

► POWER SYSTEMS

7 May 2025

Innovative Rheinmetall Curb Charger ready for widespread introduction – case study on successful pilot project in Cologne published

After just over a year, the City of Cologne, TankE GmbH, being the charging infrastructure operator, and Rheinmetall AG have successfully concluded their joint field trial of four innovative Curb Chargers in the public road space. The pilot project started in April 2024 at two locations in Cologne-Lindenthal. The aim was to validate the practical suitability, urban planning and design advantages, as well as the acceptance of the innovative charging solution over a period of twelve months.

The associating case study, which has now been published, confirms the positive results: with more than 2,800 successful charging cycles – an average of more than two per day and charging point – and the technical availability of over 99%, the Rheinmetall Curb Charger



proved not only powerful and reliable in all weathers, but was also in regular demand. With the completion of the pilot project, the four charging points are now being taken into regular operation.

Christoph Müller, CEO of Rheinmetall's Power Systems division: "Our product integrates the charger electronics into a standard Kerbstone to enable the charging of electric vehicles directly at the roadside – without obstructive bollards, intrusion into the pedestrian area, or compromises in terms of safety or aesthetics. This is how we are contributing to the mobility transition with innovative solutions. Our developed Curb Charger is a series-ready product. By this, urban charging infrastructure is rethought: space-saving, robust, barrier-free – and integrated into existing urban structures".

The comprehensive case study proves that the Curb Charger is ready for the market. The results of the field trial speak for themselves: a total of more than 50 MWh of energy was charged – an average of around 19 kWh per cycle, which corresponds to a range of approximately 120 kilometres. The compact, modular design allows for quick and easy maintenance by replacing the charging module inside the kerb. This has resulted in almost continuous availability of more than 99% at low operating costs. Accompanying the field trial, 100 users shared their experiences via a questionnaire between August 2024 and March 2025. On average, they rated the charging kerbstones with 4.38 out of 5 possible total points, with older participants (over 60 years of age) giving particularly positive feedback. Users particularly appreciated the opportunity to have a comprehensive charging option available locally with easy usability.

► Key facts

- Pilot project for Curb Chargers in Cologne successfully completed after just over a year
- Case study including user survey published
- Technical availability during the test period exceeded 99%

► Contact

Oliver Hoffmann
Head of Public Relations
Rheinmetall AG
Tel.: +49-(0)211 473 4748
oliver.hoffmann@rheinmetall.com

Dr. phil. Jan-Phillipp Weisswange
Deputy Head of Public Relations
Rheinmetall AG
Tel.: +49-(0)211 473 4287
jan-philipp.weisswange@rheinmetall.com

► Social Media

- X @Rheinmetallag
- @Rheinmetallag
- Rheinmetall
- ▶ Rheinmetall

Compared to conventional charging stations, the Curb Charger also scored points in areas such as integration into the existing cityscape, protection against vandalism, space savings, conservation of vision lines, and the reduced risk of tripping over charging cables. The Curb Charger is considered to have slight advantages in terms of ergonomics, usability and accessibility. The main advantages mentioned in discussions however are easier parking, easy usability even from the street, the absence of unnecessary protective bollards and the possibility of single-handed operation. The solution scored slightly lower in terms of visibility – an aspect that can be easily improved through targeted markings and integration into navigation, as well as charging apps in regular field operation. Specific enhancements were also implemented during the pilot phase: improved dirt deflection and optimised lighting around the charging socket ensure even greater resistance to environmental influences and improved handling.

The study proved that the Rheinmetall Curb Charger can solve the problem of insufficient space in urban areas by enabling the quick, flexible, scalable and cost-effective installation of freely accessible public charging points. It offers cities and communities new opportunities to efficiently electrify previously untapped sites in densely built-up areas. Compared to conventional charging stations, operators benefit from reduced installation and maintenance costs and the option of pre-equipping so-called 'hollow kerbs' today, which can be flexibly retrofitted with charging modules at short notice and with little effort as the charging demand increases. For electric car drivers, charging points located close to home with barrier-free operation offer significant added value in everyday life. Following the successful completion of the pilot project, the charging kerbstone is now available as a series product.

From 7 to 9 May 2025, Rheinmetall will be presenting the Curb Charger at the international e-mobility trade fair Power2Drive in Munich. Trade visitors and communities can experience the innovative charging solution for themselves at stand B6.670.