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POSITION PAPER

on "Fit for 55" package of the European Commission for the realization of the European Green Deal and the EU 2030 climate targets

Berlin, 9 September 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 percent compared to 1990. 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 comprises of a total of twelve legislative proposals, eight recommendations to strengthen existing legal frameworks and four new initiatives. The package can thus be viewed as the most comprehensive adaptation of European climate policy.

eco – Association of the Internet Industry and the Alliance for the Strengthening of Digital Infrastructures in Germany, founded under the umbrella of eco, welcome the EU Commission's "Fit for 55" package. 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. With the package, the EU Commission has presented a comprehensive draft for a coordinated, reliable and cross-sectoral legal framework. In order to enable the efficient and climate-friendly production and operation of information and communication technologies, the drafts from the "Fit for 55" package for adapting the Renewable Energy Directive (RED), the Energy Efficiency Directive (EED) and the Energy Taxation Directive (ETD) are of particular importance. eco has analysed all three drafts and would like to contribute the following points to the further consultation.

[1] cf. 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] cf. EU Commission, Communication from the Commission: "Fit for 55": delivering the EU's 2030 Climate Target on the way to climate neutrality, COM(2021) 550 final
https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52021DC0550

I. Comments on the reform proposal for the Renewable Energy Directive

More than 70 percent of the greenhouse gas emissions generated in Europe still stem from the energy supply or the energy system. With the introduction of the Renewable Energy Directive (RED) in 2009,[3] a European basis for the roll-out of renewable energies was created and a 20 percent share of renewable energies in the European energy system by 2020 was agreed upon. The directive not only focuses on the climate-neutral conversion of the European energy system, but also offers potential for investments, innovations and future-proof employment.

Advance the ambitious roll-out of renewable energies

In its draft reform of the RED, the EU Commission proposes to increase the share of renewable energies in Europe to 40 percent by 2030. To achieve this, plans include not only the construction of plants for the generation of renewable energy, but also the strengthening of utilisation forms in the field of renewable heat generation.

eco and the data centre operators welcome the proposed increase of renewable energies in the European energy mix. In the Communication on Shaping Europe's Digital Future, the EU Commission has identified an ambitious climate target for the industry with the climate-neutral operation of data centres by 2030.[4] In the past years, eco and the data centre operators have repeatedly pointed out the importance of an ambitious and accelerated roll-out of renewable energies in Europe.

Currently, Scandinavian data centre locations in particular can benefit from the market due to their geographical location (low outside temperatures) and the high availability of renewable energy. In this respect, as the experience of the community of data centre operators in the Alliance shows, a renewable energy supply at competitive costs is also demanded by computing power customers. In order to strengthen the competitiveness of all data centres located in Europe – regardless of their location – and to ensure the climate-neutral operation of data centres from 2030 as required by the EU Commission, the share or roll-out of renewable energies must be accelerated and electricity generation at competitive prices must be ensured.

The operation of data centres requires large amounts of energy, which must be provided constantly and reliably. Compared to the energy-intensive industry, the operators of data centres usually pay the applicable industrial electricity price for their performance class, including all levies, surcharges and taxes. The result of this unequal treatment is that data centre operators have to pay up to 100 percent

[3] cf. Directive of the European Parliament and of the Council on the promotion of the use of energy from renewable sources, Directive (EU) 2018/2001
https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX:02018L2001-20181221
[4] cf. EU Commission, Communication from the Commission: Shaping Europe's Digital Future, COM(2020) 67 final
https://ec.europa.eu/info/sites/default/files/communication-shaping-europes-digital-future-feb2020_en_0.pdf

higher energy costs than the energy-intensive industry, despite similar energy consumption patterns connected with their location and energy performance class.

In order to guarantee attractive and competitive energy costs for data centre operators throughout Europe, eco and data centre operators advocate a review of the applicable energy price components in Europe. If consideration of the data centre industry is not possible in the course of an adjustment of the European Guidelines on State aid for environmental protection and energy, the medium-term moderation of reduced electricity price tariffs should be discussed in order to guarantee competitive energy costs for all industries.

Enhance the usage potential of Power Purchase Agreements

In the European Union, it has been possible since 2018 to draw up contracts on the supply of electricity on the basis of Power Purchase Agreements (PPAs). As part of the revision of the RED, the EU Commission proposes that the Member States create measures to promote or strengthen PPAs. Among other factors, legal and administrative hurdles are intended to be reduced.

A PPA is a direct supply contract between the operators of renewable energy plants and the electricity consumers for the supply of a certain amount of electricity during the contract term. With the help of PPAs, the financing of renewable energy projects outside of state support frameworks is strengthened, while the continued financing of the plants after the expiry of state support frameworks is also made possible.

eco and the data centre operators have endorsed the EU Commission's proposal to strengthen or promote the use of PPAs for the direct supply of electricity from renewable sources. From the perspective of data centre operators, PPAs offer a good basis for accelerating the roll-out of renewable energies, as they enable project financing independent of state funding instruments and thereby contribute to the realisation of European climate goals. At present, PPAs are rarely used by German-located data centres for energy supply. This can mainly be attributed to the facts that PPAs can only be used to supply energy since 2018, that the required contracts are usually very complex, and that the German energy cost structure – composed of energy prices, taxes, levies and charges – offers little economic incentive for such a transition. For this reason, the data centre operators advocate considering an exemption from the obligation to pay the levy under the German Renewable Energy Sources Act (Erneuerbare-Energien-Gesetz, EEG) for renewable electricity supply on the basis of PPAs. Based on a PPA, the roll-out or continued operation of renewable energy plants could be directly supported through the conclusion of a contract, so that additional support via the EEG should no longer be applied.

Establish an attractive legal framework for the utilisation of waste heat from renewable-powered industrial and commercial plants

In order to achieve the 2030 target for the roll-out of renewable energies, Member States should also be able to take measures to install efficient heating and cooling systems based on renewable energies. In order to market the heating and/or cooling capacities, framework conditions for so-called Heat Purchase Agreements should be established.

For the operators of data centres, the development of legal framework conditions for the marketing of renewable heating and cooling services is an important signal from the EU Commission to promote the utilisation of waste heat from data centres (provided they are operated with renewable energies). During data processing in data centres, electricity is converted into heat. Due to their technical arrangements, some data centres generate large waste heat potentials throughout the year, which in some Member States have not yet been systematically used; for example, for feeding into heat grids, or for heating residential complexes, public buildings or vertical farming. In the opinion of eco, Heat Purchase Agreements can open up the possibility for data centre operators to create economic added value from the waste heat generated on the basis of renewable electricity.

II. Comments on the reform proposal for the Energy Efficiency Directive

Since 1990, the European economy has grown by 62 percent, while emissions have fallen by 24 percent in the same period. This decoupling of the economy and energy demand shows that energy efficiency in Europe has increased significantly. With the presented reform proposal for the Energy Efficiency Directive (EED), the EU Commission proposes to reduce the final energy or primary energy demand by 36 to 39 percent. To this end, national efforts should be guided in particular by the leitmotif of “efficiency first”.

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

In the revision of the explanatory memorandum on the EED, the EU Commission refers to the importance and necessity of energy-efficient and sustainable data centres in Europe. eco and the members of the Alliance for the Strengthening of Digital Infrastructures in Germany concur with the assessment of the EU Commission and have been campaigning for several years for an efficiency- and performance-oriented 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 countries, it is in the operators’ own interest to have data centres operated in an energy-efficient manner. Nevertheless, development work on the operation of a regenerative-based emergency electricity supply or the utilisation/application of water-based cooling systems in data centres must be strengthened. In order to guarantee 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. Likewise, an improvement is called for in the framework conditions for the construction and expansion of efficient data centres that will be necessary in the future. To this end, planning, approval and construction procedures should be accelerated and made more efficient.

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 accordingly.

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 critically view the proposal of the EU Commission to develop possible sustainability assessments – 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[5] could form part of the upcoming work.

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

The reform of the EED 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” is to be added to Article 2 EED.

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 EED.

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 EED, 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 so far only 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.

Considering their technical arrangements, 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

[5] https://www.climateneutraldatacentre.net/

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.

III. Taxation of heating and motor fuels on the basis of energy consumption to strengthen low-emission or emission-free alternative sources of supply

The EU Commission's proposed reform of the Energy Taxation Directive (ETD) suggests that, in the future, the taxation of electricity, heating and motor fuels should be based on their energy content. On the basis of the ETD, electricity, heating fuels and motor fuels are currently taxed at a minimum rate based on their weight or volume. As a result of the revision of the ETD, climate-damaging heating and motor fuels or, in some cases, forms of electricity generation would be taxed at a significantly higher rate than less climate-damaging forms.

In principle, eco and the data centre operators take a positive stance on the EU Commission's proposal for the restructuring of European energy taxation. However, the requirement for Member States to implement the ETD has led to competition in recent years between EU Member States on the applicable energy tax rate and the lowest energy tax rate for electricity – which has a direct impact on total energy costs. For example, the Swedish government has reduced the electricity tax rate for data centres in Sweden with a power consumption >0.5 MW p.a. As a result, data centre operators in Swedish locations pay about 25 to 50 percent less in energy costs. Such forms of economic or location policy have a direct impact on the activities of data centres and should not lead to other European locations being notably disadvantaged.

IV. Outlook

With the "Fit for 55" package, the EU Commission has presented a comprehensive programme of reforms and measures to meet future European climate targets. From the perspective of the Internet and digital industry, the harmonised reform proposals for adapting the Renewable Energy Directive, the Energy Efficiency Directive and the Energy Taxation Directive are to be welcomed.

To ensure that the medium-term goal directed at data centre operators – climate-neutral data centre operation by 2030 – can be definitively attained, an ambitious and accelerated roll-out of renewable energies is essential. On account of their frequent integration into urban spaces, data centres have only limited possibilities to generate the electricity needed for data centre operations themselves. Aside from funding mechanisms, the strengthening and simplification of Power Purchase Agreements proposed by the EU Commission is therefore an important step towards strengthening the marketing and financing of renewable energies. However, in order to achieve a significant improvement in the existing situation, further measures are needed to ensure competitive electricity costs. These electricity costs represent the largest cost factor for the operation of data centres and thus have a direct impact on location decisions for the establishment or

expansion of data centres. In order to create attractive and reliable planning conditions, common framework conditions for competitive industrial electricity prices in all EU Member States should be developed and secured at the European level.

With the reform proposal for the Energy Efficiency Directive, the EU Commission wants to strengthen the importance of energy efficiency measures and leverage previously unused efficiency potential. Among other things, it is planned – where economically possible – to feed waste heat from data centres into district heating / district cooling networks. eco and the data centre operators welcome the EU Commission's proposal on the utilisation of waste heat from data centres. In the course of previous discussions, eco has consistently referred to the waste heat potential of data centres and advocated for the development of appropriate legal frameworks. In order to enable the efficiency and sustainability-oriented operation of data centres, attractive and secure framework conditions for the utilisation of waste heat must be developed at the Member State level.

Over the course of the consultation on the reform of the Energy Taxation Directive, eco and the data centre operators advocated that the level of taxation should be influenced by the extent of the emissions arising from the combustion of fuels. The draft for the revision of the Energy Taxation Directive now presented by the EU Commission pursues this approach and is therefore supported by eco and the data centre operators. In order to secure fair framework conditions for all European data centre locations, the reform should furthermore put an end to the recently emerging location competition concerning attractive energy tax conditions.

In the overall assessment, the submitted reform proposals for the adaptation of the energy and climate policy framework conditions underline the efforts of the EU Commission to develop a coherent and reliable legal framework for the European economy. In order to be able to definitively achieve sectoral goals – for example, climate-neutral data centre operation by 2030 – the proposed coherence of the framework conditions and the level of ambition of the reform proposal should not be watered down or reduced 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.