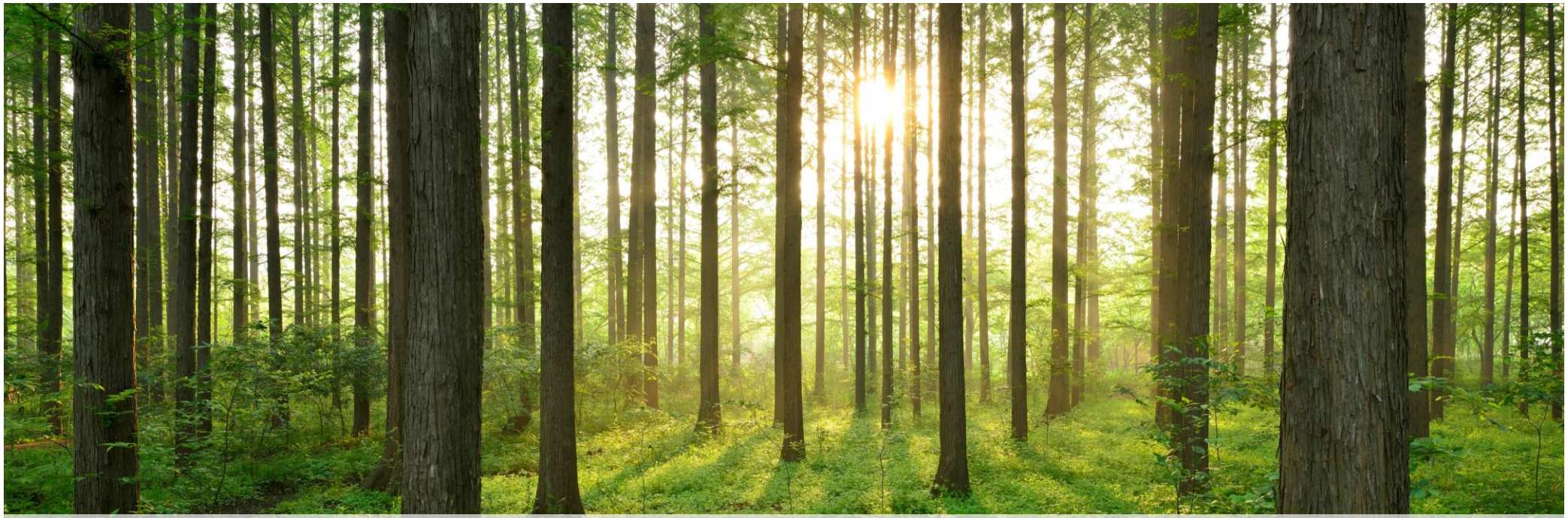


# Heating in Sweden

**Julia Kuylenstierna**
Programme director Heat and Power
julia.kuylenstierna@energiforsk.se

25th November
Berlin

Energiforsk

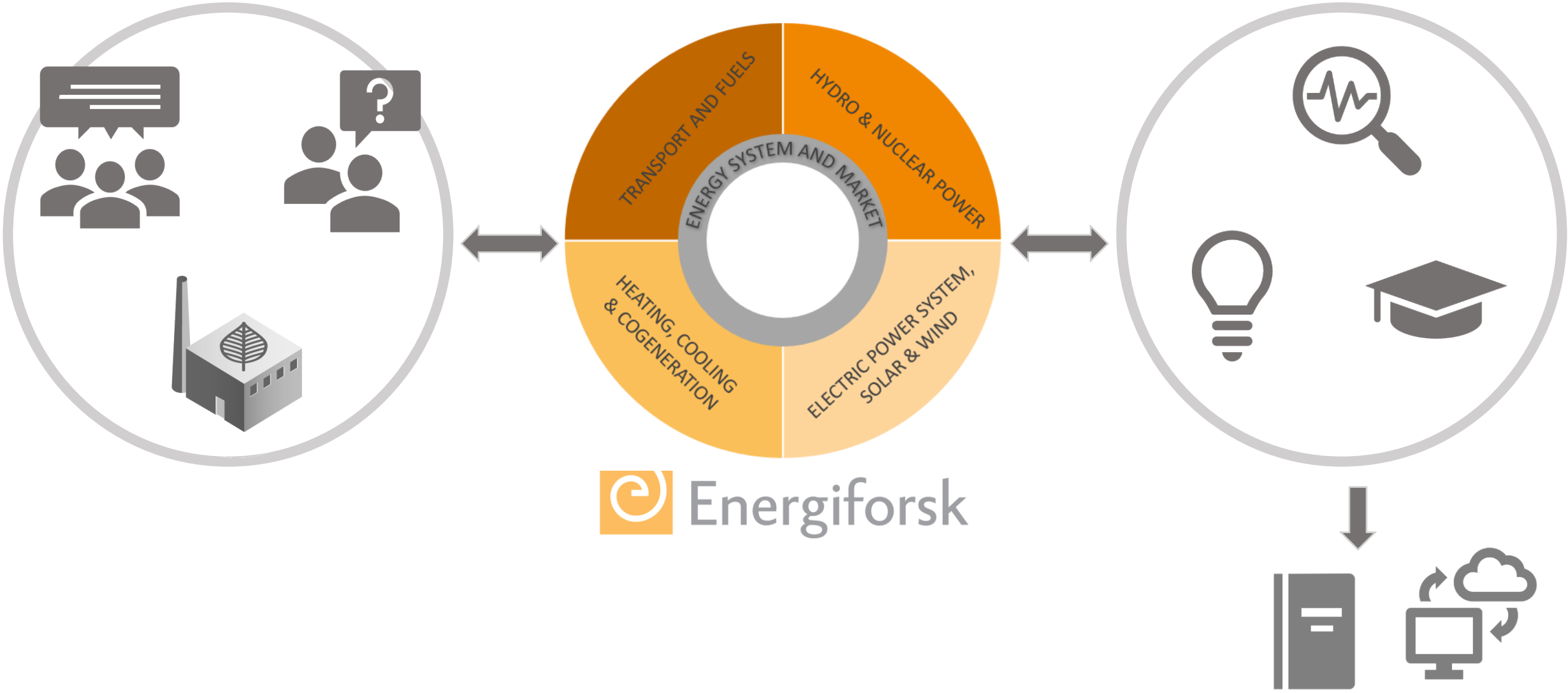
# Energiforsk

- The Swedish Energy Research Centre
- An industrially owned body dedicated to meet the common energy challenges faced by industries, authorities and society.
- We are impartially working for the benefit of future energy systems
- Our vision is to be hub of Swedish energy research and our mission is to make the world of energy smarter!

Julia.kuylenstierna@energiforsk.se

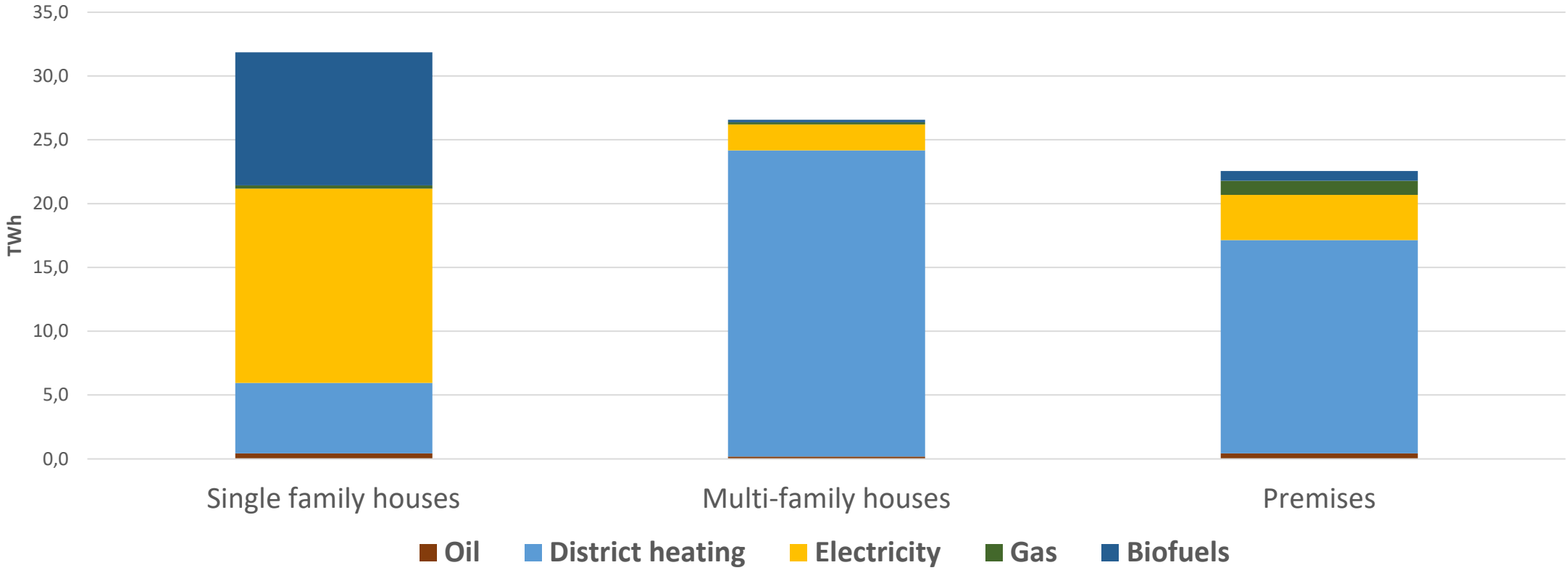


Energiforsk




Julia Kuylenstierna julia.kuylenstierna@energiforsk.se

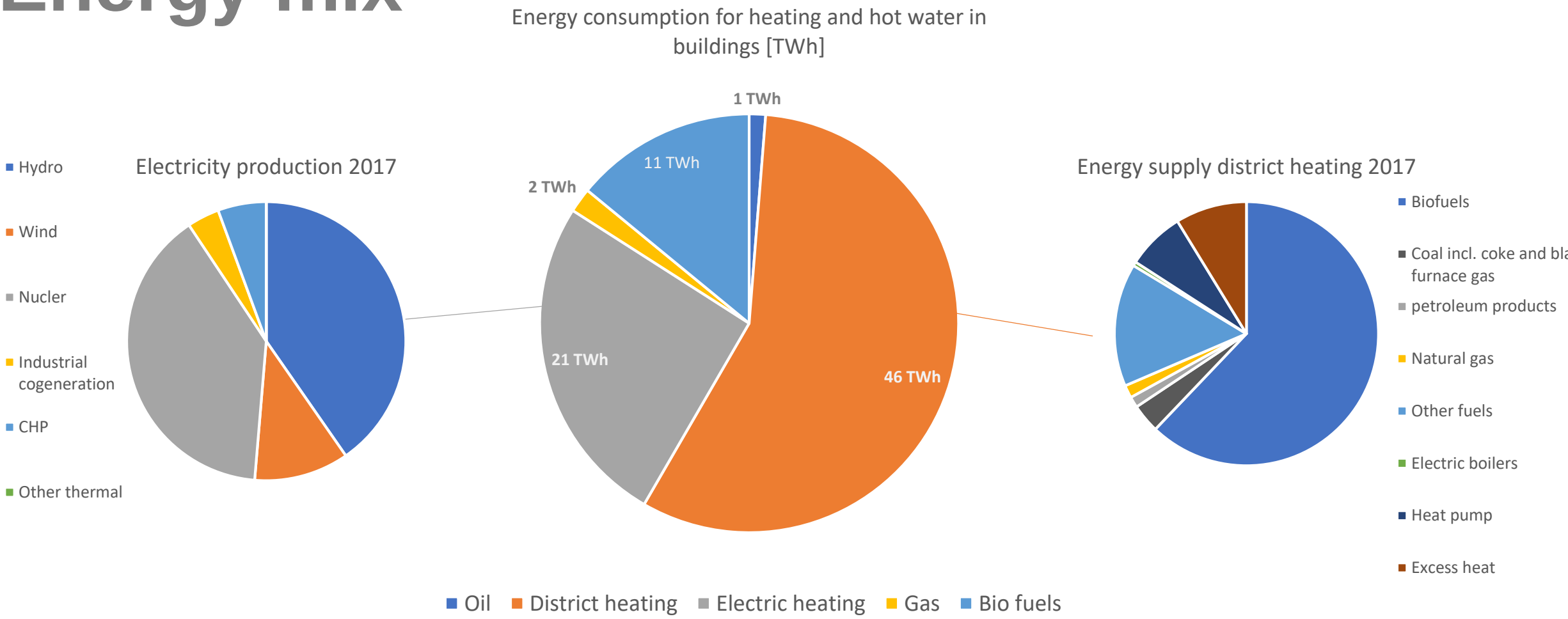
# Energy use for heating and hot water production 2017




Swedish Energy Agency 2019 "*Energiläget i siffror 2019*"

Energiforsk

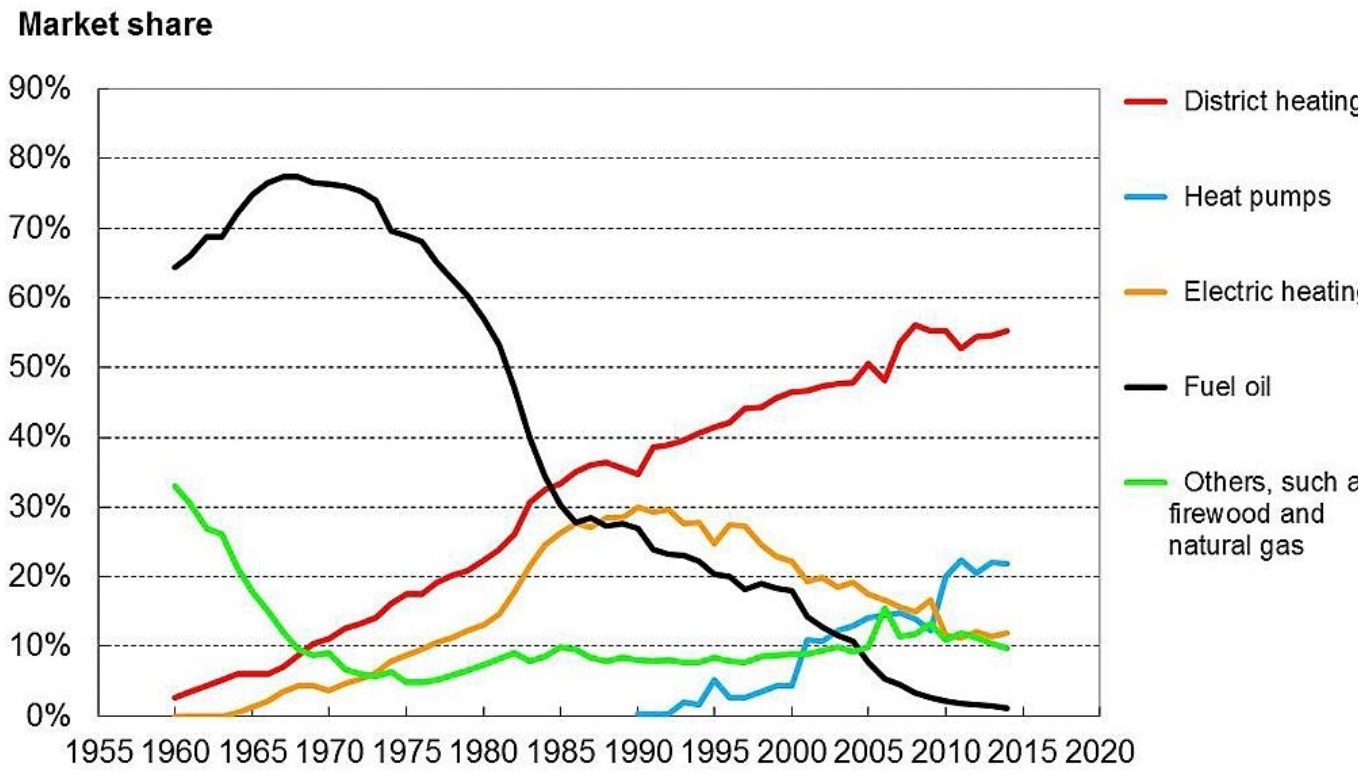
# Energy mix

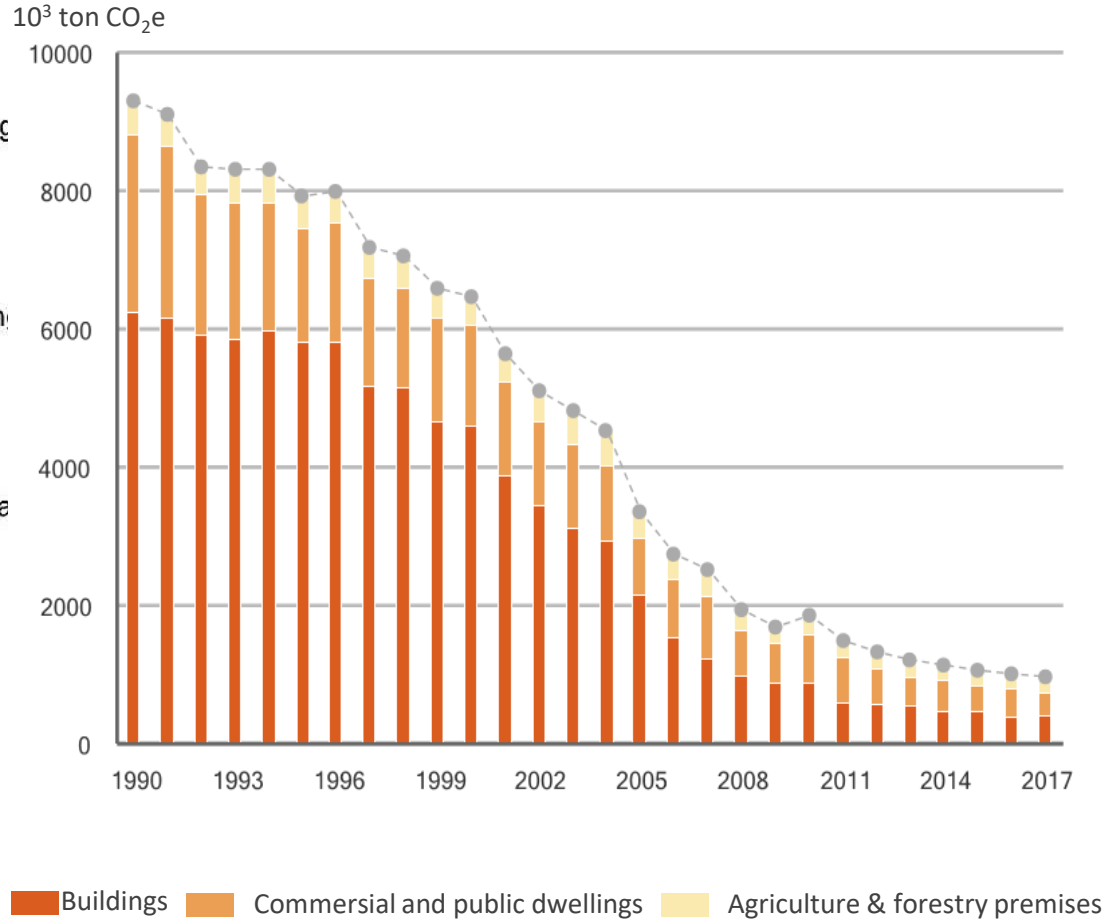



Swedish Energy Agency 2019 "*Energiläget i siffror 2019*"

Energiforsk

# Market shares and $CO_2e$ emissions



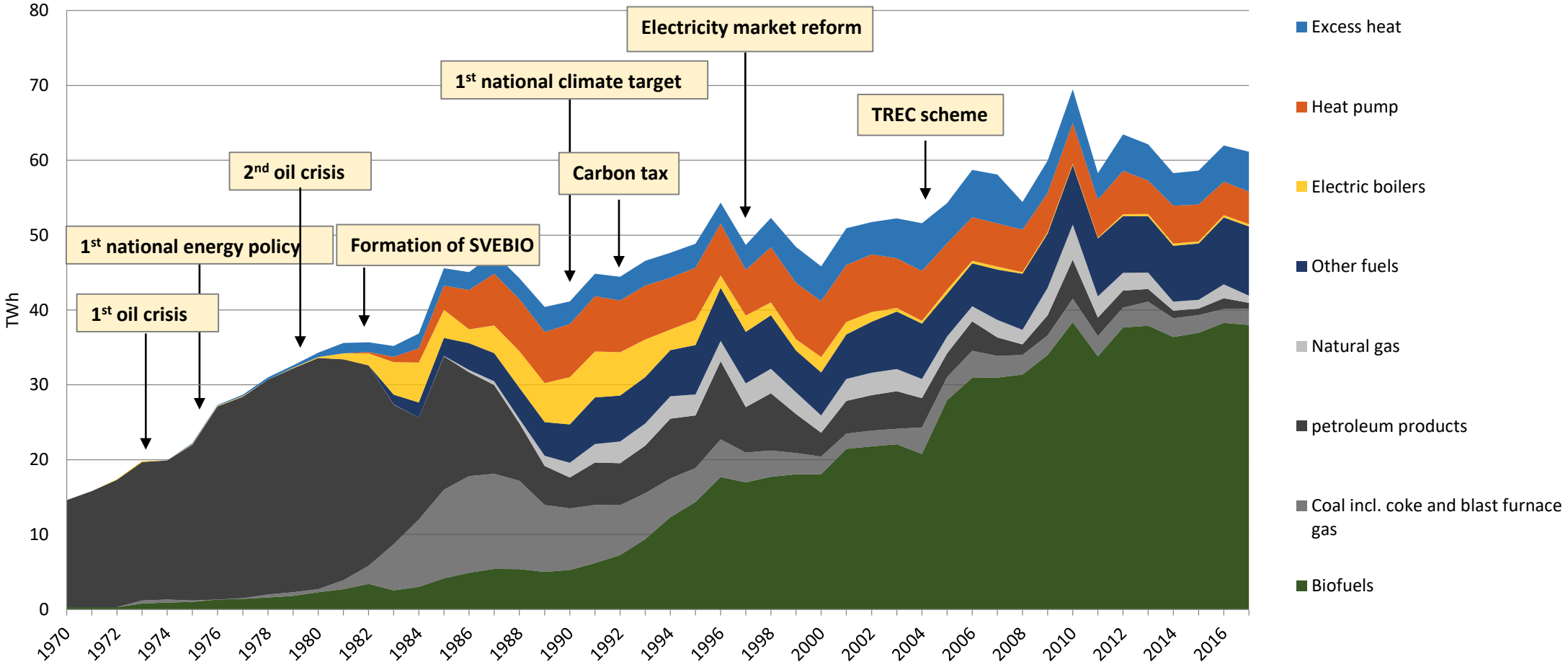




Werner, Sven. 2017 *District heating and cooling in Sweden*

Naturvårdsverket 2018
https://www.naturvardsverket.se/Sa-mar-miljon/Statistik-A-O/Vaxthusgaser-utslapp-fran-uppvarmning-av-bostader-och-lokaler/

# Transformation of the district heating energy mix

Energy supplied for district heating production since 1970




Di Lucia, Lorenzo; Ericsson, Karin 2014 *Low-carbon district heating in Sweden – Examining a successful energy transition*
Swedish Energy Agency 2019 *Energiläget I siffror 2019*

Energiforsk

# Future

By 2045, Sweden will have no net emissions of greenhouse gases into the atmosphere

Swedish Government

The heating sector will be fossil-fuel-free in 2030.
By 2045, the sector will be a carbon sink, which will help reduce total Swedish greenhouse gas emissions.
Collaboration is an important means of achieving the transition.

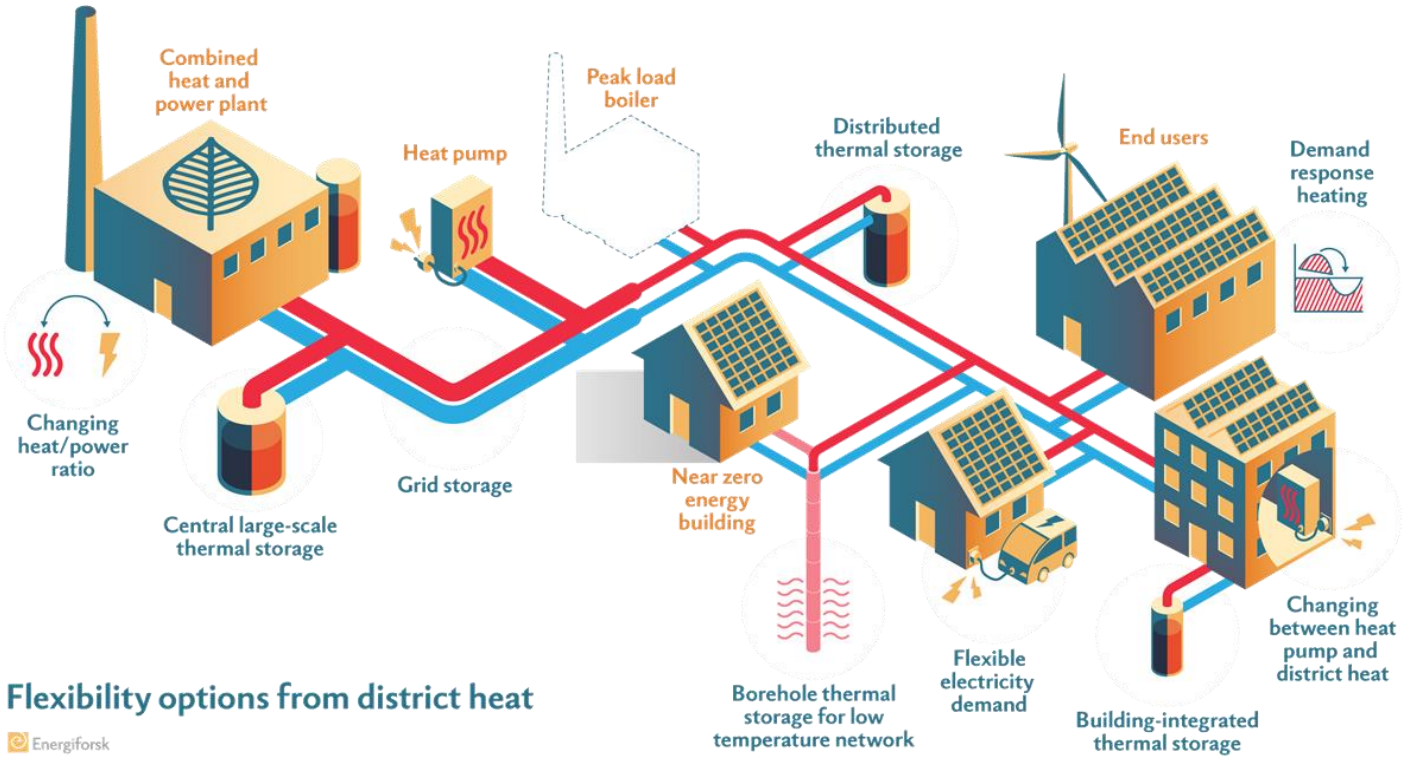
Fossil Free Sweden. Roadmap: The Heating Sector


Energiforsk

# FutureHeat

*The long-term goal of the research is to contribute to the vision of a sustainable heating system.*

*A system of successful companies that utilize new technological opportunities and where the investments made in district energy are utilized in the best way. Solutions that are cost-effective and adapted to today's and tomorrow's systems will be a priority area in research*




Energiforsk