Feedback on draft business plan: ENWL

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-formoney 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 7% totex underspend for ED1 and that output targets will be met or exceeded. Asset heath delivery is on track. ED1 demand was below forecast. You have provided us with information on demand and network utilisation parameters to show the

expected network capacity headroom at the start of ED2 - we suggest this analysis should be included in the final plan.

2. Scenarios and forecasts

Your baseline scenario for LRE assumptions appears to be Net Zero compliant, which is welcome. However, the overall forecast demand profile and low carbon technology assumptions appear to be higher than common industry scenarios. We would welcome clarification about how the demand and LCT forecasts have been derived, how they have been applied in the plan LRE assumptions, and a clear demonstration of consistency with common industry scenarios.

3. Totex overview (£1999m)¹

We have reviewed your totex data submitted in your BPDTs. Your baseline totex proposal for ED2 represents a 54% increase over average annual ED1 expenditure. A profile of the overall totex plan and main expenditure categories is shown below, showing a significant increase during ED2.



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.

¹ 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.

	ED-1 Average Totex	ED-2 Average Totex	% change
NWL	259	400	54%
EN	504	641	27%
SEN	573	826	44%
/PD	1050	1332	27%
(PN	831	869	5%
Pg	470	641	36%
tal	3686	4709	28%

a) Load related expenditure (LRE): £207m

Your average annual LRE is expected to increase by 180% between ED1 and ED2 with large increases in all cost categories except primary reinforcement. Your upper view adds another £248m to this forecast. We do not think the expenditure assumptions have been justified and would like additional clarification about investment included in baseline, upper view and in uncertainty mechanisms, together with reasons for prioritising expenditure at the start of ED2. The impact of potential downward cost drivers such as falling demand, capacity headroom, flexibility, and network visibility should also be addressed.

b) Non-load related capex - assets: £616m

This cost category increases by around 68% between ED1 and ED2. Asset replacement expenditure is forecast to increase by 58%. We are concerned that the ED2 increase is due to asset replacement expenditure 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 the asset base remains largely the same as for ED1. We would expect these costs to remain stable or 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: £265m

This cost category increases by around 140% between ED1 and ED2, due to significant increases in IT and telecoms property expenditures. While we welcome expenditure that delivers enhanced network visibility and flexibility, forecast benefits from flexibility are low. We would like to see justifications that benefits will be delivered from this increased investment.

d) Opex² and efficiency: £832m

You forecast a 24% increase in operating costs between ED1 and ED2 (including network operating costs, business support and closely associated indirects). Justifications for these

² Opex includes tree cutting, faults, revenue pool expenditure and controllable opex.

increases are high level and we are concerned that efficiency opportunities have not been sought. We suggest you provide additional evidence and in relation to upward and downward cost drivers and consider opportunities to hold these costs flat during ED2.

A 0.5% 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 a limited number of bespoke uncertainty mechanisms. 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. 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 £61m on DSO activities in ED2 compared to expenditure of £5m for ED1 and are targeting 35% for secondary substation metering. We welcome your stakeholder engagement on DSO plans but the DSO action plan appears relatively high level with most delivery dates to be confirmed, and the flexibility benefits seem to have been largely ignored. The DSO expenditure shows a significant increase from ED1 levels and the benefits from DSO actions appear to only total c£1m overall.

We welcome the initiatives that you are planning for digitalisation and DSO but 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 is based around your DSO initiatives and includes proposals to work with Local Authorities and community groups to help them to transition to Net Zero, which is welcome. However, the plan does appear to be predominantly focused on 'business as usual' electricity system activities and the ultimate identification and delivery of whole system benefits seems uncertain.

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, your vision and longer term goals are not particularly well articulated or reflected in detailed analysis or optioneering. There is little discussion of corporate vision or the policy context (discussion of what will be required by 2030; consequences of vision to lead by example). The planning around your strategy for Net Zero and specifically your BCF targets seems worryingly undeveloped (we note you have not included even the outline of your proposed science based target (SBT) - you indicate you are committed to 1.5°C but still seem to be working through implications of this - and that you have not submitted a forecast of ED2 emissions in the BPDT).

Whilst it is welcome that you have committed to include scope 3 emissions in your SBT, again, as you acknowledge, a lot remains to be done. To date, you have only measured your scope 3 emissions in the category of business travel, which is likely to account for a small percentage of total emissions in this scope (even if understood to include commuting). You do not mention that scope 3 emissions include embodied carbon. We have not seen anything within your BP that supports an intention to baseline embodied carbon before 2026, and it is therefore difficult to understand how your commitment to include scope 3 in your SBT for ED2 can be meaningfully fulfilled.

Plans to reduce scope 1 or 2 emissions other than SF_6 or losses are covered in very little detail. In particular, no sense is given of why the listed measures in goal 1 are the right ones, what their impact will be, or how they fit into meeting the requirements of the SBT.

In relation to SF_6 you propose a target of leakage of no more than 0.3% of your SF_6 bank in ED2. Your average leakage in ED1 to date has been 0.32%, a middling performance, and leakage has already been below 0.3% in three out of the last seven years reported so this is not an ambitious target proposed. You commit to develop an SF_6 strategy, but as yet have provided very little detail on what it will contain.

As regards losses you propose what appears to be a relatively ambitious target to avoid 8GWh of losses per year. The Losses Strategy gives a good overview of options assessed and the decision-making methodology. It is not clear that stakeholders have been engaged on the ED2 strategy yet, though you describe plans to do so. The Losses Strategy makes no mention of the 8GWh/year target from the EAP nor is the level of this target justified elsewhere. It would be helpful to see the quantification and justification of actions and benefits set out more clearly.

You do not plan to set a baseline for embodied carbon until 2026. One graphic suggests you do not expect to start actively reducing your embodied carbon until ED3. You mention you have begun to model embodied carbon in the test case of a new substation, but give little detail on your approach.

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.
- What is the timeline for establishing an SBT? What work has been done to assess scope 3 emissions and establish practicality of including them in SBT? What options and targets were considered for reducing SF₆ emissions?

2.ii. Vulnerability strategy

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.

We welcome the following points about your vulnerability strategy.

- It is built around principles co-created with your consumer vulnerability advisory panel,
- It is transparent about the fact that a large proportion of eligible customers are not yet on the PSR. You have also proposed a more outcome-based target for your PSR update work: that 30% of those contacted either update or give positive confirmations that the information is correct (compared with 20% today).
- You operate a PSR for business customers.
- You have done some useful research to understand in more detail barriers to the energy transition from a consumer and, in particular, vulnerable consumer point of view. You emphasise an insight that solutions that require minimal effort from consumers are most likely to be successful.
- Specific targets for increasing average customer benefit show a focus on maximising value.
- Your strategy proposes enhanced training for all staff at an appropriate level for their responsibilities.

Questions and challenges

- PSR reach: 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 (i.e. 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.

- PSR targetting: To what extent and in what way will your PSR recruitment be targeted or prioritised (for example, on higher risk categories of customer)? Other than the PSR quality metric that you refer to in the plan (% of people contacted who update details or confirm they are correct) what other criteria, if any, do you use to 'cleanse' PSR data and 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 ED2 services that you offer to customers during a power cut be targeted on people with different needs?
- Deliverability: in the 2019-20 round of SECV assessments (the latest scores currently published by Ofgem), ENWL received the lowest score for its vulnerability work of all the DNOs (5.75 vs 8.8 for the best). You say that your score has increased in the 20-21 round, although Ofgem is yet to publish these so we do not yet have the comparative picture. Nevertheless, you have set some targets that represent a significant increase in activity in some areas but offer little assurance that these targets can be delivered. What evidence (from tests or trials, for example) can you provide that gives confidence that your targets are achievable?
- 'Stretch' targets: we welcome the fact that you are setting both improvement and stretch targets. But we are unclear about the status of the 'stretch'. Please set out clearly, (in an itemised table, for example) what activities and what levels of performance you are aiming to deliver for what level and type of funding (for example, whether funding is in the baseline), and how these compare with your spend in ED1.
- 'Minimal effort solutions': you emphasise a key insight that solutions that require minimal effort from consumers are likely to be key in the energy transition. With the exception of Smart Street, where else have you applied this insight in the deliverables in your plan?
- Outcomes: some of the 'outcomes' you describe seem to us to be 'outputs' for example, £500k pa invested in referral networks; or 'establish a vulnerability fund'. How will you measure the outcome or impact of these activities?
- 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 the training you propose, how will you measure its impact or success?

- Bespoke outputs:
 - You propose to spend £19.6m on two areas of faults: £16.6m on a 'mitigation scheme' benefitting 150k customers of whom 16,600 you expect to have 'a known high vulnerability'; and £3m on reinforcing HV feeders to benefit c12,700 customers of whom you expect 844 to have a known vulnerability. Why isn't this work simply prioritised within your asset maintenance and reinforcement work generally rather than carving it out at additional cost?
 - You have quantified the cost but not the benefit (other than numbers of people potentially affected). What is the scale of the potential benefit i.e. how many fewer interruptions and how much shorter are they likely to be?
 - In terms of options, you have considered doing nothing and doing less. But have you considered what other types of benefit you could deliver for £1k-£3.5k per vulnerable customer? Why is this the best option for this level of spend?
- CVPs:
 - How many of the 250k homes to which you propose to extend Smart Street are likely to have residents in or at risk of fuel poverty?
 - What range of actual savings were achieved in the current Smart Street trial? What was the experience of, and savings made by, fuel poor customers in particular during your current trial?
 - Have you investigated how scalable this is as an approach as a fuel poor support measure or more generally? What are your conclusions? Are you testing what you could roll out?
 - Please see also our discussion of Smart Street in section 6 of the cost assessment annex below.

2.iii. Reliability

You have comparatively strong reliability performance already and are aiming to make further significant improvements in ED2. It will be for Ofgem to set targets in this area, but you are nevertheless 'committing' to a 20% improvement in both customer interruptions (CI) and customer minutes lost (CML) overall, and a '50% improvement' for 3,770 of your worst-served customers.. Your total and per capita spend on improving performance for your worst-served customers (WSC) are particularly high.

Questions and challenges

- CI and CML performance: We would like to see more evidence of how you have judged that these further improvements represent greater value for money for customers than other options, and that these judgements are supported by stakeholders.
- Worst-served customers: you say you are targeting a '50% improvement' for 3,770 WSC at a cost of £21.3m. Can you explain your performance and targets here in absolute terms i.e. what is the current experience in terms of number and length of outages for these customers and what would it be after your current plans are

delivered? How have you judged that c£5.6k investment per WSC is the right level? What other benefits have you considered that could be delivered for the same cost?

3. Finance

We were pleased to note that the finance section of your Plan was largely compliant with the requirements set out by Ofgem in the Sector Specific Methodology (SSMD) and that you have carried out the full scenario analysis requested.

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

- You say in your recently submitted letter that the analysis presented in your draft Plan was carried out using an effective Cost of Equity allowance of 4.65% and we obviously accept that that is what you have done. However after further study of the finance section of your draft Plan and the relevant annexes, the position still appears ambiguous to us. In order to comply with the SSMD, you need to present modelling based on 4.65% for both the Notional and the Actual Company and we suggest that, in your FBP, you make very clear that you have, in fact, done that;
- You should be aware that we are supportive of Ofgem's stance on outperformance which we consider 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 targetting 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 Ofgem must be 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, your target rating is clearly an important consideration. However we do not regard it as necessary to target BBB+/Baa1 which we consider to be at the upper end of the acceptable range. We think it particularly unhelpful to include a target rating of BBB+/Baa1 as, in and of itself, a condition of financeability; Ofgem obviously bases its assessment of the financeability of individual companies on their Notional Company but we also consider it important, in the context of minimising costs to consumers, that Ofgem is able to set its generic financeability parameters on the basis of a full understanding of the optimal financing arrangement for both the Notional and the Actual Companies: it is important that your FBP contains full and clear information on both:
- You say that neither your Notional or your Actual Plan is financeable on the basis of Ofgem's W/As for cost of capital. We note that your BP is based on an assumption that no dividends will be paid in ED2. You set out a number of reasons as to why you regard this as unsatisfactory but are not clear as to what your intention is with regard to non-payment of dividends/the subscription of new equity for the Actual Company. You say that there is a 'small but real' (our italics) risk that your rating could fall below investment grade. The clear implication of this statement is that relatively minor mitigation measures might resolve the problem and we think it important that, in your FBP, you demonstrate that all available measures, other than a change in the Cost of Capital allowances, have been explored. We also think that the four financeability tests which you have set are unhelpful in that at least one of them (a minimum cost of equity allowance of 5.81%) means that your Plan is, by definition, unfinanceable on the basis of Ofgem's W/As. Your FBP will, in our view, need to show evidence of detailed analysis of your scenario modelling rather than the imposition of four arbitrary tests of

financeability. The information you have provided to date does not, in our view, support a statement that you cannot meet the requirement not to let your rating fall below investment grade;

- You should be aware that we are supportive of Ofgem's proposed Cost of Equity allowance 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 and at a very substantial premium to RAV 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 5.81% Cost of Equity allowance is appropriate, or necessary. It would not, in our view, be in the interest of consumers and we do not support the concept that it is appropriate to change the Cost of Equity allowance to support the financeability of individual companies;
- You say that 'Ofgem should set the financial parameters so that BPs are financeable without the need to make changes to asset lives' and that you intend to retain the 68% capitalisation rate which applied in ED1. In the light of the difficulties which you consider you have in relation to the financeability of your Plan, we consider it would be useful for you to carry out full analysis of the potential benefit of adjustments to both depreciation and capitalisation rates;
- It is clearly for individual DNOs to determine their debt funding strategies and we note • that ENWL has high cost embedded debt, some (though not all) of which is acknowledged to have been 'inefficiently incurred'. DNOs are free to access the debt (and derivative) markets as and when they choose with as much of that borrowing on an index linked basis as they elect and/or as is available to them. We accept that the size of ENWL's balance sheet is such that it may not always be easy to achieve optimal size, and hence optimal pricing, for its issuances. However Ofgem's Cost of Debt W/A has been set so as to take account existing debt of the sector as a whole as well as its potential future borrowing requirements. We do not consider the fact that ENWL has incurred historic debt at above the Ofgem Cost of Debt allowance is a basis for arguing that the Cost of Debt allowance for the forthcoming price control period should be higher than that produced by the formula Ofgem has used (17 year trailing average IBoxx GBP utilities 10 year plus index yields). We do not accept your argument for a company specific Cost of Debt allowance: there is little or no precedent for this in the UK regulated utilities sector and it is not something which we expect Ofgem to introduce for ED2 (or which we would support);
- We note that you have used an assumption of 60% gearing but that you are not supportive of a reduction from the ED1 rate of 65%. In the light of the difficulties with financeability which you consider you have, we suggest it might be helpful to further explore levels of gearing (against the background of tax clawback costs);
- It would be helpful if your FBP were clearer in its presentation of results, with any alternative case which you wish to propose well separated from the case based on Ofgem's W/As and with appropriate analysis of the output rather than your four tests of financeability.

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

This annex sets out our supporting comments on the ENWL 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 welcome that the ENWL plan has used scenarios with Net Zero targets. We note that the company has used a Central Outlook scenario which it has identified as the highest certainty scenario that does not foreclose network future-proofing and informs the RIIO-ED2 baseline (ex-ante) allowance.

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

- 631,314 EVs and 63,660 heat pumps by 2028 under a Central Outlook scenario and
- 698,598 EVs and 637,689 heat pumps under their High scenario.

ENWL has around 8% 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.

ENWL's forecast for ASHPs, including hybrids, under their baseline scenario is consistent with the ESO FES Steady Progression scenario which is at the lower end of ESO forecasts. We would benefit from a clear explanation of why the Central Outlook scenario takes a different approach for EVs and HPs. The ENWL submission of demand profiles in the BPDTs shows an increase of around 18% between 2020 and 2028, which is above the equivalent peak demand increase of 8% forecast in the ESO 2021 'Leading the Way' scenario. We would like to understand why an apparently higher demand scenario has been chosen.



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 PCD's 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 welcome that there is evidence in the EJPs and CBAs that flexibility is being considered in the development of LRE investments.



	ED2 £m	% change
Total load related capex	207	180%
Connections	91	599%
Primary reinforcement	29	-10%
Secondary reinforcement	56	175%
Fault levels	32	259%

ENWL's baseline load related capex profile is shown in the above chart and table, totalling £207m in the ED2 period. ENWL's high forecast adds an additional £248m to this baseline.

There is limited information to justify the assumptions used for these forecasts and why the particular options have been chosen. For example, £70m is forecast for c32,000 unlooping interventions – the efficient volumes, costs and timings have not been evidenced.

There is not a clear path from scenarios to utilisation forecasts to investment plans for the above categories. The investment profiles show a significant increase at the start of ED-2 which does not appear to be linked to the demand and network utilisation profiles. This may lead to inaccurate prioritisation of investment needs and consequent inefficiencies.

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 have examined ENWL'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.



NLRE - asset replacement

ENWL's asset replacement expenditure has significantly reduced in the latter years of ED1 before being planned to increase sharply under the new price control. ENWL's plan claims this is due to efficiencies, but we are concerned that this expenditure is simply being deferred to ED2, and customers will pay for this again.

The increase in the ED2 period is justified in an Arup report commissioned by ENWL, which forecasts an increase in asset replacement volumes during ED2 based on new asset health information. Unit costs have also been increased.

Overall, we do not think the expenditure increase for ED2 above that for ED1 has been justified. ENWL are continuing to maintain asset health targets on 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 140% from ED1 (115% if Smart Street expenditure is excluded) driven by significant increases in IT/telecoms.



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 this profile can be delivered, together with justifications that show how the benefits from these enhanced outputs are delivered efficiently.

4. Totex - Opex and efficiencies for ED2

ENWL's average operating costs increase by 24% overall for ED-2 compared with ED-1, with closely associated indirect costs increasing by 43%, and business support costs by 31%.

	ED2 £m	% change
Total Operating costs	911	24%
Network operating costs	298	13%
Closely associated Indirects	315	43%
Business support costs	219	31%

ENWL provide little evidence to justify this increase in their business plan. While details of increases are included, these are high level. We are concerned that efficiency opportunities have not been sought with corresponding rigour, and these costs may be overstated as a result.

ENWL have included a 0.5% pa ongoing efficiency challenge. While the ENWL 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.

We note that the unit costs used in your submission are largely based on your experience over the first five years of ED1, benchmarked against the performance of the other DNOs. We also note that unit cost assumptions have been included associated with EU Ecodesign

Transformers and the removal of SF6 options from newly-installed switchgear. We would have hoped to see that the Independent Review of Components of ENWL's Data Submission, completed by WSP in June 2021 also included a review of the unit costs.

5. Bespoke uncertainty mechanisms

ENWL have proposed two uncertainty mechanisms, as detailed below.

Category	Risk addressed	Mechanism	Potential cost
Strategic investment/load related expenditure/Unlooping	Uncertain load related investment	Re-opener Unlooping element could be a volume driver	Included in price control - £227m
Moorside	Uncertain cost of Moorside Power station reinforcement as per ED-1	Re-opener	Undefined

For strategic load related expenditure, ENWL have proposed a volume driver that means they are only funded for efficient interventions based on what actually happens. This mechanism would be symmetrical so an overestimated baseline would mean that customers won't pay more than necessary. The design details have not been provided.

ENWL currently propose a baseline ex- ante level of allowances for unlooping activities. They are also continuing to work on the design of a potential mechanism with Ofgem, wider stakeholders and the other network operators to manage the uncertainty associated with unlooping.

ENWL have at this stage only confirmed the need for one bespoke uncertainty mechanism which is to carry forward the Moorside reopener, to address potential reinforcement if the Moorside nuclear power station were to be developed.

Overall, we welcome the limited number of uncertainty mechanisms proposed by ENWL, and the proposal that they should operate in a symmetrical manner. The mechanisms proposed to address load related risk appear appropriate, but limited information is provided on how these may work in practice.

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

ENWL set out the following parameters for their DSO activities:

- Network visibility at end ED1, ENWL will have LV monitoring equipment installed on 20,000 LV feeders and are targeting a further 42,000 during ED2.
- Flexibility markets 1379 MW pa procured over ED2 compared to ED1 forecast of 439 MW.
- Costs ENWL's DSO data tables show expenditure of £5m for ED-1 and £61m for ED-2.

ENWL propose to establish a separate DSO Directorate, reporting to the Chief Executive, which will undertake a range of initiatives under the following areas:

- Planning and network development, including network monitoring and utilisation forecasting
- Network Operation offering non-firm connections and ANM systems
- Market development develop flexibility markets and facilitate curtailment trading
- Cross cutting themes, including open data and stakeholder outreach

We welcome evidence that ENWL has engaged with a wide range of stakeholders which has informed its approach to identifying the key activities of the DSO. However, overall, the DSO action plan appears relatively high level with most delivery dates to be confirmed, and the flexibility benefits through network investment deferral seems to have been largely ignored. The DSO expenditure shows a significant increase from ED1 levels. The benefits from DSO actions are documented but only total c£1m overall.

While we welcome the ambition of the ENWL DSO plan, we would like to see a full justification of the costs and benefits for DSO and associated activities. This should include benefits from distributed energy resources to enhance resilience, from active network management, and from interaction with the ESO.

Also, we would welcome further clarification concerning the development of the CLASS project where ENWL is seeking to offer services to the ESO balancing markets. We would like to understand the costs and benefits, including how concerns about potential market distortions arising from this service may be addressed.

<u>Digitalisation</u> – the ENWL data plan for ED2 identifies a number of digitalisation initiatives based around the Energy Data Task Force Recommendations. ENWL plan to evolve from the current architecture to this new architecture by 2028.

- They plan to implement initial technical components by the end of 2022 that deliver business outcomes and benefits.
- Data will be catalogued to ensure visibility and awareness of what data is available.
- Strategic analytical reporting solutions will be implemented by March 2022 that improves data visibility internally and aids business decisions within their customer services function including use of Smart Meter data.
- Migration of legacy system data will be an ongoing activity up to 2028.for ED2, building on their Network Asset Management System introduced in ED1.

Overall, the plan appears high level without much detail about specific deliverables and benefits, or how the necessary capabilities will be established.

DSO CVP - Smart Street

Smart Street is an £18m ED1 innovation project which is reducing 64,000 customers' electricity usage and bills by managing the voltage on the local network. ENWL say that

Smart Street has been proven to reduce customers' energy consumption by up to 8% – equivalent to a £60 reduction in annual energy bills.

In ED2, ENWL propose to extend Smart Street to a further 250,000 households, through a £78 million investment programme, delivering estimated benefits in excess of £400m. They propose to target areas where there are high numbers of customers in fuel poverty, and clusters of low carbon technologies such as solar panels and heat pumps so that more costly network upgrades can be avoided.

We note your Consumer Value Proposition to rollout the Smart Street project, which reduces costs and carbon for consumers, to a further 250,000 households at a cost of £78m (i.e. £312 per household). We welcome that this would be targeted at the higher populations of customers in fuel poverty. The claimed energy savings of up to 8% per household (equivalent to £60 p.a.) are significant and the Challenge Group would welcome clarification in a number of areas, namely:

- The claimed energy savings is up to £60 per household per annum. What would be a typical saving?
- How are these energy savings actually achieved through voltage reduction? If so, does this have any impact on the quality of supply delivered to consumers?
- If Smart Street is able to impact energy consumption significantly, is this reflected in your demand forecasts?
- What are the anticipated savings in Load Related Expenditure or deferred Asset Replacement resulting from these lower demand forecasts? – these are difficult to quantify from the EJP and CBA for Smart Street.
- If the energy savings are delivered through voltage reduction, in the event of a system emergency, has consideration been given to the reduced demand reduction through voltage management available to the ESO?

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.

During ED1, ENWL have worked on whole system issues through the ENA and they see their DSO transition plan, which involves data sharing, forecasting and planning as a key part of supporting the energy transition. During ED2, they propose to:

- Share reactive power forecast with the ESO
- Evaluate network investment decisions from the perspective of other system or network licensees
- Promote whole system options to facilitate flexibility markets and enable non-network solutions
- Evaluate the CLASS functionality for the provision of reactive power management to the ESO
- Share decarbonisation experience with customers

We welcome ENWL's proposals to work more closely with Local Authorities and community groups to help them transition to net zero. However, there is little evidence that the action plan developed for the Whole Systems goes significantly beyond the electricity system. While we appreciate that this is 'work in progress', we would hope to see further development of the transition plan in the final Business Plan. This proposed approach is high level and appears to largely maintain business as usual activities rather than a plan to deliver benefits from new whole system initiatives.

Whole system CVP - none proposed