



Consumer Value Proposition for the RII0-ED2 price control period

CVP-1: Ensure WPD is a net zero business by 2028s and adopts a stretching science-based target of 1.5 degrees

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1. Summary

9 net zero schemes

WPD has identified 9 transport, business policy and property schemes.

134 sites

fitted with electric vehicle charging facilities.

CVP-1

Ensure WPD is a net zero business by 2028 and adopts a stretching science-based target of 1.5 degrees.

89% electric vehicles

In our commercial van fleet, lowering our annual transport emissions by 10,050 tCO₂e.

Renewable energy for buildings

at all suitable offices / depots with a capability to save 3000 MWh per year.

2. Introduction

- 2.1. In this document we highlight one of the areas where our Business Plan goes above and beyond in order to deliver outstanding services for our customers and/or the environment. The proposal outlined here forms part of our Consumer Value Proposition (CVP). Though we believe our core Business Plan is highly ambitious, comprehensive and stretching, via our CVP proposals we demonstrate where WPD is raising the bar even further for the benefit of our customers.
- 2.2. Our CVP proposals span a wide spectrum of projects covering many areas of our business: from committing to becoming a net zero company by 2028 to helping our customers reduce their carbon emissions and ensuring that no customers are left behind in accessing the opportunities of the energy system transition.
- 2.3. These proposals build upon the valuable input that we have received from our customers and stakeholders on what they value most and what they want us to deliver. Our proposals will provide tangible benefits, that we have quantified using a robust methodology. Taken together, our proposals will deliver a combined benefit to customers worth in excess of £150 million, with every proposal delivering a benefit worth at least £3 million.
- 2.4. The CVP forms part of Ofgem's Business Plan incentive (BPI), which it designed to encourage energy network companies to put forward high-quality and stretching business plans for the RIIO-ED2 price control.
- 2.5. Below, we set out the detail of one of our CVP proposals: ***CVP-1: Ensure WPD is a net zero business by 2028 and adopts a stretching science-based target of 1.5 degrees.***

What this Customer Value Proposition includes

- 2.6. WPD is committed to becoming a net zero carbon organisation in 2028, more than ten years ahead of the UK government's 2050 target. This relates to our core commitment 37 "Achieve net zero in our internal business carbon footprint by 2028, following a verified science-based target to limit the climate impact of our activities (excluding network losses)".
- 2.7. The rest of the document is structured in the following sections:
 - **Section 2.6.** Error! Not a valid bookmark self-reference.: describing what this CVP is about and explaining how it complies with Ofgem's criteria.
 - **Section 4.** Benefits generated by our proposal: setting out how we have calculated the additional value that our proposal will deliver to customers.
 - **Section** Error! Reference source not found.. Error! Reference source not found.: explaining how this initiative addresses priorities raised by our customers.
 - **Section** Error! Reference source not found.. Error! Reference source not found.: defining what the key outputs are and what WPD proposes if outputs are not delivered.
 - **Section** Error! Reference source not found.. Error! Reference source not found.: confirming how this CVP addresses Ofgem's CVP eligibility criteria.
 - **Section 8. Appendix: Joint Social Value Framework:** setting out how we, together with the other DNOs, have agreed a framework to quantify the benefits delivered by CVP proposals.

3. Our proposal

3.1. In this section, we explain the following aspects of the proposal:

- Background for this initiative.
- What we are proposing.
- How our proposal delivers beyond expectations.
- Our delivery plan.

Background

3.2. The government has committed to reduce all greenhouse gas emissions to net zero by the year 2050. This will require transformational change across the energy sector, transport, heating and environmental policy. We will be at the forefront of this transformation. We plan to become a net zero company by a much more ambitious date of 2028, a full twenty-two years ahead of the wider UK target.

3.3. Not only will we deliver against this goal to reduce our own impact on the environment, we intend to be a leader in this area, setting an example to consumers and other businesses within the energy sector, proving that net zero is achievable if we take on ambitious goals. Being a leader on this front will also help us understand the challenges faced by our customers, and other parts of the energy system, in their own transitions. This will enable us to support them in the changes that they need to make.

3.4. In preparing WPD in becoming a sustainable organisation, we are committing to a science-based target of 1.5 degrees and striving to become a net zero business by 2028.

What we are proposing

3.5. We recognise the importance of significantly reducing our business carbon footprint (BCF). For this reason, we will deliver the following actions by the end of RIIO-ED2 to reduce our BCF to become net zero by 2028 (excluding network losses). For RIIO-ED2, we have identified and planned nine schemes to help achieve this as part of CVP-1, which we describe in Table 1 below. These schemes cover a wide range of activity, demonstrating the broad scope and scale of what we need to do in order to hit our 2028 goal. These schemes include activity to:

- cut carbon emissions from our fleet vehicles;
- improve the energy efficiency of our buildings;
- increase use of battery powered generation during fault restoration; and
- proactively share knowledge and expertise, e.g. by sharing best practice and working collaboratively with other DNOs and organisations.

3.6. WPD intends to undertake the schemes identified here and utilise greenhouse gas removal initiatives offsetting to ensure that net zero is achieved by 2028.

Table 1: Net zero schemes

Scheme		Description and Benefit
1	Convert 89% of our operational fleet to electric vehicles (EVs)	<p>Our operational fleet currently accounts for 44% of our business carbon footprint and less than 10% of operational fleet are currently EVs.</p> <p>We will replace a minimum of 89% of our existing operational fleet with EVs by 2028, lowering our annual transport emissions by 10,050 tCO₂e.</p> <p>This will enable WPD to cut carbon emissions from our operational fleet by 50%.</p>
2	EV charging at key operational sites	Install electric vehicle charging infrastructure at 134 additional substations and sites.
3	Non-carbon technology company cars	<p>Include only non-carbon technology cars in our company car scheme by 2025.</p> <p>Transition commenced (9 pure EVs currently) with remainder of 1050 vehicle fleet to be replaced by December 2025.</p>
4	Operations: Low Carbon Technology	<p>Installation of Low Carbon Technology (LCT) generation at all suitable depots and offices to produce electricity to meet operational demand.</p> <p>We intend to use innovative ways to transform operational use at our facilities.</p>
5	Renewable energy for buildings	Purchase all building energy from a renewable source and account for this in our reported Business Carbon Footprint, including renewable local generation at all suitable offices and depots with a capability to save 3000 MWh per year.
6	Reduce energy use in our buildings	<p>Reduce energy use in our buildings.</p> <p>Ensure that heating, air conditioning and other appliances (such as office lighting) are fitted with appropriate controls to minimise consumption at times when areas of our buildings are unoccupied. This will include a review of all of our fossil-fuelled heating systems to identify candidates which are inefficient and therefore justifying of replacement with a more sustainable alternative.</p> <p>We will survey all of our buildings to identify opportunities to make them more energy efficient.</p>
7	'Excellent' BREEAM rating for all buildings	Ensure that all new WPD buildings achieve an 'Excellent' BREEAM (Building Research Establishment Environmental Assessment Method) rating. Subsequently, all refurbished buildings will achieve a 'good' BREEAM rating.

8	Minimise carbon emissions through reduction in business travel	Reduce business travel by encouraging more remote working and virtual meetings and educating our people. This will be reflected in our Employee Relations Policy and Transport Department.
9	Small-scale battery powered generation	Currently, we use mobile generation during fault recovery. We will increase our use of small-scale battery powered generation and where appropriate, reduce reliance on diesel generation. This will help reduce our carbon footprint when restoring customer supply.

- 3.7. According to the criteria set out by Ofgem in relation to the submission of Customer Value Proposition (CVP) initiatives, this initiative would sit under “*Proposals that exceed the baseline expectations set out for **Environmental Action Plans**.*” We set out in the section below how our proposals exceed the baseline expectations around adopting a science-based target to reduce our carbon footprint in line with the achievement of the net zero target.

How our proposal delivers beyond expectations

How WPD is doing something different to BAU activities

- 3.8. A net zero target date, and schemes to achieve this, have not been established as part of RIIO-ED1. Therefore, all schemes detailed as part of CVP-1 are above and beyond BAU activities.

How WPD will go beyond RIIO-ED2 baseline expectations

- 3.9. The baseline expectations set out by Ofgem for EAP (Business Plan Guidance – Appendix 3) require that we adopt a science-based target to reduce our BCF, together with a long-term date to achieve this target.
- 3.10. Our proposal significantly exceeds this requirement by meeting our ambitious targets by 31 March 2028. The level of change that is required in our operations, practices and assets to achieve this is significant in order to be deliverable over the five years of RIIO-ED2. For example, currently 10% of our small vehicle operation fleet are EVs and we plan to increase this to 89% by the end of RIIO-ED2. The magnitude and speed of this change requires a complete change in our approach to fleet and infrastructure needed to support it.
- 3.11. Separately, WPD are leading by example, enabling net zero through our employees by replacing all 1050 company cars with pure electric vehicles by December 2025 and updating company policy to minimise unnecessary business travel.
- 3.12. Adopting a science-based target of 1.5 degrees will also place us among the most ambitious companies, consistent with the Science Based Target Initiative’s ‘Business Ambition for 1.5°C’.¹ WPD is passionate about making a positive environmental and societal impact and will commit to achieving this net zero target through the schemes detailed within this CVP (see Table 1).

¹ [Business Ambition for 1.5°C - Science Based Targets](#) (accessed May 2021)

- 3.13.** Our net zero schemes represent a step change from existing processes and initiatives. With this, WPD is going above and beyond what is expected for the EAP baseline expectations.

Our delivery plan

- 3.14.** Table 2 sets out our delivery plans and due dates for the nine net zero schemes.

Table 2: Delivery plan for net zero schemes

Scheme		Delivery Plan	Due date
1	Convert 89% of our operational fleet to electric vehicles (EVs)	<p>This scheme will be delivered by the Logistics team and supported by the Transport team.</p> <p>Transition to EVs will be phased for the five-year period, by 2028, aiming to introduce the majority of EVs within the first two years.</p>	March 2028
2	EV charging at key operational sites	<p>This scheme will be delivered by the EV roll-out team and supported by the Transport team and Property team.</p> <p>EV charging will be available at all operational sites within the first three years of RIIO-ED2.</p>	April 2026
3	Non-carbon technology company cars	<p>This scheme will be delivered by the Transport team and supported by the Logistics team.</p> <p>Replacement of all 1050 company cars with pure electric vehicles will be complete by December 2025.</p> <p>Additionally, employees will have a reduced contract period for internal combustion engine (ICE) company cars. For example, rather than acquiring a five-year contract, employees will only be allowed two-year contracts for new ICE company cars, followed by one-year contract the following year. Eventually, this will phase-out all ICE vehicles.</p>	December 2025
4	Operations: Low Carbon Technology	This scheme will be delivered by the Transport team.	March 2028
5	Renewable energy for buildings	<p>This scheme will be delivered by the Procurement team, supported by the Property team.</p> <p>Continue to procure electricity from a REGO (Renewable Energy Guarantee of Origin) certified energy supply / tariff across all of our depot locations and unmetered supply. The continued procurement of electricity via REGO will significantly aid in helping us to reach our carbon reduction targets.</p> <p>During RIIO-ED2 we will continue to work with Ofgem to ensure that our purchase of our electricity through a REGO scheme is acknowledged on our Ofgem annual BCF.</p>	March 2028

6	Reduce energy use in our buildings	<p>For operational property, this scheme will be delivered by the Distribution Managers, supported by the Environment Team.</p> <p>For non-operational property, this scheme will be delivered by the Property team.</p> <p>Opportunities to reduce energy use in our buildings will be identified via individual building surveys which will be undertaken throughout RIIO-ED2.</p>	March 2028
7	'Excellent' BREEAM rating for all buildings	<p>This scheme will be delivered by WPD Property Team</p> <p>By achieving a BREEAM rating of 'Excellent' we are demonstrating a determined approach to sustainable improvements in the operational performance of our buildings.</p> <p>To achieve a rating of 'Excellent' our buildings, when independently assessed, must demonstrate 'Best Practice' in the following key areas; Management / Health & Well Being / Energy / Transport / Water / Materials / Waste / Ecology / Pollution / Innovation. According to BREEAM approximately 10% of UK new non-domestic buildings are rated as 'Excellent' and demonstrate best practice.</p>	March 2028
8	Minimise carbon emissions through reduction in business travel	<p>Business travel will be reduced via the adoption of remote working where practical in accordance with our policy for working from home.</p> <p>The combination of this framework for remote working and increased use of video technology for holding virtual meetings will reduce business travel mileage, reduce emissions and time spent travelling.</p>	March 2028
9	Small-scale battery powered generation	<p>This scheme will be delivered by local Distribution Managers, supported by the Environment Team.</p> <p>Installation of small-scale battery generation to replace traditional diesel generation where appropriate for example small scale residential fault restoration. The benefits of using small scale battery generation include:</p> <ul style="list-style-type: none"> • Zero Pollution (noise / spills) • Zero carbon emissions • Deployed quickly (important for PSR customers) • Battery can be charged from PV units 	March 2028

4. Benefits generated by our proposal

Results of quantification

5, 10, and 20 year results

4.1. In line with the joint social value framework, agreed with the five other DNOs and shared with Ofgem in 2020, we have modelled the benefits of this CVP over both a 5,10 and 20 year appraisal period. More detail on the joint social value framework can be found in Section 8.

4.2. The table below provides the following results from our analysis:

- **Total cost:** The total cost of the proposal, in 2020/21 prices (in line with Ofgem's CBA templates).²
- **Total gross present value:** The total value generated by the proposal across financial, environmental, and societal benefits – discounted to present values.
- **NPV – Net present value:** The total value generated by the proposal, net of all costs – again discounted to present values.
- **SROI – Social return on investment:** The £s of benefit achieved for every £ spent

	5-years	10-years	20- years
Total cost	£79,773,516.05	£79,773,516.05	£79,773,516.05
Total gross present value	TBC	TBC	TBC
NPV	TBC	TBC	TBC
SROI	TBC	TBC	TBC

4.3. Work to calculate the benefits to customers that will arise from this proposal is ongoing at the time of submitting this draft Business Plan. We will finalise this over the coming months and look forward to presenting the results of our analysis in full when we submit our final Business Plan later in the year.

Breakdown of Benefits

4.4. **Network Benefits:** WPD will see a reduction in bills from reduced use of grid electricity in offices and depots.

4.5. **Societal Benefits:** Based on carbon emissions reduction from the different planned activities, as well as the offsetting of emissions. The benefits considered represent the incremental benefit compared to the baseline of having a target for net zero emissions (the original 2043 target was used for this). The following schemes were modelled for estimating benefits:

- We will replace a minimum of 89% of our existing operational fleet with electric vehicles by 2028 – given that this activity would not have taken place without the new 2028 target, all reductions in emissions as a result were considered as benefit.

² As per the discounting applied to all costs and benefits, this figure shows the present value of costs in 2020/21 prices. The values described in the costs section below are expressed in nominal values, i.e. the actual £ prices. For this CVP, the total undiscounted cost is £92.08 million.

- Include only non-carbon technology cars in our company car scheme by 2025, this activity would not have taken place without the new 2028 target and therefore all reductions in emissions as a result were considered as benefit.
- Install renewable local generation at all suitable offices and depots with a capability to save 3,000 MWh per year. This activity would not have taken place without the new 2028 target and therefore all reductions in emissions as a result were considered as benefit.
- Reduce energy use in our buildings, only the difference between the current BAU estimates and those estimated under a 2043 target was included as benefit.
- Reduce business travel by encouraging more remote working and virtual meetings, only the difference between the current BAU estimates and those estimated under a 2043 target was included as benefit.
- Replace diesel used in generators with alternative fuel (currently being piloted to assess suitability). It was assumed that this activity would not have taken place without the new 2028 target and therefore all reductions in emissions as a result were considered as benefit.
- Emissions offsetting at the end of RIIO-ED2 for those emissions that could not be reduced.
- Other schemes that are part of this CVP were not modelled at this stage (see Social Value – Next Steps section).

Distributional impact

4.6. In line with the breakdown above, this CVP delivers benefits for:

- WPD, in the form of avoided network costs from solar electricity generation.
- WPD's customers, due to reduced carbon emissions through the different initiatives which are part of our net zero strategy.

Approach to quantifying

Costs

4.7. We plan to spend the following for each net zero initiative:

- Renewable generation at offices and depots – a total of £3.9 million over RIIO-ED2.
- Renewable energy purchased for all buildings – a total of £50,000 over RIIO-ED2.
- Reducing energy use in our buildings – a total of £5.6 million over RIIO-ED2.
- Ensuring WPD buildings receive “Excellent” BREEAM ratings – a total of £800,000 over RIIO-ED2.
- Replacing 89% of our existing operational fleet with EVs – a total of £61.57 million over RIIO-ED2.
- Cutting carbon emissions from our operational fleet by 50% - a total of £3.22 million over RIIO-ED2.
- Installing electric vehicle charging infrastructure – a total of £13.73 million over RIIO-ED2.
- Replacing 35 of our worst polluting mobile generators – a total of £3.2 million over RIIO-ED2.
- 1) Non carbon company car scheme, 2) reducing business travel, 3) small scale battery powered generation, 4) lower carbon fuel for generators, 5) reduction in SF₆, and 6) offsetting all require further work to be fully costed and included in the CVP. Additional work to understand the extent of additional costs will be undertaken between BP3 and BP4 (See Social Value – Next Steps section).

Number of stakeholders

- 4.8. Given the nature of this CVP, the number of stakeholders was replaced by number of emissions saved, which vary from scheme to scheme and are detailed in sections below.

Approach to Quantifying Societal Benefits

Calculations and Assumptions

EV Replacement of Operational Fleet:

- We have estimated the number of vehicles by type of vehicle that can be replaced with an EV alternative.
- This is above the baseline of the original commitment to be net zero by 2043 and therefore all benefits were included.
- Based on the type of vehicle, average miles driven per year, average miles per gallon and a conversion factor of 2.6 kg CO_{2e} / litre of diesel, it was estimated the following reductions in emissions for the RIIO-ED2 period:
 - 2023/2024: 4,738 tonnes CO_{2e}.
 - 2024/2025: 7,154 tonnes CO_{2e}.
 - 2025/2026: 8,434 tonnes CO_{2e}.
 - 2026/2027: 9,472 tonnes CO_{2e}.
 - 2027/2028 onwards: 10,051 tonnes CO_{2e}.
- The traded carbon cost was used to obtain benefits per tonne of CO_{2e} saved.
- It was assumed benefits last for 20 years and that there is no benefit lag.
- This resulted in £22 million of benefits over the 20 year period (non-discounted).

Renewable Generation at Offices and Depots:

- We have estimated the amount of electricity that can be produced from our offices and depots, which is 3,000 MWh per year.
- This generation capability was used to obtain emissions that would be saved using the yearly electricity emissions factor (obtained from Ofgem's CBA Template).
- Cost of carbon savings were then calculated using the traded cost of carbon to obtain a final yearly saving (obtained from Ofgem's CBA Template).
- It was assumed benefits last for 20 years and that there is no benefit lag.
- This resulted in £955,000 over the 10 year period (non-discounted).

Company Car Scheme:

- WPD have set a target to have all company cars be non-carbon by 2025, with a total of 1,050 cars. Considering that currently the number of non-carbon cars is 9, we have estimated that 260 cars will have to change to a non-carbon option every year up to 2025.
- We have considered that this target would have not been in place under the original 2043 target and therefore all emissions from RIIO-ED2 efforts relating to this initiative were considered.
- Using the estimated road emissions for business travel in RIIO-ED2, we have assumed these correspond to the emissions from 1.050 cars and have calculated the proportion that

would be saved for those cars which were converted during RIIO-ED2 (any cars that were changed during RIIO-ED1 and their corresponding saved emissions were not included).

- This results in 6,530 tonnes of CO₂e saved, which valued at the traded carbon cost add up to £327, 000 (non-discounted) over 5 years.

Reduced Energy Use in Buildings:

- The current reduction profile for RIIO-ED2 under BAU is more ambitious than the one estimated under the 2043 target.
- We have calculated the difference and included it as benefit, adding up to 5,004 tonnes CO₂e over the 5 years. This equals to £247,000 using the traded carbon price (non-discounted).
- This is incremental to the benefit from the renewable energy generation since the comparison was made between the estimated emissions under the 2043 target and BAU emissions during RIIO-ED2 without any initiatives applied.

Reduced Business Travel:

- The current reduction profile for RIIO-ED2 under BAU is more ambitious than the one estimated under the 2043 target.
- We have calculated the difference and included it as benefit, adding up to 1,504 tonnes CO₂e over the 5 years. This equals to £74,000 using the traded carbon price at non-discounted value.

Reduced Emissions from Generator Use:

- WPD is currently conducting a pilot to use Hydrotreated Vegetable Oil (HVO) as a diesel substitute. If successful, it will lead to an estimated reduction in emissions of at least 70%.
- Considering that yearly generator use emissions are estimated at 2,749 tonnes CO₂e per year, this could lead to a total of 9,618 tonnes CO₂e saved over the 5-year period.
- This is valued at £462,000 using a traded carbon price (non-discounted value).
- Note that if the pilot is not successful these reductions should not be considered.

Emissions Offsetting:

- By the end of RIIO-ED2, WPD's yearly BAU emissions (without any initiatives) would add up to 40,728 tonnes of CO₂e. Considering the reductions laid out in this document, the amount of emissions left to offset that year would be 25,210 tonnes CO₂e.
- We have used a traded-carbon price to estimate the benefits of this, which equate to £1.5 million.

Calculation Factors

EV Replacement of Operational Fleet:

- Success: 100%, as we expect the target to be achieved.
- Drop off: 100%, since emissions savings reported per year.
- Attribution: 0%, since the initiative will be funded and delivered by WPD.
- Deadweight: 0%, since the benefits wouldn't be achieved without WPD's activity.
- Optimism Bias: 5%.

Renewable Generation at Offices and Depots

- Success: 100%, as it is expected that WPD will generate that amount of electricity per year.
- Drop off: 100%, since emissions savings reported per year.
- Attribution: 0%, since the initiative will be funded and delivered by WPD.
- Deadweight: 0%, since the benefits wouldn't be achieved without WPD's activity.
- Optimism Bias: 0%.

Company Car Scheme

- Success: 100%, as it is expected we will reach the target by 2025.
- Drop off: 100%, since emissions savings reported per year.
- Attribution: 0%, since the initiative will be funded and delivered by WPD.
- Deadweight: 0%, since the benefits wouldn't be achieved without WPD's activity.
- Optimism Bias: 5%.

Reduced Energy Use in Buildings

- Success: 100%, as it is expected we will achieve the reductions.
- Drop off: 100%, since emissions savings reported per year.
- Attribution: 0%, since the initiative will be funded and delivered by WPD.
- Deadweight: 0%, since the benefits wouldn't be achieved without WPD's activity.
- Optimism Bias: 5%.

Reduced Business Travel

- Success: 100%, as it is expected we will achieve the reductions.
- Drop off: 100%, since emissions savings reported per year.
- Attribution: 0%, since the initiative will be funded and delivered by WPD.
- Deadweight: 0%, since the benefits wouldn't be achieved without WPD's activity.
- Optimism Bias: 5%.

Reduced Emissions from Generator Use

- Success: 100%, as it is expected we will achieve the reductions.
- Drop off: 100%, since emissions savings reported per year.
- Attribution: 0%, since the initiative will be funded and delivered by WPD.
- Deadweight: 0%, since the benefits wouldn't be achieved without WPD's activity.
- Optimism Bias: 5%.

Emissions Offsetting

- Success: 100%, as it is expected that WPD will offset any remaining emissions.
- Drop off: 100%, since emissions savings are only for last year of RIIO-ED2.
- Attribution: 0%, since the initiative will be funded and delivered by WPD.
- Deadweight: 0%, since the benefits wouldn't be achieved without WPD's activity.
- Optimism Bias: 5%.

Sources

EV Replacement of Operational Fleet

- UK Electricity Conversion Factor and Traded Carbon Cost: Ofgem CBA Template RII02 v5.0.

Renewable Generation at Offices and Depots

- UK Electricity Conversion Factor and Traded Carbon Cost: Ofgem CBA Template RII02 v5.0.

Company Car Scheme

- UK Electricity Conversion Factor and Traded Carbon Cost: Ofgem CBA Template RII02 v5.0.

Reduced Energy Use in Buildings

- Traded Carbon Cost: Ofgem CBA Template RII02 v5.0.

Reduced Business Travel

- Traded Carbon Cost: Ofgem CBA Template RII02 v5.0.

Reduced Emissions from Generator Use

- Traded Carbon Cost: Ofgem CBA Template RII02 v5.0.

Emissions Offsetting

- Traded Carbon Cost: Ofgem CBA Template RII02 v5.0.

Approach to Quantifying Network Savings

Calculations and Assumptions

Renewable Generation at Offices and Depots:

- We estimated the amount of electricity that can be produced from our offices and depots, which is 3,000 MWh per year.
- UK Electricity Cost (2020): £0.174/kWh.
- Total savings per year = £0.174/kWh * 3,000 MWh = £522,000 per year.

Calculation Factors

Renewable Generation at Offices and Depots:

- Success: 100%, as it is expected that WPD will generate that amount of electricity per year.
- Drop off: 100%, since savings reported per year.
- Attribution: 0%, since the initiative will be funded and delivered by WPD.
- Deadweight: 0%, since the benefits wouldn't be achieved without WPD's activity.
- Optimism Bias: 0%.

Sources

Renewable Generation at Offices and Depots:

- Average electricity cost: DBEI, Average variable unit costs and fixed costs for electricity for UK regions Annual Data 2020 (2021).

Social Value – Next Steps

4.9. The results shown in this document represent the best estimates of the benefits that will be achieved through this CVP at this time. In preparation for the final submission, we will review and share these results internally to determine if any changes need to be made to strengthen our benefit calculations. The next steps in social value analysis include:

- **Tracking against plan:** As delivery plans are finalised, we will ensure that the benefits modelled are tracking against the most up to date plans. For this particular CVP this includes:
 - Finalising work on costing for all schemes to be included in benefit modelling.
 - Based on results from the HVO trial we will determine the reduction in emissions that should be considered for generator use.
 - We will add benefits for schemes not yet modelled once more information is gathered, such as the replacement of generators for more efficient ones, to assess if estimates are available to include the reduction in emissions as part of the benefits modelled.
- **Testing assumptions:** Socialise the benefits modelled internally to ensure that assumptions used are still valid and reasonable as more specific planning takes place.
 - We will review if the reduction in SF₆ emissions can be included as incremental benefit or if this reduction would have been part of the 2043 trajectory.
- **Update values:** Where required and possible, find better estimates for values used in initial benefit modelling.
 - More work will be done to estimate the incremental benefits for schemes where a comparison between the 2028 and 2043 target is being made to increase the accuracy based on best available estimates.
 - WPD will look to test the 'customer' value of delivering Net Zero ahead of schedule, looking to determine the £ value customers place in addition to the carbon benefits identified in this initial modelling.

5. Stakeholder support

Feedback from stakeholders

- 5.1. We have engaged closely with stakeholders throughout the development of our Business Plan to make sure their needs and preferences are reflected. We set out in Supplementary Annex 3: *Giving customers a stronger voice - Enhanced engagement* and Supplementary Annex 4: *Our commitments* how we have engaged with stakeholders and how this has helped to shape the plan. The specific feedback we received from stakeholders that is relevant to this proposal is set out below.
- 5.2. We engaged with stakeholders to understand their views in relation to environmental priorities and net zero targets. Following WPD's initial target of 'net zero by 2043', a very high proportion of stakeholders (80%) wanted to see further ambition, with 52% supporting the maximum level of ambition (net zero by 2028). Additionally, a sample of end-user customers were surveyed, where 61% supported our 2028 ambition for net zero.
- 5.3. In relation to CVP-1, 55% of stakeholders wanted to see greater ambition in replacing the operational fleet with EVs given a range of percentages. WPD picked our mid-point option of '89%', as of the two higher ambition options, more customers wanted to see the lower option. Achieving 100% will also require new technological developments for larger vehicle for which there are currently no zero carbon alternatives."
- 5.4. 95% supported our commitment to install renewable local generation at all suitable offices and depots with a capability to save 3000 MWh per year, with no notable suggestions for alternatives. However, they requested the impact of these installations to be better quantified to ensure this is a meaningful action and not 'greenwash'.
- 5.5. There was a strong message from participants in the Social Contract forums that companies (especially large employers) should give something back to the community, environment and their people and that in order for a business to 'goes over and above', they must drive environmental change. Suggested pledges to achieve this included; repairing any damage caused by our activities, reducing pollutants/leaks, investing in electric vehicles, achieving Net Zero in our own operations well in advance of the Government's 2050 target, keeping communities powered, listening / understanding / involving / representing local issues and helping communities to thrive.
- 5.6. In the 'Youth – Measures of Success' deliberative focus group research (specifically targeting future customers) expectations were high in this category for WPD to deliver measures to support the battle against climate change, for fairer prices to be offered and for technological solutions to become second nature. There was a strong positive reaction to 'science based' targets being used, and they particularly welcomed measures that focused on reducing WPD's carbon footprint and for ambitious targets for landfill and waste to be included. As a group, they were well informed and educated on environmental issues and were eager to push WPD to deliver the toughest measures possible. Overall, there was a positive response to the range of measures being proposed although a greater sense of urgency for WPD to address harmful pollutants was expressed.
- 5.7. CVP-1 addresses several of our stakeholders' top priorities for the environment (see Table 3), which will be directly or indirectly covered by through the proposals set out in CVP-1.

Table 3: Stakeholder top priorities for the environment

Stakeholder Top Priorities	
1	Set a target for zero carbon emissions from our fleet, for example, by 2030
2	Replace smaller vehicles with EVs and larger vehicles with biogas or hydrogen
3	Monitor all transport associated with your business, using telematics, to reduce the number of miles travelled
4	Eliminate the use of SF ₆ and carry out research to find alternatives
5	Use science-based targets to improve biodiversity, aiming for a net gain
6	Put in an ambitious tree replacement programme and promote this good work
7	Ensure buildings are powered by renewable energy
8	Reduce the use of single use plastics

- 5.8. Additionally, an Environmental Strategy Stakeholder panel was held in February 2021, comprising of representatives from utilities, local authorities, local organisations, parishes, and customers. Stakeholder feedback was incorporated into the Environmental Strategy and has prompted various schemes within CVP-1.

Supporting our Business Plan

- 5.9. This CVP contributes to several Business Plan commitments, primarily core commitment 29 and two wider commitments, which sit under the “Delivering an environmentally sustainable network” category. These are:

Delivering an environmentally sustainable network

Core Commitment 29	<i>Achieve net zero in our internal business carbon footprint by 2028 (excluding network losses) and follow a verified science based target of 1.5° to limit the climate impact of our activities</i>
Wider commitment	<i>89% of commercial van fleet to be non-carbon vehicles by 2028, lowering annual transport emissions by 10,050 tCO₂e (tonnes of carbon dioxide equivalent).</i>
Wider commitment	<i>Install renewable local generation at all suitable offices and depots with a capability to save 3000 MWh per year</i>

6. Accountability for delivery

What WPD proposes if outputs are not delivered

- 6.1.** We are committed to delivering this proposal to deliver net zero in our internal business carbon footprint by 2028 so the benefits set out above can be secured for consumers. We see achieving net zero as a key priority for us and our consumers and we intend to play our part on helping the UK achieve its decarbonisation targets. We believe the steps we will take will ensure that the initiatives set out in this proposal will be a success.
- 6.2.** If for any reason we are unable to deliver our commitment to achieve net zero by 2028, we propose to:
- Return a proportionate amount of any associated CVP reward under the Business Plan incentive to ensure that consumers do not pay for something that they have not received; and
 - Undertake initiatives to minimise our environmental impact in other areas to ensure that WPD is well placed to help facilitate net zero.
- 6.3.** We intend to engage with Ofgem to discuss how this may best be implemented in RIIO-ED2.

7. Eligibility checklist

Item	Description
Relevant CVP area (as per <i>Ofgem's RIIO-ED2 Business Plan Guidance</i>)	<ul style="list-style-type: none"> Proposals that exceed the baseline expectations that we have set out for EAPs
Does this proposal entail new activities vs RIIO-ED1?	<p>✓ Yes – see section 2.6</p> <p>The schemes detailed as part of CVP-1 have either not been undertaken before or will significantly scale.</p>
Does this proposal go beyond BAU activities?	<p>✓ Yes – see section 2.6</p> <p>A net zero target date, and schemes to achieve this, have not been established as part of RIIO-ED1. Therefore, all schemes detailed as part of CVP-1 are above and beyond BAU activities or will significantly scale as part of RIIO-ED2.</p>
Does this proposal exceed RIIO-'s baseline expectations?	<p>✓ Yes – see section 2.6</p> <p>Our proposal significantly exceeds baseline expectations by setting a net-zero date of 31 March 2028. The level of change that is required in our operations, practices and assets to achieve this is significant in order to be deliverable over the five years of RIIO-ED2:</p> <ul style="list-style-type: none"> currently 10% of our operation fleet are EVs and we plan to increase this to 89% by the end of RIIO-ED2. WPD are leading by example, enabling net zero through our employees by replacing all 1050 company cars with pure electric vehicles by December 2025 and updating company policy to minimise unnecessary business travel. WPD are adopting a science-based target of 1.5 degrees would place us among the most ambitious companies, consistent with the Science Based Target initiative's 'Business Ambition for 1.5°C'.³ Our net zero schemes represent a step change from existing processes and initiatives. With this, WPD is going above and beyond what is expected for the EAP baseline expectations.
What additional value does this proposal provide to customers?	<p>✓ Meets Ofgem's criteria – above £3 million threshold of net benefits.</p> <p>In particular, this CVP proposal brings £[TBC] of additional value to customers – see section 4 for full detailed explanation.</p>

³ [Business Ambition for 1.5°C - Science Based Targets](#) (accessed May 2021)

8. Appendix: Joint Social Value Framework

- 8.1. During working groups in early 2020, all six DNOs, alongside Ofgem and key consumer groups discussed the (quantitative) measurement of social value, and the Customer Value Proposition (CVP) as part of the Business Plan incentive.
- 8.2. Under GD2, the four GDNs used different methodologies, values and reporting structures which led to results that are hard to compare. To prepare for the RIIO-ED2 CVP process, and for changes to the SECV incentive, DNOs decided to develop a common approach to measuring social value a consistent mechanism that would allow for straightforward assessment and comparison.
- 8.3. To meet the DNOs' and Ofgem's requirements, the common approach needed to:
- Provide robust, consistent measurement of all social benefits DNOs deliver through their services.
 - Deliver a framework for DNOs to measure their CVP values in 2021.
 - Act as an ongoing solution – a framework applicable for the full RIIO-ED2 period.
 - Drive innovation and ambition in the social value space.
- 8.4. To deliver against this need, the joint social value framework was created. In line with the Spackman approach, the Treasury's Green Book, the framework provides a structure through which the DNOs will deliver values that are consistent, comparable, and conservative. The framework includes:
- Standard values (from a DNO-specific proxy bank).
 - Data quality guidelines.
 - A set calculation template.
 - Common figures that should be reported (as seen in **Section 4**).
- 8.5. This framework was tested throughout its development, agreed with consumer bodies and shared with Ofgem in December 2020 – with the framework referenced in Ofgem's Business Plan guidance.
- 8.6. WPD has had the framework independently applied to each of their CVP proposals, ensuring that appropriate values and assumptions are applied. This provides confidence that the values presented in this document are a conservative estimate of the value generated.



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