

Energy Developments in Baltic States in 2011
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EU and Nordic perspectives on District Heating

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Energy landscape

Climate change

Environment

Security of supply

Inefficiency of energy markets

Recession

Energy revolution

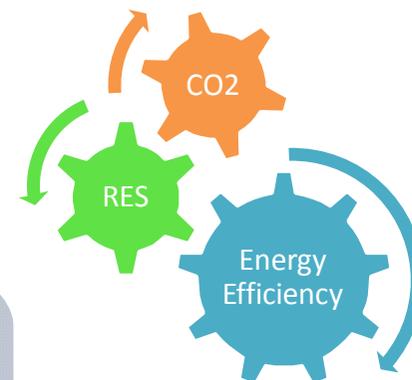
Limit temperature rise
to 2° C

By
2020

- Reduce CO2 by 20% or 30%
- Improve energy efficiency by 20%
- Increase renewables to 20% (3/4 to come from biomass)
- Increase biofuels to 10%

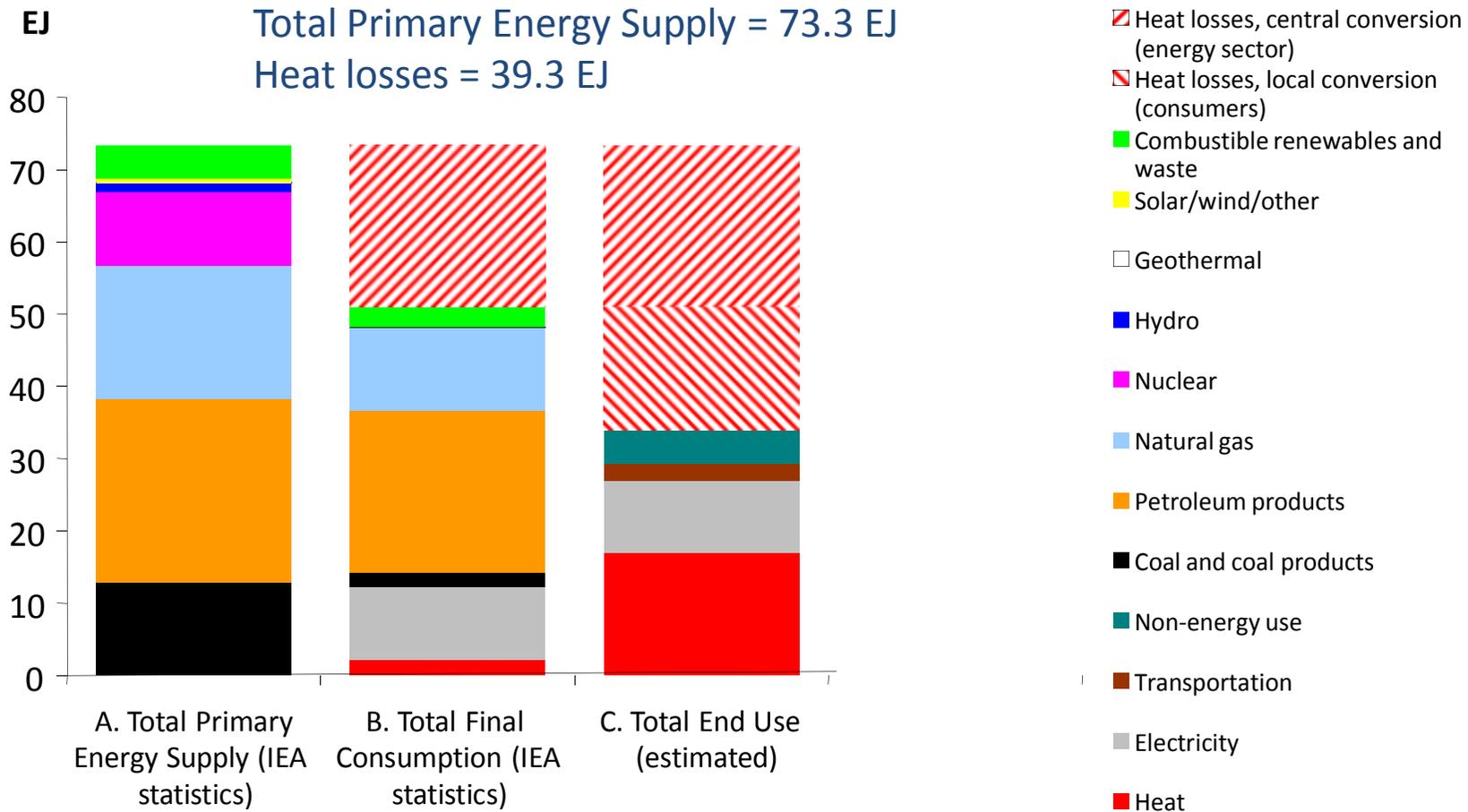
By
2050

- Reduce CO2 by 80%
- 100% carbon free electricity



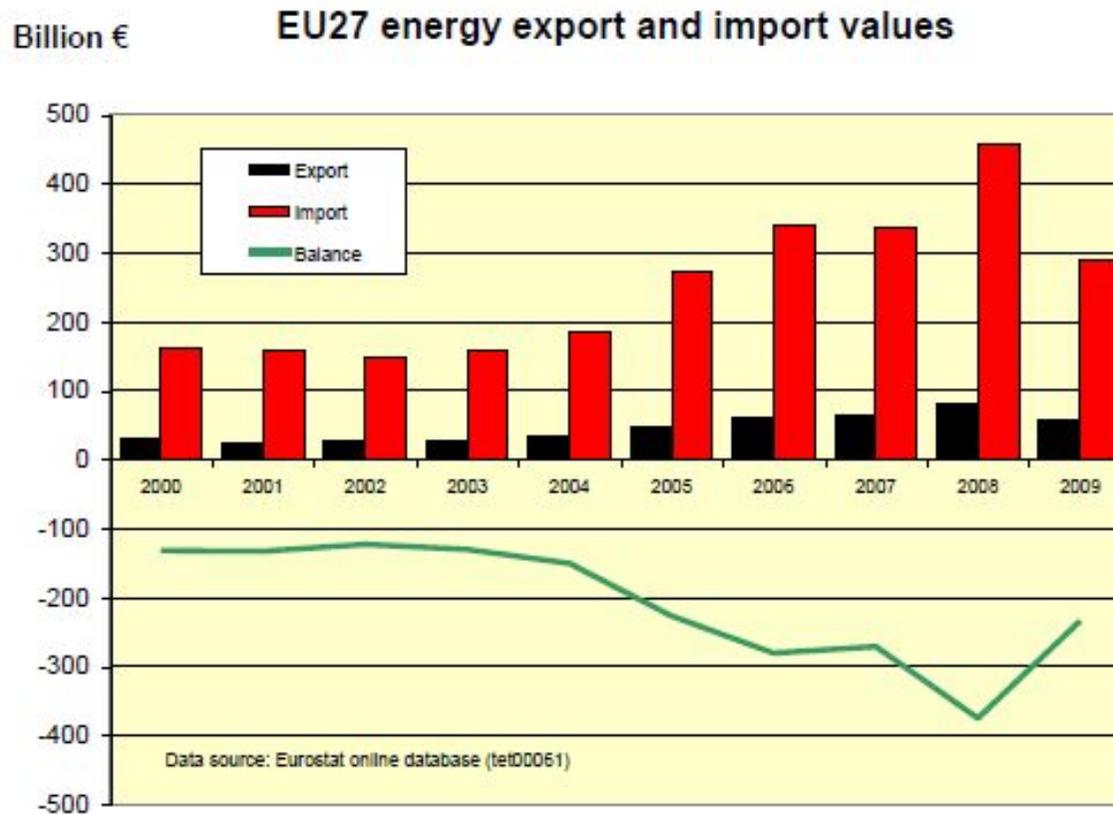
Europe's energy

European Union - 27 during 2008
 Total Primary Energy Supply = 73.3 EJ
 Heat losses = 39.3 EJ

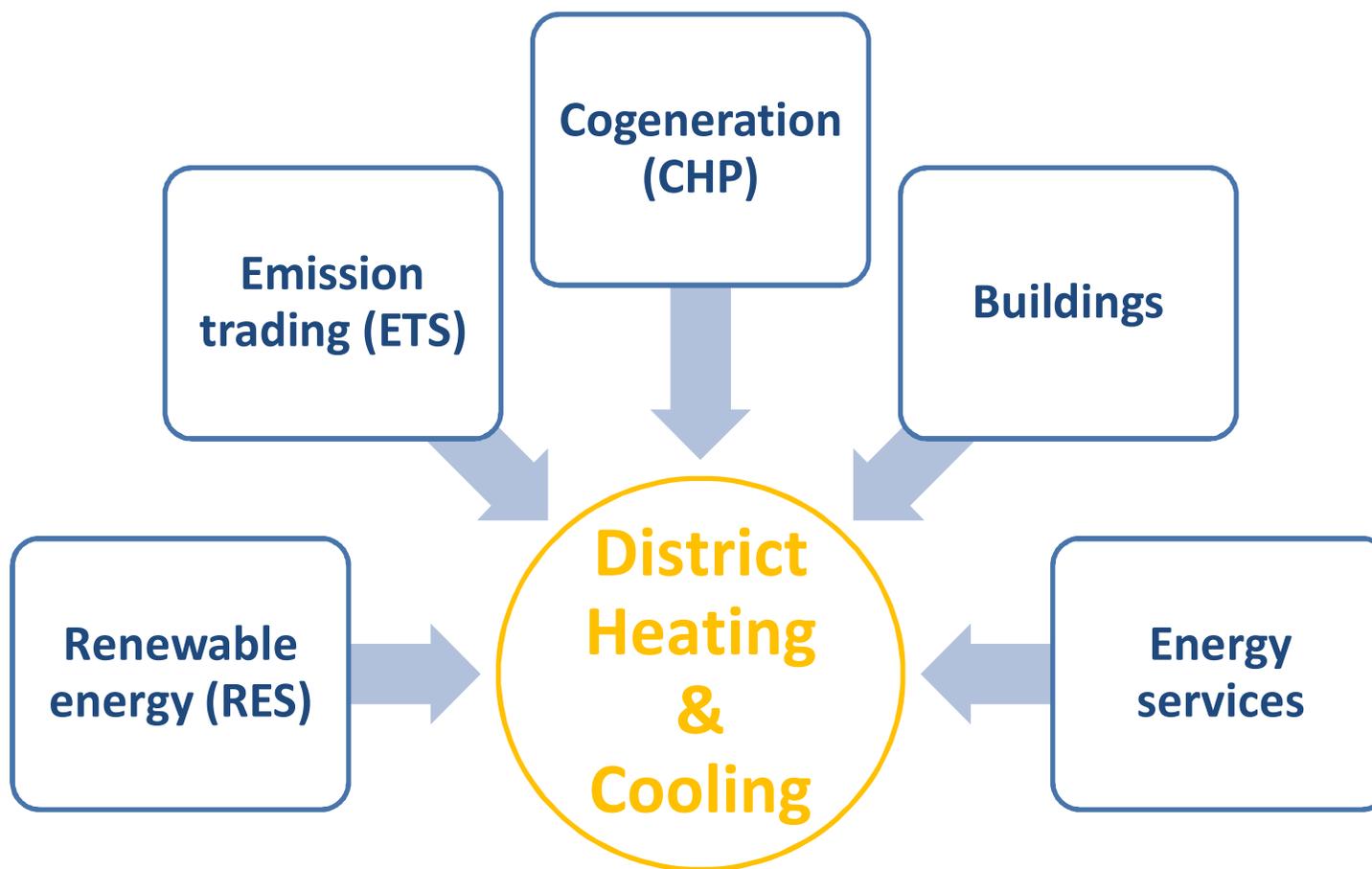


Europe's loosing money

The 2008 energy system heat losses before end use of 39.3 EJ has now a market value of 480 billion € (valued with the current crude oil price of 97 \$/barrel)



Current EU framework



What kind of future?

Renewable energy before
energy efficiency?

Savings in end-use or
saving primary energy?

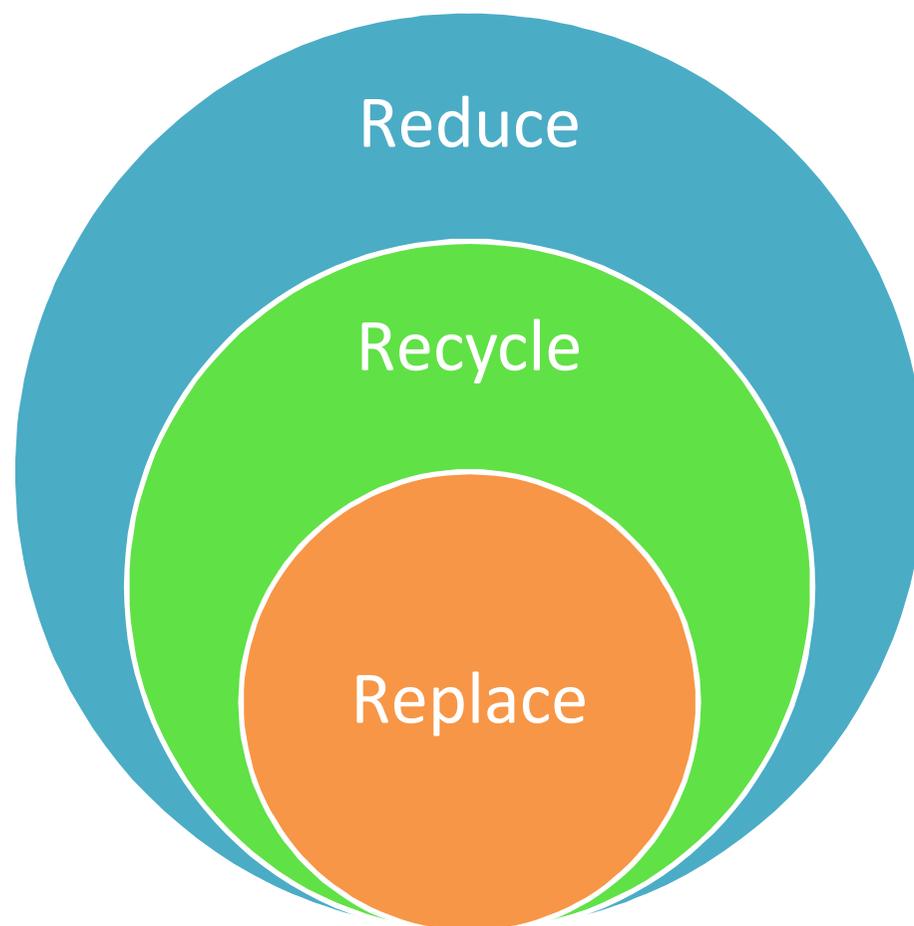
More interconnections
and more gas
or using surplus heat
and renewables
to avoid energy import?



Individually
or together?

Heating and cooling only
with CO2-free electricity?

Energy hierarchy



Our recommendations

European heating and cooling strategy

Focus on savings of primary energy

Not competition but equality between energy efficiency and renewables

Eco-districts rather than individual bonfires

CO₂-taxation outside emission trading

Equal focus on DHC in infrastructure policy

EU Energy summit 2011

The 2020 20% energy efficiency target as agreed by the June 2010 European Council, which is presently not on track, must be delivered.

The Council is invited to promptly examine the upcoming Commission proposal for a new Energy Efficiency Plan, setting out in more detail a series of policies and measures across the full energy supply chain.

The Commission is invited to table new initiatives on smart grids, including those linked to the development of clean vehicles, energy storage, sustainable bio fuels and energy saving solutions for cities

Energy infrastructure

2.3 District heating and cooling networks

Thermal power generation often leads to conversion losses while at the same time natural resources are consumed nearby to produce heating or cooling in separate systems. This is both inefficient and costly. Similarly, natural sources, such as sea- or groundwater, are seldom used for cooling despite the cost savings involved. The development and modernisation of district heating and cooling networks should therefore be promoted as a matter of priority in all larger agglomerations where local or regional conditions can justify it in terms of, notably heating or cooling needs, existing or planned infrastructures and generation mix etc.

COM(2010) 677 final: Energy infrastructure priorities for 2020 and beyond -
A Blueprint for an integrated European energy network

2050 Energy roadmap

The built environment

...shifting energy consumption towards low carbon electricity (including heat pumps and storage heaters) and renewable energy (e.g. solar heating, biogas, biomass), also provided through district heating systems, would help to protect consumers against rising fossil fuel prices and bring significant health benefits.

COM(2011) 112 final : A Roadmap for moving to a competitive low carbon economy in 2050

Energy efficiency action plan

Efficient generation of heat and electricity (page 8)

...effective recovery of heat losses from electricity and industrial..
...since unused energy saving potential is far from being exhausted and could cover a significant part of the thermal energy needs e.g. for heating and cooling,
...boosting local resources and displacing imported energy in many instances.
...integrated, crosscutting approach
...cheap, clean and convenient thermal supply services using recovered waste heat.
...Greater use of (high-efficiency) cogeneration,
...where there is a sufficient potential demand...authorisation for new thermal power generation should be conditional on its being combined with systems allowing the heat to be used

**But little of
binding nature!**

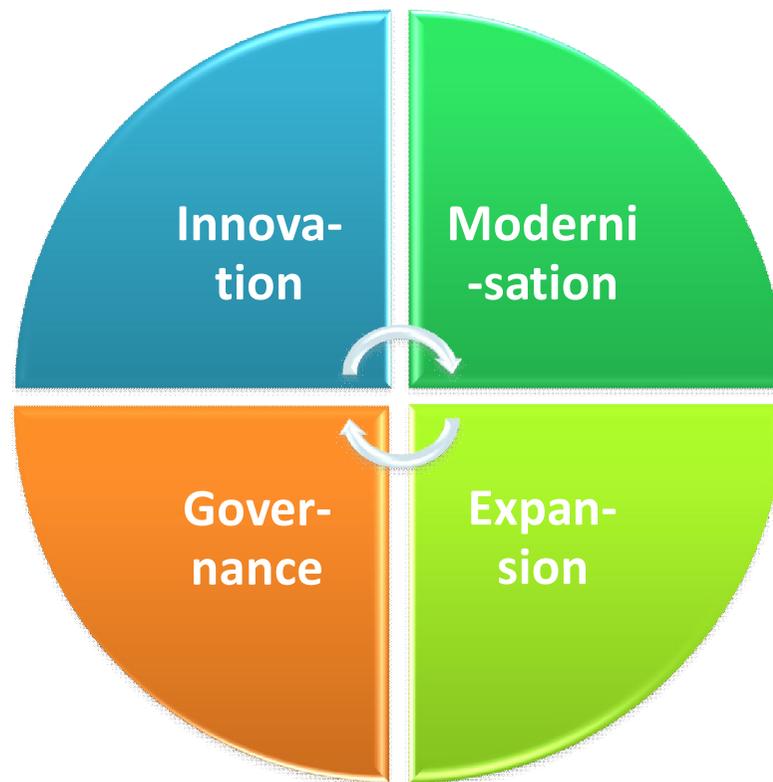
Tackling heat use in buildings (page 6)

...heat consumption in buildings will be of prime importance in the coming years.
...possibilities to promote the use of district heating in the context of integrated urban planning.

Empowering new consumers with new technology (page 14)

...It is important to ensure
...develop in other networks, such as heat, cooling and gas, and that these intelligent networks all contribute to build a well-functioning, interoperable market for energy efficiency services.

Our responsibility



To grow DHC

Ecoheat4eu

The Ecoheat4EU project was devised with the aim of supporting the creation of well-balanced and effective legislative mechanisms to foster the development of modern district heating and cooling throughout Europe, and more specifically, in the fourteen countries targeted by the project. www.ecoheat4.eu

Country-by-country
Database



District Heating
Barometer



Barriers

Short term investment preferred

Inappropriate legal frameworks

Energy supply focus in energy policies

Price regulations with social considerations

Distorted market prices

Inappropriate cost allocations

Subsidiarity

Success factors

Systematic heat planning

Taxation of fossil fuel consumption

Make authorization of power plants conditional
on heat recovery (minimum efficiency)

Investment subsidies (focus on network)

Equal treatment of CHP/surplus heat and renewables,
focus on primary energy

Public buildings as pilots

Nordic District Heating

Development

- Norway

Mature

- Finland
- Sweden
- Denmark

Beyond anything!

- Iceland

Recommended policy

Development

- Primary energy perspective in building regulations
- National energy policy recognition
- Taxation to support policies
- Investment grants for converting buildings

Mature

- Primary energy perspective in building regulations
- Taxation
 - Avoid double carbon taxation (CO2 taxes & ETS)
 - Support transition from fossil
- Coordinate support measures
- R&D
- Heat planning update
- Level playing field

Thank you for your attention!



www.euroheat.org

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