



THE FUTURE OF LIQUID HEATING FUELS

Putting the Pieces Together

MAY 20 & 27, 2021 VIRTUAL CONFERENCE

Presented by
europfuel
The European Heating Oil Association

NORA
NATIONAL OILHEAT RESEARCH ALLIANCE

The Road Forward

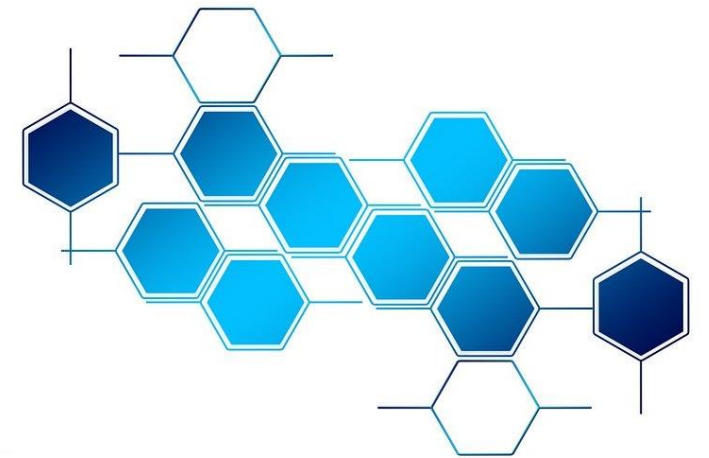
Moritz Bellinghen

Eurofuel



Motivation - why liquid fuels in future?

- Reliability
 - Easy transport and storage because of high energy density
 - Suitability for all building types
- Flexibility
 - No need for grids – can be supplied everywhere
 - Combines well with renewable energies (photovoltaic, solar thermal, biomass)
 - Boilers are ready to operate with low-carbon liquid fuels
- Affordability
 - Modernization of the heating system requires less (or no) modification of the building
- Efficiency
 - High efficient condensing boilers are on the market



Vision for liquid fuels in the heating sector

- Today 20 million households in Europe rely on heating oil
- Eurofuel is committed to technology-oriented solutions
- Greenhouse reduction via:
 - high efficient heating technology and thermal insulation
 - increased use of renewable energy sources
 - introduction of renewable fuels
- The goal is to reach the 2050 greenhouse gas emission targets set by the EU

HEATING WITH LIQUID FUELS CAN CONTRIBUTE TO THE SUCCESS OF THE ENERGY TRANSITION



Future perspective – a DHO roadmap to 2050



Data basis:

- Eurofuel data collection
- IEA, International Energy Agency
- Eurostat
- EHI, European Heating Industry

Boundary conditions

- The EU climate targets for existing buildings will be met (- 55 % CO₂ up to 2030, no CO₂ emission at 2050)
- The heating oil demand is reduced via efficiency, insulation, hybrid systems, renewable fuels and migration to other energy sources
- In 2050 only modernized “high efficient” heating systems are in operation



3 scenarios

Restrictive

- “Green Fuels” for heating are not accepted as a solution to reduce CO₂ emissions
- No level playing field for the different low CO₂ energy sources
- Bans, restrictions and no subsidies for CO₂ reduction with DHO

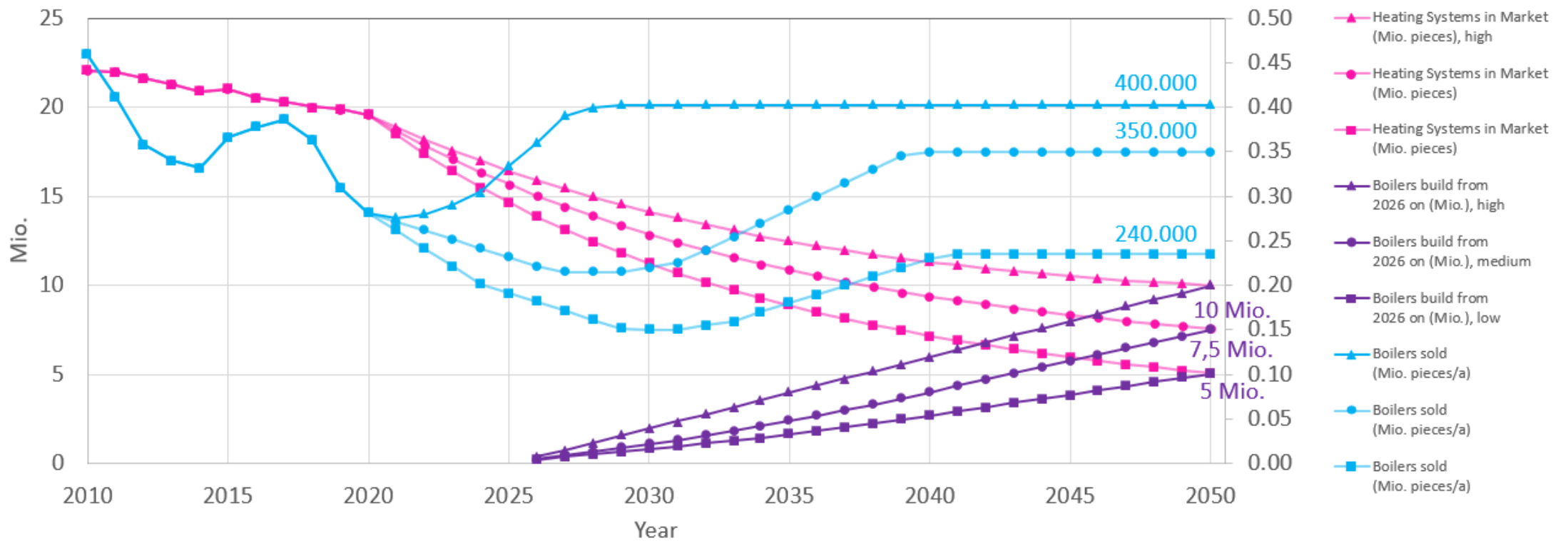
Business as usual

- No restrictions regarding the use of DHO
- No benefits for “green fuels”

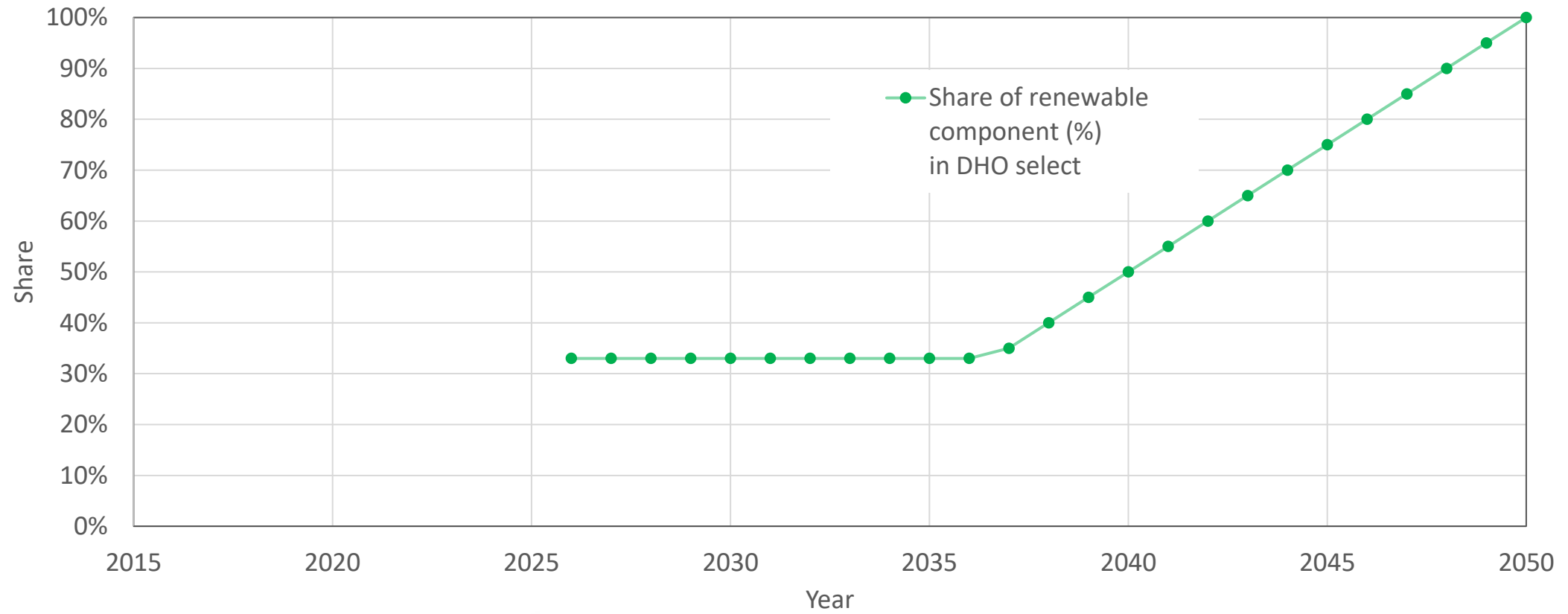
Enabling

- The need to use liquid energy sources was recognized
- “Green Fuels” are accepted as a solution to meet the climate targets
- incentives for the use of green fuels are granted, helping to create a business case for the new products (e. g. reduced energy tax)

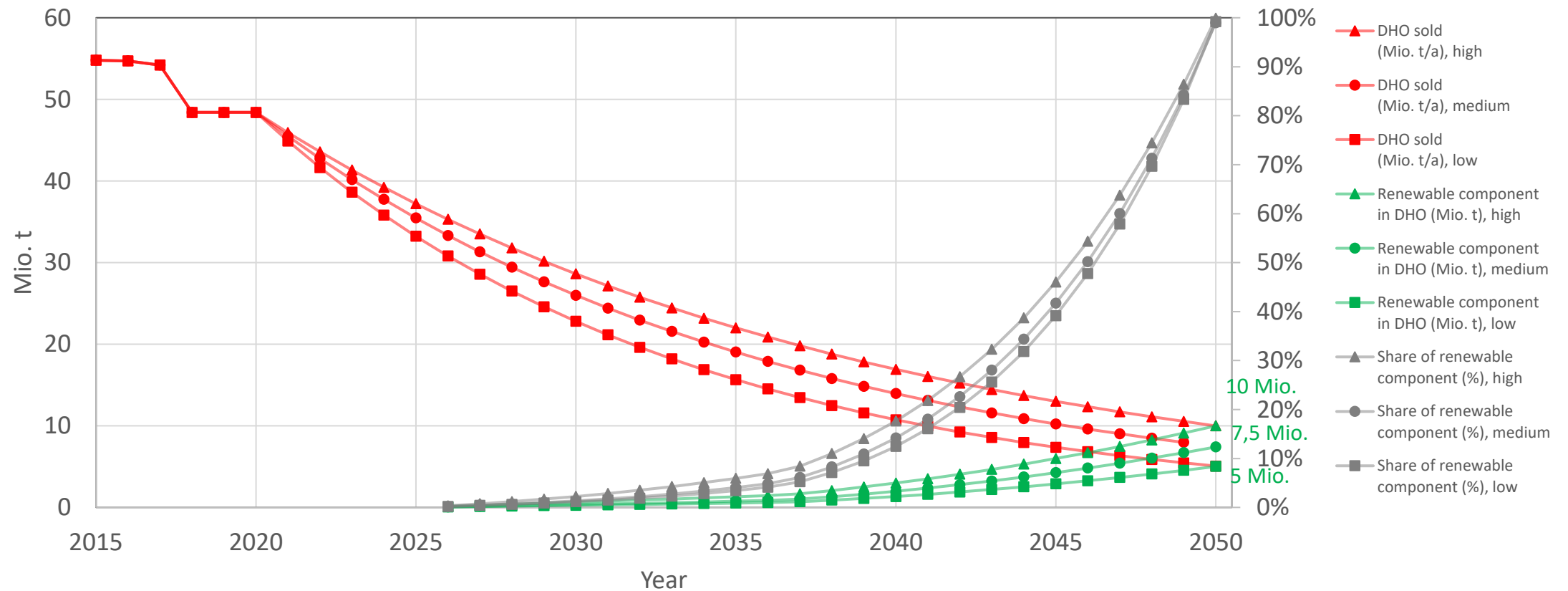
Number of heating systems – model calculation



Share of renewable component – model calculation

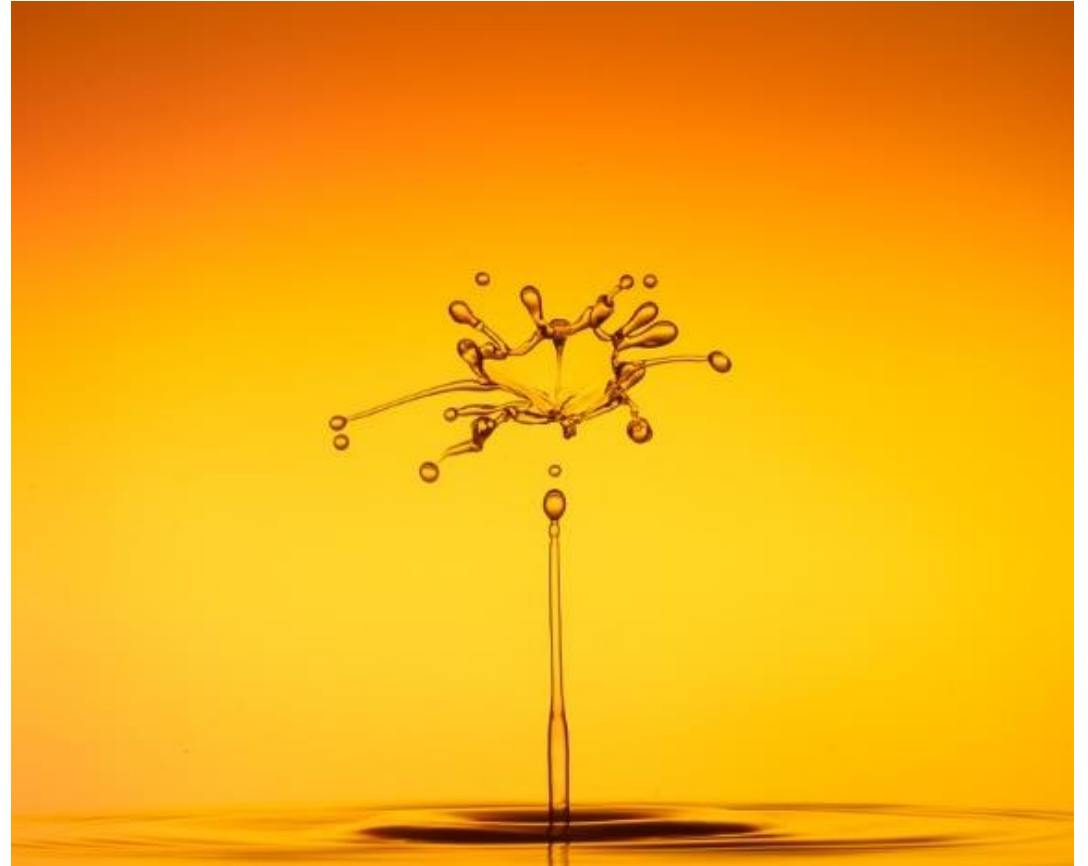


Total sales and renewable share – model calculation



Summary of example scenario “high” 10 – 10 – 0 until 2050

- The number of oil boilers in the market will be at a level of around 10 million systems in 2050
- The DHO market will be at app. 10 Mill. t DHO/year in 2050
- All oil heating systems will be supplied with 100 % renewable fuel with “0” CO₂-emission in 2050






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