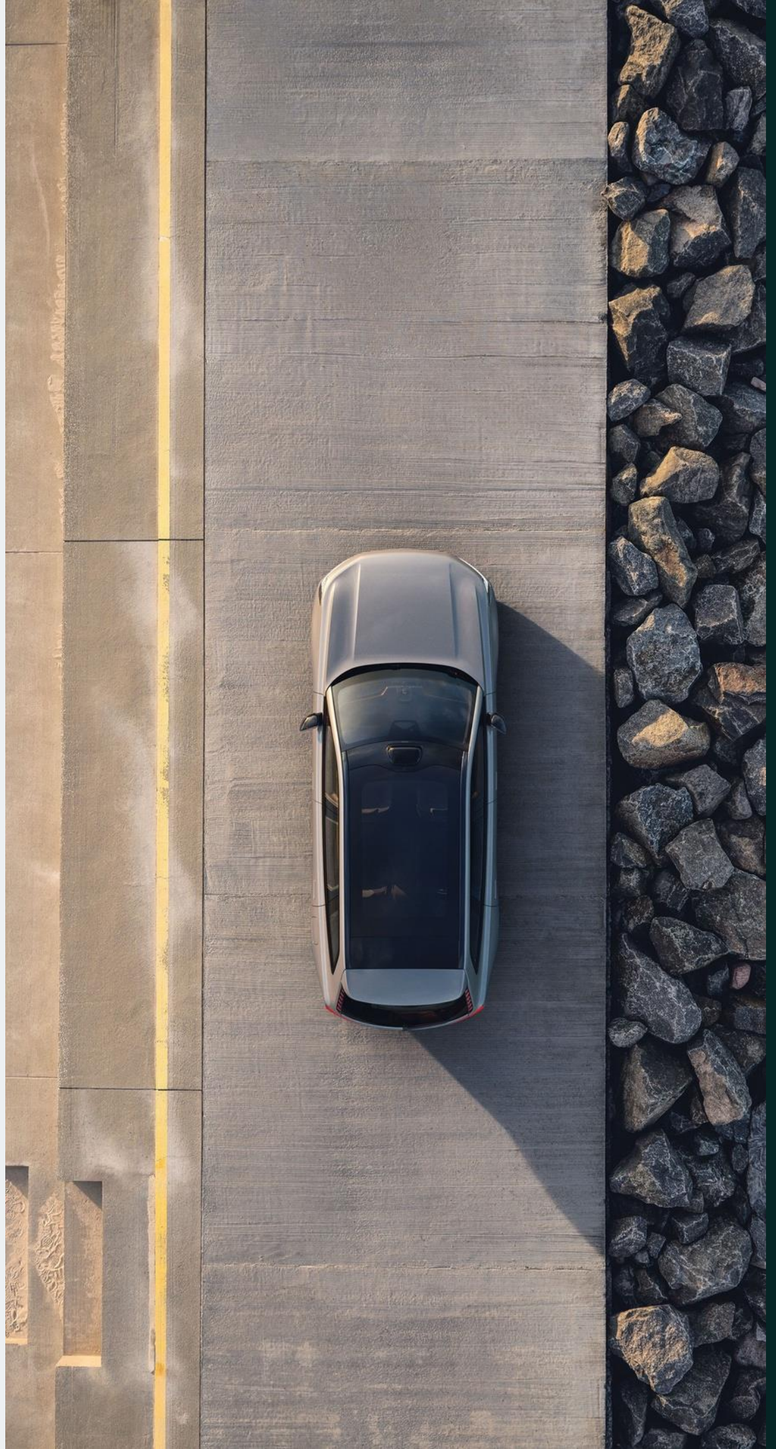
Flexcon 2024



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Automakers and EVs : Supporting the energy transition

Introduction

There is a growing energy problem that many countries in Europe and across the world are starting to face.

The energy grids are designed for traditional purposes of transporting electricity from central generation to our homes.

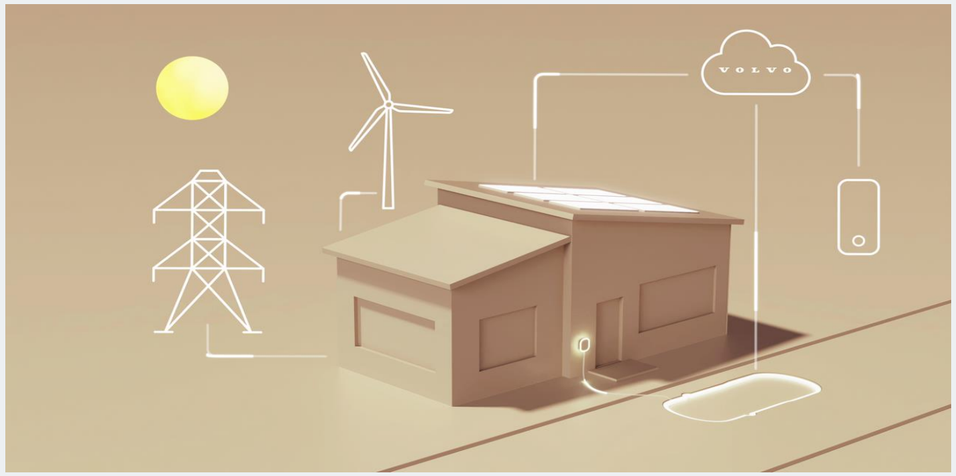
But that is fast changing. Solar panels, residential batteries, EVs are now becoming a common sight in many homes.

2025 is going to be a new milestone for EV sales globally.

We could have been part of a growing problem, but..

We want to part of the solution

The role of EVs in grid flexibility



Bi-directional charging

- Store solar surplus and discharge it back to home.
- Flatten home’s consumption profile, reducing grid congestion and peak demand.

The power in many to act as one-
Virtual power plants

- Unique position with 1000’s of Volvo EVs that can act together to support the electricity grid.
- EVs are available at neighbourhood levels, a key solution to growing DSO congestion problems.

Adding distributed assets to a market that is created for centralized resources is tough.

Legislations, capital investments by customer and strict pre-requisites to support the grid makes it demotivating for consumers and automakers alike to increase flexibility adoption.

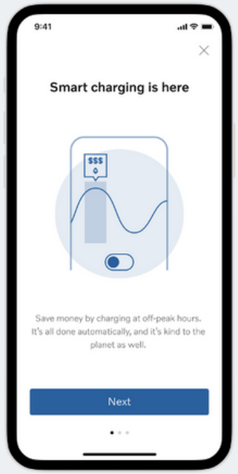
Barriers EVs face in grid flexibility

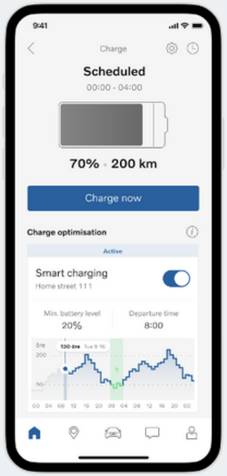
Barrier	How it affects maximising flexibility
• Bi-directional charging requires special approval.	• To create bi-directional adoption, we need to tailor our services to regional or even local legislations.
• Ancillary market services have stringent pre-qualifying regulations for distributed assets.	• With lack of proper market conditions, EVs cannot enter support market services.
• Lack of markets that can utilize flexibility from EVs	• EVs are caught in a limbo to join a super fast reacting market or slow markets designed for large resources.

We want to play a more active role in utilizing the flexibility of our distributed assets.

Volvo cars energy solutions

An automaker’s effort to spearhead the role of distributed assets in the energy transition





In-house smartcharging service

Save charging cost

- Live today for 1000's of drivers in Sweden in the Volvo cars app!
- Save charging cost or shift charging to less stressful hours for the grid.
- A wallbox agnostic service, designed to use full EV flexibility.

Volvo home battery

A complete electric ecosystem

- A Volvo battery outside the car to support the home whenever needed,
- The home battery will be part of a flexible home ecosystem, working together with our EVs to provide maximum value.

Where do we go from here?

Volvo cars near future ambitions

We are prepared to embark on a flexibility journey, globally.

To create a business model, in which there is a clear value add to our customers in choosing flexibility.

To unlock opportunities that harness the full flexibility potential of EVs.

If you have ideas or views on how we can maximize the flexibility of our assets, we are happy to hear from you!

Thank you!

Do you have any questions?

You can reach me at

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