

E-Mobility Platform reaction to EU Parliament ENVI and ITRE committee submitted amendments on transport-related provisions within Renewable Energy Directive recast

1. Renewable energy target in transport

Some submitted amendments suggest the introduction of national targets as a replacement for or in complementarity with fuel supplier targets for the post-2020 period. The Platform does not support these amendments because they increase confusion over who is legally responsible for increasing RES shares in transport. Moreover, compared to national targets, fuel supplier targets are more likely to drive a diversified renewable fuel mix; national targets in the current Directive have only driven the uptake of crop-based biofuels, but not of other forms of renewable energy. Finally, fuel supplier targets are better suited for the setting up of renewable energy transport credit trading platforms, which we strongly support as mentioned in point 2.

2. A level playing field for renewable energy supplied to the transport sector

Article 25 allows fuel suppliers to the transport sector to meet part of their blending obligation with renewable electricity. However, history shows that *allowing* this to happen does not mean it actually *happens*. Even if the current Directive also allows target compliance via renewable electricity, so far only one Member State - the Netherlands - has actually set up a target compliance system which is fair towards renewable electricity. This system is based on renewable energy credit trading on a market which is open to participation from both electricity charging point operators and biofuel suppliers. A description of the Dutch system is [here](#). Besides increasing fairness, this system helps accelerate electromobility by contributing to the operating costs of charging points. The new Directive must do better and ensure such credit trading happens in the whole of Europe. The Platform recommends the leading Parliament committees to ensure that the national databases within Art. 25 do not just enable transfers of obligations between fuel suppliers, but are also developed as platforms for the trading of renewable energy credits from all renewable fuel types eligible under the numerator. For a level playing field in credit trading, a multiplier for electricity is necessary in order to balance out the higher efficiency of electric motors (compared to internal combustion motors) as well as renewable electricity production (compared to biofuel production) - see point 3.

3. Multiplier for electric vehicles, but not for shipping and aviation

Many studies show that electric vehicle engines are much more efficient than internal combustion engines. As a minimum, EVs travel 3.5 times further than conventional cars for the same energy input (tank-to-wheel). In a well-to-wheel perspective, this efficiency advantage is even more pronounced, when comparing renewable electricity and biofuels. Hence, the Platform welcomes and strongly supports the 2.5 multiplier presented in ITRE amendments 83 (Blanco Lopez) and

ENVI amendments 614, 623 and 627, but some members of the platform would prefer an increased multiplier of 5. This multiplier has been introduced into the current Directive after the ILUC addition. Depending on the multiplier and on the number of electric vehicles on European roads, the share of renewable electricity in transport by 2030 can differ significantly. The Platform believes that the obligation should be set at a level which is actually achievable and which could be aligned with the multiplier chosen for electricity in transport.

The Platform though, does not understand why shipping and aviation, which are excluded from the scope of the supplier blending obligation, currently have a multiplier. We suggest its deletion.

4. Sub-obligation for advanced biofuels and biogas

Some submitted amendments suggest changes to the level of the sub-target for part A Annex IX biofuels and biogas. The e-mobility platform recommends not raising the sub-target level for biofuels beyond the Commission proposal. The lower this specific sub-target will be, the larger the opportunity for all advanced renewable energy technologies to compete on an equal footing¹. The Platform therefore does not support ITRE amendments 80 and 1174 and ENVI amendments 572, 573 and 575.

Fuel suppliers only providing electricity to the transport sector should not be subject to this sub-obligation. Hence, we welcome amendment 81 (Blanco Lopez). However, it has to be made clear that this exemption applies to *all* fuel suppliers only supplying electricity to the transport sector - not only those supplying 100% renewable electricity.

5. Calculation of electricity used by cars and identification of the renewable energy content of such electricity

As electric vehicles are still at their early deployment stage, today their electricity consumption is often not metered. However, if we are to properly measure progress towards the 2030 transport target, going forward the electricity use by road transport will have to be metered. The Renewable Energy Directive should on the one hand encourage proper metering and on the other hand accept that - during a transitional period - electricity suppliers who supply households which charge their EV with a wallbox that is not equipped with a separate meter, simply estimate the electricity consumption of the vehicle. This is already done in some Member States in the context of the Fuels Quality Directive. The national regulatory authority could play a role in approving the estimates.

The Commission proposal suggests considering that suppliers of electricity to road transport sell

¹ As [analysis from T&E](#) shows, the Commission proposed sub-target of 3.6% is based on very optimistic assumptions as to the availability of sustainably sourced feedstocks.

at least either the EU or the national RES-E share. The Platform recommends using only the national share. Giving the opportunity to choose between the two poses the risk of massive overestimations, with fuel suppliers located in countries with low RES-E shares picking the EU average and fuel suppliers active in high RES-E markets opting for the national shares. In this regard, we support amendments 1216 (Cabezón Ruiz, Rodríguez-Piñero Fernández) and 1217 (Turmes)².

Some suppliers of electricity to transport may want to go beyond their obligation and offer a higher share of RES as compared with the national share. The Platform believes that suppliers with a direct connection to a renewable energy project and / or with one or more power purchase agreements with off-site renewable energy plants should be able to do so. It has to be noted that this would be the only way that electricity suppliers to the transport sector can actually influence the fuel mix they supply under the obligation scheme (before trading credits).

When it comes to the specific issue of guarantees of origin for the disclosure towards consumers, we recommend the legislators to clarify that the rules set by article 19 (whatever they will eventually look like) do apply in the same way to suppliers of electricity both to the electricity sector and to the transport sector.

6. Maximisation of the renewable energy content of the electricity supplied to transport

If transport electricity suppliers decide not to directly invest in a renewable energy project directly connected to the charging point or to sign a power purchase agreement with a renewable electricity project, as an average two third of their supplied electricity will come from conventional power sources. Depending on the country's electricity mix and on the time at which EVs will be charged - the latter being dependent on the deployment of smart charging infrastructure - this share may be higher or lower. Turmes MEP's amendment to article 25 suggesting the setting up of a platform for the financing of new RES-E projects to maximise the RES-E shares out of the total electricity consumption by the transport sector shows good intentions. However, the Platform fears that this provision would over-complexify the implementation of the fuel supplier blending obligation.

7. Exclusion of renewable electricity used by rail from the numerator

The Commission proposed target applies to road and rail transport modes (denominator). However, as far as electricity is concerned, only renewable electricity supplied to road vehicles

² EURELECTRIC does not support the use of the national renewables share in this context. Instead, fuel suppliers should either have the choice of using either the national or the European share, or – alternatively – the European share should be used. The latter is in line with the general approach of setting targets for renewables at European level and avoids over-estimation as well.



and not to rail transport can be taken into account towards the achievement of the obligation (numerator). This proposal is probably aimed at strengthening ambition. However, the Platform recommends envisaging some protective rules for suppliers of electricity exclusively powering the rail sector who otherwise will not be able to meet their obligation. The Platform regrets that no amendment has been tabled in this respect and hopes that informal arrangements will be possible to address this issue.

Annex - multiplier for electricity, based on analyses performed by Tesla

Several studies show that the efficiency of electric vehicles is higher than the one of internal combustion engines.

The most recent (2014) [JRC well-to-wheel analysis](#) points to 5-10 times lower primary energy use for an electric vehicle powered by wind electricity vis-a-vis a vehicle with a combustion engine powered with biofuels. It is correct to take wind as the point of reference here, as this Directive addresses renewable electricity use in transport, and wind has a predominant role in renewable generation in Europe. The report provides numbers for 2010 and 2020 and we took the 2020 ones which are generally significantly better than the 2010 ones.

Page 8 provides numbers on bio-ethanol, concluding (in 2020), total energy use from bio-ethanol is 273 to 410 MJ/km or 2.7 to 4.1 MJ/km, depending on the pathway.

Page 21 does the same for biodiesel and yields 1, and 99-437 MJ/100km, or 2.0 to 4.4 MJ/km.

Page 35 and 36 give the numbers for battery electric vehicles. Wind yields 43 MJ/100km or 0.4 MJ/km

The table below summarises the numbers

	MJ/km best case	MJ/km worst case	source
Bio-ethanol	2.7	4.1	Page 8
Biodiesel	2.0	4.4	Page 21
Electric vehicle, powered by wind	0.4	0.4	Page 36
Resulting multiplier	5-7	10-11	

Therefore we believe a multiplier of 5 for renewable electricity in transport vis a vis biofuels is conservative.

Potential role of renewable electricity in transport:

Assumptions:

- Multiplier of 5
- Assuming 50% electricity coming from RES in 2030
- Assuming 39,8 million out of 278 million cars and vans to be electric in 2030 (numbers taken from the Energy Efficiency Directive Impact Assessment, 30% Energy efficiency scenario)
- Assuming a driving range of 14,000 km/year and consumption of an electric vehicle of 0,2kWh/km This makes around 111,5 TWh electricity to be used in road transport by 2030
- Assuming 3234 TWh energy used in road and rail transport (own calculation based on [this](#))

Results in:

$111,5\text{TWh} \times 0,5 \times 5$ (multiplier) : $3234\text{ TWh} = 8,6\%$ //

With a multiplier of 2,5 (as suggested by Blanco Lopez' report) this would obviously be 4,3%.
The RES in transport target/obligation on fuel suppliers should and can be adjusted according to the multiplier chosen.

electromobility

E-Mobility Platform members:

