EV charging, a strategic solution for grid congestion

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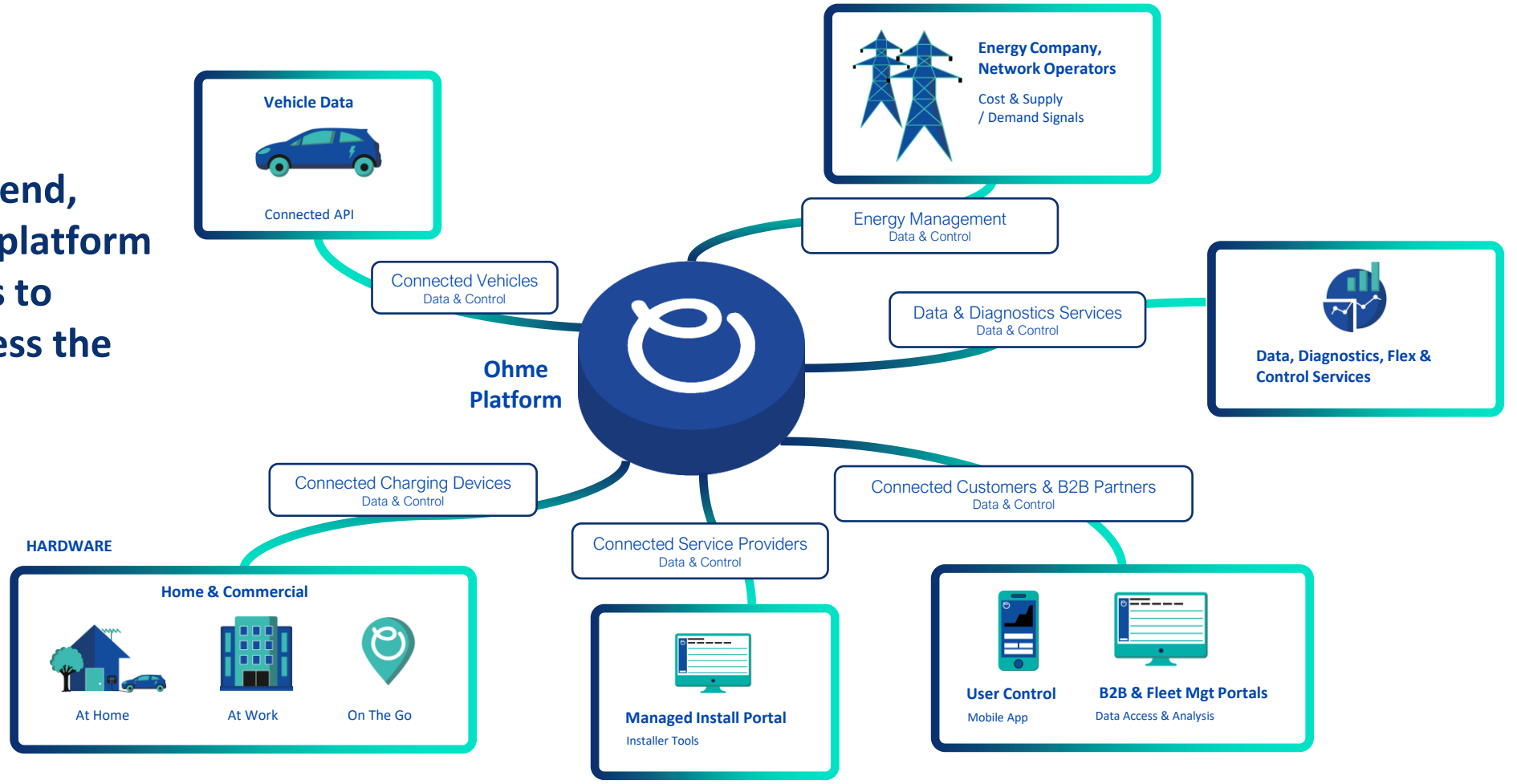
Our Mission:
To make the move to electric vehicles simple and affordable, using innovative technology

What we do:
Ohme is a fully integrated software and hardware platform, focussed on residential and workplace charging of electric vehicles

What is Ohme?

Ohme is a full end-to-end, intelligent e-mobility platform that allows customers to charge easily and access the lowest cost of energy



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The energy system is in transition, and becoming increasingly decentralised and digitised

	Present	Future
Production	Few large power plants	Many small power producers
Market	Centralised, mostly national	Decentralised, ignoring boundaries
Transmissions	Based on larger power lines and pipelines	Including small-scale transmission and regional supply compensation
Distribution	Top to bottom	Both directions
Consumer	Passive, only paying	Active, participating in the system

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New flexibility markets are emerging as a result of increased energy price volatility

Why?

Increasing intermittent energy and geopolitics are driving energy price volatility

Opportunity?

There is increasing demand side flexibility due to high EV penetration and connected customers

Customers?

There are different types of flexibility:

- Suppliers, Retailers
- DSO/DNO
- TSO

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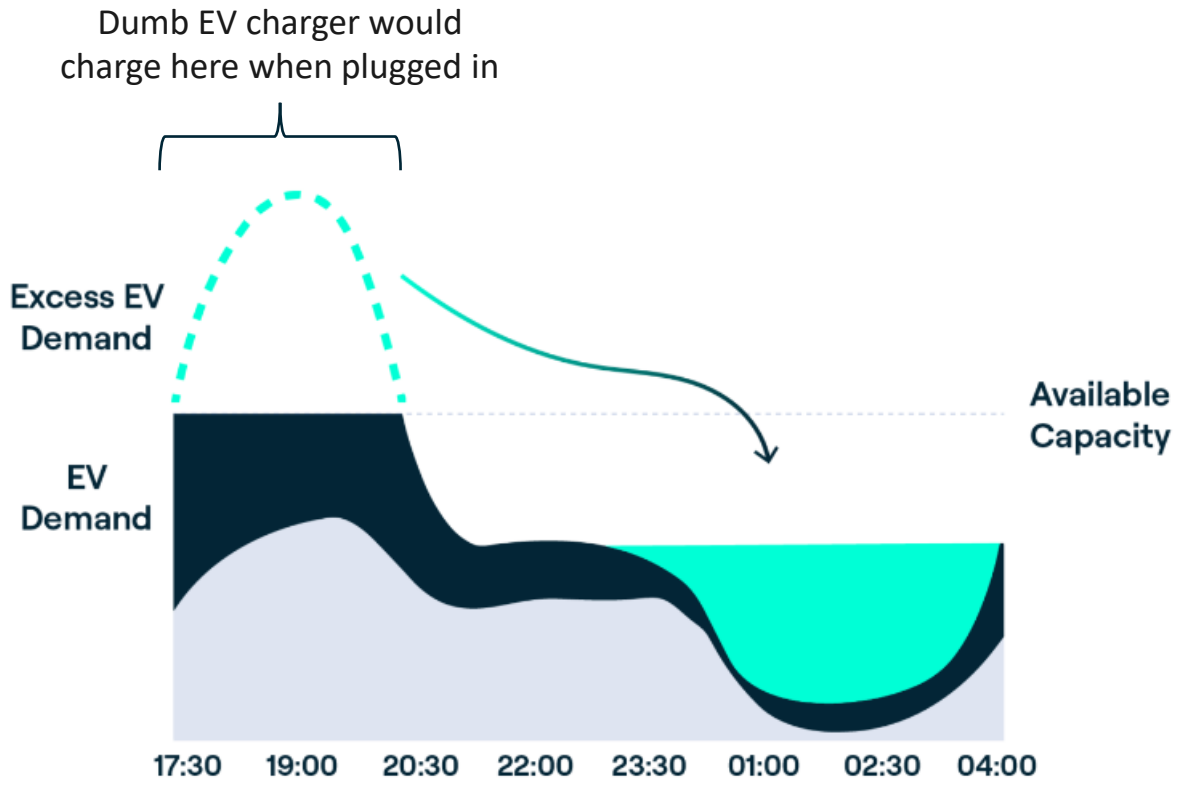
Supplier flexibility: Move demand to cheaper times and manage imbalances



Decarbonisation, particularly with the mass adoption of rooftop solar combined with wind, will lead to new 'peaks and troughs' that will become increasingly dynamic and variable

Varying demand to help match supply:

- Charging at times of cheaper energy and avoid times of expensive energy

Imbalance:

- Move demand so that the supplier is balanced in each settlement period and avoids penalties

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UK is acting as roadmap to how **supplier flexibility** is evolving

Increased volatility
and EV & renewable energy penetration

	Time of Use		Type of Use	
	Octopus Go	Octopus Agile	Intelligent Octopus	OVO Charge Anytime
Structure	Fixed cheaper hours	Linked to daily wholesale prices	Linked to daily wholesale prices and supplier imbalances	
	No supplier integration	Daily API	Regular API & Telematics	
Customer Experience	£200-£300 savings per year	£200-£300 savings per year	£600-£800 savings per year	
	Simple	More complex (dynamic based tariff)	Complex	

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Energy System Operator Flexibility

How does EV flexibility balance system?

Crowdflex

20K+ Customers Involved

The UK's largest domestic flexibility study, researching how domestic flexibility (20K+ customers) can be used to help manage the grid

- Generate consumer and domestic energy understanding
- Build forecasting models on demand and flexibility
- Use data to develop strategies and products for flexibility service providers

Partners:

Winterflex

Multiple Live Test Events

Demand flexibility service (DFS) delivered to understand consumer behaviour. Consumers earn money by shifting their energy usage outside of specified periods

- Engage with customers & understand behaviour
- Generate commercial insight on moving energy load
- Understand operational costs & challenges of delivering flex

Partners:

ESO

Meanwhile, District Network Operators (DNOs) are working on asset protection trials…

Energy flexibility is an **emerging trend** in Benelux

	Netherlands 450K Dynamic Tariff Consumers	**Belgium** 20K Dynamic Tariff Consumers
'Dynamic tariff' Energy Retailers	tibber, NIEUWE STROOM, frank energie, anwb, Next Energy, Z	frank energie, Eneco, ENGIE
Market Specifics	**Reduction of Net Metering Starting 2025** (afschaffing terugdraaiende teller) • 2024: 100% • 2025: 64% • 2026: 64% • 2027: 55% • 2028: 46% • 2029: 37% • 2030: 28% • 2031: 0%	**Introduction of Capacity Tariff** • Means smart EV charging will help households reduce their peaks • Sets the way for dynamically based distribution costs in the future • Places greater importance on smart devices and integrations to respond to market signals

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What is the opportunity for...

Fleet	Individuals	Energy supplier / E-MSP
✓ **Charging data** • Customer behaviour • Battery health ✓ **Cheaper energy in TCOO[1]**	✓ **Cheaper energy** ✓ **Greener energy** ✓ **More control** (due to increased visibility	✓ **Able to create differentiated products and services**

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1 Total cost of ownership

Bedankt!

Meer weten…

Bezoek onze website www.ohme-ev.com

Volg ons op sociale media om te horen wat onze klanten denken en ontdek hoe je zowel je portemonnee als de planeet kunt sparen met je elektrische voertuig.


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