

SHERINGHAM SHOALS (SEP) AND DUDGEON (DEP) WINFARM EXTENSION PROJECT.

Response to Phase 2 Consultation from Swardeston Parish Council

Swardeston Parish Council have determined to limit comments to matters around the Onshore Substation and the cable route within our parish and surrounds, being that area in which we have the appropriate knowledge to offer such guidance and criticism as the consultation warrants. No comments will be made on the efficacy of the consultation document as a whole, nor any hypothetical alternatives to the project or its termination at Norwich Main.

1. Traffic & Onshore Substation Site Access

1.1 Onshore Substation Vehicle Movements

The Provisional Environmental Impact Report (PEIR) (Table 26.21 and Table 26.24) estimates some 175 HGVs entering and leaving the substation site daily (350 movements). In addition, there could be up to 234 LCVs (468 movements). Assuming a 10-hour working day, this equates to a **peak hourly** traffic flow of 35 HGVs and 234 LCVs into or out of the site (as it has been assumed in the document that all LCV movements take place during the first and final hours of the working day).

With either up to 130 employees (Table 26.20) or 144 employees (26.6.1.4.2.225) working on or passing through the substation site it is vital that steps are taken to improve on the one employee per vehicle assumption to reduce LCV traffic flow. Given that the bulk of employee travel will take place during existing peak traffic hours this will result in extensive additional traffic with inevitable delays and possible gridlock.

Conclusion

Introducing a car share scheme or a minibus shuttle service would be beneficial in dramatically reducing the number of LCVs entering and leaving the site every day, lessening the impact of the site works on pre-existing commuter and local traffic.

1.2 Onshore Substation Access

The PEIR details four potential access points for the onshore substation site (C78A, C78B, C78C and C78D) described in Chapter 26.6.1.3.8 para 212 and shown on Figure 26.4 sheet 3 of 3 although in some parts of the PEIR there are only three access points with C78D missing. Despite this, the map on page 42 of the Onshore Works Plan and also that forming part of the Online Exhibition and featuring in recent webinar presentations, shows **five** potential access points. Given that C78A and C78D are in different locations on the two maps we can best comment on these different access points by description.

- 1.2.1 Access off the A140 via the quarry.** We will not presume to comment on the feasibility of using this route through the actual quarry but the access road into it from the A140 was specifically designed to take the type of HGV mainly being used on this project. Our concern relates to the rush-hour traffic flow of 35 HGVs plus 234 LCVs which equates to one vehicle every 14 seconds, assuming a one-way system is in place and the HGVs leave by a different access point. Given that the majority of these vehicles will arrive from the direction of the A47 and travelling south approximately 400m on the A140 they will then be turning right across the heavy rush-hour traffic travelling north towards Norwich on this road. Some form of traffic control, journey staggering or multi-

occupancy vehicle use will be essential to reduce this peak flow to a safe and workable figure and avoid queuing of traffic back to the A47 roundabout. However, given that access has to be gained somewhere this is probably, in our opinion, the best way into the substation site if feasible and would also provide a safe exit if a more desirable one-way system cannot be achieved.

- 1.2.2 Access off the A140 into the East end of Mangreen Lane.** The comments in 1.2.1 regarding traffic volumes apply to this access also, being approximately 400m further south, but the entrance to Mangreen Lane from the A140 is sited at the top of a hill at the end of a blind bend for traffic travelling North on the A140. Although this short stretch of the A140 is subject to a 40mph speed limit as a railway bridge safety measure, this is generally accepted as widely ignored and traffic speeds can approach the national limit of 60mph at non-peak times. Having large numbers of slow-moving HGVs crossing such traffic is hazardous.
- 1.2.3 Access off the A140 into Bridle Road (Stoke Holy Cross BR3).** Comments regarding traffic volumes as above. The gated access is narrow and would need a great deal of work to make it suitable for HGV access. Although the access is on a relatively straight stretch of road with good visibility the road has double white lines and no central right-turn lane. It could possibly be utilised as a “left-turn only” exit from the site but is not at all suitable as an entrance.
- 1.2.4 Access off the A140 into Hickling Lane.** Comments regarding traffic volumes as above. This access has a reasonable splay onto the A140 and also has reasonable visibility in both directions. The road, at this point, has double white lines and no central right-turn lane. It would serve only as a “left-turn only” exit for a one-way system but Hickling Lane and its railway bridge are too narrow and the bridge too close to its junction at the A140 to allow for safe two-way traffic management.
- 1.2.5 Access off the B1113 into a temporary access road alongside Mangreen Lane.** It appears this road is being considered as an exit route for a one-way system in and out of the site but, despite only handling one-way traffic, the additional burden on the B1113 would be catastrophic. Given that it is likely this project will overlap Hornsea Project 3 (HP3), where all substation traffic (a significant number of HGV and LCV movements per day) is proposed to be using the B1113, periods of gridlock are inevitable. On the assumption that most of this traffic would then be heading north on the B1113 the B1113/A140 junction at Harford Bridges, which is already operating above capacity, subject to considerable queuing at peak times and to be impacted even further by HP3 traffic, simply is not capable of handling any further demand. This route would also heavily impact bridle roads Swardeston BR9 and BR12 which, being used by walkers and horse riders, would be highly desirable to maintain in use given the lengthy construction period of at least four years. The PEIR appears to rate the impact on these paths as major adverse and suggests “soft management”.
- 1.2.6 Access off the B1113 into Gowthorpe Lane.** We have been advised that this is an error on Figure 26.4 sheet 3 where access C78D is shown in the wrong location. No further comments to be submitted on the basis that this is not a proposed access point, we reserve the right to make submissions at a later time if we have been incorrectly advised and this point is under consideration.

Conclusion.

In a number of places within their PEIR Equinor refer to HP3 as awaiting consent whereas consent was granted more than 3 months prior to PEIR publication. Given the developer’s suggested construction windows for the onshore substations for both SEP and DEP and HP3, with the possibility that both projects could well be built in two consecutive phases it seems inevitable, should SEP and DEP receive consent, that substation construction for both projects will overlap to a considerable extent. In view of this, and the fact that HP3 plans to use the B1113 from the A140 (Harford) junction to the substation site south of the A140 for all traffic, any suggestion that SEP and DEP might use this same full-capacity B-class road for any traffic at all is unacceptable. The fact that a possible one-way exit route alongside Mangreen Lane onto the B1113 might form part of Equinor’s traffic plan is inappropriate and should be discounted as a viable option. The traffic volumes already proposed by HP3 will almost certainly gridlock the B1113/A140 (Harford) junction

for large parts of each construction day which will severely impact both local and commuter traffic flows and traffic movement along the B1113 and at the B1113/A140 (Harford) junction cannot be added to.

2. Onshore Substation Site

2.1 Site 1

This proposed site sits adjacent to the Norwich-London rail line with its overhead electric cables and also the Norwich Main Substation with its radiating array of pylons. It is also close to the A140 which provides a number of direct access routes for construction traffic. The A140 already generates a considerable degree of background noise during the working day which would mitigate much of the noise generated by substation construction.

The site sits in a dip in the land and is some 8 metres lower than the proposed Site 2. This difference in levels immediately reduces the overall visual impact of the substation by more than 50% and reduces construction noise being transmitted to the surrounding area. Mitigation in the form of selected additional planting would have the potential to effectively screen the substation from view within a relatively short time.

The bridle road, Stoke Holy Cross BR3, would be impacted by either substation site in that it would be cut by the site access road heading south from Norwich Main Substation. As this Public Right of Way (PRoW) is used by walkers and horse riders it would be desirable that this path is maintained throughout the extensive construction period of at least four years. Closure of this path, including Swardeston BR12, over its entire length for that period of time could well result in its permanent loss unless carefully managed. The footpath running parallel with the A140 between Hickling Lane and Stoke Holy Cross BR3 would also be impacted by construction noise to some degree but its proximity to the A140 and the existing screening along the rail line would mitigate that noise to a degree.

From an archaeological viewpoint Site 1 has been assigned a low perceived heritage significance.

2.2 Site 2

This proposed site sits very close to an ancient bluebell wood and is bordered by a number of well used footpaths and bridleways. The visualisations in the PEIR suggest that this location has a far greater visual impact from virtually all directions mainly due to its perceived elevated position when compared to Site 1 and consequently there is little to prevent construction noise affecting receptors over a considerable area. From some viewpoints it would be impossible to effectively screen the substation from view if constructed on this site.

The bridle road, Stoke Holy Cross BR3, would be impacted by either substation site in that it would be cut by the site access road heading south from Norwich Main Substation. As this PRoW is used by walkers and horse riders it would be desirable that this path is maintained throughout the extensive construction period of at least four years. Closure of this path, including Swardeston BR12, over its entire length for that period of time could well result in its permanent loss unless carefully managed. Assuming this path is kept open during construction the Swardeston BR3 end would be heavily impacted by construction noise and dust as would Swardeston BR9 and BR11 and also Swainsthorpe BR7. All of these paths would suffer great visual impact as construction progressed, as shown in the PEIR visualisations.

Examining the archaeological data for Site 2 and its immediate surroundings, both Norfolk Historic Environment Record (NHER) data and Equinor's own surveys (area PA2) suggests this location impacts the sites of the medieval village of Gowthorpe (NHER 52069), the Chapel of St. James (NHER 9717) and the Humbleyard Hundred Moot (NHER 9750). The surveys of PA2 also suggests crop marks and enclosures dating back to Roman times which aligns with the proximity to the ancient track of Hickling Lane and the nearby Roman town at Caistor St. Edmund. The site also contains parish boundaries in the form of ancient hedgerows which would be impacted by construction. Overall Site 2 has been rated as being of medium to high perceived heritage significance.

Conclusion

Site 2 would have a significantly greater impact as regards noise and disruption to local residents and users of recreational paths during substation construction, which could extend to anything from 4 to 7 years. Once complete, a substation at Site 2 would have a significantly greater visual impact on local residents and those using the nearby footpaths and bridle roads for the next 35+ years. Site 2 has been noted as containing a number of valuable heritage assets which would inevitably be impacted or lost as a consequence of construction at that location.

3. Onshore Cables

3.1 General

Although most documentation and presentations refer to onshore cables being ducted there are still several places in the PEIR where reference is made to cables being simply buried in trenches without ducts. As Chapter 5.6.1.3.252 clearly refers to ducts we assume this is the proposed method of onshore cable installation. On that basis it is imperative that, should SEP and DEP be built at different times, the ducts for the second project are installed at the same time as those for the first project. This would provide some mitigation for the timescale of disruption caused by the trenching activity and would just leave less invasive “cable pulling” to be carried out for the installation of the second project if not carried out concurrently.

3.2 Crossing 153 (B1113)

This road crossing is detailed in Appendix 5.1 as being possibly Open Cut or Trenchless (using Horizontal Directional Drilling – HDD). Given the high traffic volumes along this road, the disruption to local businesses and residents if this road is closed (given the 26+ minute proposed diversion) and the temporary cessation of a critical twice-hourly bus service between Mulbarton and Norwich, this crossing must be categorised as requiring Trenchless (HDD) installation. Due to the length of the proposed diversion, closing this road would result in extremely high levels of “rat running” through surrounding narrow lanes which are not appropriate for the traffic levels using this road at all times of day.

There is no indication as to how long a road might be closed for open cut trench cable laying but, given the width and number of trenches required, and the need to reinstate a road bed up to 1¹/₂ metres deep, this could be a significant period. It also appears that trenching across a road rather than using HDD results in the loss of at least 20 metres of hedging on either side of the road. The other alternative to closing the road or using HDD mentioned in the PEIR would be to temporarily widen the road (presumably just on one side) to allow open trenching to just beyond the centre of the widened road with single-lane, light-controlled traffic movement using the remainder of the widened road. This would obviously require much more than 20 metres of hedge to be removed and would still cause lengthy holdups and considerable “rat running” through nearby narrow country lanes (as previously noted) during peak times with traffic volumes on the B1113 of more than 800 vehicles an hour.

3.3 Crossing 158 (Hickling Lane)

This crossing is noted in Table 26.33 as being of Low Sensitivity and Negligible Impact but, if used as a substation site access point (likely exit only), a long-term closure of several years would be a major inconvenience to many local residents unless some way can be found to allow public use to be maintained.

This track is considered by many to be of Roman origin, apparently being called “Icklinge Way” in many old maps and documents. As it is in no way associated with the parish of Hickling in Norfolk but aligns very well with the end of the present known “Ickniel Way” Roman Road near Thetford and the Roman town at Caistor St. Edmund it should not be crossed by trenching without thorough archaeological investigation. HDD at a significant depth would preserve the ancient roadbed.

Conclusion

HDD must be the preferred method of crossing both the B1113 and Hickling Lane albeit for different reasons. The remaining crossings within the parish (148-152, 154-157) are probably manageable if open trenched, providing adequate signage and advance notice is provided and the work is completed as expeditiously as possible.

4. Recreation

4.1 General

The PEIR states that significant effects during the construction, operation and decommissioning phases of the onshore substation sites have been identified on the users of a group of Public Rights of Way (PRoW), a permissive bridleway and Gowthorpe Lane that surround the fields in which the onshore substation sites lie. Effects would be at most of major significance and adverse.

Chapter 21.7.3.7 identifies obstruction of PRoW Swardeston BR12, Stoke Holy Cross BR3 and Swardeston BR9 in the vicinity of the onshore substation. Para 270 suggests mitigation by way of “soft management” or provision of alternative routes and suggests any impact would be short term and temporary. Para 271 suggests these cumulative residual impacts are minor adverse.

Conclusion.

Given that SEP and DEP could sequentially impact these paths for up to 8 years and Hornsea Project 3 impacts the same paths with its cable route, the major disruption of a network of well-used paths is unacceptable given that it is impossible to simply take two paths in isolation without considering the whole adjoining local PRoW network. Whatever is meant by “soft management” has to guarantee that these paths remain safely open for the majority of the construction period with no more than the occasional closure or diversion for a short period.

For and on behalf of
Swardeston Parish Council

Derek Barber. Chair