Green parking index in combination with car-sharing pool with Electric Vehicles

Smart solution 12

Smart mobility solutions

Measured impacts

90%
reduction in CO_2 emissions

43 809
kilometers travelled by users.

16.3%
of tenants have a smaller interest in owning their own car

Stockholm

Technical partner

Stockholmshem
Olle Krönby
olle.kronby@stockholmshem.se

City contact

Paul Fenton:
Paul.Fenton@stockholm.se

What is it?

The Green Parking Index aims to reduce the amount of space that cars occupy in Stockholm. By reducing the demand for private parking places, this helps to encourage the use of alternative forms of transport and the introduction of car sharing schemes.

What did GrowSmarter do?

The City of Stockholm uses the “Green Parking Index” when planning new property developments. GrowSmarter implemented the approach in the context of the large-scale renovation of the residential area Valla Torg *(see factsheet 6: Energy efficient refurbish..’)*. Stockholmshem (the building owner) implemented an electric vehicle (EV) car-sharing service open to the public, where Valla Torg residents did not have to pay membership fees to use the service during the demonstration period. The car-sharing service enable Stockholmshem to reduce the number of parking spaces at their

site and offer residents in the district access to sustainable vehicle transport, discouraging private ownership of cars.

Lessons learnt

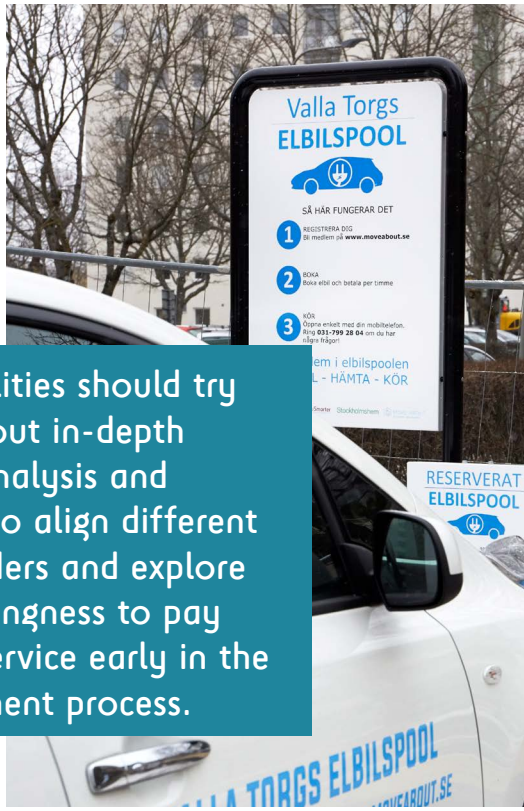
The combination of EU funding and green parking index enabled stakeholders to convene and demonstrate a new service for rental housing tenants. As this approach is new for the rental housing company, not all arrangements were considered ideal (e.g. Stockholmshem paid the electricity costs of using the system both for their own residents and non-residents). The car-sharing pool is successful and frequently used by residents.

Upscaling & replication potential

This measure can be upscaled and replicated in many contexts. Housing companies, both public and private and for both owner-occupied and rental properties, can – along with other organisations – stimulate uptake of car-sharing services by dedicating parking spaces to car-sharing. Depending on the interest of other carpool service providers, a replication may generate higher parking revenues. If the willingness to pay is high for residents, parking spaces can be allocated to suppliers at market prices. A risk with this is that if the pool service is not used, the supplier will not be able to cover its fixed costs and therefore operate the service.

The Green Parking Index is a better business case for new buildings than for renovating existing buildings, where a subsidy might be needed. Additional costs can occur for securing the power supply for charging. It is recommended that cities regulated cost of private parking in order to support expansion of car-sharing services.

Stockholmshem took on the cost/risk during the project and had some difficulty finding a business-model that reduced their costs while still covering the costs of the supplier firm. The measure is highly economically feasible in new construction due to the cost reduction of fewer required parking spaces.



Municipalities should try to carry out in-depth market analysis and attempt to align different stakeholders and explore their willingness to pay for the service early in the development process.

How did the measure work?

Technical feasibility ●●●

The measure is technically feasible, however securing the necessary electric grid capacity can be a local challenge.

Economic feasibility ●●○

Difficult to evaluate the economic benefits at this stage since they are not captured by the partners involved.

Replication potential ●●○

Higher interest for such a measure in city centres. Replication strongly dependent on willingness to pay for the service.

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement no 646456. The sole responsibility for the content of this document lies with the author and in no way reflects the views of the European Union.