Real-world usage of plug-in hybrid electric vehicles Fuel consumption, electric driving, and CO₂ emissions

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The EU CO₂ standards for new passenger cars



https://www.theicct.org/publications/ldv-co2-stds-eu-2030-update-jan2019

THE INTERNATIONAL COUNCIL ON CLEAN TRANSPORTATION

The EU CO₂ standards for new passenger cars

- Up until 2022: Each vehicle <50 g/km (NEDC) qualifies for a super credit
- From 2025 onwards: Zero- and low-emission vehicle (ZLEV) credits will apply depending on (WLTP) CO₂ level





ON CLEAN TRANSPORTATION



- CO₂ threshold (currently 50 g/km) for **super credits** should be lowered.
- CO₂ threshold (currently 50 g/km) for **ZLEV credits** should be lowered and **multiplier** (factor 0.7) should be removed.
- Qualification for super credits / ZLEV credits should be demonstrated using (on-board fuel consumption meter) real-world usage data.
- Testing procedures (**WLTP utility factor assumptions**) should be updated.



Recommendations – National level

- Fiscal (and other) incentives should prefer PHEVs with a high all-electric range and a high ratio of electric motor power to combustion engine power.
- Qualification for incentives should be demonstrated using utility factor data collected from on-board fuel consumption meters or regular technical inspections.
- Legal and financial barriers for installing **home charging** should be reduced.
- Company-car incentives should be issued only if sufficient workplace charging infrastructure or support of home / public charging.
- **Charging costs** should be lowered, while taxes on fuel should be raised, as well as limiting deductibility of fuel costs for companies.



Recommendations – Vehicle manufacturers

- Should increase the all-electric range of their PHEVs from ~50 km today to ~90 km.
- Should **limit the power** of their PHEV combustion engines, not only for urban but also extra-urban driving.
- Should **inform and encourage customers** to select a PHEV only if a fit with suitable driving and charging behavior.



Recommendations – Fleet managers

- Should recommend a PHEV only to those company car users with a **suitable driving and charging behavior**.
- Should **limit the budget for gasoline / diesel fuel** on tank cards, while incentivizing re-charging of electricity.



Recommendations – Summary

- PHEVs can electrify many kilometers if they provide sufficiently long all-electric ranges and are driven mainly on electricity.
- Current PHEV policies do not fully support these aspects and should be revised accordingly.







Questions?



