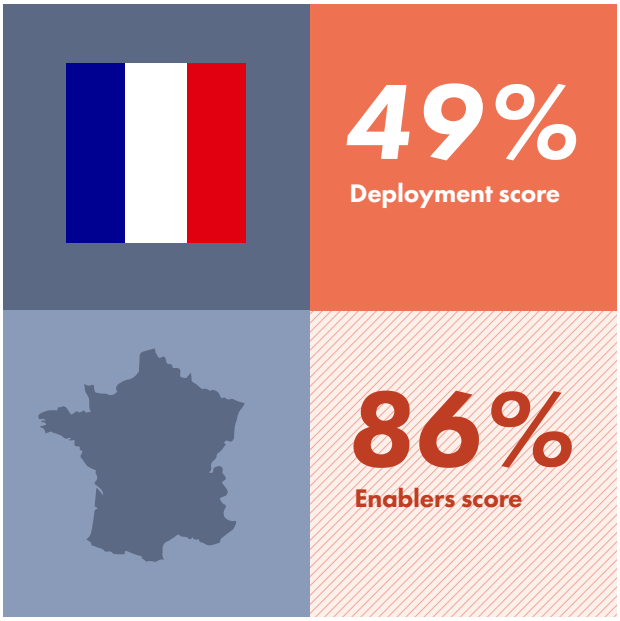
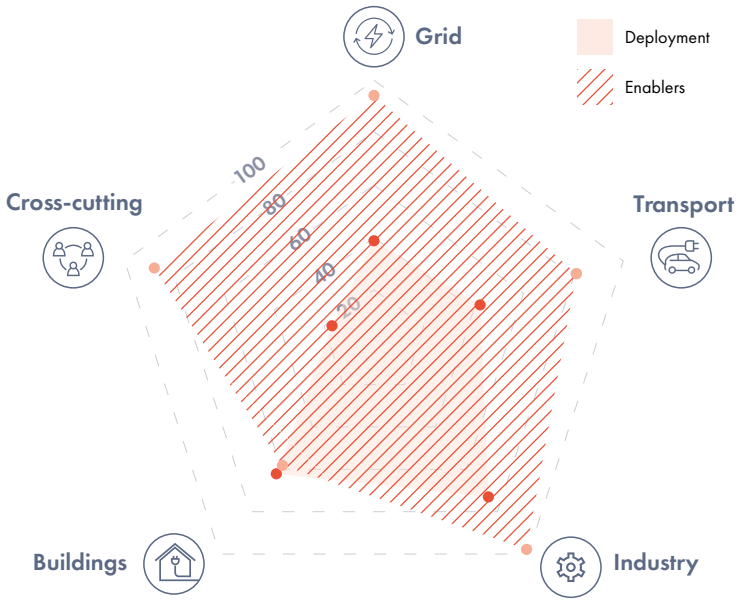
ANNEX: COUNTRY PROFILES

FRANCE





France posts the highest Enablers score of the countries assessed (86%) built on four key pillars. The first is real target clarity: France's national energy plan (PPE3), lays out a clear trajectory for electrification's share of final energy use, rising from 27% today to 34% and then 39% in 2035. The second is de-risked private clean energy investment through the Garantie Électricité Renouvelable (GER), a fund that protects renewable energy producers from default if an industrial buyer can't pay. The third is binding building standards; rental bans tied to a property's energy performance certificate, France's building energy code and Éco Énergie Tertiaire regulation, which mandates significant energy consumption reductions in large commercial and public buildings. Finally, grid-connection permitting is also a strength.

However, the deployment score (49%), while one of the highest of European countries in the Index, shows low scores for grid losses, grid constraints for new supply and demand, low investments in grid infrastructure, high residential electricity and construction costs, and low shares of electrical trade workers. France also scores low on storage capacity, though that matters less than it would elsewhere — its nuclear fleet and lower reliance on variable renewables puts less strain on the grid and reduces the need for storage and flexibility mechanisms compared to other EU peers.

Where the enablers-to-deployment gap shows up is in continuity: incentives exist but haven't stayed reliably in place long enough for industry and households to plan around them. *MaPrimeRénov'*, France's main home energy-efficiency grant, had its funding suspended at the very start of 2026. The Bonus écologique electric vehicle (EV) purchase incentive is now restricted to lower-income households, and the *Prime à la Conversion* scrappage subsidy was abolished in December 2024 and not renewed — leaving a further gap in demand-side support. One fix would be to put MaPrimeRénov' funding on a multi-year footing rather than renewing it through annual budget-law allocations, so households and installers can plan beyond a single fiscal year.

A second action could be closing France's vehicle-to-grid (V2G) software-activation gap. The hardware already works across most EV models on the road — what is missing is the software activation, which only a fraction of vehicles has switched on. This is a case where convening automakers and energy suppliers could unlock progress faster than writing new regulations.

An action could be to strengthen France's electrification workforce so that skills supply keeps pace with deployment. Two challenges stand out. In Hauts-de-France, where France's battery industry is concentrated, training and retraining initiatives are under way, but a comprehensive pathway to help incumbent automotive workers move into the emerging battery value chain is not yet clearly established. More broadly, the electricity-networks sector anticipates substantial recruitment needs—43,000 people between 2025 and 2030—putting pressure on training and recruitment capacity. Strengthening targeted transition pathways and expanding relevant training would help turn France's strong Enablers position into capacity on the ground.

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In the table below, 'Deployment' indicators include sales of EVs and heat pumps, grid congestion and flexibility metrics, and share of clean power, as well as key indicators influencing the business case, such as cost differences versus fossil technologies. 'Enablers' covers government plans, incentives, and regulations. See Methodology Annex for details.

NORMALIZED SCORE	AREAS OF STRENGTH	AREAS FOR IMPROVEMENT
GRID & POWER MARKET **11/30** DEPLOYMENT **28/30** ENABLERS	Strong and sophisticated grid-tariff design. A multi-mechanism demand-flexibility system (NEBCO, mFRR, capacity mechanism, carbon-free flexibility tenders); Effacement Diffus (Voltalis) peak energy management system is commercially profitable without subsidy. The French Energy Regulatory Commission's (*Commission de régulation de l'énergie*, or CRE) storage connection-queue reform (January 2026) is a grid-permitting strength.	France has substantial existing pumped-storage capacity, but its plans to expand storage are more limited than Italy's and Spain's dedicated support programmes. PPE3 envisages 1.7 GW of additional pumped-storage capacity between 2030 and 2035, while a new hydroelectricity law is intended to enable investment; these measures address a longer-term need rather than adding capacity immediately. The obligation for the largest electricity suppliers to offer dynamic tariffs remains under a transitional regime, now extended to June 2027.
TRANSPORT **9/20** DEPLOYMENT **16/20** ENABLERS	Relatively high national public charging-point count (152,000, +33,000 from 2024) and a 400,000-by-2030 target, plus a solid national road strategy for highway charging. New buildings with car parks have been required since 2012 to pre-wire EV charging capacity. Strong social leasing programs for EVs.	The *Bonus écologique's* income eligibility (≤EUR 16,300/share) is narrow, and *Prime à la Conversion* was abolished in December 2024 with no replacement. Vehicle standards rely on EU/fiscal tools rather than going above these with a distinct French standard.
INDUSTRY **15/20** DEPLOYMENT **20/20** ENABLERS	Strong programs to accelerate industrial energy efficiency and electrification. The Hauts-de-France *Vallée de la Batterie* and its support schemes (Decarb Ind, Decarb Flash, white certificates) is a concentrated regional industrial-electrification cluster (ACC/AESC/Verkor gigafactories, 17,000+ jobs by 2030), backed by France 2030's EUR 4.5 billion envelope.	Make direct electrification the default for viable industrial heat by ring-fencing support for electric process technologies and removing the funding gap for medium-sized projects, as recommended by the Regulatory Assistance Project. Pair targeted, conditional electricity-cost relief with long-term clean-power contracts and faster grid connections, rewarding flexible new electric demand and measurable fossil fuel displacement.
BUILDINGS **13/20** DEPLOYMENT **12/20** ENABLERS	The strongest building-standards regime identified in this research: Energy Performance Certificate-based rental bans (G banned since January 2025, F from 2028, E from 2034), RE2020 for new-build, and staged reduction obligations on existing commercial stock (*Éco Énergie Tertiaire*).	*MaPrimeRénov'* energy efficiency improvement funding program had a funding suspension at the very start of 2026, undermining the funding-continuity signal the standards regime otherwise sends.
CROSS-CUTTING **2/10** DEPLOYMENT **9/10** ENABLERS	The clearest explicit electrification-of-final-energy target identified in this research (PPE3: 27% to 34% to 39%). Member of the Coalition on Phasing Out Fossil Fuel Incentives Including Subsidies (COFFIS) member with a comprehensive fossil fuel phaseout roadmap. Bpifrance's Garantie Électricité Renouvelable is the only public PPA offtake guarantee found among the countries studied, and the workforce pipeline is the most explicitly electrification branded. France is the only EU country in this Index already meeting the Electrification Action Plan's 2030 electricity-to-gas price-ratio benchmarks for both households (≤2.5x) and industry (≤2x).	Power purchase agreement (PPA) contract terms (GO transfer, retirement, marketing-claim rights) aren't yet fully standardized, and training-place capacity needs to keep pace with "unprecedented" demand growth for electricians. The transition path for incumbent thermal-engine-plant workers remains uncertain, and the cluster single-region concentration creates a regional-dependency risk.
TOTAL SCORES	**49/100** DEPLOYMENT **86/100** ENABLERS	

Scores may not sum perfectly due to rounding. Data quality concerns: ***low.*** *France had full data coverage across the metrics.*

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The goal of this index is to inspire action, maximize strengths, and work toward improvement opportunities. All stakeholders have a role to play, but policy often sets the tone for sustained, market-based change.

In the table below we have reviewed the above findings against WMBC's 10 Policy Principles to Seize the Electric Advantage.

Some key gaps identified related to incentive-funding continuity could benefit from following Principle 3 to stabilize MaPrimeRénov' funding with a multi-year commitment, comparable to Germany's energy efficiency program, BEG. This could help improve France's energy security and competitiveness by giving households and installers a credible, sustained demand signal.

STATUS ■ **STRONG SIGNS OF IMPLEMENTATION** ■ **MIXED IMPLEMENTATION** ■ **NOTABLE GAPS**

POLICY PRINCIPLE	RECOMMENDATIONS
1. Reinforce clean electrification as a shared strategic priority across international forums	*This has not been assessed for country comparison, as electrification remains at an early stage of discussion in international forums. Emerging examples of best practice are highlighted under "Best practice policies" in the "Findings for policymakers and advocacy" section.*
2. Set clear targets and timelines for electrification	Turn PPE3's electrification ambition into integrated, measurable sector pathways. France has set a national trajectory for electricity's share of final energy consumption and established sector-specific measures, including for road transport. It should strengthen these into coordinated, time-bound pathways for industry, buildings and transport, linked to the infrastructure and policies needed for delivery and tracked through regular progress reporting. This would give businesses clearer signals on the pace of electrification and help identify where implementation is falling short.
3. Realign financial incentives and taxation to support electrification	Stabilize *MaPrimeRénov'* funding predictability with a multi-year commitment (comparable to Germany's BEG, running till 2029) rather than annual budget-law-dependent allocations. Cut electricity tax for households, reduce VAT on electricity to European minimum of 5%.
4. Ensure electricity markets reward clean, flexible supply and demand	Use the remaining transition period to strengthen the dynamic-tariff design itself, expanding aggregator and consumer participation beyond current levels, and confirm publicly that the obligation will become permanent on schedule at the 30 June 2027 deadline, giving installers, aggregators and consumers the same funding-continuity certainty recommended elsewhere in this section, rather than treating the deadline itself as a variable. Convene manufacturers and grid operators to close the V2G software-activation gap.
5. Deliver modern electricity systems including grids and enabling infrastructure	Track progress toward ADVENIR's target of financing 250,000 charging points by the end of 2027, report the number financed and operational, and publish the delivery pace needed to meet it. Work with automakers, charge-point operators, energy suppliers and grid operators to expand interoperable V2G services across compatible vehicles and chargers, building on France's existing commercial offer and new industry partnerships.

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STATUS ■ **STRONG SIGNS OF IMPLEMENTATION** ■ **MIXED IMPLEMENTATION** ■ **NOTABLE GAPS**

POLICY PRINCIPLE	RECOMMENDATIONS
6. Streamline permitting and grid connection processes	Before extending the CRE connection-queue reform to EV charging infrastructure, confirm this is the right scope as EV charging (aside from large highway fast-charging hubs) operates at limited scale to sit within the same grid-connection-queue logic as storage and industrial projects. Consider narrowing the extension to highway/fleet-scale charging only. Speed up permitting and grid connection for new storage.
7. Mobilize finance and de-risk investment	Extend the Bpifrance GER long-term green electricity guarantee model beyond corporate PPAs to battery storage and industrial-electrification investment, which currently relies primarily on grants. Publish standardized contract clauses for PPAs. Extend the band for Bonus Ecologic and revive Prime A la Conversion perhaps funded by Malus Ecologic.
8. Use regulatory standards and mandates to accelerate deployment of electric solutions	Develop a clear target, date and plan to phase out gas heating (instead of "majority" phaseout by 2050). Document and promote France's building-standards regime (DPE bans + RE2020 + EET) as an EU model — few other countries run parallel mandatory standards across new-build, existing-residential, and existing-commercial stock simultaneously.
9. Integrate electrification into industrial strategies and trade policy	Address the incumbent-worker transition gap for the Vallée de la Batterie directly and publicly — closing it credibly is essential to the strategy's social and political durability.
10. Build the skilled workforce needed to electrify the economy	Publish an explicit electrician-workforce capacity forecast that puts projected demand (building renovation rates, EV-charging rollout pace, solar/home-automation deployment plans) against actual CAP Électricien/Bac Pro MELEC/BTS/CS graduate output. Target expansion specifically at the CS specialization certificates most exposed to growth drivers — electric vehicle charging installation and home automation.