



THE ASSOCIATION
FOR RENEWABLE ENERGY
& CLEAN TECHNOLOGY

The Rapid Charging Fund and the future of MSAs:

A discussion on how industry can support the Government's vision for 6,000 rapid charge points at MSAs by 2035, and debate on how the £500m Rapid Charging Fund should be utilised

16th June 2020



Sample of
REA EV
Forum
Members



Agenda

Graeme Cooper, Project Director at National Grid

Presentation on the UK's rapid charging needs along strategic and A-roads (10 minutes)

Daniel Brown, Policy Manager & EV Lead, REA

Presentation on the REA's principals on how the Fund should be deployed (10 minutes)

Miles Gillespie, UK Development Manager at Allego

Presentation on Allego's experience with developing rapid charging hubs across Europe (10 minutes)

Shaun Kingsbury CBE, Chief Executive at The Conduit Investment Advisors and former Chief Executive of the UK Green Investment Bank

On the UK's need for collaboration between public and private sectors to build out the necessary infrastructure (5 minutes)

Melanie Shufflebotham, COO and Co-Founder, Zap-Map

On the consumer experience of public rapid charging to date, and their future needs to build mass-market confidence (8 minutes)

Catherine Bowen, Senior Policy Manager at the BVRLA

On the requirements of public rapid charging for rented and fleet vehicles (8 minutes)



Presentation

Graeme Cooper, Project Director at National Grid

*Comments on the UK's rapid charging needs along strategic and A-roads
(10 minutes)*



Presentation

Daniel Brown, Policy Manager & EV Lead, REA

The REA perspective on how the Fund should be deployed.



Rapid Charging Fund & REA letter

REA perspective on how Fund should be deployed:

- Assign the deployment of this Fund, and ownership of the subsequent assets, to an arms-length Authority
- Create competition for consumers across the network.
- Ensure consumer ease is prioritised at charging sites.
- Pursue the optimal cost solutions, for both current and future customers, for providing future proof grid upgrades.
- Ensure coverage at every site, existing and new.
- Be transparent and move all sites forward simultaneously.
- Look beyond the car.
- The funds should enable the wider energy transition.



Presentation

Miles Gillespie, UK Development Manager at Allego

Presentation on Allego's experience with developing rapid charging hubs across Europe



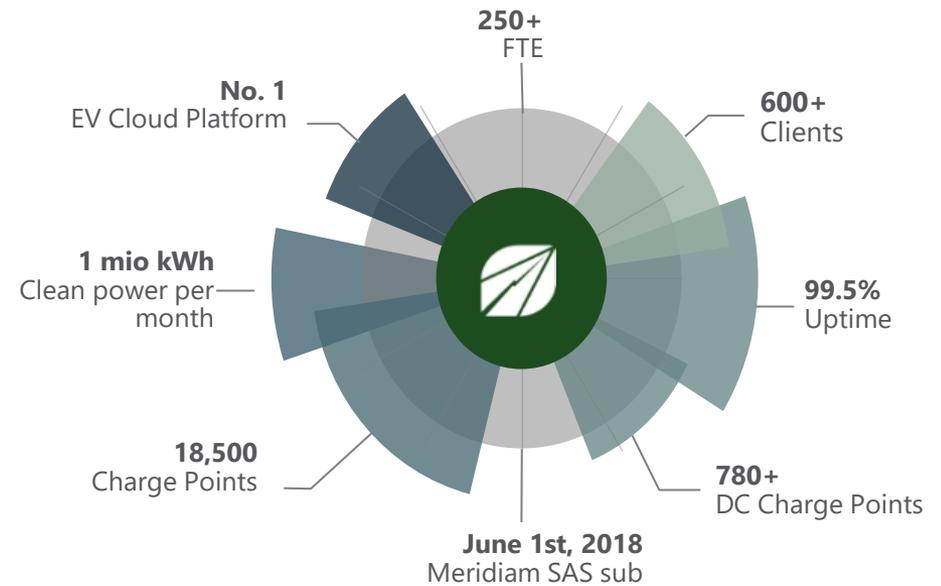
We are Allego



2013 Our Zero Emission Journey begins



Snapshot Allego May 2020

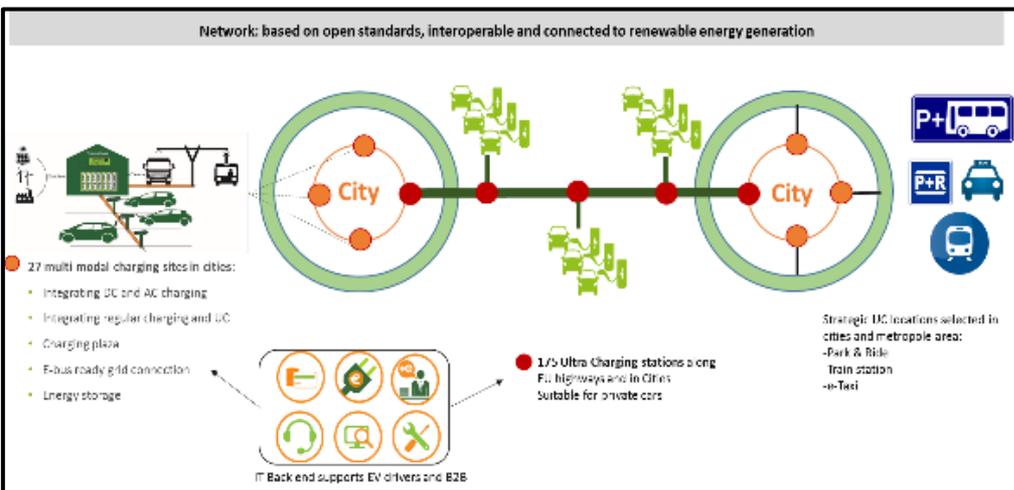


High Power Pan-European Network



320 Sites, 20 Countries

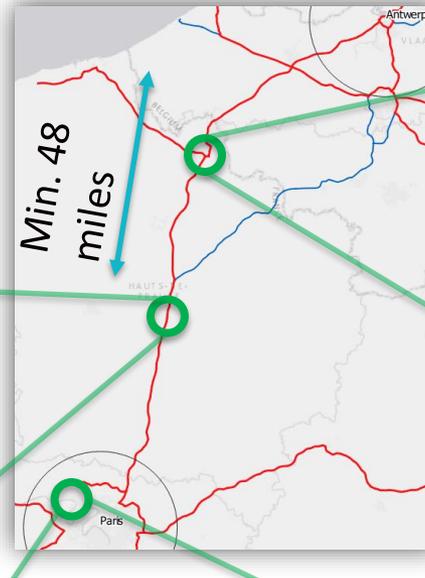
- Inner City Hubs
 - 39 integrated HPC, E-Bus and E-parking to enable full electrified city mobility
- Multi Modal Hubs
 - 140 Metropolitan sites (in the outer city)
- Motorway
 - 143 Corridor sites
- 44 in operation
- 21 in realisation



Strategic Hub Locations

Highway location

- Serves the need of HPC charging on long trips
- Very close to the highway
- Easy to reach from the highway
- Preferably bidirectional
- Has amenities like toilets/shop/restaurant
- Space and available power often a challenge



Multimodal location

- Within the city area of the 10 multimodal cities
- Directly next to major transport locations like airports, train or bus stations
- Can combine different user groups by also serving highway demand, commuters and destination charging



City location

- Can combine different user groups by serving highway demand but also commuters and destination charging
- Close to a major roads leading into the city or highway in or around a city
- Preferable next to a retail or leisure facilities
- Has amenities like toilets/shop/restaurant

Toulouse: Multi Modal Park And Ride Hubs



Use case

Toulouse wanted EV drivers to have unlimited access to the city and easy travel round the city ring. Each Park and Ride terminated with a metro link and Retail outlets. All 4 strategic locations will have a mix of High Power Charging, 50kw AC/DC chargers and smart AC charging long stay parking facilities. Fully interoperable.

Allego Solution

Allego will full project manage and invest in the installation at the 4 Park and Ride Locations 4 x HPC (350kw Cahrnging) 2 x 50kw AC?DC charging and 24 AC smart Charging parking bays. This 15+5 year agreement shows the passion and dedication of the citys commitment to E Mobility and its belief in Allego to deliver and manage the best charging solution available to industry



Location

Park&Ride
Hubs



Scope

Charging

In operation: Van de Valk Hotel_Eindhoven

Ultra fast charging for customers



Client: Van de Valk Hotel

Location: Eindhoven - Netherlands

Producttype: 2x HPC 350 kW chargers
1x DC 50 kW charger
24x Smart Charging 22kW AC sockets

Use case: Facilitating a hotel chain, with restaurant, retail and corporate facilities as host for MEGA-E project to serve their various user types with a variety of EV charging solutions.

MEGA-E
an Allego initiative

Presentation

Shaun Kingsbury CBE, CEO of The Conduit Investment Advisors

On the UK's need for collaboration between public and private sectors to build out the necessary infrastructure.



Presentation

Melanie Shufflebotham, COO and Co-Founder, Zap-Map

On the consumer experience of public rapid charging to date, and their future needs to build mass-market confidence.





REA – Rapid Charging Fund Webinar

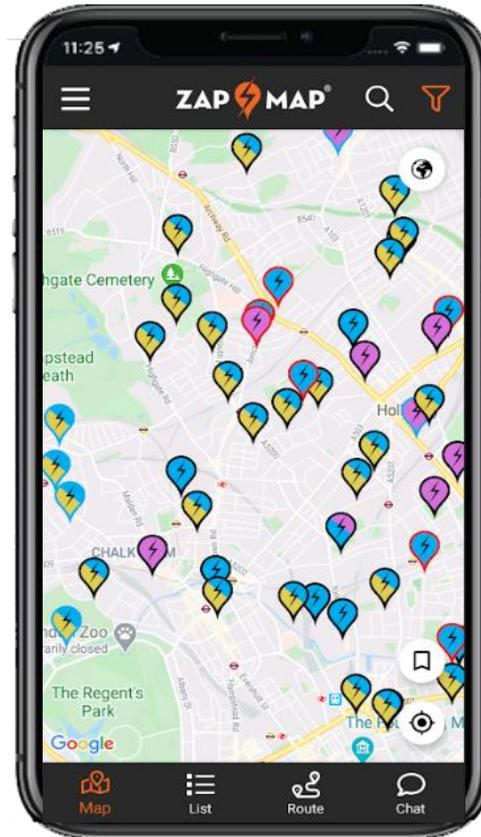
June 16th, Melanie Shufflebotham, co-founder Zap-Map

EV drivers

- Locate suitable charge points
- Plan longer journeys
- Share updates and photos with EV community

B2B

- Insights, market tracking, EV driver behaviour, EV audience



Data & Services

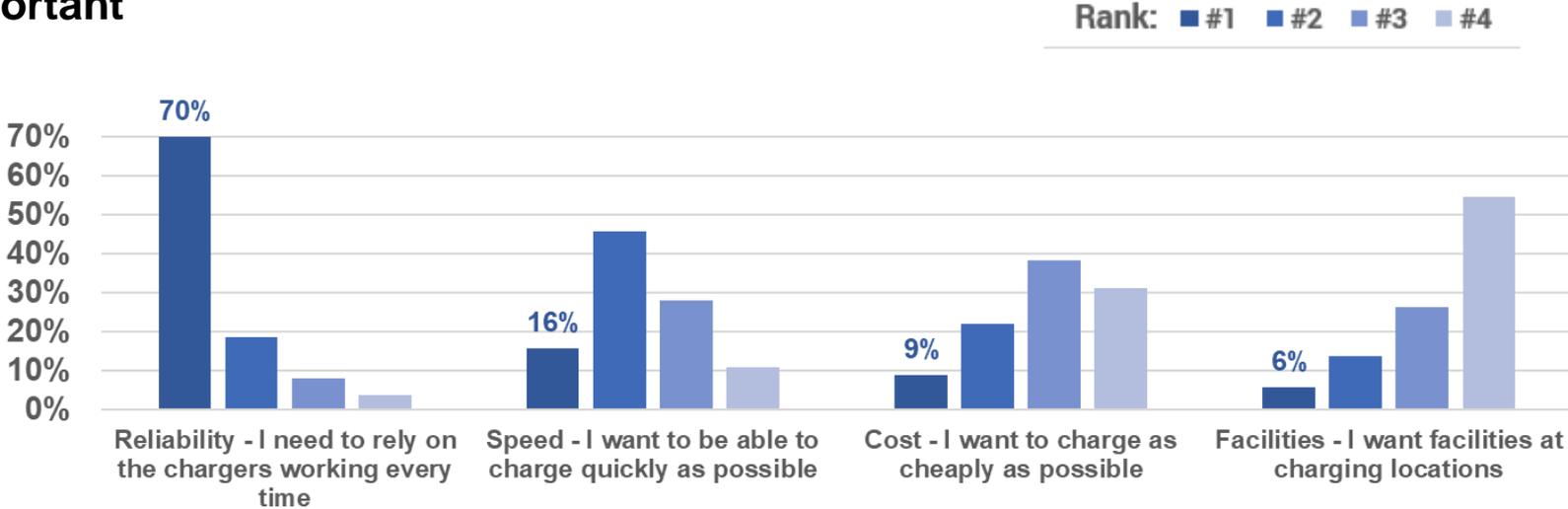
- >97% charge points
- ~70% dynamic status
- 100,000 registered users
- 200,000 Zap-Chats
- 60,000 route plans
- iOS, Android, desktop
- Voice (Google Assistant)

- 95% use the public charging network, 37% use it at least once per week
- Rapid most popular speed with more than 75% using compared to around 50% for Fast chargers
- Motorway service stations remain most popular location (c.60% use), but declining as new location types emerge

For longer journeys rapid charging is essential

Destination or home charging replacement will require mix of speeds and solutions

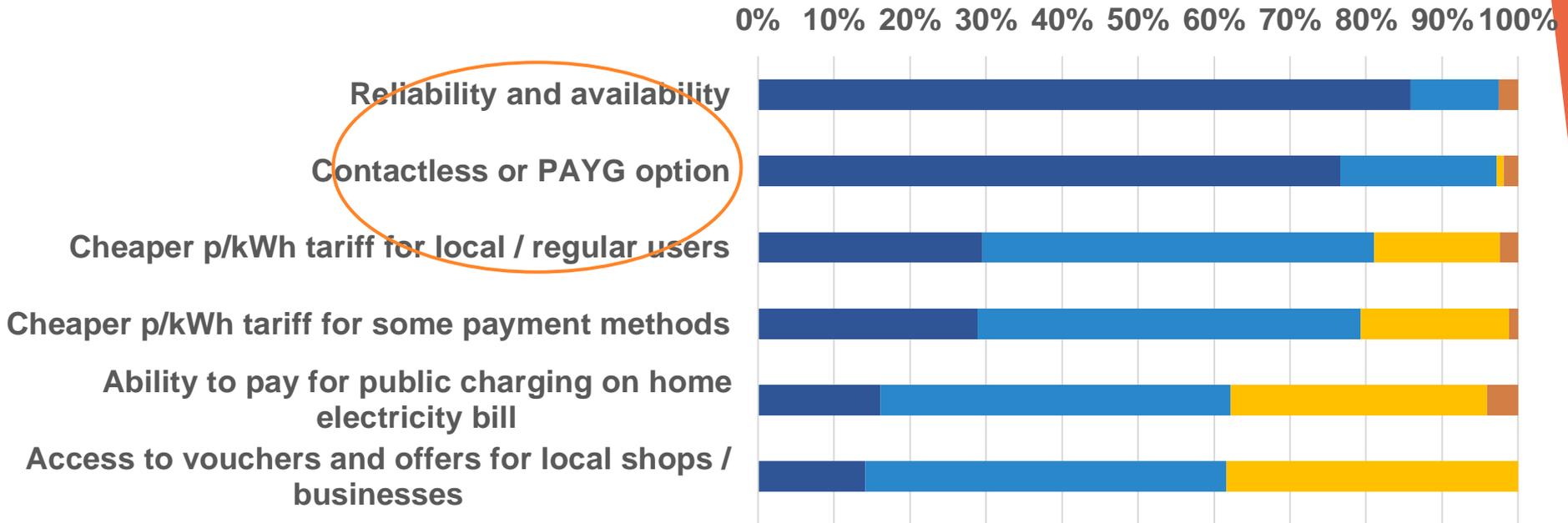
Ranking of reliability, speed, cost and facilities from most important to least important



Reliability (proxy for availability, redundancy, uptime) remains the most essential factor for EV drivers

What are the most important rapid incentives?

Ranking of different rapid incentives / factors 5-point rating scale provided



Reliability (again) and Contactless or PAYG option (simple access and payment) are pressing EV driver needs for rapid charging ahead of pricing / amenity incentives

■ Very strong incentive ■ Strong incentive ■ Weak incentive ■ No incentive

- Extension of the existing network with reliable, robust rapid infrastructure on the Strategic Road Network (SRN) is essential to be in place for the mass uptake of EVs:
 - EV drivers want: Reliability, redundancy, simple accessibility, pricing and payment
 - Commitment to min of 6 devices per MSA by 2023 plus additional rapid rollout welcomed
- Rapid infrastructure rollout is a broader challenge than just rapid chargers on the SRN:
 - Gaps in “uneconomic” rural, semi rural locations need to be filled
 - Not all about SRN locations with rapid charging - other locations will increasingly important with new patterns of mobility emerging alongside “petrol station model”
- **EV drivers don't care about technology – they just want simple solution!**



Zap-Map

www.zap-map.com – melanieshufflebotham@zap-map.com – [@zap_map](https://twitter.com/zap_map)

Presentation

Catherine Bowen, Senior Policy Manager at the BVRLA

On the requirements of public rapid charging for rented and fleet vehicles, and how the realisation of the Government's rapid charging vision could positively impact confidence of vehicle leasing and rental companies in the electric vehicle market.





Requirements of public rapid charging for rented and fleet vehicles

***Catherine Bowen
Senior Policy Advisor, BVRLA***



**members are responsible for over
5 million vehicles on UK roads**

1-in-8 cars



1-in-5 vans



1-in-4 trucks



Jan 2020

Decarbonisation Workshop - Key issues

- No one date fits all – segmented approach

- **Charging**

- Time & cost grid upgrades

Grid Costs Case Study

In early 2019, a member asked for detailed quotes for 12 key locations in its network.

Full cost for 3 x 14kW chargers at its Leeds Downtown location came in at £105,000.

- Need interoperability and agreed API standard
 - Need for clear signage – pricing transparency
 - Clear & consistent language – miles per minute
 - Reliance on public charging infrastructure

The importance of rapid charging Rental Perspective

- High utilisation e.g. private owned vehicles typically have 5% utilisation
- Different dynamic to back to base fleet operations
- Convenience for the customer
- Rapid infrastructure investment significant for rental sector



CV perspective



- **The Constrained**
 - **Public infrastructure not suitable for vans**

nearly a third of all vehicle owners don't have access to a driveway or off street parking suitable for having a home chargepoint fitted. Due to that we are making the assumption that up to 50% of our engineers may need to use the public charging infrastructure to charge their vehicle. This is because they either don't have off street parking, or it is utilised by a personal vehicle already".

James Rooney, Centrica



Thank-you

Catherine@bvrla.co.uk

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Q&A with panellists

Q&A session

Please submit questions through the chat box.



Forthcoming EV Events

COVID and e-Mobility:

How will the virus impact the green mobility agenda in the UK and Europe?

18TH JUNE 2020

10:30am – 12:00pm



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BOOK NOW

The future of payments for EV charging:

Debating how consumers and fleets will pay to charge their vehicles by 2030

6TH JULY 2020

11:00am – 12:30pm



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