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Position Paper

On the European Commission's White Paper "How to master Europe's digital Infrastructure Needs?" (COM 2024 (81) final)

Position Paper of the German Energy and Water
Industries

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The German Association of Energy and Water Industries (BDEW) and its regional organisations represent over 1,900 companies. The membership comprises both privately and publicly owned companies at the local, regional and national level. They account for around 90 percent of the electricity production, over 60 percent of local and district heating supply, 90 percent of natural gas, over 90 percent of energy networks and 80 percent of drinking water extraction as well as around a third of wastewater disposal in Germany.

Preliminary Remarks

On February 21st, 2024, the European Commission presented its white paper "How to master Europe's digital infrastructure needs?" (COM 2024 (81) final). It is meant to form the foundation for a more holistic discussion between all relevant stakeholders on the future of Europe's telecommunications sector.

For years, the members of the German Association of Energy and Water Industries (BDEW) have strongly promoted the expansion of fibre optics in areas where it was not sufficiently attractive for large telecommunications companies. As alternative network operators, BDEW member companies are responsible for 67 percent of the fibre optic connections built in Germany. The spectrum of members ranges from local and municipal to regional and national companies (both public and private). As users and operators of broadband infrastructures, the expansion of high-performance networks for electronic communication plays an important role in the energy and water industries.

BDEW represents over 2000 companies that both own and operate supply networks in the gas, electricity, district heating and wastewater sectors. In addition to their own gigabit expansion, BDEW members make their infrastructure available to operators of public telecommunications networks for shared use under certain conditions. Furthermore, ensuring the rapid and comprehensive expansion of fibre optic infrastructure is of great importance for implementing the energy transition and developing new digital business models.

BDEW welcomes the Commission's white paper as a basis for fruitful exchange. We support the idea of the copper switch-off to promote investments in the telecommunications industry and guarantee all citizens a fast and sustainable internet connection. We also underline the importance of protecting FttH-operators' businesses, as secure investments due to active access products are key to future fibre-optic expansion. We also appreciate the push for more European cooperation to accelerate innovation, with the long-term goal of strengthening the independence of the European telecommunication industry through industrial capacities and know-how.

On the other hand, we are concerned that new European harmonisation efforts will distort competition and risk investment profitability. The Commission must guarantee proportionality in its actions. In our opinion, a diverse market environment will lead to investment and innovation. On the other hand, European champions could potentially increase competition and scale but not have a faster fibre-optic deployment. Therefore, even if we support some ideas of the Commission's white paper, national particularities have to be considered so as not to damage fibre-optic expansion through excessive harmonisation. Moreover, the added value of additional measures - such as those for sustainability reporting - must be weighed against the considerable additional costs.

Against this background, BDEW has drafted recommendations on the central aspects of the white paper, which aim to promote a future-proof trajectory for Europe's electronic communication networks.

The BDEW Recommendations in Detail

1. Consider national particularities when harmonising European telecommunication law

A central point of the Commission's white paper is the goal of fostering a pan-European network rollout, including EU-level access regulation. The latter would complement or replace existing national and local approaches and regulations. The Commission should consider that its efforts could lead to more competition but not necessarily to scale effects for investments. Moreover, national specifications like market structure, current coverage rate, and significant market power (SMP) should be considered when harmonising the legal and regulatory framework.

The BDEW urges the promotion of every type of market structure instead of promoting specific ones. The commission should not propose 'one size fits all' solutions. National specifications concerning the design of the network infrastructure (e.g. above-ground or exclusively underground installation) as well as current fibre optic supply have to be taken into account. Member States continue to have different levels of coverage. Therefore, we support EU-wide guidelines but they must be adapted to national circumstances and implemented in the member states (e.g. through national regulatory authorities (NRAs)). Hence, legislative act with the goal of **implementing the ideas in the White Paper should take the form a directive rather than a regulation.**

Scenario-related recommendations

Scenario 4

- The Commission should broaden the regulatory framework to ensure fair treatment for all stakeholders, considering the diverse needs of member states.
- Efforts to promote competition should recognise that they may not always drive substantial investment-scale effects. When harmonising regulations, it is essential to consider national factors like market structure, coverage rates, and significant market power.
- A diverse market structure should be promoted rather than favouring specific ones.
- EU guidelines must be flexible for national adaptation and enforced through NRAs. Legislative acts should be in the form of a directive rather than a regulation to accommodate local contexts.

If the EU aims to harmonise the market to accelerate network rollout, **an EU-wide wholesale access product should only include the active level and, at best, complement national remedies**. This is the only way to take national particularities into account appropriately. We share the Commission's assessment that virtual access is suitable for reducing obstacles to expanding pan-European networks. In contrast, a regulated right of access to passive network elements would devalue the investments of first-time developers and reduce the willingness to make new investments. In addition, access at a virtual level promotes sustainability goals, as passive infrastructures do not have to be provided multiple times unnecessarily. More (international) demand and the associated higher utilisation of the networks also increase the effectiveness of the use of telecommunications networks.

However, the Commission should consider the high complexity and national differences when designing wholesale access products. **The Commission should, therefore, refrain from EU-wide standardised technical criteria**. On a national level, efforts to regulate wholesale access already exist. Those discussions by national regulatory authorities are productive and matched to individual requirements. The EU should promote those national efforts and lay down only basic rules that have to be fulfilled by national governments and authorities when regulating wholesale access.

Scenario-related recommendations

Scenario 5

- Introduction of criteria for standardised wholesale access products to promote EU-wide business opportunities. Passive infrastructure should not be included under any circumstances, as individual agreements are always required here. Focus on active-level access to protect investment security.
- Acknowledge national differences in the requirements for wholesale access products. The introduction of EU-wide technical criteria should be avoided. Instead, national discussions on the design of regulation should be encouraged, and only complementary basic rules for wholesale access should be laid down. This creates a balance between national differences and broader harmonisation.

2. Comply with proportionality when promoting scale effects while strengthening a versatile European telecommunications sector

Looking at the objectives of the white paper, it is important to discuss the goal of further strengthening investments by using scale effects and enforcing cooperation, access regulation, and competition in infrastructure and services. In addition, the current Commission also

expressed its interest in promoting scale effects by market consolidation through more flexible merger policies and promoting single “European champions”¹.

BDEW questions the assumption that few market players will lead to higher investments.

Germany is a prime example of a versatile market with a high number of competitors next to a market-dominant company. More than two-thirds of all infrastructure investments originate from so-called alternative operators (many companies in the energy and water industries). Thus, the diversity of the telecommunications industry plays a vital role in a rapid gigabit infrastructure rollout and is a prerequisite for the success of digitisation. This diversity is not an obstacle to progress but a necessity for desired outcomes. Alternative operators have a vital role, especially when considering fibre expansion in remote or rural areas, where they are often most needed.

On the other hand, the example of Germany also shows detrimental behaviour from certain large telecommunications companies, utilising their market dominance negatively. Hence, **enabling rapid development and connections to homes for all market participants will be more important for a fast gigabit deployment than flexible merger policies on a European level.**

From a legal perspective, there is no general constraint on promoting single big players that lead to effects of scale. However, the central consideration must be whether a distortion of competition occurs. **Any future legislation must keep the principle of proportionality in mind. It is crucial to ensure that investments are not devalued where they are already taking place due to good market conditions.** EU-level measures should not lead to companies gaining dominant market positions, as this would negatively impact competition.

Moreover, BDEW questions whether scaling effects in investments would lead to a faster gigabit deployment because civil engineering costs are not quantity-based and, therefore, not scalable. Rather, local knowledge, regional connections, efficient procurement and management of civil engineering resources and rapid utilisation of the networks via open access are crucial. Large market participants with better financial resources and are consequently unable to generate scaling effects in this area. On the other hand, telecommunication markets like Germany gain an advantage through the high diversity of its market participants.

3. Including SMEs and alternative network companies in pan-European investments and cooperation

In light of recent geopolitical events, uncertainties in supply chains have become increasingly evident. We not only face shortages of IT components and uncover weak points in supply chains but also face strategic critical dependencies from other international players (mainly

¹ See: [A 'Digital Networks Act' to redefine the DNA of our telecoms regulation \(linkedin.com\)](#)

concerning raw materials and IT components). Those challenges have shown the dependence of European supply concerning crucial resources and necessary technologies. Supply bottlenecks and scarce resources have led to rising prices for essential components of fibre-optic networks, vital to the profitability of expansion projects and a heavy load for companies. Hence, **we support the aim of developing European industrial, technological, and knowledge competencies to strengthen the resilience of the ICT sector vis-à-vis external influences.**

Fibre networks are crucial to control a modern energy supply and thus transition to a green and sustainable future. They underline the two-fold significance of a safe, resilient telecommunications infrastructure – including its supply chain.

BDEW generally supports strengthening European cooperation to stimulate innovation. We support a stronger interplay and synergies for EU funding programmes to spark innovation, as suggested in Pillar I. However, many companies represented by BDEW would be exempted from funding programmes and other options due to the reference to the SME definition (2003/361/EC). The Commission's Definition of SMEs does not include companies in which at least 25% of the shares are controlled by a state body or public corporation. This automatically excludes, for example, small and medium enterprises that are predominantly owned by municipalities. It is necessary to question this practice because alternative operators were the main drivers of the gigabit roll-out, especially in Germany and other European markets. These companies accumulated vast knowledge on fibre infrastructure development projects, which they could incorporate into international “large-scale projects”.

To further promote the involvement of SMEs, it is also important to rethink the complexity of those funds. In particular SMEs do not have the personal capacities to participate in complex funding proposals. Simplifying the application process for funding programs would enable smaller and mid-sized companies to join pan-European projects and contribute their expertise in fibre infrastructure deployment.

Scenario-related recommendations

Scenario 1

- Large-scale Pilots should be implemented, incorporating the knowledge of SMEs to improve diversity in working groups.

Scenario 3, 8 and 10

- Consideration of investments by all players instead of just the large telecommunications companies.
- The application process for leaner and synergetic funding programmes should be simplified to lower participation barriers. This would make it easier for alternative providers to obtain financial support for R&D projects.

- By streamlining the process, the EU institutions should consider reducing bureaucracy and red tape.

4. Copper Switch-off by 2030 has to be executed fair for all market players

The European Commission has proposed that by 2030, the migration from outdated copper networks to newly deployed fibre optic networks should be finalised (2028 to 80%). This proposal aims to increase planning security for fibre-optic operators, secure returns on investments, and offer end customers the opportunity to obtain similar conditions for fibre-optic connections.

BDEW supports the Commission's goal of switching off copper networks, which aligns with the Digital Decade 2030 objectives. We also agree that this measure could help to earn back investments and improve long-term planning. Moreover, it provides incentives for further investment in fibre optic networks. Finally, it would give additional incentives for developing fibre-optic infrastructure in member states with relatively low coverage. Nonetheless, concerning the different levels of deployments in the member states, a **general turn-off date is not feasible**. Single national markets are too far away from the goal of 100% fibre-optic coverage by 2030. **We, therefore, advocate for varied switch-off solutions based on the individual market situations.**

As the European Commission pointed out correctly, the copper-glass migration should not lead to a competitive advantage for single market participants. Looking at the specific market constellation in Germany, it is even more critical that a copper switch-off does not become a strategic instrument for individual companies.

Market-dominating companies in Germany might continue operating copper networks wherever they do not operate a fibre network, claiming this as a constitutional right to avoid losing customers. This situation endangers the fulfilment of the regulatory targets, competition on equal terms, and the utilisation of existing infrastructure, especially if other network operators offer a fibre connection in the same region.

Hence, the timing of the switch-off in areas where third parties have expanded with fibre optic networks must not be left solely to the strategic interests of the respective operator of the historical copper network. If there are fibre optic networks in a switch-off area that can accommodate the existing end customers of the copper network, it must not matter whether they were built by the historical incumbent or by alternative operators. **BDEW demands the introduction of a legal framework by the EU requiring copper switch-off when a fibre-optic infrastructure is built to cover the same region.** Simultaneously, the **EU should leave room for national regulatory authorities** to adapt the legal framework to local situations and avoid strategic switch-off and market distortion.

Scenario-related recommendations

Scenario 5

- The EU should define a regulatory framework to ensure a non-discriminatory switch-off of copper networks.
- Regulatory framework should prevent market-dominant players from exploiting switch-off. Empower national regulators to adapt the migration process to local conditions.

5. Universal service and affordability of digital infrastructure

With its efforts to guarantee universal services and affordability of digital infrastructure (section 3.2.8.), the Commission wants to enable all citizens – especially those with low-income or special needs – to perform basic online tasks.

BDEW generally welcomes the white paper's concepts regarding universal services and the affordability of digital infrastructure. To ensure appropriate geographical coverage of rural and remote areas, a well-working state aid system is necessary to connect those regions that experience market failure. Through its Broadband State Aid Guidelines, the EU has already established guidelines for national governments funding expansion projects. These remain valid for guaranteeing fibre deployment for everyone.

The White Paper highlights the importance of ensuring that all users have access to high-speed internet without being socially excluded. It rightly suggests that all types of connection technology (fixed network, mobile telephony, and satellite) should be used to achieve this goal. **To avoid any misunderstandings about the design of universal service, it would be useful to clarify in the upcoming legal framework that a universal service cannot always be distributed through the technically best possible connection (FTTH).** This is due to procedural organisation and sectoral financing.

The BDEW mostly supports the concept of connectivity vouchers on a national and European level. We welcome the Commission's approach to ensuring the affordability of networks through state financing in the form of connectivity vouchers. However, to guarantee that citizens can perform all online tasks, we suggest linking state aid to a minimum performance of the targeted internet connection. From BDEW's point of view, the **Commission should only permit state aid for networks in line with the Union's connectivity targets.** Thus, connectivity vouchers should support end-users' subscriptions to networks that can deliver 1 Gbps download speed and to fibre-based Gigabit networks.

Although BDEW supports the Commission's ideas, we call for **long-term strategies to create and sustain demand for FttH connections.** Incentivising all households to opt for a fibre-optic

connection is necessary. The mere availability of an electronic communication network does not automatically ensure enough subscriptions to broadband internet access by end-users. High retail prices are a significant obstacle to connecting buildings to gigabit networks. The financial viability of house connections is a key instrument for 100 percent fibre-optic connections by 2030.

6. Opening up spectrum allocation to promote competition within the European single market

The White Paper emphasises the alignment of spectrum management with the objectives of sustainable development, economic growth, social and territorial cohesion and solidarity between the Member States. BDEW questions why competition is not mentioned in this list, although it should be an essential element of the objectives. The Commission appears to be focussing mainly on international competition, which is contrary to EU and German law. Rather, effective competition in the internal market should also be promoted to avoid distortions.

The Commission has put forth a hypothesis that the lack of cooperation among member states is the cause of the delay in the expansion of 5G technology. However, they did not give a detailed substantiation of this claim. BDEW has expressed scepticism towards this assumption, citing evidence of successful collaboration. **While we support the goal of efficient spectrum allocation, the practice of hoarding spectrum usage rights hinders the achievement of this objective.** In Germany, the "use it or lose it" principle is already established in national law, which allows for the removal of unused frequencies. However, mobile operators have the ability to restrict the usage of certain activities by others, particularly in the 6 GHz band, which is critical for indoor data transmission.

Given the imminent release of the Wi-Fi 7 standard and the production of routers for the entire 6 GHz frequency band in the United States, **we strongly advocate enabling Wi-Fi usage in this area.** Such a move would make optimal use of the expansion of fibre optic networks and better serve the interests of society than reserving the band for mobile communications.

7. Avoid unnecessary bureaucratisation of security requirements for telecommunications

With section 3.2.4. „addressing barriers to core network centralisation,” the Commission wants to harmonise the security requirements of network/service incident reporting and security vetting requirements. In this context, it is important to draw a connection to the scope of regulatory requirements regarding network security that have emerged in recent years (see NIS2 and the German KRITIS Act, among others). These already require extensive adaptation by companies, and corresponding bureaucratic effort should not be underestimated.

Recent legislative acts should be implemented first, before focusing on additional measures. Generally, there should be a comprehensive cost-benefit analysis before introducing further obligations. Especially the criticality of a network should be taken into account for such decisions.

If the Commission wants to address security issues of telecommunication infrastructure, it should focus on the protection of information about telecommunications networks, such as georeferenced data and data delivery obligations. For instance, the new information obligations of the Gigabit Infrastructure Act have to be implemented with adequate cybersecurity protection. BDEW would see the most promising progress regarding network infrastructure security if the EU introduced **guidelines on data accuracy and access rights to single information points** (like the Infrastrukturatlas in Germany). Moreover, critical infrastructure should be excluded from data delivery obligations to ensure functionality and supply security.

Scenario-related recommendations

Scenario 4 and 12

- Implement recent legislative acts like NIS2 and the German KRITIS Act first, addressing bureaucratic burdens and allowing companies time to adapt before introducing further regulations.
- The Commission should prioritise information protection measures. This includes ensuring the security of georeferenced data and data delivery obligations.
- Critical infrastructure should be exempt from data delivery obligations to maintain functionality and security, preventing vulnerabilities and safeguarding against sabotage or physical attacks.

8. Pushing for more sustainable electronic communication networks

Measures in section 3.2.9 of the Commission white paper aim to support the integration of sustainability in digital standards. The Commission aims to enhance sustainability in telecommunications by implementing transparency measures for electronic communications' environmental footprint. Additionally, it plans to introduce new metrics to monitor the net carbon impact of telecommunication networks and increase investments in green technology.

The **Commission's efforts to promote green investments in electronic infrastructure are crucial to reaching the climate protection goals**. Fibre optic networks can contribute to achieving these goals and is often already seen as a sustainable investment in the financial market. For good reason, according to a study by the Umweltbundesamt (Federal Environment Agency), fibre optic cables are the most energy-efficient compared to other

electronic communication networks and can, therefore, significantly reduce CO₂ emissions in the ICT sector².

BDEW supports the Commission's efforts to attract investments in green and sustainable infrastructure and improve the usability of the EU Taxonomy. The exclusive expansion of fibre optic infrastructure should be promoted to encourage sustainable investment and contribute to climate targets. In addition to operating fibre-optic networks, the EU should also focus on the sustainability aspects of future network expansion projects. In addition to investments, upgrading old copper infrastructure to new fibre-optic technology is also very important as these can be operated much more sustainably in comparison (see section 4). Simultaneously, when phasing out old copper infrastructure, the Commission should establish a legal framework for recycling it. Reintroducing old copper into the value chain could have a significant positive impact on sustainability and would increase independence from external resource supply.

To foster those crucial investments, the Commission suggests developing and introducing new robust and credible science-based metrics to estimate the net carbon impact of digital solutions in climate-critical sectors. In general, **BDEW supports the Commission's plan to create more transparency regarding the carbon footprint of electronic communication systems** in climate-critical sectors (like the energy industry). At the same time, **BDEW warns that the new obligations will entail a considerable amount of additional administrative work for the companies concerned**. They must, therefore, be designed carefully and with scientific rigour - and they must always be measured against the concrete sustainability effects that can be achieved.

Scenario-related recommendations

Scenario 7

- Encourage the exclusive expansion of fibre optic networks to promote sustainable investment and contribute to climate targets.
- Improve the usability of the EU Taxonomy to attract investments in green and sustainable infrastructure.
- Acknowledge the potential administrative burden associated with new obligations related to assessing the carbon footprint of electronic communication systems. Balance the need for transparency with minimising excessive administrative work for companies, ensuring efficiency in regulatory processes.

² See: [Politische Handlungsempfehlungen Energie- und Ressourceneffizienz digitaler Infrastrukturen \(umweltbundesamt.de\)](https://www.umweltbundesamt.de/en/politische-handlungsempfehlungen-energie-und-ressourceneffizienz-digitaler-infrastrukturen).

- Recognize the importance of upgrading old copper infrastructure to fibre-optic technology.

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