

Boosting the use of renewable electricity in EU transport - Making the case for EV charging under the Renewable Energy Directive

Introduction

The revised proposal of the Renewable Energy Directive (REDIII) includes a very welcome focus on the potential of EV charging to contribute to cleaner, more efficient energy systems, and is closely linked to the revision of the Alternative Fuels Infrastructure Regulation (AFIR). Both will play an important role in creating the right framework of EV charging across different uses and locations.

The proposal rightly recognizes the numerous benefits that EV charging offers for the electricity system in terms of flexibility, load balancing and storage opportunities. At the same time, the proposed credit mechanism scheme will play a key role in greening EU transport, as it will boost the use of renewable electricity in the transport sector. To deliver on these opportunities, it will be critical to properly account for the benefits brought by supplying renewable electricity to the transport system and to maximize the potential of e-mobility.

Give credit where credit is due

The RED III proposal introduces a 13% greenhouse gas (GHG) intensity reduction target for the transport sector by 2030. It also introduces a credit mechanism to promote electromobility, “under which economic operators that supply renewable electricity to electric vehicles via public charging stations will receive credits they can sell to fuel suppliers who can use them to satisfy the fuel supplier obligation.”

Fuel suppliers are already obligated parties under national transport renewable energy schemes related to RED II. Their main compliance options are supplying low carbon fuels (e.g., sustainable biofuels or green hydrogen and derivatives) and renewable electricity for EVs. The RED III proposal, if adopted, would allow charge point operators (CPOs), even if not an obligated party, to generate credits that they could sell to fuel parties.

Setting the right methodology for calculating GHG savings from supplying electricity is essential to adequately represent the benefits of road transport electrification and incentivize renewable electricity sources. The Commission proposes to use a so-called fossil GHG intensity comparator as a baseline to calculate the savings from supplying green(er) alternatives. For supplying low-carbon fuels, the Commission proposes to use the fossil fuel comparator for liquid fossil fuels of 94 gCO₂/MJ (ECF(t)). For supplying renewable electricity, this would be based on the comparator for electricity – rather than fuels – which would be 183 gCO₂/MJ (ECF(e)).

However, the European Parliament (ITRE and ENVI draft report/opinion) is moving away from the Commission’s methodology and proposes to apply the fossil fuel comparator of 94 gCO₂/MJ when calculating GHG emission savings from supplying renewable electricity. Applying this methodology would roughly halve the GHG savings from renewable electricity supplied in the transport sector, and consequently slow down the roll out of a green EV charging network.

ChargeUp Europe agrees with the European Commission that renewable electricity should be considered to have zero emissions, resulting in 100% emission savings compared to electricity produced from fossil fuels. This will incentivize the rollout of an EV charging network and boost

e-mobility, paving the way for establishing a sustainable EU transport system. We therefore recommend keeping the proposed methodology by the European Commission in place and apply the fossil electricity comparator to calculate GHG savings from supplying renewable electricity to the transport sector.

Optimizing the benefits of the credit mechanism

At the same time, to fully ensure the uptake of renewable electricity in EU transport, ChargeUp Europe believes that the credit mechanism should also be applicable for the supply of renewable electricity through private charging. Private charging will remain the most used EV charging use case and applying the credit mechanism scheme to this charging segment will thus fasten the transition to e-mobility.

Additionally, the REDIII proposal mandates the implementation of the credit scheme across the EU. A certain degree of harmonization is therefore necessary to ensure that the mechanism can be applied cross-border. ChargeUp Europe therefore believes that the credit mechanism should be compatible among EU countries in order to ultimately reach a pan-European system.