

Outline proposal for an e-bikes and e-cargo bikes pilot project in Wales

Sustrans Cymru – January 2021

Background

Electric assisted cycles are becoming increasingly popular and affordable. This includes kits to adapt existing pedal powered cycles to electric assist. The use of e-bikes enables a wider demographic of potential users to access active travel modes as well as supporting moves to reduce the adverse impacts of motorised traffic, particularly in urban areas. As part of an integrated set of transport modes e-cycles can be effective in helping to improve local air quality, reduce carbon emissions and encourage more sustainable travel across a wide demographic. In rural areas, e-bikes can considerably increase the range and type of journeys that can be undertaken, especially in areas with challenging topography.

In addition to personal e-bike use, E-Cargo Bikes also offer the potential to radically change local delivery services and support concepts of low traffic neighbourhoods (LTNs) and 20-minute neighbourhoods where access to local services close to areas where people live is paramount.

Several projects to promote and develop e-bike usage have been undertaken across the UK but there has been no concerted approach in Wales to date. Some city bike hire schemes such as Next Bike in Cardiff and Penarth are starting to offer e-bike options but this is still at an early stage and does not allow for targeted approaches to those who struggle to access these payable services.

Examples of existing projects include Sustrans' e-bike access project in the Cairngorms area of Scotland, promoting sustainable and low carbon tourism and the E-Cargo Bike Library project in Edinburgh which makes different types of E-Cargo Bike available to local businesses so they can try options before investing as part of a co-ordinated business model with a package of support measures.

This began as a pilot project in 2017 and continued through Scottish Government capital funding. Results from 2018/19 showed an increased use of e-cargo bikes by participating organisations. Twelve businesses and organisations borrowed cargo bikes during the year and 72 riders were trained in the use of the cargo bikes. The cargo bikes were used to travel 948km, saving 171kg of CO2 compared to making the same journeys by car or van, and saving £294 on fuel costs. Results for 2019/20 are currently being compiled.

The following proposal would undertake a similar approach for this element and compliment any city bike type schemes that may be operating in similar areas.

Proposal

Sustrans Cymru proposes a pilot project in Wales which will trial two approaches:

1. Community E-Bikes

Set up and support community based e-bike hire and loan schemes in up to four selected areas, preferably linked to deprived areas within Transforming Towns to link with Welsh Government priorities. This could be linked to existing community enterprises and bike shops, which would provide essential community connections, as well as suitable maintenance and support services. This would particularly target communities which might not typically engage with existing hire facilities or city bike type hire schemes, or focus on areas where these facilities are not currently available.

Sustrans have good working links with a number of community organisations and enterprises, which will be key stakeholders essential to the delivery of these schemes. They also have considerable practical experience in the design, monitoring and evaluation of similar active travel schemes and as such are well placed to collate and distil lessons from these pilots.

2. E-Cargo Bike Libraries

Set up and support a E-Cargo Bike library scheme in two locations, inviting local businesses to engage in trialling different e-cargo bike models and providing a full support package of specialist advice, training and network planning to include consideration of how users access existing Active Travel infrastructure and design of end of trip facilities, including cycle storage and secure parking arrangements.

Sustrans have experience of running a very similar scheme for the Scottish Government with good results, as outlined above. Their expertise in training, supporting and advising business on e-cargo bike usage make them an excellent candidate to run e-cargo bike libraries in Wales.

In both cases, Sustrans would provide project management, technical support, promotion and monitoring and evaluation of the initiatives.

Acquisition of e-Bike fleet resources

Sustrans would initially acquire a fleet of e-bikes and e-cargo Bikes under the project and arrange suitable storage and maintenance facilities either through a specific site or in partnership with other providers such as community enterprises or selected bike shops.

This will also include provision of See Sense monitors on each bike which provide data on journeys undertaken, length of use, etc. This would be supported by Qualitative data from users to understand when journeys are being undertaken, their purpose and patterns of behaviours, as well as an behaviour change from potential other modes, such as replacement car-based journeys.

Estimated upfront purchase costs

E-bikes and accessories (eg.Locks, chargers) (80 x £2.5K) - £200,000 **(purchase in 20/21)**

E-Cargo Bikes including accessories to allow various configurations (16 x £7K) - £112,000 **(purchase in 20/21)**

See-Sense monitors - £50,000 (purchase in 20/21)

Total = £362,000

Option: Project Manager and set up support - £5,000 (if available)

Staff Resources

Sustrans would appoint a part time Project Manager and three part-time project officers to develop and oversee the elements outlined above. Additional support will be required from Sustrans Cymru's existing Network Development team as well as our Research and Monitoring Unit for Monitoring and Evaluation support.

The Project Manager would cover the whole project, though probably based in South East Wales, with Project Officers being geographically based, one north Wales, one Mid Wales and one South Wales, depending on exact localities selected for the pilot.

Specific elements would include:

- Project Management, staff resources and reporting
- Community engagement, promotion and stakeholder liaison
- Equipment provision, storage and maintenance
- Training
- Network Planning (eg. How local AT networks serve particular personal or business journeys.)
- Monitoring and evaluation

Project Officer Task profile

- To develop, deliver and promote the Sustrans Cymru e-bike project in a selected location.
- To act as key contact for small business owners, local community groups and other community stakeholders.
- To manage the online booking processes and administration for the e bikes and e-cargo bike library to ensure excellent user experience.
- To network with potential bike users, identify barriers to current journeys, moving goods by bike and assist individuals and small businesses to mitigate barriers.
- To consult and assist, individuals, small businesses and community groups in choosing a suitable bike and consult for any external funding applications.
- To carry out relevant proactive outreach activities to local communities to maximise engagement with the project. Includes event and workshop delivery.
- To perform basic maintenance (puncture repair and minor adjustments) to the Cargo Bike Library fleet and schedule regular services through a contracted supplier.
- To train users in Essential Cycles Skills and cargo bike/e-bike use through National Standards and enhanced e-bike related syllabus.
- To work with the Communications Team and maintain a social media presence and collect case studies of users.
- To work with local partners to develop and promote e-bike and e- cargo bike use in selected locations across Wales.
- To monitor and record all community engagement activities and work with the Research and Monitoring Unit to collect data required. To contribute to feasibility studies to expand the program to other Welsh cities and towns.
- To provide advice, liaison and other support for e-bike and e-cargo bike library users.

Project costs

E-Bikes scheme

Staff Resources (Part time Project Manager (0.6FTE) and 3 part time Project Officers (3x 0.8FTE) = £165,600

Monitoring and Evaluation - £15,000 pa

Storage/maintenance costs - £15,000 pa

Marketing and promotion - £10,000 pa

Total Year 1 (21/22) = £205,600

Total Year 2 (22/23) = £212,000 (3% inflation)

E-Cargo Bikes Scheme

Staff Resources (Part time Project Manager (0.6FTE) and 2 part time Project Officers (2x 0.8FTE) = £122,400

Monitoring and Evaluation - £15,000 pa

Storage/maintenance costs - £15,000 pa

Marketing and promotion - £10,000 pa

Total Year 1 (21/22) = £162,400

Total Year 2 (22/23) = £167,200 (3% inflation)

Combined costs (assuming two locations run both e-bikes and e-cargo bike projects, this is the same as just the e-bikes project as economies of scale mean additional costs are just for acquisition of the e-cargo bikes)

Staff Resources (Part time Project Manager (0.6FTE) and 3 part time Project Officers (3x 0.8FTE) = £165,600

Monitoring and Evaluation - £15,000 pa

Storage/maintenance costs - £15,000 pa

Marketing and promotion - £10,000 pa

Total Year 1 (21/22) = £205,600

Total Year 2 (22/23) = £212,000 (3% inflation)

Risks

All options

Risk	Proximity	Impact	Mitigation
Delays to supply of e-bikes.	Medium	Medium/high depending on length of delay	Can plan project set up and community links initially
Increased costs due to Brexit	High	High	Need to ensure costs are agreed up front with suppliers and covered in Grant funding.
Monitors package availability	Medium	Medium/high depending on length of delay	Can plan project set up and community links initially. Bikes can be retrofitted if necessary.
Reduced capacity from part time staff	High	Medium	May be possible to support with other staff and partners to limited extent
Inability to recruit staff due to limited tenure and time	High	High	Consider flexibility of role in recruitment and target audience
No funding for Director//technical support	Medium	Medium	Sustrans would need to bear cost of support from existing staff and teams. Utilise partners for support.
Unable to cover total cost of project staff required to deliver project effectively, especially in Year 2	Medium	High	Sustrans carries risk of underwriting staff costs above grant level.

Timescale

Two years starting April 2021, though with some preliminary elements acquired in Q4 20/21. Pilot should be reviewed annually and consideration of further development based on this.

Governance and Reporting

Sustrans would produce quarterly update reports on progress for the client group and could set up a stakeholder group or board to oversee the project and a delivery group to include stakeholders and delivery partners. We would produce an annual report outlining outputs from the project and any lessons learned to inform future development and legacy schemes.

Redacted personal information

Sustrans Cymru

20/01/2021

