

› POSITION PAPER

on the proposal for a Directive of the European Commission amending Directive (EU) 2018/2001 on the promotion of energy from renewable sources (RED II)

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The German Association of Local Public Utilities (Verband kommunaler Unternehmen, VKU) represents more than 1 500 public utilities and local-economy companies in the sectors of energy, water/wastewater, waste management and telecommunications. With over 283 000 employees, approximately 123 billion euros of sales revenue were generated and more than 13 billion euros were invested in 2019. In the final customer segment, the VKU member companies have a large part of the market in the central supply and disposal sectors: electricity 62 percent, gas 67 percent, drinking water 91 percent, heating 79 percent, wastewater 45 percent. Every day, they dispose of 31 500 tonnes of waste and significantly contribute through separate collection to the fact that Germany has the highest recycling quota in the European Union, at 67 percent. More and more local companies are committing themselves to broadband development. 203 companies invest more than 700 million euros per year. For broadband development, 92 percent of the companies are counting on taking glass fibres right into the buildings. We keep Germany running – climate-neutral, efficient, sustainable. Our contribution to today and tomorrow: #Daseinsvorsorge. Our positions: 2030plus.vku.de.

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VKU agrees to a publication of the position statement (on the Internet) including personal data.

Significance of the proposal for local public utilities

- › Many local public utilities that invest in the development of renewable energies encounter authorisation hurdles. In the local public utilities sector alone, VKU is aware of over 300 planned wind-energy plants with a total output of 1.2 GW that are stuck in authorisation procedures.
- › Local heating providers of many large German cities have predicted high investments to convert their networks to renewable and other sustainable and greenhouse-gas-neutral energies, some of which they estimate at 500 million euros or more per municipality by 2030.
- › The production costs for green district heating are currently twice as high as those for district heating from fossil fuels. This means that appropriate support will be necessary for decarbonisation.
- › Several local public utilities from all energy, water and waste disposal sectors represented in VKU have already been committed to hydrogen projects for years. They have thus also provided important pioneer work and shown in practice what use hydrogen can have in different applications. In this context, an optimal energy consumption was always the focus.
- › In a recent brochure, (h2.vku.de), VKU has listed a number of excellent examples that make it clear that there are significant decarbonisation potentials in the decentralised production and consumption of hydrogen.
- › Local energy supply companies have taken on a leading role in the development of a publicly available charging infrastructure for electric vehicles. Further development depends on improved planning and investment security.

VKU's key positions

- › The use of renewable and otherwise sustainable and greenhouse-gas-neutral electricity for heat and gas extraction, for fuel generation and for industrial production processes ("sector coupling") is an important building block to reduce greenhouse gas emissions.
- › To this end, the development of electricity generation from renewable and other sustainable and greenhouse-gas-neutral energies must be significantly accelerated. Land-use planning and authorisation grant hurdles must be removed in a targeted way.
- › In addition, incentives to make electricity from renewable and other sustainable and greenhouse-gas-neutral energies usable must be established in order to reduce greenhouse gas emissions in the heating, transport and industry sectors.
- › The amount of hydrogen necessary to avoid greenhouse gas emissions is immense. Green hydrogen should always be classified as such when all of the primary and secondary energy sources supplied to or used in the production

- process are directly or indirectly gained from renewable energies or energies or substances created anyway, such as waste heat, waste and wastewater, from biogenic or non-biogenic origin.
- › On the heating market, renewable energy quotas are not an appropriate instrument for reaching climate protection goals. Instead, individual, climate-oriented decarbonisation roadmaps are necessary.
 - › It is also important to fully exploit the potentials in waste heat, synthetic gases and energy from waste (taking into account the priority of prevention, reuse and recycling), wastewater, sewage sludge, sewage gas and mine gas.
 - › The provisions for the access of third-party providers to district heating/cooling systems should not be extended, as the current regulations are sufficient. The details of this access can only be determined in the individual cases, as the heating and cooling systems are tailored to the available local resources and the local consumption structure.
 - › The sustainability criteria of the Directive must more strongly address water protection and safeguard the supply of drinking water.

VKU's positions in detail

VKU welcomes the amendment of the Directive on the promotion of the use of energy from renewable sources (Renewable Energy Directive or RED II¹). The revision is necessary, not only to adjust the Directive according to the newly defined goal in the EU Climate Law of reducing greenhouse gas emissions by at least 55 percent across Europe by 2030, but also to modify it for the use of technologies such as the production and use of hydrogen, in the heating sector among others. The RED II builds the foundation for the development of greenhouse-gas-neutral energies in the EU. These fundamental rules must be designed in a way that the necessary expansion of renewable energies is being enabled and able to contribute to reaching the climate targets. This requires an extensive revision of the RED II.

The new 2030 goal is part of the European Green Deal and its core objective to achieve climate neutrality in the EU by 2050, which VKU supports. In the interest of a coherent application of the Green Deal, the revision of the RED II should interlock with the goals of the Water Framework Directive (WFD) and its daughter directives.

Achieving the Green Deal's and the EU Climate Law's ambitious objective requires the involvement of all sectors (energy, industry, buildings, transport, agriculture). It is necessary to make use of all sustainable, greenhouse-gas-neutral energies– including those that are not “renewable” as narrowly or strictly defined by the European Commission in her proposal for the RED III. Waste heat, synthetic gases, energy from

¹ In the following, VKU states its positions regarding individual adjustment propositions of the RED II. For reasons of readability, the position statement differentiates between the RED II from 2018 and the new RED III, i.e. the new proposal of the European Commission to amend the RED II.

waste and wastewater and mine gas will therefore also have to be used alongside wind power, solar energy, biomass, geothermal energy and waterpower.

Hydrogen will be of particular importance to achieve the climate protection goals. Its generation must be open to new technologies and its use energy-efficient in all sectors. An approach open to new technologies for the entire value creation chain from generation to consumption allows diversity, flexibility, scalability and cost-efficiency, and will lead to a comprehensive hydrogen market launch – also and especially in the heating sector, in order to achieve and reliably secure decarbonisation. It is foreseeable that heating networks may also need to partially fall back on gas energy sources in the future, particularly to maintain supply security, for example to cover power peaks, to cover for renewable energy plants or to compensate for lacking potentials in renewable heating and waste heat. Due to varying local circumstances, a wide range of system configurations is necessary: Site specificities, the climate protection effect and the economic efficiency will be decisive in determining what mix of supply options – from individual buildings to neighbourhood to district – is chosen. It must, thereby, be kept in mind that conversion to other supply options often generates very high refurbishment and investment costs. The inclusion of hydrogen could therefore lower heating costs for rentals and for home ownerships, contributing towards a socially fair heating transition.

Regarding Article 2, Definitions

- **Renewable energy, point 1**

Recommendation:

Heating and gases generated with renewable electricity (power-to-heat, hydrogen, synthetic methane) should also be recognised as renewable energies.

Justification:

In order to facilitate all available options to reduce CO₂ emissions, ways of generating heat and gas from electricity (power-to-heat, hydrogen, synthetic methane) should be taken into account. The use of renewable electricity to gain heat and gas is, as a “sector coupling” area, an important building block for the decarbonisation of the energy supply system. Recognising the heat provided by these technologies as renewable heat would allow for a break-through of these future-oriented technologies.

- **Greenhouse-gas-neutral energy**

Recommendation:

Non-renewable energies should be considered equivalent to renewable energies if they are sustainable and greenhouse-gas-neutral.

Justification:

Sustainable and greenhouse-gas-neutral energies are not always “renewable” in the strictest sense of the word. This particularly applies to waste heat.

In the management of waste and residues, material recycling according to waste and recycling law fundamentally has priority, but a part of the waste and residues from recycling processes in particular can be exploited for their energy. The heat gained and used from this is generated as a secondary effect in the application of a public or private waste disposal order. Under these conditions, this is a greenhouse-gas-neutral energy source and should therefore be lastingly equated to renewable energies.

In addition, in a de-fossilised future, this waste will only contain carbon from renewable sources anyway. The same applies to hydrogen generated by climate-neutral means, and for hydrogen where the carbon generated is either re-used or stored in a climate-neutral way in gas or solid form.

The energy gain potentials from the wastewater treatment process (electricity/heat from sewage gas, sewage sludge, screenings) should also be equated to renewable energies.

- **Recycled carbon fuels, point 35**

Recommendation:

It should be made clear that all fuels made from fossil waste are considered recycled carbon fuels, regardless of the technology and process steps, i.e. including hydrogen generation with electricity from recycled waste energy for example.

Justification:

Energy from waste that does not have a high recycling value and is therefore exploited for its energy should be comprehensively equated to renewable energy, as a greenhouse-gas-neutral waste heat use of unavoidable substances or waste heat.

- **Green hydrogen**

Recommendation:

A definition of “green hydrogen” should be added. If no such definition is included in the RED III, it must be added in the review of the directive on common rules for the internal market in natural gas; other generation processes for hydrogen should also be defined.

Green hydrogen should always be classified as such when all of the primary and secondary energy sources supplied to or used in the production process are directly or indirectly gained from renewable energies or energies or substances already created, such as waste heat, waste and wastewater, from biogenic or non-biogenic origin.

The classification as green hydrogen should not be limited to hydrogen made with electricity from unsubsidised renewable energy plants. There should also be no requirement of simultaneousness between hydrogen production and electricity production. Equally, there should be no spatial limitations. It should also not be limited to newly installed capacities (for example the use of excess electricity from existing waste incineration plants to produce hydrogen is absolutely reasonable).

Furthermore, at least during the transition period of the market launch and the establishment of stable conditions of delivery, where it can be demonstrated that hydrogen is produced with no CO₂ emissions, this hydrogen should be considered green and climate-neutral or an equivalent, and regulated as such. The condition for this is that the CCS/CCU criteria are clearly defined and regularly verified and that they correspond to ecological standards, especially for water protection.

Justification:

Hydrogen will be of particular importance to achieve the climate protection goals. This particularly applies to “green hydrogen”. Its generation must be open to new technologies and its use energy-efficient in all sectors. The framework conditions for this must be defined in the RED III. A definition of green hydrogen and its production conditions that applies to all sectors is therefore necessary. If green hydrogen is not defined in the RED III, it must at least be defined in the review of the directive on common rules for the internal market in natural gas. Other generation processes for hydrogen should also be defined to provide market participants with reliable identification characteristics.

The very high and increasing demand for green hydrogen requires a broader definition of the production conditions of green electricity from renewable energies – if the electricity is being used to produce H₂. The market ramp-up of a climate-neutral hydrogen economy must not be hampered by missing quantities due to a too-strict definition of green H₂ while, at the same time, neither the international supply is secured nor maintained.. It therefore makes sense to accept other production forms of green or equivalent sustainable and climate-neutral hydrogen and to apply the same regulations to them as to green H₂, at least temporarily, under the condition that it can be demonstrated that no CO₂ was emitted during its production and that water protection is ensured.

- **Waste heat and cold, point 9**

Recommendation:

The definition of “waste heat and cold” in Article 2, point 9 should clearly stipulate that it includes heat or cold occurring as a by-product in a waste treatment plant.

Justification:

In order to extend the CO₂ reduction possibilities in heating networks, residual waste that occurs despite separate collection and material recycling should be used to generate heat.

Regarding Article 3, Binding overall Union target for 2030

Recommendations:

1.) VKU supports the goal defined in the new draft directive of generating 38 to 40 percent of energy from renewable sources across the EU by 2030, but requests that other sustainable and greenhouse-gas-neutral energies are taken into account.

2.) VKU requests a binding and ambitious goal definition for the development of electricity generation from renewable or other sustainable and greenhouse-gas-neutral energies or the conversion of existing plants to electricity generation with these energies. Based on these goals, Member States should also be obliged to designate sufficient appropriate surfaces for the establishment of renewable energy plants, so that the additional constructions can take place to the extent necessary to achieve the goals.

3.) It must also be acknowledged that the development of renewable and sustainable greenhouse-gas-neutral energies and their corresponding networks is of public interest and serves public security.

4.) The Member States should continue to ensure technology-specific funding.

Justification:

1.) The target increase is consistent, as all areas of the economy and life will have to draw their energy consumption increasingly from renewable or other sustainable and greenhouse-gas-neutral energies in order to reduce greenhouse gas emissions.

2.) The goal targeted by the EU of drawing 38 to 40 percent of its energy from renewable sources requires a high share of electricity from renewable energies. In the building, transport and industry sectors, the use of green-electricity-based technologies (H2, e-mobility, heat pumps) contributes significantly to the conversion to renewable energies.

3.) The expansion of renewable and sustainable greenhouse gas-neutral energies and the associated grids serves the public interest and public safety. Accordingly, it must be made clear and ensured that these necessities are taken into account when designating land and in the approval procedures, and that they are weighted appropriately in the balancing decisions. In addition, this would reinforce legal security when granting exceptions from species protection laws. This would considerably accelerate and simplify planning and authorisation procedures.

4.) The various segments of electricity generation from renewable energies (wind, solar energy, biomass, waterpower, geothermic energy etc.) are very diverse. They include different markets, each with their own actor structure and competition situation. Even in projecting there are large differences, for example regarding lead times, cost evolution and realisation periods. For funding systems to fulfil their purpose, they must take these specificities into account. The success of tendering systems therefore largely depends on whether the interactions with the market situation and project specifics in the individual renewable energy segments are taken into account in their design. Only this can ensure that comparable projects compete with each other and that a cost-efficient development in all renewable energy segments can be continued.

In addition, the Member States should take into account the flexibilization potential of biomass and exploit this potential through targeted financing. The intended development

of electricity generation from renewable energies includes, to a large extent, the necessity of measures to make the electricity offer and demand more flexible. In this context, the easily controlled use of biomass to generate electricity must not be ignored.

Technology-specific financing, such as separate compensation rates, is also necessary in order to better use the potential of solar energy in cities. In many Member States, including in Germany, generating solar electricity or leasing one's roof for this purpose is not attractive enough for building owners.

Regarding Article 15, Administrative procedures, regulations and codes

Recommendation:

Member States should ensure that

- rules concerning the authorisation of renewable energy procedures are sufficiently clear to enable legally secure authorisations. In practice, many authorisation authorities are hesitant because the conditions for authorisation are unclear. This applies for species protection law in particular.
- the authorisation of renewable energy procedures does not fail due to unreasonable minimum distances from breeding grounds of protected species or from living houses,
- repowering procedures are approved at least when the potential of the new installations for conflict with regard to species protection law is lower than that of the installations to be replaced,
- authorities and courts are equipped with sufficient staff so that bearers of procedures can receive definitive authorisations without delay, and
- flight-safety provisions are not stricter than those applied internationally.

Justification:

Difficulties in authorisation granting for renewable energy procedures are a large obstacle for the development of renewable energies. In this context, it is important that the provisions of the articles 15 and 16 to facilitate authorisation procedures are designed in a more concrete and binding way.

Regarding Article 15a, Paragraph 2; Article 24, Paragraph 5 RED III in conjunction with Article 24 EED-E

Recommendation:

The systematic distinction between EED and RED III should be maintained. The cogeneration share should remain the central efficiency criteria as of 2035. Individual, climate-goal-oriented decarbonisation roadmaps are to be preferred, including provisions regarding minimum shares and time steps. For minimum shares, no difference should be made between waste heat, renewable and other sustainable and greenhouse-gas-neutral energies.

Justification:

“Efficient district heating and cooling systems” have a key role in the European Commission’s draft. They can be counted in the context of renewable energy quotas in the building sector (Article 15a Paragraph 2 of the draft). Member States may also free them from Third Party Access (TPA)² (Article 24 Paragraph 5).

The European Commission describes under which conditions a system can be considered an “efficient district heating and cooling system” in Article 24 of the RED. The criteria described in this article are, however, not considered appropriate in several regards:

- The new definition for efficient heating and cooling systems focuses much more strongly than before on the use of renewable energies. The efficiency criterion that was of central importance until now, the share of cogeneration, is to be completely removed as of 2035. A minimum share of renewable energies is introduced instead. Therefore, the proposed definition does not fit the RED’s focus on energy efficiency. It would be systematically correct if the proposed definition referred to provisions in the RED III or if the definition in the RED III was taken over. The focus of each directive should continue to be clearly separated.
- In general, heating network systems, and consequently their transformation paths, are very heterogeneous. Binding them to deadlines is not appropriate. Instead, VKU proposes a voluntary commitment of the supplier to create decarbonisation roadmaps, oriented towards achieving the climate goals for the years 2030, 2040 and 2045.
- If binding deadlines are retained, it should be kept in mind that a tightening of the definition for efficient district heating or cooling is already planned for 2026. With regard to the 2030 climate goal, this causes an inconsistency in the time frames. In this case, we recommend delaying the planned steps for five years in order to achieve synchronisation.

Regarding Article 20a, Facilitating system integration of renewable electricity

Recommendation:

The obligation of distribution system operators to calculate GHG emissions should be removed. Article 20a should only contain the goal of creating more transparency about the mix of electricity sources. The design and implementation of the goal should be at the discretion of the Member States. Distribution system operators can provide relevant data, but it remains to be determined whether they should be the ones to publish this information.

² TPA = Third Party Access: The obligation to connect third-party providers of energy from renewable sources and of waste heat and cold and to buy heat and cold from them.

Justification:

Article 20a contains new obligations for transmission and distribution system operators to certify the renewable energy share in the mix of electricity sources and GHG emissions. The publications are intended to create more transparency about the local mix of electricity sources.

The proposal's intention is understandable, but the implementation in Germany would hardly be feasible and very costly. The interactions of approx. 800 distribution system operators and four transmission system operators generate many calculation problems. This includes, for example, the issue of how inputs in subordinate or overlaid grids are counted. Furthermore, each of the over 800 distribution system operators giving information about their mix of electricity sources would create more chaos than transparency.

Without prescribed standards, the publication of GHG emissions would miss the target. It requires an objective provision describing which emissions are to be counted for which power plants. Furthermore, it should be determined in advance to what extent upstream chains are to be taken into account. These objective provisions are to be determined at European level, in order to ensure comparability between Member States.

Regarding Article 24, Paragraph 4 District heating and cooling

Recommendation:

According to the current provision in the RED II Member States must increase the share of renewable energies for district heating and cooling by one percent per year. This should not be further increased. Instead of standard quotas, individual, climate-goal-oriented roadmaps more feasible, and their implementation should be decisively supported through incentives.

Justification:

From VKU's point of view, the biggest challenge is supplying densely populated areas with heating and cooling from renewable energies and unavoidable waste heat (including heat/cold generated as a secondary product in a waste treatment plant) on a large scale. It is crucial to strengthen the existing district heating/cooling infrastructure and to switch to greenhouse-gas-neutral sources as far as possible.

In this context, it must be kept in mind that the achievable renewable energy share for heating/cooling systems varies a lot depending on the size of the network, the surroundings (urban or rural) and the local availability of low-CO2 heating sources (for example biomass, geothermal or solar energy, waste, wastewater or waste heat potentials). Therefore, not every heating network can be switched to renewable and other sustainable and greenhouse-gas-neutral energies at the same speed. Individual solutions will therefore be more effective than standard quotas.

A quota at Member State level could be considered – but it must not be applied equally to the actors (heating system operators). Instead, it must be implemented through transformation plans, with which the Member States could control a possible quota determined by the EU.

Furthermore, it is important to continue decisively supporting the transformation of network-bound heating supply through incentives. In Germany, the planned financing program “Bundesförderung effiziente Wärmenetze” (federal financing of efficient heating networks, BEW) is an important instrument for investments. As the extension and transformation of the heating networks requires a high amount of capital, a too-low threshold for individual case notifications should be avoided. In addition, subsidy amounts and procedure simplifications should be fundamentally increased. This must be taken into account in the current revision of the environment and energy state aid guidelines. Higher climate-protection requirements for companies must go hand in hand with more support.

In addition, the transformation must not be hindered by unreasonably high requirements. Cogeneration plants are a guarantee for electricity and heating supply security, and through their high efficiency they actively contribute to resource and climate protection. The financing of new cogeneration projects must not be endangered by the EU taxonomy.

VKU considers the current European goal defined in Article 24 Paragraph 4 (a) RED II ambitious already. It lays down that the share of renewable energies and waste heat in the energy consumption for district heating and cooling from 2021 to 2030, starting from 2020, should increase by at least one percent per year on average.

In 2019, the share of renewable energies in district heating amounted to approx. 20 percent, and the share of waste heat (including heating from non-biogenic waste) approx. 12 percent.³ The share of renewable energies and waste heat (including heating from non-biogenic waste) in German district heating networks has thus indeed increased by one percent per year on average across the period 2009 to 2019.

However, this can be traced back to a decrease of district heating overall and the increase in “low hanging fruits”. A development of district heating generation and more costly conclusions of renewable energy potentials can be expected in the future.

Local heating suppliers of many German cities have predicted investments each amounting to 500 million euros or more before 2030 for their transformation concepts to more renewable energies and unavoidable waste heat. The entire German investment

³ AG Energy balances (2020): Evaluation tables on the energy balance for the Federal Republic of Germany from 1990 to 2019 (version September 2020)

requirement for the development/conversion of the heating network systems amounts to **approx. 33 billion** euros, including approx. 16 billion euros for network measures.⁴

The comparison of district heating generated through various “green” technologies with district heating from fossil fuels shows that the production costs for green district heating **are currently more than twice as high. They are also still above the fossil district heating price for 2030** – despite the expected increase of natural gas and CO₂ prices for fossil district heating and cost reductions for renewable heating production through scale effects and technological developments or potentially lower electricity acquisition costs (heat pumps, geothermal energy).⁵ Due to this striking economic gap of climate-neutral district heating compared to fossil-generated district heating, adequate financial support is needed.

Instead of setting even higher targets, a consistent legal framework and a clear strategy at the national and local levels are necessary, which must also include attractive and long-term financing programs. On this point, the European Commission is encouraged to critically review state aid law (environment and energy state aid guidelines). With regard to the billions worth of investments until 2030 and the blatant profitability gaps, higher financing quotas should be allowed, and extensive state aid authorisation processes should generally be avoided.

Adequate financing is also needed to support the early implementation of hydrogen in cogeneration plants and possibly also district heating plants, for example as Carbon Contracts for Difference. The financing should help the financed plants be operated in a way that is beneficial to the network and that supports the integration of renewable electricity generation in the network. A transport and distribution system infrastructure is necessary for the use of hydrogen in the heating sector. To this end, the existing gas networks should also be maintained and made usable where possible. Gas and hydrogen networks are to be considered as a joint infrastructure for all types of gas energy carriers and must absolutely be jointly managed and regulated, in order to avoid uncertainties and investment barriers. In addition, the provision of sufficient quantities of sustainably-produced hydrogen through domestic generation in decentralised and local plants and through import is to be ensured.

Recommendation:

Waste heat, synthetic gases and energy from waste (observing the priority of prevention, reusing and recycling), energy from mine gas and sewage sludge should be lastingly

⁴ Forecast, Hamburg Institut (2020): Report “District heating perspectives”, commissioned by the AGFW, p. 7, <https://www.agfw.de/strategien-der-waermewende/perspektive-der-fw-7070-4040/>.

⁵ See forecast, Hamburg Institut (2020): Report “District heating perspectives”, commissioned by the AGFW, p. 7f., consultable at: <https://www.agfw.de/strategien-der-waermewende/perspektive-der-fw-7070-4040/>.

equated to renewable energy in district heating and cooling systems, as is already the case for sewage gas and ambient energy from wastewater.

Justification:

Taking into account the priority of prevention, reusing and recycling (see VKU's position regarding Article 2), the energy sources here are greenhouse-gas-neutral. In addition, this waste will only contain carbon from renewable sources in a de-fossilised future.

Regarding Article 24, Paragraph 5

Recommendation:

The provisions for the access of third-party suppliers to district heating/cooling systems should not be extended, as the current provisions are sufficient. Article 24 Paragraph 5 Sentences 2 and 3 of the draft of the European Commission in particular must not remain in their current form: They give the impression that an obligation should be introduced to convert existing district heating and cooling systems so that third-party access is possible.

Justification:

VKU shares the goal of supplying metropolitan areas with more renewable heat and waste heat via heating or cooling systems. Local public utilities are important actors in this regard. Thereby, it must be kept in mind that the network-dependent heating and cooling supply is not easy to manage due to the interactions between generation, network operation and consumption. In practice, it has proven reasonable to provide network access to third-party suppliers of energy from renewable sources and of waste heat and cold on the basis of bilateral contracts. The technical restrictions of the network and the storage and load profiles can thus be taken into account. In general, the local situation is the decisive factor, as heating and cooling systems are tailored to the local resource offer and consumption structure.

Heating systems are local in nature and do not form a cross-regional network. The systems and the plants generating or supplying the heat are designed to supply the largest possible number of customers. Accordingly, the system must be tared regarding the technical costs. An extensive, unconditional access for third-party suppliers and a general opening of the networks is not just technically difficult for this reason. It could also lead to highly efficient plants having to be decommissioned or heat of third-party buyers having to be decreased in times when there is no need for heating. Infrastructure maintenance and development investments must not be uneconomical due to unilateral burdens that weaken the competitiveness of district heating systems.

If the access conditions are no longer negotiated between market participants, as proposed by the European Commission, but defined by regulatory authorities, this would have negative consequences for the profitability of district heating and cooling systems. In the worst case scenario, operators may show restraint in investing in network development and maintenance in the future. This would be a setback for the heating

transition that must be prevented. The current provisions for the access of third-party suppliers to district heating systems are therefore sufficient and should not be extended.

Article 25, Greenhouse gas intensity reduction in the transport sector from the use of renewable energy

- **Paragraph 1 Sub-paragraph 1 Letter b, Advanced biofuels and biogas**

Recommendation:

VKU welcomes the proposal to oblige fuel suppliers to ensure a share of advanced biofuels and biogas that increases over the years.

Justification:

This makes it attractive for separate biowaste collection to combine biowaste management with additional GHG savings. This is also a type of sector coupling that is already applied by VKU member companies. Leaving the approach open to new technology is highly significant, as non-electricity-based processes are already established, energy-efficient and profitable local solutions.

- **Paragraph 1 Sub-paragraph 3, recycled carbon waste**

Recommendation:

For the calculation of the greenhouse-gas intensity reduction of 13 percent to be made by fuel suppliers according to Article 25 paragraph 1, it should be obligatory to acknowledge recycled carbon waste.

Justification:

Energy from waste that does not have a high recycling value and is therefore exploited for its energy should be equated to renewable energy as a greenhouse-gas-neutral use of unavoidable substances or waste heat.

- **Paragraph 2, credits for supplying renewable energy**

Recommendation:

VKU welcomes the fact that a mechanism allowing fuel suppliers to exchange credits among themselves for supplying renewable energy to the transport sector is proposed in the new Directive, and that recharging electricity suppliers can also take part in this credit trade. In order to create another incentive for the use of electricity from renewable or other sustainable and greenhouse-gas-neutral energies, this electricity should be counted in the individual greenhouse-gas reduction quotas with zero emissions.

Justification:

In order to further reduce greenhouse gas emissions in the transport sector, effective incentives for investments in the provision of electricity for electrical vehicles must be

established. In the national implementation, with the exception of mainly privately used vehicles, appropriately measured energy quantities should be used in order to also make this instrument efficient and practical for the operation of heavy utility vehicles, including buses and trains if applicable, and to take into account the diverse structure of the many use profiles of such vehicles.

Article 27, Calculation rules in the transport sector with regard to renewable fuels

- **Assessment of hydrogen, Paragraph 3 Sub-paragraph 5**

The use of hydrogen in the transport sector must be counted with zero emissions if all of the primary and secondary energy sources supplied to or used in the production process are directly or indirectly gained from renewable energies or energies or substances already created, such as waste heat, waste and wastewater, from biogenic or non-biogenic origin (green hydrogen).

The classification as green hydrogen should not be limited to hydrogen made with electricity from unsubsidised renewable energy plants. There should also be no requirement of simultaneousness between hydrogen production and electricity production. Equally, there should be no spatial limitations. It should also not be limited to newly installed capacities (for example the use of excess electricity from existing waste incineration plants to produce hydrogen is reasonable).

Furthermore, at least during the transitional period of the market ramp-up, such hydrogen should also be accepted as green or climate-neutral and given equal regulatory status. On the condition that it is proven that no CO₂ is emitted during its production and that water protection is guaranteed. Please see the statements concerning the definitions in Article 2.

Justification:

This measure would support market development along the entire value chain and quickly increase the offer of green hydrogen. This is important for those transport areas that cannot be converted to renewable or other forms of sustainable and greenhouse-gas-neutral electricity as the energy carrier without unfeasible costs (heavy-duty traffic and certain long-distance traffic, heating sector, industry applications, rail transport, inland waterway transport and air traffic). The use of hydrogen in particular will be decisive for reaching the greenhouse-gas reduction targets in this area.

The power purchase criteria for green hydrogen defined by the European Commission in the draft delegated act implementing Article 27 RED II⁶ is incompatible with the amount

⁶ Draft seen by VKU, version April 2021

of hydrogen needed to seriously contribute to the decarbonisation of the EU expected for this technology.

Most of the wind power generation in Germany occurs in wind power plants financed according to the German Renewable Energy Sources Act (EEG). If only wind power marketed without state aid, for example in the context of PPA, was allowed for the generation of green hydrogen, the amount of hydrogen available to fulfil the directive's goal would be far too low. A competitive production of green hydrogen is dependent on sufficient quantities of electricity at competitive procurement prices.

To comply with the requirement to produce hydrogen and generate the necessary electricity at the same time would require a disproportionately high verification effort, massively limit the utilisation time of the capital-intensive hydrogen production plants and cause a less liquid market.

Green hydrogen should also require no spatial correspondence between electricity and hydrogen production in order to be defined as such. The supply of electrolyzers in Germany with green electricity is a challenge in itself, meaning that the additional construction of renewable energy plants is not fast enough either for the electricity market. For the hydrogen launch in Germany, being able to fall back on green electricity from the whole of Europe is necessary in order to conclude a wide and thus more cost-effective procurement market.

- **Certifying and proving hydrogen origins**

Recommendation:

VKU calls for the quick introduction of a Europe-wide harmonised certification and proof system for hydrogen origins.

Justification:

Alongside transparency for the consumer, this would also reinforce the establishment of fair market prices and the demand for green hydrogen where other CO₂ savings measures would cause higher costs.

- **Biomethane from (waste) fermentation plants**

Recommendation:

In the areas that are difficult to convert to electricity, the option of biomethane from (waste) fermentation plants should also be taken into focus alongside hydrogen.

Justification:

The technology is already known, simple to manage (Otto gas engines as well as modern, emission-poor dual-fuel diesel engine concepts) and thus represents at least a non-climate-burdening transitional technology for the next one to two decades. The same

applies to synthetic fuels based on waste. Counting recycled carbon fuels in the greenhouse-gas reduction quotas in the transport sector should therefore be obligatory.

Regarding Article 29, Sustainability and greenhouse gas emissions saving criteria for biofuels, bioliquids and biomass fuels

Recommendation:

The sustainability criteria of the Directive should follow the horizontal approach of European policy. The Directive should be harmonised with the water protection targets defined in the Water Framework Directive and its daughter directives, especially the Nitrates Directive. The verification of compliance with the environmental requirements should also be included and not left to agricultural policy according to recital 99. Carbon capture and storage (CCS) should be subject to its environmental impact. Water protection and especially the security of the drinking water supply must be given top priority in this issue. The European Commission should use its rights according to Article 30 paragraph 4 and concretise or synchronise the sustainability criteria with the environment protection goals of the rest of the European framework legislation, such as the Water Framework Directive and the Urban Waste Water Treatment Directive.

Justification:

The sustainability criteria of the Directive are currently essentially limited to greenhouse gas reduction goals and land use changes. Further environmental effects are not specifically mentioned. From VKU's point of view, this is not sufficient.

Climate protection goals must not be prioritised over other environmental resources, particularly water and thus the resources for the drinking water supply.

Any energy gained back from waste and mine gas must be classified as GHG-neutral and sustainable if it is in accordance with recycling and waste law, water law and immission protection law. A proof of sustainability beyond proof of the legally compliant waste and wastewater disposal is neither necessary nor appropriate.

The exploitation of waste in accordance with waste recycling priority is a sustainable management of secondary resources, both through re-use and recycling and – subordinately – through their use for energy.

For questions or remarks, please contact:

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