

# District Heating

Latest EU policy developments and future outlook

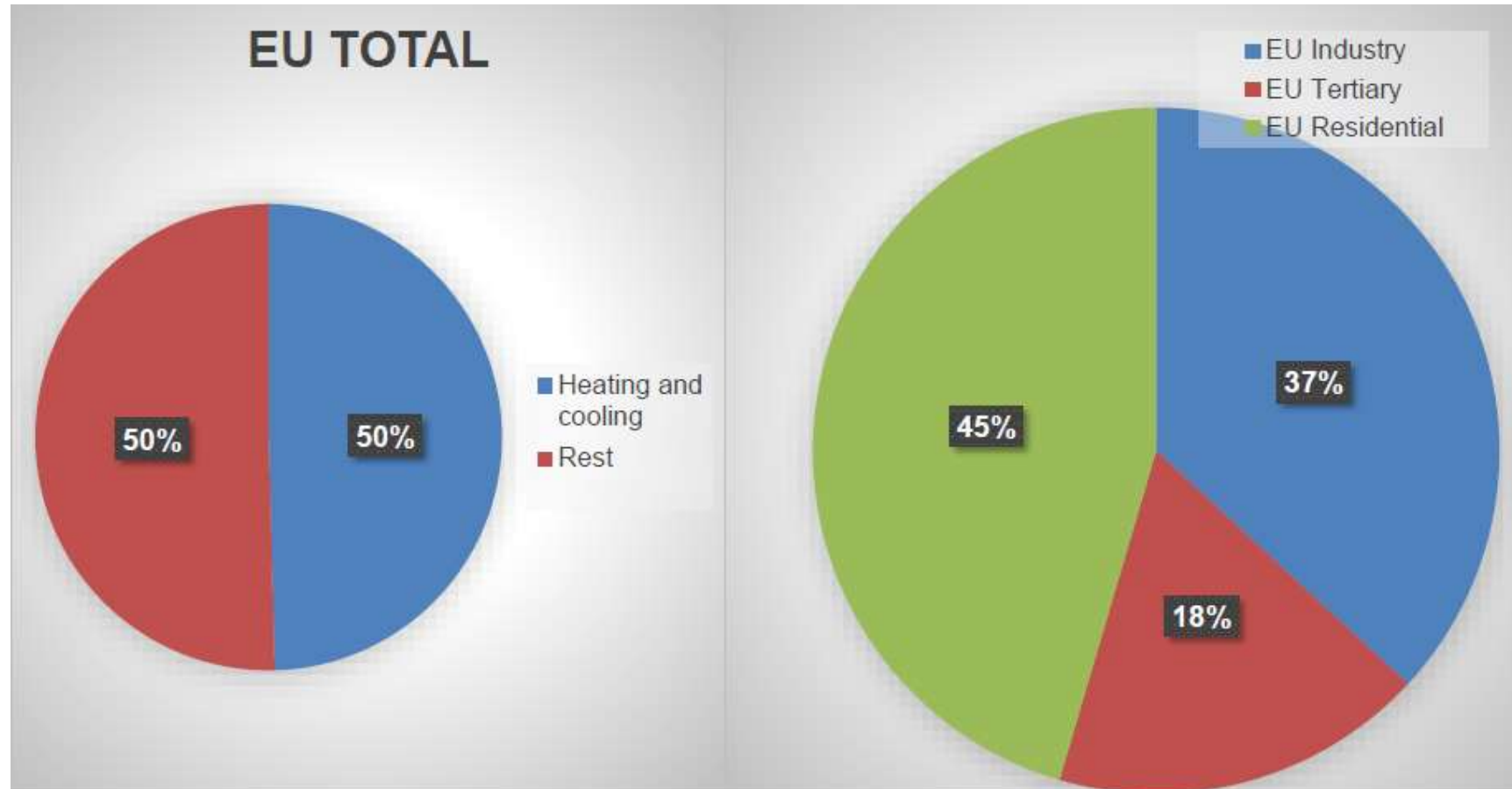
22 May 2018, Tallinn



# CONTENT

- Heating and cooling in the debate (a short flashback)
- The Clean Energy package for all Europeans, focus on the new Directive on Renewable Energy
- What is next ? and What role for District Heating?

# Heating & Cooling = 50% of EU Final Energy





Brussels, 16.2.2016  
COM(2016) 51 final

**COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN  
PARLIAMENT, THE COUNCIL, THE EUROPEAN ECONOMIC AND SOCIAL  
COMMITTEE AND THE COMMITTEE OF THE REGIONS**

**An EU Strategy on Heating and Cooling**

{SWD(2016) 24 final}

# EU heating and cooling strategy

- Heating and cooling will remain the biggest demand in 2050
- Current reliance on ‘obsolete fossil-fuel boilers’ is unsustainable
- A shift to reliance on RES and surplus heat is possible and necessary
- District heating will have a vital role to play in supply green heat and enabling integration of energy system
- CHP as central to increase generation efficiency, linking heating and cooling with electricity
- Potential of thermal storage, waste heat and cold



# EU Clean Energy for All Europeans package



- Published on November 30th, 2016
- [More than 4500 pages](#)
- [Sets the framework for 2030 with new targets on efficiency, CO2 reductions and share of Renewable Energies](#)
- Most important proposals for the district heating sector:
  - [Recast of the Renewable Energy Directive](#)
  - Revision of the Energy Efficiency Directive
  - Revision of the Energy Performance of Buildings Directive
- + 2016 Proposals on CO2 Emissions Reduction (Emission Trading and Effort Sharing Regulation)

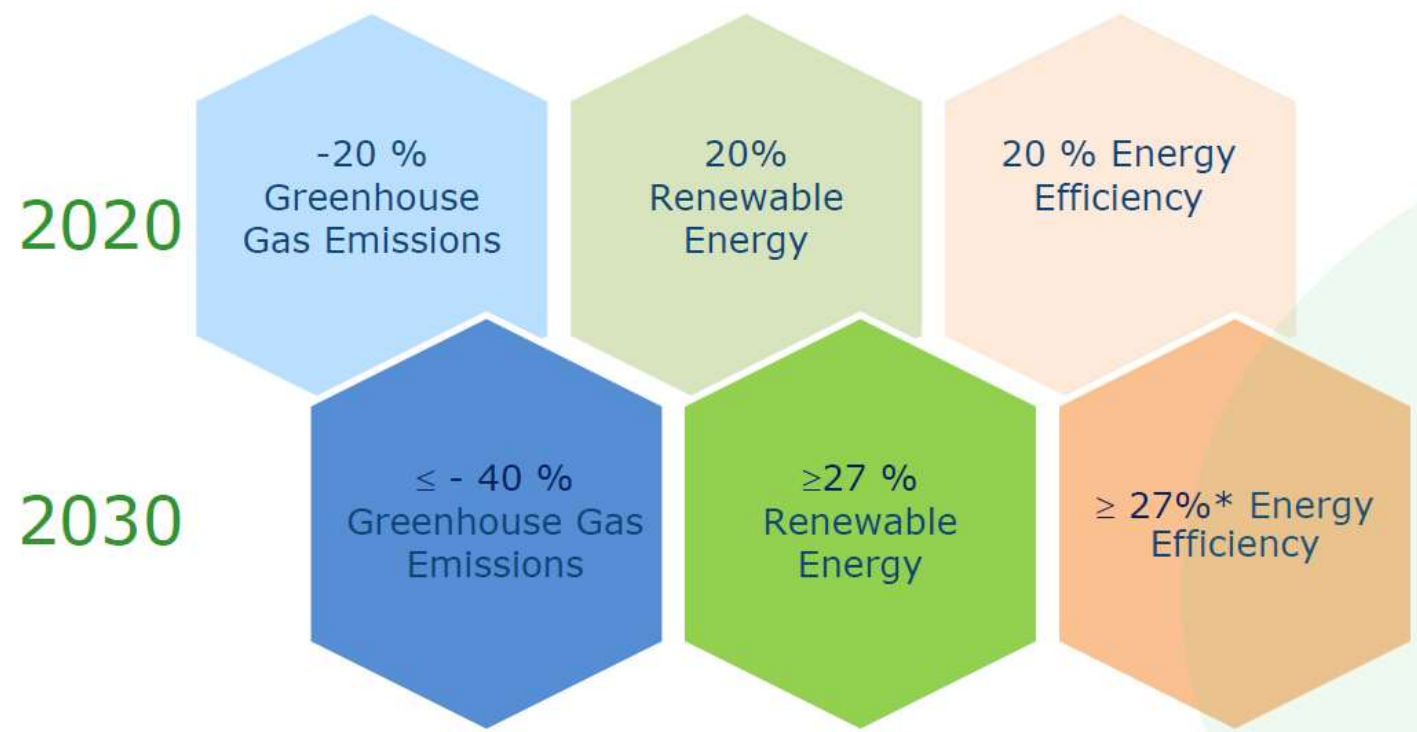




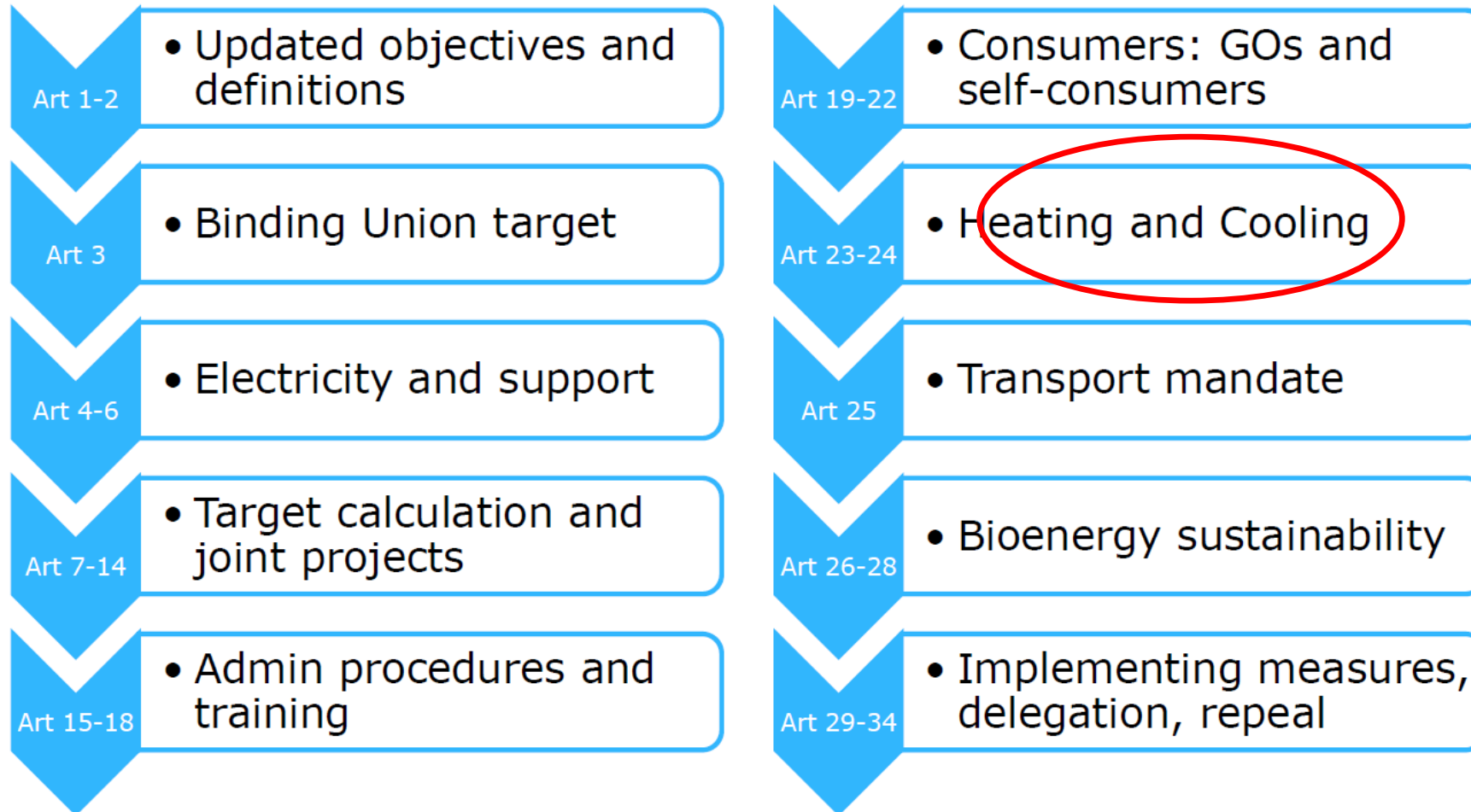




# The EU 2030 energy & climate framework

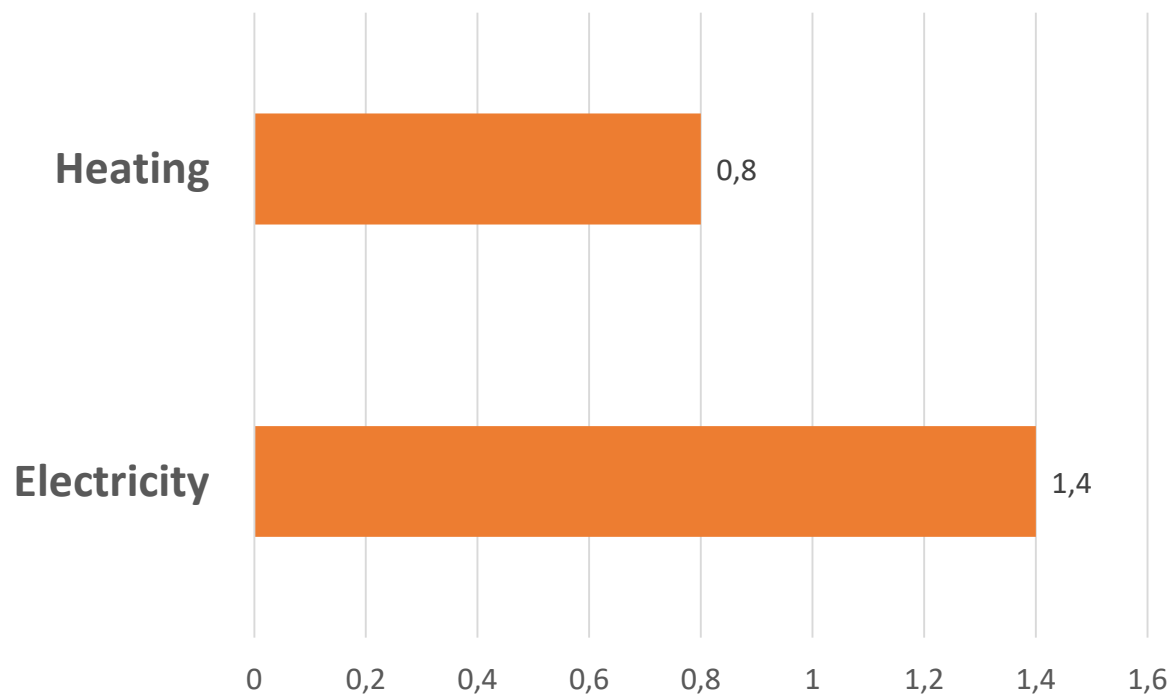


# New Directive on Renewables (Commission Proposal)

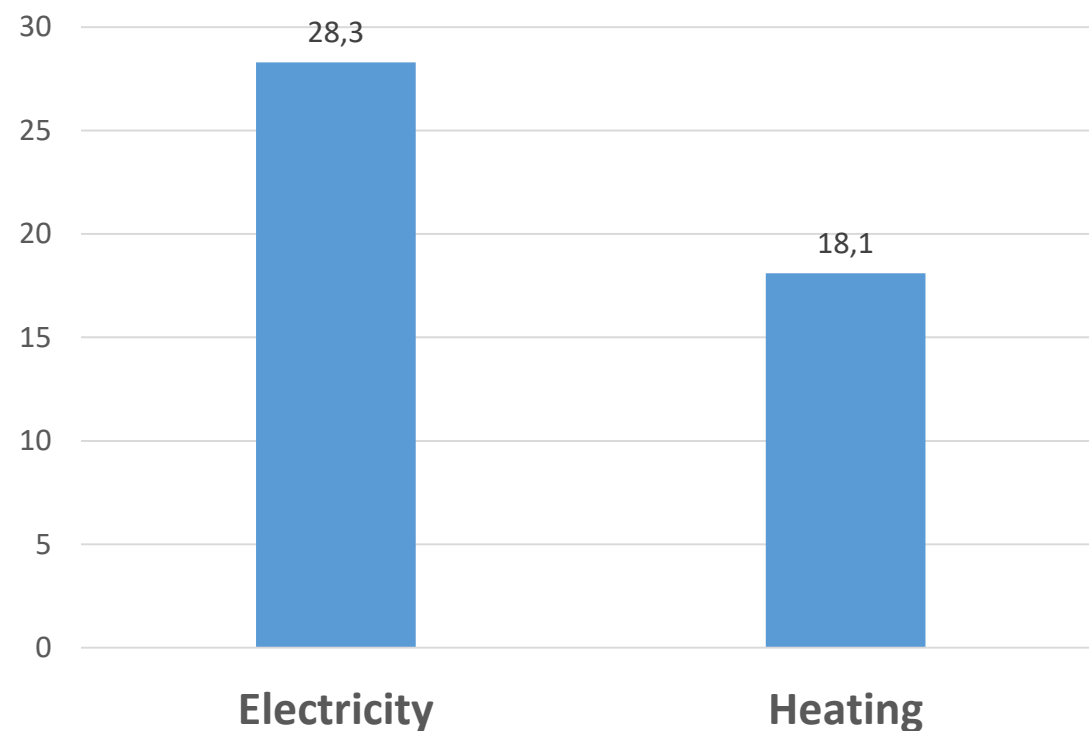


# Renewable heat lagging behind electricity

Annual RES share growth  
2004-2014 (%)



Total RES share 2015 (%)





# What does it change for heating? (Commission Proposal)

- Definition of Waste Heat
- Obligation for MS to increase share of RES Heat (art. 23)
- A whole new article on District Heating and Cooling (art.24):
  - Information for customers on fuel mix in and energy performance of District Heating
  - Right for customers to disconnect from non-efficient DH to produce renewable heat themselves
  - Right of Third-Party Producers to supply their own customers via the District Heating network (art. 24 (4, 5 and 6))
- Sustainability Criteria for Biomass

# Waste Heat

## Waste heat definition

Covers heat as a by-product  
from industry



Covers heat as a by-product  
from industry & tertiary  
sector

## RES heat target (art. 23)

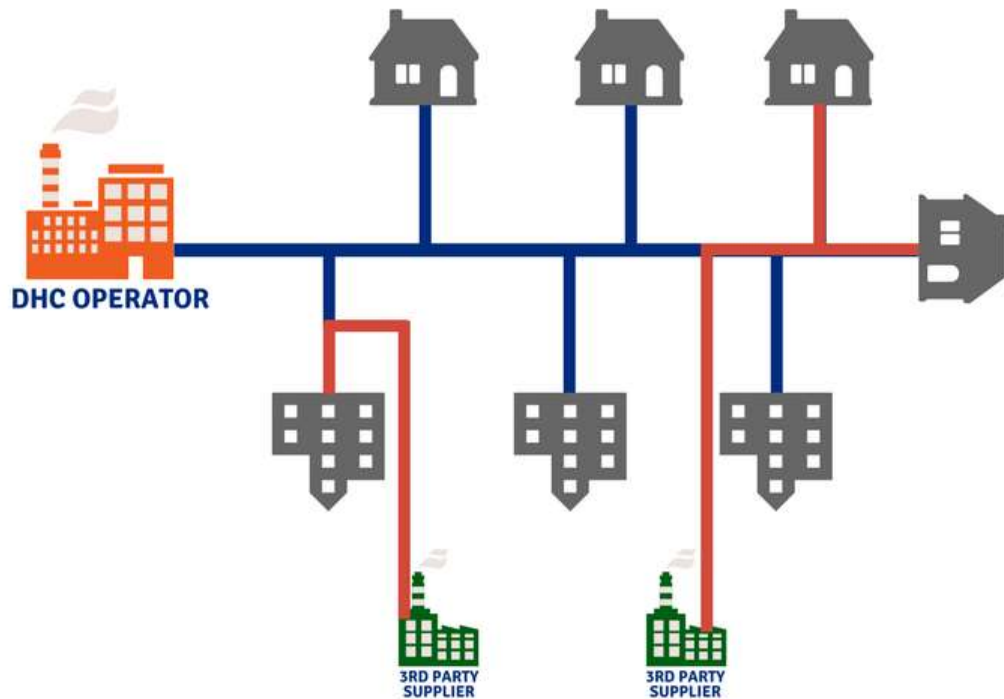
1% annual renewable heat  
target for EU Member State



Waste Heat as equivalent For  
Member States to meet their  
1% annual renewable heat  
target

# Third Party Access (art. 24 (4,5 and 6)): original proposal

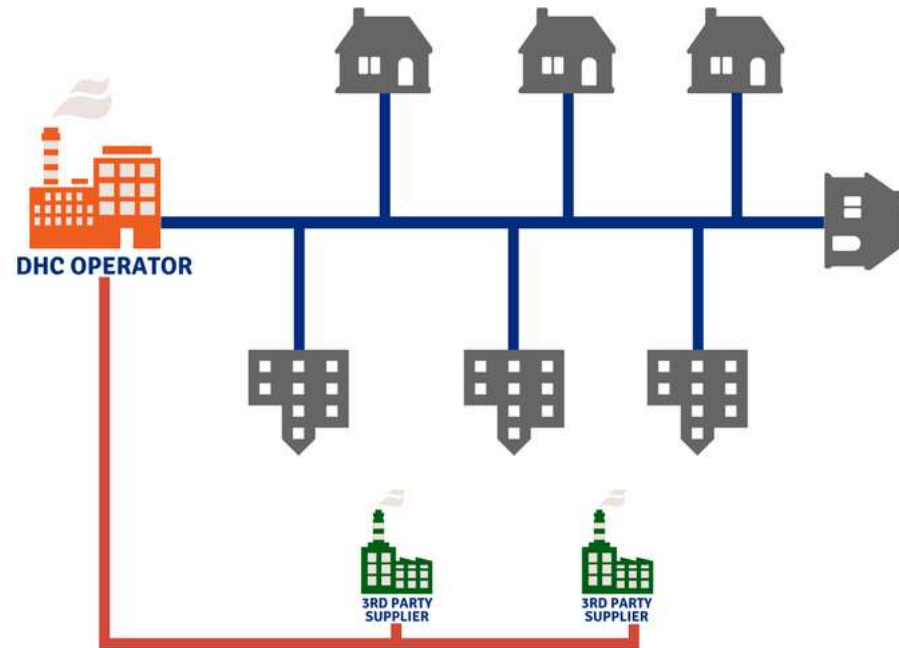
**Commission's proposal:** 3<sup>rd</sup> party RES heat suppliers allowed to provided heat directly to customers through the DHC network:





# Third Party Access: Shape of final text (final agreement expected June 2018)

**Compromise reached:** Single-buyer approach – all heat suppliers can operate in the market without distorting the functioning of the network



## Third Party Access: Final Shape of article 24

### Compromise reached

**Alternative: Member States can set out target to increase share of RES/Waste Heat in DHC systems (art. 24 (4a)) OR implement access to third parties (art.24(4b)). DHC operators can refuse to buy RES heat from 3<sup>rd</sup> party suppliers if:**

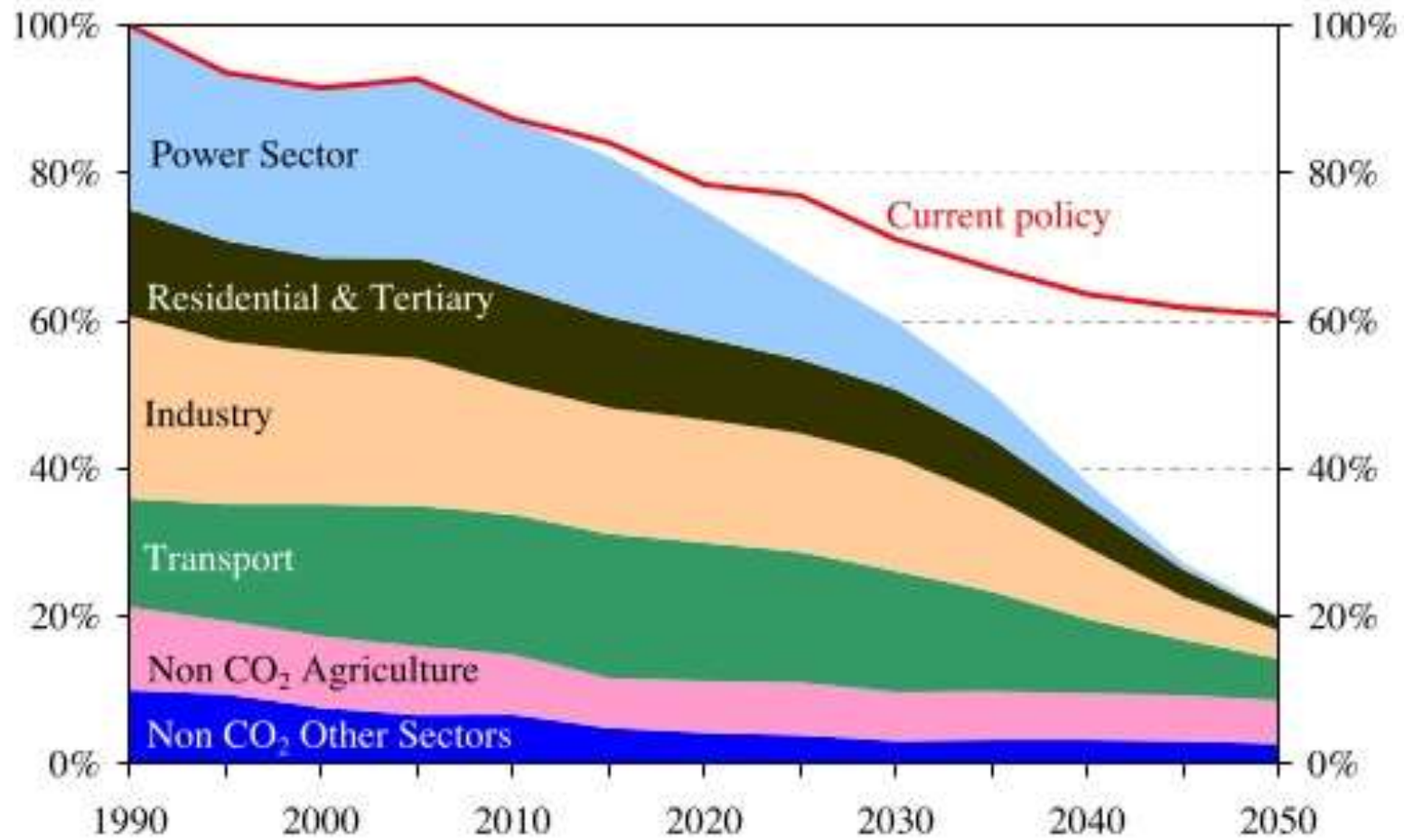
- It's not technically feasible
- It will lead to increased heat prices
- The network does not have capacity due to existing RES and/or heat
- It's an efficient DHC network (or going to be become one by 2025)

# Calendar RED

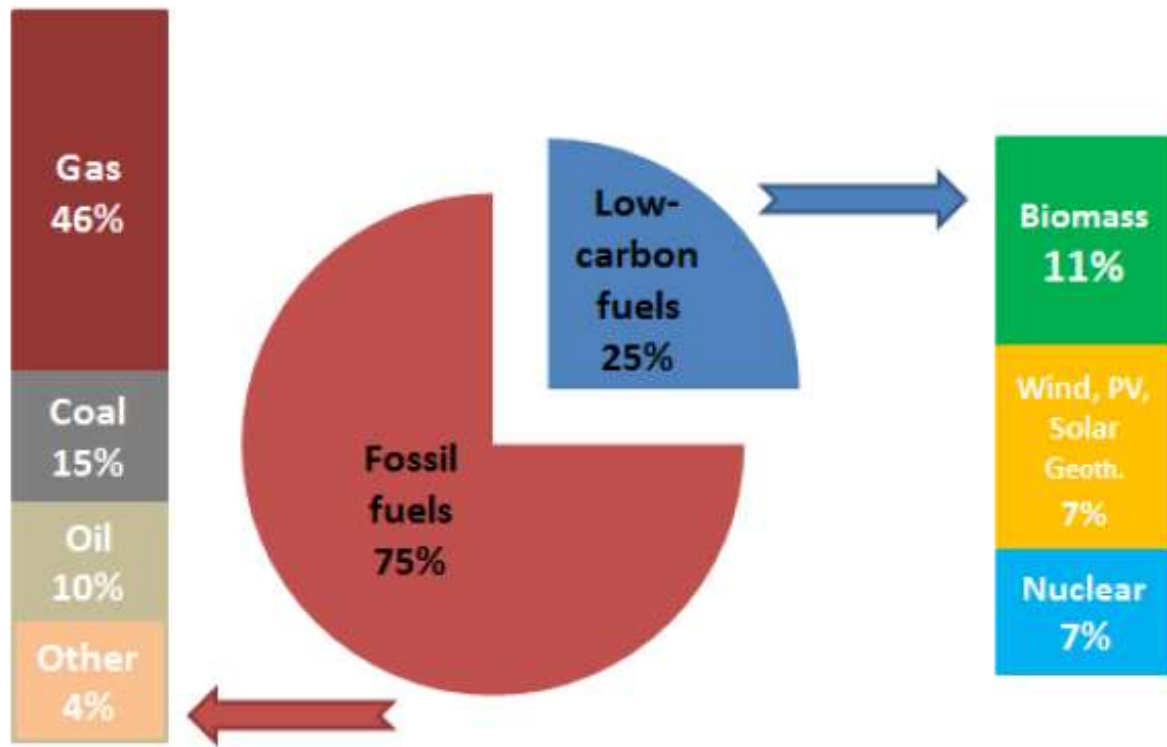




# What's next?



# Good news: Business as Usual is not an option !

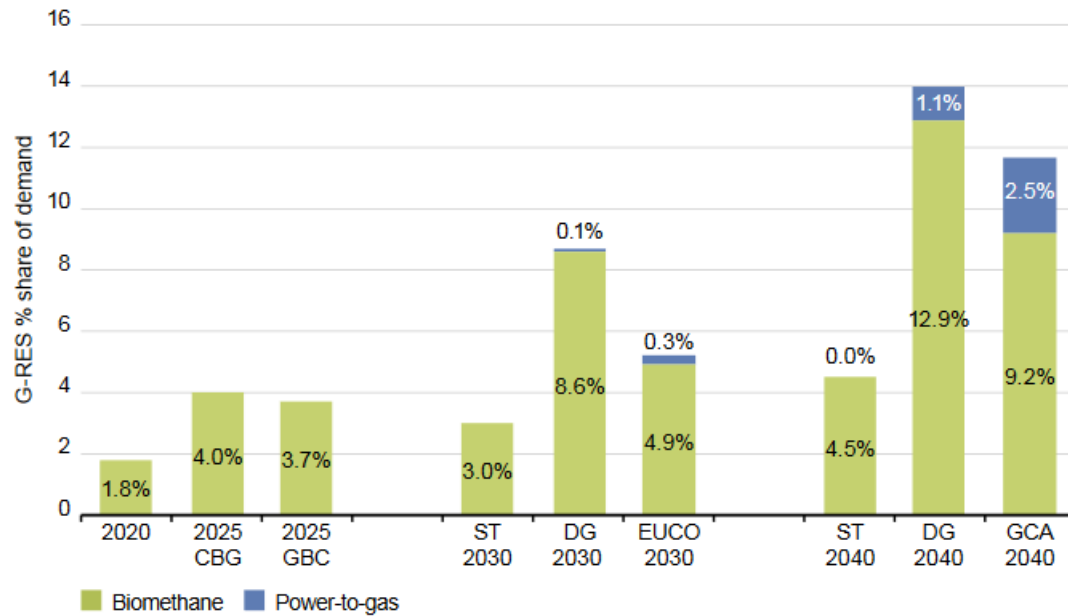


# What do we do with the H&C market?

- Is the electrification of everything the silver bullet?
- Zero-Energy Buildings
- [Green Gas?](#)
- What about District Heating?

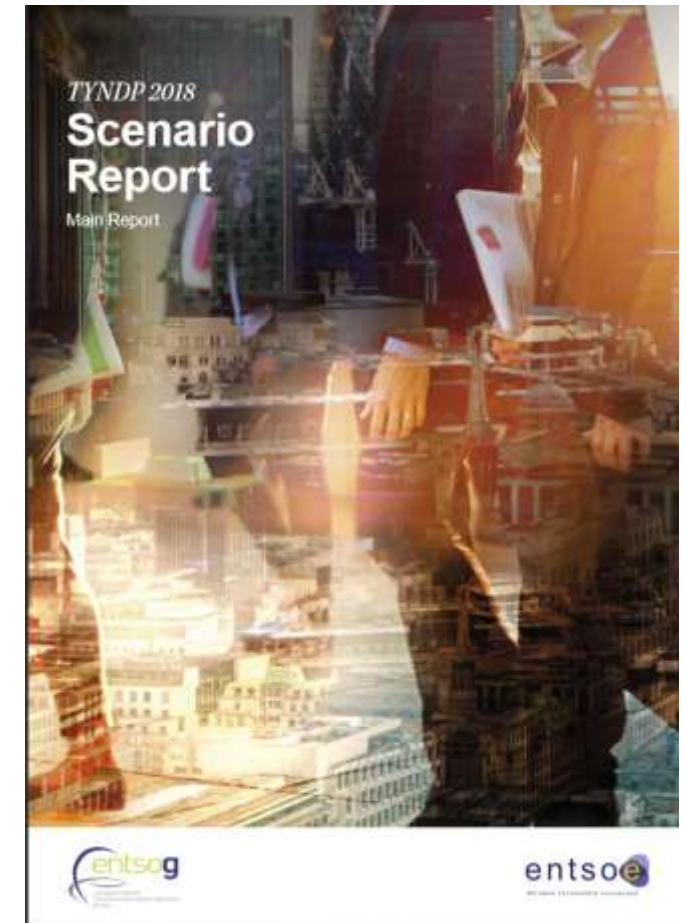
# What Potential for Green Gas? (source: European Network of Transmission System Operators for Gas)

Figure 12: Percentage share of green gas supplying total gas demand by scenario



Bio-methane development is strong in all scenarios and forms the majority of the green gas supply. The data represents the bio-methane injected into both the transmission and distribution networks and the potential for the upgrading of biogas sources across the EU may offer further gains.

This data has been revisited since the draft scenario report, following public consultation input that renewable gas had been underestimated. A combination of additional data from TSOs, along with a top-down methodology based on publicly available information on the current national development and future perspective and potential technical production level assumptions of biomethane in the EU.

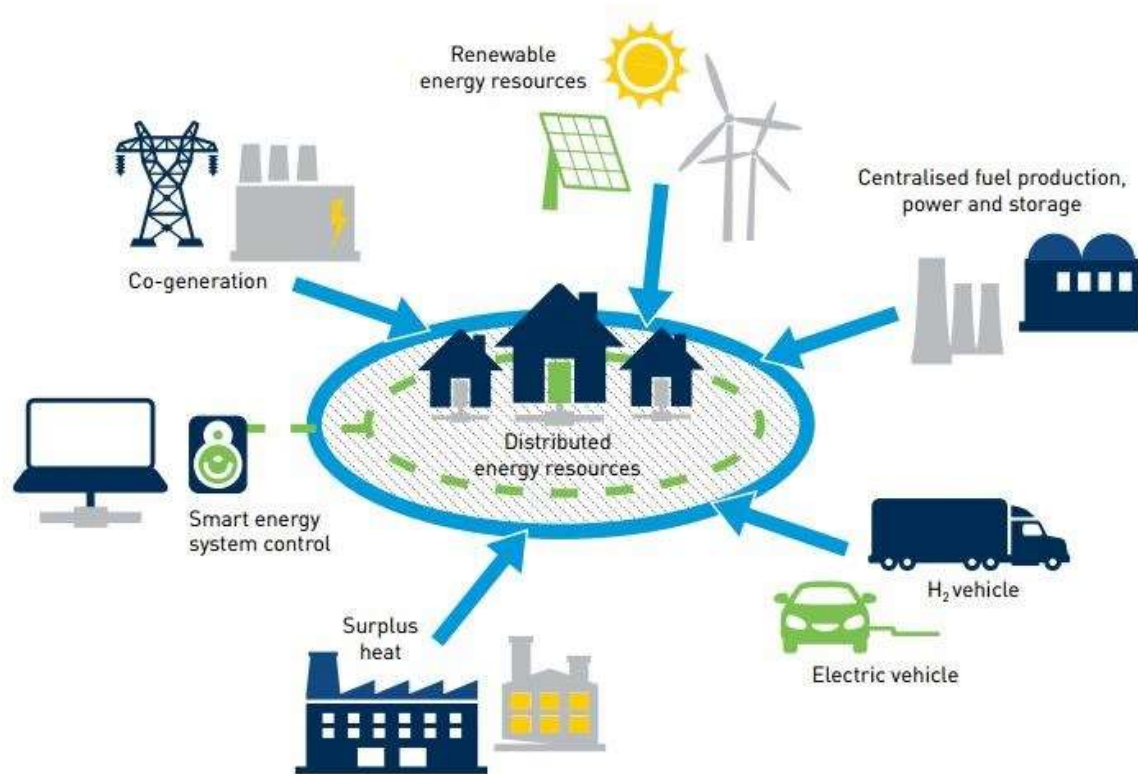








# District Heating: Efficient, Green and customer-focused



<sup>1</sup> - [http://vbn.aau.dk/files/78422810/Smart\\_Energy\\_Systems\\_Aalborg\\_University.pdf](http://vbn.aau.dk/files/78422810/Smart_Energy_Systems_Aalborg_University.pdf)

# Parting thoughts

The EU is excited about district energy! That's what we wanted

There will be more support (financial and regulatory) than in the past

District Heating is on the agenda

There is a huge opportunity here! Delivering sustainable heating and cooling to cities is a top priority.  
Nobody does it better than we do!

# MARK YOUR DIARY!

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