Waste heat is excess energy from any thermal process that is released without being valorised. It can be:

- **Industrial** (steam from an energy-intensive industrial process)
- From the **tertiary sector** (exhaust air from buildings)
- From **power generation** installations (excess heat from thermal plants with potential to retrofit into CHP or connect to a district heating. It refers mostly to fossil fuels power generation as the only RES power unit generating waste heat is biomass: other RES sources do not have a combustion process so no waste heat is generated. When it comes to geothermal, unutilised heat is reinjected into the ground)

The REDII proposal includes the possibility of exploiting waste heat as an additional flexibility for Member States to reach their obligations under articles 15, 23 and 24.

This makes sense in a context of energy transition and decarbonisation and is in line with the ‘Energy Efficiency First Principle’, but it shouldn’t dilute the objective of a fuel switch to renewable sources in the H&C sector.

The inclusion of waste heat under articles 15, 23 and 24 as an alternative to reach Member States’ obligations is diluting the objective of a fuel switch to renewable sources in the H&C sector.

Using more waste heat and switching to renewable fuels should be complementary and not a substitute for each other.

In addition, waste heat from power generation refers mostly to power generation from fossil fuels. Allowing waste heat from fossil power units to count for the purpose of articles 15, 23 and 24 could create new market prospects for fossil generation units, while the objective of the directive is to increase the share of RES.

Only waste heat from RES power generation should be eligible under articles 15, 23 and 24.

This is why we propose to add the clause “except from non-RES power generation” whenever waste heat is cited in the Renewable Energy Directive.

*Find our concrete proposal in the second page of this document.*
the solution
(concrete amendments)

• RED – Article 15
Administrative procedures, regulations and codes

3. Member States shall ensure that their competent authorities at national, regional and local level include provisions for the integration and deployment of renewable energy and the use of unavoidable waste heat or cold, except from non-RES power generation, when planning, designing, building and renovating urban infrastructure, industrial or residential areas and energy infrastructure, including electricity, district heating and cooling, natural gas and alternative fuel networks.

8. Member States shall carry out an assessment of their potential of renewable energy sources and of the use of waste heat and cold for heating and cooling, except from non-RES power generation […].

• RED – Article 23 - Mainstreaming renewable energy in the heating and cooling installations

1a. Member States may decide to take into account a contribution from waste heat and cold, except from non-RES power generation, provided that the level of ambition referred to in the first subparagraph is increased accordingly.

OR

1a. When calculating the share of renewable energy supplies for heating and cooling for the purpose of paragraph 1, Member States shall count waste heat and cold, except from non-RES power generation, using a multiplier of 0.5.

• RED - Article 24 - District Heating and Cooling

4. Member States shall lay down the necessary measures to ensure nondiscriminatory access to district heating or cooling systems for heat or cold produced from renewable energy sources and for waste heat or cold, except from non-RES power generation […].

5. An operator of a district heating or cooling system may refuse access to suppliers where the system lacks the necessary capacity due to other supplies of waste heat or cold, except from non-RES power generation, of heat or cold from renewable energy sources or of heat or cold produced by high-efficiency cogeneration […].

6. […]. An exemption shall only be granted if the new district heating or cooling system constitutes ‘efficient district heating and cooling’ within the meaning of Article 2(41) of Directive 2012/27/EU and if it exploits the potential for the use of renewable energy sources and of waste heat or cold, except from non-RES power generation, identified in the comprehensive assessment made in accordance with Article 14 of Directive 2012/27/EU.

waste heat
in the Renewable Energy Directive

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