

Appendix to Environmental Action Plan

This addendum document provides supplementary information to that already provided in the [December 2019 submission](#). This addendum must be read in conjunction with the corresponding [document](#)¹ and associated appendices.

Requested clarification are provided below.

Commercial Fleet

As presented in our 2019 business plan, over arching fleet ambition is to have a

Zero emissions fleet by 2035

As a sustainable business we have a responsibility to ensure that, whilst delivering this ambition, we balance cost to consumers with the environmental benefits.

Our [December 2019](#)² EAP did not account for the early “greening” of the commercial fleet because, currently, vehicle duty cycles, safe methods of work, lack of suitable product and existing technologies and infrastructure do not currently support sweeping, early, change to our commercial fleet. However, in light of the proposed PCD for the commercial fleet and expectations for technological acceleration within this sector, we propose to increase the number of electric vehicles (EV) and/or ultra-low emission vehicles (ULEV) within the fleet by 2026.

In summary, should funding and appropriate vehicles be available, during GD2 our existing internal combustion (IC) light commercial vehicles (LCV), Ofgem Group 2 and the majority of Group 3, will be replaced with ULEV and/or EV at their existing nominal replacement date.

Tabulated data as requested³ in section 2.141 of the Ofgem R10-2 Draft Determination Gas Distribution Annex, with detailed explanatory narrative, forecast annual increases in EVs per vehicle category and increased capex and opex costs will be submitted to Ofgem by 12th September 2020 in the Commercial Fleet Data Template⁴

A brief narrative on our proposed PCD for greening our commercial fleet is presented below.

¹ Wales & West Utilities, Our Business Plan for 2021-2026, A sustainable business in a changing and dynamic sector, December 2019 (<https://www.wvuutilities.co.uk/media/3567/3-wwu-business-plan-december-2019.pdf>)

² Wales & West Utilities, Our Business Plan for 2021-2026, A sustainable business in a changing and dynamic sector, December 2019 (<https://www.wvuutilities.co.uk/media/3567/3-wwu-business-plan-december-2019.pdf>)

³ Consultation – R10-2 Draft Determination – Gas Distribution Annex, Ofgem July 2020, p.50, section 2.141

⁴ Wales & West Utilities Commercial Fleet Data Template to be submitted in line with Ofgem timelines by 12th September 2020.

Our commercial fleet currently consists of;

- c. 950 light commercial vehicles
- c. 35 heavy goods vehicles (HGV)
- c.100 items of engined mobile plant

- LCV Fleet

Virtually all our LCV's are routinely taken home by the allocated driver, to enable a start and finish at home model, which is operationally the most efficient. It also supports call-out working to deliver the 24/7 gas emergency service.

Opportunities to electrify the LCV fleet (without significant additional operational risk) are extremely limited now and during the early years of GD2. However, we will convert the Group 2 and 3 vehicles during GD2 where:

- existing IC vehicles have reached their optimum replacement date.
- EV/ULEV meet our operational criteria (safe method of work, payload etc).
- the operating range of available EV's or other ULEV meet duty cycle requirements, especially in low ambient temperatures.
- when availability of domestic charging facilities can be extended to support our primarily home-based workforce.
- available EV/ULEV and infrastructure does not compromise our 24/7 gas emergency service and the associated customer service standards.
- the requested allowance to green the fleet is provided.

By meeting this ambition c.20% of our commercial vehicle fleet would be EV or ULEV by 2026.

In addition to the introduction of EV's into the commercial fleet, we will continue to monitor and investigate other alternative fuelling systems, such as hydrogen fuel cell, to ensure our fleet strategy meets the need of the business and stakeholders beyond GD2.

- HGV Fleet

HGV's represent c. 3% of our commercial vehicle fleet and our HGV fleet is expected to become 100% Euro VI during 2021; this is the current environmental standard.

We do not see an opportunity to electrify the HGV fleet, as this is not technically possible, nor is it likely to become so within GD2. Alternative HGV fuels would be Compressed Natural Gas (CNG) or Liquefied Natural Gas (LNG); however, suitable commercially available vehicles and associated infrastructure is not as advanced as LCVs at present.

We will continue to investigate alternative fuelling options for our HGV fleet during GD2, taking opportunities support the required fuelling infrastructure and trial vehicles, where appropriate.

Electric Vehicle Charging

We currently have a limited number of charging points within our existing properties but will be looking to increase the number of charging points in GD2 to support our ambition for a greener fleet.

Our **December 2020 Business Plan**⁵ included for a limited number of additional charging points. The number varies by location and is based on utilising any additional capacity of the incoming power supply to support charging. However, to ensure we are able to achieve the increased ambition for our commercial fleet, discussed above, we would look to significantly increase the number of charging points available to our workforce to over 200 locations. This would include home charging for drivers of LCV (EV) to avoid reliance on public rapid-charge network, uncompetitive public charging costs and potential loss of productivity via intra-working day charging.

To achieve this ambition, we will require the additional requested allowance, above that requested in December 2019.

Tabulated data as requested⁶, with key assumptions noted, for the increased fuelling infrastructure required is presented in the **Commercial Fleet Data Template**⁷ (to be submitted to Ofgem by 12th September 2020).

Reuse of Aggregate

Access to quarries, tips and soil recycling facilities is essential for GDNs to carry out reinstatement work. Larger distances/driving times to the nearest soil recycling facilities are therefore a cost driver for these activities. The larger distances also materially increase our impact on local and regional air quality and significantly increase our carbon emissions where internal combustion (IC) heavy good vehicles (HGVs) are utilised (Please see commercial fleet section, above, for details on barriers to migrating HGVs from IC to ultra-low emission vehicles (ULEV)).

Current use of recycled aggregate within in WWU is 18% across the network. Predominantly, the current use of recycled aggregate is confined to the South Wales Region of our network. Sparsity of suitable facilities is further discussed in the, **WWU Business Plan December 2019, Regional Factors and Cost Assessment Appendix 9m**⁸.

Sites that can supply recycled aggregate and sand within the West Region have not been accessed due to historical issues over quality that have not been resolved.

Cornwall and North Wales remain a significant issue over the potential reuse of aggregate for the following reasons:

⁵ Wales & West Utilities, Our Business Plan for 2021-2026, A sustainable business in a changing and dynamic sector, December 2019 (<https://www.wwutilities.co.uk/media/3567/3-wwu-business-plan-december-2019.pdf>)

⁶ Consultation – RIIO-2 Draft Determination – Gas Distribution Annex, Ofgem July 2020, p.50, section 2.141

⁷ Wales & West Utilities Commercial Fleet Data Template to be submitted in line with Ofgem timelines by 12th September 2020.

⁸ <https://www.wwutilities.co.uk/media/3337/appendix-9m-regional-factors-consultant-report-for-wwu.pdf>

- Geographically, the road network is restrictive in these areas which has a negative effect on productivity in a predominately rural area.
- the volume of available virgin aggregate is healthy in these areas which is creating a limitation of available sites to provide recycled aggregate because of reprocessing costs.

During GD2, the increased amount/type of works within the more remote regions of our network makes our existing target stretching. As such, and within the context of mandated significant efficiency savings, we are not in a position to increase our existing reuse of aggregate target. Despite the challenges we face in this area, we are committed to ensuring that we maximise the re-use of aggregate during GD2.

We are proactively looking for solutions that will allow us to significantly impact upon our use of virgin aggregate whilst balancing the associated impacts upon our delivery efficiency and other environmental impact areas (i.e. increased carbon emissions).

Possible solutions may include:

- Continued stakeholder engagement to resolve legacy quality issues and identify potential partnership opportunities.
- Introduction of recycled sand for pipe bedding as a network process will further improve performance figures for the reuse of materials on backfill without exposing risk of trench subsidence due to poor grade backfill material.
- Investigation of reprocessing of excavated material to include hardening agents is underway.

During GD2, within the EAR, we will review our reuse of aggregate target against performance.

Embedded carbon

In our **December 2019 business plan**, we committed to **publicly report on and establish approaches to reduce our Scope 3 and embodied carbon footprints**

Activities and initiatives that support our commitment include:

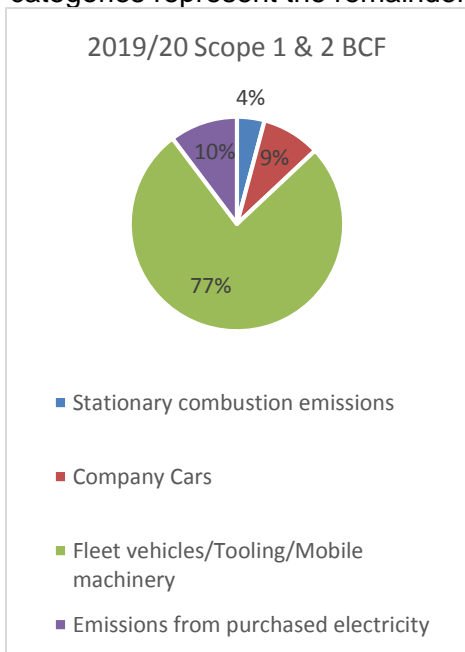
- Determining our Scope 3 (starting with a streamlined assessment using the GHG Protocol S3 Evaluator tool) BCF in line with industry best practice; allowing us to identify hotspots and to focus our carbon reduction efforts.
- Committing to set key performance indicators (KPI) for internal BCF on projects (including Scope 3 and embodied carbon) for our:
 - land management programme;
 - mains replacement programme; and
 - selected capital projects (based upon effect and contractor ability to increase in proportion over time).

Given that this is a new initiative to WWU and the ambition to reducing our embedded carbon will cut across a wide variety of capital projects with differing material impacts we have avoided setting an arbitrary target for reduction as this would not meet the SMART^[3] definition.

However, we are committed to assessing individual projects to define and set material carbon reduction KPIs, at the design phase, for internal and supply chain project contributors to achieve^[4]. Our progress against KPIs for embedded carbon will be reported annually in our EAR.

Science Based Targets

Shrinkage represents over 97% of our scope 1 & 2 carbon emissions, four main categories represent the remainder of our corporate footprint as illustrated below.



The most significant contribution to our corporate BCF relates to the commercial fleet. Our efficient, well maintained, bespoke fleet serves a number of duty cycles and is fundamental to the delivery of our safe and reliable gas network.

Our ability to reduce the greatest contributor to our corporate BCF is reliant on the availability of ULEV or EVs which contain the technological advances to that do not compromise service delivery.

In addition, with the expected future increase of EVs within the fleet we see a corresponding increase in electricity consumption.

As such, and in line with Science Base Target Initiative methodology, our overarching, long and shorter term ambitions for Scope 1 and 2 (excluding shrinkage)^[5] greenhouse gas emission

(GHG) reductions are:

to be a Net Zero Carbon company by 2050

and deliver:

a minimum of 37.5% GHG emission reduction by 2035 (WB 2°C) based upon a 2020 baseline whilst aiming for a 63% reduction in GHG emissions by 2035 against a 2020 baseline (1.5°C)

Over the period of GD2 we anticipate the lowest incremental reduction in GHG emissions whilst technology and unit cost catch up with our ambition. Forecasts are reliant on the following factors:

- Available EV or ULEV vehicles which meet our duty cycles;
- Increase in electricity demand (charging points); and,
- Availability of competitively priced, REGO certified gas and electricity supplies to meet all supply types.

The table below represents our baseline assumptions on carbon reduction excluding unconfirmed variables noted above (fleet transformation, charging impact and energy

supply). We would therefore expect to increase the annual reduction over time to meet our SBT ambition for 2034.

	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26
Scope 1&2 (tonnes CO₂e)	11,297	11,071	10,849	10,632	10,420	10,211	10,007

1. Scope 1 and 2 target excluding shrinkage

For scope and boundary of our carbon reporting please refer to the Wales & West Utilities, [Our Business Plan for 2021-2026, A sustainable business in a changing and dynamic sector, December 2019](#)

^[1] Wales & West Utilities, Our Business Plan for 2021-2026, A sustainable business in a changing and dynamic sector, December 2019

^[2] Consultation – RIIO-2 Draft Determination – Gas Distribution Annex, Ofgem July 2020, p.50, section 2.141

^[3] Consultation – RIIO-2 Draft Determinations – Core Documents, Ofgem July 2020, p. 37, Section 4.55.

^[4] As requested in, Consultation – RIIO-2 Draft Determination – Gas Distribution Annex, Ofgem July 2020, p.46, section 2.144

^[5] As requested in, Consultation – RIIO-2 Draft Determination – Gas Distribution Annex, Ofgem July 2020, p.46, section 2.129.