Clean and renewable electrification is the most cost-efficient way to decarbonise the European economy and is essential for reaching at least 55% greenhouse gas emission reductions by 2030.

Clean and renewable electrification comes with major socio-economic benefits, in terms of jobs, health and system efficiency, and can put citizens at the heart of the energy transition. These benefits should be fully exploited in the package while delivering on the spirit of the European Green Deal.

The rate of electrification, however, is currently too slow. Current trends project electrification of the EU energy system to remain below 25% by 2030 – only marginally higher than today – while analysis suggests this needs to be well above 35% by 2030 and up to 60% or more by 2050\(^1\).

The Fit for 55% package provides the European Commission (EC) with a unique opportunity to put the right policies in place, aligning these with the EC Energy System Integration, Hydrogen and Industrial Strategies, putting Europe on track to reach the 2030 and 2050 climate and energy objectives. The package will only be fit for 55% if it is fit for electrification.

The Electrification Alliance suggests that the European Commission considers the following points:

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1. **Carbon pricing and energy taxation**

Current energy prices reflect neither the scarcity nor the environmental impact of the different energy sources and carriers. This lack of level playing field is one of the most important barriers to accelerating end-use electrification. The high share of fixed taxes, charges and levies on electricity prices have a significant blunting effect on end-user electricity price signals, disincentivising electrification and system flexibility. At the same time, fossil energy carriers are often subject to much lower absolute taxation levels as the environmental effects of their use are not included.

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\(^1\) Eurelectric Decarbonisation Pathways 2018 [here](#), SolarPower Europe and LUT University 2020 [here](#)
We therefore urge the European Commission to take the opportunity of the revision of the **Energy Taxation Directive** to:

- Ensure a level playing field between energy carriers by (1) better allocating the weight of taxes and levies on the different energy carriers, taking into account their climate impact, and (2) removing direct and indirect subsidies for fossil fuel consumption.
- Mandate appropriate minimum carbon taxes for the heating sector and reflect the CO$_2$ impact of road transport fuels in harmonised taxation rates for diesel, petrol and fossil gas.
- Set standards to avoid double taxation of end-use flexibility solutions (electrical and thermal storage, EV batteries, electrolysers).

The **EU Emissions Trading System** should be aligned with the new 2030 emission target. Extending the system to residential heating and road transport will be challenging to implement. New carbon pricing systems for these sectors could be explored in parallel for possible future integration, but further assessment occur. This could be a complementary measure but does not negate the need to reform national energy taxation regimes and strengthen accompanying policies alongside, as outlined below.

### 2. Renewable energy

Electrification must be clean and driven by renewables.

We therefore urge the European Commission to take the opportunity of the revision of the **Renewable Energy Directive** to:

- Increase the 2030 renewable energy target to levels in line with the European Commission scenarios, including adjusting the existing sub-sector targets to drive direct electrification.
- Revise the accounting methodologies of the sectoral sub-targets to incentivise electrification and reap the full cost-effective potential of renewable electricity across all end-use sectors.
- Promote and accelerate demand-side flexibility efforts to accompany and support higher electrification in all end-use sectors.
- Facilitate renewable electricity uptake by strengthening the Power Purchase Agreement and Guarantees of Origin frameworks. To accelerate the electrification of commercial and industrial consumers, dedicated provisions to facilitate mid-sized self-consumption should be introduced.
- Remove obstacles to solar, wind and electricity grid deployment, especially in relation to permitting. This should include developing guidelines and benchmarks for good practices to support Member States in the implementation of the current RED II provisions with the necessary respect for environmental considerations.
• Keep the Renewable Energy Directive unambiguously for renewable energies only, avoiding any inclusion of low-carbon fossil fuels in the Directive or in related certification frameworks.

3. Energy system efficiency

Electrification comes with major efficiency benefits across the energy system. We therefore urge the European Commission to take the opportunity of the Renovation Wave and the revision of the Energy Efficiency Directive to:

• Increase the 2030 energy efficiency target to levels in line with the European Commission scenarios.
• Review the accounting mechanism to fully recognise the efficiency advantages of electrification. The Energy Efficiency Directive should capture efficiencies from electrification across the energy system due to the shifting and savings achieved through demand-side flexibility.
• Ensure that the energy efficiency first principle is applied at system level, taking into account the contribution of a time-dependent and flexible consumption and generation capacity among all end-users to cost-effectively achieve the reliability, resilience and efficiency of the entire energy system’s decarbonisation.
• Review the Primary Energy Factor (PEF) for electricity on an annual, and possibly quarterly, basis so that it reflects the accelerated uptake of non-combustible renewables in electricity generation; and apply this factor, as well as greenhouse gas emission factors, in all energy related legislation, notably in Energy Performance of Buildings Directive.
• Complement the scope of Energy Savings Obligation Schemes with additional measures to reward renewable-based electrification and the activation of demand-side flexibility.

4. Electrification of buildings

Electrification of residential heating is essential for achieving at least the 55% greenhouse gas emission reductions goals for 2030 and comes with multiple benefits to households and quality of life. The EC Energy System Integration strategy outlines that 40% of all residential buildings and 65% of all buildings in the services sector should be heated by electricity by 2030. This is a challenge that requires attention given the 11% electric heat pump share in the residential building stock today.

We therefore urge the European Commission to take the revision of the Energy Performance in Buildings Directive as an opportunity to:

• Ensure the deployment of Interoperable Building Energy Management Systems, beyond monitoring energy consumption, to capitalise on the
benefits of electrification and making buildings an active and integrated part of electrified energy systems.

- For buildings to become an integrated part of the energy system, their contribution to system efficiency needs to be valued in the revised Energy Performance Certificates. This calls for proper quantification of both the actual CO2 and demand-side flexibility performance of a building beyond the reduction of energy consumption.

- Integrate buildings and transport sectors through direct electrification ready for smart charging by: (1) expanding the requirements for charging points to more buildings, (2) mandating smart capabilities for every EV charging points in buildings and being able to communicate with other assets behind the meter, (3) reinforcing the existing requirements to accommodate for higher-than-expected shares of EVs (e.g. increase of per-building minimum charging points and parking spaces with ducting installed); (4) removing existing barriers and limiting provisions to the current legislation, and (5) embedding a “right to plug” in the Directive.

- Prioritise the direct electrification of heating and cooling in buildings by increasing the required shares of renewables and energy efficiency improvements in heating and cooling systems both in new buildings and the existing building stock.

- Accelerate the deployment of on-site renewable electricity and demand-side flexibility sources by introducing requirements to deploy these in Member States building codes, wherever technically and economically feasible and in accordance with local end-use sector demand profiles.

- Increase training capacities and re-skilling programs of artisan and construction sector companies in order to accelerate electrification, integrate up-to-date technologies and lower costs.

5. Electrification of road transport

Electrification of road transport is equally essential for achieving at least 55% GHG emissions reduction by 2030 and comes with benefits to quality of life. According to the EC Sustainable and Smart Mobility Strategy, at least 30 million Zero-Emissions Vehicles should be on European roads by 2030, and by 2050, nearly all cars, vans, buses and new heavy-duty vehicles will have to be zero-emission. Despite the rapid growth in demand for EVs, with sales more than doubling in 2020, this is a challenge that requires attention given the current share of under 1% purely electric vehicles (i.e. excluding hybrids, which are not zero-emissions) on European roads today.

We therefore urge the EC to take the revision of the CO₂ emission performance standards for cars and vans Regulation and the Alternative Fuels Infrastructure Directive as an opportunity to:

- Tighten the CO₂ emission standards for cars and vans for 2025 and 2030 to levels in line with the 55% greenhouse gas emission reduction target and 2050 carbon neutrality, supported by annual targets to encourage a
gradual reduction in emissions. This should eventually culminate in an emissions limit of 0gCO2/km in 2035, ensuring all new light duty vehicles entering European roads are zero-emissions.

- Establish a Zero-Emissions Mandate instead of the Zero and Low Emissions Benchmark under the current incentive system.
- Set an ambitious framework for a goal-driven, intelligent and dynamic roll out of charging infrastructure in Europe closely linked to the necessary EV development to reach EU climate goals. Beyond merely setting quantitative minimum rollout targets, legislation such as AFID, EPBD and TEN-T should adopt a qualitative and holistic approach. The legislative framework should enable the development of a competitive charging infrastructure market, ensure quality and interoperability of infrastructure, and take into account specific needs on the regional and local level.
- Prioritise the roll-out of flexible charging infrastructure (smart charging) to allow EVs integration in the power system as decentralised energy resources providing flexibility and thus supporting RES integration and system efficiency.
- Establish observability and operability frameworks for electricity grid operators to optimise the use of charging and discharging.

The signatories:

For more information about the Electrification Alliance: [http://electrification-alliance.eu/](http://electrification-alliance.eu/)