

## Showing leadership in decarbonisation

We are committed to positive action on climate change and we recognise the importance of pursuing opportunities to decarbonise. The Carbon Positive Project has shown how our organisation can address its carbon impact across buildings, transport, managing land and operational assets, and procurement of goods and services. Welsh Government funded the Project to act as an exemplar in decarbonisation, and through sharing our approach and experience, we aim to encourage further decarbonisation across the Welsh public sector and beyond.

## How we delivered a comprehensive approach to carbon management

### 1 Calculating our net carbon status

- We collated greenhouse gas emissions data from buildings, transport, management of the estate and the procurement of goods and services.
- We estimated carbon stocks and sequestration rates in the habitats on the estate.
- We found that we are a net carbon positive organisation – storing more carbon annually than we emit through our operations.

### 2 Evaluating options for mitigation

- We identified and evaluated measures to reduce emissions, enhance sequestration and protect carbon stocks across the organisation and the estate.
- We developed an approach for prioritising options for delivery through evaluating costs, carbon savings and wider benefits.
- We found that there are a breadth of options open to us, which can yield both cost and carbon savings, as well as wider benefits.

### 3 Demonstration projects

- We delivered over 20 projects to demonstrate potential mitigation options, including: LED lighting, biomass boilers, solar photo voltaic (PV), electric vehicles and charging points, woodland planting, peatland restoration, and trialling a carbon planning tool in our civil engineering contracts.
- We found many staff wanted to lead carbon reduction projects in their area of work. Some projects were more challenging, particularly newer technologies and where we needed to learn new skills.

### 4 Communications and working with others

- We learnt from organisations managing their own carbon impact in new and ambitious ways.
- We collaborated with our colleagues to gather ideas and worked across the organisation to begin embedding carbon management into our activities.
- Through sharing our experience and approach, we aim to facilitate and encourage positive action on decarbonisation across Wales' public sector and beyond.

### 5 Recording experience and planning future implementation

- We are producing a series of publications to record and share our experience and approach, including:
  - Carbon Positive Project strategic summary report.
  - Calculating NRW's Net Carbon Status technical report
  - Evaluating NRW's Mitigation Options technical report
  - Demonstration project case studies.
- Our next step is to build our mitigation opportunities into a plan for implementation, to embed carbon management throughout the organisation.

**Overleaf are the headline results from our net carbon status calculation and some of the options being evaluated to address our carbon impact.**



### Find out more

If you'd like to know more about the Carbon Positive Project and our publications, visit: [www.naturalresources.wales/carbonpositive](http://www.naturalresources.wales/carbonpositive)

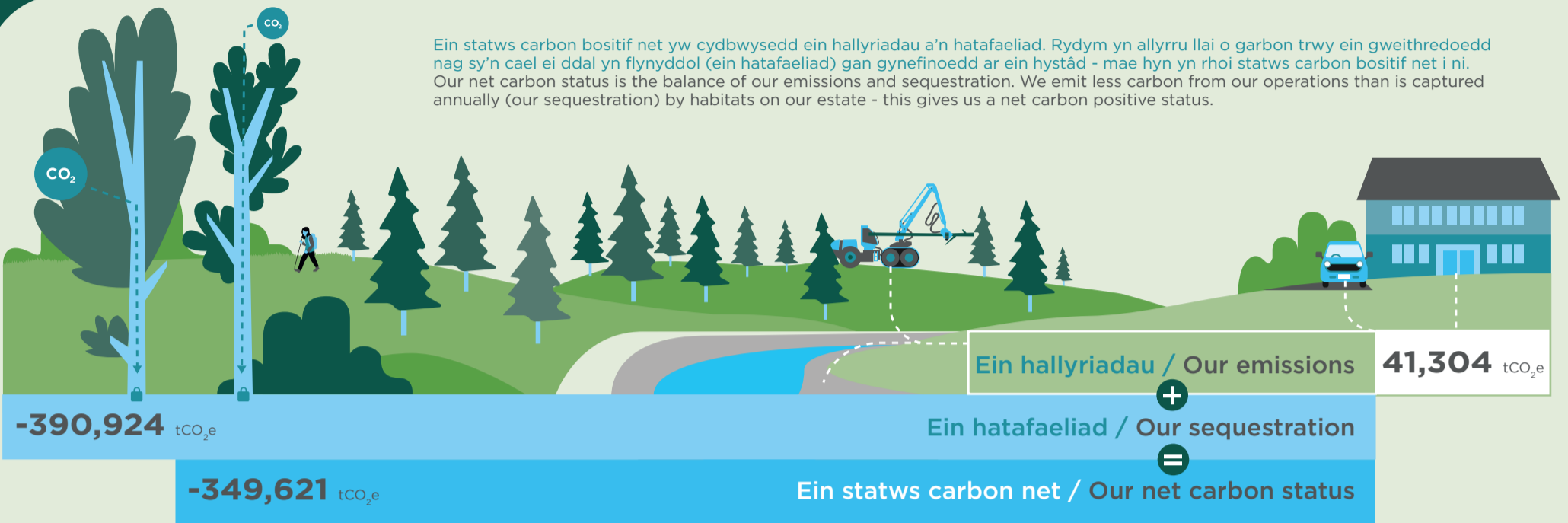
Produced November 2017

#BeCarbonPositive

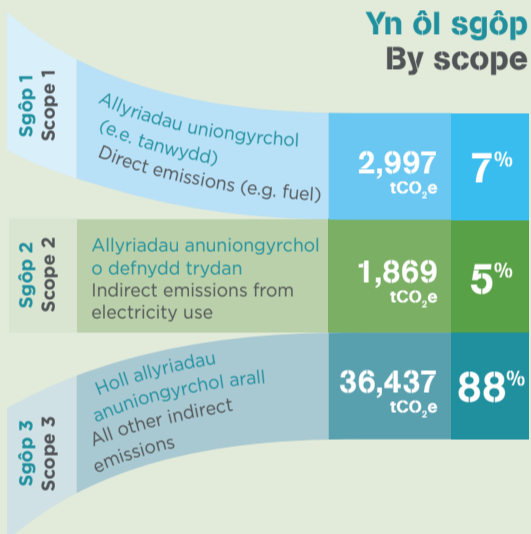
### Sefydliad carbon bositif net yw Cyfoeth Naturiol Cymru (CNC)

### Natural Resources Wales (NRW) is a net carbon positive organisation

Ein statws carbon bositif net yw cydbwysedd ein hallyriadau a'n hatafaeliad. Rydym yn allyrru llai o garbon trwy ein gweithredoedd nag sy'n cael ei ddal yn flynyddol (ein hatafaeliad) gan gynefinoedd ar ein hystâd - mae hyn yn rhoi statws carbon bositif net i ni. Our net carbon status is the balance of our emissions and sequestration. We emit less carbon from our operations than is captured annually (our sequestration) by habitats on our estate - this gives us a net carbon positive status.



#### Ein hallyriadau / Our emissions

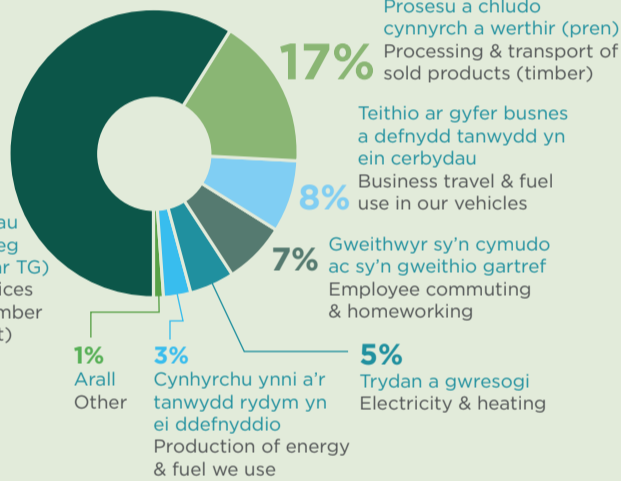


#### Yn ôl ffynhonell

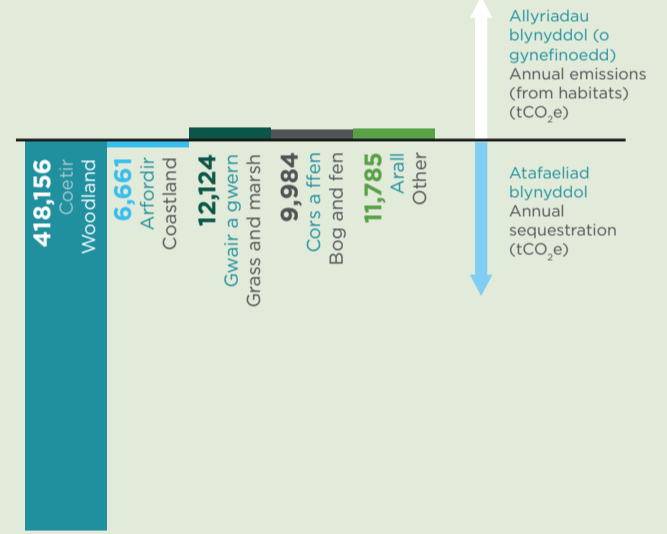
#### By source

**59%**

Nwyddau a gwasanaethau a brynwyd (e.e. peirianeg sifil, casglu pren, cyfarpar TG)  
Purchased goods & services (e.g. civil engineering, timber harvesting, IT equipment)



#### Ein hatafaeliad / Our sequestration



#### Ein stociau carbon / Our carbon stocks

**32.9 M** tc

Mae'r cynefinoedd ar yr ystâd eisoes yn storio amcangyfrif o 32.9 miliwn o dunelli o garbon (tc) (ein stociau carbon). Os nad ydym yn parhau i'w diogelu, gallai'r cynefinoedd hyn ryddhau bron 3,000 gwaith ein hallyriadau blyneddol. The habitats on the estate already store an estimated 32.9 million tonnes of carbon (tc) (our carbon stocks). If we don't continue to protect them, these habitats could release nearly 3,000 times our annual emissions.

**81%** **9%** **10%**

Coetir  
Woodland

Cors a ffen  
Bog and fen

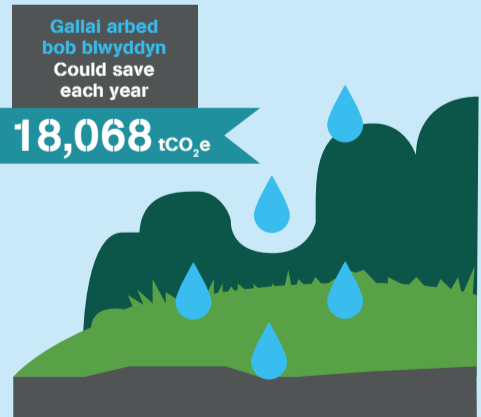
Arall  
Other

### Gwerthuso'n hopsiynau i leihau allyriadau, gwella atafaeliad a diogelu stociau carbon

### Evaluating our options to reduce emissions, enhance sequestration and protect carbon stocks

#### Adfer (ail-wlychu) cynefinoedd mawn\*

#### Restoring (rewetting) peat habitats\*



\* Ac eithrio coetir, tir â'r glaswelltir trylwyr ar ein hystâd  
\* Except woodland, cropland and intensive grassland on our estate

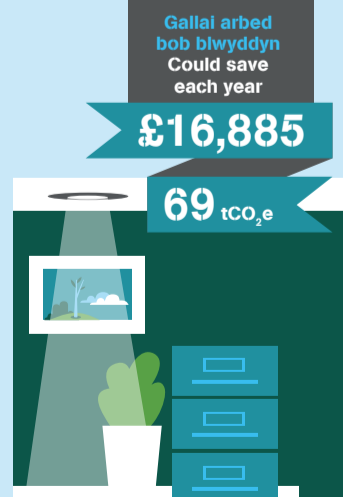
#### Disodli 56% o'n fflyd â cherbydau trydan

#### Replacing 56% of our fleet with electric vehicles



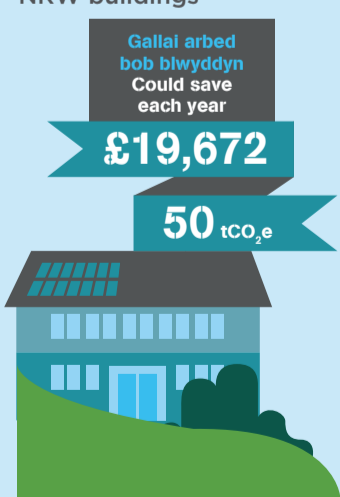
#### Gosod goleuadau LED mewn 15 o adeiladau CNC

#### Installing LED lighting at 15 NRW buildings



#### Gosod paneli ffotofoltaidd solar mewn 9 adeilad CNC

#### Installing solar photo voltaic (PV) panels at 9 NRW buildings



#### Defnyddio offer cynllunio carbon wrth ddyllunio ac adeiladu ein cynlluniau llifogydd

#### Using carbon planning tools in the design and build of our flood schemes

