

*3<sup>rd</sup> Electric Road Systems Conference 2019  
Frankfurt am Main, Germany, 7<sup>th</sup> to 8<sup>th</sup> of May 2019*

## **ELONROAD**

### **A charging infrastructure for cities**

Dan Zethraeus

*CEO, Elonroad*



#### Summary

##### ERS for citybus

A consortium named ELVÄG SYD will build the first electric road with ground level feeding system for city use.

Initiated by Swedish Traffic department procurement the Elonroad ERS will be tested with a city bus in the city of Lund, Sweden 2020-2022.

Elonroad electric road offers both automated park charging and dynamic charging. It works in city environment for buses, trucks, taxis and private cars. It enables automatic charging without handling of a cable. Smaller batteries are needed. Longer driving range is offered. Less time spent standing still for charging.

# 1 Summary

Elonroad together with Lund University have built a 130 m electric road outside city of Lund for testing. The project received founding from the Swedish Energy Department of 1,7 million euro. Tests and demonstration has been going on for two years with positive results. 150kW is transferred dynamically at 600V DC.



*Google map with the planned ERS in Lund.*

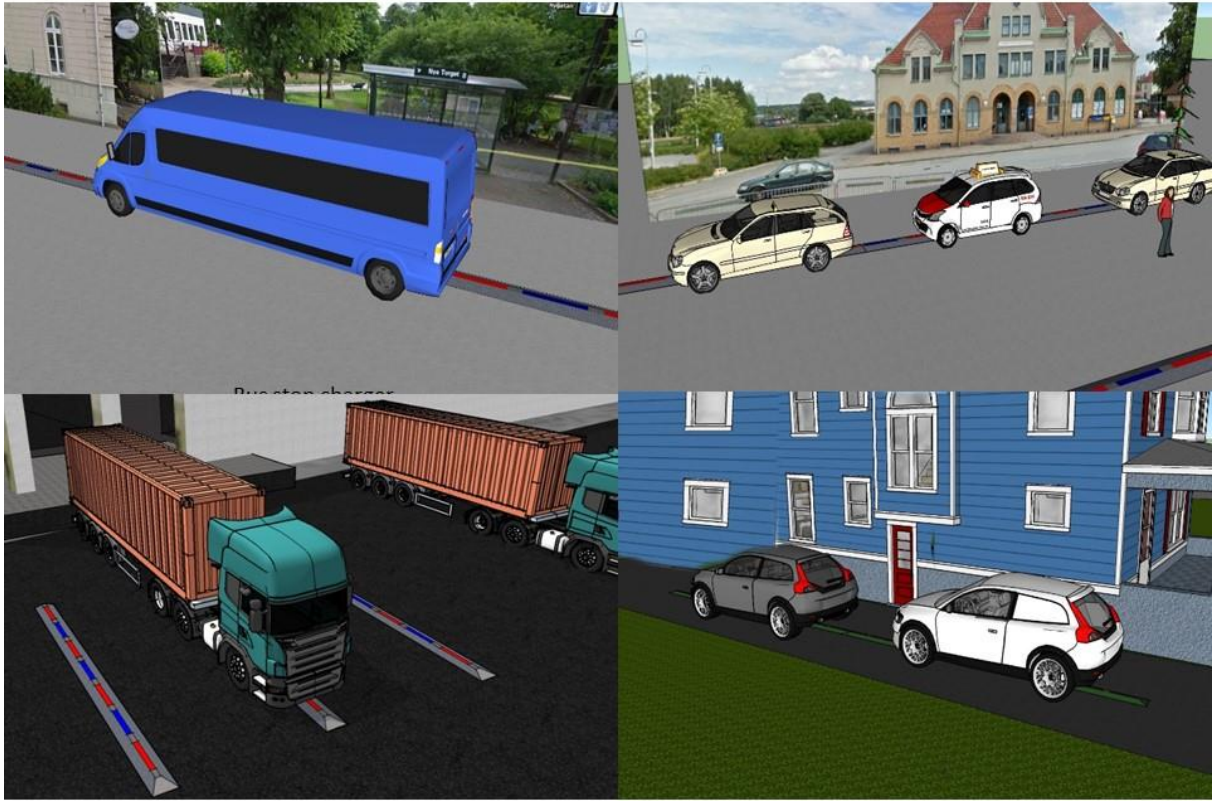
We are now in the planning stage of building 1 km of electric road in the city of Lund. A city bus from Solaris equipped with an 100kW onboard charging system and an 47kwh battery will be charged while driving on the electric road. The demonstration of the ERS will start in early 2020. The project is a procurement from the Swedish Traffic department. The consortia consist of Elonroad, Innovation Skåne, City of Lund, Skånetrafiken , Lund University, Ramböll, Krafringen, VTi and Elonroad.



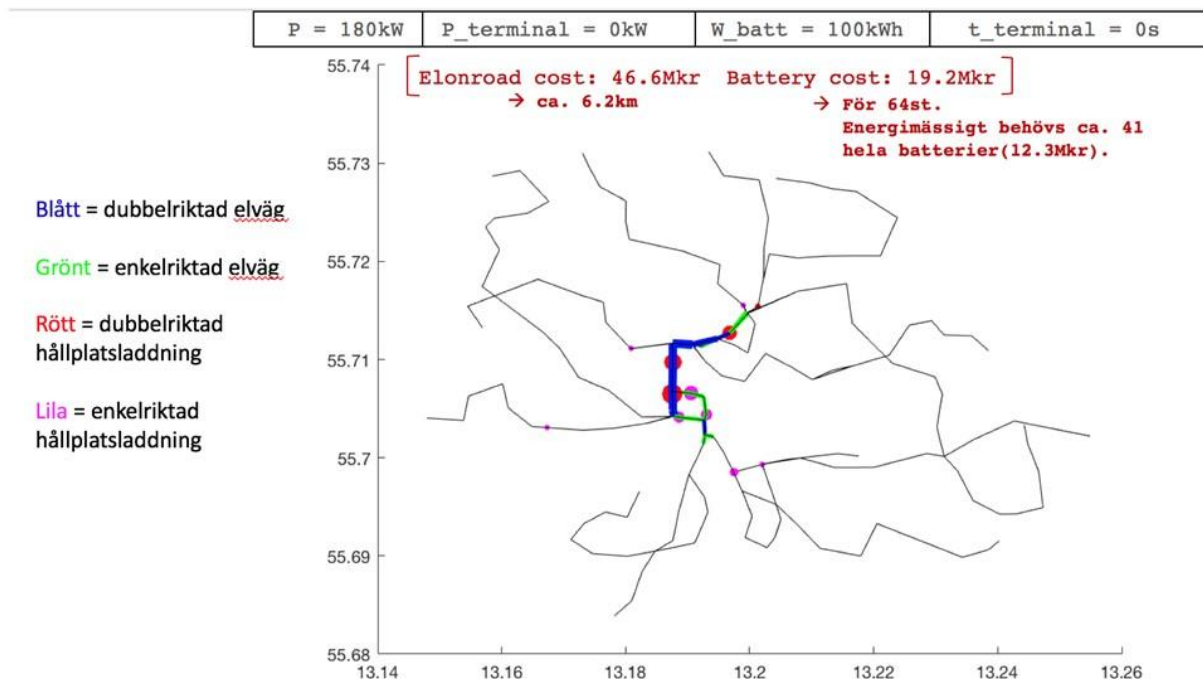
*Electric car on the test track outside Lund.*

ERS Description:

- Elonroad is a conductive electric road concept that works for all types of vehicles.
- Elonroad is easy to install with only little impact on the asphalt. This reduces installation time and facilitates servicing and maintenance.
- Its unique design admits short rail segments to be separately powered. This leads to an electric safe environment in cities. No power in front of or behind vehicle.
- It can charge electric vehicles with 150kW both parked and while driving.
- A powerful on-board charger is required.
- The pic-up placed under the vehicle dimension 2000x600x20 mm. It offers an economic and simple solution for all types of vehicles.
- The system have a billing system to individual users.
- Target market is green city transport, Long Haul trucks on highways, car parking, taxi lines, mining industry and more.



*Elonroad example for bus stop charging, taxi lanes, terminals, housing streets.*



*Lund University have made calculations for using the Elonroad system for all buses in City of Lund.*

Electric road in the city center charges all ten bus lines. The ERS has a built in billing solution and can be used by other vehicles in the city. This makes the ERS more economical. Different city transport vehicles can share the costs of the charging infrastructure.

## Presentation

We would be happy to present the project at the conference. The presentation will consist of a technical description of the system and the planning of 1km ERS in Lund for a city bus.

## Presenter



Dan Zethraeus / CEO

Elonroad

[dan@elonroad.com](mailto:dan@elonroad.com)

+46 705 69 70 37