

| SSEN Distribution - Draft Determination EJP Response | | | | | | |
|--|---|----------|------|--|----------|------|
| Name of Scheme | 33kV Circuits – Rutter Pole Reinforcements | | | | | |
| Primary Investment Driver | Load | | | | | |
| Scheme reference | Rutter Pole Circuit Reinforcements – 365/SEPD/LRE/POLE | | | | | |
| Reporting Table | CV1: Primary Reinforcement | | | | | |
| Ofgem EJP Comments | <p>The paper puts forward the needs case to replace rutter poles now rather than natural replacement when reaching end of life based on asset health. The benefit is identified as reduced CI and CML, however, current impact on CI and CML is not presented, nor is improvement after.</p> <p>Clarification indicated that the current CI and CML for the circuits within this EJP are very small and that it is difficult to quantify the actual CI and CML (without intervention) to any degree of accuracy.</p> <p>Reduced CI and CML is stated as a benefit, however clarification indicated that current CI and CML for the circuits within this EJP are very small. We therefore consider that there is a risk related to the proposed benefits to the consumer.</p> | | | | | |
| | Final Business Plan Submission | | | Latest Position (July 2022) | | |
| Need Case | CML and CI improvement | | | CML and CI improvement | | |
| Demand Forecasts | N/A | | | N/A | | |
| Connections | N/A | | | N/A | | |
| Stakeholder Impact | Repeated supply interruption | | | Repeated supply interruption | | |
| Preferred Option | Option 4: Rutter Pole Line replacement and reinforcement (hybrid solution) | | | Option 4: Rutter Pole Line replacement and reinforcement (hybrid solution) | | |
| Output reference/type | 33kV Pole 33kV Cable | | | 33kV Pole 33kV Cable | | |
| Cost | £10.933m | | | £10.933m | | |
| Delivery year | 2023/24 to 2024/25 | | | 2023/24 to 2024/25 | | |
| Outputs included in RIIO ED1 Business Plan | No | | | No | | |
| Spend apportionment £m | ED1 | ED2 | ED3+ | ED1 | ED2 | ED3+ |
| | 1.58m | £10.933m | 0 | 1.58m | £10.933m | 0 |
| Deliverability & Risk | | | | | | |
| Summary | <p>We have reconsidered the benefits of the original scheme and taken account of Ofgem comments on the likely magnitude of the CML and CI benefits of the proposed replacement. We make the following comments for further consideration by Ofgem:</p> <p>The primary driver for these works is CML and CI network operation and resilience improvements. In addition, there are several secondary drivers. Whilst P2/7 compliant for first circuit outages, due to operational safety clearance requirements it is necessary to have a second circuit outage to repair/complete works identified with the first circuit outage.</p> <p>Due to the short-arm configuration of a Rutter pole for carrying a dual circuit, minimum safety clearance cannot be adhered to when works are required to be undertaken on either side of the circuits.</p> | | | | | |

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|-----------------------------|---|
| | <p>For the circuits identified in our EJP, switching out both circuits will generally lead to customer interruptions as a direct result of the need to isolate both 33kV circuits on the structure, combined with insufficient 11 kV back-feed to the 33/11kV substations.</p> <p>With the group demand on the 33kV Rutter Pole lines in excess of 1MW (P2 Class B) then the group demand (minus 1MW) must be restored within 3 hours following a circuit outage. The Rutter pole circuits are designed to provide sufficient capacity in the event of an unplanned outage (fault) as any one of the two circuits on the Rutter Pole structure can support the group demand (winter peak demand). In this respect the circuits are P2 compliant.</p> <p>However, in the event of the need for post fault repair, or other planned high priority works, then the group demand is unable to be supported by the 33kV as both need to be switched out and isolated for any work to be undertaken on either line. Reliance is then on the extent of any 11kV support to the substation, on the urgency of the work and whether or not there are periods during the year that the 11kV support can meet the substation demand.</p> <p>To resolve this issue, it is necessary to build at least one new segregated circuit. These schemes are bringing forward the asset replacement by a maximum of 12 years and providing the CML and CI and P2 benefits.</p> <p><u>Example</u></p> <p>In the case of the Hunston – Birdham/Selsey project we will be unable to restore supplies to 12,643 customers for outage of both circuits for the majority of the year. The expected daily IIS cost for this would currently be approximately £2.9 million¹.</p> <p>Alternatively, we could use mobile generators to maintain supplies to these customers. This will be a lengthy process as will be required at 134 sites for which daily generator hire, transport and fuel costs will be of order of £0.54m. This excludes staff costs, environmental impact and availability of such a number in required time scales.</p> <p>In Table 1 we provide an updated picture of the circuits proposed in our EJP. Most are in design and some also have customer and stakeholder impacts and implications. If these schemes do not go ahead for construction in Years 1 and 2 of ED2 – and are cancelled – then we will also incur abortive costs due to design, landowner engagement and consents work committed and in progress.</p> <p>We request that Ofgem re-considers its assessment of these seven Rutter Pole schemes with a view to supporting full justification for inclusion in our ED2 Business Plan.</p> |
| Relevant Attachments | None (see Table 1) |

| Project Number | Circuit | Proposed solution in EJP | | | Comments |
|----------------|---|------------------------------|------------|---------------|---|
| | | H_Pole Structure replacement | Cable (km) | Delivery Year | |
| PS006569 | Coxmoor Wood – Wrecclesham | 56 | 2.15 | 24/25 | Currently forecast Design completion 31/12/23 |
| PS006570 | Hunston – Birdham / Selsey | 43 | 2 | 24/25 | Currently forecast Design completion 31/12/23 |
| PS002140 | Coxmoor Wood – Crookham | N/A | 4.9 | 23/24 | Project is in advance stage of Design and should be ready for full delivery in 23/24 |
| PS001334 | Hunston – Rose Green | N/A | 4.7 | 23/24 | Project to be delivered in two stages to satisfy commitment made to housing developer who offered easement for northern section of cable route on understanding OHL would be removed. Whole route should be consented in time for full delivery in 23/24. |
| PS006571 | Havant– Horndean/Waterlooville - Horndean | 6 | 1 | 24/25 | Currently forecast Design completion by end of 23/24 in time for delivery in 24/25. |
| PS002593 | Upper Heyford - Bicester | 17 | N/A | 24/25 | Challenges obtaining landowner consent for pole replacements due to potential development of land for housing. May be necessary to underground a significant proportion of this line which will increase costs |
| PS005552 | Aldershot – Farnham | N/A | 4 | 23/24 | Currently forecasting design completion in 22/23 although this is a challenging scheme and therefore risk of this slipping. |

Table 1 – Progress update on proposed Rutter Pole reinforcement schemes