



The Sizewell C Project

9.10.10 Initial Statement of Common Ground - Network Rail

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Infrastructure Planning (Applications: Prescribed
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Dated

2 June 2021

**APPLICATION BY NNB GENERATION COMPANY (SZC) LIMITED FOR AN ORDER GRANTING
DEVELOPMENT CONSENT FOR THE SIZEWELL C PROJECT SCHEME**

PLANNING INSPECTORATE REFERENCE NUMBER: EN010012

REGISTRATION IDENTIFICATION NUMBER: 20026630

**STATEMENT OF COMMON GROUND
between NNB Generation Company (SZC) Limited and
Network Rail Infrastructure Limited**

1. INTRODUCTION

- 1.1 This Statement of Common Ground (**SoCG**) relates to the application for a Development Consent Order the Sizewell C (Nuclear Generating Station) Development Consent Order (**Proposed DCO**) and confirms the position of NBB Generation Company (SZC) Limited (**Applicant**) and Network Rail Infrastructure Limited (**Network Rail**) as at 2 June 2021.
- 1.2 The Applicant seeks development consent for the construction of a new nuclear power station comprised of two UK EPR™ units (**Proposed Development**) on land at the Sizewell nuclear site, Sizewell, Leiston in Suffolk as specifically detailed in Schedule 1 of the Proposed DCO.
- 1.3 Network Rail submitted its section 56 representation (Examination Library Reference No: RR-006) on 30 September 2020.
- 1.4 This is the first of two planned Statements of Common Ground between SZC Co. and Network Rail (the parties). It represents the state of work in progress between the parties at the end of May 2021. A second Statement of Common Ground is to be submitted to the examination in July 2021.
- 1.5 The text of this document is agreed between the parties.

2. PROGRESS TO DATE

- 2.1 There is a long history of joint working between Network Rail and The Applicant, which was brought up to date in an Agreed Position statement in, January 2020 (see Appendix A).
- 2.2 Since that time, joint working has continued and has included:
- **October 2020:** A Basic Services Agreement was signed by the Parties to allow Network Rail to provide support services in assisting SZC Co. with confirming the requirements for the next proposed design phase for the Integrated strategy.
 - **November 2020:** A Basic Services Agreement was signed by the Parties for the Quality Assurance of WSP Technical Notes assessing the technical capacity to operate up to 4 freight trains per day on the East Suffolk line with reference to the rail proposals submitted in the application for development consent.
 - **November 2020:** SZC Co. consulted on proposed changes to the application for development consent including the potential to increase the number of trains proposed in the integrated strategy from 3 to 4 a day. The potential for a fifth train was mentioned for the very peak of construction, recognising that to achieve this it would have to operate during the day. This would therefore require the

cancellation of some passenger services and be subject to engagement with the rail operator and local stakeholders.

- **December 2020:** A SZC Co./Network Rail Project Board was established to formalise close joint working.
- **February 2021:** Network Rail's Quality assurance report confirmed that the WSP Technical Notes on assessing the technical capacity to operate up to 4 freight trains per day on the East Suffolk Line met the required QA standards.
- **March 2021:** A Basic Asset Protection Agreement was signed by the Parties for the development of the GRIP 3-4 design stages for the SZC project activities which will affect the Saxmundham to Leiston (SIZ) Branch Line and the East Suffolk (ESK) line in the vicinity of its junction with the SIZ branch line.
- **May 2021:** Collaborative working between EDF, Network Rail and the Local Authorities took place to review the ESK Level Crossings (Ipswich to Saxmundham) and develop solutions to enable the planned rail traffic. This work is reported in Section 5 of this SoCG.

3. THE APPLICANT'S RAIL PROPOSALS

3.1 The Applicant's rail proposals in the submitted DCO application are described in the SZC Project – Transport Assessment in Chapter 11 (Doc Ref. 8.5). In the early years, rail operations would consist of up to two freight trains per day to newly constructed sidings in the LEEIE. One of the outputs of the Network Rail GRIP 2 study was to outline a proposed method of working to allow two trains to hold at designated points on the Saxmundham to Leiston (SIZ) branch line having travelled on the East Suffolk line overnight. The trains would then run through to Leiston after 7am in the morning. No trains would travel through Leiston at night. Once unloaded, the trains would leave LEEIE in the evening, be held again on the branch line and then return to the main East Suffolk Line at night.

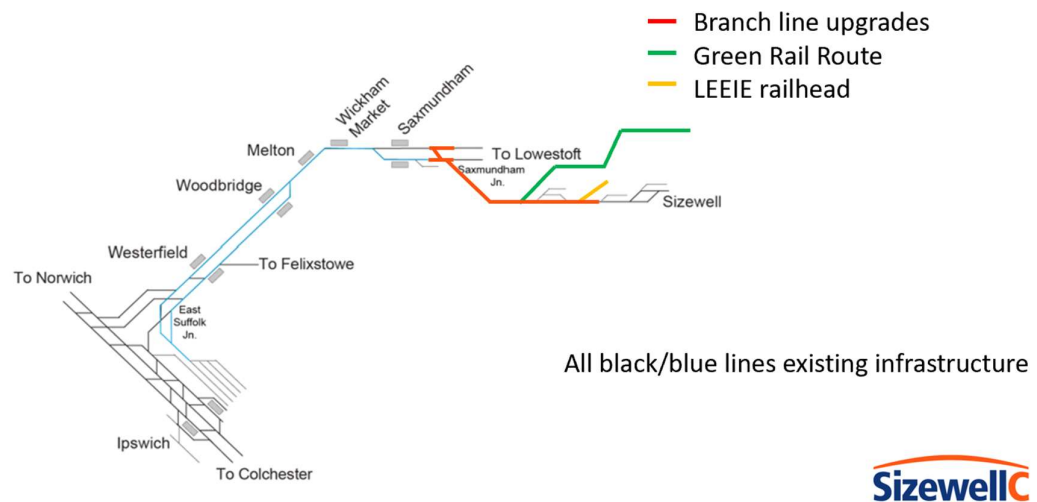
3.2 The Applicant's proposed programme for the necessary rail works is shown below.

Activity			2022					2023												2024																		
	Start Date	Finish Date	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S
SIZ Branchline																																						
Saxmundham Junction upgrade	Jul-23	Sep-23																																				
Branchline Upgrade	Jul-23	Jan-24																																				
Install turnout at Leiston West Jn (for GRR)	Nov-23	Nov-23																																				
ACA Sidings																																						
Site Establishment Team Works (Earthworks, drainage)	Feb-23	Sep-23																																				
Track Works	Sep-23	Dec-23																																				
T&C branchline & ACA sidings	Dec-23	Jan-24																																				
Branchline & ACA sidings Open		Jan-24																																				
Green Rail Route																																						
Green Rail Route (Leiston West Jn - Buckleswood LX)																																						
Site Establishment Team Works (Earthworks, drainage)	Nov-22	Jun-23																																				
Trackworks	Nov-23	Jan-24																																				
Green Rail Route (Buckleswood LX - Abbey Rd LX)																																						
Site Establishment Team Works (Earthworks, drainage)	Nov-22	Sep-23																																				
Trackworks	Jan-24	May-24																																				
Buckleswood & Abbey Rd LX	Feb-23	Oct-23																																				
Green Rail Route (Abbey Rd LX - TCA Head)																																						
Site Establishment Team Works (Earthworks, drainage)	Nov-22	Feb-24																																				
Trackworks	Feb-24	Jun-24																																				
T&C Green Rail Route		Jun-24																																				
GRR Open		Aug-24																																				

Figure 1 Indicative Schedule for the Proposed SZC Rail works - Note that the schedule for delivery of the SZC rail works is subject to ongoing development and refinement as further information becomes available.

3.3 The Green Rail Route is proposed to be constructed and operational within the first two years of the Sizewell C Project's construction programme and to provide a direct rail route from the SIZ Branch Line into the temporary construction area on the main development site. Once operational, trains would no longer need to be held on the SIZ Branch Line and could proceed directly to new rail sidings constructed within the temporary construction area. The DCO application anticipates that these train movements would predominantly operate at night.

Figure 2 Existing and proposed rail infrastructure for the Sizewell C Project



3.4 The May 2020 DCO application indicated that up to three return trains will operate after the early years, five days a week. The three trains were likely to arrive in the early morning (before 07:00). For the purposes of the DCO, it was assumed that five of these rail movements (three inbound and two outbound) would operate at night (defined as between 23:00 and 07:00) and one would operate during the day (i.e. after 07:00).

3.5 In each case, for the early years and the full construction period, the trains are intended to be formed of a Class 66 locomotive with up to 20 wagons, i.e. up to 339m in length and capable of carrying up to 1,250 tonnes of construction material. This capacity per train is equivalent to that of 67.5 HGVs (135 two-way HGV movements).

3.6 In January 2021 SZC Co. submitted proposals to the Examining Authority which would enable the DCO application to allow up to 4 trains per day to serve the project, 6 days a week, subject to reaching agreement with Network Rail. Seven of these rail movements (four inbound and three outbound) would operate at night (defined as between 23:00 and 07:00) and one would operate during the day (i.e. after 07:00).

3.7 The potential to operate a fifth train at the very peak of construction was also considered. For this to be achieved the additional train would need to operate during the day which would impact the passenger timetable and this is no longer being proposed by the Applicant.

3.8 There are currently six main interfaces between the Proposed Development and the operational railway, which includes both works to existing railway property and new

development that interacts with railway property: (5 covered by the existing BAPA, 1 by an outside party BAPA)

- (a) Upgrades to the SIZ Branch Line track (Works No. 4C);
- (b) Upgrades to level crossings on the SIZ Branch Line (Works No. 4C);
- (c) Upgrades to the existing Saxmundham junction (Works No. 4C);
- (d) Construction of a new 'Green Rail Route' providing a direct link to a railhead at the Sizewell C construction site (Works No. 4A and 4B);
- (e) Construction of a freight train siding on land east of Eastlands Industrial Estate (Works No. 4D); and
- (f) Construction of the Sizewell Link Road Bridge (Works No. 12B).

3.9 In addition, the Applicant has requested Network Rail provide a proposal for the enhancement of sections of the track on the East Suffolk Line (Westerfield to Saxmundham Junction).

3.10 Future workstreams will be agreed as required

3.11 SZC Co. has appointed WSP to lead on the design development.

3.12 SZC Co. and Network Rail have entered into Basic Asset Protection agreement (BAPA) to assure and approve Sizewell Co.'s designs for Saxmundham Junction and the SIZ Branch Line. Sizewell Co.'s proposals are being designed to comply with Network Rail's standards.

3.13 SZC Co. has been developing rail proposals, making use of Network Rail's GRIP (Governance for Railway Infrastructure Projects).

3.14 The design work is working towards Network Rail's "Approval in Principle" of all rail designs at the conclusion of GRIP stage 4 (single option development). This stage gate would mark the acceptance by Network Rail's route asset managers of the designs and confirm that they can be constructed and form part of Network Rail's infrastructure.

3.15 The design work is currently completing GRIP stage 3 for work required on the Sizewell Branch Line and at Saxmundham Junction (single option selection). The three key steps of this stage are:

- a) capturing requirements from, Network Rail, SZC Co., Freight Operators and the DCO (e.g. noise and vibration mitigation);

- b) development of a single intervention for each asset which meets the requirements;
 - c) prior to the GRIP 3 stage gate; reviewing these proposed solutions to ensure they reflect the requirements identified at step a).
- 3.16 Delivery of the GRIP 3 report has been phased to align with track access opportunities. All disciplines excluding signalling will be complete in May/June 2021, with signalling design proposals being complete and ready for review by July/August 2021.
- 3.17 The parties are working to achieve GRIP 4 Approval in Principle in Q4 2021.
- 3.18 The procurement strategy for detailed design (GRIP 5) and construction (GRIP 6) is under discussion, and opportunities to make use of Network Rail's project delivery experience in these later stages are being investigated through a collaborative working relationship.
- 3.19 The interface between Network Rail and SZC infrastructure is being managed through regular meetings, and issues which need greater decision-making focus are escalated to the Project Board.

4. CAPACITY

- 4.1 Using industry standard RailSys (modelling) and ATTune (timetabling) software, SZC Co.'s consultants WSP built a model of the infrastructure between Woodbridge and the TCA/LEEIE which included constraints such as junction margins, gradients, braking curves and wagon rolling resistance which are required within Network Rail's timetable planning rules. The model also included 10mph speed restrictions which have been identified to mitigate noise and vibration impacts at sensitive locations on the East Suffolk line and Sizewell branch line.
- 4.2 As the line between Woodbridge and Saxmundham is single track, this location had the potential to be a constraint to an enhancement to four trains per day, so this was modelled in detail. As the line is double track between Ipswich and Woodbridge, the remainder of the East Suffolk Line has less potential capacity constraint.
- 4.3 WSP's work concluded that up to eight individual train paths could operate without impacting on the existing passenger train services. The work was brought together in Technical Notes which were then subject to a quality assurance review by Network Rail.
- 4.4 Network Rail's Capacity and Capability Analysis team assessed the robustness of the underlying data upon which Sizewell Co.'s modelling was based and provided a Quality Assurance report to SZC Co. in February 2021. The report found that the work met the required standards and stated that *"Network Rail is able to support the use of this analysis to show the technical feasibility of operating up to 4tpd in each direction to and from Sizewell"*.
- 4.5 Caveats were explained to confirm that the conclusions were limited to the scope of the Technical Notes (i.e. technical capacity for 4 trains per day on the specified

section of the East Suffolk Line) and that there remained a number of issues to resolve, including design issues and capacity across the wider network.

4.6 Further capacity beyond the East Suffolk Line needs to be formally established through the Sale of Access Rights process to secure the necessary train paths from the points of materials origin. Paths need to be bid for and secured by May 2023 in order to commence train operations in January 2024. Bids cannot yet be submitted pending clarification of the network timetables for 2024.

4.7 However, the Applicant has advised that they are liaising closely with freight operating companies (FOCs). The Applicant advises that they are confident that capacity across the wider network can be secured. In that context, the Applicant has been working with the FOC DRS (now NTS) and Network Rail to secure the strategic train paths across the wider rail network necessary for the Sizewell C project. This work takes direct account of the key supply points of bulk materials for construction, which are explained in the updated Freight Management Strategy (January 2021). Work is ongoing in this respect but DRS has confirmed to the Applicant that they have confidence that the train paths can be secured in the timetable in line with the proposed SZC programme

4.8 In addition, the Parties are aware that currently:

- Network capacity is available from Felixstowe to Ipswich following enhancements to the Felixstowe line;
- There are known to be opportunities to accommodate the necessary freight trains between Sizewell and Ipswich;
- Spare capacity is available through Westerfield Junction (where the East Suffolk Line joins the main line); and
- Recently enhanced capacity at the Ipswich Nodal Yard has created capacity on the main line.

5. THE EAST SUFFOLK LINE

5.1 The Network Rail Section Appendix and Freight Load Book state the East Suffolk Line maximum axle load is RA7. Network Rail will maintain the East Suffolk Line to RA7 capability. The stated capability is sufficient from the specification of Sizewell related trains explained in Section 3 of this SoCG.

5.2 The Freight Load Book states the East Suffolk Line can accommodate trains of length 340m. Previous studies (GRIP 2 Feasibility Study 2017) identified that there may be issues to address in relation to level crossings on the ESK and these matters have been the subject of detailed joint working between the parties and discussion with the local authorities. The key matters are summarised below and are the subject of ongoing discussions between the Parties:

- a. There are 4 sets of signals on the ESK where a software upgrade is required to recognise the length of the proposed Sizewell freight trains;

- b. There are up to 5 additional MSL (miniature stop light) solutions to improve safety and optimise capacity .
- c. There are existing risks with the Westerfield and Notcutts Nursery (Woodbridge) LX that are compounded by increased freight traffic. The solution for Westerfield is the installation of MSL if closure is not viable, and for Nottcuts the ideal solution is closure if not MSL will also need to be installed.
- d. Brick Kiln (Saxmundham) to be downgraded to a bridleway and then install MSL in collaboration with the local authority.
- e. Timetabling will need to ensure that Sizewell trains will not need to stop in Woodbridge or Melton but no such requirement is anticipated.
- f. Darsham will be impacted by increased road traffic and hence may trigger an intervention. The potential solution is being developed.
- g. Middleton will be impacted by increased road traffic and hence may trigger an intervention. The potential solution is being developed.

5.2 Network Rail will continue to review the track quality of the ESK against published capability but does not anticipate any issues. There is a speed restriction currently in place over bridge 429 River Deben (81m 73ch – 81m -76 ch), with a planned lifting of the restriction in March 2022.

5.3 No additional signalling requirements have yet been identified. .

6. RAIL NOISE MITIGATION STRATEGY

6.1 The parties are aware of and are working towards the implementation of a Rail Noise Mitigation Strategy (RNMS). A draft of the RNMS has been proposed by the Applicant and was included within the updated rail noise assessment contained in the application for changes to the DCO submitted to the Examining Authority in January 2021. In summary it proposes:

Physical mitigation measures, including:

- A crossover north of Saxmundham station and an upgrade to the line signalling system to enable construction trains to enter or leave the SIZ Branch Line without stopping.
- The SIZ Branch Line will be upgraded with a refurbished tracked, concrete or steel sleepers and new welded rails.
- The specification for the upgraded line will incorporate noise mitigation measures including ballast mats where it passes in proximity to residential properties.
- The specification for the green rail route from the SIZ Branch Line to the temporary construction area will also take account of noise mitigation advice.

Operational restrictions, including:

- Speed limits – overnight trains will be slowed to 10mph on three sections of the East Suffolk Line and (at least in the early years) on the Siz Branch Line.
- SZC Co. will seek to use Class 66 locomotives or equivalent.
- No trains will operate through Leiston at night.

6.2 In addition, the Parties are exploring the potential benefits of replacing sections of the East Suffolk Line track through Woodbridge.

6.3 Discussions have included the Applicant's proposal for potential for acoustic fencing on Network Rail land adjacent to the railway, but such fencing on Network Rail land is not supported by Network Rail if such fencing was to be at Network Rail's cost. Subject to feasibility analysis such fencing could be supported if costs relating to analysis, construction, maintenance and (if required) removal of the fencing were met by the Applicant.

6.4 Any noise mitigation requirements imposed on the Project will be included in agreements with material suppliers and/or FOCs depending on the contracting strategy adopted.

7. STATUS REACHED

7.1 The Table below, summarises the agreements which will be required between the Applicant and Network Rail for the current work on the Sizewell Branch Line, at each project stage:

Agreement	Date Required	Status	Comments
NWR BSA	Oct-20	Closed	Expired.
Framework Agreement	Jun-21	In progress	To be agreed before close of DCO Examination
Protective Provisions	Jun-21	In progress	To be agreed before close of DCO Examination
Network Change	Dec 22	Not started	To be in place prior to works starting
Track Access Contract	Dec-22	Not started	To be in place prior to rail operations starting
NWR BAPA (GRIP 3-4)	Mar-21	In place	BAPA covers connections only to GRR & ACA, not full length.
NWR BAPA / Imp Agg (GRIP 5)	Nov-21	Not started	Implementation Agreement if delivery via NWR; otherwise BAPA
NWR BAPA / Imp Agg (GRIP 6-8)	Jul-22	Not started	Implementation Agreement if delivery via NWR; otherwise BAPA
Level Crossing Orders	Dec 22	Not started	To be in place prior to works starting
Connection Contract	Jan 24	Not started	To be in place prior to rail operations
Connection Contract	Aug 24	Not started	To be in place prior to rail operations
NWR OP BAPA (GRIP 3-5)	June-21	Being finalised	
NWR OP BAPA (GRIP 6-8)	Jul-22	Not started	
Bridge Agreement	Jul-22	Not started	

- 7.2 Network Rail and the Applicant have agreed the agreements and processes which are required to be completed to allow SZC rail operations to commence
- 7.3 Legal negotiations of the Framework Agreement and Protective Provisions are well progressed, and it has been agreed between the parties that protective provisions will be included in the next draft of the Proposed DCO for the protection of Network Rail's land and the operational railway . However, a final agreed form of Framework Agreement and Protective Provisions has not yet been reached.
- 7.4 The parties continue to work together to progress the necessary work and agreements required to enable the Proposed Development to be served by rail for the delivery of construction materials. Network Rail will provide further details of ongoing discussions and concerns in its Written Representation and responses to Examiner's Written Questions.
- 7.5 The parties are working together to ensure all relevant information will be available for Network Rail to complete its analysis of the impact of the Proposed Works and Freight Use in time to inform the next Statement of Common Ground in July.
- 7.6 From a high level review of assets, infrastructure and the information provided by the Applicant, Network Rail is confident that solutions can be agreed, but Network Rail is not yet able to complete its analysis into the impacts of the Proposed Works and Freight Use to ascertain what mitigation measures are required to ensure the safety of the railway and those using and/or operating it and still has concerns including on how the Proposed Works would be co-ordinated with the ongoing operation of the railway, as well as , the impacts of the Freight Use on level crossings.
- 7.7 All Parties understand that certainty will only occur when the sales of access rights and network change processes are complete.

Signed: *Addleshaw Goddard*

On behalf of: Network Rail Infrastructure Limited

Date: **2 June 2021**

Signed: *R.H. Bull*

On behalf of: NNB Generation Company (SZC) Limited

Date: **2-6-21**

“EDF has been working with Network Rail since 2014 on their plans to transport construction materials to the proposed new power station at Sizewell C, and a GRIP 2 feasibility study was submitted in July 2017. This study detailed the required infrastructure upgrades for the East Suffolk line and Leiston branch line to run five freight trains per day to the SZC construction site in each direction. This included a minimum of a new passing loop, track crossover, level crossing upgrades and additional signalling. These upgrades would provide extra rail capacity to allow freight trains to run during the day alongside the existing passenger service.

In 2018, EDF commissioned Network Rail to provide more detailed information on the design and land required for the proposed infrastructure upgrades to inform the next stage of public consultation. The SZC Stage 3 public consultation commenced in January 2019 and two freight options were proposed:

- (i) A road-led option that would involve two freight trains per day being held on the branch line before running into Leiston during the day. This option would require upgrades on the Leiston branch, but with no work taking place on the East Suffolk Line.*
- (ii) A rail-led option approach that would involve five freight trains per day in each direction, operating during the day on the East Suffolk Line and the Leiston branch respectively. This option would require upgrades on both the Leiston branch and East Suffolk Line.*

In April 2019, EDF asked Network Rail for a price and programme to further develop, design and deliver (GRIP 3-8) the rail elements required for either of the freight options proposed at the SZC Stage 3 public consultation. This information was provided in June 2019.

EDF have been clear that their selected approach must be delivered in time to mitigate impacts of the development without risk of delay, and that the scale, complexity and timescales associated with the upgrades required for the East Suffolk line in the rail-led option pose a significant risk in this respect.

The programme of works provided by Network Rail in April 2019 to deliver the infrastructure necessary for the rail-led option proposed further development during the remainder of 2019 and 2020 (GRIP 3) and design work take place in 2021 (GRIP 4). Network Rail would also seek a Transport and Works Act Order in order to make the required changes to level crossings, and as orders of this scale have historically taken around two years to secure, detailed design would only be able to begin in 2023 (GRIP 5), with delivery then running through to 2025 (GRIP 6).

These timescales did not align with those that EDF’s Sizewell C team are working to, and EDF also maintain a concern that, due to the uncertainty around the Transport and Works Act process, no absolute guarantees on when work would be completed by could be provided.

As a result, EDF proposed a new 'integrated' freight option in their Stage 4 consultation in the July 2019, which would see three freight trains per day in each direction. Five of the six required train movements would operate at night with the sixth train movement accommodated by repurposing the existing path currently used by an existing freight service. As with the road-led option, this would only require upgrades on the Leiston branch but would additionally provide a new rail link to the construction site to minimise the period of time for running trains to the railhead in Leiston.

EDF are now proposing to undertake the work on the Leiston branch outside the GRIP process, with Network Rail providing a supporting role through its Asset Protection team. These discussions are currently ongoing.

EDF and Network Rail are committed to continuing to work collaboratively in the best interests of the project, the railway, the environment and the local community."