Electric Resilience:

How Ukraine Became a Rising Star in EV Mobility

June 2026

T&E

Executive summary

This briefing analyses the uptake of BEVs, charging infrastructure roll-out, and compliance with AFIR targets in Ukraine. Despite the Russian invasion, Ukraine's BEV market is growing fast, driven by active purchasing of BEVs and domestic charging station production. State regulation and provision of the enabling conditions or legislative frameworks has been however limited. In this briefing, we recommend an EU-facing approach to target-setting and policy for BEVs and charging.

- **Since 2022, the BEV fleet has increased >5-fold: from 48,417 to >252,000.** Following this surge, the market share dropped from >40% (end of 2025) to under 10% (Q1 2026) after tax advantages for imports ended. BEV owners saved 72 billion UAH on oil since 2013 which is equal to 4 million oil barrels imports and 1.5 Mt CO2e emissions avoided. Subsidised home charging is 14 times cheaper than fast DC charging, but installation is hindered by legislative, administrative, and financial barriers.
- **Over 8,000 recharging points with 211 MW (similar to Hungary with 244 MW) total power have been deployed since 2020**; 79% are slow AC chargers. Fleet-based compliance with AFIR (2025) was 45%. The compliance increased to 57% by Q1 2026 - now requiring >157 MW or roughly 1,500 DC chargers over 100 kW.
- **31% of the TEN-T core network and 28% of the comprehensive network comply with AFIR distance targets**. The Ministry of Energy's charging map lists 1,740 spots, in total 704 MW. Only 8 spots (or only 1.6%) could increase AFIR distance compliance up to 8%.

Table of contents

Section 1

BEV trends and dynamic in Ukraine:
why are Ukrainians buying electric cars?

VAT / import duty exemptions for BEVs and cheap home charging were major reasons behind the growth in uptake. With the reintroduction of VAT, facilitating home charging becomes the biggest priority.

Section 2

Charging infrastructure development:
how far is it from AFIR targets?

65 times more charging infrastructure rolled out in Q1 2026 compared to 2020. Majority is still slower AC charging spots. There is still room to grow, especially in the fast-charging segment. Fleet-based compliance stands at 57% while total TEN-T distance-based is lower - at 30%.

Section 3

Policy recommendations for Ukraine:
keeping up with the charging demand

T&E recommendations range from the need to facilitate home charging to the prioritisation of the TEN-T coverage and financial incentives for the fast charging hubs. Charging availability map is a decent beginning but it needs to have more functionality to be useful.

Section 1

BEV trends and dynamic in Ukraine:

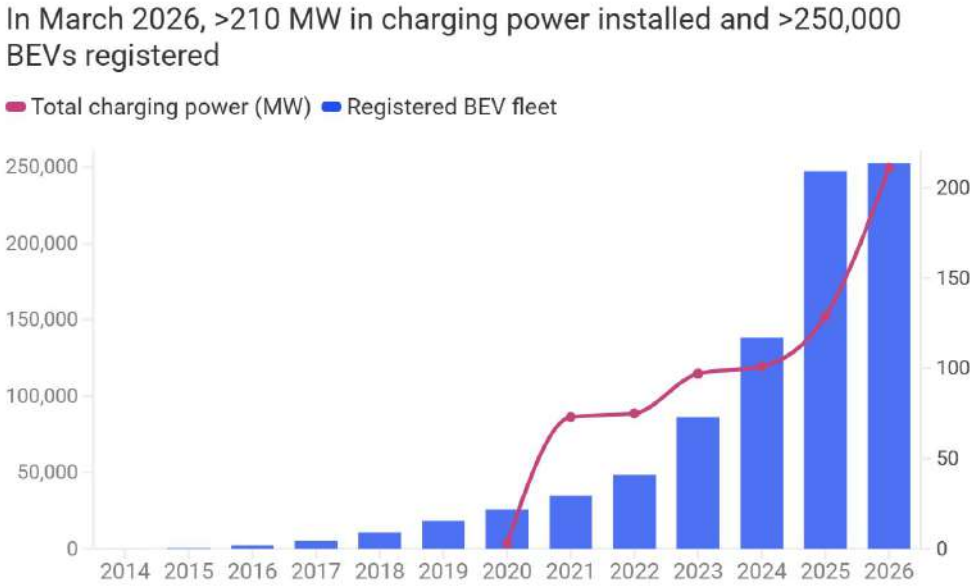
Why Ukrainians are buying electric vehicles?

T&E

Growth in Ukrainian BEVs and charging infrastructure has accelerated since 2022.

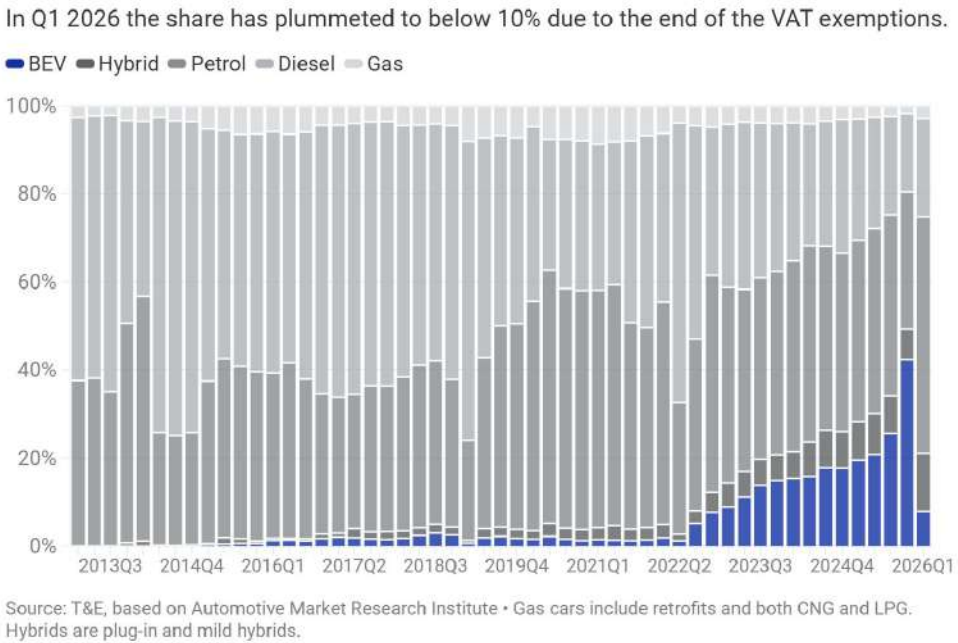
Despite the war, Ukrainians continue actively purchasing battery electric vehicles. Since the beginning of the full-scale invasion, BEV fleet has increased >5-fold while the total public charging power - almost tripled.

- **79%** of total new registrations of BEVs are second-hand imports. This share has been decreasing in favor of new BEV imports.
- The most popular car models come from **Japan** (Nissan Leaf), **USA** (Tesla Model 3, Y and S) and **Germany** (Volkswagen ID.4).
- On average, first new BEV registrations grew by **136% year-on-year since 2013**.
- **>50%** of all new registrations of BEVs done in **Kyiv, Lviv, Dnipro and Odesa**.



Source: T&E, based on Automotive Market Research Insitute (March 2026), Ecomovement (March 2026). • No private or removed chargers. DC representative power is calculated based on the number of physical charging units per cabinet (assumed >=1 physical unit). AC output is calibrated using I*V formula for 2020-2023.

BEV market share dropped from >40% in the end of 2025 to under 10% in Q1 2026.



Source: T&E, based on Automotive Market Research Institute • Gas cars include retrofits and both CNG and LPG. Hybrids are plug-in and mild hybrids.

The share of BEVs in new registrations surged in Q4 2025 as the VAT and import duty exemptions for BEV imports were expiring.

Averaged between Q4 2025 and Q1 2026 BEV market share was at 25% - 1% lower than in Q3 2025. Average quarterly market share of first BEV registrations in 2024-2025 stood at 22%.

The tax advantages for BEV imports were active from 2018 until end of 2025. They decreased the price after customs of a Nissan Leaf BEV compared to its most popular ICE counterpart, Volkswagen Golf, by **25%**:

- **17%** due to VAT exemption,
- **7.4%** due to import duty exemption,
- **1.4%** due to lower excise duty (1€ for 1 kWh).

Following the budget crunch and recommendations from the international partners, Ukrainian government decided not to extend the exemptions for BEV after 2026.

Customers avoided spending 72 billion UAH, or ~€1.4 billion on oil since 2013

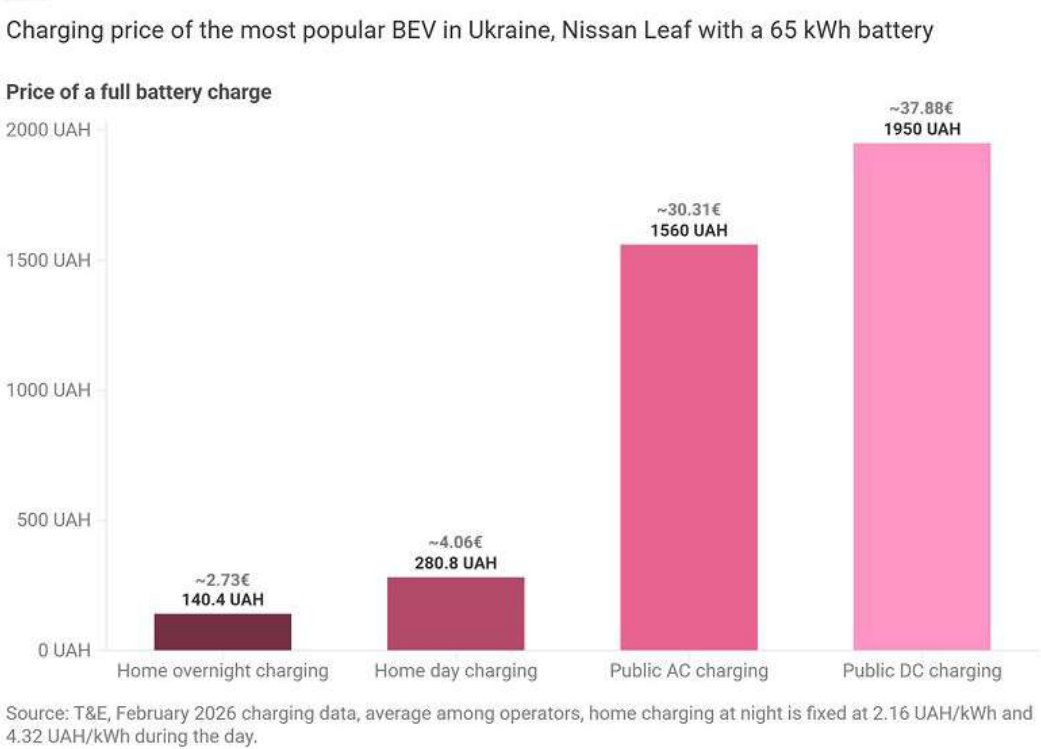
Source: T&E, based on EUTRM, Ukraine MinFin, IMF CPI, JRC IDEES, Hill and Klymenko 2015, Automotive Market Research Institute, EEA, Customs data, Worldometer. BEV electricity consumption excluded. Avg exchange rate 2024: 1 USD = 40.18 UAH.

T&E estimates that BEVs saved around 72 billion UAH for consumers in petrol and diesel expenditures since 2013.

>85% of diesel and petrol comes from outside Ukraine. BEV customers avoided spending approx. **16 billion UAH** on the imported oil. For comparison, this is a bit more than what is required to buy **50 locomotives for Ukrainian railways.**

Avoided fuel consumption meant **4 million barrels of crude oil** and **1.5 Mt CO2e** emissions were avoided. Higher price at the pump and dependence on the fossil fuel imports makes the ICE cars a much more volatile and expensive alternative for Ukraine.

Overnight home charging is 14 times cheaper in Ukraine than public DC.

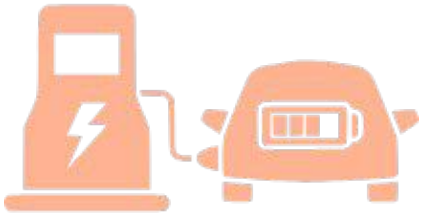


Source: T&E, February 2026 charging data, average among operators, home charging at night is fixed at 2.16 UAH/kWh and 4.32 UAH/kWh during the day.

Another reason for popularity of BEV purchases is the home charging price. Due to the subsidised (PSO) regime, prices for electricity consumption on the household level are fixed at 2-4 UAH per kWh (4-8 eurocents). For publicly installed AC or DC chargers, the price is at least 4 times higher - ranging from 16-32 UAH kWh (32 to 63 eurocents).

In January 2026, due to Russian strikes on the Ukrainian power supply infrastructure which resulted in the electricity regulator raising the price cap on the commercial electricity, the CPOs increased their prices, in some cases **2-fold. Home charging** has been a lifesaver for people that could install the station but deployment faces hurdles (see next slide).

Ukraine needs enforceable EPBD aligned targets and financing.



Barriers to home charging

Legislative and strategic

- Targets are not aligned with EPBD Directive (EU) 2024/1275
- Non-enforceable or "paper" targets
- Lack of terminology, i.e. pre-cabling, pre-ducting

Administrative and procedural

- Untransparent and procedurally complicated permitting and connection process for a home charger
- No legislative "right to plug" principle
- Lack of parking places near multi-storey buildings

Financial

- Insufficient financial incentives for individuals and/or home owner associations to install home chargers

Based on the interviews with 10+ experts in the field of e-mobility and charging.

Facts and figures

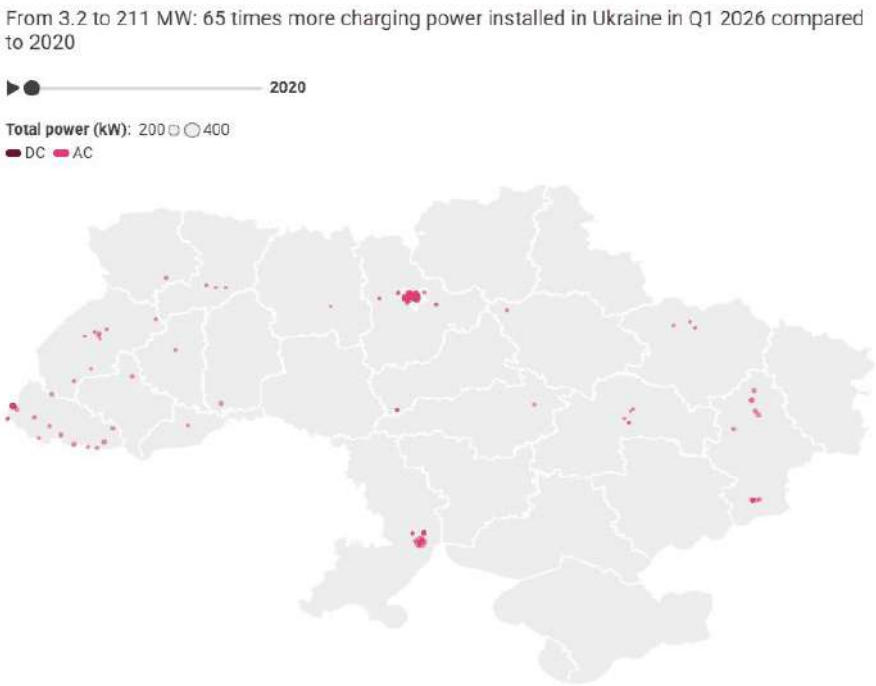
>40% ⇒ 10%	**Drop in BEV share of new registrations in Q4 2025 - Q1 2026 after tax advantages were lifted.** The high share in Q4 2025 was comparable with shares of new BEV registrations in Sweden (43%, December 2025) and Belgium (39%). The low share - comparable to Poland (7.3%) and Hungary (8.5%).
250,000+	**Number of BEVs in the Ukrainian total fleet.** This is comparable with Austrian BEV fleet (275,521) and Portugal (232,184). It is still quite small relative to the total car fleet size (roughly 3-4% of the total fleet number).
72 billion UAH	**Avoided spending 72 billion UAH, or ~€1.1 billion in fossil fuel costs.** BEVs also helped to save 4 million barrels of crude oil imports and 1.5 Mt CO2e emissions.

Section 2

Charging infrastructure development:

Is it sufficient?

63% of the total charging power deployed is served by chargers >50 kW



Source: T&E, Ecomovement data, January of each year, except 2026 - March, aggregated by master location and AC/DC, filtered - only public stations, no removed EVSEs. Physical constraints of the DC charging cabinet accounted for in the calc. 2020-2023 EVSE power was recalculated using the formula: I*V for 1-phase and sq. root of 3*I*V for 3-phase connectors. HDX, Simple maps (points)

211 MW as of March 2026 of total charging power deployed in Ukraine, out of which 133 MW is served by DC recharging points and only 78 MW - by slow AC chargers.

In CEE region this is close to Hungary with **244 MW** deployed by end of 2025 and Slovakia with **200 MW**. **More than 90%** by total charging power and by number of the recharging points is served by:

- AE Charge Point (manufacturer)
- TOKA Network (CPO)
- GO TO-U (CPO)
- And Ecofactor (CPO)

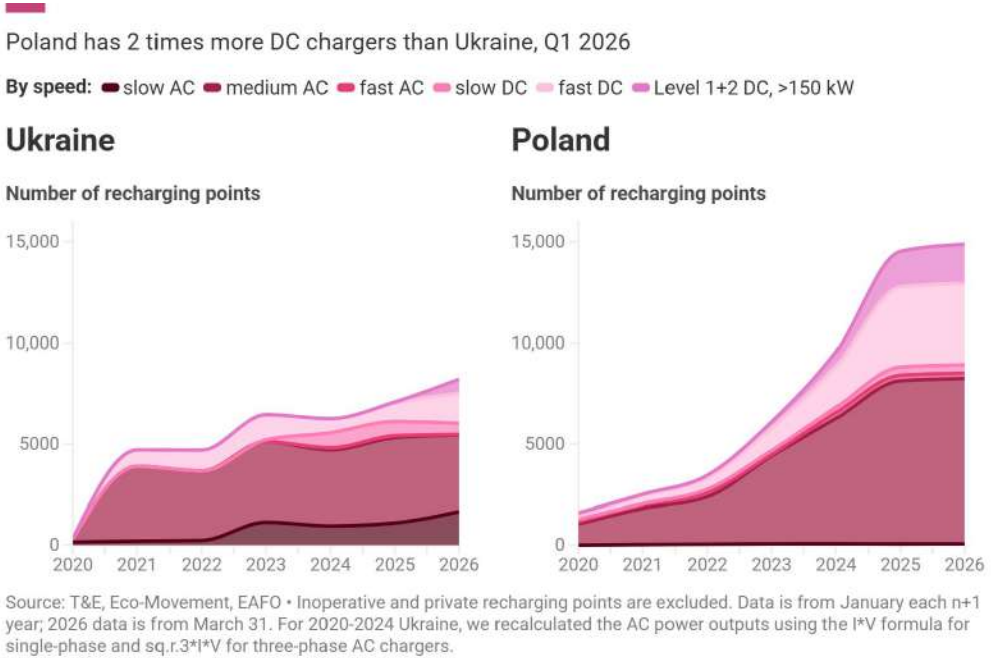
TOKA, GO TO-U and AE Charge Point operate almost **79% of all DC** recharging points in the country.

>8,000 recharging points deployed in Ukraine, of which 79% are slow AC.

We estimate 35 BEVs per charger in Ukraine in 2025 as opposed to an average of 5 in the CEE region. Despite the increasing share of fast-speed recharging points - from 5% in 2020 to 34% in 2026 - the segment over 150 kW is still rather limited.

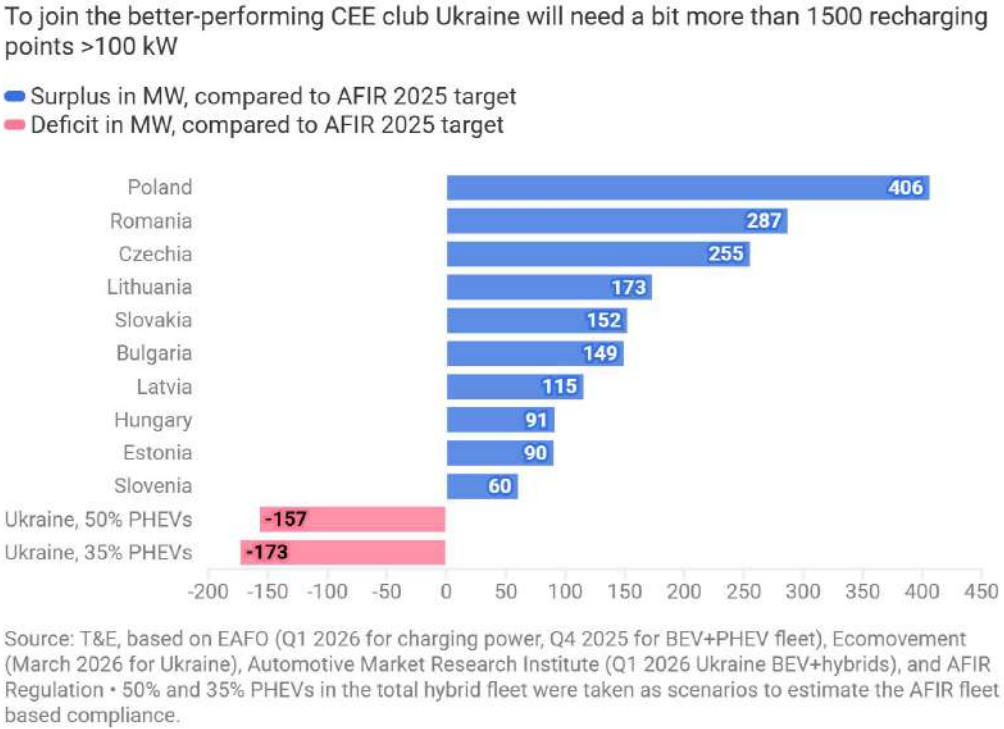
- Number of the charging points in Ukraine in 2026 is similar to **Romania (8,296)** or **Czech Republic (7,731).**
- In Q1 2026, there are **26 times more** recharging points compared to 2020.

Since 2025, Ukrainian authorities have been actively working on the **Development strategy for the charging infrastructure roll-out.** It aims to regulate the business-driven field of charging and bring it up to speed with EU regulations.



Source: T&E, Eco-Movement, EAFO • Inoperative and private recharging points are excluded. Data is from January each n+1 year; 2026 data is from March 31. For 2020-2024 Ukraine, we recalculated the AC power outputs using the I*V formula for single-phase and sq.r.3*I*V for three-phase AC chargers.

>157 MW in charging will make Ukraine fully compliant with AFIR fleet-based targets



Source: T&E, based on EAFO (Q1 2026 for charging power, Q4 2025 for BEV+PHEV fleet), Ecomovement (March 2026 for Ukraine), Automotive Market Research Institute (Q1 2026 Ukraine BEV+hybrids), and AFIR Regulation • 50% and 35% PHEVs in the total hybrid fleet were taken as scenarios to estimate the AFIR fleet based compliance.

AFIR Regulation 2023/1804 sets fleet-based targets for EU MS based on BEV (min 1.3 kW output/vehicle) and PHEV (0.8 kW output/vehicle) uptake.

In Ukraine, where PHEVs are not distinct from other hybrids in the vehicle register, we assume assume a **35% or 50% PHEV share** of hybrid registrations.

Q4 2025: **>197 MW** was required for the 2025 AFIR target (35% PHEV share), resulting in a **45% compliance rate.**

Q1 2026: The compliance gap narrowed to **>157 MW (~57% compliance rate)**, or about 1,500 DC charging points > 100 kW, though still less than CEE state surpluses.

31% of all Ukrainian core TEN-T is AFIR compliant and 28% of comprehensive network

AFIR Regulation 2023/1804 requires the EU MS to install:

- **On TEN-T core at a max distance of 60 km the charging output of ⇒ 400 kW with at least one recharging point = 150 kW by Dec. 2025**
- **On 50% of TEN-T comprehensive at a max distance of 60 km the charging output of ⇒ 300 kW and one at 150 kW by Dec. 2027.**

TEN-T core compliance increased by ~**10 times** - from **3.4%** in 2024 to **31%** in 2026. In total, Ukraine has reached roughly a **third** of AFIR distance targets. For **TEN-T comprehensive**, around **721 km** need more charging power to reach the **50% target.**

Source: T&E, Eco-Movement (March 2026), TEN-T map, AFIR targets

With new Minenergy sites, the total compliance increases from 30% to 38%

The map contains 33 available power spots on the TEN-T network, 28 of them contribute to AFIR compliance

Does the charging power available contribute to the AFIR compliance? Yes No

Source: T&E, Eco-Movement (March 2026), TEN-T map, Ministry of Energy - charging power availability map (from March 2026), AFIR targets • In red are available charging power spots located on TEN-T but do not contribute to reaching the AFIR distance targets - 400 kW min on core by Dec. 2025, 300 kW on comprehensive by Dec. 2027.

Ministry of Energy published the map of the feasible recharging points with available power capacity. In total there are 1,740 spots ranging from 7 kW to 10 MW. This amounts to 704 MW available for charging.

We made a spatial match between the available recharging points up to max 2 km away from the main TEN-T corridors and non-compliant TEN-T sections:

- Both on core and comprehensive TEN-T, installing the charging power available as per Minenergy brings an **8% increase in compliance.**
- Only **28 out of 1,740 spots** - roughly **1.6 %** - contribute to the increases in compliance. They amount to **25 MW** in total.
- Excluding occupied areas (except Crimea, as it does not have TEN-T extensions) - **9.6% increase in compliance**.
- Still, the most optimistic assessment of the compliance as of March 2026 **lies below 50%**.

V2X could accelerate solar PV integration in Ukraine with benefits for grid.

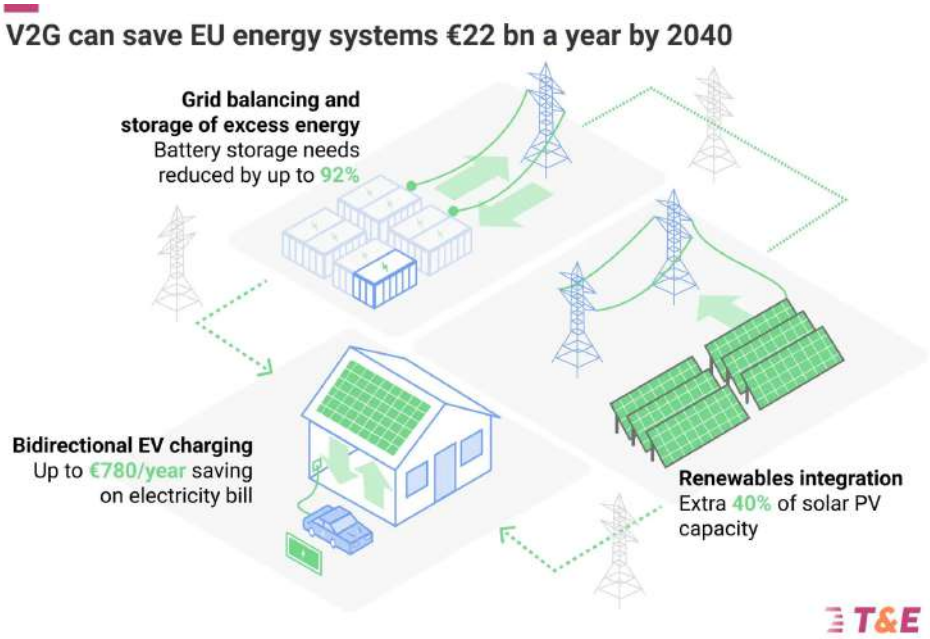
V2X (Vehicle-to-Everything) is a bidirectional charging technology that allows energy transfer between the vehicle and the grid (V2G), home (V2H), building (V2B), etc.

T&E demonstrated that it could EU-wide:

- Contribute **9% of EU's annual power supply by 2040;**
- Enable an additional **430 GW of solar PV** capacity;
- Reduce the need for **stationary battery storage by 92%**;
- Generate grid expansion savings and offer financial benefits for EV drivers.

In Ukraine, **7 GW of solar** is operational (Feb 2025), with plans to double it to about **12 GW by 2030** (NECP). Battery storage is increasing, with a need for **5.6 GW** capacity by 2030 (IEA).

Developing V2X and smart charging functionalities in the mid to long-term in Ukraine could provide more flexibility to the grid, allow more PV integration and decrease the reliance on storage.



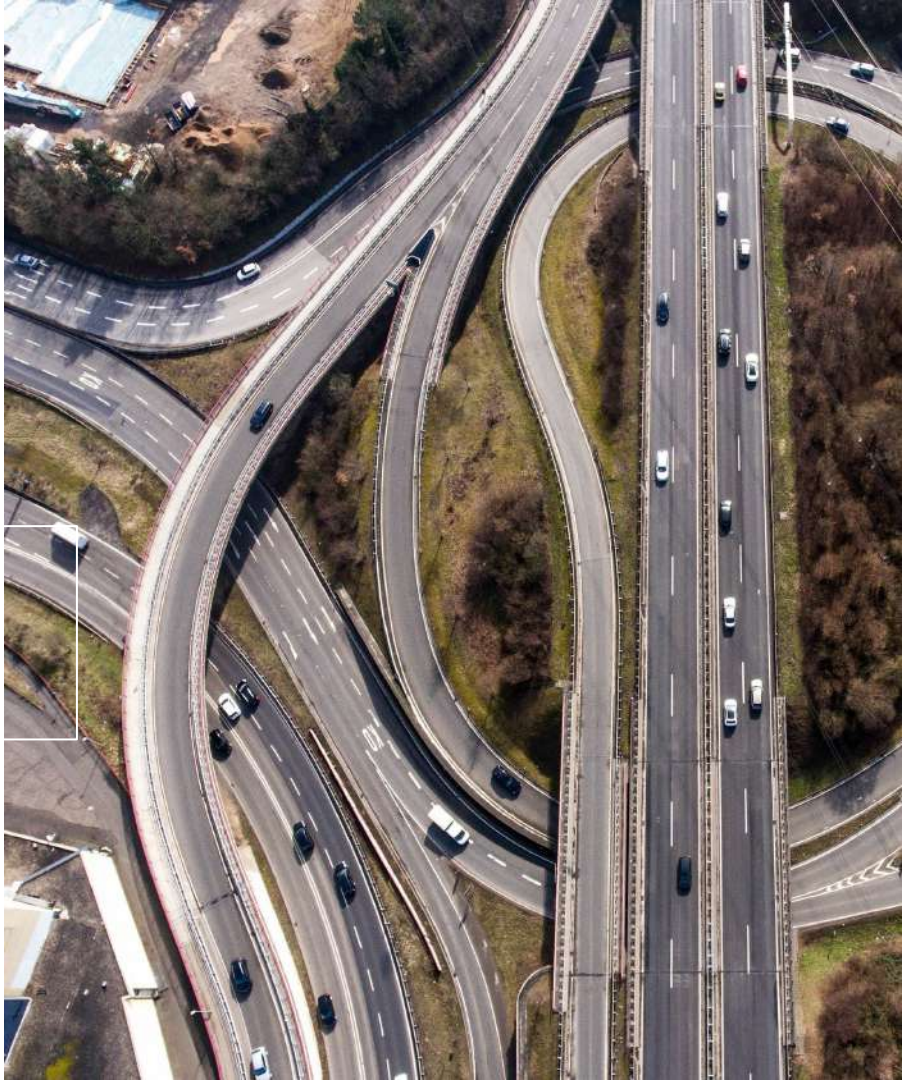
Fact and figures: charging infrastructure and AFIR compliance

8,000+ **211 MW**	**Number of recharging points in Ukraine and total charging power installed in Ukraine as of Q1 2026.** This is comparable with the number of chargers and total charging power installed in Czechia (7,731; 363 MW) and Romania (8,296; 382 MW). Only 34% of chargers in Ukraine are fast DC. In Poland, the DC share is at 43%.
57% **157 MW gap**	**Ukrainian fleet-based compliance rate with AFIR 2025 targets as of March 2026.** Installation of >1,500 DC (>100 kW) public charging stations amounting to 157 MW will bridge the gap. The CEE neighbours have outperformed the AFIR 2025 target and are in surplus.
30% ⇒ 38%	**Potential to increase the AFIR distance-based TEN-T compliance based on the available charging power along TEN-T.** Now, on average 30% of TEN-T routes in Ukraine are compliant with AFIR targets. Using 28 charging power spots, or only 1.6% of total identified, totaling 25 MW, Ukraine could boost its compliance by at least 8%.

Section 3

Policy recommendations for Ukraine:

keeping up with the charging demand



Conclusion

Charging infrastructure in Ukraine needs a targeted regulatory booster.

Despite the ongoing war, Ukraine has emerged as an unexpected rising star in electric mobility. This growth has been powered by BEV import tariffs exemptions and a 'laissez-faire' policy on charging, which cleared the way for the private sector to drive the charging infrastructure market. Now, with the **EU accession processes**, **rising fuel prices** and **continuous attacks on the Ukraine's energy infrastructure**, it is crucial to take targeted action to increase coverage and resilience of the charging network. BEVs will be increasing in number due to their increased affordability and EU Green Deal policies. It should be accompanied by domestic regulations in Ukraine to ensure the charging network grows with future demand.

Public charging roll-out:

- **Mandatory national targets on deployment of charging infrastructure on TEN-T; aim to complete TEN-T network by 2030;**
- **Financial support for fast-charging hubs and**
- **Further development of functionality of the map with available charging power**

When implemented, such policies will contribute to increased rates of AFIR compliance, help overcome range anxiety for BEV owners and add predictability to CPO investments.

Private charging roll-out:

- **Bundling the energy efficiency of buildings upgrades with the installation of the charging infrastructure at home;**
- **Setting enforceable charging targets for residential and non-residential buildings as well as**
- **Exploring feasibility of smart charging and V2X applications mid- to long-term**

could make BEV ownership more attractive for multi-storey inhabitants and create additional synergies with photovoltaic (PV) power integration and utilisation. See recommendations on the next slides for more granularity.

Recommendations on supporting BEV uptake and home charging.

01	**Do not put additional fiscal burden on the owners of BEVs in the absence of the VAT and import duty exemptions.**
02	**Facilitate home-charging for BEV owners.** Clarify the permitting and connection procedures for BEV owners, home associations and property management companies.
03	**Harmonise legislative targets, terminology (e.g. “pre-ducting”, “pre-cabling”, “smart charging”) and requirements for home charging installations with the Energy Performance of Buildings Directive (EPBD).** The under preparation Development strategy for charging infrastructure roll-out should address the major bottlenecks in home charging.
04	**Facilitate access of the homeowner associations and private individuals to funding to install charging infrastructure together with other energy efficiency measures, like installation of solar PV.** The financial support could come from the State Decarbonisation Fund, Ukraine Facility resources or dedicated bank programmes.

Recommendations on promoting AFIR alignment.

01	**Promote AFIR alignment of the TEN-T networks.** Set legislative and enforceable AFIR coverage targets, especially on long-distance corridors.
02	**Prioritise and streamline projects with a focus on high-power DC stations and hub charging.** The support may come from the Ukraine Facility, CEF/AFIF or State Decarbonisation Fund, state co-financing or domestic loan support.
03	**Increase the utility of the map on charging power availability to promote AFIR compliance.** Prioritise the "red" or non-compliant sections of the TEN-T network for charging stations. Add further functionalities to the map, in particular - specify if the spot is reserved, under negotiation or taken; clarify if it is far from the grid connection point and if there is a dedicated parking space.
04	**Systematically collect data on BEVs, PHEVs and charging infrastructure.** Create a dedicated National Access Point (NAP) that will disclose the charging data publicly on one platform. Mandate the differentiation between different hybrid types in the Unified State Vehicle Register.

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