MAKING THE EU FIT FOR THE FUTURE:

What German environmental associations want from the European Green Deal





CLIMATE POLICY

HONOURING THE PARIS AGREEMENT, RAISING THE EU CLIMATE TARGETS

The European Commission sees the European Green Deal (EGD), presented in December 2019, as a new growth strategy to help achieve the transition to a resource-efficient, competitive and sustainable economy. In the current Corona crisis, in addition to the already noticeable impacts of the combined climate and biodiversity crisis, the vulnerability of our economic, health and social model is becoming clearer than ever before. The political response must be to make our economic system more resilient. The pathway out of the combined health and economic crisis must remain within the planetary boundaries and must be guided by European and international solidarity. Although the EGD does not yet go far enough in many areas, it offers promising opportunities to help the European economy get back on its feet after the pandemic and at the same time to make the EU more resilient and sustainable.



CLIMATE POLICY HONOURING THE PARIS AGREEMENT, RAISING THE EU CLIMATE TARGETS



The transformation of the entire economic system in a climate-friendly direction is a central aspect of the European Green Deal. It contains promising proposals in this respect, but these need to be strengthened significantly in order to be consistent with the Paris Agreement and the requirements identified by climate science.

SETTING THE RIGHT COURSE: THE 2030 CLIMATE TARGET AND THE EU CLIMATE LAW

At the heart of the Green Deal is a significant increase in the EU's 2030 climate target under the Paris Agreement Ambition Ratchet Mechanism, which takes effect for the first time in 2020. The EU must adopt a Paris-compatible climate target by autumn 2020 to contribute to an international drive to close the gap between the Paris Agreement targets and the nationally determined contributions (NDCs) submitted so far. Currently, the plans of the UN contracting states will lead to a three- to four-degree warmer world.1 In September 2020, the European Commission proposed to increase the target to a net reduction of at least 55 percent, and in its impact assessment it made clear that this is technically and economically feasible and would bring major benefits in terms of energy imports and air quality. An ambitious 2030 target is crucial for European climate policy in the coming years:

- An ambitious increase in the EU's climate target before the end of the year 2020 is urgently needed. The level of ambition envisaged by the European Commission is not sufficient to constitute a fair contribution towards the goal of not exceeding the Paris Agreement's global target of a maximum 1.5 degrees Celsius temperature increase. As environmental associations, we call for a reduction of at least 65 percent by 2030, which represents a level of commitment in line with what is dictated by climate science. We recognise that all serious efforts towards this target will already be a challenge for many actors involved.
- When calculating the overall societal effects of a raised climate target, it is important to include the costs of an unchecked climate crisis caused by inaction, as well as the costs avoided by effective climate protection, for example through reduced energy imports and lower health care expenditure. The costs of climate-damaging technologies should be calculated on the basis of the entire life cycle, from resource extraction through to disposal, recultivation of land and compensating for the damage caused to society as a whole. In addition, people's prosperity and happiness should not be measured and illustrated solely in terms of gross domestic product, but also using indicators for sustainability and social justice.
- The coming decade is crucial for the transformation of the European economy into a sustainable circular economy. For this to succeed, all sectors and Member States must contribute to a more ambitious climate target. It is also necessary to ensure that the achievement of the target is consistent with the conservation of biodiversity and respect for human rights and compliance with social standards both within and outside Europe.
- At the same time, the EU should work at the international level to build a strong alliance of countries willing to significantly increase their Nationally Determined Contributions (NDCs). In this context, a collective increase in NDCs for 2030 should be a high priority for European climate diplomacy, particularly in discussions with major emitters such as China and the US.

¹ UNEP: Emissions Gap Report 2019:

https://wedocs.unep.org/bitstream/handle/20.500.11822/30797/EGR2019.pdf?sequence=1&isAllowed=y

In March 2020, the European Commission presented its proposal for an EU Climate Law, which would set the goal of climate neutrality by 2050 and also include the renegotiated 2030 target. If designed properly, the **EU Climate** Law is a great opportunity to embed European climate protection more firmly in the institutions - but this requires more than just the shell presented by the Commission.

- The **EU Climate Law** must make climate neutrality binding well before 2050, together with negative emissions thereafter, and a complete phase-out of fossil fuels, if possible by 2040.
- Climate neutrality must mean a domestic reduction in greenhouse gas emissions in the EU of at least 95 percent compared to 1990. The law must also include the strengthening of natural long-term sinks, for example the re-wetting of drained wetlands and wetland use systems, as these are of crucial importance for overcoming the climate crisis. They must be given clear priority over technical sinks.
- In order to ensure emissions reductions in the short and medium term as well and to provide planning certainty for all actors involved, the route to climate neutrality needs to be mapped out using a consistent reduction path and binding interim targets for the years 2030, 2035 and 2040.
- A robust five-yearly ambition and review mechanism is needed, under which the Commission is obliged to ensure that the intermediate targets are met. This must be made clearly legally binding and enforceable, both at EU and national level. The review of progress towards the targets and of increased ambition must be based on sound climate science. It is therefore necessary to establish an independent council of climate experts at EU level to monitor the Union's progress every year and to provide technical advice to the EU institutions.
- The goal of climate neutrality must be underpinned by the mainstreaming of climate policy in all sectors, ensuring the necessary early and binding adaptation of sectoral legislation for ambitious carbon reductions in the areas of emissions trading, energy efficiency, renewable energy, transport, land use, agriculture, construction and housing, trade and finance.
- The existing governance system should be used to link climate targets and the SDGs with economic objectives. In conjunction with the National Energy and Climate Plans (NECP), the European Semester provides a platform for achieving concrete investment targets and volumes. In addition, the existing EU mechanisms must be used to ensure that financial resources are quickly made available to enable a transformation of state, economy and society in line with climate and environmental objectives - especially at the local level, where this is one of the greatest obstacles to transformation.

2021: MAINTAINING THE POLICY MIX AND MAKING IT FIT FOR PARIS-COMPATIBLE CLIMATE PROTECTION

Emissions trading

In 2021, the Commission intends to present a **reform of the Emissions Trading System** in order to deliver the adjusted 2030 target. This represents an opportunity to take further steps to improve the effectiveness of the scheme.

The reform must serve to deliver carbon prices with an incentivising effect in both the electricity and industry sectors and must be consistent with the EU's new climate change target for 2030. For this to be achieved, the following points are important:

- The starting point for the reduction path must be changed to the real emissions in 2021 ("rebasing") to reflect the actual development of emissions. This also reduces the Linear Reduction Factor if it is applied stringently.
- The Linear Reduction Factor must be increased, and the increase must be implemented as early as possible. The Öko-Institut has calculated that a tightening of the NDC to 55 percent would translate to a Linear

Reduction Factor (LRF) of 4.11 percent if introduced in 2021, or an LRF of 6.02 percent if introduced in 2026. It is therefore crucial to start implementation as soon as possible.

- The phasing out of free allocations to industry must be pursued rigorously, especially in the event of the introduction of a carbon border adjustment mechanism.
- The Market Stability Reserve must be substantially developed to remain effective in the face of future challenges such as the forthcoming national coal phase-outs in Europe. Its annual intake rate should be increased and the ceiling on the allowances remaining in the reserve should decrease from year to year (for example, at the same rate as the Linear Reduction Factor). In addition, all allowances remaining in the Market Stability Reserve for more than five years should be automatically cancelled. Furthermore, an adjustment of the thresholds and of the volume of allowances placed on the market is needed.
- Member States should be encouraged to cancel allowances in the event of additional national measures in the electricity sector (shutdown of capacity).
- The introduction of a minimum price (at least in the electricity sector): due to the Corona crisis and the decisions to phase out coal in 12 Member States, a new surplus will build up in the Emissions Trading System in the 2020s. Depending on how the above reform proposals are implemented, it may be possible to limit or eliminate this new surplus. However, the introduction of a minimum CO₂ price in emissions trading would in principle be a no-regret measure for stabilising the system and making it resilient against crises. A minimum price would also lead to greater investment confidence. If an EU-wide minimum CO₂ price cannot be implemented in the near future, it should be introduced on a regional basis, with the participation of Germany, France and others.
- > Further instruments are also needed to stimulate the transformation of the industrial sector.
- The expansion of emissions trading to road transport and buildings should be rejected, as it is likely to have little incentive effect in either sector and could also undermine the tightening of existing, more effective regulatory measures. An additional price signal in the road transport and buildings sectors can be achieved more effectively through a climate-oriented reform of the Energy Taxation Directive.
- However, aviation and shipping should be fully included in the existing emissions trading scheme. The fuel tax
 exemption for shipping and aviation should also be abolished.
- 100 percent of the revenue from the auctioning of allowances should be invested in the transformation both inside and outside the EU.

The Effort Sharing Regulation

In addition to the reform of emissions trading, the **Effort Sharing Regulation**, which covers greenhouse gas emissions in the sectors transport, buildings, waste and agriculture, must be adapted to the increased climate target in 2021 and provide reliable and binding support for the new target.

- The reduction path, which limits the annual CO₂ budgets for the Member States, must be adapted to the increased ambition in order to ensure a faster transformation of all sectors in the Member States.
- The starting point for the reduction path is based on average emissions from 2016-2018. This means that it does not reflect real emissions in early 2021, thus artificially inflating the emissions budget and undermining the integrity of the new climate target. As part of the reform, the starting point must be set on the basis of real greenhouse gas emissions at the beginning of 2021. For Member States that fail to meet their 2020 effort-sharing target, the 2020 target must be the starting point for future reductions in order to avoid setting wrong incentives.
- The reform must also eliminate loopholes arising from flexibility in offsetting efforts in ESR sectors against emissions trading or the LULUCF Regulation.

LULUCF

The land use sector is simultaneously an opportunity and a risk for effective climate protection. In order to increase the sector's potential, especially with a view to achieving climate neutrality in the near future, a **reform of the LULUCF Regulation** is needed.

- The current target, which requires greenhouse gas emissions and removals through forestry and land use (in particular wetland management) to be in balance, is not in line with the role that the sector needs to play in achieving the goal of climate neutrality and with the associated need for natural sinks. Even the current target is being undermined by the draining of forests and wetlands.
- In addition to the 2030 target for reducing greenhouse gas emissions, we therefore call for a separate, additional target for the strengthening of natural sinks.
- The reformed LULUCF Regulation must therefore aim to ensure that each sector removes more greenhouse gases than it emits on a long-term net basis. Comparable emissions quantification must be established for the sub-sectors of forestry and agricultural land use, and robust emissions quantification methods must be introduced throughout the EU for organic soils, especially wetlands, in particular.
- Emissions from currently drained wetlands must be completely stopped by 2050, following a transformation path involving re-wetting and where appropriate adapted use (paludiculture), and where possible they must be developed into natural sinks. The commercial use of wetlands for peat extraction must be stopped at EU level because of the crucial role of wetlands as permanent sinks.
- The preservation of existing forests must be an absolute priority. This means preventing forest fires, the extensification of forest use, an end to draining, low-impact logging, protecting the humid climate in the forest interior, converting coniferous forests and other plantations into mixed deciduous forests of native tree species, and permanently designating natural forests free from any form of cultivation.
- In the land use sector, robust support mechanisms should be applied to reduce emissions. For this purpose, transfer payments, e.g. from the Common Agricultural Policy, should be used to bring about a reduction in emissions supported by society as a whole.

Supporting the regions to achieve social-ecological transformation

The Commission has already presented in February 2020 its proposal for a **Just Transition Fund** (JTF) to help regions that are particularly dependent on coal and energy-intensive industries with their transformation. In the negotiations between the Council and the European Parliament, the good intentions and ideas embodied in the fund must be significantly strengthened.

- The disbursement of funds must be linked to clear decommissioning criteria. This is why the regions have to present plans for phasing out fossil fuels. Investments in new projects based on fossil fuels such as natural gas, as proposed by the European Parliament, must continue to be firmly excluded.
- The cuts to the funding earmarked by the European Commission for the Just Transition Fund under the EU's Next Generation EU economic stimulus programme send out an unfortunate signal for structural change. The funds are not adequate for the scale of the challenge and must be increased significantly including through the direct involvement of the Member States themselves. In addition, it is important to ensure that the money is targeted at those regions which would have the greatest difficulty in achieving a socially just transformation without additional EU funds. We consider the timely application of the taxonomy regulation and a clear list of exclusions for investments in fossil fuels to be of particular importance here.

Carbon border adjustment mechanism

It is important to ensure that there are incentives beyond the EU's borders to drive industrial transformation. The Commission therefore intends to propose **border adjustments based on the CO₂ content** of raw materials and products in the first half of 2021, to start operating in January 2023. The EU can lead the way here by encouraging importing countries to step up their climate change efforts so that they can compete with less carbon-intensive companies from the EU economic area. Border adjustments can help to implement higher CO₂ prices within the EU and significantly improve the climate protection incentives for industry.

- The key condition for the introduction of the mechanism is that CO₂ border adjustments are only introduced if the free allocation of allowances in the emissions trading system is rigorously and simultaneously reduced. This also applies to any gradual introduction limited to individual sectors or products. Otherwise, there is a risk of European industry benefitting twice over, which would significantly weaken and counteract the transformation incentives here.
- The border adjustment mechanism must be designed to reward innovative, climate-friendly production processes.
- ➤ The principles of global justice must be firmly embedded in the design of the mechanism so as not to exacerbate existing asymmetries. This includes exempting the least developed countries of the Global South for a transitional period and if requested providing them with organisational support for the introduction of their own instruments for CO₂ pricing, as well as technological and financial support for the development of climate-neutral industries.
- The funds generated by the carbon border adjustment mechanism should be used in a targeted way to promote a just transition of the economy towards climate neutrality in the EU and globally.
- The carbon border adjustment mechanism covers only a small part of the problem of the climate-damaging effects of international trade. A climate-friendly transformation of European trade policy would need to involve, among other things, facilitating technology transfers and domestic value-adding requirements vis-à-vis the EU's trading partners in the field of renewable energy, and excluding the use of climate measures in trade disputes and investor lawsuits.

Energy Taxation Directive

The European Commission is planning a new attempt at reforming the Energy Tax Directive in 2021 and would like to abandon the principle of unanimity in the Council of Ministers normally required in tax affairs for this purpose. The current minimum rates for the taxation of energy products have been in force since 2003 and have not kept up with the EU's climate and energy policy. They are based on an obsolete energy mix and do not reflect the actual energy content and CO₂ emissions of fuels.

- The reform of the Directive is a great opportunity to align the taxation of energy sources consistently with their energy and CO₂ content and to adjust it regularly in line with inflation. At present, energy sources are not treated equally and there is insufficient incentive for the necessary rapid switch to renewable energy sources or for energy efficiency improvements.
- EU Member States apply very different energy tax rates in combination with a wide range of exemptions and rebates. Harmonisation of the rules would be likely to reduce anti-competitive practices between Member States and perverse incentives that weaken climate protection, as well as creating a clear demarcation line to emissions trading.

ACCOMPANYING EFFECTIVE CLIMATE PROTECTION THROUGH PARTICIPATION AND ADAPTATION STRATEGIES

Pressing ahead with adaptation to the climate crisis

Notwithstanding the efforts being made to limit the climate crisis, it is becoming increasingly important to also focus on adaptation to climate change – hot dry summers and heavy rainfall events are making this increasingly clear. We welcome the Commission's intention to present a new **strategy for adaptation to climate change** in 2021. The postponement due to the Corona pandemic is understandable. However, it is urgent that there should be no further delays on this issue, as the effects of climate change are already becoming increasingly clear in Europe too.

- In order to provide real European added value, the strategy must go beyond technical arrangements and focus on strengthening and restoring ecosystems. These not only increase resilience, but also have the potential to provide long-lasting sink functions. Particularly vulnerable groups of the population must also be protected.
- In order to strengthen natural ecosystems, the strategy must address destructive practices which damage the functionality and resilience of ecosystems, such as overfishing, intensive agriculture and forestry, ploughing up grassland and draining wetlands. It must also end subsidies for activities that reduce the absorption potential of an ecosystem or land use type and integrate adaptation to climate change into relevant socio-economic and environmental policies and measures. For forests, this means designating more natural forests, extending the commercial use of forests, and rapidly converting coniferous forests and other plantations into native mixed deciduous forests. For agriculture, this means limiting the number of livestock to the land available and significantly reducing it in animal-intensive regions, as well as re-wetting degraded wetland areas and protecting grassland. Different agricultural practices must be used to achieve a long-term increase in the humus content of agricultural land.
- In addition, Member States should be required to draw up plans to restore priority habitats by the end of 2023 and to complete their implementation by 2030. A binding land restoration target based on the European Biodiversity Strategy for 2030 is urgently needed.
- The EU strategy should also significantly improve the data available on expected climate damage. It should encourage regular vulnerability assessments to be carried out at local, regional and national level to enable and support region-specific adaptation strategies. In addition, the strategy should implement the recommendations of the European Court of Auditors on how to improve the control of climate-related expenditure across the EU budget.

The EU Climate Pact

Climate protection works best in the EU when the necessary decisions are taken at all levels and go in the right direction. The fact that the European Commission wants to involve citizens and local authorities directly through the **EU Climate Pact** is therefore to be welcomed.

- The EU Climate Pact can play an important supporting role in connecting climate protection activities at different political levels in the European multi-level system and strengthening the public debate on more climate protection.
- However, it must not replace clear political parameters, but must be an additional instrument. Effective climate protection must be achieved first and foremost through clear legal provisions that set the framework conditions in such a way as to facilitate climate-friendly behaviour.

SPEEDING UP THE EUROPEAN ENERGY TRANSITION

The EU's engagement in the fight against the climate crisis must be based on an energy infrastructure that is geared towards the goal of climate neutrality while simultaneously being nature-friendly. This means an accelerated European energy transition based on reduced electricity and resource consumption and a nature-friendly energy supply from 100 percent renewable energies. The significant role envisaged for fossil natural gas in the Green Deal, however, threatens to entrench an energy system that undermines this goal, and must therefore be opposed. The benchmark for all investments in infrastructure must be compliance with the 1.5-degree limit set by the Paris Agreement.

RAISING THE ENERGY EFFICIENCY POTENTIAL

Renovation Wave

In order to make progress on the energy efficiency of buildings and energy poverty, the European Commission presented its proposal for a so-called **Renovation Wave** in October 2020. The aim is to significantly increase the renovation rate in buildings across Europe. The proposal for a Renovation Wave could also provide great opportunities for the climate-friendly revitalisation of the European economy.

- For the strategy to be fully effective, it must be based on a target of an annual renovation rate of at least three percent. For years now, the renovation rate has remained stagnant at around one percent.
- In order for the buildings sector to achieve climate neutrality by 2050, the implementation of the EU Energy Performance of Buildings Directive must also be strictly monitored. A large proportion of the long-term renovation strategies, which are already overdue, have still not been submitted by Member States. The European Commission needs to follow up on these strategies, review how thorough they are and launch infringement proceedings if they are not submitted. In addition, the Renovation Wave should involve checking the implementation of the nearly zero-energy buildings standard for new buildings, which in many Member States, including Germany, has not been formulated very ambitiously.
- Adequate financial support via the EU budget and the Next Generation EU recovery programme is also crucial. A combination of private and public funds can be justified here. However, it is also important that sufficient new public money is made available for the strategy. Especially in the current economic crisis, disbursing the funds via grants is more likely to be successful than loans. Moreover, the grants should be designed in a way that encourages the extensive renovation of buildings.
- In order to create planning confidence and ensure that objectives are achieved, an appropriate proportion of the funds available under the Next Generation EU recovery programme should be earmarked for modernising the insulation of buildings. In this context, it is regrettable that the planned Renovation Financing Facility, which would have ensured this, is no longer a component of the programme.
- In order to ensure that the additional funds available through the Next Generation EU stimulus package can be drawn on in sufficient quantity, local authorities must be given the opportunity to apply directly for EU funds for modernising the insulation of buildings.
- The Renovation Wave must also include proposals as to how the embodied energy in building products and the ecological life cycle assessment of buildings can be consistently taken into account in the EU Energy Performance of Buildings Directive in the future. Considerable additional greenhouse gas reduction potential can be tapped through low-emission and resource-saving building materials, through constructing buildings so that they are easy to dismantle, and through the recycling of building materials. This potential will become more and more important as the energy efficiency of existing buildings increases.
- The Renovation Wave must include guidelines and strategies that apply to both owner-occupied and rented properties and must endeavour to resolve the tenant-landlord dilemma.

The Energy Efficiency Directive

As part of the process of implementing a new EU climate target for 2030, the European Commission will present a **revision of the Energy Efficiency Directive** in 2021. In order for it to realise its full potential for European energy transition, both the level of ambition and the enforceability of the Directive must be strengthened.

- The 2030 energy efficiency target, currently a 32.5 percent increase over the reference scenario, is not sufficient to ensure compliance with the 1.5 degree limit. We therefore welcome a revision of the Efficiency Directive aimed at raising the level of ambition. Raising the target to at least 46 percent is necessary in order to increase potential energy efficiency gains and bring the economy in line with the Paris Agreement.
- The effectiveness of the Directive must be increased by underpinning the binding EU-wide target with binding national targets.
- The obligation on Member States to save 0.8 percent of final energy in real terms each year. through energy efficiency measures is too weak in view of the scale of the climate crisis challenge and of the many positive benefits of energy efficiency. In order for the Directive to realise its potential for developing a market for energy efficiency services, final energy consumption must fall by 1.5 percent annually. In addition, the transport sector should be included within the scope of the Directive in order to provide incentives for energy saving measures in this sector too.

PUSHING RENEWABLE ENERGIES

Renewable Energy Directive

The **Renewable Energy Directive** must also be revised based on the new EU climate target. Only if the naturefriendly expansion of renewable energy sources rapidly gains momentum will we be able to achieve an energy system based on 100 percent renewable energy as the backbone of a climate-neutral energy supply for the EU economic area.

- The 2030 target of a 32 percent share for renewable energy in energy consumption is not in line with the Paris climate targets. The revision of the Renewable Energy Directive must include a target of at least 50 percent in order to provide early investment incentives for an accelerated expansion in line with the Paris Agreement.
- Due to the ongoing failure to meet the existing renewable energy target, the EU target needs to be underpinned by binding national targets.
- The regulations governing community energy schemes must be significantly strengthened in the course of the revision so that renewable energy can realise its full potential in terms of citizen participation and strengthening local acceptance. The limit for exempting renewable energy produced for own-consumption from charges, currently set at 25 kW per installation (in which many consumers can participate), must be raised to 30 kW per consumer in order to provide an effective incentive for financial participation of citizens.
- The sustainability criteria for biomass must be significantly strengthened in the course of the revision, for example by banning the use of forest wood for energy production, in order to ensure a genuinely nature-friendly climate protection benefit.
- In order to make the transport sector sustainable, the EU needs to move away from the use of food and feed crops for energy instead of further promoting this through targets for the use of renewable energy in transport. The use of waste and residues and of electricity-based technologies must also be subject to clear sustainability and efficiency targets and must be looked at in a cross-sectoral way.

Offshore renewable energy

In November 2020 the European Commission presented a **strategy for the expansion of offshore renewable energy**. Offshore wind power has a particularly important role to play in this.

- We welcome the presentation of the strategy. The expansion of renewables and related infrastructure should be as nature-friendly and with as little impact on maritime space as possible. To this end, an appropriate regulatory framework must be created, taking into account, among other things, the obligations under the Marine Strategy Framework Directive and the EU nature conservation directives, in order to ensure a good ecological status for the seas.
- All fossil fuel subsidies and new drilling permits for both the exploration and extraction of oil and gas must be phased out. Efforts must be made to ban offshore drilling in all EU waters.
- In line with the Renewable Energy Directive and the regulation on the design of the European electricity market, the role of energy communities must be recognised and actively supported for offshore renewable energy projects as well.
- Cooperation at regional level and across Member States should become the norm for the planning and development of offshore wind farms. This requires, among other things, guidelines on support for cross-border offshore projects.
- The European Commission must support Member States by means of a policy framework and through increased use of EU funds in order to better integrate offshore wind energy into the energy system, to increase flexibility and to improve regional cooperation between Member States.
- Marine protected areas are not suitable for the development of offshore renewable energy and should therefore be excluded from such projects.

GETTING THE ENERGY INFRASTRUCTURE READY FOR NATURE-FRIENDLY CLIMATE NEUTRALITY – PREVENTING GAS LOCK-IN

TEN-E Regulation

The European Commission has announced a revision of the **regulation on guidelines for trans-European energy infrastructure (TEN-E)** in December 2020.

- The "Energy Efficiency First" principle must be established as a cornerstone of infrastructure planning in the EU. It must be applied throughout all the planning stages of energy infrastructure projects to ensure that the EU meets its (raised) energy efficiency target for 2030 and that cost-effective decisions are taken. In addition, the revised regulation must prioritise non-infrastructure-related solutions for both energy efficiency and sufficiency.
- To ensure a 100 per cent nature-friendly renewable energy system, the revision of the TEN-E Regulation needs to provide the legal framework required to implement the cross-border renewable energy projects envisaged under the forthcoming "Connecting Europe Facility" for the period after 2020. Decentralised renewable energy and community energy projects should be included in the TEN-E Regulation selection process in addition to large projects. The routing of renewable energy infrastructure must avoid environmentally sensitive areas and areas of high biodiversity value.
- A moratorium on new gas infrastructure must be imposed until an independent assessment of needs and risks has been carried out. Investment decisions must be subject to a thorough evaluation process which guarantees that alternatives to new infrastructure are properly assessed. A comprehensive analysis of potential environmental and climate risks must also be part of the assessment. It must be carried out via a broad stakeholder process involving civil society actors and must be embedded in a transparent governance structure.

- The assessment of infrastructure projects, including priority infrastructure, must be carried out in accordance with the directives on nature protection, strategic environmental assessment and environmental impact assessment. This includes a strategic environmental and climate impact assessment for the Ten-Year Network Development Plan (TYNDP). The granting of priority status should be carefully considered, and should be excluded in the case of projects that could have a negative impact on the climate or on protected areas or species. Cost-benefit analyses to identify priority projects should also assess their impact on the environment and climate and the costs to health, environment and nature conservation.
- A transparent governance structure appropriate to the energy system of the future is needed. An institution focusing on the independent and system-wide determination of infrastructure needs is required in order to shift the current focus from the supply to the demand side and to smart energy solutions. Excessive influence by or dependence on any actors, and resulting conflicts of interest in network planning, must be eliminated. Legitimacy and accountability must also be strengthened by enabling civil society and the European Parliament to be more closely involved. At the same time, it is necessary to ensure that all environmental baseline and monitoring data and reports collected in connection with projects are freely and publicly available.
- The sustainability criterion should be moved from the specific criteria to the mandatory criteria in Article 4 of the Regulation and should cover nature protection, climate protection and social criteria.

Energy system integration

The Strategy for Energy System Integration presented by the European Commission in July 2020 contains many good ideas, but it must be made more stringent with regard to the 1.5 degree limit in the Paris Agreement. It should be based on developing a 100 percent renewable energy system.

- It is important to ensure that fossil energy sources, including natural gas, are no longer subsidised and politically promoted. An integrated energy system geared towards 100 percent nature-friendly renewable energy can prevent being locked into fossil energy sources.
- We welcome the integration of the "Energy Efficiency First" principle in principle, but a final energy saving target is lacking. Final energy consumption needs to be halved by 2050.
- The extensive electrification of the energy system and the focus on renewable energy in the electricity system are to be welcomed. However, the target share of 55-60 percent renewables in electricity consumption in 2030 and 84 percent by 2050 is too low to achieve the goal of climate neutrality by 2050, let alone well before 2050. A scenario must be developed for a European energy supply based on 100 percent nature-friendly renewable energy.
- The strategy envisages that natural gas will still account for 20 percent of gaseous fuels in 2050. However, the phase-out of natural gas must be completed by 2050 at the latest, preferably by 2040. The remaining demand for gas in 2050 must then be met entirely by renewable gases (biomethane, biogas and hydrogen produced with renewable electricity).
- Another possible pitfall in the strategy is the role assigned to biomass. In the transport sector, the quota for biogas and biofuels is to be increased next year. The volume of biofuels that can be produced from sustainable biomass is limited by the availability of land for biomass production. Material usages of biomass should be prioritised. Rather than promoting the use of biomass for energy production, wind and solar energy which are more nature-friendly and require less land should be used.
- The shift in emphasis from the supply to the demand side of the energy system is to be welcomed. The building sector and parts of the transport sector should become an integral part of the energy system and contribute to optimising (for example, through the use of waste heat) and increasing the flexibility (for example, through smart charging) of the energy system.

Hydrogen strategy

The **European Hydrogen Strategy** was published in July 2020. It needs to be fundamentally overhauled to ensure that hydrogen is economised and used in a targeted way, and not as a means of keeping fossil fuel infrastructure in place.

- Since sustainably produced hydrogen and other alternative gases will remain a valuable and rare commodity in the long term, its use should be concentrated primarily on applications where direct electrification is not possible. These include the chemical and steel industries as well as aviation and shipping. It should not be used for passenger cars, for the heating sector or for reconversion into electricity. In this area, the European Commission is not yet rigorous enough, as the hydrogen strategy in the transport sector continues to emphasise technological neutrality. The proposed use in lorries is questionable, as there is still unused potential in overhead line systems and batteries and in shifting transport to rail. In the long term, hydrogen must also be used to balance the energy system.
- Only hydrogen produced from renewable energy sources can be a component of a climate-neutral energy mix. In its strategy, however, the European Commission also focuses on turquoise and blue hydrogen, which is produced from natural gas and in conjunction with carbon capture and storage (CCS). The Commission is thereby creating a risk of lock-in effects. EU public funds should only be used for green hydrogen, which according to the Commission's own calculations will become competitive within a decade.
- The proposals regarding Guarantees of Origin and sustainability certificates for hydrogen are insufficient. The European and international trade in hydrogen must be subject to strict, scientifically sound and transparent sustainability criteria and to independent monitoring.
- Environmental organisations must be adequately represented on the board of the Clean Hydrogen Alliance, which identifies and implements EU-funded projects, and must be given equal say in the development of EU-funded projects. Industry is currently clearly predominant. The excessive influence of the gas lobby on the development of the European hydrogen economy must be curbed.

This paper is one of a series of position papers on selected key aspects of the Green Deal. For papers on other topics, please see our homepage www.dnr.de.

