



Empowering
the **next level**
of e-mobility

CharIN – Charging Interface Initiative e. V.

ACER workshop on electromobility, power-to-gas demand units and heat-pumps
17th April 2023, Ljubljana/Online



Overarching Position on European Grid Codes

CharIn opinion (11/2022)



Regarding NC DC:

- Emobility will become a part of EU grid codes. Support change of requirements for harmonization of charging.
- There shall be no additional requirements which would increase costs in existing and future chargers (EVSE and EV)
- Charging functions shall not impose additional homologation requirements and processes
- European wide unified Grid Codes and requirements shall be specific and mandatory in each member state

Risk for existing
charging
functions

Regarding NC RfG:

- EMobility (incl. energy storage) will become a part of the RfG. Support change of requirements for harmonization of charging.
- Bidirectional Charging (both AC & DC chargers) must be enabled and described within a legal framework
- Bidirectional Power Flow functions should not impose any additional testing & certification requirements compared to any stationary energy storage or generation units
- BiDi capable vehicles shall always be allowed to charge
- There shall be an EU wide dedicated set of Grid Code requirements mandatory in each member state specifically for mobile devices with limited generating power

Chance for
bidirectional
charging

Distributed functions in charging station and electric vehicle

Possible Solution to show importance of digital certificates



- 1) Storage and Output of grid code parameters (according to EN 50549-x)
- 2) Grid following mode
- 3) Request for certificates and certificate check

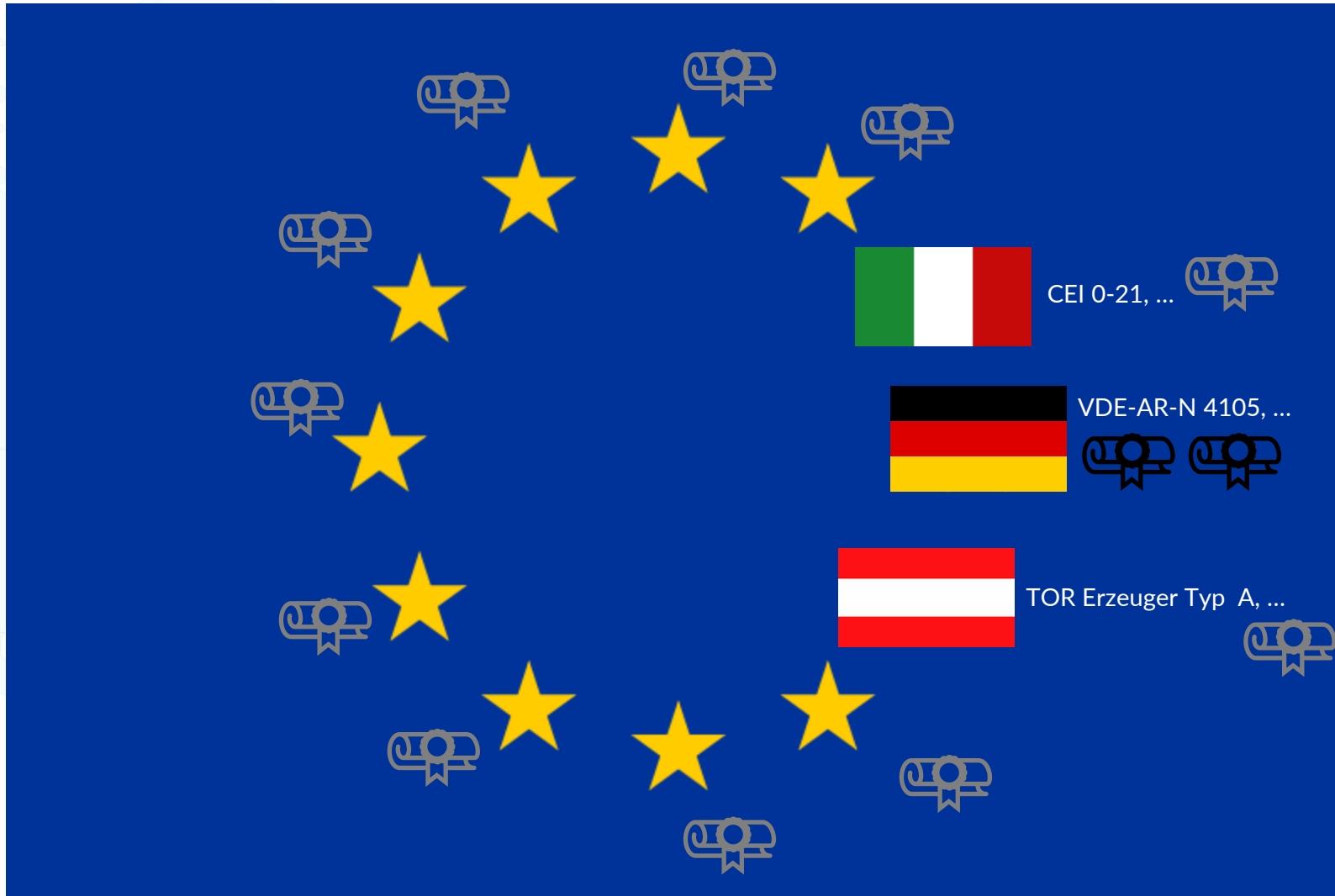
Compliance with requirements for generators

- 1) System reactions (rapid voltage changes, flicker, harmonics and inter-harmonics)
- 2) Active and reactive power control
- 3) Static and dynamic grid support (incl. FRT)
- 4) Short-circuit current contribution
- 5) Integrated NS (network & system) protection
- 6) Islanding detection (passive/active)

Digital certificates must be possible

National grid codes

Different requirements in member states



▶ Harmonization of national grid codes necessary

Thank you for your kind attention!

Any questions?

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