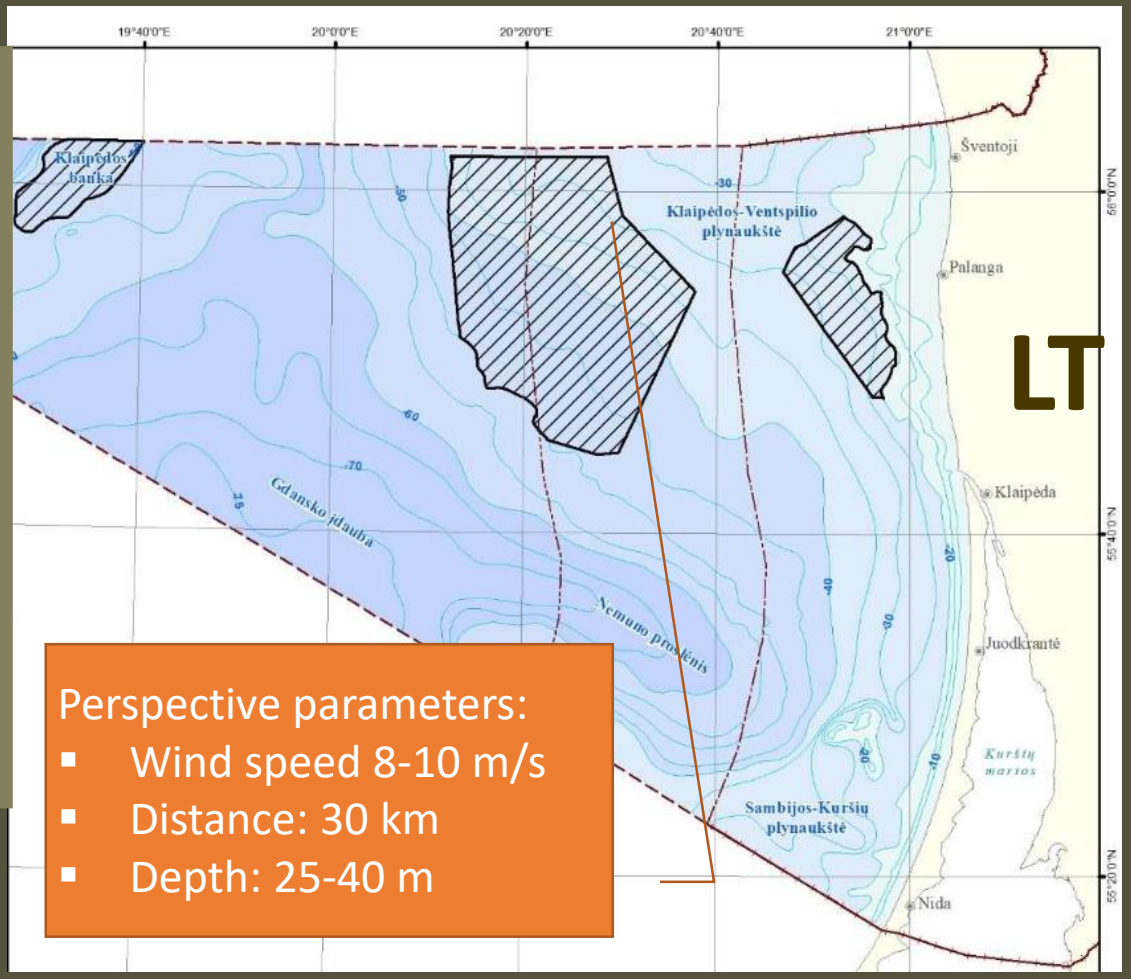
- Solar parks developed by companies
- Partial ownership
- No on spot consumption- 100% grid „storage“



Offshore wind in the Baltic sea

Homework until 2021:

- **Environmental assesment**
- **Spatial planning**
- **Grid development**
- **Impact assesment**
- **Support scheme (auctions)**
- **Electricity market modelling**

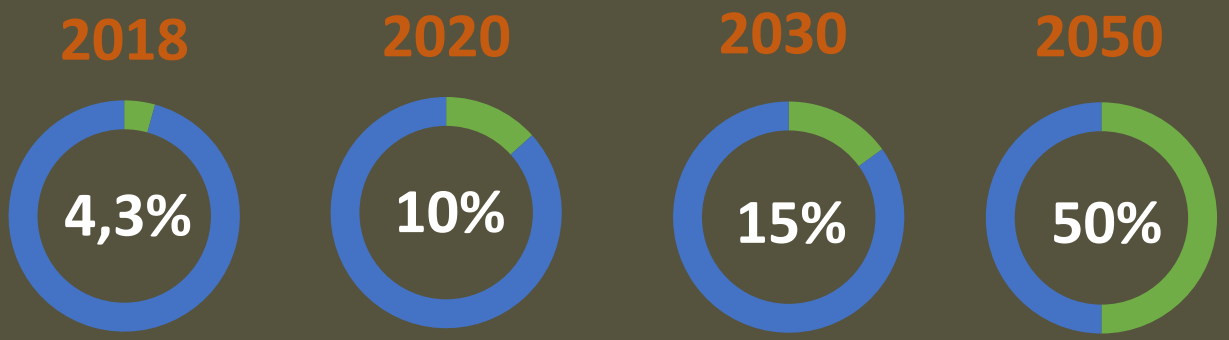


Perspective parameters:

- Wind speed 8-10 m/s
- Distance: 30 km
- Depth: 25-40 m

New legislation package: alternative fuel in transport

RES share in transport*



SCOPE:

- Transport eletrification (trains, cars)
- Gas in transport (biomethane, CNG, LNG, hydrogen)
- Green transport procurement
- Liquid I ir II generation biofuels
- Infrastructure

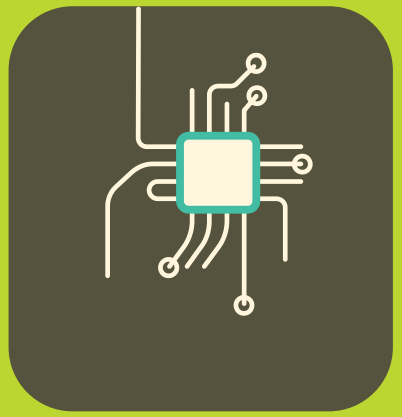
INNOVATION

Long term vision to become an exporter of energy technologies

Biotechnology competences

ICT solutions for system management

Solar and wind energy technologies

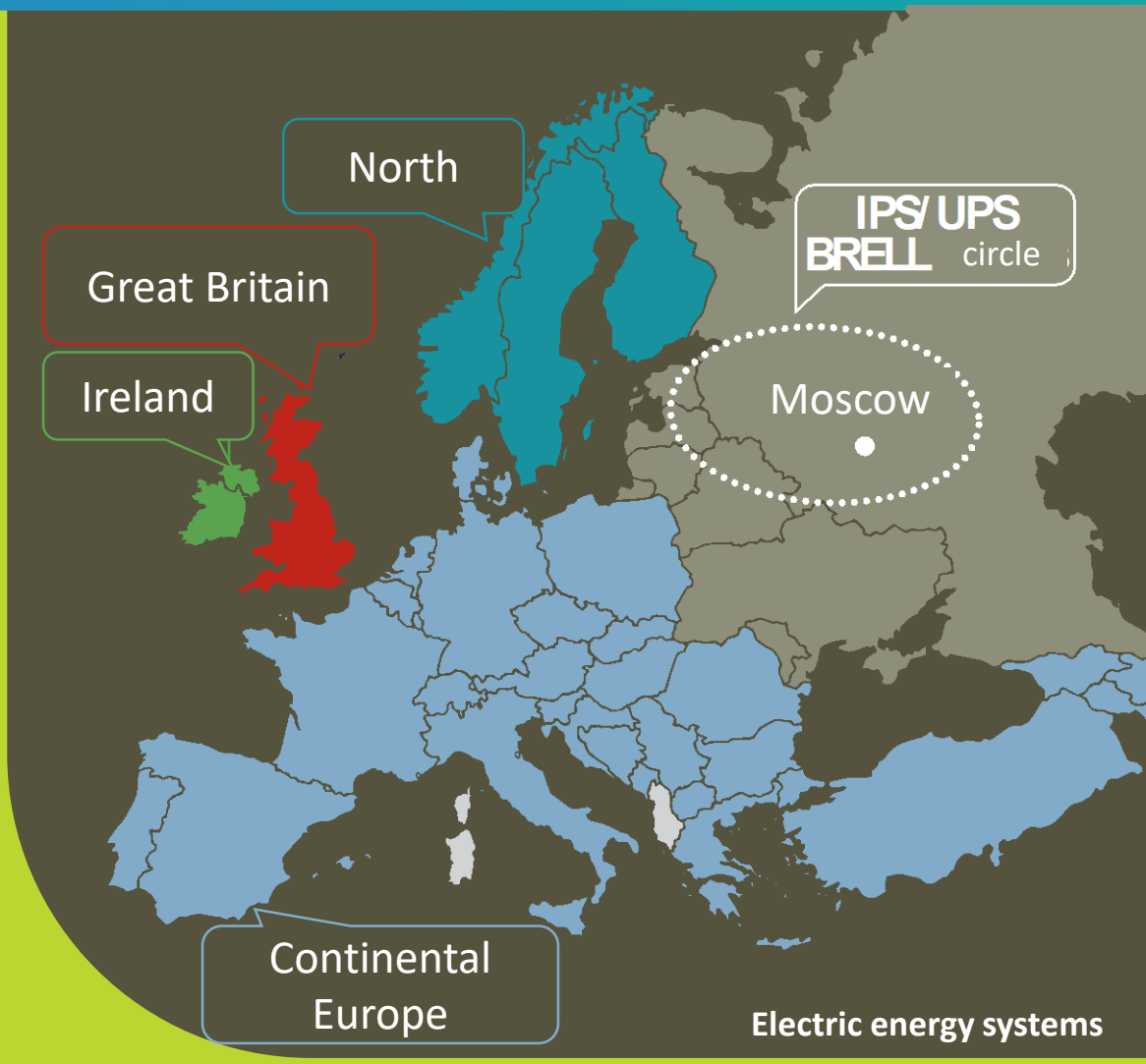


Regulatory and infrastructure sandboxes

ENERGY SECURITY

Synchronization – major energy security project

- **The Baltic States – the only ones in the EU with their electricity systems in the IPS/UPS system**
- **Synchronization with continental Europe electricity network to be done until 2025**
- **€1.4 billion infrastructure project for Baltics and Poland**



THANK YOU