

EED needs to avoid capping energy usage and should focus on energy efficiency

Context reminder

Under the European Green Deal, the Commission has committed to stronger action on climate change. It aims to assess how the EU's greenhouse gas emissions could responsibly be reduced by at least 50% to 55% by 2030. As the efficient use of energy is key to achieving such a target, the review aims to provide insights into how the EED could be revised to:

- achieve a higher level of greenhouse gas reduction by 2030
- contribute to other European Green Deal initiatives.

IFIEC contribution

Under the European Green Deal, the Commission has committed to stronger action on climate change and in particular in the field of energy. IFIEC agrees that an efficient use of energy can contribute to an improved greenhouse gas efficiency and help to achieve the European Green Deal targets.

Avoid capping of energy consumption; focus on efficiency

First of all, IFIEC would like to remind legislators that improving energy efficiency does not mean absolute reduction of energy consumption, but a reduction of energy consumed per output, expressed for example in $\text{GJ}/\text{t}_{\text{product}}$. Setting absolute caps on energy consumption will lead to a reduction of the production of the European manufacturing industry, an increase of the imports from third countries and usually an increase of the European carbon footprint, imported products generally being produced in a less efficient way and with a more carbonized energy mix.

All the key economic sectors should play their part in achieving the 2030 energy efficiency target. The level of ambition should be fixed in regards of the reduction potential of the concerned sector. For decades, European manufacturing industry has been improving its energy efficiency. It now operates its processes very often close to the thermodynamic limits in term of energy consumption. To fill this gap and reach the thermodynamic limits, disruptive technologies are needed. However, they are not yet available or demonstrated at laboratory scale and/or on a full industrial scale. Furthermore these new low carbon technologies will require more energy and electricity. A cap on the energy consumption would therefore hamper industry to implement these new low carbon technologies. Thus, the revision of EED should be done in a realistic way and set only achievable targets for the near future.

Avoid conflicting regulations

The EED should also be revised in a consistent way with other pieces of regulation in preparation like RED encompassed in the green deal. Some provisions of other regulation could have a negative impact on the energy efficiency. For example, for the decarbonation of industry, the switch from fossil fuels to renewable fuels will reduce energy efficiency (a biomass-fired boiler has a lower efficiency than a natural gas fired boiler) similarly, implementation of facilities to capture carbon dioxide adds 15 to 20 % to the energy consumption of the whole value chain. The increasing share of intermittent renewable energies in the European energy mix may require more energy flexibility from large

industrial energy consumers, with the consequence that Industrial processes might be not operate with the highest efficiency 100 % of the time. This is the reason why the new EED provisions should take into account both the evolution of the European energy mix and the consequences and the impacts of the other regulations.

Stimulate sector integration

Higher integration amongst the key economic sectors can improve energy efficiency significantly. For example, industrial waste heat can be recovered and used for heating buildings of household or tertiary sectors. However, it could require tremendous investments in heat network to establish connection between sectors. The development of such new energy infrastructures should be supported by public policies, industry not being able to finance them.

Safeguard European industrial competitiveness

In conclusion, energy efficiency policy must be backed by a strong innovation fund financing research in energy and CO2 efficient breakthrough technologies, as well as by a comprehensive modernisation fund enabling their deployment in the industrial sector. In any case, the main challenge for the European industry will be to safeguard its international competitiveness.