renewables for heating and cooling in the Renewable Energy Directive

The European Commission proposal for REDII includes a new provision on “mainstreaming renewables in heating and cooling” (Article 23), that recognises the potential of renewable heating and cooling (RES-HC) technologies and sources as essential solutions to meet the EU RES target. As increasing RES-HC has a direct impact on fossil fuels (notably gas) imports, Article 23 is also an obligation for energy security, with benefits for trade imbalances, air quality, energy poverty and purchasing power.

It is a necessary provision, but with shortcomings.

Since the current EU policy framework doesn’t include provisions specific to RES in the heating and cooling sector, due to a heavy focus on electricity, the proposal for Article 23, providing that “Member State shall endeavour to increase the share of renewable energy supplied for heating and cooling by at least 1 percentage point (pp) every year” aims to restore balance, but limitations remain.

A sound policy framework for RES in heating and cooling needs to...

1... Have ambitious and binding provision that accelerates the deployment of RES-HC.
   - In the past decade, the share of RES-HC in the EU increased by 0.8pp annually. With increased energy efficiency efforts, it would most likely already reach 1pp from 2020 onwards.
   - 12 Member States already exceed “1pp/year” on average over 2004/2014: the provision can be attained. Rendering it binding ensures that Member States dedicate the necessary political attention to the sector.

   The text should provide that: “Member State shall increase the share of renewable energy supplied for heating and cooling by at least 2 percentage points (pp) every year”

2... Have flexibilities for high achieving Member States and balance annual variability.
   - Overachieving Member States should have flexibilities; on the contrary “underachievers” have tremendous potential for cheaper carbon abatement with RES-HC.
   - Other flexibilities would help Member States meet such an obligation, for instance helping the energy transition of SMEs.

   Options to implement Article 23 by Member States, following example of Art 7 EED obligations:
   - Combine EE obligation with RES-HC obligation;
   - Fuel switch obligation;
   - Support schemes and financing;
   - Taxation & VAT.

Comparing different level of ambition in Article 23 over 2020-2030, with RES-HC deployed in the 2004-2014 decade (ktce)*

As shown in the graph, a 1 percentage point is too low to “mainstream” RES in heating and cooling: it corresponds to a collapse by a third of new RES-HC production developed for 2020-2030 compared to the past decade.

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* Source: EC impact assessment to the RED, 2016; SHARES 2016; NREAPs; own calculations for different Art 23 scenarios | ** Source: SHARES 2016