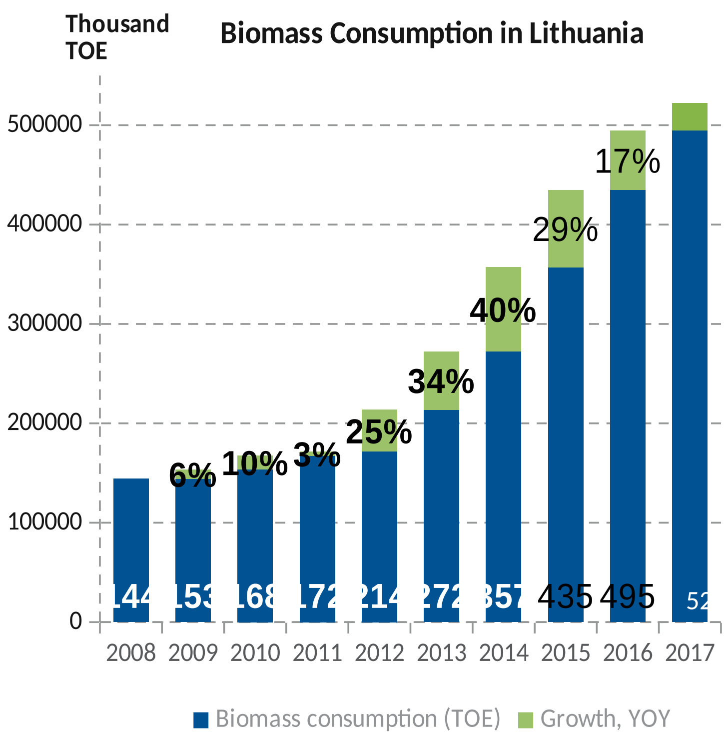
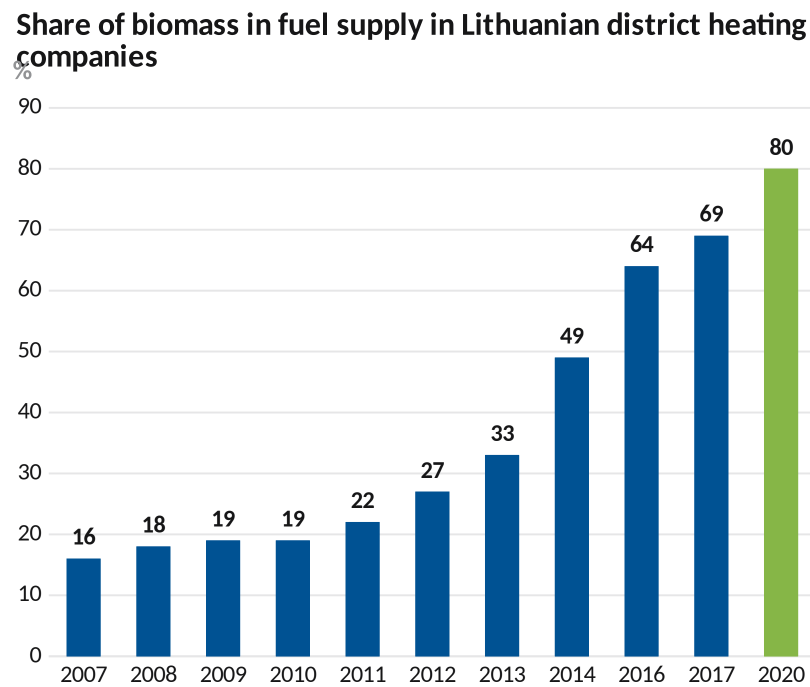
THE BIOMASS EXCHANGE – virtual transmission grid in biomass market

Vaidotas Jonutis

22 October 2019, Tallinn

NATURAL GAS CONVERSION TO BIOMASS IN CHP SECTOR





Data: Association of Central Heating Companies of Lithuania

Biomass has become a strategic energy resource in the Lithuanian energy sector

BALT POOL

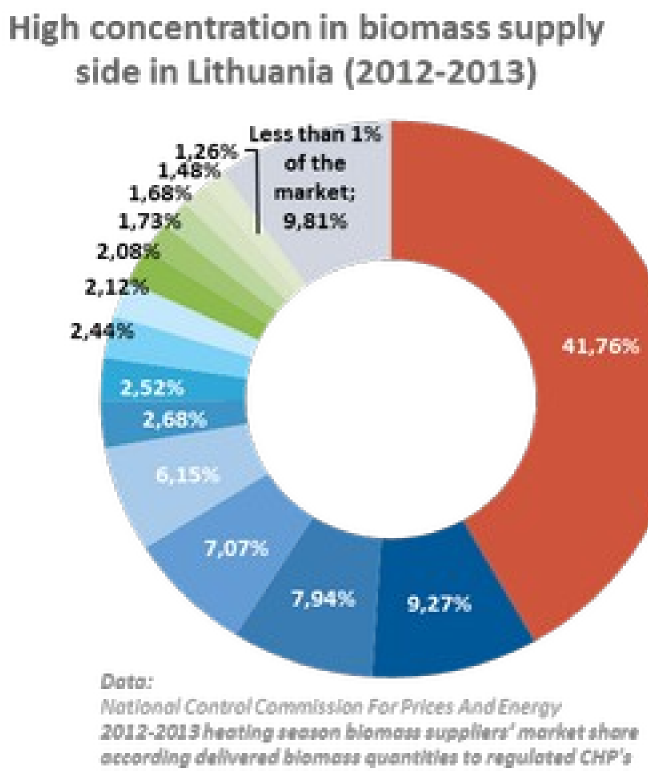
MARKET PROBLEMS IN 2012

- By 2012, purchases of biomass, natural gas and oil in Lithuania in the CHP sector were carried out according to the same rules
- The biomass and natural gas sectors had become indistinguishable for consumers

Criteria	Biomass	Natural gas
Number of suppliers	Market dependent on a limited number of suppliers	Only Gazprom
Competition	Oligopoly	Monopoly
Profit margins	Superprofit	Superprofit
Market barriers	Impossible to conclude a contract with buyers	Only one trading hub
Contract duration	Long term (Most longer than 3 years)	Long term (over 5 years)

The market was unable to regulate itself. Result for consumers - high fuel prices = high heat prices

BIOMASS MARKET CONCENTRATION IN 2012



Market situation before the Exchange: non-transparent purchase practice; high barriers for new market participants; weak competition between suppliers; high market concentration.

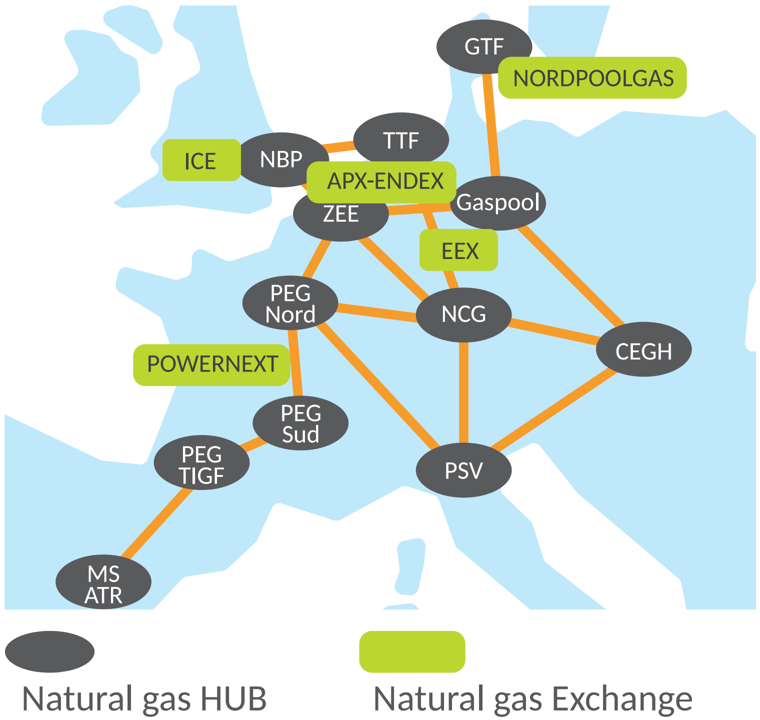
TAILORED SOLUTIONS

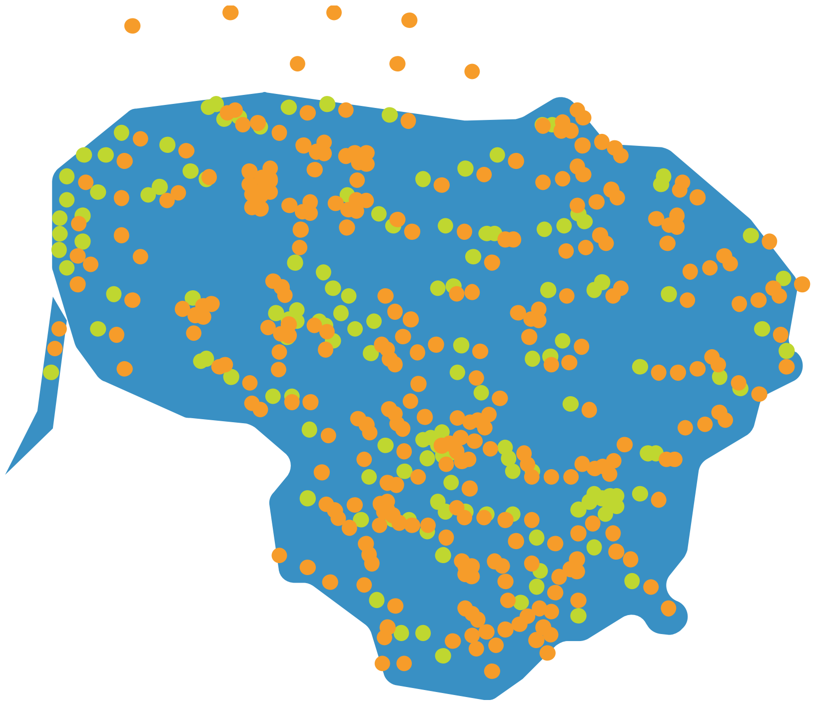
Market competition rules are changing:

Biomass market – established biomass exchange. The main target to increase transparency and competition in the biomass market.

Additional value – cost saving, time saving, standartization, good business environment

MAIN CHALLENGE TO CREATING A BIOMASS EXCHANGE





- 12 NG trading hubs in Europe
- TSO and existing grid
- Supply guaranteed by TSO
- Regulated transmission tariff

- Unlimited trading hubs
- Virtual transmission system
- Supply guarantees market liquidity
- Different tariffs for every supplier

HOW THE EXCHANGE CHANGED THE MARKET

Standardized biomass products and biomass supply procedures;

Equal and transparent trading rules for all participants;

Low market barriers for new market participants;

Categorisation of market participants and contract deoult risk managment

Centralized dispute resolution by market operator;

Liquid spot market

ADDITIONAL SERVICES

- Auctions system – easier to conclude the contracts;
- Back office (biomass quality reporting, delivery scheduling, invoicing, waybills) – easier to execute the contracts;
- Urgent market massages – higher transparency of the market;
- Integration of independent laboratories in quality establishment;
- Biomass reserve product.

ALL EXCHANGE PARTICIPANTS ARE COORDINATED ON ONE PLATFORM

Statistics for 2018:

Executed transactions	**> 5,000**
Submitted orders	**Bids > 17,000, offers > 68,000**
Participants	**71 buyers, 130 sellers**
Max suppliers to one buyer	**51 suppliers/year**
Delivered trucks of biomass	**~ 66,000, >400 trucks/day**
Quality arrangement and written invoices	**> 11,000**

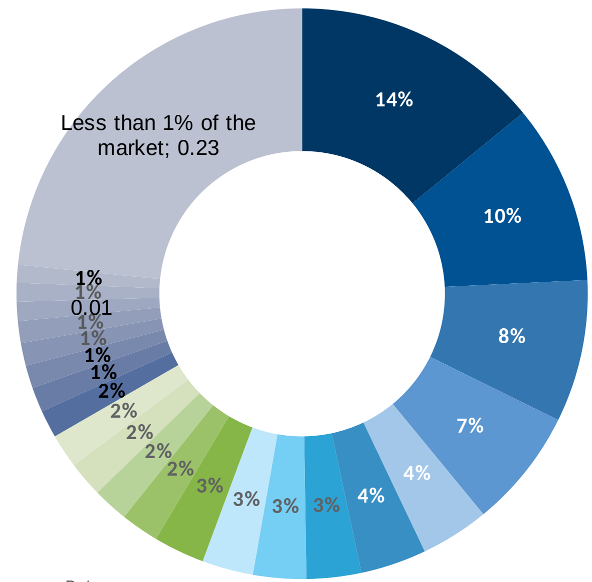
Baltpool has become the central biomass business organising platform

RESULTS OF BIOMASS TRADED AS A COMMODITY IN LITHUANIA

CHANGES RESULTED IN A MORE COMPETITIVE BIOMASS MARKET WITH LOWER BIOMASS PRICES

Biomass price differences decreased (2016-2017 heating season)

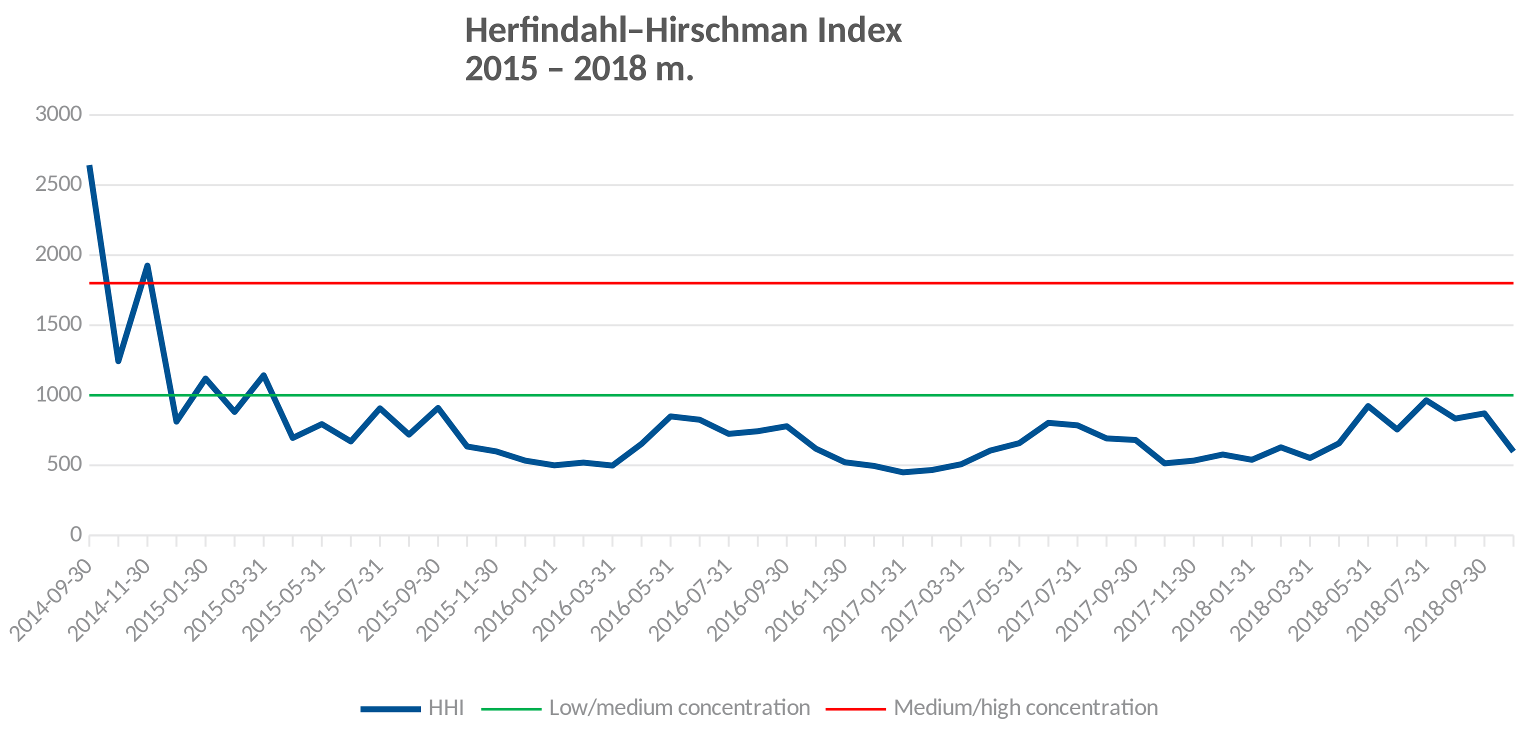
Low concentration in biomass supply in Biomass Exchange (Y2016)



Data:
Energy Exchange Baltpool UAB
Biomass suppliers' market share in Biomass Exchange according delivered biomass quantities (Y2016)

The Biomass Exchange increased market transparency and efficiency in Lithuania: biomass prices decreased by up to 40% (depending on region) compared to 2012, and price differences between neighboring municipalities almost disappeared. The Exchange also solved the biomass supply concentration problem.

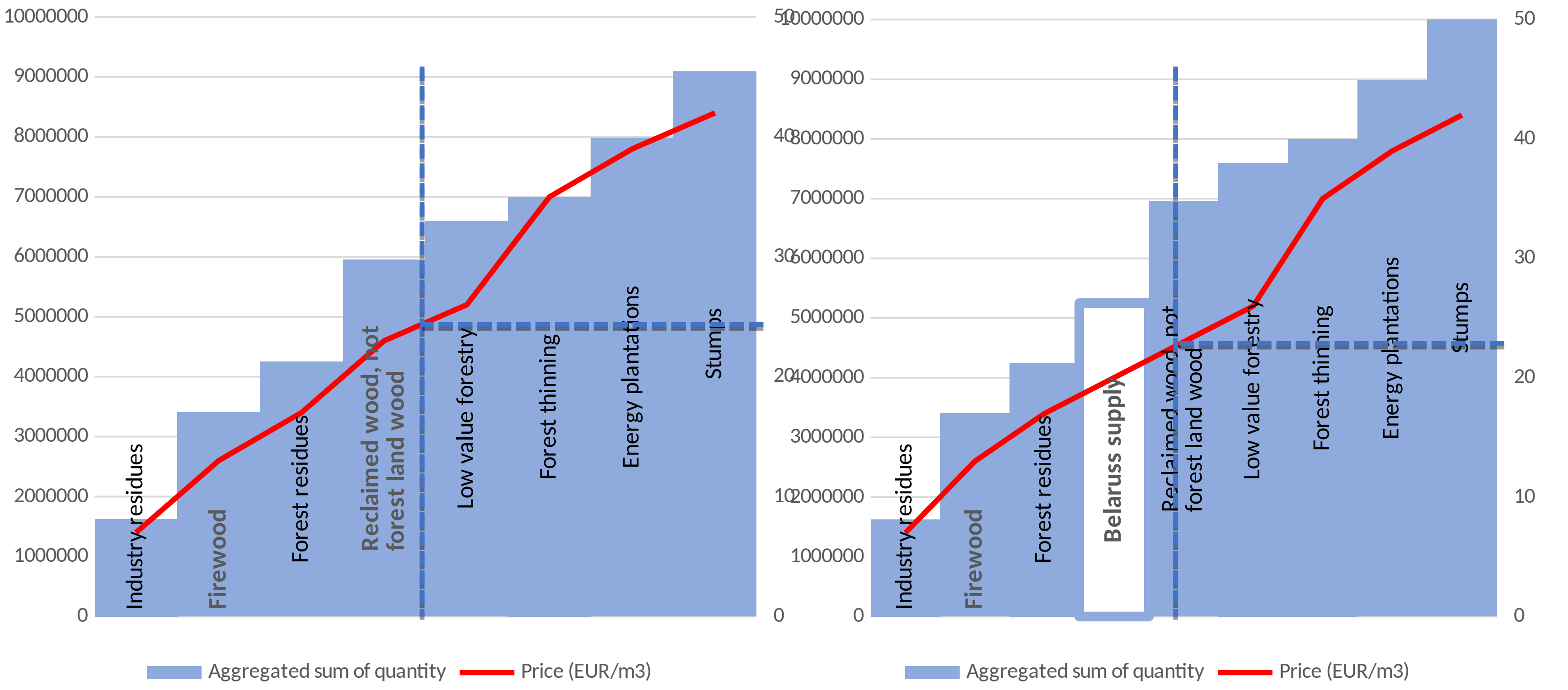
COMPETITION INDEX INDICATES RIGHTS DECISIONS



Lithuania energy sector regulator

DEVELOPMENT OF BALTPOOL INTERNATIONAL BIOMASS EXCHANGE

HOW BIOMASS DEMAND AND SUPPLY EFFECTS TO MARKET PRICE



FINAL PRODUCT – WOOD CHIPS COSTS AS MUCH AS COST FINAL RESOURCE, PARTICIPATING IN PRODUCING

Thank You

For Your Attention

Vaidotas Jonutis

Head of Trading
Mobile: +370 686 59222
Vaidotas.Jonutis@baltpool.eu
www.baltpool.eu