

# COASTAL Biogas Conference

## 30 September 2020

### Biogas sector development and perspectives in Lithuania

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## Current situation

- ✚ Lithuanian biogas history starts in 1994 with industrial biogas plant on distillery.
- ✚ At present there are 38 operating biogas plants in Lithuania
- ✚ 35 MW of electrical and 10 MW of heating capacity.
- ✚ Annual generation of 100 GWh electrical energy and 50 GWh of heat.

## Sectors

- ✚ 15 agricultural biogas plants
- ✚ 5 industrial biogas plants
- ✚ 11 sewage biogas plants
- ✚ 7 landfill biogas plants



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# Main Feedstocs

## Agricultural

- Animal manure
- Remains of feed

## Municipal

- Wastewater sludge
- Food waste

## Industrial

- Distillery grain
- Slaughterhouse wastes
- Fish and meat processing wastes
- Dairy waste
- Fruit and vegetable processing wastes
- Biodiesel production cake
- .....



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# Examples

## UAB „Kurana“

- ✓ The bioethanol plant supplies the waste (grain draff) to the biogas plant, which processes it into biogas, electricity and thermal energy.
- ✓ Electricity is sold to the national distribution grid, heat is sold to the customers by local heat distribution piping, digestates and fertilizers distributed by mobile transport



# Examples

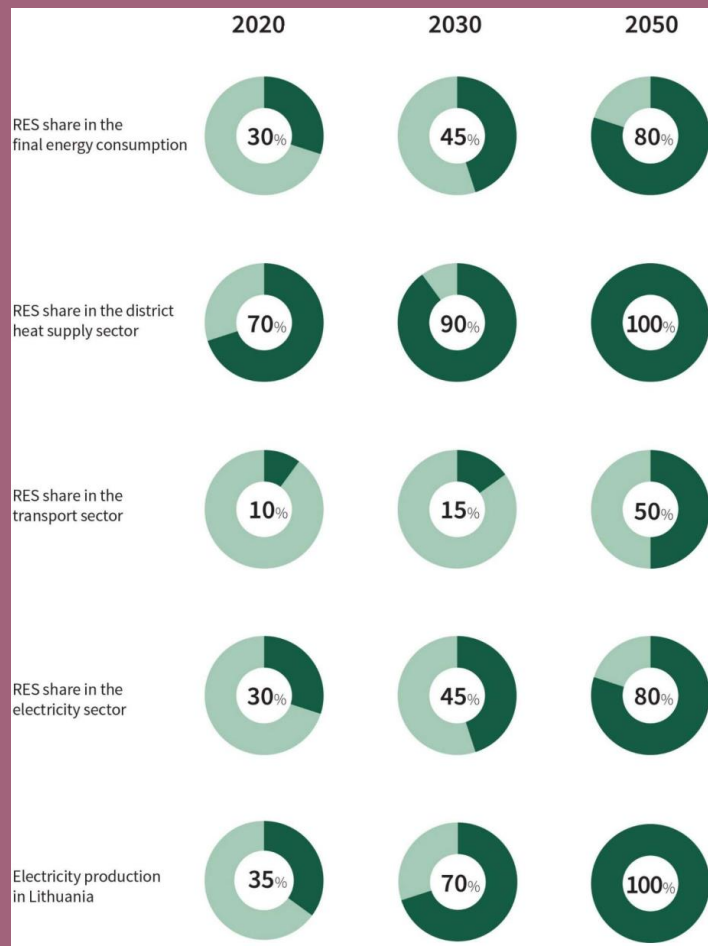
## AB „Modus Energy Solutions“

- ✓ Feedstock supplied from farms, slaughterhouses, flourmills, producers of bread, restaurants etc. Suppliers receive income from selling manure and various types of waste and residues.
- ✓ Electricity is sold to the national distribution grid, heat is sold to the customers by local heat distribution piping, digestates distributed by mobile transport



# Perspectives

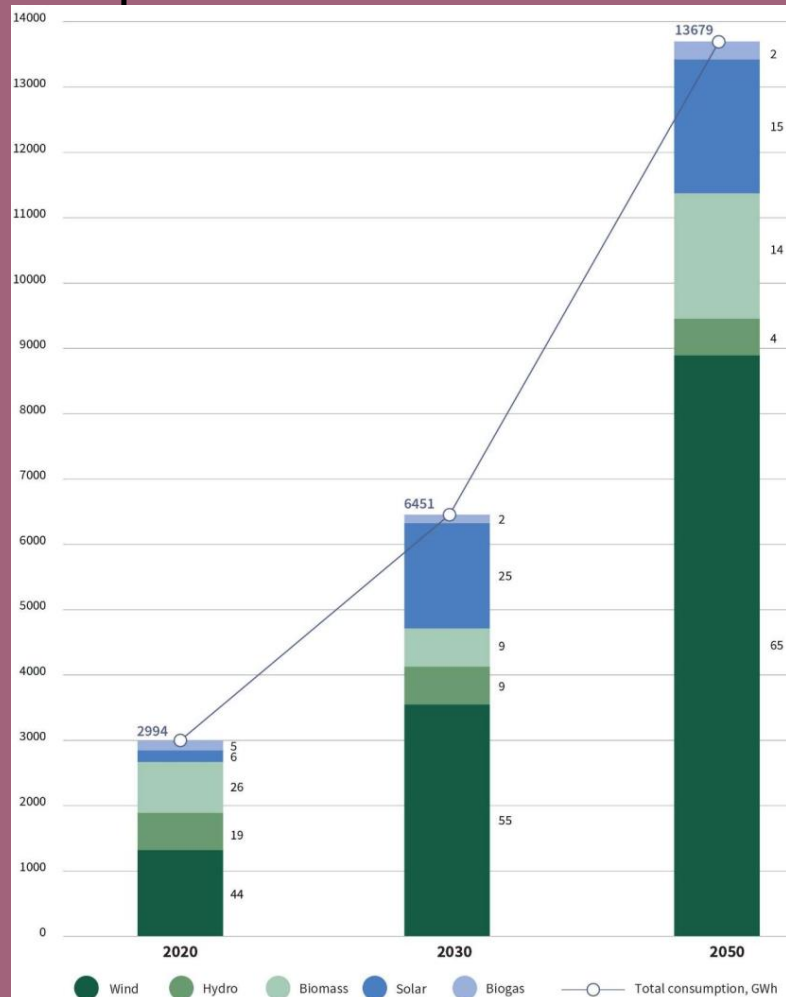
The results sought in the Lithuanian energy sector  
for the years 2020, 2030 and 2050



NATIONAL ENERGY  
INDEPENDENCE STRATEGY



# Perspectives



Market structure by the  
amount of RES-generated  
electricity consumed,  
% and GWh

*Lithuanian Energy Institute,  
Ministry of Energy of the Republic of  
Lithuania*

# Potentials

200 new biogas and biomethane plants in agricultural, municipal and industrial sectors:

- 160 MW electrical capacity
- 320 mln. m<sup>3</sup> annual biogas production
- 1,28 TWh electricity generation
- 43 GWh of biomethane production



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*Lithuanian Biogas Association*



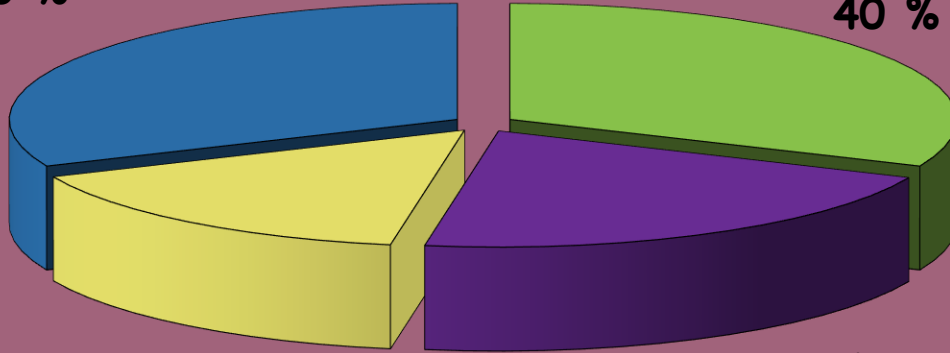
# Potentials

**Agriculture (energy  
plants) 60 %**

**Agriculture (animal husbandry)  
40 %**

**Municipalities  
15 %**

**Industry  
15 %**



*Sea weed ?  
River weed ??  
Lake weed ???*



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# Potentials

- Active biogas research groups in almost all research institutions
- National and foreign companies able to design, to construct, to maintain biogas plants
- National strategy oriented to renewable energy development
- Active international collaboration
- High potential of biomass



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# Thank you!

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