SPR EA1N and EA2 PROJECTS



DEADLINE 2 - COMMENTS ON EXQ1 RESPONSES - 1.18 TRAFFIC & TRANSPORT

Interested Party: SASES IP Reference Nos. 20024106 and 20024110

Issue: 2

Question	Торіс	Question	Response	SASES Comment
1.18		Transportation and Traffic		
		ES Chapter 26 Traffic and Transport [APP-074]		
1.18.2	A12/ A1094 Friday Street junction	Both SCC as highway authority and ESC as LPA raise concerns in their RRs [RR-002, 007] about the following matters: - abnormal loads; - the mitigation measures proposed at the A12/A1094 Friday Street junction (40mph speed limit southbound on A12, rumble strips, repositioning of speed camera – a new roundabout is suggested); - the lack of planning obligations; - cumulative impacts; - the scoping out of operations, maintenance and decommissioning activities; - traffic movements; - mitigation compromising other schemes eg Sizewell C; and - Protective Provisions for SCC access as highway authority for inspection and maintenance. • Please exp	The Applicants are engaging with the Councils to address their concerns through the development of the Statement of Comment Ground (SoCG) (submitted at Deadline 1). To inform this process a series of clarification notes have been / are being prepared. Traffic and Transport: Deadline 1 Clarification Note	A very substantial new potato processing plant, weighbridge and office accommodation was consented by the Local Planning Authority on 23 April 2019. It is being built on the northern side of the A1094 near to the A12/A1094 junction. This will create further HGV and other traffic. The implication on cumulative traffic and transport needs

			(ExA.AS-8.D1.V1) has been submitted to the Examination at Deadline 1, further notes will be submitted at Deadlines 2 and 3.	and forecasts must be thoroughly assessed, in particular with regards to safety and congestion . <u>http://publicaccessdocum</u> <u>ents.eastsuffolk.gov.uk/No</u> <u>rthgatePublicDocs/014403</u> <u>65.pdf</u> On the southern side of the same junction, a substantial extension is being built for a deli and staff area. There has been a steady increase in custom and cars at the Farm Shop and Café as they continue to expand. There are other businesses on that immediate area of land, which has become a significant retail destination very close to the A12/ A1094 junction.
1.18.9	Collision Rates	Paragraph 136 says that you have agreed with SCC that the road safety review "should examine the rate of collisions per length of road in miles" and in paragraph 137 you say that "Collision rates have been calculated in billion vehicle miles". It is not clear where the methodology of assessing collisions per length of road in miles originates. a) Please explain. b) Does the highway authority have a view?	It was agreed with the Councils through the ETG process that the road safety assessment would include a comparison between the rate of collisions occurring on the roads within the onshore	An actuarial 'rate per billion vehicle miles' is inappropriate, when the real concern is increase in collision rate on a specific stretch of road as result of development.

			highway study area and national averages for comparable roads. This analysis allows a judgment as to whether the number of collisions along a road is higher or lower than would be expected for similar roads nationally. Paragraph 137 of Chapter 26 (APP-074) outlines that for comparison purposes, national collision rates have been taken from data published by the Department for Transport within Road Casualties Great Britain (September 2017). Road Casualties Great Britain expresses collision rates in 'billion vehicle miles'. Collision rates for the roads within the onshore highway study area have therefore also been calculated in billion vehicle miles to allow a comparison.	
1.18.18	OAMP	Paragraph 17 refers to construction accesses and Figure 26.2 [APP-307] shows the proposed construction access points for the onshore cable construction. a) Please explain the factors	a) Section 2.1 of the Outline Access Management Plan (OAMP) (APP-587)	The OAMP does appear to be an attempt to balance use of a totally unsuitable local road

determining the choice of construction access points. b) Is there scope for the fuller use of haul roads in order to reduce the number of construction access points and to reduce the impact of construction vehicles on surrounding roads?	describes the Projects' 'Access Strategy'. This section of the OAMP explains in detail the factors determining the choice of access location. In summary, the access strategy applies a hierarchical approach (informed by the SCC HGV route hierarchy) to selecting delivery routes and seeks to avoid and reduce the impact of HGV traffic upon the most sensitive communities. b) Section 2.1 of the OAMP (APP-587) describes the Projects' 'Access Strategy'. This section of the OAMP explains in detail how the use of the haul road has allowed the communities to be avoided. The strategy represents a balance of minimising points of access, but not to the extent so as to induce adverse impacts by concentrating traffic on a limited number of local roads.	network against the impact on sensitive receptors in the communities by making use of temporary haul roads. Unfortunately, the planned haul roads run very close to domestic properties and in several places and also a primary school. The local area chosen by the Applicant is not capable of supporting so much construction traffic without serious harm to the daily lives of the local population.
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1.18.23	Intermodal opportunities	Table 26.3 Realistic Worst Case Scenarios makes brief reference at Construction item 7 to intermodal freight transfer (rail, maritime) where you state that potential gains have been disregarded for the purposes of your assessment: in particular, section 26.3 Scope makes reference only to the onshore highway study area. There appears to be no other mention of the rail network or how it might be used and/or modified to deliver this project. a) Why is this, and b) what assumptions have been made regarding the use of possible or likely ports and railheads both during construction and maintenance, including emergency maintenance	a) Table 26.3 of Chapter 26 of the ES (APP-074) outlines that the Application contains a realistic worst case of all materials being transported by road. This is to ensure that maximum HGV demand is assigned to the highway network ensuring the full magnitude of effects is assessed. This assumption was based on the location of the existing rail head at Leiston which would serve to introduce HGV traffic on local routes to the west of Leiston and potentially increase HGV kilometres on local roads to serve the onshore cable route. It was also considered that there are other challenges to overcome such as line upgrades, loading / storage infrastructure, securing train pathways and potential environmental knock-on impacts (e.g. noise) that indicate that rail import is not a proportional	It is a serious omission in the two applications that the applicant has not seriously evaluated an alternative transport by rail option.
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	approach to mitigation for the scale of the Projects' material demand. These challenges are evidenced in the Sizewell C Transport Assessment (APP-602 of the Sizewell C DCO application) which details the following improvements are required to secure the existing line for material import: • Track replacement for the Saxmundham to Leiston branch line; and • Upgrade of up to eight level crossings. An estimated timescale for these improvements is 18 months. The Applicants have assumed the worst case scenario. Should opportunities arise in the future to utilise rail transport, the Applicants will consider this opportunity. b) The Applicants' response to Q1.18.10 sets out the assumptions that have informed the assessment with regard to possible port locations of other	
	port locations of other origins for material import.	

			With regards to the transformers, Chapter 26 Traffic and Transport of the ES (APP-074) identifies that the load would either be imported though Felixstowe or Lowestoft ports.	
1.18.27	A12/A1094 Junction	Paragraphs 74 and 75 mention HGV movements on rural roads and the associated collision risk. Have the existing collision records been examined and, if so, a) what mitigation is being considered; and b) how would such mitigation be secured?	Through the ETG process the approach to assessing the potential impacts upon road safety (impact 3) was agreed with the Councils and Highways England. The approach involves detailed consideration of collision clusters and collision rates utilising Police (Stats 19) records to determine user groups (including HGVs) and causation factors. This is detailed within section 26.5.4 of the ES (APP- 074). a) Section 26.6.1.10 of the ES (APP-074) details a full assessment of all identified collision clusters and high collision rate routes, and determines the requirement for mitigation. The A12 /	SPR suggest rumble strips, 40 mph speed limit & increased signage No evidence has been provided by SPR that this <i>will</i> reduce collision risk. SPR intention to leave other measures to discretion of contractors should be deemed unacceptable. Traffic lights - SASES is concerned that the introduction of traffic lights as suggested by SCC will increase congestion on the A12 and create more pressure and congestion on neighbouring roads and junctions particularly the Snape crossroads. SZC - The construction of a roundabout at this junction as part of the

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	A1094 'Friday Street' junction was assessed as being subject to significant adverse impacts and the following mitigation is proposed: • A reduction in the posted speed limit in advance of the junction from 50mph to a 40mph; • Provision of enhanced warning signage to better highlight the junction to approaching drivers; • Provision of 'rumble strips' and associated slow markings, to provide an audible and visual warning of the hazard to approaching drivers; and • A commitment in section 2.3.2 of the Outline Traffic Plan (APP-588), to manage employee traffic demand through the junction during peak periods. General road safety 'embedded'	Sizewell C project will cause yet further traffic disruption/congestion and there appears to be no analysis of this.
	manage employee traffic demand through the junction during peak	
	periods. General road safety 'embedded' mitigation is captured in Section 2.2.6 of the	
	OCTMP (APP-586). b) Friday Street mitigation is secured under Schedule 1 of the draft DCO (APP- 023) as Work No.36.	
	General road safety	

			measures are detailed within the OCTMP (APP586) and would therefore be secured under Requirement 28 of the draft DCO (APP-023)	
1.18.28	AIL movement	Paragraph 81 says that AIL may come from either Felixstowe or Lowestoft and that SCC and HE have advised that Lowestoft is preferred in order to avoid the Farnham Bends. We also note that in paragraph 82 you state that "the bend at Farnham is negotiable by the AIL vehicle, with full carriageway occupation and some kerb overrunning" Please a) Explain the mitigation measures you propose for Farnham; b) give an update as to which port you intend to select; and c) state whether you have considered using the rail network to transport AIL, for instance to the existing railhead at Leiston (Sizewell Halt); and if not, please explain why not.	 a) Appendix 26.4 of the ES (APP-530) demonstrates that the AIL can negotiate the route through Farnham. The mitigation measures required to allow the AIL to pass through Farnham are also detailed on drawing number 18.952SPA01 of Appendix 26.4 (APP-530) and include full road occupation, kerb overrunning and the use of steel plates or timber packing for protection. b) The Applicants are not able to provide an update upon which port would be used as this is subject to availability at the time of construction. For more information on 	Applicant suggests that allowing the haulier to overrun the kerbs and supply steel sheet or timber to protect nearby walls/property is adequate mitigation Presents existential risk to property and traffic flow

			ports see the Applicants' response to question 1.17.4. c) Rail was not considered a viable option as it was considered that the AIL weight (280 tonnes) and gauge (4.4m wide by 4.4m high) could not be accommodated by the rail network.	
1.18.29 & 30	AIL movements	Paragraph 83 says that Network Rail has advised that a rail bridge over the A1094 should be avoided. Please a) clarify whether the railway goes over or under the A1094 and b) explain why the bridge should be avoided. Paragraph 84 says how you propose that AIL would access the onshore substation site. a) If travelling down the B1122 from Yoxford, could the AIL avoid travelling through the A1094/B1069 junction and through Friston by accessing the site using the haul road directly from theA1069? b) Has this route been assessed?	 a) The railway goes under the A1094. The bridge is owned and maintained by Network Rail. b) Paragraph 8.1.12 of Appendix 26.3 (APP-529) provides details of conversations with Network Rail and confirms the bridge does not have the structural capacity to accommodate the proposed heavy load. a) Appendix 26.4 of the ES (APP-530) contains an AIL route strategy developed with the objective of having the 	The applicant rejects use of haul road for AIL delivery No indication that strength of below road culverts on proposed AIL route has been addressed

			least environmental impact. b) The route suggested by the ExA would require the strengthening of approximately 2km of haul road to accommodate the AILs and would introduce additional HGV demand to the study area. This is considered disproportionate mitigation to accommodate the two transformer deliveries for the Projects.	
1.18.34	Non-use of rail network	Section 26.5 Existing Environment does not appear to include any baseline information on the rail network, or how it might be used to mitigate the impacts of construction and operation of the project. Why is this?	The Applicants' response to Q1.18.23 sets out the rationale for the exclusion of rail as an alternative mode for the import of materials.	See SASES response above to Applicant's response to ExQ 1.18.23
1.18.39		With reference to paragraphs 211 and 328, and also paragraph 12 of the outline Construction Traffic Management Plan [APP-586] and paragraph 19 of the outline Access Management Plan [APP-587] please: a) provide an update on the three options currently being considered for access to section 3B of the cable route either side of the B1122 to the south of Aldringham; and	 a) The Applicants wish to retain all three options for access to section 3b from the B1122 to the South of Aldringham at this stage. b) Paragraph 326 of <i>Chapter 26</i> of the ES (APP-074) outlines that a 	a) BOTH EXA AND THE APPLICANT CONTINUE TO REFER TO A CABLE CORRIDOR CROSSING <u>SOUTH</u> OF ALDRINGHAM. THE PROPOSED CROSSING AC3 FOR SECTION 3B

b) explain what you mean by "appropriately sized vehicles". A1094 and B106 been undertaken analysis presente Appendix 26.21 547) demostrate rigid body tipper I could complete th manoeuvre, but articulated HGV v over-sail into the lane. In this regat appropriately size vehicle would the one that could me turn without overs into the opposite such as a rigid bo tipper.	Sis of tween the 9 has . The ed within (APP- es that a HGV nis an would opposite rd, an edIs AT THE CENTRE OF ALDRINGHAM, MIDWAY BETWEEN THE NORTH AND SOUTH BOUNDARIES OF PARISH BOUNDARIES.The Applicant has provided no justification for failing to commit to submit a consistent plan for access to cable route section 3B.Clarity from the Applicant is required at this stage in the Examination.6.1.26 Table 26.22 [APP- 074], 6.2.26.2 Environmental Statement - figure 26.2 [APP-307], paragraph 211 of the Environmental Statement [APP-074] and 8.10 Outline Access Management Plan Table 2.1 [APP-587] indicate
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				of the B1069 Snape Road (not shown on the access to works plan). HGV volumes accessing links 5 and 6 at AC3 do not appear to justify a new 4-way 40 metres wide turning geometry at this road crossing ref. 8.10 Outline Access Management Plan- 'ACCESS 5 & 6 B1122 ALDEBURGH ROAD' [APP-587] since HGV traffic towards landfall is to travel via Sizewell Gap Road. The Applicant's response to ExQ 1.18.39 b) does not explain the relevance of its swept path analysis of HGVs turning between the A1094 and B1069 to three options currently being considered for access to section 3B.
1.18.40	Access point 13	In paragraph 213 you state with reference to National Grid employees "These employees would instead access from access 13 once this access is available."	Once constructed, access 13 would be available to National Grid personnel and third parties.	Note: Applicant does not restrict use to third parties working directly for NG
		Please confirm that access 13 will be available whenever it is needed by National Grid personnel		

		and by any third parties working on behalf of National Grid.		
1.18.41	Pedestrians and severance	In paragraphs 231, 242, 265, 269 and 273 in respect of pedestrian amenity and in paragraph 284 in respect of severance you state that " no mitigation further to that embedded within the design of the proposed East Anglia ONE North project is considered necessary." What mitigation is embedded within the design of the proposed East Anglia ONE North project in respect of pedestrian amenity and severance, and where is this secured?	Section 26.3.3 of Chapter 26 of the ES (APP-074) outlines the proposed embedded mitigation. In summary this includes: • Measures such as an access strategy and use of haul roads where possible to avoid HGV traffic travelling through sensitive locations such as Friston, Sternfield or Benhall-Green. Section 2.2.3 of the OCTMP (APP-586) includes details of measures to ensure that HGVs use the agreed routes. Section 4 of the OCTMP then provides details of how this will be monitored and enforced. A final CTMP is secured under Requirement 28 of the draft DCO (APP-023). • The adoption of an employee to vehicle ratio of 1.5 employees per vehicle. This ratio reduces the overall numbers of personnel vehicle	Re: Applicant's statement that mitigation is already embedded within the design (in essence use of haul road and no HGVs through Benhall, Sternfield and Friston) and adoption of a 1.5 employee to vehicle ratio . ExA should ask SPR for supporting evidence (if any) from previous project, ie EA1 that this approach is adequate, noting size of that project was approximately 1/3 rd of the EA1N, EA2 and NG build

			movements. Section 2.2 of the Outline Travel Plan (OTP) (APP-586) includes details of measures to ensure compliance with this ratio and Section 3 provides details of how this will be monitored and enforced. A final Travel Plan is secured under Requirement 28 of the draft DCO (APP-023)	
1.18.48	Reduction of speed limit on A12 to 40 mph	You state in paragraph 306 that traffic speeds would be reduced at the A12/A1094 junction following implementation of your package of mitigation measures. Would the new 40mph limit be implemented and monitored prior to the start of construction to ensure that this is the case?	There is an existing safety camera provided on the A12 just (~180m) to the north of the junction of the A1094. Data captured from this camera would be sourced from the Police to give an indication of compliance with the change in speed limit following the implementation of the 40mph limit.	The Applicant has not provided a reply to ExQ1.18.48 other than to say it will be monitored once installed. ExA should ask for evidence that such an approach will reduce collision rates
1.18.49	Modelling of traffic flow	Has the model referred to in paragraph 312 been calibrated and validated with actual observations of flow, vehicle type, queue length and driver delay?	Paragraph 316 of Chapter 26 of the ES (APP-074) outlines that the modelling of junction capacity has been undertaken using 'Junctions 8'. The models have been informed	The Applicant has not provided a direct reply to ExQ1.18.49. Claim by that model has been 'validated' by comparing observed

			through the use of observed manually classified turning count data. The manually classified turning counts captured details of the numbers of vehicles, types of vehicle and existing queue lengths. The Junctions 8 model outputs have been validated through comparing observed queue length data with modelled queue lengths.	queue lengths with modelled queue lengths does not answer question. Model [APP-074] suggests that a single substation build will double queue lengths and delays. Adding the effect of 2 nd substation and National Grid substation would increase queues & delays. Flow modelling is rarely linear.
1.18.51	HGV traffic heading for accesses 5 and 6 via A1094/B1122 roundabout	Paragraph 330 refers to the use of a pilot vehicle for larger articulated vehicles heading for accesses 5 and 6. Please explain how the use of a pilot vehicle would reduce driver delay at the A1094/B1122 roundabout junction such that it can be relied upon as mitigation.	The swept path analysis presented within Appendix 26.21 (APP—547) demonstrates that an articulated HGV would oversail into the opposite lane when turning from the A1094 onto the B1122. If this lane was blocked by an oncoming vehicle the HGV would not be able to make the manoeuvre. The HGV or oncoming driver, may therefore have to reverse which may not be possible with following traffic, leading to driver delay. A	Four roads enter/ exit this junction (roundabout), the busiest being B1094, B1122 and the road entry leading to Aldeburgh town. Given the narrowness of the B1122 (Leiston Road) and the extensive use on- street parking, the likely efficacy of this 'mitigation' appears minimal. It is difficult to visualise how a pilot vehicle arriving via B1094 would be able to place itself so as to block off all three entry/ exit roads. There are a

			pilot vehicle would run ahead of the vehicle it is escorting. At the junction of the A1094 and B1122, the pilot vehicle would stop any oncoming traffic to allow the following HGV to pass any oncoming traffic.	number of parked cars both sides of the B1122 roundabout exit road outside houses without a garage or alternative parking spaces elsewhere could significantly compound congestion and delay at this junction. These issues have not yet been addressed within the OCTMP.
1.18.52	Repair & Maintenance of substation infrastructure	Paragraph 333 refers to occasional repair and maintenance. Could vehicle movements include AIL, for example in the case of transformer or cable failure? If so, which access routes would be used?	The transformers and cables are designed not to fail and should not need to be replaced during the lifetime of the Projects. Any replacement would be due to an unplanned failure / emergency only and would be a rare event. Routine maintenance would not require the replacement or removal of the transformers or cables. It is therefore expected that once the transformers and cables are installed, there would be no requirement for AIL movements for the lifetime of the Projects.	The applicant suggests that once installed, there would be no requirement for AIL movement for the lifetime of the Projects. The probable failure rate of a large HVAC transformer is about 0.1% per year (Siemens and ABB figures). With 4 such transformers on EA1N and EA2 sites, the probability of at least one failure over a 30 year lifetime rises to about 11%. Given the presence of 4 large shunt reactors and 4 STATCOMs, repair action requiring AIL

			Notwithstanding, should there be a requirement for AIL movements, the routes to be used would be agreed with stakeholders through the established processes known as Electronic Service Delivery for Abnormal Loads.	support should be the assumed position and not " <i>no requirement</i> " as adopted by SPR.
1.18.53	Scenario '3': Overlapping project construction plans	Paragraph 340 gives two worst case scenarios in combination with the other East Anglia project. a) Is there a third scenario in which there is an overlap in the construction programmes and, if so, could this represent the worst case? And b) if so, will the OTP, OAMP and OCTMP need updating?	a) The proposed East Anglia TWO project cumulative impact assessment considers the cumulative impact with the proposed East Anglia ONE North project against two different construction scenarios (i.e. construction of the two projects simultaneously or sequentially). The simultaneous scenario represents a programme overlap. This assessment is contained within Appendix 26.2 (APP-528). This is reversed for East Anglia ONE North project cumulative impact and the assessment repeated Appendix 26.2 (APP-528) of that project. b) The	We refer to SASES response above on EXQ1.4.3

			introductory text for the OTP (APP-588), OAMP (APP-587) and OCTMP (APP-586) confirms that the scope of the plans extents to the Projects being constructed simultaneously.	
		Outline Travel Plan [APP-588]		
1.18.68	Stakeholder communication	Paragraph 21 says that "Contact details for the TPCos and TCo will be submitted to relevant stakeholdersprior to the commencement of construction." a) Who are the relevant stakeholders? b) Has the inclusion of contact details on a website as well as flyers and posters been considered, to enable easier contact and reporting?	a) It is anticipated that as a minimum, relevant stakeholders would include the Councils, Parish Councils that may be affected, and Highways England. b) Section 2.5 of the Outline Code of Construction Practice (COCP) (APP- 578) sets out the processes for developing a Stakeholder Communications Plan which includes the commitment to proactive public relations using a combination of communication channels. The final Travel Plan would adopt the communication measures developed in the	a) Relevant stakeholders should include residents near the designated sensitive receptor sites and posted at Public Notice Boards in the locality

		Communication Plan as a means of communicating traffic and transport effects	
1.18.69	Paragraph 14 states that the access strategy is "informed by the Suffolk Country Council HGV route hierarchy" (sic). a) Are there any access routes which do not form part of the route hierarchy? b) If so, are any mitigation measures proposed, and how are these secured?	a) Of the 15 links forming the onshore highway study area depicted in Figure 26.1 (APP-306), links 5, 7, 10 and 13 do not form part the Suffolk County Council HGV route hierarchy, a copy of which is provided within Appendix 26.6 (APP-532). b) Of the routes that do not form part of the SCC HGV route hierarchy, link 10 has been identified as requiring mitigation in support of the access strategy. Chapter 26 of the ES (APP-074) paragraph 26.6.1.12.2 identifies HGV mitigation for driver delay at the junction of the link 8 and 10 (A1094 / B1122 roundabout) in the form of consolidated smaller loads and pilot vehicles. Section 2.2.4 of the OCTMP (APP-586) provides detail of this	We refer to SASES response above on EXQ1.18.51

			mitigation. The final CTMP is secured under Requirement 28 of the draft DCO (APP-023).	
1.18.76	Monthly monitoring report	Section 4.2 refers to a monthly monitoring report produced by the TCo and CTMPCos,but does not explain what the objective of the report is or who is able to view it. Please explain this process further	The purpose of the monitoring report (as outlined in paragraph 72 of the OCTMP (APP-586)) is to identify effective / ineffective measures and the requirement for any remedial action to achieve the agreed targets. It is intended that in compiling the reports the Contractor will be able to see whether they are complying with their targets and actions, whether there are any emerging issues and ensure that any emerging issues can be rectified early through amendments to the plan. The Councils will be able to request a copy of this monthly monitoring report.	The Outline OCTMP should include a specification for regular unsolicited monitoring report including monitors of specific junctions and other sensitive locations to be determined by the Local Planning Authority (LA) and to be automatically circulated to the LA without the need for a request. Regular reporting summaries should be posted and available to all stakeholders on a publicly accessible internet location

Further Comments on SPR's Response to ExA Written Questions on Volume 18 – 1.18 Traffic & Transport

1.18.9. SPR's response to regarding use of collision rate per mile road, versus collision rate per billion vehicle miles is obtuse. Collision rates in terms of numbers per billion vehicle miles may be fine for actuarial purposes but not for the local user, where it is the collision rate on a specific section of road or a junction that matters, and whether this is likely to increase as a result of SPR generated traffic.

1.18.27 SPR seem to be clinging to the idea that the provision of rumble strips, additional signage and reduced speed limit is the answer to reducing collision risk at the 'Friday Street' junction, without presenting any evidence that these measures will be adequate. The ExA should request of SPR & SCC a coherent plan that will ensure that collision risk at this junction is not exacerbated. SPR also appear to be leaving need for any any further mitigation to the eventual site construction contractor and well after DCO consent.- See APP-588 Section 2.3.2

1.18.28 SPR seem content to leave concerns regarding AIL passage through the tight bends on the A12 at Farnham to the use of kerb overrunning (suitability not confirmed) and provision of steel plates and timber packing as mitigation in respect of collision with roadside obstacles not defined (houses?).

1.18.30 SPR have acknowledged that there may be a need to implement road strengthening measures on the A12 at Marlesford, where the road passes over the River Ore and that the railway bridge on the A1094 is not capable of carrying the weight of the AILs. The intended route to the site at Friston from the A12 will thus be via the B1122, B1069 & B1121. This route passes over several watercourses. There seems to be no indication within SPR's response that the load bearing capability of the below road culverts has been similarly considered.

1.18.40 The ExA have asked SPR to confirm that access point 13 will be available to NG personnel and any third parties working on behalf of NG. SPR have answered that it will be available to NG personnel and third parties, but have omitted to limit this to third parties **working on behalf of NG**. This opens the door to its use by others to access the EA1N and EA2 construction sites.

1.18.41 Regarding the metric of 1.5 employees to vehicles, the ExA should request evidence from the construction of the EA1 substation at Bramford, noting that the size of this undertaking was about 1/3rd of that intended for Friston.

1.18.48 The ExA should ask SPR to present data regarding degree of compliance with the existing speed limit on the A12 (50 mph) to substantiate any claim for effect on collision risk at A12/A1094 junction provided by a reduction to 40 mph.

1.18.49 The response to the ExA on the validity of the modelling of the existing traffic flow at the A12/A1094 junction is flimsy and fails to point out that delays at the junction are predicted to double in the case of a single substation construction. Cumulative effect of EA1N, EA2 and NG substation construction is absent.

1.18.51 SPR's response to the ExA request for an explanation of why the use of a pilot vehicle is considered adequate mitigation regarding path blocking by site traffic at the roundabout junction of the A1094 and B1122 is flimsy when the real difficulty is the ever present narrowness of the B1122 and several hundred metres of street parking, as local residents will confirm.

1.18.52 The ExA has reasonably asked if occasional repair & maintenance vehicle movements includes the case of AILs to cater for HVAC transformers or cables replacement. SPR are correct in implying (rather clumsily!) that the design life of such items is generally >30 years. As such the **expectation** of a failure in a single transformer (using Siemens and ABB data) is about 0.1% per year, which is low, but not so low as to be ignored! With 4 HVAC super grid transformers, the probability of at least on failure over a 30 year lifetime rises to about 11%. When the 4 large shunt reactors and the 4 STATCOM transformers are taken into account, the probability of a failure needing repair action or AIL intervention during a 30-year life, rises to about 30% and conflicts with the "...**no requirement....**" position adopted by SPR.