

1. Purpose of this Document

The Examining Authority (the ExA) for the Sizewell C Nuclear Power Station Development Consent Order (DCO) hearing has issued a number of questions for SZC Co and other parties to answer.

The ExA has posed the following question for “Essex and Suffolk Water”:

"W.1.2 - Water Supply Strategy Appendix 2.2D [AS-202]"

Provide an update on the delivery of water supply to the Proposed Development and the expected delivery timescales."

Essex & Suffolk Water is a trading division of Northumbrian Water Limited (NWL). NWL's response to the above question is presented in Section 2 below.

NWL submit this response, in its role as a statutory undertaker, to assist the ExA in this matter.

NWL regularly engages with a wide range of developers and stakeholders in order to assess the future water demands arising within its areas and plan for these appropriately, as required as part of its duties as a statutory undertaker. Accordingly, to date NWL has engaged with SZC, as part of its normal consultation process, to provide information regarding the water demand of Sizewell C.

2. NWL Response

Background

Following the publication of our Water Resources Management Plan 2019, we confirmed with SZC Co that we would be unable to provide a mains water supply to the Sizewell C (SZC) site from our local Blyth Water Resource Zone within which the SZC site is located. This is because all raw water in our Blyth Water Resource Zone is sourced from the Chalk and Crag aquifers which are assessed by the Environment Agency to be over-licensed and potentially over abstracted. Consequently, as a precautionary measure while abstraction sustainability investigations are completed, we are required to maintain annual average groundwater abstraction below a recent actual baseline level. This “no deterioration” policy is to prevent any significant impacts on the environment (i.e. impact base flow to rivers and to wetland sites).

Instead, we agreed that we would work with SZC Co to investigate whether an alternative supply could be provided. In September 2018, NWL identified its wider network had a supply surplus capable of meeting Sizewell C's initial forecast demand. Following discussion with SZC Co, NWL procured a high level outline design and cost for an option known as the SZC Transfer Main which, as referred to in in Appendix 8.4 of SZC Co's Planning Statement [APP-601] would require a transfer of water from NWL's Northern/Central WRZ. This would require new infrastructure to be provided.

NWL Capital Programme Considerations

We are undertaking further studies to confirm the volumes of water we are able to supply to the SZC site, both sustainably and resiliently, from our wider network. These studies are taking account of SZC Co's latest demand profile (which has

substantially increased), abstraction licence constraints (as agreed with the Environment Agency) and our capital programme.

In terms of our capital programme, we will need to deliver new assets and also upgrade WTWs assets. We are exploring how the timing of our respective capital programmes interconnect with the requirement of SZC for a mains water supply to provide the increased volumes which SZC have now determined.

On an indicative basis only, NWL consider that it may be possible to deliver the scheme by September 2024 at the earliest. This projection is however subject to additional ongoing work.

Environmental Considerations

SZC Co's latest peak mains water demand forecast is approximately 4Ml/day during construction and 2.8Ml/day once operational. The maximum quantity of water NWL might be able to provide is subject to ongoing studies. However, currently, the maximum quantity will not be greater than 3.5Ml/d and is being investigated as part of NWL's Water Industry National Environment Programme (WINEP) abstraction sustainability investigations. This will be reviewed following the completion of WINEP investigations which will provide draft and final conclusions in June and August 2021 respectively. The Environment Agency will ultimately decide whether the full 4Ml/d may be supplied to SZC.

SZC Water Supply Strategy

SZC Co intends to submit an updated 'Potable & Non Potable Water Supply Strategy' for the Sizewell C Project at Deadline 4. We expect that this will be informed by NWL's interim WINEP report.

Summary

In summary:

- i. We are currently undertaking work to understand how a mains water supply solution to SZC would be configured and delivered;
- ii. There are a number of considerations including:
 - a. the timely delivery of NWL's own capital programme; and
 - b. the outcomes of our WINEP abstraction sustainability investigations.
- iii. We are working with SZC Co to understand how the timing of the supply of mains water to SZC would interrelate with our capital programmes.
- iv. On an indicative basis only, NWL consider that it may be possible to deliver the scheme by September 2024 at the earliest. This projection is however subject to additional ongoing work.
- v. We are currently preparing a supply profile to confirm what water we might be able to supply between April 2022 and September 2024. Further work streams are expected to be available in June and August 2021 in this respect.

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The ExA has posed the following question for SZC Co and Essex & Suffolk Water:

G.1.41 Water Supply

In [AS 189] you indicate that the provision of the preferred pipeline may have adverse effects in respect of noise, air quality and terrestrial ecology.

Please explain how mitigation could be secured for these operations when the pipeline would not appear to be part of the DCO application.

Essex & Suffolk Water is a trading division of Northumbrian Water Limited (NWL). NWL's response to the above question is presented in Section 2 below.

NWL submit this response, in its role as a statutory undertaker, to assist the ExA in this matter.

NWL regularly engages with a wide range of developers and stakeholders in order to assess the future water demands arising within its areas and plan for these appropriately, as required as part of its duties as a statutory undertaker. Accordingly, to date NWL has engaged with SZC, as part of its normal consultation process, to provide information (in so far as it is currently able) regarding the water demand of Sizewell C.

2. NWL Response

Document AS189 was produced on behalf of SZC Co although NWL was not involved with its preparation. The document assesses the potential cumulative effects of SZC Co's preferred pipeline and concluded that no likely significant cumulative effects were identified.

The proposed pipeline is still at an outline stage and so NWL has not yet carried out its own impact assessments. However, once the proposed pipeline has progressed to a full feasibility study, it will be subject to NWL's full environmental assessment procedures. Among other aspects, this includes undertaking ecological surveys along the proposed route of the pipeline to ensure there are no significant ecological effects. If potential receptors are identified during feasibility and onsite mitigation is not appropriate, we will investigate whether there is an alternative route.

As with all NWL pipeline schemes, appropriate method statements and risk assessments would be agreed to prevent any significant temporary noise and air quality issues.