

# **Supporting Renewable Technology Inclusive Heat Supply Legislation – Technical and Legal Consultancy**

**Workshop 1 – Renewable Heating Technologies and Modern Heat Systems (case studies: system selection, policy reforms, lessons learnt)**

## **Lessons from the heat sector reform: Lithuania**

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# District heating (DH) in Lithuania

- Population < 3 mln.
- GDP/cap – 22 245 \$ (IMF 2021)
- Main fuels in the energy sector – natural gas and RES
- All oil and natural gas imported
- Primary energy consumption – 8 mt, electricity – 13 TWh
- Share of DH in the house heating – 57%
- Main fuel in the DH sector now - biomass



# DH sector reform

- Till 1997 DH was a part of the Lithuanian Power Company – state-owned monopoly
- In 1997 DH was transferred to municipalities
- Some municipal DH companies were leased to national and international companies
- In 1997 the national energy regulator NCC was established, it started regulating DH also
- NCC issued licenses, developed and approved pricing methodologies, set tariffs, analysed consumer complaints, etc.

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**Issues facing  
the DH sector  
during its  
reform**

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Disconnection/disappearance of large consumers

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Inefficiency at production and consumption sides

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High heat losses in the networks

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No metering and control at the consumer side

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High imported fuel prices - high heating tariffs - affordability issues

# Approaches and solutions

## Disconnection of large consumers

- Reform of the natural gas pricing
- Discounts to the crucially important large consumers

## No metering and control at the consumer side

- Heat meters at each residential building installed during short period of 3 years
- Hot water meters at every flat, heat indicators in some flats

## High heat losses in the networks

- Installation of individual heat substations at every building with thermostatic control, automated
- Optimisation of the DH networks

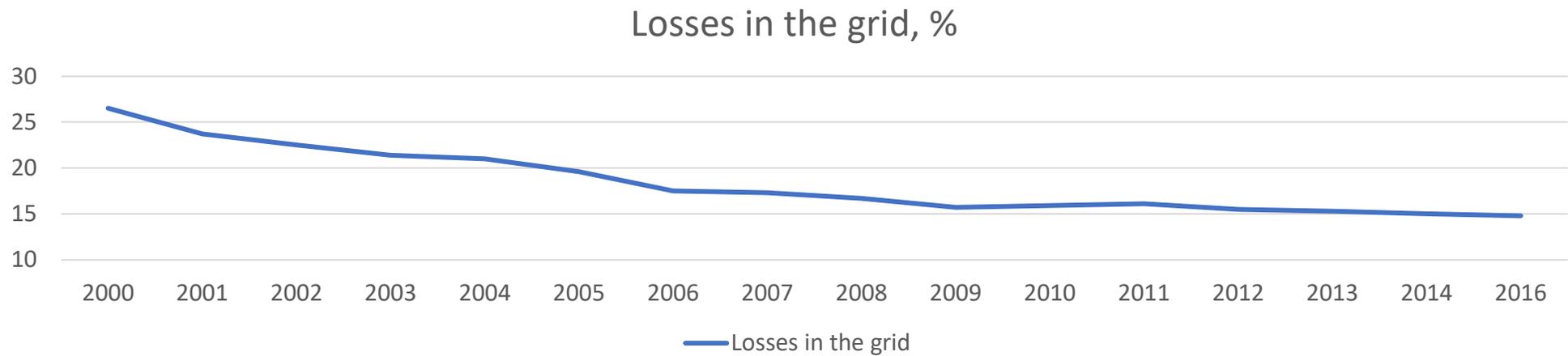
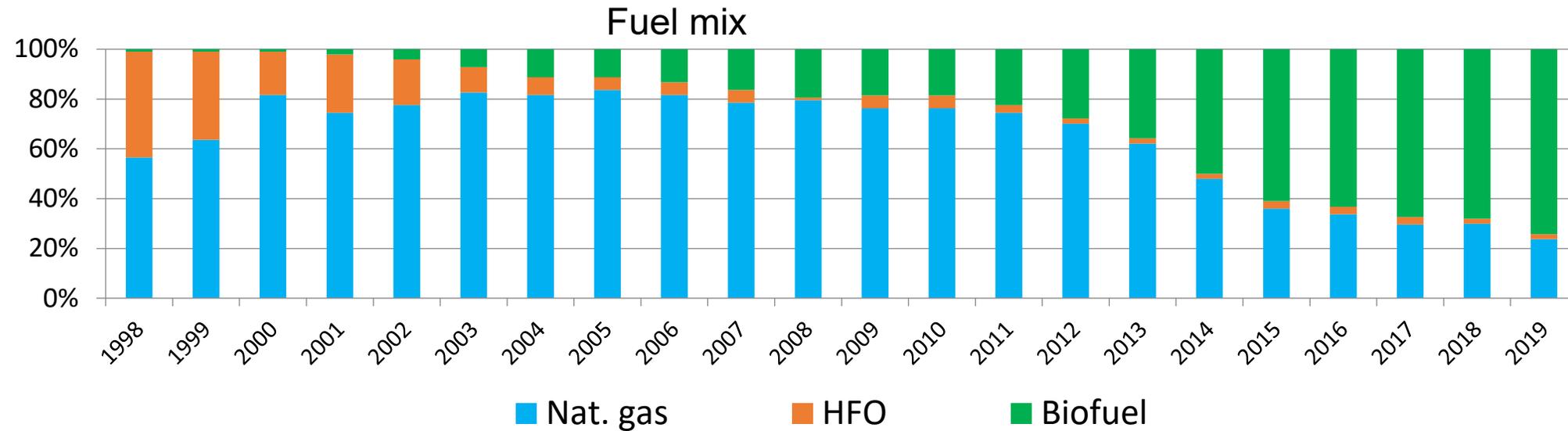
## High share of imported fuels

- Replacement of HFO and natural gas by the local biomass
- Biomass guaranteed lower fuel prices and lower emissions

## High heating tariffs

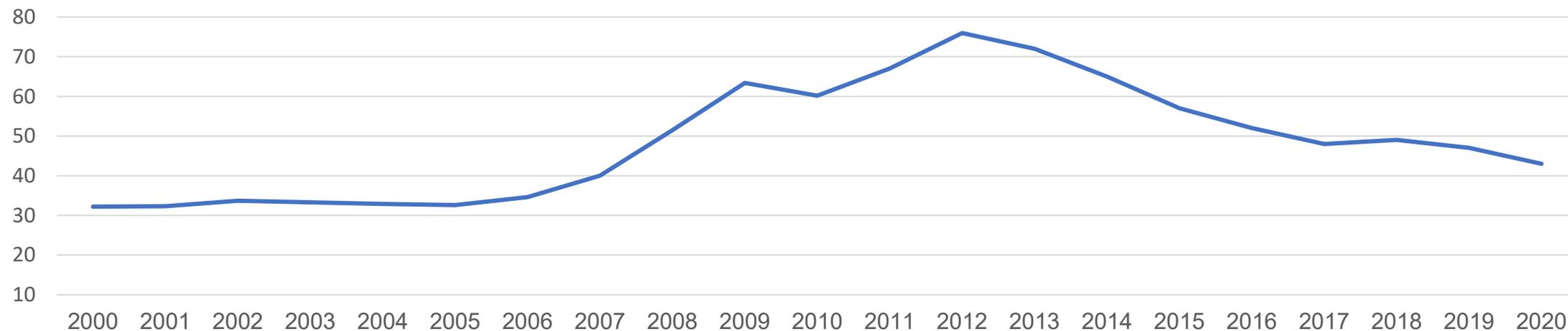
- Tariffs cover all costs, but subsidies to low-income families (if heating bill exceeds 20% of the income)
- Increasing share of cheaper biomass
- Assuring TPA to independent producers
- Reduction of heat consumption by renovating houses

# Some results (1)

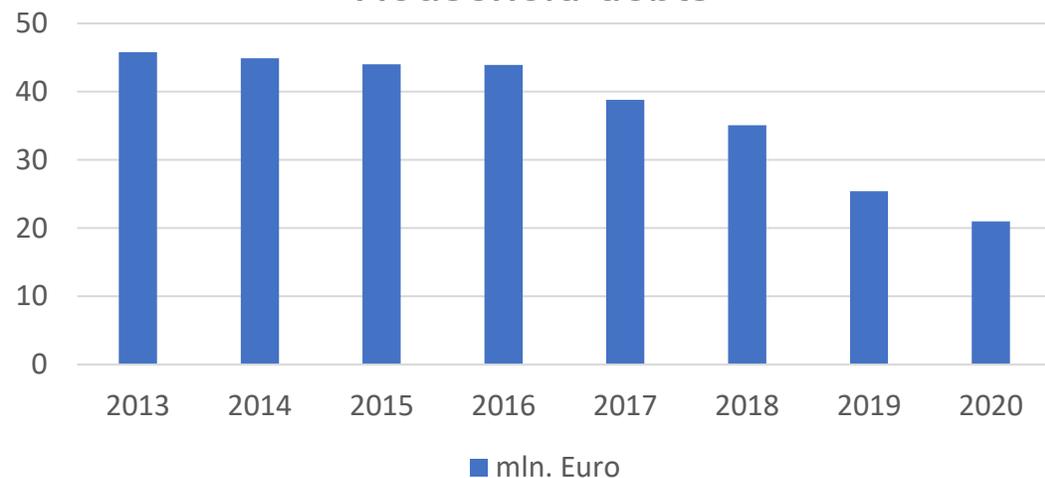


# Some results (2)

### Average tariff, €/MWh



### Household debts



### Average consumption and payments 2019/2020 heating season

