



## Demonstration Project Case Study

**Project Title:** Electric Bike Purchase for Maes y Ffynnon

### Description

Staff based at NRW's Maes y Ffynnon office are benefiting from a new electric bike, as part of a pilot aiming to enhance the take up of sustainable and active travel within the workplace.

As the results of a recent survey to try and understand staff's work-related travel patterns concluded that 8% of our work-related car or van journeys are 0-10 miles in distance, the bike is intended to help reduce the number of short trips staff take in pool cars and their own vehicles during working hours.

In the long term, the aim is to help reduce NRW's and staff's carbon footprint as well make fuel savings, by minimising the use of pool cars for short journeys where possible.



The bike will be available for people who have meetings locally or who want to do a short local trip during their working day. On occasion, it may also be available for people to use to get to or from work.

### Method

As part of its commitment to reduce its carbon impact in order to tackle climate change, NRW encourages its staff to choose active and sustainable travel methods such as cycling for work-related journeys wherever possible.

Maes-y-Ffynnon office already has a pool bike, however, as it is in use much of the time for Wales Coast Path Monitoring, the team sought to buy another for the office.

NRW's Carbon Positive Project had a £10,000 budget for the purpose of supporting small-scale energy efficiency and active travel projects within the organisation, which enabled the team to make a bid for funding.

### CO<sub>2</sub>e saved

In 2017, after calculating NRW's net carbon status, it was revealed that around 8% of our emissions were attributed to business travel and fuel use in our vehicles (fleet). Therefore, it goes without saying that the more business miles we can travel using active and sustainable methods, the lower our emissions will be.

Typically, for every 10 miles travelled by a member of staff on the bike rather than opting to use a small or



Situated at the top of a steep hill, Maes y Ffynnon's location in Penrhosgarnedd could be a barrier for staff wishing to choose a more active mode of travel.

However, thanks to their built-in electric motors, electric bikes need far less effort to use than an average bicycle - especially going uphill - making them far more accessible to a wider group of people.

An informal poll was conducted to find out what staff thought about using an electric pool bike: the response received was very positive, with the vast majority thinking it was a good idea.

The bike is now available to book on Cyfarch, NRW's online booking system for pool vehicles.

### Next steps

Details of its usage will be monitored on a regular basis, with the information gathered being shared with our Environmental Management System (EMS) team and Active and Sustainable Travel group to understand how it is used, which will contribute towards a better understanding of our active and sustainable travel habits across the organisation.

### Outcomes

A demonstration session to promote the benefits of using the bike, and give staff an opportunity to take it on a test ride, was held with the help of Evolution Bikes, Bangor.

The event gathered interest from both Maes y Ffynnon staff and those located at other NRW offices and, as a result, the Active and Sustainable Travel Group is now looking into funding sources to buy additional electric bikes some for our other offices.

The existing pool bike policy stated that a nominated member of staff should take on responsibility for any pool bike, and therefore a member of Bangor Bike User Group (BUG) agreed to adopt this role, with support from other members of the group.

However, agreeing who should take responsibility for the bike in the long term, to ensure it is regularly serviced etc., sparked a discussion about whether or not the existing pool bike policy was suitable for an electric bike, and whether pool bikes should be given equal status to other pool vehicles and be more formally adopted by Fleet, rather than relying on volunteers. These discussions are currently ongoing.

medium-sized petrol car, around 3kg of CO<sub>2</sub>e is saved.

This was calculated by using Department For Business, Energy And Industrial Strategy (BEIS) 2018 conversion factors.

### £2,779 total project cost

The SCOTT SUB Active eRide - £2,049  
 Asgard Bike Shelter - £580  
 Installation + Delivery of Locker - £150  
 Bontrager Solstice Helmet - £49.99\*  
 Lock - Kryptolok Mini U-Lock - £44.99\*  
 Ortlieb Paniers (25L Pair) - £75\*  
 High Viz - £0

\* Bike purchase included 10% in-store credit (£205), which covered the cost of this equipment.

### Innovative

Although an electric bike had also been purchased for NRW's Llandarcy office, this is the first of its kind to be piloted by NRW specifically to help reduce our carbon emissions.

### Staff involved

Bangor Bike User Group  
 Wales Coast Path team  
 Carbon Positive Team  
 Facilities Team  
 Fleet  
 Environmental Management Systems Team

## Wider Benefits

In line with well-being goals for “*a prosperous Wales & a globally responsible Wales*”, long-term we should see some cost savings and reduce our organisation’s impact on the environment.

The project has encouraged and enabled staff to increase their physical activity and is helping to raise awareness and enhance the accessibility of active and sustainable travel, with the aim of boosting their health and wellbeing, as well as reducing our travel-related emissions.

It’s hoped the purchase will go on to encourage other NRW offices, and other organisations, to follow suit and invest in emerging green travel technologies.

## Learning

The team was keen to ensure the purchase of the bike would be a positive investment for the organisation and its staff. In order to achieve this, steps would need to be taken so that it could be looked after properly in the long term.

In doing so, one of the main challenges faced during the process was appointing someone to take responsibility for the bike’s repairs and maintenance in the long term. We mitigated this issue by allowing more than one person to be listed as responsible for the bike, with the support of the wider Bangor BUG Group. In the future we hope that the pool bike can be adopted and maintained as part of the rest of NRW’s pool vehicle fleet.

A further element of our learning will come as a result of ongoing monitoring of how the bike is used.

The process has also given us the opportunity to review our pool bike policy after taking time to consider whether the current arrangement is the most appropriate.

Although we purchased a ‘small’ model of the electric bike, its dimensions were in fact larger than an ordinary bicycle. We had initially ordered a standard bike shed, but after measuring it up against the ones we already had in place, it became clear that it wouldn’t fit and we had to cancel our order and exchange it for a larger shed. It’s important, therefore, to be fully aware of the dimensions of the bike before ordering storage.

We purchased the smallest frame available for this particular model and it can be adjusted to accommodate a range of different sized riders. However, some users that have found it too big and cumbersome. When considering pool e-bike purchases in the future it would be advisable to investigate whether smaller, lighter-weight models are available, in particular those with women-specific frames.

Market research for the purchase of demonstrated that the cost of all but the very cheapest e-bike models exceed the £1000 limit currently available through NRW’s current Cycle to Work provider. This is a major obstacle to members of staff purchasing their own e-bikes who are unable to afford the whole cost upfront. Changes to the existing scheme rules should be sought or an alternative scheme found to allow e-bikes to be purchased.



## Evidence & information

As the project was undertaken, a survey was being delivered internally as part of the organisation's commitment towards active and sustainable travel and being a Carbon Positive organisation. The aim of the survey was to find out more about how staff get to and from work and travel for work during the day.

The results revealed, amongst other things, that 8% of work-related journeys were short distance (0-10miles), with car or van consistently being the most popular mode of travel for work purposes and day-to-day commuting.

The survey outcomes will include improving the support currently provided, as well as identifying and resolving any gaps in facilities. It will also inform what we can invest in the future.

Typical distance of work journeys

