

Clean Air Regions Initiative (CARI)
Air Quality Planning Guidance Session
District Heating and Air Quality
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Individual heating as a main source of PM 2.5

"..the residential sector is the largest source of exposure to harmful PM2.5 associated with the burning of solid fuels in homes.."

(World Bank, Report – AQM in Bosnia and Herzegovina, October 2019)

"In 2005, households contributed more than 45% to total PM2.5 emissions in the EU-28..."

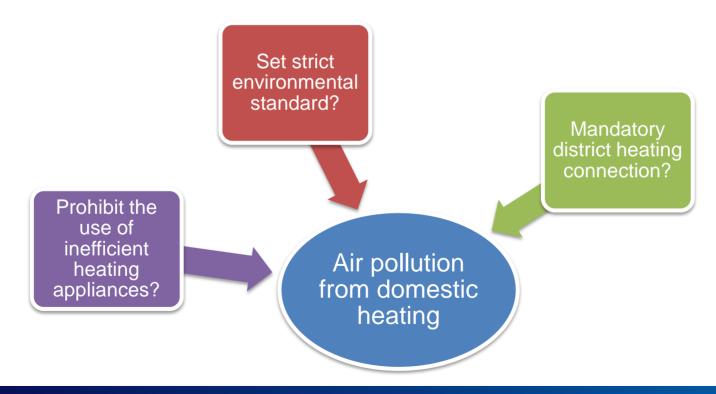
(Measures to address air pollution from small combustion sources, February, 2018)



Source: https://aqicn.org/



What are the best solutions?





Local heating and cooling plans

"Fit for 55" package:

Proposal for the recast of Directive 2012/27/EU on Energy Efficiency

- Municipalities with a total population higher than 50.000 have to create local heating and cooling plans
- > Financial support and technical assistance to be provided
- ➢ It should be based on the comprehensive assessment (Article 14 EED)



Local heating and cooling plans - Process

- 1. Committing (setting a vision, establish a leadership and a team)
- 2. Identification of current and potential solutions
 - Identification of current demand and supply, as well as prediction of future demand
 - Identification of RE and waste heat supply potential
 - Zoning of the areas where potential measures could be applied
 - Cost-benefit analysis of different solutions and scenarios
- 3. Choosing measures and agreeing on concrete goals
- 4. Implementing measures
 - Creating an action plan concrete responsibilities, tasks and deadlines
- 5. Monitoring the implementation process



Local measures - Vienna

- > Agreement on Decarbonisation by 2040
- Vienna Climate Council experts advising politicians (cc 40 members)
- Climate protection areas: new buildings served by DH and one more highly efficient alternative; next step: existing buildings
- Vienna Building Code, definiton of "highly efficient, alternative systems,":
 - DH or micro-grid, uses at least 80 percent of RE or from HE CHPs
 - Decentralised energy supply systems RES-base (heat pumps, biomass heating systems, solar energy)
 - Use of waste heat

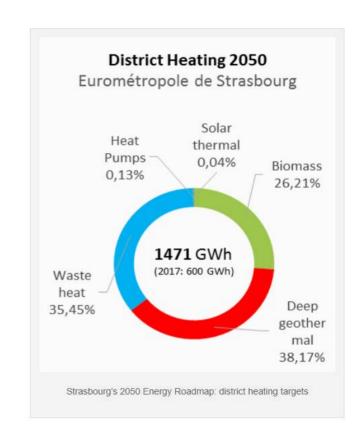
Source: wien.gv.at



Local measures – Strasbourg

Commitment -100% of renewable energy by 2050

- 2050 Energy Roadmap: three pillars, one of which district heating!
- renovation of existing networks
- development of new ones to utilise RE
- reviewing local regulation: as of 2022, all new buildings and buildings under renovation to prioritise public DH networks (individual solutions possible if proven to be more efficient)
- Main RES source: deep geothermal and waste heat from a Germany steel factory located in near the border



Source: Celsiuscity.eu



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