

Sizewell C Project: Economic Statement Response

FINAL REPORT

2 September 2020



TABLE OF CONTENTS

1: EXECUTIVE SUMMARY	1
Introduction	1
Headline Impacts	1
Operational phase	1
Construction phase employment	1
Supply chain opportunities	2
Wider economic effects	3
Tourism	3
Overall Conclusion	4
2: ECONOMIC STATEMENT	5
Background	5
Structure of Report	5
3: HEADLINE IMPACTS	7
Introduction	7
Operational phase	7
Construction phase employment	8
Supply chain opportunities	10
Wider Economic Effects	14
Additionality and displacement	14
Wages and multipliers	18
Impacts of Traffic on Operational Efficiency	19
4: POLICY CONTEXT	20
5: ECONOMIC CONTEXT	21
Dynamic Labour Market	21
Local skills issues	23
6: TOURISM	25
Background context	25
Quantifying the effects of interventions on tourism	27
Understanding potential sensitivities in the Suffolk tourist economy	28
Summary of potential effects on tourism and visitors	29
Tourism assessment: Conclusion	31
7: IMPLEMENTATION STRATEGIES	32
8: CONCLUSION	33
Summary of economic benefits claimed for the project	33

1: Executive Summary

Introduction

- 1.1 EDF, the lead applicant to develop Sizewell C nuclear power station has submitted an Economic Statement and Socio-economics report (Chapter 9 of the Environmental Statement) as part of its Development Consent Order application for the Sizewell C project. This document, prepared for Theberton and Eastbridge Action Group on Sizewell Ltd, provides an analysis of these submissions.
- 1.2 The structure of the report and this summary reflects the structure of the Economic Statement and the ordering of the themes and topics covered by that document.

Headline Impacts

Operational phase

- 1.3 EDF states that a workforce of 700, assisted by 200 contractors, will operate Sizewell C. However, no occupational breakdown or net assessment is given taking into account factors such as the leakage of employment impacts outside the local area.
- 1.4 EDF also claims a further 360 multiplier effect jobs would be created as a result of the operation, but no evidence is given for this significant effect. It also claims £225 million associated economic output which, based on these employment levels, suggests a GVA at Sizewell C which is 47% above the sector average for the whole of Great Britain.

Construction phase employment

- 1.5 EDF asserts that 42,340 person years of employment over 12 years will be created by the project but no evidence of how this is derived is given to enable it to be validated. It is also claimed that “*there will be up to c.2,410 jobs for Suffolk residents*”. However when the permissible drive time of 90 minutes each way for these jobs is examined it is clear that large population centres outside of Suffolk are within this definition, including Norwich, Great Yarmouth, Colchester and parts of Braintree and Maldon districts. Moreover, at peak construction, 76% of all workers will travel from further away (i.e. outside the 90-minute drive-time zone).
- 1.6 EDF also asserts that up to 480 of those recruited ‘locally’ would be either previously unemployed or economically inactive. However, based on evidence found in an assessment report for the Hinkley Point C (HPC) station,¹ the recruitment of previously unemployed workers had only reached one quarter of the target level of 8%. On that basis, recruitment of the unemployed would struggle to reach 125.

¹ Study on the impacts of the early stage construction of the Hinkley Point C (HPC) Nuclear Power Station, Oxford Brookes University, December 2019, page 19

- 1.7 EDF's local recruitment figures are gross figures and do not take account of the proportion of workers who will switch from other local employers – estimated by EDF to be 725 workers, equivalent to around 30% of the jobs they say will be taken by 'local' residents – causing significant recruitment and potential viability issues for existing local businesses.
- 1.8 The Economic Statement acknowledges that the proportion of 'local' workers is expected to be highest in lower skilled roles, such as in the provision of site services and routine support tasks. According to the breakdown of roles, 'local' (home-based) workers at the peak of construction activity would only fill 8% of 'Professional and Management' roles compared to 90% of 'Site Support' roles (which include security, catering, cleaning, drivers, admin support, etc.).

Supply chain opportunities

- 1.9 EDF suggests, based on HPC, that £125 million per annum of project spend could benefit local Suffolk and Norfolk suppliers. This suggestion simply does not stand up to scrutiny, for the following reasons:
- At HPC the area that £125 million per annum is based on covers the whole of the South West of England and South Wales as far as Pembrokeshire. This area has 5 times the number of businesses and 5 times the workforce of Suffolk and Norfolk combined. Therefore, the ability of Suffolk and Norfolk to capture 7% of the Sizewell C spend compared to the 7% achieved by the 'local' business communities surrounding HPC is highly contentious. Much of this 'early' expenditure has been won by regional construction and civil engineering companies. Later phases involve wider involvement of national and international companies which will further reduce the likelihood that significant levels of local procurement will continue as either HPC or SZC projects progress.
 - EDF makes much of learning from HPC to help drive down costs at SZC and claims that re-deploying the nuclear supply chain developed for HPC will enable such costs and development times to be met. Indeed, the Nuclear Energy Agency – who assessed the severe cost and programme over-runs, with EPR projects, at Flamanville in France and Olkiluoto in Finland – was critical of the scale and complexity of the reactor designs and, crucially, the inexperience of the supply chain.² As a result Suffolk and Norfolk businesses are at an immediate disadvantage when bidding for significant SZC contracts since EDF will rely on its HPC primary and their secondary contractors who have the experience to build SZC.

² Mancini et al, 2015. The divergence between actual and estimate costs in large industrial and infrastructure projects: is nuclear special? *Nuclear New Build: Insights into Financing and Project Management*

Wider economic effects

- 1.10 EDF recognises that significant recruitment of employees from locally based businesses will occur during the SZC construction period (see paragraph 1.7). This will result in reduced levels of local business activity threatening both profitability and in some cases viability of these businesses. However, EDF dismisses this as ‘normal labour market churn’ whereas by Government’s own adopted methodology it actually represents displacement of labour from existing businesses which will have a significant negative economic impact as the result of an exceptionally large and long-lasting project. None of the potential implications on local businesses of the increased competition for appropriately skilled workers, against a backdrop of major demographic change, are addressed by EDF. These effects will also impact local residents with longer service wait times and likely increased costs. Furthermore, EDF makes no attempt in the Economic Statement to evaluate or address the inevitable negative impacts on businesses and the local economy of traffic pressures and congestion during both the construction and operational phases.

Tourism

- 1.11 Surveys commissioned by EDF show that 29% of tourist visitors would be deterred from visiting the area should SZC go ahead and 39% would visit the area less often. However, there is no attempt by EDF to assess the economic impact of these reductions and the spending within the tourism economy, such as on businesses providing food and drink services, retailers, visitor attractions operators, etc.
- 1.12 There will be very little opportunity, if any, for attractions to capitalise on replacement spending from the “non-local” mobile workforce required to build the proposed Sizewell C project. We should also bear in mind that much of the “local” workforce may be from as much as 90-minutes’ drive away.
- 1.13 EDF states that approximately 800 workers will utilise tourist accommodation at the peak of construction, averaging 300 workers and £2 million per annum over the lifetime of the SZC project. This equates to only 1.22% of the annual economy of the Suffolk Coast and Heaths AONB spatial area and 0.14% of the annual value of direct tourism spend across Suffolk as a whole, so its impact is little above annual variations even before considering the displacement effect on normal tourist visits is accounted for. On balance, the net effects of the SZC project on the tourism economy will be negative, for the following reasons:
- Visit Britain found that over 60% of average daily expenditure made by tourists on trips involving an overnight stay was on items other than accommodation. The Destination Management Organisation assesses that of the overall spending associated with the local tourism economy, only 9% is expended on accommodation.
 - The displacement of staying visitors by construction workers would have significant adverse effects on operators of tourist attractions and a range of food and drink providers, shops and other service providers who are reliant on meeting the needs of tourists visiting the area.
 - The additional impact on the tourism economy also needs to take into account that EDF’s survey evidence reveals that a significant proportion of potential visitors to the area could either be deterred from visiting the area entirely or to visit the area less often as a consequence of the project.

- 1.14 EDF's evidence suggests that up to 29% of potential visitors to the area could be deterred from visiting the area in the future to varying degrees, and that 39% of potential visitors said they are likely to visit less often during the construction period. As a result, the local economic loss due to displacement of day and staying visitors could be many times the annual value of construction workforce accommodation expenditure.
- 1.15 Despite EDF's own evidence there is no serious attempt to quantify any of these consequences. On this basis the assessment of the potential effects on the local tourism economy in the Economic Statement (and also in the Environmental Statement) is insufficient and fails to meet the minimum requirement for assessment as stipulated by National Policy Statement (NPS) EN6.

Overall Conclusion

- 1.16 The Economic Statement provided by EDF is based on the experience so far at HPC, a significantly larger economic area, and is both unproven and over-optimistic as a result. Furthermore, it only covers the early stage procurement stage which has been more easily satisfied by regional and local suppliers from an economic area 5 times the size of Suffolk and Norfolk. Later stages at HPC and SZC will be dominated – at the expense of local businesses – by national and international suppliers who are almost certain to capture any SZC contracts having gained the experience required to de-risk the project and benefit from the HPC experience.
- 1.17 NPS EN-6 requires that applicants for major nuclear energy projects take into account '*potential pressures on local and regional resources, demographic change and economic benefit*'. However, the analysis set out in this report highlights that EDF has failed to properly take into account, as required within legislation, the potential displacement impacts on other local businesses, both through competition for skills and labour, the potential deterrent effect on tourists and the loss of their expenditure throughout the tourism economy, and the potential negative effects of traffic congestion on the operational efficiency of local businesses. For all these reasons the overall conclusion is that EDF's Economic Statement is not compliant with NPS EN-6.

2: Economic Statement

Background

- 2.1 An Economic Statement dated May 2020 has been prepared by SZC Co. – the developer of the proposed Sizewell C nuclear power station project. According to the introductory chapter of the Economic Statement the report is intended to assess, *inter alia*:
- the scale of the economic benefits that the Sizewell C project could bring ‘to the labour market, regional productivity, and the supply chain’;
 - the potential for effects on labour supply and other industries present in the region (including tourism) and the measures that are intended to ‘avoid negative effects’; and
 - measures that are intended to be put in place to enhance the potential benefits and to complement existing regional objectives of various stakeholders.
- 2.2 The purpose of this document is to provide an assessment of the analysis found in the Economic Statement, such as to test the estimates for the scale of economic benefits that the project proponents claim could be generated, were the project to be built and operated as the developers intend. This response document also examines the extent to which the Economic Statement has assessed the potential for negative impacts on other industries operating in the impact zone for the project.
- 2.3 Additionally, the document also provides a response to the Socio-economics Chapter (Chapter 9) of the Environmental Statement for the Sizewell C project.
- 2.4 This response document has been prepared by Development Economics Limited on behalf of the Theberton and Eastbridge Action Group on Sizewell Ltd.

Structure of Report

- 2.5 To assist ease of navigability, the structure of this report follows the same structure used in the Economic Statement itself. The remaining chapters of this report are structured as follows:
- Chapter 3: provides comment on the purported Headline Impacts of the proposed development as identified by SZC Co.
 - Chapter 4: provides a brief response to the Policy Context section of the Economic Statement.
 - Chapter 5 provides a response to the Economic Context section of the Economic Statement.
 - Chapter 6 assesses the Economic Statement assessment of the potential effects on the area’s tourism economy.
 - Chapter 7 notes the commitments and statements in the Economic Statement regarding Implementation and mitigation strategies relevant to the project

- Chapter 8 provides a response to the conclusions set out in the Economic Statement, and also provides a summary of our own conclusions.

3: Headline impacts

Introduction

- 3.1 Section 3 of the Economic Statement provides an overview of the developer's predictions for construction and operational phase headline economic impacts linked to Sizewell C. In summary, these include the following:
- The construction phase is predicted to require investment of circa £20 billion and generate just over 40,000 person-years of construction employment.
 - The operational phase is estimated to boost "GDP" by around £225 million per year, involve the creation of around 900 permanent jobs (including 200 contractors) and bring around £44.5 million of wages to Suffolk each year during its operational life.
- 3.2 This chapter briefly assesses the analysis that underpins these predictions.

Operational phase

- 3.3 As stated above, the Economic Statement states that the operational phase of the project would require a workforce of around 900 (including contractors). This estimate is interpreted as the headcount of workers associated with the operation of the facility. That is, it is not an estimate of the predicted net additionality of the operational phase, as it does not take into account additionality factors such as leakage, displacement and multiplier effects.
- 3.4 The Economic Statement separately (in paragraph 3.2.1 bullet 4) states that indirect effects could amount to around 360 jobs. However, there is no detail provided as to how this figure has been calculated. (Confusingly, there is a reference in paragraph 3.2.4. of the text to the calculation being based on Government evidence that suggests that the expected level of indirect employment associated with the project would be round 60% of the direct employment figure. However, since direct employment is estimated at 900 jobs, 60% of this figure would equate to 540 jobs not 360 jobs, so it is rather unclear how the 360 jobs estimate has been calculated).
- 3.5 It is worth noting that there is a very vague reference to the scale of indirect employment effects at paragraph 9.7.267 of Chapter 9 of the Environmental Statement, as follows:
- Previous studies suggest additional local indirect employment of about 60% of direct employment, which would be in the order approximately 360 jobs for the proposed operational Sizewell C station. (Document 6.3 Volume 2 Main Development Site, Chapter 9 Socio-economics, page 135)*
- 3.6 However, no specific references are provided in this document, so the origin and appropriateness of this assumption cannot be verified.
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- 3.7 The Economic Statement also claims that there will be an annual contribution to “GDP” of ‘up to £225 million’ per year.³ The use of the caveat ‘up to’ is somewhat unhelpful, as this implies that the annual contribution could be any figure greater than zero, so for our purpose we assume that the intention is to say that the predicted annual value is expected to be just under £225 million. It is also assumed (but we cannot be sure) that this predicted contribution is based on current prices, so it excludes the future effects of inflation.
- 3.8 Based on an employment level of 900 jobs, the implied predicted level of economic output per worker is £250,000 (i.e. £225 million divided by 900). As a sense-check, it is worth noting that the average annual value of GVA per worker for the electricity generating sector in Great Britain is £170,050 per worker.⁴ On this basis, the estimated annual average levels of operational output predicted for the project is unrealistically high, being around 47% greater than the average currently achieved by the electricity generating sector as a whole across GB.

Construction phase employment

- 3.9 Based on the figures provided in Table 3.1 (on page 12 of the Economic Statement), the total amount of gross construction phase employment is predicted to amount to 42,340 person years over a construction period of 12 years. This table also provides annual estimates of the predicted requirement for a construction workforce: the peak year is expected to be Year 7 when the workforce would reach nearly 7,800.
- 3.10 There is no way to validate the applicant’s estimate of 42,000 person-years as it is based on the applicant’s own data and what they say has been the experience so far with other EPR projects (specifically Hinkley Point C and Flamanville 3). Moreover, the data and assumptions that underpin the estimate of 42,000 person-years are not provided so there is no possibility of examining the detail of the calculations performed by the authors of the Economic Statement.
- 3.11 Table 3.1 also provides an estimate of the numbers of workers annually who would be home-based (HB) vs non-home based (NHB). NHB workers are defined as those whose normal place of residence is outside a 90-minute travel time isochrone. Overall, 73% of the construction workforce is expected to be NHB, but in the peak years of construction this is expected to be higher, at around 76%.
- 3.12 The implication of paragraph 3.3.2 and especially 3.3.11 of the Economic Statement is that the proportion of HB workers is expected to be highest in lower skilled roles, such as in the provision of site services and support roles.

³ The predicted annual value of output associated with Sizewell C (or any development project) would be much more appropriately described as a contribution to Gross Value Added (GVA) rather than Gross Domestic Product (GDP). According to the ONS, GVA is a measure of the value of economic output generated in a sub-national spatial area, or by an individual sector or individual business. GDP, on the other hand, is a measure of the value of production in the national economy as a whole.

⁴ Sources: ONS Annual Business Survey (2018) and ONS Workforce jobs data series (2018).

3.13 This feature of workforce requirement is underscored by the predictions found in Table 3.2 of the Economic Statement on page 15. According to the breakdown provided in this table, of the total 2,410 home-based jobs expected to be supported at the peak of construction activity, only 150 (6%) are reported to be ‘professional and management’ type jobs. A further 1,100 (46%) are made of a variety of skilled and semi-skilled jobs in various construction-related trades (ranging from labourers and drivers through to electricians, fitters and other skilled trades). The remaining 1,150 (48%) are expected to be site support workers or workers on associated development sites, with roles including security, (catering, cleaning, drivers, admin support, etc.)

3.14 At paragraph 3.3.3 the Economic Statement makes the claim that:

At peak, this means up to c.2,410 jobs for Suffolk residents on the main development site (including 600 additional jobs in the operation of associated development sites) across a range of occupations and skills levels in non-operational roles. (Economic Statement para 3.3.3, page 13)

3.15 In 3.3.4 it is further claimed that the predicted increase in employment would be ‘significant’.

3.16 However, these claims do not stand up to scrutiny, because the HB component is based on a 90-minute drivetime (the Construction Daily Commuting Zone – CDCZ), which although centred on Suffolk also extends into adjacent areas of Cambridgeshire, Norfolk and Essex.⁵ For example, to the north the CDCZ encompasses Norwich and Great Yarmouth and adjacent parts of North Norfolk and Breckland. To the south the CDCZ extends to Colchester and parts of Braintree and Maldon districts.

3.17 The implication, therefore, is that a significant proportion of the HB workers will reside in counties other than Suffolk.

3.18 The conclusion that the Economic Statement reaches – that the construction phase impact on employment levels in Suffolk is significant – is therefore unproven as it relies on the erroneous analysis provided in paragraph 3.3.3 of the Economic Statement.

3.19 In the paragraphs that follow 3.3.3 – in particular 3.3.4-3.3.8 – some analysis is presented that concludes with the statement (in para 3.3.8) that:

Of those newly recruited, up to 480 would be formerly unemployed or previously inactive workers, and up to 725 workers would be workers from existing businesses. (Economic Statement, paragraph 3.3.8)

3.20 It is clear from paragraphs 3.3.6 and 3.3.7 of the Economic Statement that the numbers cited in paragraph 3.3.8 are referred to the recruitment of local people.

3.21 There is no specific analysis provided as to what proportion of the 725 local workers will also be working for local businesses, but given the existing travel to work patterns for residents of Suffolk the majority could reasonably be expected to be working at local establishments.

⁵ Note: the assessment of the 90-minute construction daily drivetime zone is based on the map provided in Figure 2.3 of Document 8.10 (Accommodation Strategy, Figures 2.1-5.1)

- 3.22 There is no specific analysis presented in the Economic Statement regarding the potential impact on local businesses of this scale of recruitment of their current workforce. Instead, the analysis presented in paragraphs 3.3.8-3.3.11 seeks to portray this level of local recruitment as being a 'normal operation of the labour market' as it is termed 'churn' within the labour market rather than a displacement impact that the Economic Statement should quantify.
- 3.23 This issue is considered in more detail at various points later in this response document.
- 3.24 A further point is worth making with respect to the material presented in the Economic Statement in Sub-section 3.3. From the extract from paragraph 3.3.8 quoted above, there is a clear expectation that significant numbers of workers are expected to be recruited from local residents that are unemployed or economically inactive. The specific target that is implied by the analysis of the Economic Statement in Sub-section 3.3 is that, at peak, up to 480 workers out of a peak local workforce of 2,410 would have been recruited from those previously unemployed or economically inactive.
- 3.25 Given this ambitious target, it is therefore worth noting that the experience so far with respect to the recruitment of unemployed workers at Hinkley Point C has been much lower than this. Indeed, according to the analysis found in a detailed assessment of the early stage impacts of the project, less than 2% of recruitment to the Hinkley Point C construction project as of January 2019 had been from those who had previously been unemployed, compared to a target of 8%.⁶

Supply chain opportunities

- 3.26 In the sub-section headed Supply Chain Opportunities (paras 3.4.1-3.4.13) the Economic Statement explores the potential economic stimulus that could be generated during the construction period transmitted via a local and regional supply chain.
- 3.27 The assessment specifically cites evidence from the experience of the Sizewell B project in the late 1980s and 1990s whereby contracts with local firms in the Suffolk and Norfolk areas accounted for an estimated 4% of the total construction phase expenditure.⁷
- 3.28 However, the Economic Statement seeks to promote the idea that the proportion of construction spending benefiting local businesses could be significantly higher than the 4% achieved last time. The source of evidence for this is the claim presented in paragraph 3.4.10 that expenditure so far on the Hinkley Point C EPR project currently being built in Somerset 'equates to around 7% of total spend on the Hinkley C project'.
- 3.29 In paragraph 3.4.13 of the Economic Statement it is speculated that:

...if similar activities and local supply chain recruitment are achieved at Sizewell C as Hinkley Point C there could be "local" retention of in excess of £1.5 bn over the construction phase, equivalent to an average £125m per year. (Economic Statement, paragraph 3.4.13)

⁶ Study on the impacts of the early stage construction of the Hinkley Point C (HPC) Nuclear Power Station, Oxford Brookes University, December 2019, page 19

⁷ Economic Statement, paragraph 3.4.12.

3.30 The calculation of the £1.5 billion figures appears to be the product of two figures referred to in the Economic Statement:

- First, an estimated total construction phase cost for the Sizewell C project of £20 billion, referred to in paragraph 3.4.13; and
- The reference to ‘around 7%’ of Hinkley Point C being spent regionally in paragraph 3.4.10.

3.31 However, this speculative assessment does not withstand detailed scrutiny, for the following reasons.

3.32 First, there is a seemingly deliberate confusion between the track record of regional spending achieved for Hinkley Point C and predicted local spending in the vicinity of Sizewell C. In particular, it is very clear from paragraph 3.4.9 that the spatial area that has benefited from regional and local spending associated with Hinkley Point C is relatively extensive, encompassing the entirety of South West England but also the entirety of South Wales. In particular, a reading of the *Hinkley Point C Wider Benefits Realisation Plan* (2018) published by the Department for Business, Energy and Industrial Strategy makes it very clear that the spatial area covers all of South West England and all of South Wales extending as far as west as Carmarthenshire and Pembrokeshire.⁸

3.33 To put this into context, the area used in the assessment of the Hinkley Point C supply chain opportunities covers an area with a total business population of over 302,000⁹ (2019 data) and a total employment base (employees only) of around 3.7 million.¹⁰ By contrast, the equivalent figures for the combined area of Norfolk and Suffolk for the same time period is approximately 63,000 businesses and an employee count of 0.69 million.

3.34 In other words, the spatial area relevant to the BEIS analysis and the 7% figure is around 5 times larger than the “local” area of Norfolk and Suffolk that is used in the analysis of the Economic Statement.

3.35 It is therefore highly unlikely that the experience of businesses located across the South West and South Wales in capturing as much as 7% so far of the Hinkley Point spend would be replicated in the much smaller economic area of Norfolk and Suffolk.

3.36 The Economic Statement attempts to provide some reassurance that there is a large construction sector present in Norfolk and Suffolk that could take advantage of construction phase expenditure. In particular, in paragraph 3.4.6 it is stated that there are nearly 9,000 businesses operating in the construction sector in this area.

⁸ BEIS (July 2018) Hinkley Point C Wider Benefits Realisation Plan

⁹ Source: UK Business Counts, 2019 data (latest available) sourced from NOMIS

¹⁰ Source: Employee count data from the ONS Business Register and Employment Survey, 2018 (latest available data at the time of writing) sourced from NOMIS

- 3.37 However, it is worth noting the detailed analysis of regional business demography provided by the Department for Business, Energy and Industrial Strategy's *Business Population Estimates* data series.¹¹ The most recent regional data for the East of England area found that only 18% of construction businesses located in the region are large enough to have any employees (in other words, over 80% of construction businesses in the region operate as sole traders or equivalent). Of the remaining businesses, the majority are micro-businesses employing fewer than 10 workers. Only around 1% are either medium sized or larger businesses.
- 3.38 If the pattern found across the East of England region is comparable to that occurring in Norfolk and Suffolk, then the great majority of the 9,000 construction sector businesses identified by the Economic Statement are unlikely to be large enough to compete for significant contracts at Sizewell C.
- 3.39 Setting this point aside, there are additional reasons for being sceptical of any presumption that the 7% "local" spend figure is realistic. This is because the BEIS analysis that forms the basis of this assumption is dominated by expenditure on items in the early phases of the construction of the Hinkley Point C project that are more likely to be supplied by construction and civil engineering companies that operate in the regional impact area. This includes expenditure on site clearance, building access roads and hard standing areas, site drainage, etc. Later phases of project expenditure such as construction and fit out of the 'nuclear island' are much more likely to involve proportionately larger amounts of involvement of companies operating at a national or international level. The proportion of local involvement in the middle and later stages of the project is therefore likely to be lower than in the early stages.
- 3.40 On this basis, applying the 'around 7%' figure to the whole project lifetime is likely to lead to a significantly exaggerated estimate for the involvement of companies located locally or regionally. Moreover whereas an exaggerated estimate is likely to have been claimed in the case of Hinkley Point C the same methodology is especially likely to prove unreliable for estimating the benefits to companies that are "local" to Sizewell C for the reasons explained above: i.e. the scale of business economy located in Suffolk and Norfolk is only around 20% of the size of the economy that has (so far) benefited from around 7% of the early stage construction phase expenditure associated with the Hinkley Point C project.
- 3.41 Apart from the difference in the scale of the business economy, there is a further set of reasons for doubting whether the "local" construction sector in Suffolk and Norfolk will benefit to the same extent as the equivalent businesses located in South West England and south Wales. This is because at the initiation of the Hinkley Point C project there was no established nuclear power station supply chain in existence in the UK, because prior to Hinkley Point C the most recent case of a nuclear power station construction project was Sizewell B, which was completed in the mid-1990s.
- 3.42 Inevitably, the majority of the companies that have been recruited to help with the construction of Hinkley Point C will also be candidates to provide similar services to the proposed Sizewell C project. Many of the companies that have benefited from involvement with Hinkley Point C will be able to leverage the skills and experience they have gained to be competitive when it comes to competition for contracts or for sub-contractor roles with respect to the construction of the proposed Sizewell C project.

¹¹ <https://www.gov.uk/government/collections/business-population-estimates>

- 3.43 It would be reasonable to assume that companies based in South West and South Wales would benefit from an increased share of contracts that may be available from the construction of the proposed Sizewell C project compared to a scenario where the decision to proceed with Hinkley Point C had never been made. The corollary of this is that it would appear to be unrealistic to assume that businesses “local” to Sizewell C will not suffer additional competition from companies that have developed expertise and experience in delivering the Hinkley Point C project for in effect the same clients as will be making procurement decisions with respect to the proposed Sizewell C project.
- 3.44 Furthermore, there are pragmatic reasons why it may be supposed that the supply chain for the Hinkley Point C project would in large part be retained for any subsequent EPR development projects elsewhere in the UK. The history of EPR developments in Europe has been a very troubled one, with significant cost and programme over-runs. In particular:
- Olkiluoto 3 in Finland is an EPR reactor that has been under construction since 2005 with an original anticipated timetable of becoming operational by 2009. The project has been subject to numerous delays and very significant cost overruns and is now not expected to begin operation until March 2021 at the earliest. The delays have been attributed to multiple problems with project design, supervision and quality of work undertaken.
 - Flamanville 3 in France is an EPR reactor that has been under construction since 2007 with an original target date for completion by 2012 but as with Olkiluoto has been subject to multiple problems that have resulted a very serious delays and cost overruns. The latest prediction is that operation will not commence until 2022, meaning that – as with the Finnish project – the EPR scheme at Flamanville will have taken at least 10 years additional years to complete compared to the original estimate. The costs of the project have also massively increased compared to the original estimates, with the latest predicted total having increased by a factor of around 3.7 compared to original budget estimates.
- 3.45 A review of the experience of these projects undertaken for the Nuclear Energy Agency (2015) identified that reasons for the delays and cost overruns with EPR reactors include the scale and complexity of the project, the implementation of new reactor designs and, crucially, the inexperience of the respective supply chain for the projects.¹²
- 3.46 In order to help avoid similar problems emerging with Sizewell C, it would therefore appear to be a considerable advantage to minimise the risk associated with inexperienced contractors and other suppliers by retaining as far as possible the companies that have gained experience in EPR construction with Hinkley Point C. If this is the case, then it would consequently be more difficult for would-be suppliers located in Suffolk and elsewhere in the East of England to compete for contracts associated with Sizewell C.

¹² Mancini et al, 2015. The divergence between actual and estimate costs in large industrial and infrastructure projects: is nuclear special? *Nuclear New Build: Insights into Financing and Project Management*

Wider Economic Effects

- 3.47 In the sub-section headed Wider Economic Effects (paragraphs 3.5.1-3.5.11) the Economic Statement explores, firstly, the potential for additionality and displacement associated with the Sizewell C project and, secondly, the potential for multiplier impacts from the local expenditure of employee wages.

Additionality and displacement

- 3.48 In paragraph the Economic Statement states there is no deadweight to consider with respect to the project. This appears to be a correct conclusion.

- 3.49 However, much more problematic is the claim made in paragraph 3.5.3, which is worth quoting in full:

Similarly, there is no displacement of activity that moves to the site that would otherwise take place elsewhere. The term 'displacement' has been used by some stakeholders in response to consultation to raise concerns regarding workers moving from an existing job to one at Sizewell C. This would be more accurately be described as 'labour market churn' and, as described above, is a normal feature of all sectors of the economy, particularly the construction sector. (Economic Statement, paragraph 3.5.3)

- 3.50 The authors of the Economic Statement appear to have adopted a very narrow and simplistic definition of displacement that is at variance with definitions used elsewhere, including in guidance produced on the subject by Government departments and agencies.

- 3.51 In particular, the most widely used source of advice on calculating additionality is the *Additionality Guide*, the first edition of which was published by English Partnerships at the time of first publication the Government's national regeneration agency. Subsequent editions of the *Additionality Guide* have been published by successor agencies, specifically the Homes and Communities Agency and Homes England.

- 3.52 That the *Additionality Guide* is the standard and usual source of guidance on the subject is confirmed by the current edition of the *Appraisal Guide* published by the Ministry of Housing, Communities and Local Government (MHCLG) dated 2016, including in the following text:

Additionality refers to the extent to which an outcome is genuinely additional. The net impact of a policy therefore excludes any deadweight – impacts which would have happened anyway – and ensures any negative impacts – such as reduced economic activity from elsewhere (displacement) and any economic impacts occurring outside the target area (leakage) are also accounted for.

*Therefore, in order to estimate the correct level of additionality, it is essential to properly determine the counterfactual and work through the logic model of the intervention i.e. clarifying the chain of causation through which inputs translate into outputs and outcomes, both desirable and otherwise. **A useful guide to additionality and how users might decide appropriate levels of additionality is the Homes and Communities Agency Additionality Guide (formerly English Partnerships Guide).** (MHCLG Appraisal Guide, December 2016, page 40)*

- 3.53 The definition of displacement found in the glossary of the fourth edition of the *Additionality Guide* (dated 2014) is as follows:

The proportion of intervention outputs/outcomes accounted for by reduced outputs/outcomes elsewhere in the target area. (Homes England Additionality Guide, p28)

- 3.54 Moreover, a more detailed explanation of the mechanisms through which displacement can occur are described in the text that follows the definition. These are worth quoting in full, as they are clearly directly relevant to the situation at Sizewell C and contradict the claims made in the Economic Statement in the sub-section headed Additionality and displacement.

*Displacement arises where the intervention takes market share (called product market displacement) **or labour, land or capital (referred to as factor market displacement)** from other existing local firms or organisations. For example, an intervention may help a business to expand its operations. However, this business may take market share from other local firms producing the same goods or services, **resulting in them losing trade and possibly staff.** Alternatively, the supported business may use up scarce local factors of production (**such as skilled labour**) or bid up factor prices.* (Homes England Additionality guide, fourth edition [2014], page 28, emphases added)

- 3.55 It is clear from the extract quoted that competition for factor resources (such as skilled labour) is a key consideration in the assessment and quantification of displacement.
- 3.56 Therefore, the stance taken by the Economic Statement – that the likely diversion of employees from existing local businesses is irrelevant to consideration of the additionality of the proposed Sizewell C project – is in complete contradiction to the recommended approach to consideration of additionality with respect to government interventions and large scale projects generally.
- 3.57 The point is further detailed elsewhere on page 28 of the *Additionality Guide* where the factors that influence the potential scale of displacement are explored. Again, this extract is worth quoting in full as it bears strong and direct relevance to the situation here and again directly contradicts the statements found in the Economic Statement.

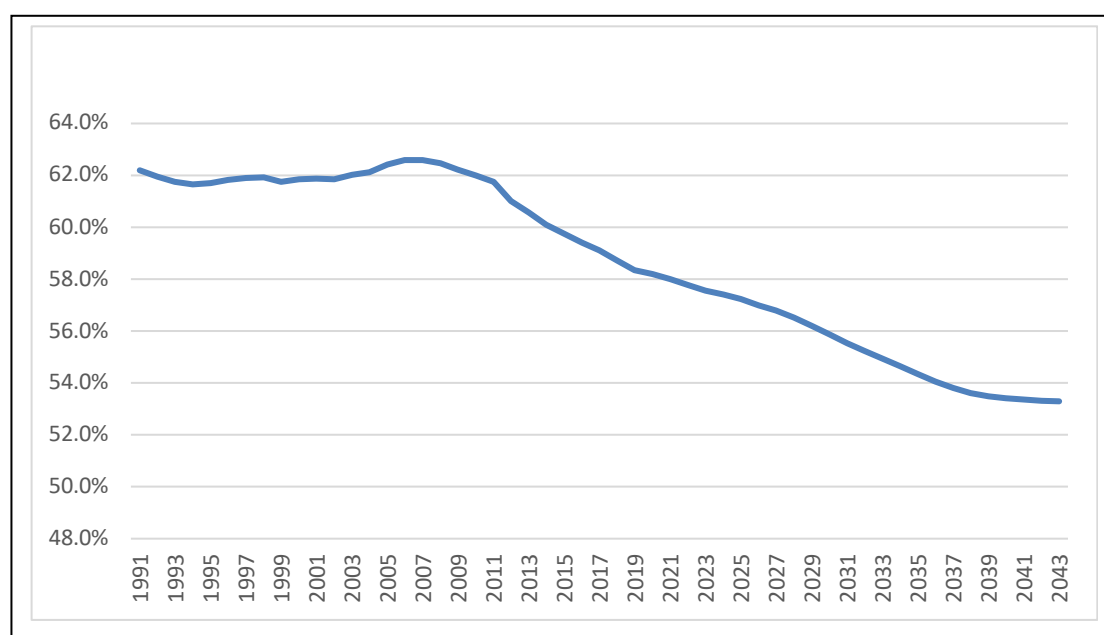
*The scale of displacement effects will vary depending upon the nature of activity supported and local markets. For example, if the supported business has few local competitors then the level of product market displacement will be low. **In terms of factor market displacement, an intervention may result in an increase in demand for construction workers. If these are in short supply, the result may be delays to this or other interventions or an increase in costs.*** (Homes England Additionality guide, fourth edition [2014], page 28, emphases added)

- 3.58 There is a strong expectation contained within the Economic Statement that the construction phase of the project will involve significant levels of recruitment from amongst employees of locally based businesses. In particular, the evidence presented in paragraph 3.3.8 is that the home-based workforce could include “...up to 725...from existing firms”. In other words, factor displacement amounting to up to 725 local workers is fully acknowledged by the Economic Statement.
- 3.59 For these reasons it must be the case that adverse impacts – such as recruitment difficulties and/or increased costs – are very likely to be experienced by local employers during the construction phase of the project. These impacts would be likely to result in reduced levels of business activity, profitability and, in some cases, threaten their viability.

- 3.60 However, none of these effects have been considered by the Economic Statement. Instead these dangers are dismissed as simply being ‘normal labour market churn’ despite the fact they would be the result of the arrival of an exceptionally large, long-lasting and unusual project.
- 3.61 Based on an expectation of significant levels of recruitment of workers from existing businesses, it is almost inevitable that harmful effects will be experienced by these businesses. It therefore follows as a matter of logic that the net additional impact of local employment creation during the construction phase of the project must be lower than the levels claimed in the Economic Statement. Moreover, by incorrectly denying the relevance of the concept of displacement to the construction phase of the project, the Economic Statement simply has ‘ducked the issue’ and as a consequence the potential net additional economic benefits for the local area in the Economic Statement have been substantially overstated.
- 3.62 Apart from the simplistic and narrow way in which additionality concepts such as displacement have been treated, there are other reasons for concluding that the claims of ‘significance’ made in both the Economic Statement and Chapter 9 (Socio-economics) of the Environmental Statement have been incorrectly or inappropriately determined. All of these reasons are set out in the concluding chapter of this report.
- 3.63 Given the absence of any bespoke analysis undertaken in the Economic Statement to estimate the potential extent of construction phase displacement caused by competition for construction workers, it is worth considering the types of ‘ready reckoners’ suggested by the *Additionality Guide*. These range from 25% where ‘low’ levels of displacement might be expected to 75% where ‘high’ levels of displacement might occur.
- 3.64 The extent to which levels of competition for a construction phase workforce could occur depends in part on the conditions affecting the labour market over the construction phase time-period. One factor that is acknowledged to a limited extent within the documentation submitted in support of the application is the potential for shortages of workers caused by structural change in the demography of the local area. For example, in Chapter 9 of the Environmental Statement submitted by the applicant it is acknowledged that population growth in East Suffolk over the over 2016-2026 will be lower than both the regional and national averages.¹³ It is also acknowledged that growth in working age population in East Suffolk is expected (according to the Government’s current sub-national population projections, dated 2018) to be substantially lower than national and regional averages over the same period.¹⁴
- 3.65 It is also worth highlighting the currently expected trend with reference to recent historic population estimates coupled with the latest population projections from the period 2018 onwards. For example, the recent trend and current prediction for the working age population for Suffolk is illustrated in the figure below.

¹³ Sizewell C Environmental Statement, Chapter 9 Socio-economics, paragraph 9.5.113 (p67)

¹⁴ The projected increase in working age population in East Suffolk is 0.7%, compared to 3.3% for the East of England region and 2.3% for England as a whole. (Source: Sizewell C Environmental Statement, Chapter 9 Socio-economics, paragraph 9.5.115 (p68))

Figure 3.1: Recent and predicted future trend for working age population: Suffolk (1991-2043)

Sources: ONS Annual Population Estimates and ONS Sub-national Population Projections

- 3.66 As can be seen in the chart, the proportion of the population that was of working age was stable up until around 2007 but has been declining steadily ever since. The expected trend is for further decline until the end of the 2030s, after which the proportion is expected to stabilise at around 53%.
- 3.67 The next step is to consider what the impact of this demographic trend could be on the workings of the local labour market during the 12-year construction period for the proposed Sizewell C project.
- 3.68 On one side of the labour market there is therefore expected to be (according to the Government's population projections) very slow growth in the supply of workers caused by demographic structural change.
- 3.69 On the other side of the labour market, according to evidence submitted by the applicant in Chapter 9 of the Environmental Statement, there is an expectation that demand for workers will in the longer term be maintained. In particular:
- The evidence presented in Table 9.35 of Chapter 9 of the Environmental Statement highlights the potential for an increase of 8.5% in the overall levels of employment occurring across Suffolk County over the period 2015-2035. This increase amounts to 31,200 jobs, including 6,300 jobs (just over 20% of the overall increase) located in the Construction sector.
 - The same document also presents equivalent forecasts for East Suffolk, also sourced from the East of England forecasting model (EEFM). The East Suffolk forecasts amount to an increase in employment over the 2015-2035 period to 10,700 jobs, an increase of 10.1% over the 2015 baseline. Of these, Construction jobs are expected account for 1,700 jobs (22%).
 - As noted in the Environmental Statement (9.5.117), these future employment projections are trend-based and do not take into account additional workforce demand that may be stimulated by the construction of Sizewell C or any other as yet uncommitted projects.

- 3.70 Bringing these various pieces of evidence together, it can be concluded that over a period when the growth of the working age population in Suffolk is expected to be highly constrained there is expected to be substantial demand for workers to fill jobs that are anticipated to be generated across the economy as a whole, with the construction sector in particular expected to experience strong job growth according to the latest predictions from the EEFM. Moreover, these predictions for job growth are not predicated on a go-ahead decision for Sizewell C, so any additional demand created by the project would be additional to the underlying level of demand for workers.
- 3.71 Given the absence of any serious analysis regarding displacement in the Economic Statement, and based on the likelihood of an increasingly constrained labour market over the next 15-20 years (given underlying demand for workers and severely constrained growth in the working age population) the safest assumption would be that the displacement impacts on local employers will be 'high'.
- 3.72 On this basis, the safest conclusion an independent assessment could reach is that around 75% of the located jobs created by the project would likely be displacement of jobs from existing businesses, and that at most only around 25% of the predicted number of jobs would be net additional to the local economy during the construction period.
- 3.73 Moreover, given the evidence of expected overall and construction-sector specific job growth coupled with very limited growth in working age population that is provided by the applicant in Chapter 9 of the Environmental Statement, the approach used by the authors of the Economic Statement to disregard the potential displacement impacts of the proposed Sizewell C project on the local labour market and on the viability of existing businesses – especially construction sector businesses who are most vulnerable to having their workforce recruited to work on the Sizewell C project – is entirely inappropriate and completely undermines the conclusions that the Economic Statement has reached with respect to the 'significance' of the predicted employment impacts of the project on the local economy.
- 3.74 The clear conclusion that should be reached by an independent assessor of the applicant's evidence is that treatment in the Economic Statement of potential workforce displacement during the construction phase for the proposed Sizewell C project is wholly inadequate. Moreover, the applicant's approach is wholly at variance with the standard approach to considerations of additionality as recommended by published and highly respected guidance by a Government agency.

Wages and multipliers

- 3.75 In paragraphs 3.5.7-3.5.11 of the Economic Statement it is concluded that the project could result in additional local spending amounting to £320 million over the duration of the construction of Sizewell C.
- 3.76 However, it is important to stress that this is a gross figure, as it does not take into account the wages that workers who would have otherwise been employed by local businesses would have earned and spent locally during the same period. This includes the wages of the up to 725 workers who (as acknowledged in paragraph 3.3.8 of the Economic Statement) are expected to be recruited to work on the project who would otherwise be working for existing firms in the local area.
- 3.77 However, there is no attempt in the Economic Statement to quantify the scale of such displacement, for reasons that have been discussed in the previous sub-section of this report.

- 3.78 The £320 million figure cannot therefore be regarded as a net additional figure for additional local spending as it includes a significant component of expenditure that would occur in the area if the Sizewell C project is never built.

Impacts of Traffic on Operational Efficiency

- 3.79 A key weakness of the Economic Statement is that there is no attempt made to assess or address the potential for negative impacts on the operational efficiency of local businesses and the wider local labour market of traffic congestion that may occur during the construction and operational phases.
- 3.80 For example, the transport modelling assumptions that underpin the transport strategy for the construction phase are predicated upon 1,000 HGV movements (500 deliveries) per day at peak and 650 HGV movements (325 deliveries) per day on average. Increases in traffic at peak period could have impacts on the reliability and predictability of freight delivery movements to and/or from local businesses. Additional congestion could also have negative effects on the peak time travel to work journeys and could also potentially deter customers of local businesses.
- 3.81 However, the Economic Statement does not identify these as potential issues let alone provide any analysis that quantifies the potential effects on local businesses and the local workforces.

4: Policy Context

4.1 In Section 4 of the Economic Statement various national and regional policy documents and strategies are introduced and discussed.

4.2 In terms of policy documents such as NPS EN-6 it is important to acknowledge that the guidance stresses the need for the assessment to consider both positive and negative effects. In particular, NPS EN-6 guidance requires that an applicant should:

... identify at local and regional levels any socio-economic impacts associated with the construction, operation and decommissioning of the proposed new nuclear power station (NPS EN-6, Volume 1, paragraph 3.11.3)

4.3 NPS EN-6 also requires that:

This assessment should demonstrate that the applicant has taken account of, amongst other things, potential pressures on local and regional resources, demographic change and economic benefits (NPS EN-6, Volume 1, paragraph 3.11.4)

4.4 For reasons described in the previous section of this report, the Economic Statement for the Sizewell C project has failed to properly consider or even attempt to quantify the potential negative effects of displacement on other local businesses, particularly those operating in the construction sector. This is despite acknowledging that up to 725 workers during the construction phase of the project would be recruited directly from existing local businesses at a time when (as evidenced by the material provided in Ch 9 of the Environmental Statement) job growth in the local area is predicted to be strong and the supply of people of working age is expected to be constrained by demographic structural change.

4.5 For reasons explored in a later chapter of this report (i.e. Chapter 6), there is also a concern that the assessment of the potential impacts of the proposed Sizewell C project on the tourism economy of Suffolk has also been inadequately assessed.

4.6 On this basis the applicant appears to have not discharged its responsibilities for a full and proper assessment of the potential socio-economic effects of the project, including the '*potential pressures on local and regional resources, demographic change and economic benefits*' as required by NPS EN-6.

5: Economic context

- 5.1 Section 5 of the Economic Statement provides some additional data and analysis for the local economy that sets the context for the analysis found in the Economic Statement.

Dynamic Labour Market

- 5.2 One very relevant part of Section 5 is the discussion under the heading of Dynamic Labour Market in sub-section 5.4, as it is here that the authors of the Economic Statement attempt to justify their decision to exclude any serious consideration of displacement – by which we mean any attempt to provide a quantification for potential displacement effects during the construction phase – from the Economic Statement document.
- 5.3 In particular, this part of the Economic Statement makes a series of points utilising generic evidence from the national labour market. For example:
- That the labour market is characterised by flows between those that are employed, unemployed and economically inactive (para 5.4.1)
 - That the numbers of people who are inactive but say they would like to work is usually greater than those eligible for unemployment-related benefits (para 5.4.2)
 - That the numbers in the three groups (employed, unemployed, inactive) varies according to – inter alia – the current position of the economy in the economic cycle (para 5.4.5).
- 5.4 The Economic Statement goes on to state (in paragraph 5.4.6) that between 40% and 52% of new jobs may be filled by people who were not previously working. On the other hand, up to 60% of vacancies might be filled by people who change job.
- 5.5 (As an aside, it is again worth highlighting that the experience so far with the construction of Hinkley Point C is that very small numbers of workers who were previously unemployed have been recruited to the project. According to an assessment report commissioned by the New Nuclear Local Authorities Group and undertaken by Oxford Brookes University, as of January 2019 less than 2% of the workforce had been recruited from the unemployed, compared to a target of 8%.)¹⁵
- 5.6 Returning to the Economic Statement text, none of the statements made about the dynamics of the labour market are controversial, and they accord with the commonly described dynamics of the labour market. However, the next step taken by the authors of the Economic Statement is problematic, and is worth quoting in full:

*This is the normal operation of the labour market, and the choices of individuals within it and is **not directly related to the impacts of the development. It is therefore not appropriate or***

¹⁵ Study on the impacts of the early stage construction of the Hinkley Point C (HPC) Nuclear Power Station, Oxford Brookes University, December 2019, page 19

necessary for it to be regulated by the planning system. (Economic Statement, paragraph 5.4.7, page 26)

- 5.7 The statement made in paragraph 5.4.7 appears to be in direct contravention of NPS EN-6 which requires that applicants for major nuclear energy projects take into account ‘*potential pressures on local and regional resources, demographic change and economic benefit*’. Instead of taking into account impacts on local resources (such as supplies of skilled construction labour), demographic change (in particular the widening gap – acknowledged by the applicant’s own evidence – between local labour demand and likely labour supply), and the true scale of the potential economic benefits associated with Sizewell C – by properly acknowledging and also then taking steps to quantify the potential scale of displacement effects of the project – the applicant instead has attempted to either define away the problem of displacement or to ignore it.
- 5.8 On this basis the conclusion must be reached that the applicant has not adequately or appropriately assessed the potential negative socio-economic impacts of the scheme.
- 5.9 The apparent inference of paragraph 5.4.7 is that any request by local stakeholders for the developer to properly assess and quantify the additionality of Sizewell C in terms of the number of additional jobs (taking into account, for example, displacement and leakage) and economic output is somehow an attempt to use the planning system to regulate the labour market. However, the reality of the situation is that by raising the issues of additionality and displacement, local stakeholders are merely asking the applicant to meet the obligations that are imposed by NPS EN-6. In other words, that the applicant properly accounts for potential creation of frictions, pressures and conflicts with other local industries and businesses, such as through competition for workers or other resources, such as available bed-spaces in tourist accommodation.
- 5.10 It should also be acknowledged that it is a common requirement for large and/or controversial projects to be tested in the planning system. It is often the case that the positive economic benefits associated with major projects are assessed against negative impacts such as on additional traffic, ecological impacts, landscape impacts, etc. In order that the planning system can properly make a balanced judgement of whether the negative effects of a project are more than offset by the potential positives, including the potential for net job creation and other benefits, it is necessary for a full and proper assessment to be carried out of what those positive effects are likely to be.
- 5.11 Unfortunately, in the case of the assessment put forward by the applicant in support of Sizewell C it is impossible to be sure what the positive economic effects are likely to be. This is in part because issues such as displacement have been ignored or inadequately assessed. In addition, factors such as the potential extent of stimulation of a localised supply chain has been exaggerated by the authors of the Economic Statement. Even the starting point position of 42,000 person-years of gross construction phase employment should be regarded with caution, because the assumptions and data that underpin this estimate have not been provided in any detail by the applicant.

Local skills issues

- 5.12 Another topic of great relevance to the conclusions of significance reached by both the Economic Statement and Ch 9 (Socio-economics) of the Environmental Statement concerns the supply of skills found in the local labour market and the potential interaction with the skills requirements of the construction phase of the proposed Sizewell C.
- 5.13 According to the Economic Statement at paragraphs 5.2.4 and 5.2.5 the Construction and Energy sectors contain “a higher proportion of skilled jobs than average”. However, in other parts of the applicant’s evidence, several issues with skill supply in the local area are revealed.
- 5.14 For example, in paragraph 9.5.37 (and Table 9.20, page 45) of Chapter 9 (Socio-economics) of the Environmental Statement, the applicant presents official (ONS) data on qualifications that confirms that the proportion of working age residents in the immediate districts with at least Level 2 qualifications (84%) is lower than the proportions across the East of England (86%) and England as a whole (87%).
- 5.15 In addition, paragraph 9.5.38 confirms that the proportion of working age residents in immediate districts with at least Level 3 qualifications (57%) is lower than the proportions across the East of England (62%) and England (65%). However, these are the levels of qualifications that will tend to be needed for the more highly skilled jobs created to build and operate the proposed development, which reinforces the conclusion that most of the senior and better paid opportunities likely to be created by the project will not benefit local people.
- 5.16 The average skill level of the local working age population has also been commented upon by the authors of the economic evidence report that underpins the New Anglia local industrial strategy. Specifically, the history of underperformance and low rates of progression in education:
- has contributed towards a workforce with a much lower skill profile than the national equivalent; for instance, only 36.7% of the workforce in Norfolk and Suffolk are educated to NVQ Level 4, in contrast to 42.9% across the rest of the UK.¹⁶*
- 5.17 The situation regarding the demand for and supply of skills for the construction period that follow from this can be summarised thus:
- first, according to the applicant’s own evidence, the skill requirements of both the Construction and Energy sectors are higher than the economy-wide average.
 - second, according to the applicant’s own evidence (and corroborated by the independent assessment of the evidence report supporting the local industrial strategy) the supply of skills found among the local labour market is below the national average.
- 5.18 On that basis, it appears that there are several potential implications for the assessment provided in the applicant’s Economic Statement:

¹⁶ New Anglia LEP (December 2017) *Economic Evidence Report*, page 7

- First, the competition for local workers with requisite levels of skills will be even more intense than would be the case if the skill profile in the local area was more akin to the regional and national averages. Hence, it would be necessary for the project to compete intensely for local supplies of skilled labour.
- However, if sufficient numbers of skilled workers cannot be secured from local sources, a greater proportion of the workforce would as a consequence need to be recruited from outside the local catchment area. On that basis, there would be a higher proportion of NHB workers recruited to work on the project compared to the levels assumed by the assumptions contained in the Economic Statement.

5.19 The implications for the net additionality of the project are likely to be adverse whichever of these possibilities is manifested. If extra workers are recruited locally, then levels of displacement will be higher. On the other hand, if more workers are recruited from outside the 90-minute catchment area, then levels of leakage will be greater. Either way, the net impact for employment locally will be lower than would have been the case had local skills supply – in terms of quantities of available workers and the quality of the supply (in terms of skills levels) – been greater.

5.20 For this reason, there are significant causes for concern that the estimates of net local employment impact during the construction phase provided in the Economic Statement are significantly over-estimated compared to the levels likely to occur if the project proceeds.

6: Tourism

- 6.1 Section 6 of the Economic Statement attempts to address the potential effects of the proposed Sizewell C project on tourism in the area.

Background context

- 6.2 The importance of tourism to the economy of the area is acknowledged on pages 31-33 of the Economic Statement. Here, statistics and figures from various sources are cited. Examples include the following:
- An assessment undertaken for the Suffolk Coast Destination Management Organisation found that in 2017 the Suffolk Coast and Heaths AONB attracted 4.1 million trips, generating over £164 million direct spend and supported 3,400 full time equivalent (FTE) jobs.¹⁷
 - This same assessment was undertaken for Suffolk which found that the County attracted over 35 million trips, associated with the generation of over £1.4 billion of direct spend and supported over 31,000 FTE jobs.
- 6.3 The data for Suffolk confirms that the contribution of the tourism sector to the sub-regional economy is significantly larger than the predicted annual contribution of the proposed Sizewell C station during its operational phase.
- 6.4 On pages 33-34 of the Economic Statement the authors attempt to utilise various ONS time-series datasets to assess the absolute and relative importance of tourism to the local area and compare the trends against data for regional and national benchmarks. In particular, the authors utilise data from the following sources to draw conclusions about tourism trends in the area over the period since 1987:
- The Census of Employment (CoE) covering 1981-1991
 - The Annual Employment Survey (AES) covering 1991-1997
 - The Annual Business Inquiry (ABI) covering 1998-2008
 - The Business Register and Employment Survey (BRES) covering 2009 to date, with 2018 the most recent data.
- 6.5 One drawback with using these various data sources is that they cover employee data only. This is a problem for industries such as tourism, where self-employment is a prominent feature of the industry.
- 6.6 Another concern is the discontinuity in the data that was caused when the ONS changed its survey approach. An example of this occurred in 1991, when the ONS switched from use of the Census of Employment to the Annual Employment Survey. The specific problem was that at the same time the ONS adopted a revised system of categorising industries, moving from the 1980 Standard Industrial Classification (SIC) categories to the 1992 SIC categories.

¹⁷ Destination Research: *Economic impact of tourism 2017 results – Suffolk Coast and Heaths AONB*

- 6.7 The change from use of the 1980 SIC categories to the 1992 SIC categories means that it is difficult to safely compare time series data. The ONS does assist by provided data using both categories for years when the system of categorisation changes, but this means that data needs to be converted into an index.
- 6.8 Unfortunately, the authors of the Economic Statement do not appear to have realised the significance of the changes in the way that the ONS has categorised its data into sectors, and the analysis in the Economic Statement (such as the data presented in Figure 5.3 referred to on page 34 of the Economic Statement) is presented in its raw form.
- 6.9 The implication of this is that the time series analysis of tourism employment trends presented in the Economic Statement cannot be regarded as soundly based.
- 6.10 In paragraph 6.1.21 of the Economic Statement the following claim is made with respect to the trends that Figure 5.3 purportedly shows:

Additionally, the number of jobs in Suffolk Coastal increased significantly over this time, as did tourism-related jobs. Figure 5.3 shows that between 1987 and 1995 (the Sizewell B construction phase) jobs in these sectors increased by around a third (630 jobs), whilst the total number of jobs grew by a fifth. (Economic Statement paragraph 6.1.21, page 34)

- 6.11 This statement is confusing because the trajectory shown in Figure 5.3 appears to cover jobs in two segments relevant to tourism: (1) Hotels and catering/restaurants and (2) Recreation and other services.
- 6.12 However, the statement made in paragraph 6.1.21 is only borne out when one of these segments – Hotels and catering/restaurants – is examined. The relevant data is presented for convenience in the table below.

Table 6.1: Employees in employment in selected sectors relevant to tourism, Suffolk Coastal district, 1984-1996

Year	Census of Employment Hotels, restaurants etc. (SIC 66)	Census of Employment Recreation services etc. (SIC 97)	Total	Annual Employment Survey Hotels, restaurants etc. (SIC 55)	Annual Employment Survey Recreation services etc. (SIC92)	Total
1984	1,750	600	2,350			
1987	1,875	500	2,375			
1989	3,000	850	3,850			
1991	2,750	800	3,550	2,750	850	3,600
1993				2,375	900	3,275
1995				2,500	900	3,400
1996				2,250	1,000	3,250

Sources: ONS (Census of Employment, 1984-1991; Annual Employment Survey, 1991-1996)

- 6.13 The statement in paragraph 6.1.21 appears to relate to the accommodation segment only. The 1987 Census of Employment found that there were 1,875 employee jobs covered by SIC 66 (based on the 1980 system of classification). The Annual Employment Survey of 1995 found that there were 2,500 employee jobs in the roughly equivalent SIC 55 segment used in that survey (using the SIC 1992 system of classification). The difference between 2,500 employee jobs and 1,875 employee jobs is 625 jobs, so it is presumed that this is the 'trend' that paragraph 6.1.21 is referring to.

- 6.14 The reason for the lack of clarity about this is the reference to the trend line in Figure 3.2, which appears to be the sum of the Hotels category and the Recreation services category, as shown in Table 6.1 above.
- 6.15 A detailed look at the annual data shows that the entirety of the 'one third' increase actually occurs as a one-off jump in accommodation sector employee numbers occurring between 1987 (with a total of 1,875 employee jobs) and 1989 (3,000 employee jobs). Thereafter, the estimated number of jobs in the Accommodation sector on the Suffolk Coast actually declined, to 2,750 jobs in 1991 and to 2,250 jobs in 1996.
- 6.16 There are various difficulties in attempting to use this data to say something about the impacts of the construction phase of Sizewell B on tourism employment in the local area.
- First, the data used only covers employees and excludes the self-employed, which is an important component of the overall tourism sector (especially micro-business, many of which will be owner-operated).
 - Second, as discussed above, the claimed increase of one-third in tourism jobs is only relevant to the accommodation sector, and even this is a one-off increase between two survey episodes (1987 and 1989) which thereafter dissipates.
 - Third, there is no evidence presented about what is happening in other parts of the economy that benefits from expenditure by visitors, such as in tourism attractions and other types of service outlets (such as shops, transport services, etc.).
- 6.17 One possibility is that the 'one-off' increase in Accommodation employment occurring between 1987 and 1989 was a resulting spike in demand for accommodation, food and drink etc. driven by the needs of the Sizewell B construction workforce. But there is no data presented in the Economic Statement that allows an assessment of the potential loss to the economy of tourists that were deterred from visiting the area during construction, such as because of concerns about traffic or the lack of availability of accommodation for tourists that may have occurred in the area at the time.
- 6.18 In short, there is little about the analysis presented in the Economic Statement that allows for a rigorous assessment of the interaction of Sizewell B construction and the local tourism economy in the area during the 1987-1995 period.

Quantifying the effects of interventions on tourism

- 6.19 Section 6.2 of the Economic Statement presents analysis on the potential effects of the proposed Sizewell C project on the local tourism economy.
- 6.20 It is noteworthy that surveys undertaken with respect to Hinkley Point C (referred to in the Economic Statement paragraph 6.2.5) suggest that the development of the new power station there could lead to around 10% of potential future visitors changing their plans and not visiting. In paragraph 6.2.7 it is stated that (so far) these potential set backs for tourism have not materialised, with the evidence of the latest SEAG report for Hinkley Point C cited in support for this statement. However, a careful reading of this report does not yield any evidence that specifically supports the claim made.

- 6.21 For example, the SEAG report's statement that '*Local tourism industry confidence seems high*' is not backed up by any survey evidence: instead, it appears to be a perception based on stakeholder feedback only.
- 6.22 In addition, at the time of writing of the latest (July 2019 SEAG report) the construction phase for Hinkley Point C was still in its early stages, so the potential impacts - of for example peak construction phase traffic and peak construction phase requirements for workforce accommodation - had yet to be experienced by visitors.
- 6.23 In any case, there is no evidence presented that confirms that the reaction of the tourism market in Somerset - whatever that reaction may actually be - would be replicated in Suffolk. The tourism industries in the two areas are sufficiently different - in terms of scale, value and the (demographic and socio-economic) characteristics of visitors - so that the response of customers in one of the markets may not be a clear indicator of the potential response of customers in the other market to the same circumstance (i.e. the arrival of a major construction project such as the development of an EPR).
- 6.24 In summary, there is too little evidence available from the experience of the Hinkley Point C project to draw safe conclusions with respect to what the potential experience of the proposed Sizewell C project could be for the local tourism industry.

Understanding potential sensitivities in the Suffolk tourist economy

- 6.25 Section 6.3 of the Economic Statement explores the potential sensitivity of the Suffolk tourism economy to the proposed Sizewell C project.
- 6.26 Results of perceptions studies among people who have either previously visited the Suffolk coast area (or plan to do so in the near future) are reported on pages 38-39 of the Economic Statement. This provides some evidence that significant numbers of potential visitors to the area could be deterred from making visits to the area if the Sizewell C project proceeds. For example, it is stated that 29% of survey respondents said they would be less likely to visit the area if the project goes ahead, with 39% saying they would visit the area less often during construction.
- 6.27 Despite this evidence, there is no attempt in the Economic Statement to quantify the potential economic consequences of the potential deterrent effect of the project with respect to visitor numbers and/or visitor spending.
- 6.28 Likewise, there is no analysis that differentiates the potential effects of reduced visitor numbers and/or spending on specific segments of the tourism economy, such as the food & drink services sector, on retailing or visitor attractions, etc.
- 6.29 The absence of any analysis - quantified or otherwise - on segments such as visitor attractions, etc. is particularly concerning because - unlike say for the Accommodation sector - there is very little opportunity for attractions operators to capitalise on the temporary availability of replacement spending from the temporary workforce required to build the proposed Sizewell C project.

Summary of potential effects on tourism and visitors

- 6.30 Despite the acknowledgement in Sub-section 6.3 of survey evidence pointing to a significant potential deterrence effect on visitors to the area, in Section 6.4 the authors of the Economic Statement state that:

...there is no empirical evidence that the Sizewell C project would lead to a reduction in visitor numbers, a change in visitor behaviour, expenditure or business viability in the sector.

- 6.31 Despite this statement, the applicant has been prepared to acknowledge stakeholder concerns to the extent that they are prepared to fund various mitigation measures, such as the creation of a Tourism Fund to help promote the area to visitors.
- 6.32 On pages 40-41 of the Economic Statement there is an attempt to claim potential positive impacts of the construction phase of the project on the accommodation sector. In particular, it is stated that project planning assumptions anticipate that approximately 800 workers would be seeking to utilise tourism accommodation at the peak of construction, with an average of 300 per annum over the lifetime of the Sizewell C project. The gross effect of spending on accommodation is estimated to amount to £24 million over the lifetime of the project.¹⁸
- 6.33 Over a construction programme lifetime for the project of 12 years, the £24 million equates to an annual average of £2 million per year.
- 6.34 It is useful to place this estimated potential expenditure on local accommodation in the context of the currently estimated value of the local tourism economy. Based on the evidence of the applicant presented on page 31 of the Economic Statement, the annual direct spend attributable to tourists in 2017 was worth:
- £164 million at the spatial level of the Suffolk Coast and Heaths AONB; and
 - £1.4 billion at the spatial level of Suffolk as a whole.
- 6.35 The gross effect of the predicted annual average value of expenditure on accommodation by those members of the construction workforce (i.e. an estimated average £2 million per year) is therefore equivalent to 1.22% of the annual value of direct tourism spending in the AONB spatial area and 0.14% of the annual value of direct tourism spend across Suffolk as a whole. The proportionate impact of this spending is therefore very small, especially at a county level, even before any potential displacement effect on normal tourist visits is accounted for.
- 6.36 However, the Economic Statement acknowledges (in paragraph 6.4.8) that the net effect of this spend could be less if occupancy of tourism accommodation by construction workers ‘displaces’ existing tourists from staying in the same accommodation.
- 6.37 As an aside, the use of the term ‘displaces’ here is worthy of a brief comment, given that elsewhere in the Economic Statement there are efforts made to deny the relevance of the concept of displacement to the matters considered by the document.

¹⁸ Economic Statement, paragraph 6.4.7, page 41

6.38 Returning to the matters considered by Section 6 of the Economic Statement, whilst the statement found in paragraph 6.4.8 is acceptable as far as it goes, in reality it does not go far enough, because it is quite feasible that the net effect on the tourism economy of the Sizewell C project could actually be negative, for the following reasons:

- Visitors who might be deterred from visiting the area who would otherwise have booked overnight accommodation are very likely to spend money on other items besides accommodation. Indeed, research undertaken by Visit Britain found that over 60% of average daily expenditure made by domestic tourists (i.e. on trips involving an overnight stay) was on items other than accommodation.¹⁹
- Moreover, local data for East Suffolk published by the Destination Management Organisation indicates that of the overall spending associated with the local tourism economy, only 9% is expended on accommodation.²⁰ The same source reveals that other segments, such as Food & drinks services (39%), Shopping (22%) and Attractions (12%) account for significantly greater shares of the overall tourism market in East Suffolk.
- For these reasons, the potential displacement of staying visitors by construction workers would very likely have significant adverse effects on operators of tourism attractions and a range of food and drink providers, shops and other service providers who are geared towards meeting the needs of tourists visiting the area.
- The calculation of net additional impact on the tourism economy also needs to factor in the potential deterrent effect on day visits to the local area. As acknowledged in Sub-section 6.3 of the Economic Statement, survey evidence has revealed that a significant proportion of potential visitors to the area could either be deterred from visiting the area entirely or to visit the area less often as a consequence of the project.

6.39 In paragraph 6.1.8 of the Economic Statement figures are provided that allow a simple calculation of the average expenditure per visitor to the local area (i.e. the Suffolk Coast and Heaths AONB area). The figure that emerges is (in approximate terms) £40 per visitor.²¹

6.40 On this basis, the net value of the estimated average annual value of construction workforce accommodation expenditure of £2 million would be entirely offset if just 50,000 visitors per annum were to be deterred from visiting the area during the construction period for Sizewell C.

6.41 Based on the evidence of Economic Statement paragraph 6.1.8, there are 4.1 million annual trips to the local (AONB) area. The proportion of annual visits that would need to be deterred to offset the average annual value of construction workforce accommodation expenditure is therefore just 1.2% of the annual total number of trips made to the area.

¹⁹ Visit Britain (2010), Domestic Overnight Travel Spending Breakdown

²⁰ Destination Research: *Economic Impact of Tourism, East Suffolk, 2018*

²¹ i.e. £164 million of direct expenditure associated with 4.1 million annual trips, implying average spend per trip of £40.

- 6.42 However, on the applicant's own evidence (Economic Statement, paragraph 6.3.6), survey results suggest that around 29% of tourist visitors could be deterred from visiting the area (to varying degrees) as a consequence of the project, and that 39% are likely to visit less often during the construction period. On this basis, the potential annual net cost of displacement of staying and day visitors and their spending to the local economy could potentially be many times the annual value of construction workforce accommodation expenditure.
- 6.43 On this basis, it is almost certain that the net impact of the proposed Sizewell C project on the local tourist economy would be negative even taking into account the anticipated level of spend by some construction workers on accommodation locally.
- 6.44 However, despite this evidence there is no serious attempt in the Economic Statement to quantify any of these potential consequences. On this basis the analysis undertaken within the Economic Statement with respect to tourism sector impacts is incomplete and inadequate.

Tourism assessment: Conclusion

- 6.45 The overall conclusion with respect to the assessment of potential impacts on the local tourism economy of the potential development of Sizewell C is that the approach the subject is wholly inadequate, because:
- the potential effects on the accommodation segment is insufficient, mainly because there is no attempt to quantify the displacement impacts that the Economic Statement text rightfully acknowledges could occur; and
 - the potential effects on other segments of the industry – such as attractions, food & drink services and retail, etc. – is totally ignored.
- 6.46 On this basis, the assessment of the potential effects on the local tourism economy in the Economic Statement (and also in Chapter 9 of the Environmental Statement) is totally insufficient. Moreover, the overall conclusion has to be that the coverage fails to meet the minimum requirement for assessment as stipulated by NPS-EN6.

7: Implementation strategies

7.1 Section 7 of the Economic Statement deals with implementation strategies for (1) employment, skills and education and (2) the supply chain.

7.2 Most of the points that could be made in response to Section 7 have already been made with respect to the responses to Section 3, 4, 5 and 6. However, there are a few additional points that are worth making.

7.3 First, in paragraph 7.3.3 it is said that the development of Sizewell C will be supported by so-called 'intelligent replication' of the of supply chain for Hinkley Point C. This is explained as follows:

Replication does not mean that the entire Hinkley Point C supply chain and workforce will be transferred to Sizewell C, rather that key contracts that are critical to the replication of the power station are transferred. (Economic Statement, paragraph 7.3.3)

7.4 The Economic Statement then goes on to say:

SZC Co. therefore anticipates that Sizewell C will be able to deliver a similar level of economic benefits to Suffolk and the East of England, in terms of supply chain opportunities for local and regional businesses as Hinkley Point C is delivering for Somerset and the south west. (Economic Statement, paragraph 7.3.4)

7.5 The assessment provides no information on what proportion of the anticipated £20 billion development expenditure on Sizewell C could be regarded as being 'critical to the replication of the power station'. However, it would presumably be a not-insignificant proportion. It is also worth recalling the conclusion of the 2015 report by the Nuclear Energy Agency that considered the reasons for the huge programme and cost-over-runs that have been associated with EPRs in Finland and France. This report found that one of the causes of these serious delays and cost increases was the comparative inexperience of the supply chains for the project.

7.6 On that basis, it may be presumed that a substantial proportion of project spend on an EPR should be regarded as being 'critical to the replication' of an EPR power station and for the this reason the aspiration expressed in paragraph 7.3.4 simply lacks credibility.

8: Conclusion

Summary of economic benefits claimed for the project

- 8.1 In the final Section of the Economic Statement, the scale of claimed economic impacts on the local economy are re-stated. However, for reasons explained in this response, there are good reasons for doubting whether the benefits that are claimed could occur as stated in the Economic Statement. The table below summarises the key claims and the reasons why the claims should be questioned.

Claimed economic benefits	Response
40,000 person years of construction phase employment (Economic Statement para 8.1.3, page 47)	The data and assumptions that underpin this estimate are not provided in the Economic Statement so the estimates cannot be verified.
Local employment creation: around a third of peak construction employment could be filled by local residents (Economic Statement para 8.1.3, page 47)	The definition of 'local' is dubious as it extends to a 90-minute drivetime from the site and extends into neighbouring counties of Essex, Norfolk and Cambridgeshire. The assessment also fails to adequately take into account the proportion of these jobs that will transfer from existing local employers. That is, potential local displacement (in the form of competition for skilled and un-skilled labour resources) is not adequately accounted for. Moreover, the assessment dismisses such concerns as being 'normal labour market churn' in defiance of standard Government guidance on how displacement effects should be treated in the economic impact assessment of major projects.
If the experience of Sizewell B is repeated, up to 480 roles needed at the peak of construction could be filled by people who were previously unemployed or economically inactive. (Economic Statement para 8.1.3, page 47)	The analysis fails to take into account the considerable changes to the local labour market since the late 1980s and early 1990s when Sizewell B was built, in particular the ageing of the workforce. The assessment also fails to account for the comparatively low skill base of the local working age population. Even more significantly, the analysis of the Economic Statement fails to acknowledge the very poor record of the Hinkley Point C project in recruiting a workforce from local unemployed people. Indeed, according to the analysis found in a detailed assessment of the early stage impacts of the project, less than 2% of recruitment to the Hinkley Point C construction project as of January 2019 had been from those who had previously been unemployed, compared to a target of 8%. ²²

²² Study on the impacts of the early stage construction of the Hinkley Point C (HPC) Nuclear Power Station, Oxford Brookes University, December 2019, page 19

<p>Local supply chain opportunities amounting to an average of around £125 million per year (Economic Statement para 8.1.3, page 48)</p>	<p>This calculation is based on the experience so far of the Hinkley Point C station, but is based on the region-wide expenditures so far across the whole of the South West of England plus South Wales including Newport, Cardiff and Swansea. The scale of the economic area benefiting from Hinkley Point C spend so far is around 5 times larger than the local sub-regional area of Suffolk and Norfolk combined. The claim made by the Economic Statement with respect to potential so-called local supply chain expenditure is therefore inappropriate and potentially mis-leading.</p> <p>Another point is that the Economic Statement acknowledged that there will be re-use of a proportion of the Hinkley Point C supply chain at Sizewell C – the so-called ‘intelligent replication’ of the Hinkley Point C supply chain. The proportion of the supply chain expenditure that will be replicated using existing suppliers is not quantified, but there are good reasons for supposing that the proportion will be substantial.</p> <p>For this reason, there is a further good reason to suppose that the level of ‘local’ expenditure associated with Sizewell C could not reach the same level as has been achieved at Hinkley Point C.</p>
<p>900 permanent jobs would be created during the operational stage, with additional multiplier effects amounting to 60% of direct employment – i.e. a further 360 jobs (Economic Statement para 8.1.3, page 48)</p>	<p>There is no reason to doubt the scale of direct operational employment expected, but there is no evidence provided that support the assumption of a further 360 jobs created through multiplier effects so this claim cannot be tested.</p>

- 8.2 It is worth noting that the potential impacts of the project on the local tourism economy are not highlighted in Section 8. For reasons explained in Chapter 6 above, there are good reasons for supposing that the Sizewell C project could have significant negative effects on the local tourism industry, especially during the construction phase.
- 8.3 Although it is possible that some of the negative effects on the accommodation sector could be offset by the need to accommodate a portion of the temporary construction phase workforce, any such benefits are likely to be more than offset by the deterrent effect on day and staying visitors and their spending across the wider tourism economy of the area. This includes the likelihood of diminished spending for businesses providing services to visitors (including food & drink services, retail outlets, etc.) as well as the area’s tourist attractions.
- 8.4 Moreover, it is notable that the Economic Statement is completely silent regarding the potential impacts on any part of the local tourism economy other than the accommodation sector.
- 8.5 For this reason (amongst others) the assessment of the potential economic impact of Sizewell C on the local tourism economy provided in the Economic Statement is incomplete and inadequate.