



# Preparing networks for EV ready roads

Richard Hartshorn, EV Readiness Manager  
Kate L Jones, Project Manager



**Scottish & Southern**  
Electricity Networks





Connections  
& Capacity



Customer Service  
& Social Obligations



Reliability  
& Availability



Safety



Environment

# Our Innovation Portfolio

# EV charger uptake projections

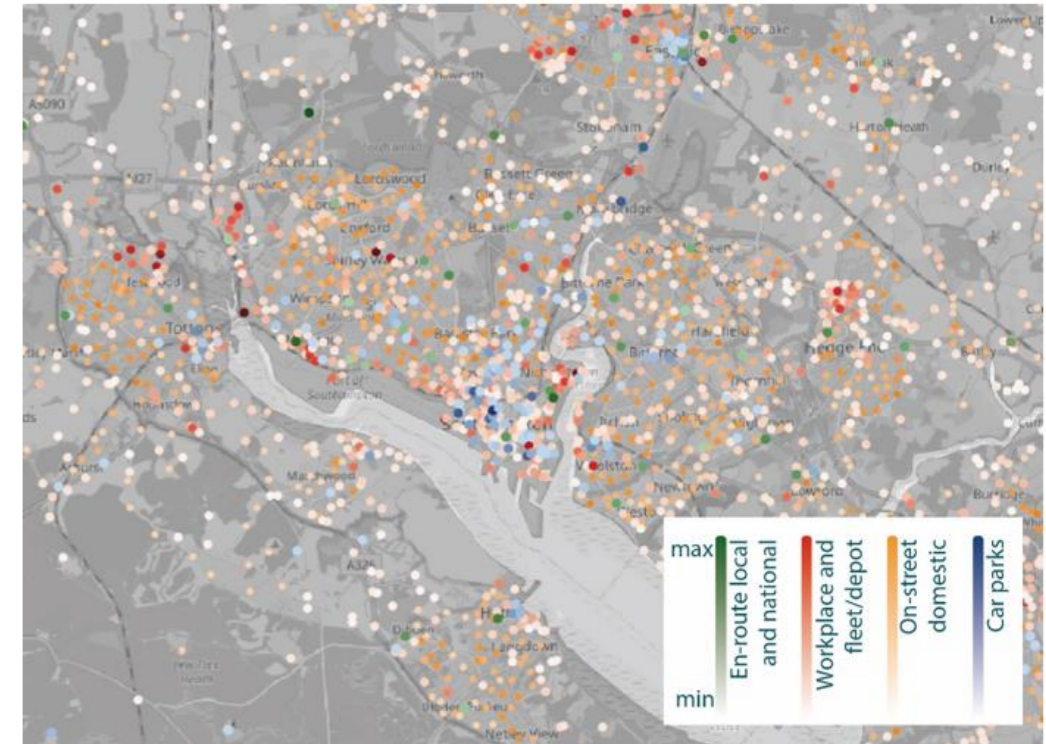
Granular, year-by-year projections produced out to 2050 by Regen.

Projections are helping inform the level of investment needed to accommodate uptake of both domestic and non-domestic EVs.

Data available on [www.ssen.co.uk/lctuptake](http://www.ssen.co.uk/lctuptake)

Indications are of both widespread and localised challenges and opportunities, and we are delivering two innovation projects looking at addressing these regional challenges through innovation.

## Southampton non-domestic EV charger distribution



\* Each dot represents a distribution substation

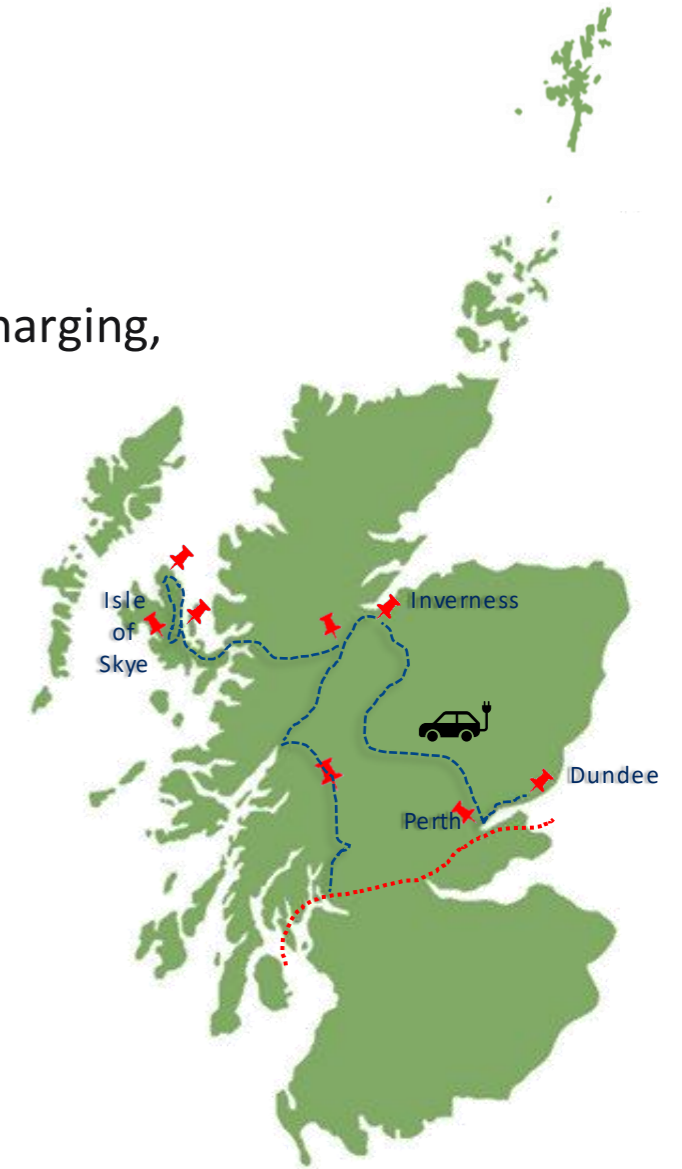
# E tourism

**Timelines:** July 2019 - August 2022 – 38 months - £400k

**Objective:** understanding the scale, location and impact on the network of seasonal EV charging, identifying local solutions to manage increase demand.

Eight use cases investigated:

- Ferry Port
- Two Rural tourist attractions
- City Centre
- Rural Village
- Trunk roads



# E tourism – Key Findings so far



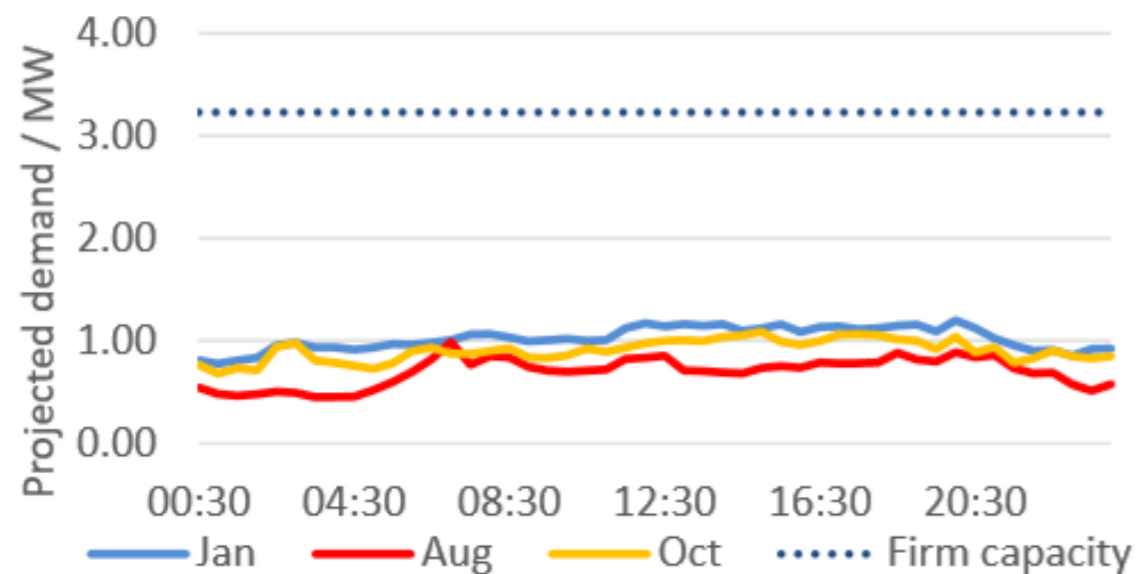
Your next  
green  
staycation??



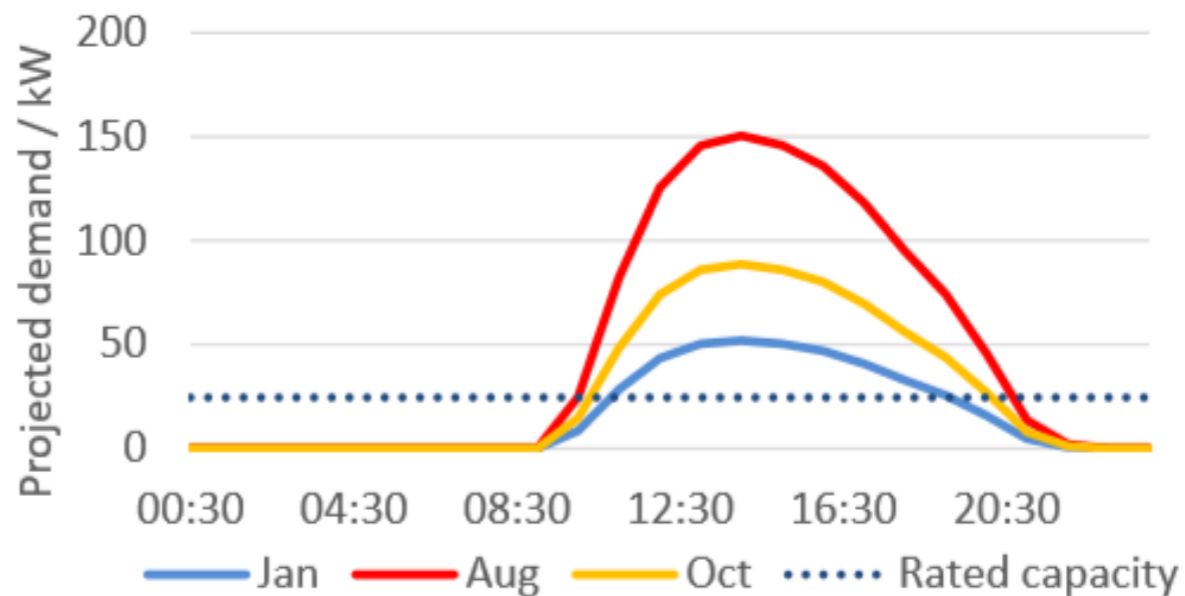
# E tourism – Key Findings so far

Tourist EV charging demand on secondary substations is much greater than primary substations.

Fairy Pools: projected EV charging and **primary substation** demand for a peak day in 2032



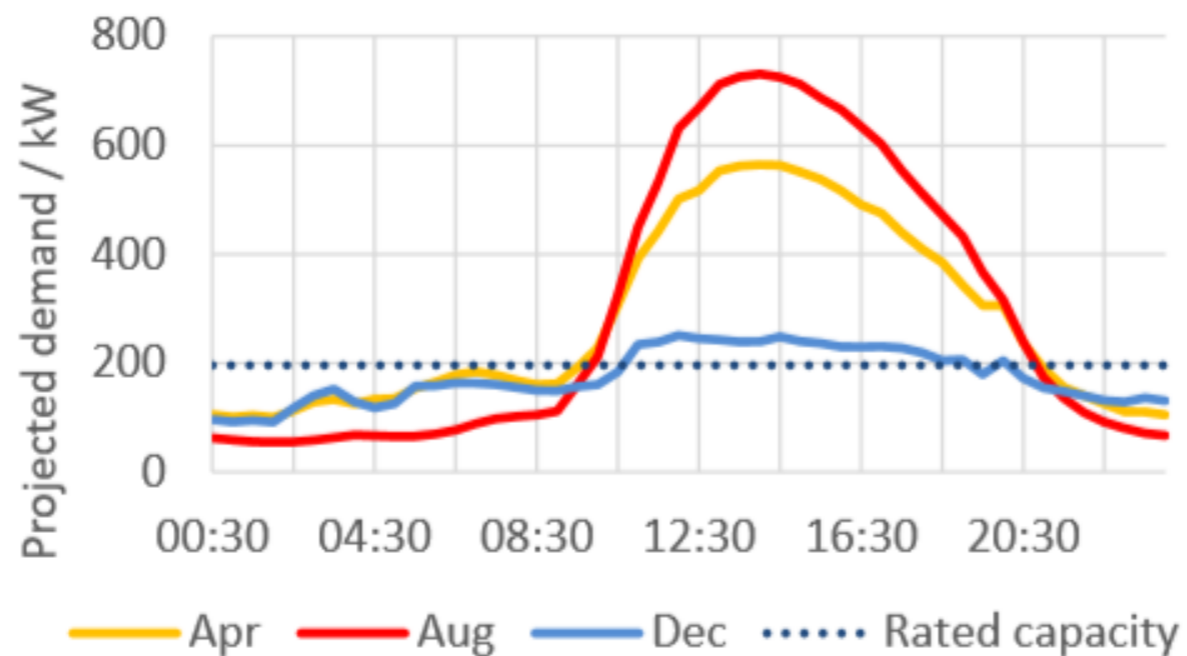
Fairy Pools: projected EV charging and **secondary substation** demand for a peak day in 2032



# E tourism – Key Findings so far

Constraints are not always expected to occur in summer months, as the timing of peak demand depends on both tourist behaviour and current network demand.

Urquhart Castle: peak day secondary substation and charging demand profiles by month, 2032



# E tourism – Next steps

Report is available on website:

<https://www.ssen.co.uk/WorkArea/DownloadAsset.aspx?id=19789>

- Localised partnerships and deep dive into 2-3 use cases.
- Further analysis to understand optimum siting of potential EV hubs in key tourist areas.
- Potential for developing a ‘EV ready tourist areas’.
- Greater focus is needed to identify smarter network charging solutions.





# Local Electric Vehicle Energy Loop (LEVEL)

**Objective:** Mobile charging unit with option to have continuous supply when through temporary or constrained connection to SSEN network to help with one off events where short-term EV charging capacity is needed.



Intended as a fast solution in a number of scenarios:

- Local Emergency / Island Resilience
- Emergency road closure / diversions
- Summer Tourist Peaks
- Storms / winter resilience
- Community / Sporting events

## Next Steps:

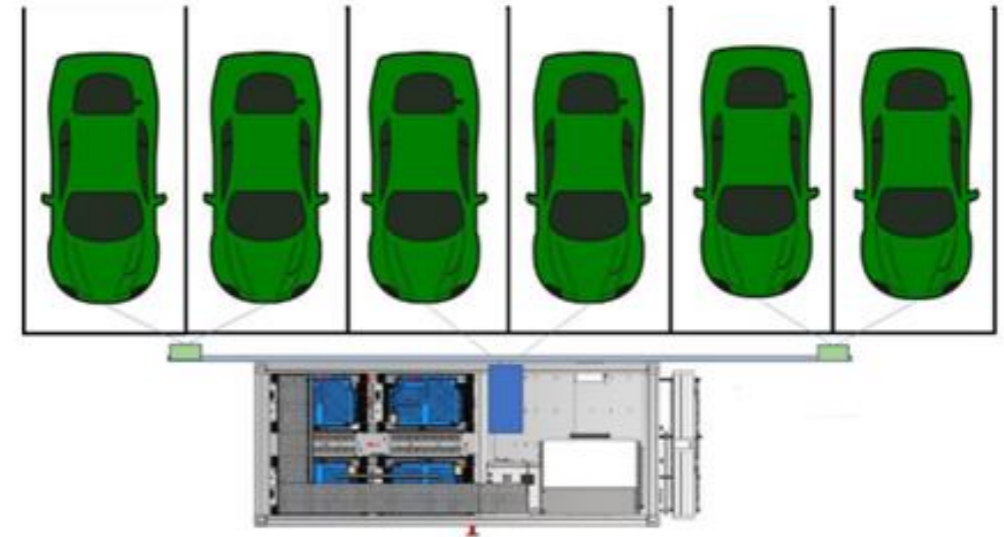
Finalise suitable trial specifications

Choose trial location

Trial deployment with partner organisations.

## Timescales:

April 2020 for 18 months. £320k project cost



# Close

Whilst there will be challenges, we are working hard to have solutions in place to support the communities we serve.

The innovation projects are just a small part of our portfolio supporting the switch to EVs.

We also have initiatives and strategies such as our EV Strategy and the Accelerating a Green Recovery report, both of which aim to deliver the charging experience our customers are expecting.

Find both documents on [www.ssen.co.uk/EV](http://www.ssen.co.uk/EV)



Thank you for your time viewing this presentation.



**Scottish & Southern**  
Electricity Networks

