Union Française de l'Électricité

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Position Paper

To achieve climate-neutrality, the European Green Deal must push electrification

The French Electricity Industry (UFE) welcomes and fully supports the EU's political willingness to reduce EU GHG emissions by at least 50%, and up to 55%, by 2030[1] and not postpone all the decarbonisation effort after 2030 to reach climate neutrality by 2050[2]. UFE identifies the European Green Deal as a great opportunity to reach this objective.

The electricity industry is committed to delivering carbon-neutral electricity while ensuring security of supply and thus making a key contribution to the decarbonisation of transport, buildings and industry.

An ambitious **electrification**, **energy efficiency**, a greater development of **energy from renewable sources**, and the **substitution of coal, lignite and oil-fired power plants are key to reach this ambitious objective.**

Ensuring that all sectors deliver on the 2030 objective, requires the right enabling regulatory and financial framework: this means a **higher carbon price for ETS**, a more **ambitious policy for the transport sector**, and **tailored mechanisms to collectively ensure a just transition**.

UFE believes that these conditions are necessary to manage the pace of decarbonisation efforts, while preserving the competitiveness of the European industry and aiming for social acceptance of the consumers.

[1] EC Communication, *The European Green Deal, "By summer 2020, the Commission will present an impact assessed plan to increase the EU's GHG emission reductions target for 2030 to at least 50% and towards 55% compared with 1990 levels in a responsible way"*

[2] As underlined by the 2018 IPCC report, reaching climate neutrality by 2050 would be easier and more economical if more decarbonisation efforts were made during the 2020-2030 decade rather than postponed after 2030.

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Ambitious electrification is key to achieve climate-neutrality.

By increasing its CO_2 emission reduction targets, the EU will speed up the transition from fossil-based to low-carbon electricity. In 2018, around 54% of total EU electricity production was already decarbonised[3]. The transformation of the power sector – with low-cost electricity – provides a major opportunity to decarbonise other sectors and maximise electricity usage. Therefore, **decarbonised electrification should become a key pillar of the European Green Deal.**

It is estimated that the EU will need to double its use of electricity by 2050[4]. The sector is ready to respond to these new electricity needs, adopting a trans-sectorial approach among various sectors, such as mobility.

For example, around 250 million light-duty vehicles are currently circulating in Europe. Electrifying half of the existing fleet would represent an additional electricity demand of less than 8.7%. As far as consumption peaks are concerned, these can be easily absorbed by the electricity networks if appropriate solutions are in place (e.g. peak hour/off-peak hour, already used by network operators, or smart charging solutions, with more active consumers benefiting from dynamic electricity contracts). Furthermore, electric vehicles being connected to the network 95% of the time – at home or at work – can store energy or even shift energy consumption during peak periods, giving increased flexibility to the electrical system.

However, until now, **the transport sector remains the only main European economic sector in which GHG emissions have increased**, when compared to 1990 levels, to a point where the transport sector now accounts for one fourth of all greenhouse gas emissions in the European Union.

In order to accelerate the decarbonisation of the transport sector, **UFE is calling for intermediate CO_2 targets for this sector for 2030 and 2040.** UFE also believes that the EU needs to speed up the roll-out of charging points. **The Alternative Fuels Infrastructure Directive (AFID) should be reviewed and set binding targets** to ensure that there are enough fast and normal smart electric chargers, which would help the deployment of electric vehicles.

The power sector is ready to step up to the challenge: generation can be decarbonised, and network infrastructure is adapting to new usages.

To become carbon-neutral by 2050, the EU will need to significantly increase its electricity production from carbon neutral or renewable energy and decarbonise its electricity where it is not yet the case. **The European power sector has already committed to being fully decarbonised ahead of the 2050 targets.** To reach this goal, electricity network operators have already started investing to adapt their networks. The entire French electricity network (transmission and distribution) is already investing to reinforce the infrastructure needed to support RES electricity connected to the electricity network.

At the same time, it is crucial that electricity operators continue integrating distributed energy

[3] Marc-Antoine Eyl-Mazzega and Carole Mathieu, *"The War on Carbon: Five Priorities for the European Green Deal"*, Edito Energie, IFRI
[4] EC Communication 28 November 2018 – *A Clean Planet for all*

sources while **investing in flexibility mechanisms** such as demand-side management and energy storage.

The use of flexibility could be a solution to optimise network investments decisions, keep costs down for consumers and facilitate the integration of renewables in the electricity networks. This should not exclude traditional grid reinforcement when flexibility resources do not exist or are more expensive. A right market design should effectively support the investments of market players.

Investment in network infrastructure, including cross-border interconnections, is also essential for renewable energy sources to thrive and deliver the ultimate goal of the Energy Union, i.e. to ensure secure, affordable and sustainable energy. Transmission and distribution networks enable the energy transition by distributing renewable energy in the whole energy system. **A revision of the TEN-E regulation is needed** to enhance investments in both transmission & distribution networks and adapt them to the new challenges such as the increasing production of energy from renewable sources.

Digitalisation of the infrastructure is key to develop new usages, empower consumers and guarantee an efficient flexible network-management. However, energy systems face different kind of threats. To effectively respond to these threats, system operators are continuously working to keep the electricity network resilient and secure.

Strong political support of both national and European authorities towards network infrastructure is therefore needed to enable its development and transformation, while taking into account both overall public interest and local population concerns.

In our view, the most efficient way to reach EU's climate-neutrality objective is via electrification coupled with decarbonisation of the power sector. To this end, the EU is must put in place the right instruments.

ETS must be reinforced as the core instrument of decarbonisation.

The price on carbon emissions guides infrastructure planning and investment decisions. Therefore, CO_2 price levels on the EU ETS market must send adequate signals to stimulate industrial investments in low-carbon technologies.

UFE warns against an existing gap between increasingly ambitious energy policy and high climate objectives and a "toolbox" that does not enable market players to deliver on these objectives. Therefore, UFE believes that a **carbon price of at least €30/tCO_2 on the EU ETS will help accelerating the shift from coal to gas and renewables or carbon neutral energies**[5], which is one of the largest and most easily accessible means of decarbonisation in Europe.

Moreover, a **predictable carbon price is essential** for the EU ETS to play a key role in fostering investments in low-carbon technologies.

[5] The removal of coal from power generation alone would achieve 60-70% of the 2030 CO_2 reduction target.

To ensure adequate CO_2 price levels in the long-term, an **important review of the ETS will be needed**.

All sectors must participate in the 2050 decarbonisation objective. Non-ETS sectors are responsible for nearly 60% of the EU's GHG emissions. However, **UFE believes one ETS for all sectors is not the right answer to an efficient decarbonisation strategy**. Indeed, while it is necessary to put a price on all CO_2 emissions, for certain sectors, such as road transport and heating, which are decentralised and not subject to carbon leakage, other tools may be more effective.

The Energy taxation Directive must be reviewed.

The recent evaluation of the Energy Taxation Directive highlighted that, since the adoption of the Directive in 2003, energy markets and technologies in the EU have undergone significant developments. The analysis concluded that the current directive can result in inappropriate price signals to users, thereby discouraging them from choosing low-carbon energy sources.

UFE believes that **a review of the Energy Taxation Directive is needed**. To avoid disadvantaging low-carbon energy sources, the Energy Taxation Directive should **ensure a level-playing field between energy sources, by including a CO_2 component to energy taxation**. In addition, the Directive should ensure a better allocation of the various charges to ensure that only taxes and levies related to energy are included in energy taxation. Such an improvement would **reduce the overall costs borne by consumers.**

Europe must act to reduce its carbon footprint.

In 2017, GHG emissions in the EU were down by 22% compared with 1990 levels[6] while the proportion of foreign CO_2 embodied in final EU domestic demand remained relatively constant[7]. **Decarbonisation should not exclusively consider the GHG emissions produced in Europe but must have a global approach to climate change.**

UFE asks the European Commission to define a **dedicated plan for measuring European GHG emissions according to a carbon footprint approach.** The aim is to define the right indicators to consider the overall environmental impact of European economic activities, especially by reducing GHG emissions at European borders and by protecting European industry through the avoidance of carbon leakage.

To ensure a robust mechanism against carbon leakage, UFE believes that different mechanisms should be put in place at EU level such as **a carbon border adjustment for some sectors** and a **strict reciprocity of climate commitments when signing trade agreements.** Moreover, **State Aid guidelines should be reviewed and modernised** to make sure that investments in clean energy are supported, especially capital intense investments requiring long-term frameworks, and that industry sectors that are more exposed to international competition can reduce their carbon footprint. To be more efficient, the guidelines must be flexible enough to accompany technological advances and allow technology-specific calls for tenders.

[6] *Greenhouse gas emissions statistics – emission inventories* (June 2019)
[7] OECD - Carbon dioxide emissions embodied in international trade

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Social acceptance by citizens is key and requires accompanying the social transformations of the concerned sectors, to guarantee a just energy transition.

Social acceptance is linked to several aspects:

- **Employment transformation**

The energy transition will have positive effects on growth and employment in the long run. Studies have shown that the jobs created will not specifically be related to energy or energy efficiency but will be distributed across all sectors of the economy. And in the short term, the measures put in place to decarbonise the energy system will most likely lead to specific net costs for certain segments of society. In this deep transformation of the economy, the workforce needs to be accompanied.

The Just Transition mechanism announced by the European Commission must accompany the workers at risk of losing their jobs as a result of the energy transition.

- **The costs for consumers**

The costs borne by households particularly impacted by the energy transition should be alleviated as much as possible. If UFE believes that a stronger CO_2 price signal is a necessary incentive in order to reduce energy consumption and shift to clean energy sources, it is nevertheless only acceptable if such a carbon tax is implemented in a fair and growth-friendly way.

To minimise the adverse distributional effects of climate policies, compensatory measures must be deployed for low-income households. Therefore, UFE believes that public authorities should use the extra revenue raised from the tax to compensate consumers. For example, in each sector, the carbon-free and energy efficient alternatives that already exist today must be subsidised, especially for vulnerable households.

Overall, the benefits decarbonisation will bring to the society should be better communicated (potential of job creation, air quality, better housing conditions), and it should notably be better explained **that the costs of the energy transition will be much lower than the costs of non-action.**

Research and Innovation must be supported to boost the EU industry and provide local decarbonised solutions.

The EU Green Deal must not forget the significant boost played by research and innovation, and, most importantly, the deployment of new technologies. Indeed, the **power sector needs to invest in R&D** to bring out green technologies addressing the challenges of **circular economy**. The EU needs to be at the forefront of these new technologies, which will shape the future economy. To this end the **European Commission must support innovative projects according to a long-term technological roadmap in line with the carbon-neutrality objective.**

To enhance innovation in low-carbon projects, the EU should direct more financial resources coming from European financing institutions towards projects that are tackling climate change as well as integrate climate objectives into their mandate. To this extent, we fully support the initiatives announced as part of the European Green Deal, increasing the share of funding for achieving the decarbonisation of the whole energy sector.