Feedback on draft business plan: WPD

The RIIO-2 Challenge Group has been established by Ofgem as part of the RIIO-2 enhanced engagement process, in order to strengthen the voice of current and future consumers in network price controls. The Challenge Group's objective is to provide an independent challenge to ensure that regulated network companies deliver the value-for-money services that are needed, with particular regard to affordability, the protection of vulnerable consumers, and the transition to Net Zero.

As part of this role, Ofgem has asked the Challenge Group to provide scrutiny of all draft business plans submitted by network companies in the course of RIIO-ED2. Our feedback on the draft business plan that you submitted on 1 July 2021 follows below.

The Challenge Group recognises the challenging nature of the work that the DNOs are being asked to carry out during the period of RIIO-ED2, and its crucial importance. In what follows, as per our remit, we have generally focussed on areas where we feel there is room for improvement. This is not to detract from the standard of your planning and its broader implications. Where we focus on affordability, we recognise that other disadvantages may be at stake if the networks are not upgraded as required, and where we focus on your environmental impacts, we recognise that other environmental benefits may be enabled by those upgrades. Nonetheless, affordability and sustainability remain vital considerations. The Challenge Group is keen that no contradiction should be seen between a business plan that meets the coming challenges and one that provides value-for-money, mitigates environmental impacts and supports vulnerable consumers.

Our feedback focuses on three areas:

1. Costs, scenarios, and DSO and whole system proposals
2. Outputs:
    i. EAP
    ii. Vulnerability strategy
    iii. Reliability
3. Finance

We expect this feedback to be reflected in the final business plan submitted on 1 December 2021.

1. Costs, scenarios, and DSO and whole system proposals

This note summarises our initial comments. Additional detail is provided in a supporting annex.

1. *ED1 Track record*

You are forecasting a 1% totex underspend for ED1[1] and output targets will be met or exceeded. Asset heath delivery is on track. ED1 demand was below forecast. You have provided limited information on demand and network utilisation parameters to show the expected network capacity position at the start of ED2 - we suggest this analysis should be included in the final plan. Also, given WPD was fast tracked with high totex efficiency incentives for ED1 but has not delivered any efficiency benefits, we would welcome evidence on how this strategy will benefit consumers during ED2 and beyond.

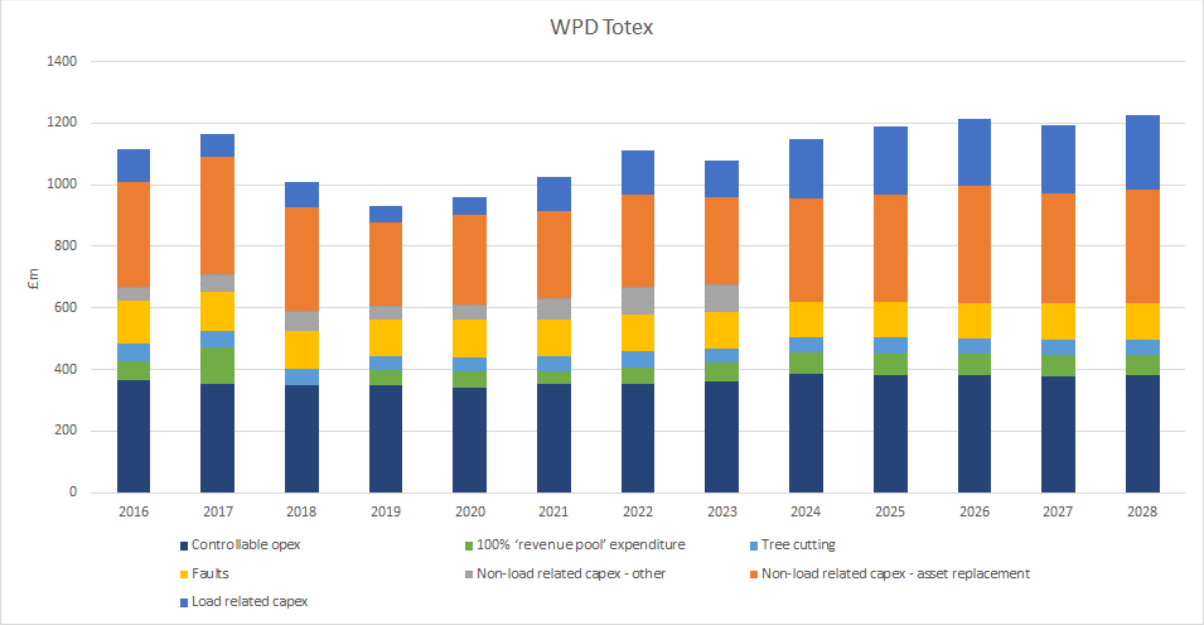
2. *Scenarios and forecasts*

Your 'Certainty View' has been used for baseline LRE assumptions but appears not to be Net Zero compliant. You also present an apparently compliant 'Best View'. We would welcome clarification about how these 'Certainty View', 'Best View' and 'Upper View' demand forecasts have been derived, and how they have been applied in the plan baseline LRE forecasts. Our analysis suggests that your peak demand forecast appears to be higher than common industry scenarios and forecasts for EVs and heat pumps appear to be higher than might be anticipated as well. For your final plan, we would welcome clarification about how the demand and LCT forecasts have been derived, how they have been applied in the plan's LRE assumptions and a clear demonstration of consistency with common industry scenarios.

3. *Totex overview (£6661m)[2]*

We have reviewed your totex data submitted in your Business Plan Data Tables (BPDTs). Your totex proposal for ED2 represents a 27% increase over average annual ED1 expenditure. A profile of the overall totex plan and main expenditure categories is shown below.

[1] A revised underspend of 0.3% is forecast once Green Recovery expenditure is taken into account.
[2] All totex figures quoted (unless otherwise stated) have been taken from the equivalent company BPDT or PCFM submissions for consistency. This may result in differences with numbers quoted in business plans. We have not attempted to reconcile these differences or differences between company assumptions at this stage.



The following table compares the changes in the main totex cost categories in company plans between ED-1 and ED2. These cost categories are reviewed further below. While we think the following comparisons are representative, we have observed some inconsistencies in assumptions used in supporting data tables for DNO ED-1 track records and ED-2 baseline totex bids. For final plans we would request that the bids for the baseline totex (within the price control) are clear and are based on consistent assumptions so that we may assess proposed changes with ED-1, and between DNOs.

	ED-1 Average Totex	ED-2 Average Totex	% change	LR Capex	NLR capex - assets	NLR capex - other	Opex
ENWL	259	400	54%	180%	68%	124%	24%
SPEN	504	641	27%	107%	15%	188%	7%
SSEN	573	826	44%	152%	62%	150%	13%
WPD	1050	1332	27%	134%	15%	118%	6%
UKPN	831	869	5%	27%	5%	48%	-4%
NPg	470	641	36%	351%	12%	100%	10%
Total	3686	4709	28%	128%	24%	110%	6%

a) Load related expenditure (LRE): £1098m

Your average annual LRE is expected to increase by 134% between ED1 and ED2 with the largest increases in connections and secondary networks. The linkage between scenarios, the forecast demand and the baseline investment plans is unclear, as is the linkage to Upper view forecasts. We would like clarification and justification about what investment is included in baseline or in uncertainty mechanisms. For your final plan, we would like to see justifications why additional LRE is required during ED2 given that your peak demand by 2028 appears not to reach your historic levels.

b) Non-load related capex – assets: £1787m

This cost category increases by around 15% between ED1 and ED2. Asset replacement expenditure is forecast to increase by 11%. We are concerned that the ED2 increase is due to asset replacement expenditure and other expenditure in this category being deferred to ED2 and customers having to pay twice for the same replacement work. Overall, we do not think non-load-related assets expenditure increases for ED2 have been justified given that largely the same asset base is being maintained as for ED1. We would expect these costs to remain stable or potentially reduce as efficiency savings are applied. In your final plan we would like to see clear evidence for any expected change in asset health risk and associated expenditure.

c) Non-load related capex – other: £690m

This cost category increases by around 118% between ED1 and ED2, due to significant increases in IT and telecoms expenditures. While we welcome expenditure that delivers enhanced network visibility and flexibility, forecast benefits from flexibility appear low. We would like to see investment justifications including evidence that benefits will be delivered from this increased investment.

d) Opex and efficiency: £3086m[3]

You forecast a 6% increase in operating costs between ED1 and ED2 (including network operating costs, business support and closely associated indirects). Justifications for these increases are high level and we are concerned that efficiency opportunities have not been sought, particularly given that your fast tracking during ED-1 did not deliver overall efficiency savings. A 0.3% ongoing efficiency challenge has been included which we suggest should be increased to the 1-1.2% levels as for the 2020 RIIO-2 price control decisions.

4. Uncertainty mechanisms

You have proposed bespoke uncertainty mechanisms to address uncertain LRE. We agree that it could be appropriate to include LRE uncertainty mechanisms but would like to see evidence that these are appropriately calibrated in terms of costs, volumes and triggers, and do not provide windfall gains for companies. We wish to understand how flexibility savings will be addressed in the proposed mechanisms. For your final plan we would like to see evidence to support the calibration of proposed uncertainty mechanisms including the baseline totex assumptions.

5. DSO and digitalisation

You are proposing to spend £254m on DSO activities in ED2 compared to £77m for ED1 and are targeting 11% of secondary substations to have metering installed. Your DSO and digitalisation plans are high level with limited evidence to give confidence that the plan and associated benefits can be delivered. High cost increases are not well justified and flexibility benefits appear very low. Overall, we think the DSO and digitalisation plans are weak and mean that potential benefits to consumers from these activities will be lost.

[3] Opex includes tree cutting, faults, revenue pool expenditure and controllable opex.

We are concerned that the enhancements and benefits are inwardly focused and may not allow all benefits to be sought from external market participants. A network-centric vision may block routes to other electricity markets, including community models. We suggest that the enabling technologies and processes should be further considered.

Overall in your final plan, we would like to see a clear justification for costs and benefits associated with your DSO and enabling investments. This should include benefits from distributed energy resources to enhance resilience, from active network management, and from interaction with the ESO.

6. *Whole system*

Your whole system plan includes a number of electricity coordination activities which are welcome. However, many of these do not appear to go beyond what might be expected as business as usual coordination activities for a DNO as part of load related investment. Initiatives to engage with heat and transport and beyond-the meter initiatives appear limited. Overall, the approach appears inward looking and reactive and appears unlikely to deliver significant benefits to consumers.

2.i. EAP

In reviewing the environmental commitments and EAPs in all the draft plans we have focused on decarbonisation. This is not to undermine the importance of other commitments to address environmental impact but given the need for this price control to be focused on the pathway to Net Zero, and the excellent work which stakeholders and CEGs have done in challenging all the companies in relation to all aspects of their EAPs, this seemed the area where it would be most valuable to look across the plans.

Overall, you have both a strategy and an action plan for environmental impact with clearly articulated vision and long-term goals. We welcome that achieving net zero is described as “a core strategic business focus”. There is a commitment to develop and review the strategy over time and clear linkage with all aspects of business plan.

However, whilst at first sight the long-run targets look clear – a 1.5°C-compatible science based target (SBT) for total scope 1 and 2 emissions, and a target of reaching net zero by 2028 for scope 1 and 2 excluding losses – the articulation of the SBT does not satisfy all aspects of SBT transparency (we note that it is not yet approved). The 2028 target seems to rely on substantial offsetting. At present there is minimal justification that this is good value-for-money for your customers.

Very little detail is given on actions and subsidiary targets to comply with your SBT (fleet electrification, building efficiency etc.) and in particular there is too little detail about the choice of options and the trade-offs (for example, what is the cost of early fleet electrification; is the plan to install LCT on all depots cost efficient and how does this option compare to the return on an equivalent investment in increased efficiency?). The figures in the BPDT that show scopes 1 and 2 excluding losses reducing to zero presumably include offsetting. It would be good to see this made clearer.

You show minimal ambition on your scope 3 emissions: you go no further than Ofgem's Baseline Expectation of reporting on them. You are aiming to develop a measurement tool for embodied carbon by the beginning of ED2 but you do not state by what date you will aim to establish a baseline and reduction target. On the other hand, the aspiration to create a baseline for all new projects measured in $kgCO_2$ per £ project spend is a welcome goal.

You propose a target of a 20% reduction in SF_6 leaks in ED2: it is not clear on basis of what we have seen if you are being sufficiently ambitious given your historically poor performance and large SF_6 bank. We could see no evidence of new initiatives for reducing either bank or leakage or improving performance and minimal detail is given on existing initiatives.

You give little detail on your plans on losses (though this may be less concerning since in ED1 you have been the best performer). We have not reviewed your updated losses strategy which we understand was published in July. In your EAP you make a small number of commitments, such as using $300mm^2$ cables by default, but these are neither costed nor justified. No target or performance measures are proposed.

Questions and challenges

- Overarching challenge: please ensure that ED1 performance, proposed actions and benefits are expressed as clearly as possible, in consistent units (ideally both in absolute and percentage terms) and that baselines are identified and justified.
- Has the case for offsetting been properly tested with stakeholders? How does this fit with the SBTi's requirement?
- Why did you decide to have no target for reducing scope 3 emissions?
- What levels of ambition for SF_6 leakage reduction did you consider? Is it correct that your performance in this area is significantly worse than other DNOs, and if so why?
- Do you consider it appropriate to set a target for losses reduction?

2.ii. Vulnerability strategy

We welcome the following points about your vulnerability strategy:

- It has clearly been informed by extensive, iterative stakeholder engagement, and the insights from this work are clearly set out.
- It includes a focus on working with properties (for example, care homes) with a high density of vulnerable people to help them build resilience to power cuts.
- You have set a corporate expectation that all innovation projects should consider the impacts and opportunities for consumers in vulnerable circumstances.
- It highlights the challenge from stakeholders that your work on fuel poverty should focus on root causes and lasting improvements.
- It includes an extensive and clear list of things that will be delivered (although this focuses largely on outputs rather than outcomes).
- You include telecoms companies in your 'one stop shop' sign-up initiative.

Questions and challenges

The main themes of our questions and challenges are that your final plan should:

- Do more to define and measure the outcomes that you are aiming to achieve with your activities in this area
- Provide a detailed plan for how you will deliver your strategy, particularly when you are committing to a significant increase in activity
- Set out a clear justification for why you, as a DNO, are best placed to deliver your proposed activities.

- PSR reach:
    - You seem to have a particularly small proportion of your total customers registered on your PSR both at present and as targeted in ED2. Please explain why this is.
    - We want to compare the reach of DNOs' PSRs on a like for like basis. By 'reach' we mean the proportion of all and eligible customers who are registered. We are therefore asking all DNOs to clarify:
        - Your current (ED1 actual) and targeted (for ED2) reach as a percentage of all customers
        - Your current and targeted reach as a percentage of eligible customers (ie all those who fall into any of the MDD PSR needs codes)
        - A breakdown of the percentage of eligible customers registered by each needs code
        - If you use a definition of eligibility other than the full set of needs codes, please explain what this is, why you use it, and what your current and targeted reach is as a percentage of this group of eligible customers.

      Throughout, please be clear whether you are talking about individual customers or households, and what multiplication factor you are using if relevant. Please also give details of any customer groups that you define as 'high priority' and the reasons for this prioritisation.
    - You say you are committed to add 50,000 'hard to reach' customers to your PSR. How do you define 'hard to reach' and is it related to level or nature of a customer's needs? How did you decide on this level of ambition?
- PSR quality: When you contact customers in an attempt to keep the PSR up to date, how do you currently assess the effectiveness of this activity and its impact on data quality? What other criteria, if any, do you use to 'cleanse' PSR data and to remove people from the register?
- Impact of your support during a power cut: Other than the headline customer satisfaction metric, how do you currently measure the impact, reach and relevance of services that you provide to customers in vulnerable circumstances during a power cut? To what extent have you assessed any gaps between the specific needs of different groups of customers and the impact of the support that you offer? In what ways will the services that you offer to customers during a power cut be targeted on people with different needs?
- On fuel poverty, you seem to accept the challenge from stakeholders that support should address root causes and produce lasting improvements. Please clarify how

your ED2 plans respond to this challenge better than your ED1 activities. We note that you measure actual benefits achieved by initiatives; how do you assess whether benefits are 'long lasting'?

- Your measure of success for your resilience work with, for example, care homes is that 10% of such properties are offered advice. An outcomes-based target would be more powerful – for example: that, with support from WPD, 10% of these properties have a resilience plan in place. Will you rethink this?
- Culture: How will you measure whether you are being successful in embedding a culture of understanding and responding to the needs of consumers in vulnerable circumstances across the business? In terms of any training you propose, how will you measure its impact or success?
- Costs: Please clarify: your total expenditure on vulnerability-related activities in ED1 (including any costs that are 'funded' by shareholders) with a breakdown by the main areas of activity. Please do the same for your proposed expenditure in ED2.
- CVPs:
    - Regarding your proposed CVP to fund solar PV on schools and community buildings in areas of high economic deprivation:
        - How well is this targetting vulnerability i.e. how much difference is it making to consumers in vulnerable circumstances?
        - What process have you used to identify this option vs others that could deliver benefits for people in vulnerable circumstances? Could a higher SROI be achieved for the same investment with another initiative?
        - How do you justify this as being an appropriate activity for a DNO, funded by bill payers?
    - Regarding your proposed CVP to offer 600k PSR customers a bespoke smart energy plan every year:
        - This activity seems closely connected to other commitments in your plan. If this CVP was not accepted, what impact would that have on costs or targets elsewhere in the plan?
        - You are assuming that every customer referred achieves 100% of the £14 benefit for 10 years. What evidence do you have that this is realistic at this scale (given that the Power Up trial was of only 600 people and assumed only 5 yrs of benefits)?
        - How will you track the benefits actually achieved?
        - Stakeholder support is quite low: why is this?
    - Regarding your proposed CVP for a £1m Community Matters fund:
        - What assurance can you offer that your claim of shareholder funding 'at no cost to customers' is meaningful?
        - If this is genuinely 'shareholder funded', why do you need additional (bill payer funded) reward to deliver it? Does that not confuse the claim of 'at no cost to customers'?
    - Regarding your proposed CVP provide a low-carbon technology advisory service:
        - This activity seems closely connected to other commitments in your plan, including other CVPs. If this CVP was not accepted, what impact would that have on costs or targets elsewhere in the plan?

- How have you calculated the assumed savings of £870k pa? What real world evidence do you have that these could be achieved as a result of this type of advice?
- What evidence do you have that you, as a DNO, is better placed than others to offer this type of support?

2.iii. Reliability

In ED1, your customers have lost fewer minutes to power cuts than customers of other DNOs, but the performance of your networks in terms of the number of power cuts is more mixed. In ED2, you are aiming to remove more than 90% of customers from your worst-served customer list.

Questions and challenges

- Customer interruptions (CI) and customer minutes lost (CML): Your targeted improvements would still leave WPD customers experiencing more power cuts each year than customers of several other networks. How have you judged that this is an appropriate target?
- Worst-served customers: What are your total costs to deliver the reliability improvements you set out in your plan, and what part of that will be invested on the 70 schemes targeted on 'worst-served customers'?

3. Finance

We were pleased to note that the finance section of your Plan was in most respects compliant with the requirements set out by Ofgem in the Sector Specific Methodology (SSMD) and that you have carried out an analysis on both your base case and your 'best case' for totex and the full scenario analysis required by Ofgem.

There are some important areas which we consider need attention before submission of your Final Business Plan (FBP):

- We understand from the discussion at our recent meeting that the analysis in your draft Plan has, in fact, been carried out on the basis of an effective Cost of Equity of 4.65% (though we note that you do not comment to this effect in your 23rd August letter). In order to comply with the SSMD, you need to present modelling based on 4.65% and we consider it important that your FBP is unambiguous that that is what you have done.
- You express reservations about the concept of the outperformance allowance. You should be aware that we concur with Ofgem's stance on outperformance and that we consider it to be very well supported by historic evidence. We expect to continue to be supportive of any measures which Ofgem decides to take to address this issue;
- You are targeting a rating of BBB+/Baa1 in the base case. As you will know, Ofgem takes the view that it is for individual DNOs to select their target rating, subject only to that rating never falling below investment grade (and now with arrangements that ensure Ofgem is alerted if there is an immediate risk that it falls below that level).

Because the maintenance of an investment grade rating is a licence requirement, the target rating is clearly an important consideration. Ofgem obviously bases its assessment of the financeability of individual DNOs on their Notional Company but we consider it important, in the context of minimising costs to consumers, that Ofgem is able to set its generic financeability parameters for the sector on the basis of a full understanding of the optimal financing arrangements for Actual Companies also. It is therefore important that both sets of projections are drawn up on the basis of minimising the impact of financing costs on consumers. In this context, we regard BBB+/Baa1 as at the upper end of the acceptable range;

- You say that your Plan is not financeable on the basis of Ofgem's W/As for cost of capital. There was no requirement for a formal financeability statement at this stage (although many DNOs have provided one) but we had expected to see a more positive focus to the analysis of financeability. Although the least advantageous scenario (downside RoRE) does appear to require some equity injection in years 3 and 4, the results which you provide do not in our view support a statement that financeability cannot be achieved using Ofgem's W/As or that there has been sufficient focus on mitigation measures to achieve financeability. We note that you make no comment about your equity issuance and dividend policies or intention to withhold dividends if required (all of which will be required in your FBP and would have been helpful at this stage);
- You should be aware that we are supportive of Ofgem's proposed Cost of Capital allowances which we regard as based on sustainable Capital Asset Pricing Model (CAPM) analysis with appropriate cross-checking. The clear evidence of appetite for the acquisition of utility distribution companies at a very substantial premium to RAV (not least in the context of WPD itself) does not support an argument that Ofgem's analysis of the WACC appropriate to DNOs and hence its Cost of Capital W/As are miscalculated. We also consider that the extent to which expenditure in ED2 will be subject to adjustment arrangements (uncertainty mechanisms and other) and the escalation arrangements which Ofgem proposes in relation to the cost of both debt and, through adjustment of the risk free rate, equity, are indicative of a significant lowering of the risk profile for DNOs as against that in ED1. Overall, we can see no basis for your proposal that a 5.8% Cost of Equity allowance is appropriate, or necessary. It would not, in our view, be in the interest of consumers. We do not, in any case, support the concept that it is appropriate to change the Cost of Equity allowance in support of the varying requests of, and issues relating to, different DNOs;
- You say that you do not consider it appropriate to adjust depreciation rates to support financeability and you have not shown the impact of doing this. You refer to a reduction in your capitalisation rate from ED1 but there is no evidence that you have explored different rates as an aid to financeability. You also refer an intention to bring gearing in the Actual Company into line with Ofgem's W/A for the Notional Company (i.e. 60%) but, again, there is no evidence that you have examined different levels of gearing which might improve the financeability of the Actual Company;
- It is clearly for individual DNOs to determine their debt funding strategies and the extent to which they implement those strategies on a group-wide basis but you should be aware that we can see no reason for a small company premium in the Cost of Debt allowance;
- The results of the scenario analysis based on your 'alternative actual scenario based on bespoke inputs' are unhelpfully interspersed with those based on Ofgem's W/As. Companies are not penalised for making a case for higher cost of capital allowances

but modelling based on their proposed inputs must be clearly distinguished from the main scenario analysis.

Annex: assessment of costs, scenarios, and DSO and whole system proposals

This annex sets out our supporting comments on the WPD July plan. In each of the following areas we have set out what we are looking for in each plan and our observations about the draft plan.

1. Scenarios and forecasts

We are seeking to understand how the companies have aligned their forecasts with Net Zero objectives, as set out in the FES and 6th Carbon Budget and take account of any local customer-led drivers. We wish to see how these forecasts lead to investment at different network voltages, including where flexibility resources will be used instead of investment.

We note that WPD has developed a single 'Best View' to inform the development of its Business Plan. We also note that WPD has developed a 'Certainty View' which triggers investment in all DFES scenarios and the 'Best View'. WPD proposes ex-ante (baseline) allowances for investment triggered in the Certainty View with Uncertainty Mechanisms funding investment above this baseline. We would welcome confirmation that the Certainty View is consistent with Net-Zero targets.

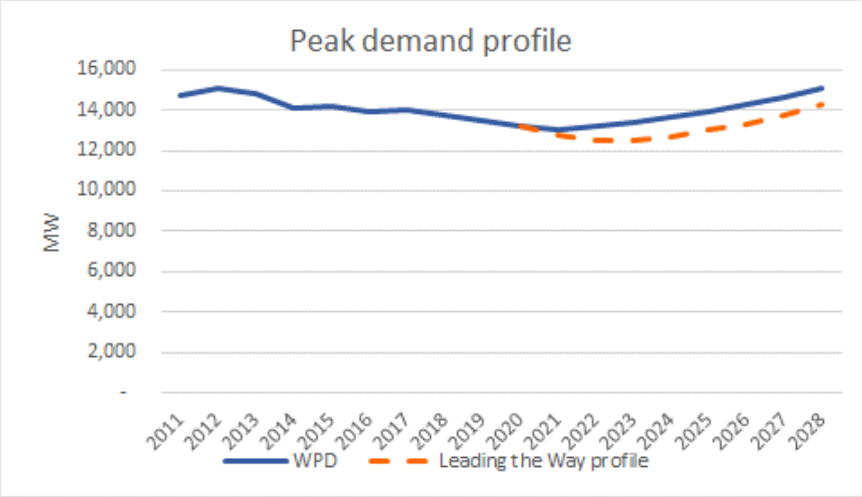
By the end of ED-2, WPD forecast they will connect

- 2,078,872 EVs and 893,000 heat pumps by 2028 in baseline totex under their Best View which appears to be different from the Certainty view
- 2,744,541 EVs and 1,552,171 heat pumps under their High scenario.

WPD has around 26% of the Networks' customer base. The forecast number of EVs across this customer base in 2028 is broadly in line with the ESO FES Consumer Transformation or Leading The Way scenario which forecast 7.7m BEVs (cars + vans) – these scenarios are at the higher end of the EV uptake forecast by the ESO forecasts.

WPD's forecast for ASHPs, including hybrids, under their baseline scenario appears higher than the ESO 2020 FES Consumer Transformation. We would benefit from a clear explanation of why the Best View scenario takes a different approach for EVs and HPs. We would also like to understand the forecasts for Low Carbon Technologies that inform the Certainty View, together with demand forecast by voltage level.

The WPD submission of demand profiles in the BPDTs (shown below) shows an increase of around 12% between 2020 and 2028, which is slightly above the equivalent peak demand increase of 8% forecast in the ESO 2021 'Leading the Way' scenario.

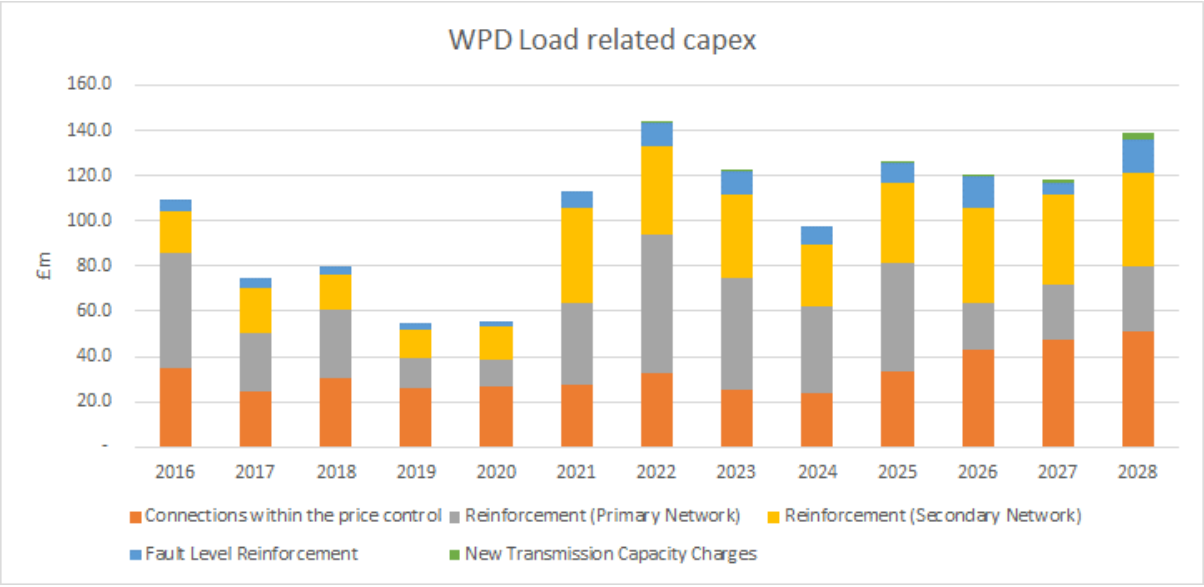


2. Totex - Load related capex

We are seeking to understand company investment pathways for load related expenditure, and how they have taken account of:

- Historic levels of network utilisation and reinforcement expenditure
- Downward cost drivers, including efficiencies, innovation and flexibility
- Upward cost drivers including demand scenarios and anticipatory investment

We are looking for evidence from EJPs and CBAs which justify costs, volumes and timings of expenditure together with uncertainty mechanisms where justified and PCDs to provide delivery certainty.



	ED2 £m	% change
Total load related capex	1,098	134%
Connections	198	39%
Primary reinforcement	160	-8%
Secondary reinforcement	185	50%
Fault levels	52	79%

WPD's load related capex profile is shown in the above chart and table[4], totalling £1,098m in the ED2 period.

WPD's plan states that the 'Best View' demand scenario has been adjusted to create a 'Certainty View' for use in totex forecasts but the plan states that this 'Best View' investment is likely to be needed. The linkage between scenarios, the forecast demand and the baseline investment plans is unclear, as is the linkage to Upper view forecasts.

The forecast demand profile still appears higher than the ESO FES forecast. Given that peak demand in 2028 seems to be reaching 2012 levels, we would welcome justification of the additional expenditure. We would welcome evidence, in the EJPs, that demand growth beyond the end of ED2 has been adequately considered in the option analysis.

There is limited evidence that flexibility resources or other network management technologies have been applied to optimise network capacity. For example, WPD state that within RIIO-ED2, flexibility is expected to avoid £49 million of load related expenditure otherwise anticipated within the Certainty View. Additionally, a cumulative total of £181 million will be deferred by flexibility for a year through the price control, creating net benefits of £3 million.

3. NLRE totex for ED2

As in the case of LRE totex, we are seeking to understand company investment pathways for non-load related expenditure, and, again, how they have taken account of:

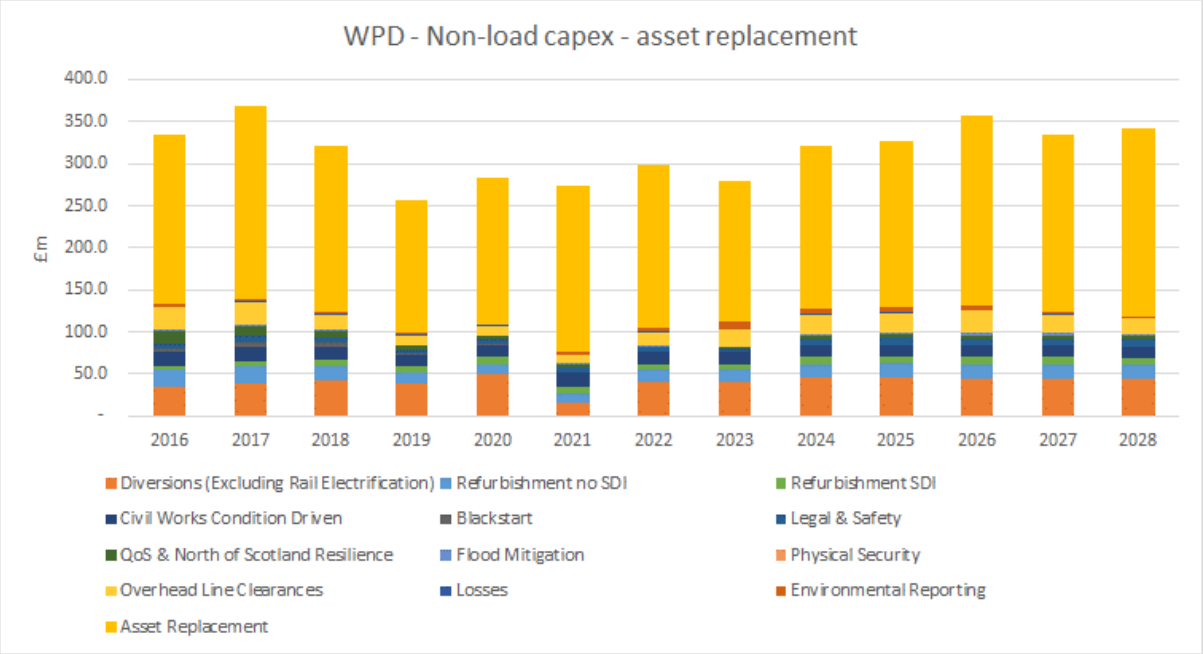
- Historic levels of non-load related expenditure, asset health and reliability levels
- Downward cost drivers, including efficiencies, intervention options, and innovation
- Upward cost drivers including demand scenarios and anticipatory investment

We are looking for evidence from EJPs and CBAs which justify costs, volumes and timings of baseline expenditure to deliver asset health and reliability outputs during ED2, including PCDs where appropriate to provide delivery certainty. We are also looking for evidence that, where a higher rating for a replacement asset is proposed, utilisation and load data is provided to justify this and that due consideration has been given to replacement vs refurbishment

We have examined WPD's proposals for a) NLRE - asset replacement and b) NLRE - other. The NLRE asset replacement profile is shown below, together with the major changes between average ED1 and ED2 expenditures.

[4] This table uses the PCFM for the total and the subcategories (and chart data) are taken from the BPDT data to illustrate changes. The BPDT data used does not include £473m of expected load related expenditure. We have not sought to reconcile these differences at this stage.

NLRE – asset replacement



WPD's plan forecasts a 15% increase in the NLRE – assets cost category from ED-1, and 11% specifically on asset replacement. WPD state that their replacement strategy will remain unchanged but forecast an increase mainly due to EHV and 132kV network expenditure driven by cable replacement costs.

Some of the main changes to the volumes of activity in RIIO-ED2 include:

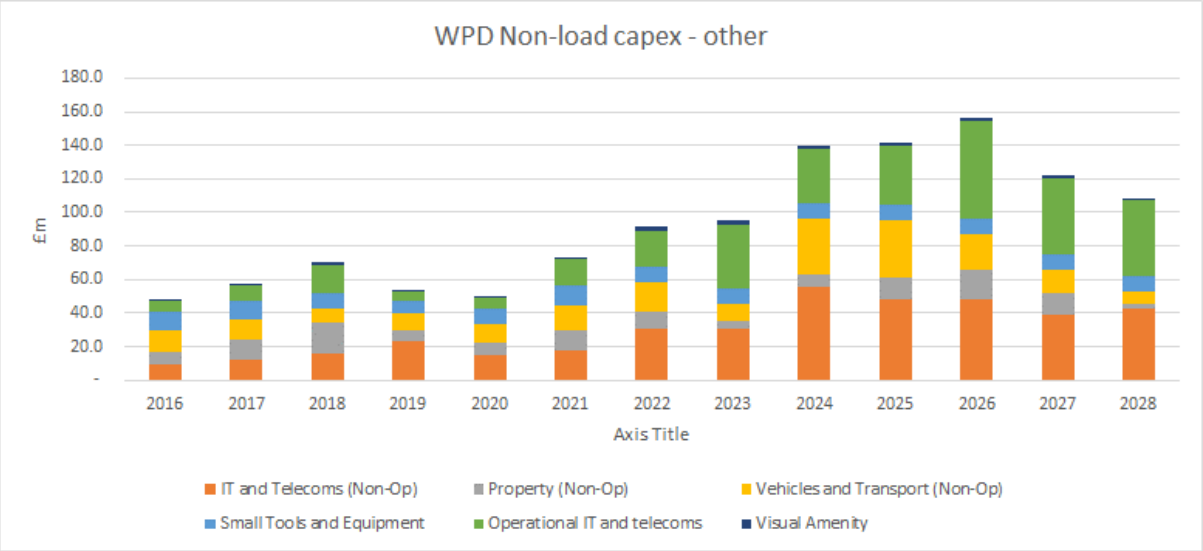
a. A reduction in volumes of switchgear (particularly at HV) due to many of the older types already being removed from the network.
b. Extra LV Consac cable to reduce the higher fault rate and inconvenience to customers.
c. An increase in fluid filled cable volumes to remove leaking circuits from the network.
d. Higher volumes of EHV transformers to deal with an ageing and poor condition population

WPD state that '*assets will be replaced on a like-for-like basis using modern equivalents, although larger capacity assets may be used either to reduce network losses or to take account of anticipated load growth. The anticipated load growth from the increased uptake of low carbon technologies (such as electric vehicles and heat pumps) means that consideration will be given to installing greater capacity assets where there is a strong indication that load growth will take place. This incremental reinforcement should negate the need for subsequent reinforcement as load increases, meaning that assets are only touched once before 2050. The small incremental increase in material costs will reduce long-term costs particularly for cable assets, where the majority of the costs arise from excavation and reinstatement. While we have included increased costs associated with using larger assets to reduce losses, we have not included any increased costs for touch once at this stage'.*

Overall, we do not think the expenditure increase for ED2 above that for ED1 has been justified. WPD are continuing to maintain largely the same assets as ED1 and we would expect costs to remain stable or reduce as efficiency savings are applied.

NLRE – other

The following chart shows the forecast profile for NLRE – other. There is an average increase of 118% from ED1 driven by significant increases in IT/telecoms and vehicle and transport capex are also forecast to increase by 80%, excluding RPEs.



We welcome additional expenditure where it delivers enhanced network visibility and flexibility markets. However, the above profile shows a sudden increase in expenditure in 2024. We would like to see evidence to demonstrate that the proposed benefits from these enhanced outputs are delivered efficiently.

4. Totex - Opex and efficiencies for ED2[5]

WPD's average operating costs increase by 6% overall for ED-2 compared with ED-1. Increases in business support costs are offset by reductions in operating other costs.

	ED2 £m	% change
Total Operating costs	3,086	6%
Network operating costs	1,059	-8%
Closely associated Indirects	989	-6%
Business support costs	587	28%

These numbers are difficult to reconcile with the equivalent numbers and explanations provided in the WPD business plan. While explanations for cost increases are detailed, these are high level and we are concerned that efficiency opportunities have not been sought with corresponding rigour, and these costs may be overstated as a result. For example, routine business support IT has increased by 70%.

We note that WPD is proposing common unit costs for network reinforcement/replacement across all WPD licence areas at each voltage level and that these unit costs represent lower

[5] This table uses the PCFM for the total and the subcategories are taken from the BPDT submissions to illustrate changes. We have not sought to reconcile differences at this stage.

loss assets that WPD plan to use during ED2. We also note that you have taken the upper quartile WPD unit cost and applied that as the standard unit costs across all WPD licence areas. WPD has developed RIIO-ED2 asset replacement unit costs bottom-up using detailed analysis based on representative typical projects (informed by input labour, materials and contractor costs) for each activity of asset replacement. Unit costs are going up slightly in RIIO-ED2. Whilst we note that WPD is satisfied that this increase is efficient, we would welcome evidence that unit costs have been subject to independent scrutiny.

Overall, WPD have included a 0.3% pa ongoing efficiency challenge for ED-2. While the WPD efficiency proposal is welcome, we think that this efficiency challenge should be set at levels equivalent to those proposed for electricity and gas transmission and gas distribution i.e. an ongoing efficiency challenge of 1.15% p.a for capex and 1.2% pa for opex.

5. Bespoke uncertainty mechanisms

WPD have proposed the following uncertainty mechanisms:

Category	Risk addressed	Mechanism	Potential cost
Primary LRE	For each project delivered across the primary network above our certainty view which forms the ex-ante funding requirement, we propose the investment will be funded by a volume driver. Different units costs are proposed for 132kV and EHV, with projects exceeding caps of £6 million for 132kV projects and £4 million for EHV projects being subject to separate assessment.	Volume driver	£236m, not included in certainty (base) view
Secondary LRE	For reinforcement activity above our certainty view which forms the ex-ante funding requirement, we are proposing volume drivers. For linear assets, unit costs will be based upon the length of asset installed (in km), split between LV and HV circuits. For transformer capacity, we are proposing a measure of cost per capacity added (in MVA), split between overhead and underground networks.	Volume driver	£112m, not included in certainty (base) view
Proactive service (unlooping)	We propose for funding to be through a volume driver with a unit cost for each type of activity covered by proactive service reinforcement.	Volume driver	£125m, not included in certainty (base) view

For Primary and Secondary LRE, WPD propose upwards only uncertainty mechanisms. Where the volume or cost of reinforcement is above the Certainty View allowances, they will receive additional unit costs per project or volumes of capacity. Where flexibility is used instead of reinforcement, the MVA capacity added through flexibility will treated the same as additional capex. This could mean that flexibility is rewarded twice, both through the TIM for a reduction in capex below baseline allowance, and through these UM's for delivering additional capacity.

For unlooping, WPD again propose an upwards only uncertainty mechanism. A volume driver is multiplied by the unit cost per unlooped overground or underground circuit. They also propose a 50% sharing factor from their Certainty View up to the Best View totals, and 75% if volumes above the Best View are realised. This would appear to give an opportunity for WPD to earn uncapped returns above the Best View level. Overall, we welcome that WPD has limited the number of proposed bespoke uncertainty mechanisms. But we are concerned that the calibration and risk sharing associated with these mechanisms should be balanced with the interests of consumers. We would like to see greater detail on how the costs have been identified, and on the proposed uncertainty mechanism design and calibration.

6. DSO and digitalisation

We are seeking to understand how DNO plans will demonstrate delivery of:

- Digitalisation, providing high visibility of network utilisation and available capacity
- DSO functions, especially for third party access to flexibility markets,

We are seeking to understand proposed costs and benefits from these DSO initiatives, including how this ambition exceeds business as usual expectations. These include benefits from working with the ESO.

DSO and digitalisation

WPD set out the following parameters for their DSO activities:

- Network visibility - at end ED1, WPD will have 2% of Secondary substations with demand monitoring and are targeting 11% by end of ED2.
- Flexibility markets – 342MW pa procured over ED2 compared to ED1 forecast of 236MW pa.
- Costs – WPD's DSO data tables show expenditure of £77m for ED-1 and £254m for ED-2. The WPD plan suggests that benefits of £3m may be available from DSO activities.

WPD comment that they are a leader in developing DSOs and propose initiatives for the key DSO themes of

- Planning and network development
- Network operation
- Market development

The DSO expenditure shows a significant increase from ED1 levels. Overall, the DSO strategy and plan is relatively high level with very little detail, and the delivery of flexibility benefits are low and are not well evidenced. Overall, we are concerned that this is weak and DSO benefits appear unlikely to be realised.

DSO CVP – none provided

Digitalisation – the WPD plan for ED2 identifies a number of digitalisation initiatives, building on their progress during ED1. They propose to use digitalisation to focus on improved network insight and operation and delivering for stakeholders, including open data for use by customers.

Overall, the WPD digitalisation strategy is set out at a high level but the claims ascribed to customer benefits are difficult to quantify and delivery may be uncertain. We think the WPD digitalisation plan is weak and raises concerns about both delivery and the achievement of benefits.

7. Whole system proposed strategy and ambition

We are seeking to understand the costs and benefits of whole system initiatives that companies plan to undertake in coordination with stakeholders across electricity and other sectors. We are seeking to understand how this exceeds business as usual benefits.

WPD's plan notes that they have worked with National Grid during ED1 to carry out collaborative assessments of network requirements in the South West region, which has led to greater utilisation of flexibility to manage constraints on both the distribution and transmission networks.

WPD anticipate that further whole system challenges will emerge during ED2, some of which may be initiated by transmission or other DNOs. They propose to:

- work collaboratively to ensure that network issues are resolved swiftly and effectively by always determining the best solution.
- continue to explore activities that would benefit from whole system consideration. These may arise because of specific constraints on the network or from proactive coordination with other organisations.
- work with IDNOs, transmission operators, gas networks and our neighbouring DNOs to ensure we provide the most efficient and effective outcomes for our customers.
- work with the Welsh assembly government to create a National Energy Plan for Wales, working in collaboration with National Grid and SPEN to ensure a whole system approach to key enabling actions.

WPD describes the DSO role a "natural extension to the essential tasks that it already performs" and fails to convey as sense of ambition in this space.

Overall, WPD's approach to whole system initiatives appears inward looking and reactive, and is unlikely to deliver benefits to consumers as a result. There is little evidence that 'Whole System' thinking goes beyond cooperating with the ESO or that it considers heat and transport.

<u>CVP – whole system</u>

WPD have proposed the following CVPs which appear to sit under the category of whole system. It's not evident that WPD has either the capability to deliver these initiatives better than other parties or has clearly defined the additional whole system benefits that each initiative will deliver.

For example, for the Community Energy Engineers, If WPD want to develop this CVP further and present in the final business plan, we would like to see:

- clear evidence that the DNO is in the best place to deliver this service
- a more robust demonstration of the benefits that would be delivered, not just the outputs

- a clearer explanation of why this is above baseline expectation

WPD no.	Initiative	Cost
CVP2	Proactively partner with every local authority in our region	£2m included in baseline
CVP3	Establish Community Energy Engineers to support the development and delivery of community energy schemes to help drive net zero	£1.26m
CVP4	Create a National Energy Plan for Wales	£3m included in baseline
CVP5	Build decarbonised communities and local energy schemes by funding solar PV on schools and community buildings in areas of high economic deprivation	Not included
CVP8	Create a LCT energy advisory service	Not included