

RIIO-ED1@ofgem.gov.uk

Date
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Contact / Extension
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Dear colleague

SP ENERGY NETWORKS (SPEN) RESPONSE TO RIIO-ED1 HVP REOPENER CONSULTATION

This response is on behalf of our distribution licence SP Distribution (SPD) and SP Manweb (SPM).

Each of SPEN's High Value Project (HVP) reopener applications are different in nature but have the common theme of having customers best interests (both in the short and long term) at their heart, whether this be from the economic benefits of a secure network, enabling the direct and societal benefits of more rapid EV ownership or the wider benefits which will accrue from economic growth.

Whilst we are disappointed on behalf of our customers and stakeholders that Ofgem's minded to position is to reject all of these applications, we recognise that this is presently at consultation stage, and that as such this position may be subject to change based on the strength of the arguments and evidence submitted by stakeholders, and also considering recent political and policy developments.

This letter sets out the key reasons that SPEN believe justify a change to Ofgem's minded to position in all three of these HVP applications, including a proposal to deal with the recently increased uncertainty in relation to the HS2 project. More detailed points are set out in the attached appendices.

£42m SPD investment-ahead-of-need to more effectively accommodate accelerated Electric Vehicle uptake needed to satisfy Scottish Government 2032 target

Our ultimate aim is to empower our cities and communities to achieve the economic, environmental and health ambitions which can be realised from a low carbon economy. Our energy networks are key enablers of a Net Zero economy as Ofgem have recognised in their response to the Committee on Climate Change's Net Zero Report¹.

Within the same week, Ofgem published its Open Letter² for the next set of network ED2 distribution price controls, which states that consumers should expect to be served by a local network that "supports the target of net-zero carbon emissions for 2050 by enabling the rapid roll-out of low carbon technologies, including electric vehicles, and the development of a charging network to support them".

Stakeholders recognise that GB must Invest Ahead of Need in its Infrastructure. The Climate Change Committee has stated that "achieving net-zero emissions will require new infrastructure. In many areas electricity networks will need to be strengthened" and "many networks will need to be upgraded in a timely manner and future-proofed to limit costs and enable rapid uptake of EVs and heat pumps".³

¹ https://www.ofgem.gov.uk/system/files/docs/2019/08/letter_to_networks_on_achieving_net_zero.pdf

² https://www.ofgem.gov.uk/system/files/docs/2019/08/open_letter_consultation_on_the_riio-ed2_price_control.pdf

³ <https://www.theccc.org.uk/wp-content/uploads/2019/05/Net-Zero-The-UKs-contribution-to-stopping-global-warming.pdf>

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Similarly, the National Infrastructure Commission (NIC) has stated that “Ofgem should take a more proactive approach to preparing for future reinforcement needs for charging points and that electricity networks should invest ahead of time”.⁴ To satisfy Government net zero ambitions major investment will be required in traditional network infrastructure supported by flexibility solutions where these deliver more efficient outcomes or are needed as higher cost interim solutions to lack to network capacity. Flexibility will enable greater efficiency but cannot in itself satisfy customer’s future needs.

One challenge for both Ofgem and the network companies is to balance the risk of asset stranding for a period of years versus the lost opportunity cost of delayed uptake of low carbon technologies. Whilst there is a degree of uncertainty around the timing of this transition, and the specific timing of the local need of additional network capacity, this must be considered against the high probability of future need and also the need for pace demanded by the current “climate emergency”.

Independent analysis by the Centre for Energy Policy at the University of Strathclyde (presented at the 2019 All Energy Conference) shows that a longer term investment profile to create future capacity for EVs delivers a better outcome for customers than short term spikes of investment at the time of need, and could deliver a sustained GDP uplift of 0.1%. These benefits are referenced in our submission.

Given the Scottish Government’s greater ambitions in this area, and the extensive package of additional direct interventions that they are making to stimulate EV uptake (including topping up OLEV grants for home chargers, interest free loans to public and businesses for EV purchases, and investment UK leading levels of public charging infrastructure) it is clear why stakeholders believe EV uptake in Scotland will accelerate more quickly than across the rest of GB.

On the 29th August 2019 the Scottish Government, Transport Scotland, SPEN and SSEN formally announced the launch of a strategic planning partnership with an initial focus on EV uptake. SPD’s investment of this £42m will be targeted based on joint analysis developed through this strategic planning partnership which has been functioning informally for more than 18 months.

Given the context set out above SPEN believe that Ofgem should support this reopener.

£70m Investment by SPEN (SP Distribution and SP Manweb) in 33kV Cable Systems to effectively manage new emergent risk

Ofgem’s minded to position is to reject SPEN’s funding requests of £70m to remove 3,000 assets associated with its 33kV cable networks that have all become end of life due to an emerging type issue.

Ofgem do recognise that had a significant volume of faults associated with this type issue emerged prior to the ED1 price control process, the allowed revenue setting processes would have considered this (either through appropriate allowances or a reopener mechanism like that implemented for LV Link Boxes). Ofgem suggest that this should now be considered in the ED2 processes. SPEN do not believe that this would be in customers’ best interests.

The nature of this type issue is that 100% of these assets will experience early failure, and the growing trend in failure rates is clear in the fault data from 2013-14 onwards regardless of temperature experienced. The evidence from 2018 indicates that a further acceleration of failure is associated with high temperatures and day-night temperature swings, as experienced in the 2018 summer heatwave.

During the summer of 2018 the level of faults associated with these assets was unprecedented, and the wide scale risk to security of supply was unlike anything experienced previously. The relatively limited volumes of customers actually affected was a direct result of the emergency actions that SPEN deployed at that time to urgently repair faults and a significant degree of good fortune on fault timing.

⁴ https://www.nic.org.uk/wp-content/uploads/CCS001_CCS0618917350-001_NIC-NIA_Accessible.pdf

On several occasions customer interruptions from subsequent faults were only avoided by 33kV fault locations and repairs being completed on the day that they occurred.

To provide some context, as new faults were occurring as quickly as they were being repaired over a series of consecutive days, several groups of 30,000 to 50,000 customers in Liverpool, Southport and Glasgow were at an extended risk of being off supply for up to 24 hours if one additional fault had occurred in those areas. We previously have taken the Ofgem engineering team through the detail of the network risks during this event, and are happy to present this detail again if this would be helpful to understand the unprecedented magnitude of this risk.

For a period of several weeks in both SP Manweb and SP Distribution, the network operational status was escalated to Level 1 (normally reserved for short extreme storms) and Head Office Emergency Action Centres were established to operationally plan and co-ordinate all resource requirements. During this period SPEN used the NEWSAC agreement and were supported by other DNOs and ESB.

Whilst we do not expect to experience the 2018 peak of faults volumes every year, this issue continues to present a major risk to our customers that must be materially mitigated during ED1. Two faults on the same area of network occurring within a 24 hour period could impact 30,000 to 50,000 customers, and the probability of multiple faults remains much higher than normally experienced by SPEN or other DNOs. We believe this mitigation must be facilitated by Ofgem agreeing to this reopener request.

£35m SP Manweb network reinforcement associated with HS2 construction economic growth

Ofgem's minded to position is to reject SPEN's funding requests of £35m to provide supplies to HS2 and associated regional economic growth at the lowest overall cost.

Whilst this investment is specifically targeted to facilitate economic growth, and increased customer numbers should result in reduction of average SPM customer's DUoS charges, we do recognise that there is currently increased uncertainty over whether HS2 will proceed.

One potential option to manage this uncertainty on behalf of customers and SPEN is that any HVP reopener funding could come with an obligation/commitment not to undertake any works until there is further certainty and Royal Assent is granted to HS2A. Unneeded allowances would then be returned to customers through the annual ED1 revenue iteration and close out processes. We would welcome further discussion on this approach.

We would welcome further engagement on the points set out in this letter, and in particular how SPEN and Ofgem can facilitate the best outcomes for our customers through this process.

SPENs detailed responses to the specific points raised in the consultations are included in the appendices to this letter. SPENs response to the consultation on Specified Street Works Costs will be sent separately as the consultation timeline has been extended.

Please do not hesitate to contact me if Ofgem would like to discuss any of the points raised further.

Yours sincerely



Jim McOmish
Head of Distribution Networks

Attachments:

- Appendix 1a: High Value Projects - SPEN (SP Distribution) Accelerated Electric Vehicle Investment.
- Appendix 1b: High Value Projects - SPEN (SP Distribution and SP Manweb) 33kV Cable Systems.
- Appendix 1c: High Value Projects - SPEN (SP Manweb) High Speed 2.

APPENDIX 1a – HIGH VALUE PROJECTS: SPEN (SPD) Accelerated EV Investment

In response to the reopener proposal, Ofgem stated that they do not believe that:

- a) This is a proposal for a relevant adjustment because it does not relate to a single scheme of works.
- b) The submission complies with all of the requirements of CRC 3F, in particular 3F.8(f).
- c) The proposal by the licensee represents an efficient level of expenditure.
- d) A need for the activity to be carried out has been established.
- e) The submission proposes appropriate measurable outputs for the proposed activity.

We outline our response to these points below.

a) This is a proposal for a relevant adjustment because it does not relate to a single scheme of works.

The principle that combined projects across multiple network locations constitute a scheme of works was clearly established in DPCR5. The precedent was set when High Value Project (HVP) allowances totalling c.a. £105m⁵ (in 2012/13 prices) were agreed for BT21CN projects in ENWL, WPD (EMID), UKPN (SPN / EPN) and SPEN (SPMW) Networks.

These projects upgraded the protection communications systems for numerous circuits and substations across the networks which had previously been reliant on BT copper wires; this portfolio of individual projects was accepted as a single scheme of works meeting the HVP criteria. The precedent is therefore set for the purpose of CRC 3F.

b) The submission complies with all of the requirements of CRC 3F, in particular 3F.8(f).

If this HV reopener proposal is rejected, our current position is not to progress the proposal under the load related expenditure reopener mechanism. There are several reasons for this:

- (i) The load related upward reopener mechanism would only provide funding for a proportion of investment incurred by SPEN.
- (ii) This anticipatory investment is over and above the current ED1 price control settlement and exactly the type of investment the HVP mechanism was designed to accommodate.
- (iii) Ofgem have not accepted the justification for anticipatory investment as part of this proposal indicating it would not be accepted under the load related expenditure reopener mechanism.
- (iv) Under the definition of 'Load Related Expenditure (LRE) Costs' given in the Licence (CRC 1B.7) - "[LRE] does not include High Value Project Costs". As such, where a scheme of works is load related in nature but meets the definition of HVP Costs (>£25m), it cannot be considered as Load Related Expenditure. SPEN consider the only available mechanism for a scheme of work of this size is the HVP reopener.

c) The proposal by the licensee represents an efficient level of expenditure

The investment proposed is an acceleration of LV reinforcement schemes and enhanced monitoring to accommodate EV technology. The proposal includes efficient unit costs and volumes for each activity which compare favourably against industry costs.

Independent economic research by Strathclyde University has identified that accelerated investment can stimulate and deliver returns to the wider economy through the multiplier effect where it is planned

⁵ <https://www.ofgem.gov.uk/ofgem-publications/116975>

and delivered over longer periods of time (long lead times, start early). To achieve this it is better to avoid “short investment periods” which creates capacity constraints (scarcity of resources) and fuels inflationary pressure undermining value delivery. Fuel poor customers are not disproportionately impacted by this investment and powering vehicles electrically has a stronger UK supply chain than petrol/diesel, contributing to the roll-out of EVs having expansionary impacts on the wider economy.

These economic benefits cannot be realised without anticipatory investment to provide the necessary capacity to enable electrification of transport.

d) A need for the activity to be carried out has been established

SPENs accelerated EV Investment proposal is aligned with the strategic national importance of EV infrastructure investment, UK Net Zero ambitions and independent research demonstrating long term economic benefit.

Ofgem’s RIIO-2 response to the Committee on Climate Change’s Net Zero Report on the 8th August indicated that for projects ‘*specifically intended to support achieving the Net Zero target*’ expectations around ‘*robust and substantial evidence*’ required to justify investment ‘*will be tailored appropriately*’.

Stakeholders recognise that GB must Invest Ahead of Need in its Infrastructure. The Climate Change Committee has stated that “achieving net-zero emissions will require new infrastructure. In many areas electricity networks will need to be strengthened” and “many networks will need to be upgraded in a timely manner and future-proofed to limit costs and enable rapid uptake of EVs and heat pumps”.⁶

SPENs networks are key enablers of a Net Zero economy as Ofgem have recognised in their response to the Committee on Climate Change’s Net Zero Report⁷. Given the Scottish Government’s increased ambitions in this area, this investment is crucial to ensure that SPEN do not become a blocker to future Electric Vehicle (EV) growth.

e) The submission proposes appropriate measurable outputs for the proposed activity

As outlined in our submission and responses to supplementary questions, we would report on the proposed intervention activity in detail, including volume of infrastructure installed, volumes of EVs that can connect and additional network capacity installed to enable EVs to connect.

This is will be measurable, auditable and transparent meeting the requirements of CRC 3F in full.

Given the nature of anticipatory investment there is always a potential that capacity created could be used by other connections. As the capacity created will be at low voltage it is unlikely that significant levels of capacity will be utilised by other connections based on demand forecasts.

⁶ <https://www.theccc.org.uk/wp-content/uploads/2019/05/Net-Zero-The-UKs-contribution-to-stopping-global-warming.pdf>

⁷ https://www.ofgem.gov.uk/system/files/docs/2019/08/letter_to_networks_on_achieving_net_zero.pdf

APPENDIX 1b – HIGH VALUE PROJECTS: SPEN (SPD and SPMW) 33kV CABLE SYSTEMS

In response to the reopener proposal, Ofgem stated that they do not believe that:

- a) a need for the project to be carried out has been established;
- b) measurable outputs for the project are appropriate;
- c) the proposal represents an efficient level of expenditure.

We outline our response to these points below.

a) A Need Case for the project to be carried out has been established

We are concerned that various factors fundamental to the needs case have not been recognised:

(5.12): The analysis presented by SPEN postulates that environmental conditions accelerate the ageing of the joints. However, a direct correlation between environmental factors and failure has not been proven.

The submission is not based on the influence of environmental factors, though this may exacerbate the issue. The root cause is a known failure mode due to a manufacturing and design deficiency, common to all joints of this particular type and date range.

Forensic investigations have concluded that all joints of this type are at risk of advanced failure by design and are subsequently end-of-life. Joints that are not replaced present a risk to security of supply during network outages and carry the potential for network inversion in interconnected areas of network. We have provided third party forensic analysis detailing the failure mode and establishing the root cause as latent deficiencies in the joints design.

In support of the working hypothesis that seasonal variations may exacerbate the issue we have provided an internationally peer-reviewed paper prepared by SPEN for the 2019 CIRED Conference in support of this theory. Although we consider this to be of interest to Ofgem it should not serve to illustrate a direct correlation between environmental factors, as this is not the primary cause of failure.

(5.19): ... a single year of above trend data does not provide robust justification for the scale of investment proposed by SPEN in their submission.

Against an expected service life of 40-45 years, these joints exhibit a high failure rate after only 10-15 years of service with 6% of the entire population failing in the summer of 2018, and a 3-year average of over 3%. This is compared with a non-type issue joint failure rate of around 0.2%.

Although 2018 presents the most severe fault period, and demonstrates the realistic risk of wide scale simultaneous failure, it is not the premise of the entire reopener submission. We submitted 9 years of failure data, demonstrating an increasing trend of failures since 2013; which was also the point in time when historic fault volumes were taken for forecasts over the ED1 period.

The increased failure activity for which this reopener relates is not associated with a single year of above trend data in loss of supply events, but the increasing and unexpected trend in asset failures (without provision in SPEN ED1 plans) occurring since the beginning of ED1.

(5.21): Based on actual loss of supply incidents to date we consider that the risk to security of supply has been overstated. SPEN have not demonstrated that the presence of the 33kV trifurcating cable joints within the network areas has had a significant detrimental impact on consumers or that it presents a risk that cannot be managed.

The risk associated with this asset is the highest ranking EHV networks risk on the SPEN asset risk register. SPEN would also highlight that the network risk of asset failure is not equivalent to incurred loss of supplies.

For a period of several weeks in both SP Manweb and SP Distribution, the network operational status was escalated to Level 1 (normally reserved for short extreme storms) and Head Office Emergency Action Centres were established to operationally plan and co-ordinate all resource requirements. During this period SPEN used the NEWSAC agreement and were supported by other DNOs and ESB. Had this operational response been stretched any further wide-area customer supply interruptions would have been experienced, particularly in dense urban areas.

In SPD, the customer impact was sufficient to declare an exceptional event; this is only the second time since its introduction that SPD have reported a non-storm related exceptional event.

In SPM, customer impact was more limited due to the nature of the unit protected network, though at one point 19 faults occurred in a 24hr period. To provide some context, new faults were occurring as quickly as they were being repaired over a series of consecutive days, several groups of 30,000 to 50,000 customers in Liverpool, Southport and Glasgow were at an extended risk of being off supply for up to 24 hours if one additional fault had occurred in those areas.

The social and economic impact of wide scale supply interruptions across the UK on Friday 9th August 2019 serves to highlight the importance of avoiding wide area interruptions. The potentially longer restoration times, and the specific areas of network affected by the affected joints mean that without intervention, events of similar or greater social impact at a local level are a very real possibility.

SPEN reject that this is an overstatement of risk as it is a summary of our response to the most demanding operational challenge and recurrent network risk faced by SPEN on our networks.

b) Measurable outputs for the project are appropriate

(5.33) In our view it is not clear how the mean minus one standard deviation of circuit lengths, of a small number of circuits provides a robust basis to estimate the required average volume replaced. It is not clear how the derived figure of 575m relates to actual physical joint clusters.

The above method was not applied to a small number of circuit lengths but to the entire population of circuits identified for overlay, the approach was verified as reasonable through design assessment of a number of case study circuits. In these cases the overlay length was not continuous but in discrete sections, removing as many joints as possible to maximise circuit reliability. It is a well understood statistical method to utilise the arithmetic mean for the purposes of extrapolation, where there is uncertainty in a method, a standard deviation (σ) can be applied to quantify the variation in a data set.

In recognising the uncertainty, SPEN proposed to make use of a mean minus one standard deviation approach, statistically providing a conservative underestimate of the true required length of cable and recognising that it would not be appropriate to replace entire circuit lengths. This approach is designed to give Ofgem and consumers' confidence that SPEN are prepared to carry the risk of inaccuracies in estimation given that it had not been possible to complete detailed design assessments of each affected circuit. The activity to undertake this analysis (numbering several hundred circuits) will be delivered over the next year as part of the delivery programme.

(5.34) It is our view that SPEN have not provided a robust methodology for calculating the cable volume or uncertainties in volumes. For the level of proposed investment, we consider that SPEN should have greater certainty of joint cluster densities and have measured cable lengths to support volume estimates.

As part of the network panning function and risk prioritisation model, SPEN have clear certainty and data representing the volume, location, size and density of joint clusters. SPEN also have clear records for the length of affected circuits and locations of joints which will inform detailed, circuit by circuit design assessments. Requested extracts of this analysis this was provided in response to Ofgem's supplementary questions. In summary, over 60% of joints in both licences appear in clusters.

In recognition of the inherent uncertainty in proposed cable lengths, as set out in our submission, SPEN propose to mitigate the risk to consumers through a volumetric closeout assessment. This would utilise an agreed efficient unit cost and actual volumes delivered to determine if 'clawback' using an equivalent method is required at close-out.

SPEN consider this to provide ample security to consumers against the risk of inaccurate estimation of cable overlay lengths and acknowledges the limitations in the existing cable length approximations. SPEN request Ofgem considers this output mechanism seriously.

c) The proposal represents an efficient level of expenditure.

(5.38) SPEN's preference is to replace all of the of 33kV trifurcating cable joints between 2019 and 2023 to minimise the risk to security of supply. However, the current risk to security of supply due to 33kV trifurcating cable joints has not been quantified, nor has the benefit to system security after investment and removal.

In planning to reduce network risk and tackling the single largest risk to the EHV networks in both licence areas, it would be unusual to unduly delay beginning intervention activity. The time period for intervention has been set ambitiously to ensure the removal of all affected joints in a timely manner and in accordance with the current price control period.

It is true of most assets across networks that a single failure will not result in loss of supplies; in fact, EHV networks are designed to be resilient to this. This is however not appropriate justification to avoid replacement of an EHV asset, particularly where a high probability of failure exists.

SPEN compare this intervention programme with that of other 'health index 5' assets, whereby efficient and economic intervention is planned and delivered at the earliest opportunity. Network Asset Secondary Deliverables within the price control recognise the wider risks that end-of-life assets pose to networks, operators and customers. Although risk to security of supply is a component of the justification and motivation for the programme it should not be considered standalone.

(5.39) We consider that total replacement of all the 33kV trifurcating cables affected in the current Price Control Period is a very conservative position with regards to network risk. Furthermore, it is not likely to be economic or efficient to replace all 33kV trifurcating cable joints in the current price control period, without due consideration of the wider asset replacement and reinforcement schemes.

SPEN have considered all risks as they exist to our customer base as a network operator, that is; the risk to security of supplies, the risk of loss of supplies, the risk of thermal and fault level network stressing, the risk of advanced network deterioration, the risk of increased unplanned operational activity and the risk of increased public disturbance through emergency road closures and excavations. In turn, each of the above increases where protracted fault repair periods occur owing to availability of staff, stock, network access and test equipment during periods of excessive fault activity (i.e. the summer of 2018).

SPEN challenge the claim that the benefit has not been quantified and is inefficient or uneconomic. The 614 targeted joint replacements within this proposal at a unit cost of £10.22k compare favourably against the equivalent fault unit cost of £12.39k. This realises a £1.3m benefit to consumers

compared with deferring to replacement on fault, and avoids the additional risks associated with fault activity. The economic case for cable overlay below.

There is limited scope to co-ordinate the replacement and overlay programme with pre-existing asset replacement schemes as SPEN has already delivered the majority of a much smaller EHV cable system modernisation programme early in the ED1 period.

SPEN cannot consider the replacement of affected joints in the identification of reinforcement schemes. Where efficiency is available i.e. during excavation works or by coordinating system outage planning SPEN will endeavour to align programmes, however, the volumes will be very low and not material to the proposal.

(5.45) In their responses SPEN have not justified the additional cost associated with cable overlay solutions via analysis. Replacing 33kV trifurcating cable joints via a cable overlay is more expensive than a replace on fault/targeted replacement program. Given the additional cost of the cable overlay solutions we consider this a shortfall in the proposal.

In our additional information response to Ofgems supplementary questions we set out the economic justification for this intervention mode over targeted removal and replacement on fault. SPEN are concerned that the lifetime benefits of this solution have not been recognised and that the outputs of a replace on fault/targeted replacement strategy are being compared equivocally with cable overlay solution. This should not be the case as the overlay solution has been applied only where the improved overall network condition offers long-term customer economic benefit.

Through analysis of joint failure probability, a summary of which is provided in our supplementary question responses, that undertaking targeted replacement on circuits containing multiple joints will result in poorer performance over the asset life. Analysis demonstrates that a circuit containing joints at rate of 1 per 70m has approximately twice the fault probability of the equivalent length of continuous circuit over the asset life.

As Ofgem point out, the average length of cable overlaid per affected joint is 110m; if these were instead replaced via targeted intervention this would result in 4 joints per 110m, at an initial cost of £10.22k. This circuit would then be more than 2.5x as likely to experience a fault (unit cost of £12.39k) over the asset lifetime compared to a continuous cable section.

The increased fault probability and subsequent fault cost would offer a lower lifetime economic benefit to customers compared to the initial cable overlay cost. The exact quantification of the benefits can only be accurately determined on a case-by-case basis as such a value cannot be reliably provided, though SPEN consider the economic argument to be clear.

APPENDIX 1c – HIGH VALUE PROJECTS: SPEN (SPMW) High Speed 2

Ofgem's minded to position is to reject SPEN's funding requests of £35m to provide supplies to HS2 and associated regional economic growth at the lowest overall cost.

Whilst this investment is specifically targeted to facilitate economic growth, and increased customer numbers should result in reduction of average SPM customer's DUoS charges, we do recognise that there is currently increased uncertainty over whether HS2 will proceed.

One potential option to manage this uncertainty on behalf of customers and SPEN is that any HVP reopener funding could come with an obligation/commitment not to undertake any works until there is further certainty and Royal Assent is granted to HS2A. Unneeded allowances would then be returned to customers through the annual ED1 revenue iteration and close out processes. We would welcome further discussion on this approach.

In response to the reopener proposal, Ofgem stated that they do not believe that:

- a) This is a proposal for a relevant adjustment in respect of High Value Project Costs, as defined, because it does not relate to a scheme of works.
- b) The submission complies with all of the requirements of CRC 3F.
- c) The proposal by the licensee represents an efficient level of expenditure.
- d) A need for the activity to be carried out has been established.

We outline our challenge to these points below:

a) This is a proposal for a relevant adjustment in respect of High Value Project Costs, as defined, because it does not relate to a scheme of works.

As indicated in our Appendix 1a response to Ofgem's minded to position on the SPEN (SPD) Accelerated EV Investment proposal, SPEN consider there to be precedent for combined 'projects' across multiple network locations to constitute a scheme of works for the purpose of CRC 3F.

SPEN also maintain that material in the public domain, our interactions with customers and local authority planning and policies demonstrate a strong link between the forecast regional economic growth and the HS2 project. SPEN economic growth forecasts are a result of the development strategies that regional authorities have enacted, in part due to the opportunities created by HS2.

b) The submission complies with all of the requirements of CRC 3F

It is SPEN view that the HVP reopener mechanism is the only appropriate submission route for this uncertain cost and do not consider use of the CRC 3G Load Related Reopener (LRR) mechanism for this activity to be appropriate. We consider the underlying driver to be non-compatible with the definition of General Network Reinforcement. The LRR was intended to accommodate changes in levels and patterns of demand but not significant demand changes arising from a government infrastructure project of national significance, with a value >£25m.

In SPENs view, this is exactly the type of investment the HVP mechanism was designed to accommodate. Load Related Expenditure (LRE) Costs are defined in the Licence (CRC 1B.7) as "...does not include High Value Project Costs". Under this definition, where a scheme of works meets the definition of HVP costs (i.e. value >£25m), it cannot be considered Load Related Expenditure. In this sense the HVP reopener mechanism is the only appropriate submission route for this uncertain cost.

c) The proposal by the licensee represents an efficient level of expenditure.

Ofgem expressed concern that without a review of available flexibility solutions they cannot assess whether the proposal represents an efficient expenditure for consumers. SPEN have previously outlined how we had assessed the applicability of flexibility on each of the network interventions. We maintain that flexibility can only be used to resolve a subset of issues, for example it can be used to optimise some network capacity but cannot create capacity where network does not exist.

In March 2019 we issued a competitive flexibility tender via the Piclo flex platform for post-fault condition support. The tender requested a total of 107MW across various locations and service windows with potential to defer or avoid conventional reinforcement schemes valued at £7m. A total of 8 providers registered, with only one submitting a formal bid. The bid value was six times higher than the calculated ceiling price and was subsequently rejected. SPEN continue to set ambitious flexibility targets and are serious about procuring non-build alternatives, at this time provision of flexibility services cannot be guaranteed to be available.

As such the minimum cost schemes which can be delivered have been included within the proposal. To provide additional assurance, SPEN committed to further evaluation of flexibility options in advance of each of the interventions being progressed.

d) A need for the activity to be carried out has been established

We accept that there is uncertainty over whether HS2 will proceed and if so how it should be funded. SPEN are also willing to commit not to undertake any works under the terms of the submission until there is further certainty and Royal Assent is granted to HS2A.

SPEN also suggest that conditional funding from Ofgem could be assigned subject to receiving pre-agreed clarity on the funding arrangements. Alternatively, if the level of uncertainty prevents Ofgem from awarding conditional funding we would urge Ofgem to explicitly recognise the risk to SPMW and agree to revisit any incurred efficient costs at the end of the ED1 price control.

SPEN responded to Ofgem's supplementary questions explaining that the additional costs of separate un-coordinated projects would be £34.85m greater than the value of the reopener proposal demonstrating significant customer benefit of progressing as a HVP. To deliver projects efficiently, and to avoid revisiting prior works, it is necessary to consider the long term capacity demand growth holistically, and not deliver investments piecemeal. The common driver behind this network investment justifies the holistic design solutions.