Cross Pavement EV Charging Channel (CPCC) - Oxfordshire

Paul Gambrell

ZEV & Energy Integration Team Leader

Innovate Oxfordshire

OXFORDSHIRE COUNTY COUNCIL

Experience

- 5 ‘gullies’ installed in Oxford 2017
- 2 Innovate UK supported projects 2020 to 2022
- 26 trial units installed in Oxford and Cherwell DC – pilot monitoring over 6 months to end Sept 2022
- Positive user feedback
- On-site monitoring identified no significant issues
- Ongoing project with Motability
- Engaged with other Local Authorities including: London Councils, Southampton, Woking, Cardiff, Bromley, Wiltshire, Bucks, Central Beds, Hertfordshire, Croydon and Belfast

Source: Go Ultra Low Oxford (GULO): Monitoring and evaluation of on-street charging technologies

OXFORDSHIRE COUNTY COUNCIL

Ownership Models

Model 1 - Ownership by the highway authority

- Highway Authority (HA) commissions installation or adopts the after installation
- Responsible for enforcing safe use, and providing maintenance of the CPCC
- Licence or otherwise permit use, may recoup costs from the user

Model 2 - Ownership by the user; a private individual

- User obtains licence to install, own and operate equipment in the highway, and commissions installation of the CPCC
- HA licences installation and operation and may recoup costs from the user.
- HA monitors and enforces safe use and safe condition/maintenance

Model 3 - Ownership by a 3rd party organisation

- End user requests the installation of the Gul-e from a 3rd party
- 3rd party obtains licence from HA to own and operate equipment in the highway
- HA licences installation and operation, and may recoup costs from the 3rd party
- 3rd Party is responsible for maintenance
- HA monitors and enforces safe use and safe condition/maintenance.

OXFORDSHIRE COUNTY COUNCIL

Licencing/Permitting

Model 1 - Ownership by the Highway Authority

- No Section 50 licence is required if installation carried out by the HA (or contractor)
- OCC drafted ‘User Licence’ under section 115b of Highways Act 1980 & NRWSA
- Licence sets out the responsibilities of the channel user

OXFORDSHIRE COUNTY COUNCIL

Planning status – Cross Pavement EV Charging Channel (CPCC)

Model 1 - Ownership by the highway authority

Possible to argue installation of the Gul-e does not require an application for planning permission IF installation is commissioned by the Highway Authority - not if adopted after installation.

CPCC is not a development

TCPA 1990, s 55(2) sets out a series of operations of land which do not involve development of land, including:

TCPA 1990, s 55(2)(b) - the carrying out on land within the boundaries of a road by a highway authority of any works required for the maintenance or improvement of the road

CPCC is permitted development

The TCP(GPD)O 2015 sets out a series of operations classed as development, which are deemed 'Permitted development' if undertaken by a Local Authority;

TCP GPDO 2015, Part 12, Class A(b);

A. The erection or construction and the maintenance, improvement or other alteration by a local authority or by an urban development corporation of—

(a)…

*(b)…..**electric vehicle charging points and any associated infrastructure**, ..*

Planning status – Home charger

- Planning permission is required
- Existing permitted development rules do not apply where home chargers are installed at properties without a driveway
- Enforcement:
  - Local planning authorities have an obligation and powers to investigate potential planning breaches but must be proportionate in their response if a breach is confirmed.

OXFORDSHIRE COUNTY COUNCIL

User License – Key Conditions

- Licensee indemnifies the authority against claims related to use of CPCC – trips over cable, electric shock etc.
- Licensee holds £5m public liability insurance in relation to above
- Licensee obtains planning permission for home EV charger
- CPCC used with BS61851-1 compliant charger, installed to BS7671 standards
- Safe use – cable removal after charging, checking charging equipment etc.
- Annual renewal with declaration/evidence of:
  - Insurance policy renewal
  - Recent Electrical Installation Condition Report (EICR)
  - Payment of licence renewal fee

OXFORDSHIRE COUNTY COUNCIL

Simultaneous Earthing

- Simultaneous contact with separately earthed EV charging circuits ***which includes charging vehicle***
- Regulations for EV infrastructure require a separation of 2.5m between separately earthed circuits.
- Have worked closely with CENEX
- Workshop involving IET, BSi, Dept. for Transport, DBEIS, OFGEM, and the DNOs to discuss the implications and possible solutions held June 2024
- To ensure 2.5m vehicle separation we plan a lower density of CPCC likely to be 1 in 3 properties on terraced streets.

OXFORDSHIRE COUNTY COUNCIL

CPCC – Part of an integrated solution

- CPCC are additional to public charging – not a replacement
- However, there use is expected to reduce the number of public chargers needed
- Experience will show how much of an impact this will have on numbers required.

OXFORDSHIRE COUNTY COUNCIL

Next Oxfordshire CPCC Pilot

- Funding from LEVI Pilot funding
- Up to 500 channels across Oxfordshire
- LEVI funding supports installation of channels, resident funds other aspects
- Having to repeat supplier/installer procurement
- Will take resident applications July ‘25 at the latest.

OXFORDSHIRE COUNTY COUNCIL

Outline costs

Item	Funded by	Cost
Application (includes 1st year license fee)	Resident	c. £200
Home EV Charger Planning application	Resident	c. £350 *(if classed as 'operation')*
Home EV Charger installation	Resident	c. £900 – 1,000
Cross Pavement EV Charging Channel installation	OCC (using LEVI pilot grant)	TBA
Annual license fee	Resident	c. £85

OXFORDSHIRE COUNTY COUNCIL

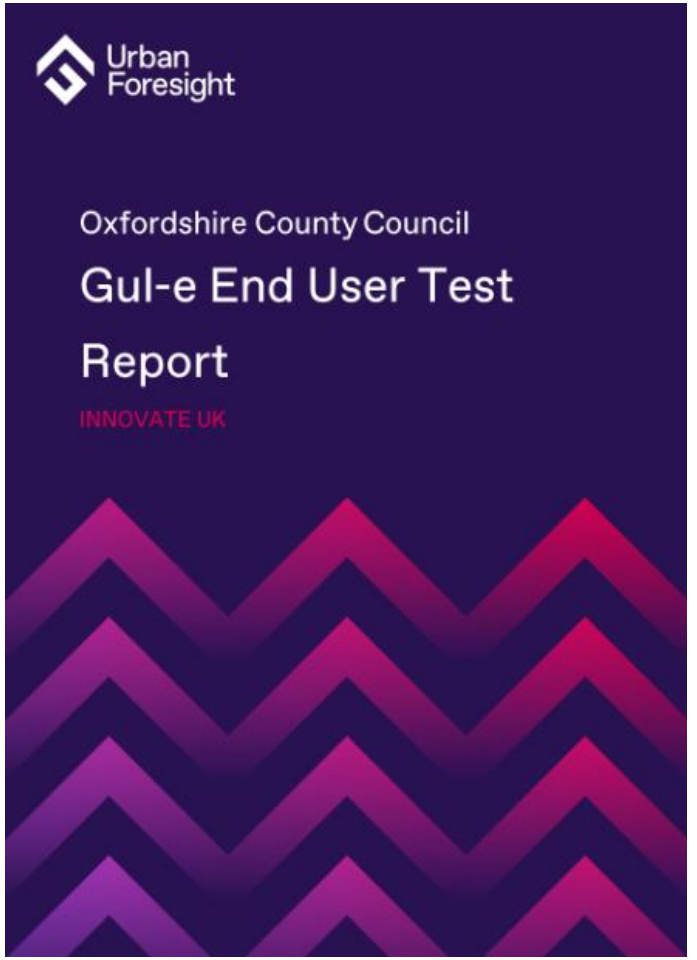
User Benefits

- Convenience
- Ability to charge overnight
- Bi-directional charging
- Cost (Low power charging)
  - Public charging - £0.49 to £0.87p/kWh
  - Domestic charging - £0.08 to £0.27p/kWh

OXFORDSHIRE COUNTY COUNCIL

User Feedback

- Sample of 23 (of 26) users;
  - 91% satisfied or very satisfied with CPCC
  - 82% using public charging less (26% not using public charging at all since CPCC installed)
  - 76% perceive CPCC as necessary to transition to EV



Source: Gul-e End User Test Report Urban Foresight – March 2022

OXFORDSHIRE COUNTY COUNCIL

Thank you!

To learn more:

Contact: evteam@oxfordshire.gov.uk

OXFORDSHIRE COUNTY COUNCIL