

Position paper

Green Deal – “Fit for 55” Package

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The pioneering role of the electrical and digital industry

The electrical and digital industry in Germany calls for an ambitious climate policy which lives up to the goal of the Paris Agreement to limit global warming preferably to below 1.5 degrees Celsius. ZVEI supports the pioneering role of Europe and the vision of a climate-neutral European society by 2050 at the latest. Achieving this goal will require coordinated and well-targeted energy policy reforms - the European Green Deal takes up this challenge and is a step into the right direction.

The goal of climate neutrality as well as intermediate targets, such as a 55% reduction in greenhouse gas emissions by 2030, can only be achieved through systematic sector coupling. This means replacing fossil fuels with green and renewable energies in all sectors: buildings, mobility and across industry. Wherever possible renewable energy should be used in its most efficient form, electricity, or, where necessary, by using derivatives such as green hydrogen or synthetic fuels.

The “Fit for 55” package comprises important proposals for changes to the EU’s energy and climate policy framework aiming to make the European energy system more robust and sustainable. Essentially, it must play a key role in promoting the production and use of green energy, while making renewables cheaper. Fossil fuels, on the other hand, must become more expensive, for instance through an increasing CO₂ price and the removal of subsidies. Furthermore, tremendous investments must be made available to incentivise and enable the switch from fossil to green energy. Digitisation of the energy system and energy efficiency must be driven forward so that new appliances can be successfully integrated into the energy system. Alongside the “Fit for 55” package, also the EU guidelines on state aid for environmental protection and energy shall be revised.

Lastly, Europe does not just need solutions that are technocratically and legally correct. To make the energy and climate transition a success, it is vital to create a positive vision for the future of Europe both as an industrial location and a society. Decarbonisation offers huge opportunities: Europe has the chance to become the technology leader and export champion in one of the most important markets of the future. Nonetheless, broad public acceptance of the energy transition will remain to play a key role in its success or failure.

The following paragraphs provide recommendations on the individual files of the “Fit-For-55” package as proposed by the European Commission on 14 July 2021.

1. Governance: The EU target architecture

The adjustment of targets by the EU Climate Law (EU) 2018/1999 is an important milestone on the road to a sustainable industrial society. It is now time to implement rapid and bold reforms in energy and climate policy in order to set up the legal framework for the required investment in a carbon-free energy system. We support retaining the EU Effort Sharing Regulation (EU) 2018/842. This instrument makes a more ambitious emission reduction path possible and should still be deployed even if a carbon emissions trading scheme for the building and transport sectors is successfully introduced. Why? It takes time for such a complex system to be installed, ensuring that emissions are demonstrably and significantly reduced. Furthermore, the CO₂ price will not be able to accommodate the different price levels or price sensitivities in the EU and will thus result in an unequal market effect. Moreover, the CO₂ price alone will not suffice to cope with the transformation in the buildings and transport sector. Since a large part of the “Fit for 55” package is directed at EU Member States rather than individual companies, a governance mechanism for Member States certainly seems to make sense, not least because a proper and timely national implementation of the individual guidelines is not given. Thanks to the Effort Sharing Regulation, the Member States are responsible for achieving dedicated climate targets by means of respective national policies. Here, a sort of monitoring mechanism should be installed, to ensure that counteractive measures can be taken if there is a risk of targets not being achieved.

2. Energy prices with a steering effect

Energy prices play the central role in an efficient, sustainable energy market design. They must steer investments in carbon free energy along with the associated infrastructure and technologies – and thus away from a fossil-based energy market. Time-variable energy prices send important signals to producers and consumers, ensuring a more efficient energy and climate transition across the EU.

1) Energy Taxation Directive (2003/96/EC):

As a cost element of an energy source, energy taxes play a significant role in energy market design. Energy taxation should therefore be understood as a climate policy instrument with a steering effect and in respect of climate goals, be realigned based on the greenhouse gas emissions of different energy sources. As a cornerstone of the energy transition, electricity should be subject to the lowest tax rate to incentivise investments in sector coupling. Green electricity and its derivatives, such as green hydrogen or synthetic fuels, should initially not be taxed. Long-term tax-exemptions could be an effective way of accelerating the expansion of renewable fuels. Flat-rate tax concessions or exemptions for fossil fuels and their use for certain purposes should be rejected and stopped accordingly. Rather, the prerequisites for such tax relief should be defined narrowly and tied to investments in climate protection measures. Income

from energy taxation at national level should be re-invested in the development of a carbon-free energy system.

II) Revision of the EU Emissions Trading System (Directive 2003/87/EC):

An effective CO₂ price must complement an attractive electricity price and thus constitutes an important design element for an efficient and sustainable energy market design. ZVEI supports the basic principle of emissions trading, whereby reducing the number of available certificates leads to innovation and investment by sending a price signal against the emission of greenhouse gases. The coupling of appropriate certificate prices, economic development and the achievement of targets is only efficiently guaranteed through a market-based instrument.

EU emissions trading should be expanded to cover the transport and building sectors. However, a uniform, global, CO₂ price – across all sectors – is desirable for the future. Still, the most important premise for carbon pricing is its steering effect. Sectoral differences in carbon pricing can take account of divergent carbon avoidance costs and thus pave the way for an efficient transformation or mitigation in all sectors. After all, the costs of emission reduction are too different: for a long time, there would be no incentive to reduce CO₂ in the transport and buildings sectors, while the energy and industrial sectors would be subject to excessively high costs. However, stark emission reductions are needed now, across-the-board in all sectors, because the transformation processes will take time, especially in view of the sometimes-lengthy investment cycles. We therefore support the EU Commission proposal of installing a second European emissions trading system for these sectors.

In addition, emissions trading for the energy sector and industry must be adapted to the new EU climate goals. ZVEI supports expanding the scope to air and maritime transport. Furthermore, increasing the linear reduction factor is the correct approach.

The free allocation of CO₂ certificates, which serve as a carbon leakage protection mechanism, should only happen in return for investments in climate protection measures. ZVEI takes a critical view of the reduction of electricity price compensation granted to companies from energy- and trade-intensive sectors (indirect costs of CO₂ pricing) in the short-term, since the burden of electricity prices must be relieved first.

III) Renewable Energy Directive (EU/2018/2001)

The Renewable Energy Directive (RED) defines a Europe-wide target for the share of renewable energy with respect to the final energy consumption while providing various sector-specific targets. It also specifies rules for efficient integration in the energy system. Directive EU/2018/2001 can thus make an important contribution to achieving climate targets – provided the Directive is rapidly implemented at Member States level.

The German electrical and digital industry supports the increased level of ambition of the RED proposal as regards the use and promotion of renewable energies in the

industry, transport and building sectors. Sector coupling, through the direct use of electricity or in the form of derivatives, such as hydrogen or e-fuels, is key to the energy and climate transition. We already have the technologies to achieve the climate targets, particularly for the direct use of renewable electricity. To help boost the hydrogen industry, the RED should promote an international certification system for green hydrogen.

The rapid transformation of the energy system is currently at risk of failing as a result of long, non-transparent planning and approval procedures for renewable energy systems and infrastructure projects. The RED should provide Member States with specifications for more efficient procedures, for example by means of best-practice sharing and the broad use of digitisation in public authorities.

Thirdly, the RED can also contribute to energy prices that benefit the direct and indirect electrification, for instance by including a ban on electricity price levies (cf. the German “EEG-Umlage”) in the rules for promoting renewable energies. It makes sense to promote renewable electricity, if, at the end, electricity remains affordable and thus attractive for the consumer. Hence, there should be greater support for direct delivery contracts for green electricity, also known as ‘power purchase agreements’ (PPAs). Government-guaranteed funding of PPAs plays an important role in overcoming the obstacles blocking SMEs from accessing PPA contracts. Clear rules should be defined here for the approval of contracts (for project developers) and, at the same time, the current rules for the sale of interconnection capacities should be relaxed to promote physical PPAs and overcome obstacles to store renewable energy.

Furthermore, dynamic electricity prices are key for the success of the energy transitions and a better integration of renewable energies by showcasing the importance of flexibility in energy storage and its use via different end-users / appliances. A prerequisite is that consumers, being connected to smart grids and equipped with intelligent metering systems, are also able to buy and use electricity flexibly. From a technical standpoint, there is no reason not to operate heat pumps, battery storage devices and / or e-vehicle charging stations in a conducive manner and to preferentially supply them with renewable energy when it is abundantly available. From an economic perspective, however, the current electricity market design consisting of duties, levies and other fees means that consumers are not aware of price signals. This is particularly tragic since – in view of electricity production costs and CO₂ pricing – renewable energies are cheaper than fossil alternatives when sufficiently available. If price signals finally manage to reach the consumer, there is both an incentive for optimised, flexible use as well as an incentive for flexibility on the supply side. With provisions concerning dynamic electricity prices, the RED can help strengthen the coordinating function of the energy market through flexible pricing systems.

Network and transport costs make up a considerable portion of the final electricity price. If the potential of flexible energy management via smart meters is optimised, the need for a physical expansion of the grid can be reduced and the increase in network costs, which ultimately strain the electricity price and hamper sector coupling, can be limited. The RED should require Member States to check their national grid operation costs in

view of this and trigger reforms where necessary. Among many other things, these reforms require comprehensive digitisation of the power grids. Here, Member States should look at the incentive structures for transmission system operators and adapt these where required. The introduction of a “smart grid indicator” brings transparency about the capability of the physical infrastructure and allows decisions to be made regarding targeted investment in efficient solutions.

3. Carbon leakage protection

Europe’s leading role in the global fight against climate change increases the need for effective protection of domestic trade- and energy-intensive industries. Essentially, policy instruments should be based on a sticks-and-carrots approach. Part of the funding should thus be invested in electrification as well as energy efficiency. With the accelerating move away from fossil fuels, not only high emission costs, but also high electricity prices during the transition phase will increasingly become a competitive disadvantage at a global stage. This puts European companies at risk. For the sake of the energy and climate transition and to protect the European industry, the burden on the electricity price must be lowered accordingly.

To advance the international fight against climate change and thus reduce the risk of carbon leakage, the European Commission should increasingly focus on international climate diplomacy. The aim should be an international agreement on a carbon pricing architecture in which states voluntarily adopt a CO₂ price for the energy and industry sector(s) that will converge and be harmonised in the medium- and long-term.

IV) Creation of a Carbon Border Adjustment Mechanism (CBAM)

The intention of levelling the playing field regarding carbon pricing in Europe is positive. As regards the proposal for a carbon border adjustment mechanism (CBAM), however, ZVEI fears unintended consequences on a global stage. Formally, at least, a CBAM may appear to comply with WTO legislation. However, this does not protect against the political impact, which does not necessarily lead to more climate protection through CO₂ pricing in other markets, but instead lead to trade disputes and retaliation measures. There is also the risk of effects on domestic value chains and downstream users of materials. If the scope of CBAM covers steel, for example, which is already a contentious commodity being subject to customs duties, there is the incentive to move the next stage of the value chain abroad, thus circumventing customs duties and required CO₂ certificates. Jobs will be lost and be relocated outside of Europe, while carbon emissions will not be reduced after all / or at very high economic and societal costs that is. From ZVEI’s point of view, the consequences of a CBAM, as proposed by the Commission, have not been sufficiently analysed yet. Therefore, an impact assessment for downstream users of materials covered by the scope of the CBAM should be conducted as soon as possible.

4. Intensifying energy efficiency requirements

V) Energy Efficiency Directive (2012/27/EU)

In view of a more ambitious climate and energy policy framework, energy efficiency is becoming increasingly important. The goals of the current Directive 2012/27/EU were not achieved. Energy efficiency must be reinforced as a strategically important pillar for a climate-neutral future. Electrification is important for leveraging efficiency potentials. Efficiency gains through a change of energy source or through electrification should therefore be encouraged across Europe. Electrification must also be accompanied by measures towards a more efficient use of electricity in general.

The EU's energy efficiency goals must be adapted and dramatically increased to meet the new climate targets of the EU. In 2030, according to the European Commission, the energy consumption of EU Member States should not exceed 787 Mt. of oil equivalents, and primary energy consumption should not exceed 1023 Mt. of oil equivalents. Member States are asked to contribute to this goal by means of additional energy efficiency measures. As of 2024, a final energy saving target of 1.5 percent p.a. must be achieved. ZVEI calls for a more ambitious target of up to 2.5 percent.

The Energy Efficiency Directive also tackles efficiency in buildings. For example, we are in favour of increasing the renovation rate of public buildings to 3% (goal of “nearly zero-energy buildings”). However, there are several practical obstacles, among other things the lack of skilled workers and material shortages, which make it difficult to carry out extensive renovation work. This requires a detailed plan that lays out how to achieve the otherwise sensible and necessary 3% goal. Extending the goal to cover not only public (government-owned) buildings but also other buildings in the public sector is an important step. In addition, the renovation rates should be extended to all public and private buildings in the service sector (i.e. tertiary buildings) since these are easier to renovate due to the changing activities (i.e. rental contracts / tenants changing more frequently). Including both public and private tertiary buildings could, at low costs, help achieve the 60% emissions reduction target in the building sector. Accordingly, article 6 of the EED proposal should therefore be extended to all public and private tertiary buildings. Moreover, article 6 should provide either one of the following two options on how to achieve the defined goals for reducing final energy consumption in the building sector: 1) an obligation to carry out certain renovation measures, as defined in the renovation roadmap or 2) set milestones for lowering the final energy use. The French tertiary decree, providing the framework for lowering energy consumption in the French building sector, can serve as an example for such measures.

Another positive proposal for the EED concerns green public procurement. By putting the public sector in the driver's seat and giving a special role to public bodies when procuring the most energy-efficient goods available on the market. ZVEI also supports the fact that transmission system operators are considered as being co-responsible for achieving the energy-saving goals. Here, Member States should be allowed to offset

time-dependent and dynamic savings, which are achieved during peak load times. This provides incentives for the investment in the digitisation of the electricity grids and consumers (e.g. via the installation of smart meters). In fact, to accelerate the urgently needed digitisation of the energy system, the rollout of smart electricity meters should be mandatory, while providing Member States enough flexibility to take into consideration local and regional peculiarities. The rollout of smart gas meters, on the other hand, should be based on economic feasibility.

The broad use of energy management systems and energy audits should be incentivised, for example through targeted funding of energy efficiency measures by Member States.

5. Mobility

VI) Development of the infrastructure for alternative fuels

As part of the amendment to the Alternative Fuel Infrastructure Directive (AFID), the Commission is now proposing a Regulation which will be directly binding in its entirety at national level. It comprises binding targets for development of the charging infrastructure for battery-based electric vehicles and fuel station infrastructure for hydrogen vehicles and LNG supply. Specifications regarding user-friendliness are also established. Targets are also defined for onshore power supply to ships and ground power supply to aircraft, and reporting obligations for Member States are included. ZVEI supports the proposal for a new Regulation with regards to the development of an infrastructure for alternative fuels (AFIR). As regards the charging infrastructure, binding targets and regulations across Europe are essential – not only to boost electromobility itself but also to establish a reliable basis and starting point for the meaningful development of viable business models and scalability in the charging infrastructure. The overarching nature of the Regulation across the modes of transport is also welcomed. While the possibility for Member States to grant state aid is considered positive, the EU should also set up its own financing programmes.

The Commission's binding targets for charging infrastructure development within the framework of fleet supply along the TEN-T network (core and extended) are no longer just based on development measured by the number of charging points per registered vehicle, but the capacity in kW per registered vehicle (1 kW per registered battery-electric vehicle). This approach is generally welcomed but remains far behind the 3-kW charging capacity per registered battery-electric vehicle currently being discussed amongst industry stakeholders. From ZVEI's point of view, this higher ratio is projected among other things from higher future demand for public charging by vehicle owners who do not have the means to charge their vehicles at home.

However, the required charging capacities for passenger cars are no longer state-of-the-art and are set far too low. In the core and extended network, all charging points should, in the opinion of the electrical industry, at least provide 150 kW, with a perspective of providing a minimum of at least 350 kW in the medium-term, since cars –

with 800- and 400-volt systems – will increasingly be offered with charging capacity of well over 200 kW. Battery-electric vehicles are already capable of long distances, provided they are not held back by the charging infrastructure.

The capacities in the field of heavy-duty vehicles must also increase significantly so that freight transport can also be battery-electric powered over long distances. From a technical point of view, traction batteries are already able to do this. In view of the far higher effectiveness compared to other energy derivatives, using them is also possible and sensible in many application scenarios in freight transport. Along the core network, a charging location should initially provide at least 5000 kW, with at least 700 kW capacity per charging point, then aggregated to at least 6500 kW later – along the extended network initially 3000 kW, then by 2035 at least 5000 kW. Over the entire TEN-T core network, all rest stops with the possibility of overnight stays should in the future be provided with 100-kW charging capacity for overnight charging at every parking space.

In combination for fleet supply, the Commission concentrates on wide-area supply at rapid charging points in the form of clearance requirements along the TEN-T network, which will increase over the core network and extended network and over time – separately for passenger cars and commercial goods vehicles. This is a good approach but should be reduced from 60 km to 40 km in the core network and from 100 km to 50 km in the extended network.

Since the development for heavy-duty vehicles is ambitious, it is advisable to also consider alternative charging options for heavy freight traffic. Unfortunately, the Commission is completely failing to investigate other options for electrical supply to these types of vehicles. The electrical industry therefore urgently recommends including a mandatory development of the overhead line technology for heavy-duty vehicles with hybrid drives along the core network. This technology is ready for series production, enables dynamic charging for freight transport and makes the accelerated development of electromobility in the field of road-based freight transport realistic. Proof of concepts are available from test routes in Sweden, Germany and other Member States.

Unfortunately, the AFIR proposal does not tackle the urgently required development of supply a charging infrastructure in cities and densely populated / built areas in which more than 60% of people do not have their own parking space and thus do not have their own charging means. The existing grid infrastructure can be used with a large number of charging points of ≤ 22 kW, so the infrastructure costs will remain reasonable. Similarly, the proposal fails to address intelligent, intermodal hub solutions for the setup of rapid charging parks.

Regarding technical equipment, the proposal requires mandatory card payment terminals at charging infrastructure points with a capacity of more than 50 kW. For a charging infrastructure below 50 kW, a web-based method is sufficient by the end of 2026. As of 2027, the installation of a (non-contact) card reader will also be required here. This relates to ad-hoc charging, which makes up less than five percent of all charging operations. The electrical industry vehemently rejects mandatory installation

of card readers and strongly recommends, as a minimum requirement, a web-based method and the freedom of the CPO to decide. The required promotion of e-mobility will only become more expensive with the mandatory installation of a card payment terminal and will not be economically feasible in many cases. Likewise, also other small-scale charging solutions, such as lamp-post charging points, will also be technically impeded. This will impede the progress of electromobility (especially in metropolitan areas) and benefit an outdated technology that will be completely obsolete by the defined point in time. The electrical industry welcomes the obligation to transparently display prices. The provision regarding non-discriminatory prices is strongly welcomed in this context. However, it should also be possible to display prices and other mandatory information in the vehicle or on the smartphone, thereby satisfying the requirement for transparency.

European-wide, barrier-free charging will not fail due to a lack of payment (& card) terminals or displays, but due to a lack of access to charging stations. A comprehensive, Europe-wide roaming commitment, similar to what has been achieved in the sphere of mobile phone networks, is urgently required so that everyone really can charge everywhere. The available 'plug 'n' charge' technology will also make the charging experience much easier. Roaming could then immediately make the semi-public charging infrastructure available to the public without great technical effort. The mandatory card terminal would leave this potential unused. ZVEI recommends, above all, that the technical requirements relating to the charging infrastructure are defined as specifically as possible, thus harmonising them across Europe. National regulations which go beyond the AFIR make it difficult to achieve a standardised, comfortable user experience, lead to market fragmentation and hamper reasonable economies of scale.

The electric supply goals with onshore power at ports and ground power at airports are a good step into the right direction. In the long term, not only should the onshore and ground power supply be addressed, but the charging infrastructure for smaller aircraft and ferries should also be considered upon rollout.

Overall, the charging infrastructure should advance more quickly in all capacity classes to keep pace with the current and expected car registration figures. The last 18 months have confirmed this trend. The public's willingness to switch to electromobility is very high and the societal dynamic is progressing far more quickly than was expected at political level a few years ago. This relates to the registration of the vehicles themselves, but also to the tremendous technological achievements at high speeds (above all in battery technology).

6. Societal acceptance of the energy transition

VII) Creation of a 'social climate fund'

ZVEI supports addressing social upheaval as a possible consequence of constantly rising energy prices caused by a European CO₂ pricing system in the transport and building sectors. The energy and climate transition remains a societal challenge that

requires a strong public support and continued involvement as well as participation. It is therefore important that Member States provide the Commission with individual plans that take into consideration support and investment mechanisms in the areas of energy efficiency, building renovation and low-emission mobility for low-income and other vulnerable households. Only effective measures, such as tax reliefs and investment grants that lower the dependency on fossil raw materials, can be considered for the long term. The Commission is right to implement a monitoring and control mechanism to keep track of earmarked funds by Member States. The funds generated by the new EU emissions trading system for buildings and transport should be distributed to the Member States, proportionally based on their origin. Coherence with existing EU financial policy instruments should also be ensured. In addition to a targeted social policy for consumers in need of protection based on tax reliefs and investment grants, an unburdening of the electricity price is an effective balance to rising CO₂ prices as well. Low operating costs encourage sector coupling and support decarbonisation.

7. EU State Aid

VIII) Revision of the Guidelines on State Aid for Climate, Environmental Protection and Energy 2022:

National subsidies are rightly subject to European state aid rules. This legal framework should be updated and adjusted to permit necessary funding regarding climate and energy policy measures. Expanding the scope of the Directive to permit funding in new areas, such as clean mobility, is positive.

In particular, the promotion of renewable energy must be possible without a levy or additional burdening of green energy sources, as this would otherwise counteract sector coupling. Until national levy schemes (such as the German “EEG-Umlage” or similar) are abolished, there should be no reduction of eligible branches of the electrical and digital industry with a view to the special compensation under state aid rules / EU guidelines.

Investment aid (CAPEX) should be used to incentivise the switch from fossil to renewable sources of energy. If, despite reforms, grants targeting operating costs (such as in the form of Carbon Contracts for Difference) are incurred on the energy prices, it is essential to ensure that the costs are not passed on to the energy system, as industrial policy subsidies will otherwise take place at the expense of climate protection. Likewise, levies on end-products are also to be avoided. Instead, funding should come directly from the national budgets for climate change mitigation. This should be arranged degressively and have a time limit.

Furthermore, there should be no space for industrial subsidies that do not address the overarching climate goals. In this context, safeguarding measures should be implemented to ensure that state aid can only be used for effective climate protection. Consequently, hydrogen should only be declared eligible if the production did not release any CO₂ (i.e. being per definition climate-neutral). This includes so-called

'green' but also 'blue' hydrogen, whose production does not directly emit carbon as CO₂, but separates it prior to release and stores it safely via Carbon Capture and Storage (CCS) method. Subsidies for fossil fuels should be removed if they do not offer any potential for renewable energies in the sense outlined above. Carbon leakage protection measures should be regularly checked in terms of their type and scope, whereby potential state aid recipients should be obliged to partially re-invest received grants in climate protection measures.



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