Overview of district heating sector. Lithuania‘s case

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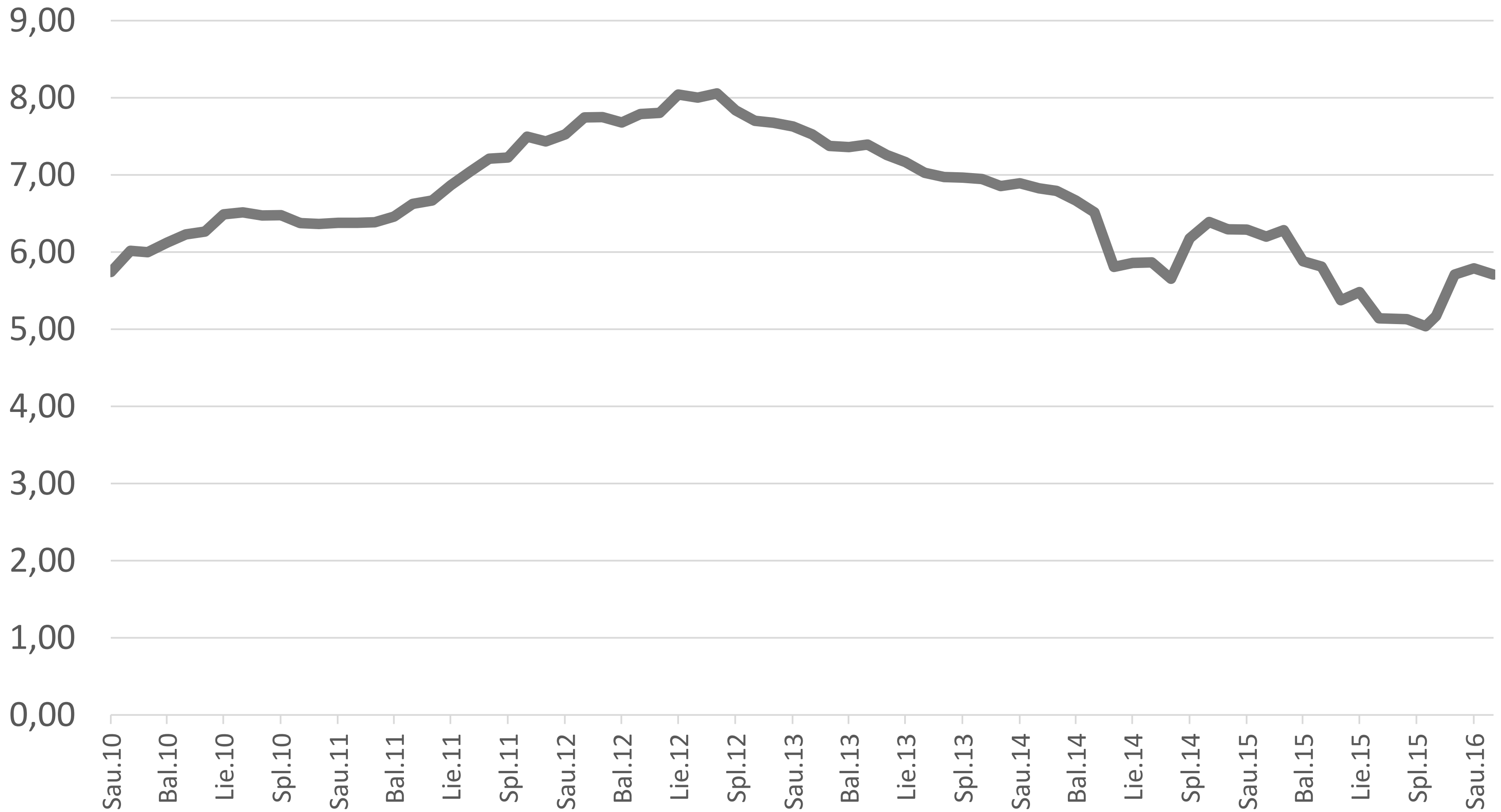
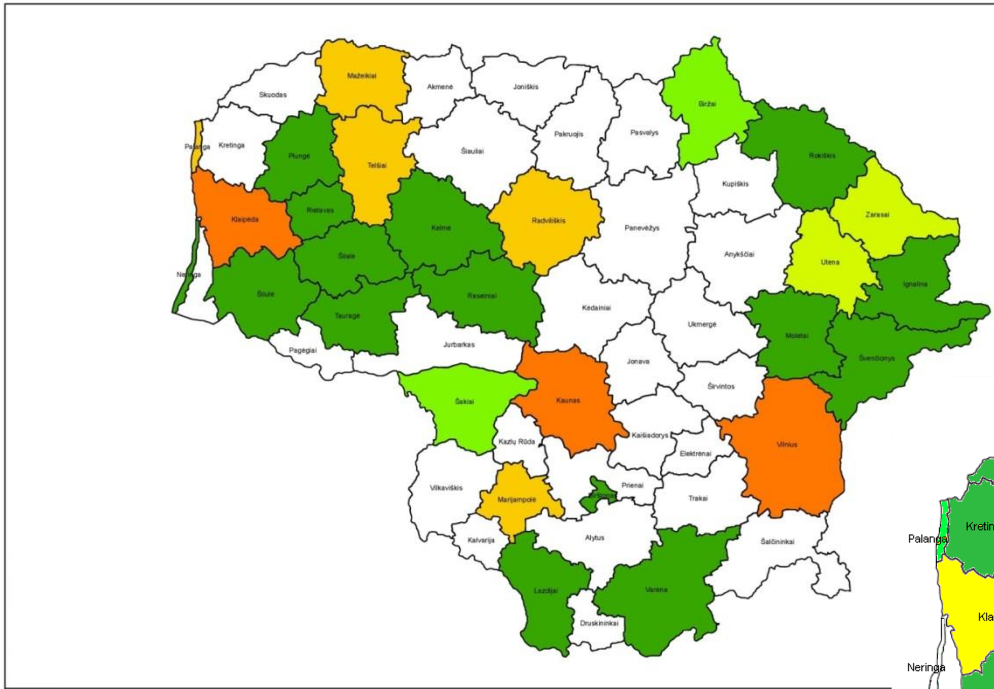
Overview of DHC sector in Lithuania

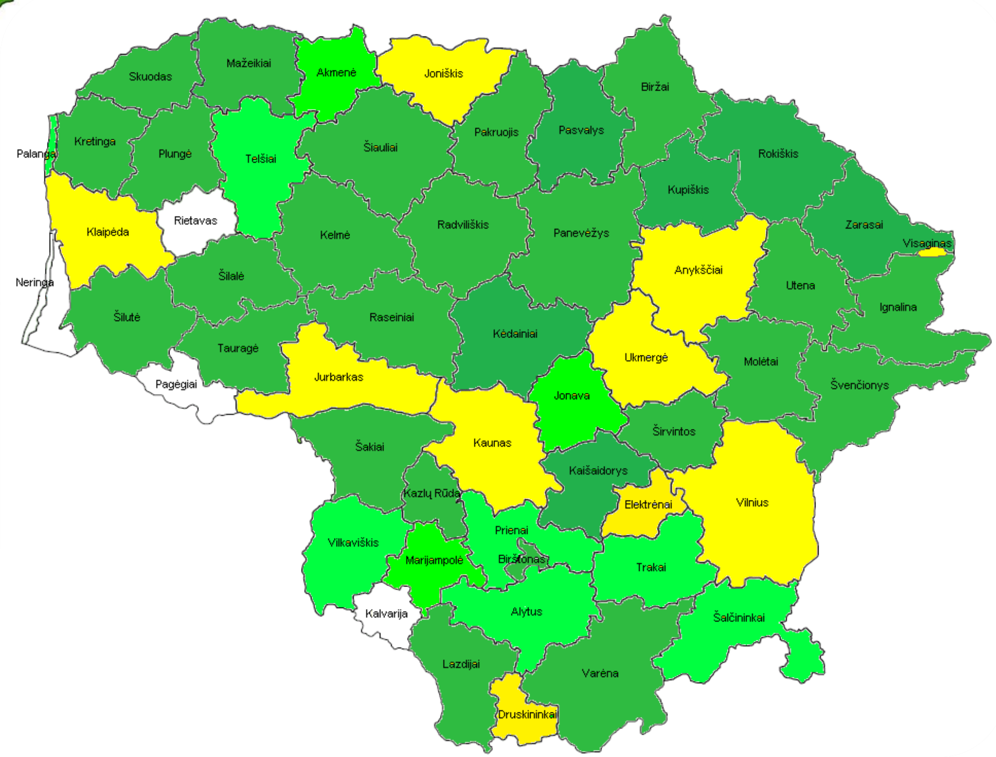
- Annual heat consumption ~10TWh
- Installed heat generation capacity ~8,5 GW
- DHC network pipelines relative length ~2500 km
- 357 separate DHC systems are maintained
- ~57 % of citizens are connected to DHC network

Average heat price to end users 2010-2016

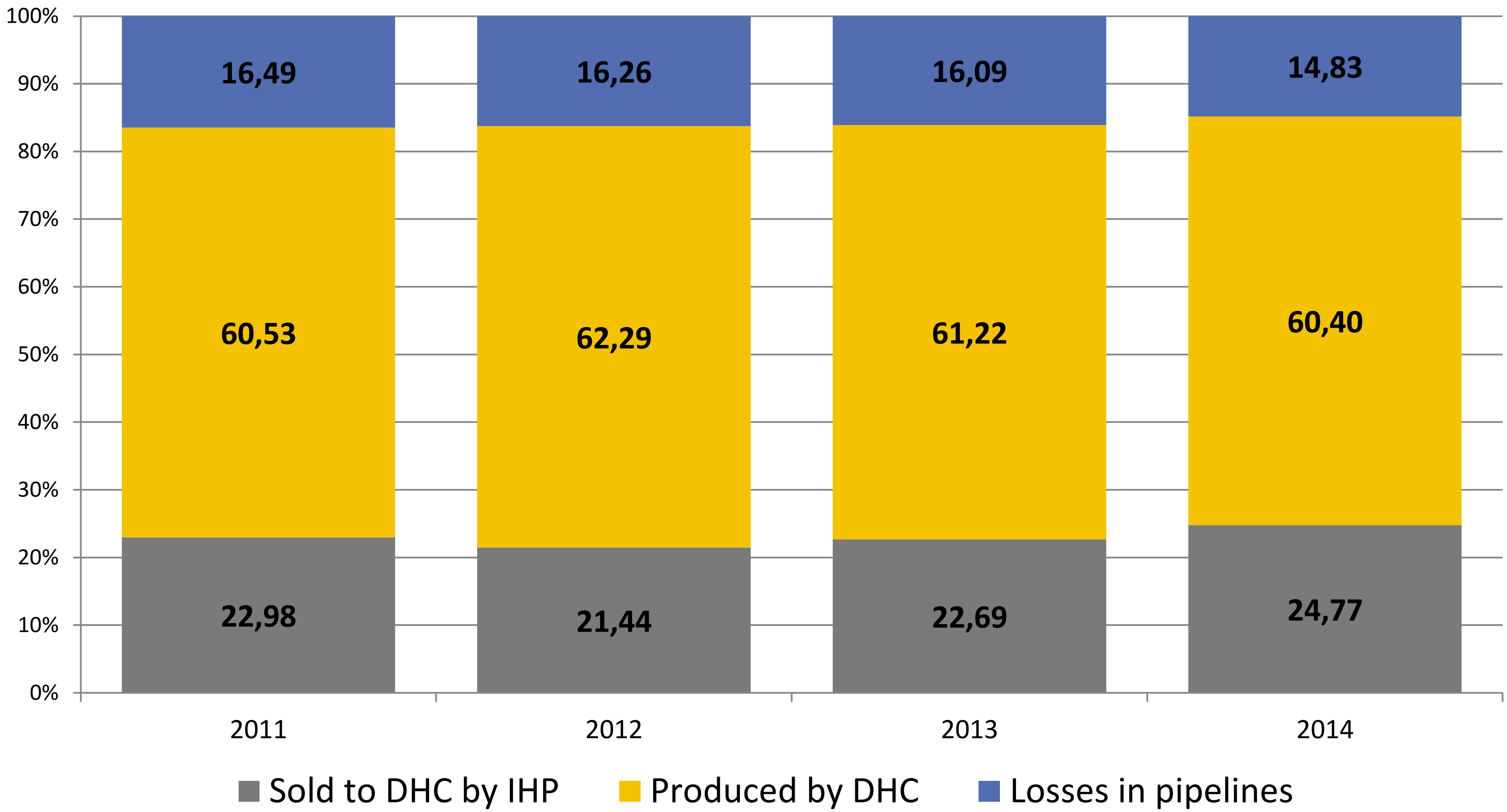


Expansion of biomass from 2010





Market structure



Market structure

- Total number of DHC working in different areas – 126
- Regulated and licensed by NCC – 50 of which:

  15 – owned by private business

  35 – owned by municipalities
- Independent heat producers that are operating in sector – 36, of which 21 is regulated by NCC
- DHC, regulated by NCC, annually supplies approximately 8-9 TWh of heat into pipelines

Market structure

Heat production

- District heating company (DHC)
- Independent heat producers (IHP)

Heat transfer

- DHC

Heat supply

- DHC (supplying heat to heating substation)
- Consumer heating system administrator/supervisor (supplying heat to end users)

1st issue

Recent shift from monopoly to competition in heat generation market created 3 different types of systems, to which single legislation and regulation must be applied

1^{st} issue

Monopoly

Oligopoly

Competitive market

Single legislation and single regulation applied equally to all systems.

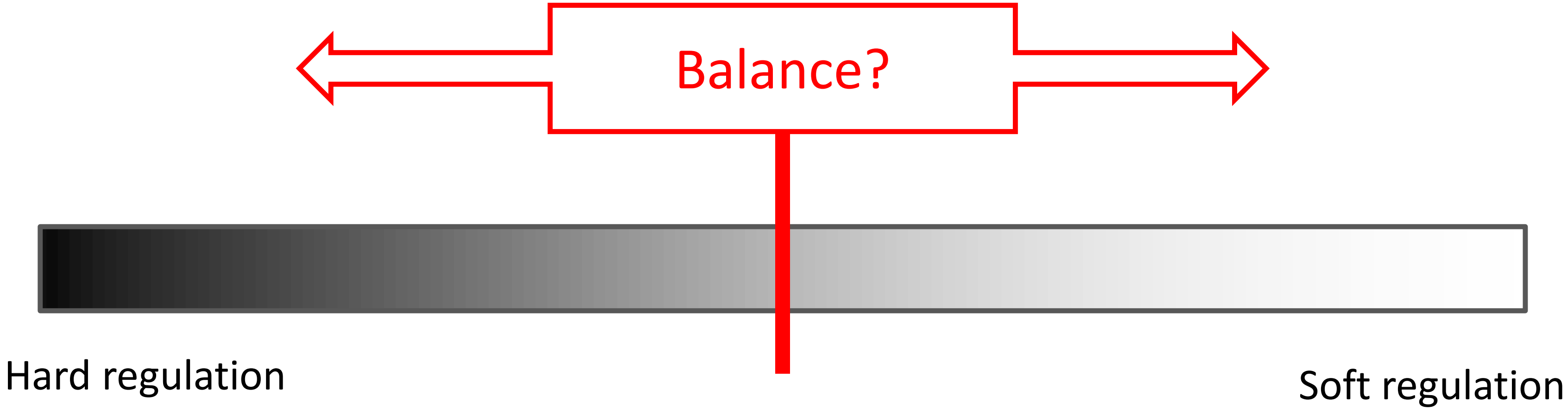
How to maintain continuous shifting to competitive market?

How to prevent big heat price changes between systems?

What competition model is the best?

How to deal with necessary additional investments?

2^{nd} issue



2^{nd} issue

Regulated entities are not wiling to take initiative to make investments that are reducing the costs without first of all, asking regulators permission or guarantees for success of that investment

3rd issue

Consumers' and Municipalities' influence to DHC

3rd issue

Currently consumers are not allowed to have straight influence towards decision made by DHC:

1. Consumers are not allowed to disconnect from DHN;
2. Consumers are not allowed to choose DHC company;
3. Consumers are forced to pay the bills that are given to them

- Municipalities are the ones, who should organize heat supply to consumers. In order to do so, municipalities are the first stage for approval of **heat prices** or **investments plans**.
- Due to complexity of regulation some municipalities are struggling to impact development of sector

Wrap up

- Sectors’ development direction must be chosen and sustained, while maintaining single (or different) regulation for all participants;
- How much freedom regulated company should have in comparison with all external operating environment conditions;
- Consumers access to DHC should be reviewed, in order to allow for consumer influence DHC actions and to do most of the work that regulator or municipalities currently do.

Future plans

- NCC already has released new heat purchase legislation act according to which competition model is improved
- New price setting methodology will be released till the end of this year
- Studies on sectors future development are made according to which possible law changes with help of government could be accepted

Questions and answers

Thank You for Your attention!