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POSITION PAPER

on the proposal of the European Commission for the reform of the Energy Efficiency Directive

Berlin, 18 November 2021

With the European Green Deal, the European Commission presented an ambitious growth and transformation strategy in December 2019, which is intended to bring about climate neutrality for Europe by 2050.¹ In response to this landmark decision, the European Parliament and the European Council have committed to realigning the European climate targets for 2030.

By 2030, it is planned that the EU's greenhouse gas emissions will have been reduced by 55 per cent compared to 1990, in line with the decision of the European Parliament and the European Council. In order to achieve this ambitious goal and to develop the necessary framework conditions for the economy, society and industry, the EU Commission presented the "Fit for 55" package in Brussels in July 2021.² The "Fit for 55" package includes a proposal for the reform of the Energy Efficiency Directive.

eco – Association of the Internet Industry and the Alliance for the Strengthening of Digital Infrastructures in Germany, founded under the umbrella of eco, support the EU Commission's proposal for the reform of the Energy Efficiency Directive, although a number of points need to be discussed further. Digital infrastructures consist of, inter alia, colocation, cloud, edge or hyperscale data centres, which serve as the cornerstone of digital ecosystems and the backbone of digitalisation.

In order to enable the efficient and climate-neutral production and operation of information and communication technologies, realistic and proportionate efficiency requirements need to be stipulated. An examination of the energy efficiency efforts to date shows that European economic output has increased by 62 per cent compared to the base year 1990, while the associated emissions have decreased by just under 24 per cent. The decoupling of economic performance and emissions makes it clear that the efficiency of the European economy could be noticeably increased. The Energy Efficiency Directive³ was already introduced in 2012 and is considered the European basis for efficiency improvements in the economy. To this end, the regulations contain requirements for efficiency increases measured in

¹ See EU Commission, Communication from the Commission: The European Green Deal, COM (2019) 640 final <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:52019DC0640>

² See EU Commission, Communication from the Commission: "Fit for 55": delivering the EU's 2030 Climate Target on the way to climate neutrality <https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52021DC0550>

³ See Direction of the European Commission and Council on energy efficiency, Directive 2012/27/EU <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:02012L0027-20210101&from=EN>



terms of final or primary energy demand. eco would like to introduce the following points into the further discussion on the reform proposal.

Promote energy-efficient and sustainability-oriented operation of data centres

The EU Commission proposes that the final or primary energy demand of Europe should be reduced by 36 to 39 per cent by 2030 – this is a significant increase in previous efficiency efforts. In the area of data centres, the EU Commission emphasises the importance and necessity of energy-efficient and sustainably operated data centres in Europe in the revised rationale.

eco and data centre operators share the EU Commission’s assessment and have been campaigning for several years for an efficiency-oriented and demand-driven expansion of data centres in Europe. In order to achieve sustainable progress in this area, incentives must be developed, research and development must be strengthened, and reliable planning framework conditions must be compiled.

Given the high energy costs in some EU Member States, it is in the operators’ own interest to have data centres operated in an energy-efficient manner.

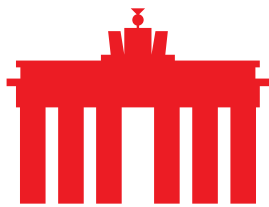
In order to ensure the continued operation of existing data centres, binding conditions must be defined for the ecological conversion or modernisation under the premise of energy and resource-saving criteria. In addition, the development and operation of regenerative emergency power generators and the use of water-based cooling systems in European data centres should be strengthened. In order to be able to meet the future demand for necessary computing capacities and data centres, the framework conditions for the new construction and expansion of existing data centres must be improved, taking into account the aspects of energy efficiency and climate neutrality. This requires the simplification and acceleration of planning, approval and construction procedures.

Devise European standards for the energy-efficiency assessment of data centres

The EU Commission proposes that, in the future, Member States should collect and publish the energy and environmentally relevant footprint of data centres of significant importance. Based on the information thus obtained, indicators for the sustainability assessment of data centres should be developed: for example, efficiency of the energy demand, the share of renewable energies in energy consumption, waste heat utilisation and freshwater consumption.

eco is monitoring and accompanying the discussion on data and information collection from the operation of data centres on a national level with interest. Nonetheless, eco retains some reservations and concerns regarding the implementation of instruments presented so far. In the opinion of the data centre operators, two central aspects must be taken into account in the further consultations for the publication and processing of data from data centres.

The term “data centre” is often used as a synonym for different infrastructure types and business models – for example, colocation, cloud, edge or hyperscale services –



without taking into account the characteristics or special features of individual infrastructures. In order to enable efficiency-based comparability of data centres, their structural differences must be taken into account.

Furthermore, it must be borne in mind that, in some cases, information on energy consumption and the performance of individual data centres is partly information that falls under the protection of intellectual property or is considered a trade secret of the data centre operators. As of yet, no satisfactory solutions have been found to meet the information interests of public administration and the general public while at the same time sufficiently protecting the sensitive data of the data centre operators.

eco and the data centre operators view the proposal of the EU Commission to develop possible sustainability assessments critically – for example, efficiency levels for data centres – at Member State level. In order to guarantee fair framework conditions for the efficiency-based assessment of data centres located in Europe, a communal solution should be pursued at the European level. In order to ensure that the relevant characteristics of data centres and possible regulatory effects are appropriately assessed – for example, in the development of efficiency standards or their monitoring – eco and the members of the Alliance for the Strengthening of Digital Infrastructures in Germany advocate for industry experts to be brought into the development process. To this end, for example, the [Climate Neutral Data Centre Pact](#) could form part of the upcoming work.

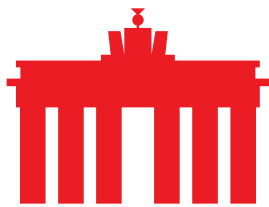
Definition of the data centre term must be flexible and future-oriented

The reform of the Energy Efficiency Directive is intended to create a legal framework for the integration of previously unutilised waste heat potential in industry and in data centres. To this end, a definition for the term “data centre” should be added to Article 2 of the Directive.

In the opinion of eco and the data centre operators, the proposed definition of the EU Commission would be suitable for taking data centres into account in future measures to increase energy efficiency in heat grids. Due to the different types of infrastructure, diverse business models and technical and structural differences, the generally formulated definition is appropriate and flexible enough to cover the different data centres. Furthermore, the present version of the definition offers the prospect of being able to assign future-evolving business models under the perspective of waste heat potential to the Energy Efficiency Directive.

Create incentives for the integration of data centres into the energy system

Based on the plans of the EU Commission in accordance with Article 24, measures are to be taken for the reduction of primary energy consumption, for efficient and renewable-based network operation and for the integration of new heat suppliers (e.g., data centres) in order to increase the energy efficiency of district heating and cooling networks. The integration of new heat suppliers is intended to be carried out in accordance with economic parameters.



eco and the data centre operators welcome the proposal of the EU Commission for the integration of new heat suppliers in district heating or cooling networks, as well as the consideration of data centres with an energy supply of >1 MW in the new construction or renovation planning of district heating or cooling networks. The heat generated during the operation of data centres has been systematically used in a few EU Member States: for example, for feeding into heating or cooling networks, for heat generation in the building sector or for vertical farming.

Due to their technical design, some data centres have large amounts of waste heat with a temperature level of about 35 to 40 degrees Celsius all year round. This temperature level is not sufficient for feeding into heating or cooling networks. Therefore, for waste heat utilisation, further technologies for processing (e.g., heat pumps) must be purchased and integrated into the technical infrastructure of the data centres. For the final processing, further electricity is also required, for which all applicable levies, charges and taxes are incurred – for example, for the data centres located in Germany. As a result of these general conditions, from an economic point of view, the utilisation of waste heat does not make sense for data centre operators. As such, future efforts should not focus solely on the system integration of data centres. eco and the data centre operators are also calling for attractive framework conditions – for example, acquisition subsidies for heat pumps and reduced electricity tariffs for heat generation.

Conclusion

With the reform proposal for the revision of the Energy Efficiency Directive, the EU Commission has presented an ambitious target taking into account previously unused energy sources (e.g., waste heat). The fact that data centres should also benefit from this in the future – if it makes economic sense – is expressly supported by eco and the operators of data centres.

In order to be able to achieve the medium-term goal addressed to data centre operators – climate-neutral data centre operation by 2030 – funding instruments for the efficient conversion of existing data centres should be developed, research and development activities for efficiency technologies strengthened and framework conditions for the use of waste heat – where technically possible and economically sensible – created.

In order to create a holistic approach for the efficiency and sustainability-oriented operation of data centres, the coming discussions must not focus exclusively on efficiency criteria for the operation of data centres or the use of waste heat; much more, an increased commitment in the area of research, development and promotion is required. Scalable model projects, in particular, should be given more consideration in funding guidelines.

The reform proposal presented by the EU Commission illustrates Europe's necessary energy and climate policy efforts to fulfil the European Green Deal. The fact that the EU Commission has increased awareness and the importance of energy efficiency – in overall economic terms – is supported by eco and the operators of data centres. To ensure that the overall goal formulated with the



directive and sector-specific goals can be reliably achieved, the ambitious goals of the present draft should also be maintained in the upcoming consultations.

About eco

With more than 1,100 member companies, eco is the largest Internet industry association in Europe. Since 1995, eco has been instrumental in shaping the Internet, fostering new technologies, forming framework conditions, and representing the interests of members in politics and international committees. The focal points of the association are the reliability and strengthening of digital infrastructure, IT security, trust, and ethically oriented digitalisation. That is why eco advocates for a free, technology-neutral, and high-performance Internet.