



SMART READINESS INDICATOR (SRI)

A FOCUS ON ELECTRIC VEHICLE CHARGING SYSTEMS

SRI is a common EU scheme for rating the smart readiness of buildings.

Electric Vehicle (EV) Charging is one of the **nine technical domains** addressed by the SRI.

The deployment of charging infrastructure in line with EV uptake is a crucial enabler of the switch to alternative fuels. It is estimated that 6.8 million public charging points are required by 2030 to meet consumer EV adoption. At the EU level, the building renovation wave must account for these conditions by developing the right incentives and easing the deployment of common charging infrastructure providing smart-charging capabilities, especially in collective residential buildings.

By 2030, smart charging, which allows for central control of the times at which a vehicle charges, will be widely rolled out. Smart charging can actively balance the grid and avoid peaks, reducing the required grid investments. Bidirectional charging, which allows energy to flow both ways - in and out of a vehicle, whether Vehicle to Grid (V2G) or Vehicle to Home (V2H), will similarly play an important role. Three benefits for owners of bidirectional chargers include: making money by selling excess energy back to the grid, cost savings by leveraging differential energy tariffs, and energy self-sufficiency by connecting onsite renewables.

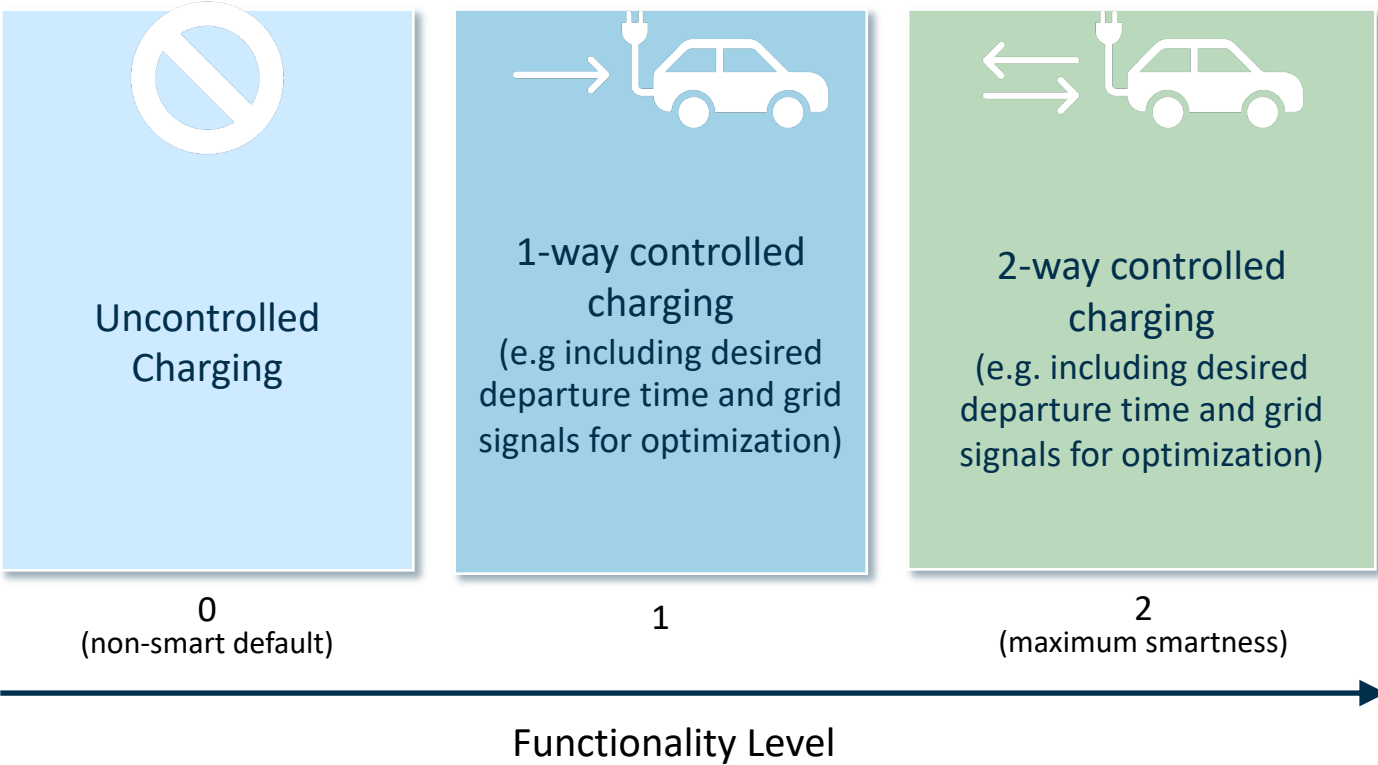
References: ECA Special report (ISBN 978-92-847-5730-5); ACEA 2022 European Electric Vehicle Charging Infrastructure Masterplan Research Whitepaper.

AN EXAMPLE OF SMART-READY SERVICE

The SRI implements a catalogue of smart-ready services. The next page provides one example of smart-ready service categorised under the Electric Vehicle Charging technical domain. An example of a full Smart-ready-services catalogue can be obtained by requesting the SRI assessment package at:








<https://ec.europa.eu/eusurvey/runner/SRI-assessment-package>

Service group: EV Charging - Grid
Smart-ready-service: EV Charging Grid balancing



FUNCTIONALITY LEVELS CORRELATION WITH SRI IMPACT CRITERIA

Each functionality level of a given smart-ready service has corresponding individual scores for each of the **seven impact criteria** addressed by the SRI, as illustrated below.

	 Energy efficiency	 Maintenance and fault prediction	 Comfort	 Convenience	 Health, well-being and accessibility	 Information to occupants	 Energy flexibility and storage
Level 0	0	0	0	0	0	0	-2
Level 1	0	0	0	2	0	0	1
Level 2	0	0	0	2	0	0	3

- **Level 0** | Uncontrolled charging – receives a score of -2 for energy flexibility and storage, as uncontrolled charging can increase peak demand, voltage deviation, overload network components, increase power losses and by consequence increase peak energy prices for building occupants.
- **Level 1** | 1-way controlled charging - offers increased convenience for building occupants, and a slight improvement in energy flexibility and storage.
- **Level 2** | 2-way controlled charging – maintains a moderate level of convenience for building occupants while offering the maximum level of energy flexibility and storage.

According to the SRI delegated regulation, Member States shall make available at least one smart-ready catalogue to be used by experts as the basis for identifying and assessing smart-ready services. Smart-ready service catalogue includes the list of smart-ready services to be considered for calculating the smart readiness score, related functionality levels, and corresponding individual scores for the impact criteria. Member States may decide to make available several smart-ready catalogues, for instance for different building types.

FURTHER READING

Examples of European and International entities to learn further about Electric Vehicle Charging include: [ACEA](#) (European Automobile Manufacturers' Association), [AVERE](#) (The European Association for Electromobility), [ChargeUp Europe](#), and [Eurelectric](#).



FOLLOW AND CONTACT US

- SRI website, newsletter, FAQ and resources: <https://ec.europa.eu/smart-readiness-indicator>
- European Commission Contact: Brigitte Jacquemont: ENER-BUILDINGS@ec.europa.eu
- Twitter: @Energy4Europe #SmartReadinessIndicator

Several projects are developing Research & Innovation activities around the SRI. Stay updated by joining the European Smart Buildings Innovation Community at: <https://smartbuilt4eu.eu/join-our-community>