

Recommendations for an Electrification Action Plan

ELECTRIFICATION
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Introduction & context

European Commission President Ursula von der Leyen has committed to launching a Clean Industrial Deal within the first 100 days of her new mandate. This plan will channel investments into energy-intensive sectors, boosting their competitiveness while driving the EU's industrial decarbonisation. With electrification set to power this plan over the next five years, the transition to a greener economy will hinge on Europe's commitment to speeding up this process.

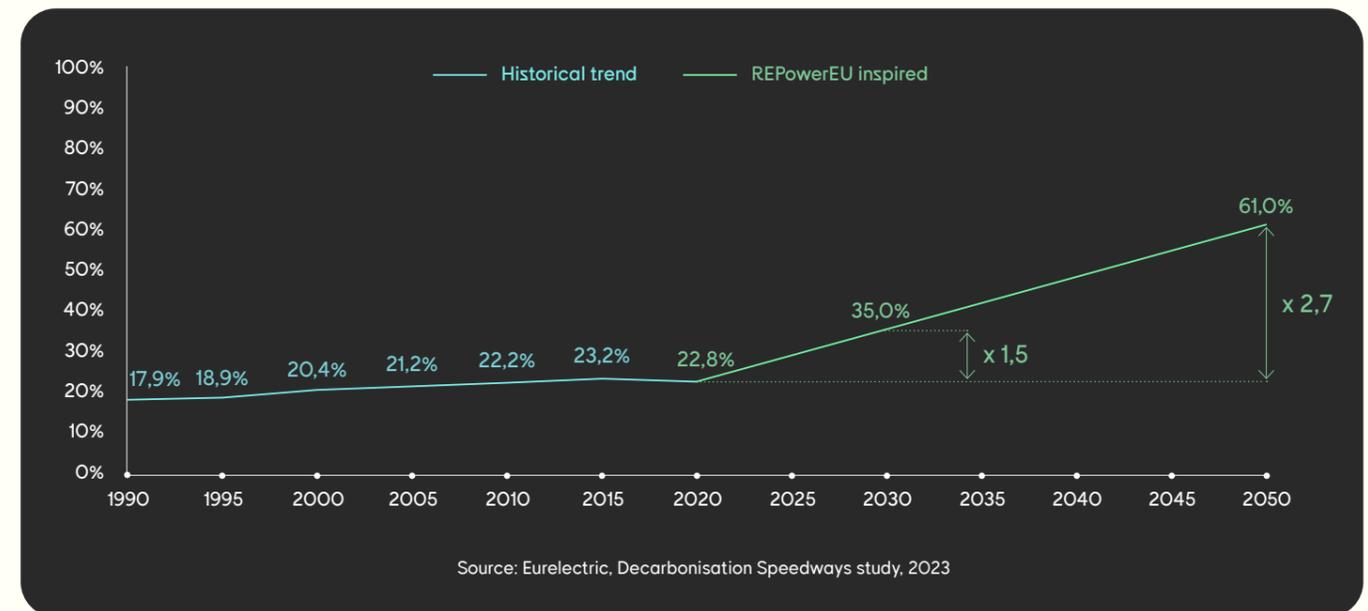
However, its progress is too often taken for granted. Indeed, data reveals a disconcerting fact: the share of electricity in the final energy consumption mix has increased by less than 3% in the last two decades. Looking at the sectoral level, this sluggish growth is common to all end-use sectors and countries. Concerted and strategic action is

needed to fulfil the potential of electrification as a cornerstone of our sustainable future.

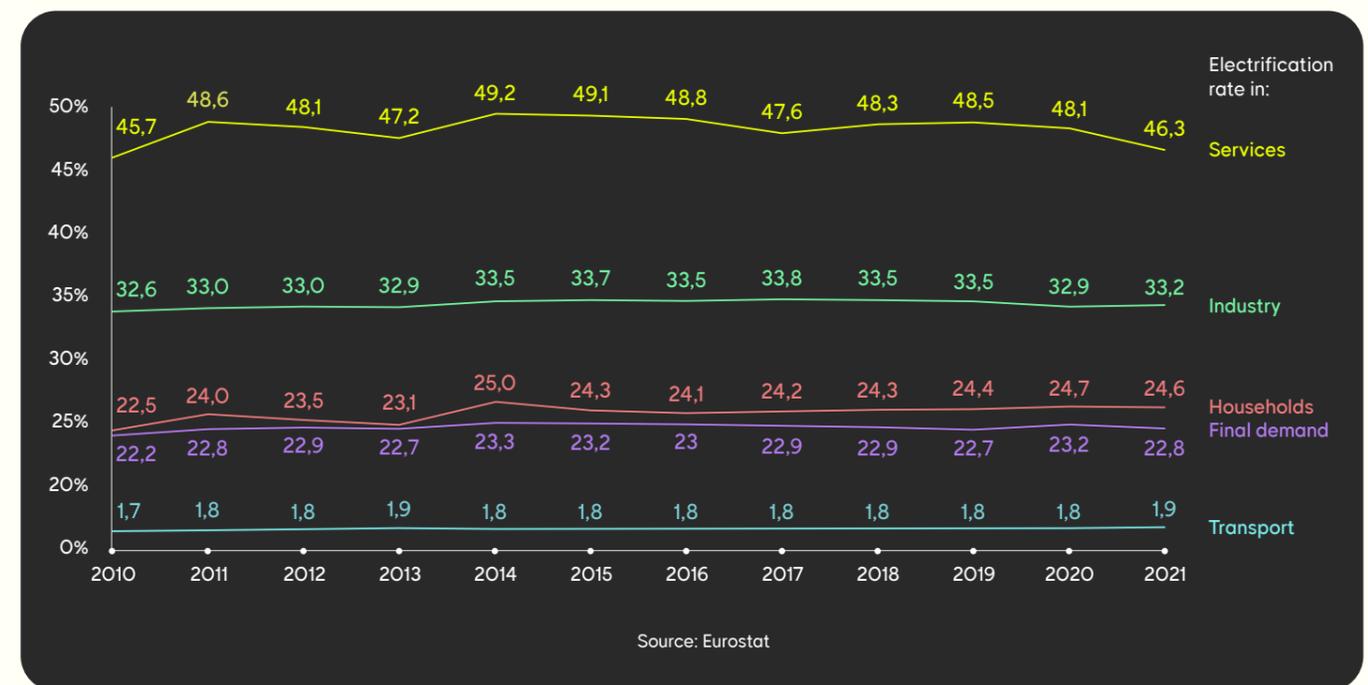
Electricity is the only energy source that can be fully made in Europe, and it is becoming cleaner and more efficient every day. Yet its proportion in our energy mix has not kept pace with this success. In light of this evidence, we, the Electrification Alliance, urge the European Commission to prioritise the publication of a comprehensive Electrification Action Plan in the first 100 days of its new tenure.

In the manifesto we published in November 2023,¹ we called for setting a target of at least 35% electrification of final energy use across the EU by 2030. The Commission itself expects this share to reach at least 50% by 2040.²

Electrification rate of final energy usage has been stagnating for decades. It's time to put it on the fast track.



Electrification rates across the sectors in the EU show that some sectors are more electrified than others, but all have work to do on the journey to reach net-zero emissions by 2050.



¹ Electrification Alliance manifesto, available at <https://electrification-alliance.eu/wp-content/uploads/2023/10/231017-Electrification-Alliance-Manifesto.pdf>

² European Commission's Communication on Securing our future Europe's 2040 climate target and path to climate neutrality by 2050 building a sustainable, just and prosperous society

In order to start the reflection on what an Electrification Action Plan should entail, we put forward some suggestions, broken down in priorities, categories and action points.

Recommendations

Priority 1 — Setting the course for a resilient and climate neutral Europe

Category	Actions
Making electrification a priority	<ol style="list-style-type: none"> 1. Commission to set a direct electrification target of at least 35% of final energy demand by 2030 at EU level and at least 50% by 2040 and duly consider this in the update of the EU Reference Scenario. 2. Commission to release a report by the end of 2025 analysing to what extent the implementation of the 'Fit For 55' package is accelerating direct electrification, assessing Europe's ability to reach a 35% electrification rate by 2030 and identifying barriers.
Setting targets at the national level	<ol style="list-style-type: none"> 3. Commission to recommend the inclusion of an electrification indicator in its assessments of NECPs.

Priority 2 — Clean electricity generation and infrastructure

Category	Actions
Grids and flexibility fit for smart electrification and net zero	<ol style="list-style-type: none"> 4. Commission to closely monitor and review the process for the development of the Ten-Year Network Development Plan (TYNDP) to ensure consistency with long-term planning at national level, including the assessment of flexibility needs and the Commission's supply and demand scenarios. This review is to lead to better planning, energy system optimisation, and better coordination between TSOs and DSOs, and include an assessment of the potential for the flexibility of distributed energy resources (such as heat pumps, electric vehicles, storage) to enable the smart operation of grids and of the decommissioning plans for gas infrastructure. 5. Commission to provide guidelines on anticipatory planning for national authorities to enable TSOs and DSOs to make anticipatory investments, including expansion, reinforcement and modernisation. Unlock operational expenditures required to operate a smart grid considering efficiency and the flexibility potential of all distributed energy resources of connected consumers. Identify, enable the creation, and ease access to tailored financing models and reward mechanisms for the necessary investments, in a nature-inclusive way that helps to protect local communities and restore nature. 6. Commission to ensure that grid operators have sufficient incentives to digitalise their operations, and report to the Council on the implementation of flexibility-related provisions (assessing needs and developing price signals for flexibility), by mid-2025, and to recommend the development of clear demand response, storage and grids targets in its assessments of NECPs. 7. Commission to develop harmonised European requirements on data access and sharing to unleash the full potential of demand-side flexibility, and ensure that end-users are incentivised and rewarded for providing flexibility. 8. Commission to address persistent hurdles at national level, such as double taxation, to incentivise energy storage, including from electric vehicles. 9. Commission to encourage Member States to inform end-consumers of the possibility to have a smart meter installed in less than four months after request (as set out in Directive (EU) 2019/944 article 21.2.b).

Boosting clean electricity generation and net zero technologies	<p>10. Commission to recommend increasing ambition in NECP assessments with regards to electricity generation from renewables, in line with the Commission's 2040 impact assessment.³</p> <p>11. Commission to address long grid connection queues and requests for clean electricity generation and net zero technologies.</p> <p>12. Commission to deliver on the digital permitting platform for clean electricity generation and net zero technologies.</p>
Applying an “electrification test” to funding and financing instruments	<p>13. Commission to prioritise direct and smart electrification when allocating existing funds (Innovation Fund, Connecting Europe Facility, Recovery and Resilience Facility).</p> <p>14. Commission and co-legislators to ensure that the 2027-2034 Multiannual Financial Framework mainstreams direct electrification.</p> <p>15. The EU to streamline funding and financing into manufacturing the technologies and the services we need for electrification, provide support to electrify industrial processes and the deployment of smart electrified home installations.</p> <p>16. The EU to ensure that the reform of the Energy Taxation Directive leads to shifting national taxes away from electricity and reviewing electricity tariffs from non-electricity charges.</p>

Electrifying industry	<p>24. The EU to set the framework for Member States to assess geographically and temporally required grid connections and flexibility opportunities for electrified industrial processes in an anticipatory manner to avoid delaying projects.</p> <p>25. Commission to recommend Member States to set an indicative national target for direct electrification for industry, especially for the clean electrification of heating processes.</p> <p>26. The EU to prioritise the electrification of heat by making large heat pumps the default solution for industrial heat up to 200°C, and fostering R&D in this area.</p>
Addressing worker and skill shortages	<p>27. Commission to set the framework to increase the attractiveness of STEM, and especially technical, jobs and education by rolling out targeted awareness campaigns in Member States, with due regard for the gender dimension.</p> <p>28. Commission to enforce requirements aiming at upskilling and reskilling the labour force, including within public authorities, to ensure Europe is equipped with the necessary workforce to succeed in the green and digital transition.</p> <p>29. Commission to ensure that the Net Zero Industry Act's Net Zero Platform duly assesses, continuously monitors and forecasts the Net Zero workforce.</p> <p>30. Commission to ensure that EU funding is effectively accessible to SMEs and independent workers to support the upskilling of the existing workforce.</p> <p>31. Commission to systematically integrate the workforce dimension in energy and climate planning at EU and national level.</p>

Priority 3 — Enabling direct and smart electrification for end-users

Category	Actions
Electrifying buildings	<p>17. Commission to ensure the Primary Energy Factor for electricity does not award an advantage to fossil fuel consumption over electricity by the end of 2025.</p> <p>18. Commission to include clear heat pump projections announced in the Heat Pump Action Plan in upcoming legislation as reflected in its 2040 modelling dataset, differentiating between new and old buildings and acknowledging the difficulty in retrofitting (projections of nearly 60 million heat pump units in 2030 and 90 million in 2050)⁴ and improve national tracking of heat pump deployment and make this data publicly available.</p> <p>19. Commission to set the framework for Member States to include a national heat pump projections and action plan, and reflect this in the TYNDP and the EU Reference Scenario.</p> <p>20. Commission to recommend that Member States set out measures to address the electrical installation of buildings in their NECPs.</p>
Electrifying transport	<p>21. Commission to coordinate with Member States to implement AFIR and EPBD, in order to ensure the assessment of the grid capacity where electric vehicles, especially trucks, will likely be recharged, in particular depots and the TEN-T network.</p> <p>22. Commission to propose legislation on corporate fleets to expedite the electrification of vehicle fleets. To accelerate the achievement of these targets, zero-emission corporate fleets have to be encouraged through infrastructure and fiscal measures, ensuring sufficient public charging infrastructure especially at mobility hubs such as train stations and airports</p> <p>23. Commission to endorse and implement ISO 15118-20 as the EU-wide standard for vehicle-to-grid communication, and leverage established protocols like OCPP, OCPI, and Open ADR to foster a unified framework.</p>

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The European Association of Electrical Contractors (EuropeOn), AVERE - The European Association for Electromobility, Eurelectric, Transport & Environment, the International Copper Association (ICA) Europe, the European Heat Pump Association (EHPA), Renewables Grid Initiative (RGI), smartEn - Smart Energy Europe, SolarPower Europe and WindEurope have joined forces to launch the Electrification Alliance, calling for electricity to be recognised as the key energy carrier for an efficient and decarbonised European future.

³ Based on scenario 3 from the Commission's 2040 climate target impact assessment report, part 3, Fig. 20
⁴ European Commission's 2040 Impact Assessment, p. 312: <https://eur-lex.europa.eu/legalcontent/EN/TXT/?uri=CELEX%3A52024SC0063>

Let's move electrification to the fast track!



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