

PRESS RELEASE

Bern, 6 September 2022

Swiss pilot project for grid stability is launched: 50 electrically powered Mobility cars become power banks

Electric vehicles have the potential to fill gaps in the power supply by feeding electricity back into the grid. The underlying bidirectional technology is being tested in real-life conditions for the first time. The green light for the project V2X Suisse under the direction of Mobility was given this morning in Bern.

The Swiss pilot project V2X Suisse was officially launched this morning at Bahnhof Parking in Bern, the city's biggest Mobility station. Over the course of a year, research will now be conducted into how electric cars can be used as storage units in future so as to close the gaps in the power supply and increase grid stability.

Seven companies are involved in the project, with the car-sharing company Mobility taking the lead and making 50 Honda e available at 40 stations throughout Switzerland. These electric vehicles will feed electricity from their batteries back into the grid when they are not being driven. It is the first large-scale test using bidirectionally charging serial-production electric cars and will generate insights in varying conditions – both in rural and urban areas. "Our Switzerland-wide fleet network is virtually predestined for this pilot project," said Mobility CEO Roland Lötscher, adding: "Once again, we're pioneering ways to address challenges that go beyond everyday mobility." Federal Councillor Simonetta Sommaruga welcomed this initiative being launched by business and research: "energy storage on four wheels" would contribute to Switzerland's move away from fossil fuels, she said. This was not only good for the climate but would also make our country more independent.

Electromobility as part of the solution

The fundamental idea behind V2X and bidirectional charging is that electric cars can not only consume electricity, they can also give it back – especially since cars remain stationary for an average of 23 hours a day. But these stationary vehicles can actually be turned into power banks that can be connected to form a large energy storage system – rather like a reservoir. So essentially, households can draw power from their electric vehicles during peak hours, as it were, while the cars can be completely recharged at a cheaper rate during the day – when the sun is shining.

The share of electric vehicles on Swiss roads is steadily increasing. On the one hand electromobility is generating more demand for electricity, but on the other hand it can also be part of the solution by means of V2X technology. This promotes general grid stabilisation for both distribution grid operators and swissgrid (the national grid operator). In future, electricity suppliers will be able to better balance out fluctuations, minimise bottlenecks in the distribution grid, reduce the need for expensive grid expansions and prevent power shortages. The potential is huge, but it has to be used more efficiently.

Continuous operation is conceivable

Marco Piffaretti, project manager of V2X Suisse and electromobility expert at Mobility, firmly believes the results of the one-year test run will give V2X technology the boost it needs. "This is giving us much-needed experience to help us overcome the technical and regulatory challenges involved in bi-directional charging."

The project is set up in such a way that if it is successful, the technology can be directly transferred to ongoing operation.

ABOUT MOBILITY

Mobility is the car-sharing market leader in Switzerland with 3'010 vehicles at 1'560 stations. The Cooperative offers its 242'300 customers station-based return car-sharing as well as one-way cars for open-jaw trips between cities and airports. Using state-of-the-art technology, the system works simply, inexpensively, fully automatically and on a strong, sustainable foundation. Car sharing as part of combined mobility saves space, reduces traffic and relieves the environment: every Mobility car replaces 11 privately owned vehicles.

V2X SUISSE: Technical Details

Seven companies are involved V2X Suisse, with Mobility as the project lead. In addition: a car manufacturer (Honda), a software developer (sun2wheel), a charging station developer (EVTEC), aggregators (tiko), scientific support (novatlantis, in collaboration with ETH). The project is supported under the pilot and demonstration programme run by the Swiss Federal Office of Energy (SFOE). Mobility will place 50 Honda e electric cars at 40 stations in the next few weeks (bidirectional up to max. +/- 20kW). Two types of charging scenarios will be trialled: dual bidirectional DC charging points developed specifically for this project by EVTEC featuring CCS combined charging plugs, and single bidirectional Honda Power Manager DC charging points, also with CCS plugs. Both are equipped with ripple control receivers for the distribution grid operators as well as a digital interface. Via the sun2wheel cloud-to-cloud IT platform, the available power will be managed on a quarter-hourly basis for each mobility electric car so as to enable/monitor invoicing.

MORE ABOUT V2X

More information on the project:

[mobility.ch/v2x](https://www.mobility.ch/v2x)

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Download images, video, graphics and text www.mobility.ch/download-pressekit-v2x

CONTACT

Stefan Roschi, Communication & Media Officer

Tel. 041 248 21 57, s.roschi@mobility.ch