

UN GTR 22:
**In-vehicle Battery Durability for Electrified
Light-Duty Vehicles – Annex 2**
The new EU Renewable Energy Directive

The new EU Renewable Energy Directive

- The new **RED III** entered into force on November 2023.
- The adopted **revised REDII requires in Article 20a** and related definitions in **Art. 2(14c until 14p)** and **recitals 50-58** :

Facilitating system integration of renewable electricity

2nd sub-para of Art. 20a(3)

Member States shall adopt measures to require that vehicle **manufacturers make available, in real-time, in-vehicle data related to the battery state of health, battery state of charge, battery power set point, battery capacity, and, where appropriate, the location of electric vehicles**, to electric vehicle owners and users, as well as to third parties acting on the owners' and users' behalf, such as electricity market participants and electromobility service providers, under non-discriminatory terms and at no cost, **in accordance with the data protection rules, and in addition to further requirements with regard to type approval and market surveillance laid down in Regulation (EU) 2018/858 of the European Parliament and of the Council*** .

UN GTR 22 - ANNEX 2

NEW EU RED - Art. 20a(3)

Values to be read from vehicles:

○ Mandatory values:

- 1. On board SOCE value (in %)
- 2. On board SOCR value (in %)
- 3. Odometer (i.e. distance driven by the vehicle) (in km)
- 4. Date of manufacture of the vehicle
- 5. Elapsed time since last charged by more than 50 per cent SOC swing [Days]
- 6. Average battery temperature while propulsion system is active, during charging and (if equipped) during non-usage of the vehicles (i.e. non-propulsion system active, non-charging)

○ Values requires if manufacturer applies virtual mileage option:

- 7. Total distance (sum of the distance driven as reported by the odometer and the virtual distance) [km]
- 8. Virtual distance (in km)
- 9. Worst case certified energy consumption of PART B family [Wh/km]
- 10. Total discharge energy in V2X [kWh]
- 11. Total discharge energy for non-traction purposes [kWh]

○ Values that may be required by regional regulations:

- 12. Energy throughput [kWh]



To be aligned with the **EU Renewable Energy Directive** proposal to add under **“Values that may be required by regional regulations”**:

Vehicle manufacturers shall made available, in real-time,

~~○ in-vehicle data related to the battery state of health,~~

- battery state of charge (in %),
- battery power set point, [kW]
- battery energy capacity, [kWh]
- and, where appropriate, the location of electric vehicles,

to electric vehicle owners and users, as well as to third parties acting on the owners' and users' behalf, such as electricity market participants and electromobility service providers, under non-discriminatory terms and at no cost, in accordance with the data protection rules, and in addition to further requirements with regard to type approval and market surveillance

NEW EU RED

Member states will have 18 months after the entry into force of the directive to transpose it into national legislation.

The new RED requirements would need to be transposed by approximately mid-2025. In the context of implementing Art. 20a, MS will be informed to refer in their transposing measures to the implementing in-vehicle battery regulation to ensure harmonised application of rules across the EU.

NEW EU RED - Art. 20a(3)

Definitions 14c until 14p and recitals 50-58

- battery state of charge (in %),
- (14j) “state of health” means state of health as defined in Article 3(1), point (28), of Regulation (EU) 2023/1542;
- (14k) “state of charge” means state of charge as defined in Article 3(1), point (27), of Regulation (EU) 2023/1542;
- (14l) “battery power set point” means the **dynamic** information held in a battery’s management system prescribing the electric power settings at which the battery **should optimally operate** during a recharging or a discharging operation, so that its state of health and operational use are optimised
- battery energy capacity, [kWh]
- and, where appropriate, the location of electric vehicles