Union Française de l'Électricité

Electrification Action Plan

December 2025

The Union of the French Electricity is the professional association of the electricity sector. It represents companies across the entire value chain of the French electricity sector: producers across all technologies, network operators, electricity suppliers and energy efficiency service providers, as well as storage and consumption management operators. It brings together more than 500 companies, representing over 300,000 direct and indirect jobs throughout France.

UFE, the association representing the French Electricity, ***strongly supports the European Commission's initiative to adopt an Electrification Action Plan****, recognising that electrification is becoming a central objective of the European strategy.* ***Reducing our dependence on imported fossil fuels makes it both crucial and urgent to accelerate electrification, which is the key condition to address climate change while strengthening European competitiveness and independence.*** *As electricity in Europe is already largely decarbonised[1] and produced domestically, accelerating electrification is a prerequisite for reaching carbon neutrality by 2050, ensuring our energy security and reducing the EU's trade deficit (in 2024, fossil fuel imports still cost the EU around €375 billion).*

[1] According to the European Environment Agency, greenhouse gas emission intensity of electricity generation in the EU reached 210 gCO_2e/kwh in 2023. It corresponds to a 58% drop compared to GHG intensity levels in 1990 and 19% compared to 2022 levels.

Electrification is not just a technical transition:

it is a pathway to cleaner air, quieter cities, better comfort at home, domestic jobs and stronger European resilience. It brings decarbonised mobility, efficient heating and cooling, and competitive industries powered by energy made in Europe. It is also one of the few scalable levers to reduce our dependence on fossil fuels, strengthen energy sovereignty, limit our exposure to prices linked to fossil-fuel markets, and contribute to **making the European Green Deal a success story for both climate and society**. To succeed, **electrification must inspire public trust and enthusiasm**, with a positive narrative that highlights its direct benefits for every consumer.

Despite this, the **electrification rate of the European economy has stagnated at 23% for the past decade**, far from the at least 50% required in all trajectories to achieve the 2050 objective. In this context, **UFE welcomes the Commission's KPI target of 32% by 2030 and calls for the Electrification Action Plan to be published swiftly and to provide a clear direction for Europe's electrification**. In particular, the **European commission should develop a demand-side oriented policy framework** that would support the reinforcement of the internal markets of clean technology.

Electrification Action Plan

UFE would like to provide recommendations for the Electrification Action Plan.

Our key asks :

- Member States should translate an EU-wide electrification trajectory into sectoral targets in their NECPs, supported by a robust monitoring mechanism (European Electrification Observatory).

- Empower consumers through transparency (e.g. creation of an Energy Impact Score, smart meters, collective self-consumption).

- Tripartite Contracts for Electrification: mobilise private finance with public guarantees to reduce upfront costs for heat pumps and EVs.

- Mobilise EU funds to make electrical solutions affordable.

- Accelerate electrification in buildings, transport, and industry through concrete incentive schemes.

- Establish a European Industrial Decarbonisation Bank to support CAPEX, OPEX and grid connection: 62 % of current industrial energy needs not yet electrified are technically electrifiable.

- Swiftly reform the Energy Taxation Directive to end the over-taxation of electricity.

- Ensure coherence across EU legislation: no electrification without modernised and adequately financed grids.

I. Deliver a credible and ambitious Electrification Action Plan

The Commission's target of 32% electrification by 2030 is a welcome milestone, even if it is rather a ceiling than a rooftop, but a target alone will not deliver change. **What Europe now needs is a credible and operational plan to make this ambition tangible across all sectors.**

The Electrification Action Plan must be published swiftly and should therefore:

- **Ensure the 32% electrification target is translated into clear sectoral breakdowns** (industry, buildings, transport) within the NECPs. Establish common EU-level guidance to make national targets comparable and measurable, and introduce a monitoring mechanism to guarantee accountability and timely implementation.
- **Provide concrete roadmap of measures**, with implementation timelines so that investors, consumers, and public authorities have predictable signals.
- **Establish a robust governance framework anchored in the revised Governance Regulation**, empowering the Commission to monitor progress, provide targeted guidance, and ensure transparency through a **European Observatory on Electrification**, with annual reporting and Member State benchmarks. This Observatory should preferably rest on existing structures (EC or EEA) to avoid multiplication of reporting bodies.

II. Empower consumers and make electrification affordable for all

Empowering consumers

The success of electrification hinges on active public and business engagement in shared goals: cutting greenhouse gas emissions, boosting EU competitiveness, strengthening energy sovereignty, creating quality jobs, and delivering tangible local benefits. To achieve this, **the electric option must become the default and instinctive choice in every energy-related decision.** This requires first and foremost, a strong effort to raise awareness and build trust. Citizens and businesses must clearly perceive the benefits of electrification in their daily lives. This can be achieved through:

- Bold, recurring **communication campaigns** that make electrification visible, relatable, and aspirational. The counterpart is also to regulate communication on fossil fuels. In particular, the European commission should review and, where necessary, revise directives that continue to indirectly support fossil fuels.
- Developing a simple and transparent European "**Energy Impact Score**", building on existing schemes (such as the EU energy label), to guide consumers in choosing everyday appliances, on a voluntary basis. Beyond energy efficiency, the label should integrate broader criteria such as greenhouse gas emissions, air and noise pollution, and contribution to Europe's energy independence (e.g. share of value added generated in Europe, job creation). **Consumers need simple and transparent tools to guide their choices and enable them to make informed choices.**

Finally, **empowering consumers to play an active role in the energy market is crucial for both social acceptance and system efficiency.** This means:

- Encouraging the deployment of smart metering systems.
- Developing tools to control and manage energy consumption (smart charging for EVs, building energy management systems etc.).
- Supporting the supervised development of collective self-consumption.

Together, these measures would not only accelerate the adoption of electric solutions but also turn consumers into active partners of the energy transition.

Affordability

Affordability remains a key obstacle for electrification: access to electrical solutions (heat pumps, electric vehicles) remains insufficient, mainly due to their higher upfront compared to fossil fuel-based alternatives. Although economic incentives have been put in place to make them more affordable, these are often inadequate and not sufficiently targeted at the most economically vulnerable populations. In parallel, higher-income households are not sufficiently incentivised to adopt electrical solutions either. **To bridge this awareness and competitive gap and encourage consumers to switch to electrical solutions, UFE recommends mobilising private funds to compensate the limited availability of EU funds and national budgets:**

To this aim, UFE proposes a **Tripartite Contract for Electrification**, aimed at reducing upfront costs and accelerating the electrification of the mass market. This approach would empower Member States, on a voluntary basis, to mandate national entities to promote and finance electrification as a public good, by helping these consumers to switch to an electrical appliance.

The State would not finance the investment costs but mobilise private funds by providing a long-term guarantee against default risk, which evidence shows to be very limited. It is also worth noting that this mechanism would not have any link or impact on the Electricity Market Design. More precisely, this entity would:

- Raise awareness among customers of the benefits of electrification, on the financial, comfort and climate.
- Aggregate small-scale loans, reducing risk for commercial and public banks and negotiating lower interest rates.
- Pre-finance electrification investments with repayment spread over time.
- Encourage customers' flexibility.
- Liaise with them to follow how they are using their electrification appliances.

Additionally, such a concept would build on existing tools and frameworks, reinforcing and streamlining part of the "aquis", e.g. the one-stop shops mandated by the Energy Performance of Buildings Directive. It would also be a way to accompany the implementation of legislation such as the ETS2.

A ready-made legal basis, defined under Article 14 TFEU[2], could be used. Recognised by DG COMP and already applied in areas such as affordable housing, this framework could be extended to electrification, given its strategic importance for Europe's transition and independence.

Mobilising regulations and EU funds will also be crucial, notably to derisk investments in electrical solutions and provide regulatory certainty:

- **Enabling EU funds** (RRF, Social Climate Fund etc.) **to provide financial assistance to consumers to support the deployment of efficient electrical solutions.**

- **For buildings**: to encourage consumers to switch to decarbonised energies for heating and cooling, the forthcoming revision of the EU strategy should aim at reducing upfront and operating costs of electrical solutions, notably for heat pumps.

- **For transport**:
  - EU funds could finance an **ecological bonus** and/or **social leasing** for the purchase of EVs, coordinated at EU level with specific models for each Member State.
  - UFE also recommends adopting **ambitious fleet renewal quotas of EVs for corporate fleets**. This would create additional predictable and stable demand for BEVs and at the same time contribute to the development of a second-hand EVs market, which is a more affordable pathway for households to access electromobility.
  - **Accelerate the electrification of public transport and inland waterways** by fully implementing existing EU emission standards as well as the TEN-T, ensuring rapid deployment of charging infrastructures while accelerating grid connections with dedicated financing, and introducing new EU targets for zero-emission fleets in public procurement and local transport planning.

[2] https://eur-lex.europa.eu/eli/treaty/tfeu_2016/art_14/oj/eng

- **For industry**:
  - **Public procurement must act as a catalyst for electrification**. In this context, the revision of the public procurement directives (notably the “utilities” directive 2014/25), should:
    - Introduce energy efficiency criteria, with a focus on heating and cooling systems.
    - Grant bonus points for electrified solutions in tenders, while ensuring fair competition with other low-carbon options.
  - Stimulate demand for decarbonised products by creating **lead markets**, in priority for electricity, with a clear preference for made in Europe components.

III. Prioritise industrial electrification through a dedicated "Decarbonisation Bank"

UFE strongly supports the establishment of a **European Industrial Decarbonisation Bank**, which is **absolutely fundamental to shift the industry to electricity**. To serve as a true driver for financing the industrial decarbonisation and deliver on the EU's reindustrialisation ambitions, the Bank's design should be guided by a number of clear and effective principles:

- **Priority to direct electrification**: as the most efficient and mature decarbonisation pathway. Indeed, electricity, which is already largely decarbonised in Europe, is our main asset, given that, from a technological point of view, 62 % of the final energy not yet electrified consumed by European industry can already be electrified[3]. It is particularly important to **target electrification of industrial heat below 500°C** — even more below 150°C — given the high technological maturity of electrification technologies at these temperature levels. Alongside this approach, **the bank should also support other decarbonisation pathways using electricity**, notably **electrolytic low-carbon hydrogen**, needed to decarbonise high-temperature heat for certain industrial processes. In addition, it will better prepare industries for the operational and infrastructure challenges in the context of the transition, including OPEX and grids connection costs.

- **Simplicity & predictability**: the mechanism and its criteria should be as simple and transparent as possible to favor access to the decarbonisation bank (especially for SMEs and mid-caps).

- **Performance-based support**: support in EUR should be proportional to the tons of CO_2 avoided per € invested, thanks to the project.

- **Encourage investments in demand-side flexibility and storage**: incentives to foster demand-side flexibility and electricity storage should be included in the bank design, in the form of a bonus in the ranking of the decarbonisation projects that take flexibility into account, thus striking a balance between decarbonation objectives and resilience of the power system.

- **Fair access of all industrial sectors to the bank**: to ensure that all industrial sectors can benefit from the bank and advance in electrification, we recommend that for each auction the share of the allocated aid going to a specific sector be capped (i.e. no more

[3] Data from Agora & Fraunhofer ISI, Direct Electrification of industrial process heat (2024)

than 25% of the aid going to projects in the same sector).

- **Support for OPEX and grids support connection costs**
  - Alongside CAPEX support, it is essential that the bank supports OPEX, to close the competitiveness gap between decarbonised energies such as electricity and fossil fuels.
  - As well as for grids connection costs, which are an important enabler to the electrification of industry.

- **Initial funding barriers**: support should be made available even before project entry into operation, to help projects overcome initial funding barriers while reducing investment risks.

- **"Made in Europe" condition**: the bank should prioritise the financing of electrification projects involving "made in Europe" equipments and components, notably through eligibility/prequalification criteria to participate in the auctions (for instance drawing on the hydrogen bank experience).

IV. Build resilient and future-proof electricity infrastructures

Support the reinforcement of electricity grids

A robust and resilient electricity network is essential for a successful electrification. It is necessary to anticipate the modernisation, development, and adaptation of electricity grids, both at transmission and distribution level, to integrate new generation capacities, support the growth of electric uses, and address cybersecurity and climate adaptation challenges. The electricity system is also shifting towards a more decentralised and bidirectional system, with most of the electrified uses connected to the distribution grid, and the active participation of consumers. Therefore, in order to support the development of a modern and resilient transmission and distribution grid, UFE calls for:

- **Addressing financial barriers to grid investments**, by updating tariffs regularly considering the increases in operating costs and by developing a clear EU framework for anticipatory investments through incentive-based tariffs, better access to low-interest loans, and full use of regulatory tools available since 2019.

- **Rethinking EU support for European electricity grid infrastructure projects as part of the review of the 2028-2034 Multiannual Financial Framework (MFF)**. It is crucial to substantially increase the Connecting Europe Facility (CEF) budget and facilitate the access of transmission and distribution operators to EU funds, to consider the creation of a European fund dedicated to electricity networks, and to introduce a more attractive return on capital encouraging investors to finance the development of grids.

- **Prioritising grid access for electrification projects that replace fossil fuels and accelerating permitting procedures for grids reinforcements and connections**, notably for demand-side technologies. It should notably lead to reinforcing the mechanism of management of connection queues in coordination with all stakeholders, through specific criteria to be adapted for each Member State.

- **Strengthening interconnections**, while making their development conditional on the reinforcement of the internal network. Member States can also rely on private financing to develop interconnections.

- **Developing all flexibilities on a level playing field**: from production-side (including hydropower and decarbonised thermal) to storage and demand-side.
  - Demand-side flexibility should be supported by appropriate price signals: through **network tariffs** that incentivise flexible consumption and the **development of time-of-use tariffs and dynamic and hybrid electricity price contracts for business consumers**, in order to shift consumption towards the most suitable periods for system balance, notably when production is abundant.

Ensure the resilience of energy infrastructures

Ensuring that electricity, which is an essential public service, is available at all times is crucial. Despite this fundamental principle, **climate change and extreme weather events** (flooding, drought etc.), threaten the physical security of energy infrastructures, whether at the level of production capacities or transport and distribution networks. For instance, French system operators have faced a record of 16 storms in 2023. In this context:

- **EU funds should be increased for climate adaptation** projects, notably to improve the resilience of the electricity system. UFE also insists on the importance of consistent **hazard modeling**, to reproduce as faithfully as possible the impact of the most penalising weather events on the national power system and cross-border countries.

Furthermore, **cybersecurity risks management** presents another major challenge for the security of critical energy infrastructures, especially in light of the deteriorating geopolitical context.

- Ensure the **proper and timely implementation of the EU legal framework related to cybersecurity**, which has been significantly expanded during the last mandate (NIS2, CRA, CSA, network Code on Cybersecurity, directive on critical entities etc.).

V. Create a level playing field

For electrification to accelerate and ultimately enable the achievement of our climate targets, EU policy and taxation frameworks must ensure a truly **level playing field between low-carbon electricity and fossil fuels**, while avoiding discrimination between different low-carbon technologies.

- **Policy & regulatory neutrality: the Electrification Action Plan must guarantee that a non-discriminatory approach is respected** between all decarbonised electricity generation technologies – renewables (onshore and offshore wind, solar, hydro) and nuclear – to secure sufficient electricity supply for the transition. This principle must guide all policy, funding and regulatory frameworks supporting electrification.

- **Fair taxation**: in many Member States, domestically produced electricity remains significantly more taxed than imported fossil fuels (in France, up to 4–11 times more, adjusted for CO_2 emissions). UFE urges the **swift finalisation of the revision of the Energy Taxation Directive**, to ensure fiscal neutrality between energies and support decarbonisation, while reducing households' electricity bills.

CONCLUSION

Electrification is the cornerstone of Europe's energy transition, delivering on climate, competitiveness and sovereignty. The Electrification Action Plan is the opportunity to turn this potential into reality through a clear governance framework, fair market conditions, robust infrastructures, and accessible solutions for consumers and industry. UFE calls on the European Commission to seize this moment to make electrification the natural choice for Europe's future.

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