8 SOCIO-ECONOMICS

8.1 Introduction

8.1.1 This chapter assesses the likely impacts of the Hinkley Point C Project on the local and regional economy and community. In particular, it considers the potential impacts of the Hinkley Point C Project on the local population level and structure, employment, local expenditure, effects on community facilities and services, and the provision of housing in the context of housing need.

8.1.2 The chapter also describes the planning policy context, methods used to assess the potential impacts, the baseline conditions, and the potential impacts of the construction and operational phases together with mitigation.

8.1.3 The socio-economic assessment is supported by a series of socio-economic studies undertaken by the Impacts Assessment Unit (IAU) at Oxford Brookes University, which focused primarily on detailing the local socio-economic baseline and the projection for the various Hinkley Point C Project stages; highlighting the likely benefits and disbenefits for both the construction and operational phases.

8.2 Scope of the Assessment

8.2.1 The socio-economic effects involve the people effects and socio-economic impact assessment involves a systematic advanced appraisal of the impacts on the day to day quality of life of people and communities when the environment is affected by a development. As such, sensitivities can also be defined in terms of the various groups and agencies likely to be affected by the proposed Hinkley Point C Development, these include:

- home-based workforce and employees (job opportunities);
- local employers (business opportunities and also competition for resources);
- local services (increased demand);
- local population (changes in level of local activity /traffic/ housing demand etc.); and
- local authorities and agencies at various levels of governance.

8.2.2 The early scoping phase to determine the socio-economic baseline and the projected requirements associated with the construction and operation of the Hinkley Point C Development identified that the key socio-economic impacts related to employment and expenditure, both locally and in the wider region. The scope of potential socio-economic impacts include:

- Demographic change;
- Direct and indirect employment change;
- Local expenditure effects ;
- Wider economic effects;
- Accommodation effects;
- Pressures on local social conditions and associated services; and
- Other less tangible socio-cultural change.

8.2.3 Further details on these potential socio-economic effects are provided in **Section 8.4** below.

8.3 Legislation, Policy and Guidance

8.3.1 The EU Directive 85/337/EEC (as amended) requires a description of possible impacts on human beings and Annex III sets out the information that should be provided including likely significant effects on the 'population'. These requirements have been enacted in the EIA Regulations which require the ES to include:

> *'A description of the aspects of the environment likely to be significantly affected by the development, including, in particular, population, fauna, flora, soil, water, air, climatic factors, material assets, including the architectural and archaeological heritage, landscape and the inter-relationship between the above factors.'*

8.3.2 In the Lisbon Declaration (European Council, 2000) (Ref. 8.1), the main dimensions of social sustainability were seen as: education, employment policy (to create more and better jobs), modernising social protection, and the promotion of equality to counter poverty and social exclusion.

8.3.3 Unlike many other topic areas, there is no legislation which specifies detailed content for socio-economic assessments or appropriate standards and thresholds. However, it is a growing area of activity in impact assessment, and there are a number of documents providing guidance on the scope of the socio-economic impact assessment, including:

- Department of the Environment (DoE) *Environmental Assessment: a guide to the procedures*, 1989 (Ref. 8.2);
- Inter-organisational Committee on Guidelines and Principles for Social Impact Assessment (ICGPS) *Guidelines and Principles for Social Impact Assessment* , 1994 (Ref 8.3);
- Vanclay, F Principles for social impact assessment: A critical comparison between international and US documents, 2003 (Ref. 8.4);
- Office of the Deputy Prime Minister (ODPM) *Creating, using and updating a neighbourhood baseline,* 2004 (Ref. 8.5);
- Department for Communities and Local Government (DCLG), *Environmental Impact Assessment: A Guide to Good Practice and Procedures,* 2006 (Ref. 8.6);
- Glasson, J. *Socio-economic Impacts 1: Economic Impacts,* 2009 (Ref. 8.7); and
- Chadwick, A. Socio-economic Impacts 2: Social Impacts, 2009 (Ref 8.8).

8.4 Approach and Methodology

8.4.1 The methodology involves an in-depth analysis to determine the local area socio-economic baseline; identification of the characteristics of the Hinkley Point C Project and relevant policies; followed by an assessment of the likely impacts; and identification of appropriate mitigation of any negative impacts and enhancement of any positive impacts.

a) Key Determinants of Impacts

8.4.2 Local socio-economic impacts are the result of the interaction between a development and the local area, in this case Somerset and constituent districts. The nature of the socio-economic impacts is influenced by:

- the nature of the development and its varying socio-economic and other characteristics over its life-cycle;

- the socio-characteristics of the relevant local areas; and
- any associated promoter policies (e.g. promoter policy on provision of local accommodation centres); and
- local area policies

8.4.3 Figure 8.1 provides a simplified overview of an 'impacts model', showing the central influence of project labour requirements. These may be modified by promoter and or contractor policies (e.g. on accommodation, travel and training), plus conditions in the local area (e.g. unemployment levels, skills and training provision, and accommodation and local services).

b) Baseline Study

8.4.4 A baseline study has been undertaken to establish the extent and characteristics of the study areas, this included:

- baseline data collection for the local area, using published /semi-published sources, and development of an initial framework of key elements in the socio-economic baseline;
- socio-economic Topic Group Workshops with local stakeholders (including District and County Councils, the Learning and Skills Council, the Regional Development Agency, local service providers) to further develop understanding of scope of baseline and likely key issues;
- development of framework and key elements, with data searches, survey work and consultations, to provide a comprehensive local area socio-economic baseline on likely key local impact topic areas and issues;
- identification of existing power station socio-economic characteristics (i.e. Hinkley Point A decommissioning projects and Hinkley Point B current operational station); and
- identification of likely socio-economic characteristics of the new Hinkley Point C Development.

i) Study Area

8.4.5 The spatial/geographic scope of the socio-economic baseline studies varies by phase of the project (i.e. the site preparation and construction phase, and the operational phase) and also by impact category. The following describes the geographic areas which have been used in the baseline studies for each impact topic. The precise areas used are partly influenced by data availability and in some cases also reflect the boundaries of relevant service planning areas e.g. for school or health facilities.

ii) Construction Phase

8.4.6 For the local labour market for construction phase, a Construction Daily Commuting Zone (CDCZ) has been defined. In the first instance, the CDCZ is defined as the local authority districts within an approximate 90 minute commute time (approximately 50-55 miles) of the Hinkley Point C Development Site. As detailed in **Table 8.1**, this area extends to include the following district or unitary authorities:

- Somerset County including Mendip, Sedgemoor, South Somerset, Taunton Deane and West Somerset districts;
- the West of England area including Bath and North East Somerset, City of Bristol, North Somerset and South Gloucestershire unitary authorities; and
- a number of districts in Devon including East Devon, Exeter, Mid Devon, North Devon and Teignbridge;
- West Dorset district; and
- Newport unitary authority in Wales.

Table 8.1: Administrative and Other Geographies used to define the Construction Daily Commuting Zone (CDCZ)

Geography	Area(s)
Administrative	
Local Authority Districts	West Somerset; Sedgemoor
Local Education Authority	Somerset
NHS Primary Care Trust	Somerset PCT
Learning and Skills Council	Dorset and Somerset
Sub-Regional Economic Partnership	Somerset
Government Office Region	South West
Labour Market	
2001-Based Travel to Work Area (TTWA)	Bridgwater
2001-Based TTWA's within 90 Minute Drive Time	Barnstaple; Bath; Bridgwater; Bridport and Lyme Regis; Bristol; Exeter and Newton Abbot; Honiton and Axminster; Minehead; Newport and Cwmbran; Okehampton; Shaftesbury and Blandford Forum (part of); Taunton; Tiverton; Wells & Shepton Mallet; Yeovil and Chard
Local Authority Districts within 90 Minute Drive Time (Best Fit)	Bath and North East Somerset; Bristol; East Devon; Exeter; Mendip; Mid Devon; Newport; North Devon; North Somerset; Sedgemoor; South Gloucestershire; South Somerset; Taunton Deane; Teignbridge; West Dorset; West Somerset
Statistics (including small area statistics)	
2003 Census Area Statistics (CAS) Ward	Quantock Vale
Lower Layer Super Output Area[1]	E01029337

Note: Drive times and distances are calculated using the default routing on Google maps, as at April 2008.

8.4.7 Further determination of the CDCZ impact area involved consideration of a number of factors which affect workers willingness to commute daily to the site. The key factors include travel allowances for construction workers and mobility of construction workers as discussed below.

8.4.8 The Construction Industry Joint Council (CJIC) agreement sets out national standards for pay and conditions for workers on major building and infrastructure sites in the UK, including the

[1] Super Output Areas are a new geography for the collection and publication of small area statistics. It was originally planned to have 3 layers of SOA, and the first two of these now exist as lower and middle layers. The SOA layers form a hierarchy based on aggregations of Output Areas (OAs). Lower Super Output Areas have a minimum size of 1,000 residents and 400 households, but average 1,500 residents.

provision of travel allowances for construction workers. The current agreement, which took effect in June 2008, sets out rates for daily travel and fare allowances. These are currently payable on a sliding scale based on the distance travelled, up to a maximum of 75 kilometres (c. 47 miles).

8.4.9 As summarised in **Table 8.2**, a study for the UK Department for Trade and Industry (DTI) and the Engineering Construction Industry Training Board (ECITB) (Ref. 8.9) in 2005 shows that a proportion of UK and South West Region construction workers will travel to work for distances over 50 miles on a daily basis. As identified by Glasson and Chadwick, 1995 (Ref. 8.10) monitoring studies on the travel to work distances during the construction of Sizewell B also demonstrated that the actual local recruitment extended to a 50 miles or 90 minute commute. In addition, a 90-minute commute zone was established for the previous assessments undertaken in the late 1980s for the previous proposal for a new nuclear power station at Hinkley Point C.

Table 8.2: Travel to Work Distances for UK Construction Workers

Travel Distance	South West (%)	UK Average (%)
Up to 10 miles	46%	42%
Up to 25 miles	66%	67%
Up to 50 miles	89%	85%
Over 50 miles	11%	15%
Total	100%	100%

Source: IFF Research/University of Warwick, Workforce Mobility and Skills in the UK Construction Sector, February 2005.

8.4.10 Further discussions in the Socio-Economic Topic Group Workshops considered a range of other relevant factors in determination of the CDCZ. These factors include the scope of the local area construction skill base, the commitment to local skills training, likely competing major construction projects, a wider EU labour market, slow journey times in some parts of the proposed CDCZ (especially North Devon), the impact of the Severn Bridge costs on South Wales labour supply, and rising fuel costs.

8.4.11 Following definition of the wider CDCZ as outlined above, there would be different spatial geographies for different skill groups, as well as different zonal assessments within the wider CDCZ (currently using Sedgemoor, West Somerset, Taunton Vale, Somerset) thus providing different levels of assessment as follows:

- **Employment/economy/wider economy** – baseline data has been collected for the 90 minute commute time zone, but with a secondary focus on the more immediate districts of West Somerset, Sedgemoor and Taunton Deane.
- **Demographic/settlement characteristics** – the main focus is on West Somerset, Sedgemoor and Taunton Deane districts. There is a secondary focus on the wards in the more immediate vicinity of the site (as defined in **Table 8.3**).
- **Housing market/accommodation** – as above for demographic/settlement characteristics.
- **Education Services** – for education services, baseline data has been collected for all Local Education Authority (LEA) schools within an approximate ten mile (as the crow flies) radius of

the Hinkley Point site. This area includes Bridgwater and its surrounding rural catchment area, the Burnham-on-Sea and Highbridge area and the Watchet/Williton area in West Somerset.

- **Health** – for health services, baseline data has been collected for all GP practices and NHS community hospitals within an approximate ten mile (as the crow flies) radius of the Hinkley Point site. This area includes Bridgwater and its immediate rural hinterland, the Burnham-on-Sea/Highbridge area and the Watchet/Williton area in West Somerset. For acute hospital services, and accident and emergency facilities, the geographic area covered is widened to include the nearest services to the site, in Taunton.
- **Crime/police/fire** – for police services, the main focus is on the Somerset West police district of the Avon and Somerset Constabulary. This includes the three local authority areas of Taunton Deane, West Somerset and Sedgemoor. There are four neighbourhood areas in the police district: Bridgwater, Burnham-on-Sea, Minehead and Taunton.

Operational Phase

8.4.12 The spatial/geographic scope of the local labour market during the operational phase is defined as the immediate districts of West Somerset, Sedgemoor and Taunton Deane (see Figure 8.2). Further details on the operational labour market are provided in Section 8.8.

Immediate Area

8.4.13 Following consultations with the Hinkley Point Site Stakeholder Group comprising representations from the parish and town councils, a further 'Immediate Area' was also defined to be used when considering factors of particular interest to the local wards and parishes as detailed in Table 8.3 below.

Table 8.3: Wards and Parishes in the Immediate Area

2003 CAS Ward	Parishes
Cannington & Quantocks (Sedgemoor)	Broomfield; Cannington; Enmore; Fiddington; Goathurst; Nether Stowey; Otterhampton; Over Stowey; Spaxton; Stockland Bristol
Quantock Vale (West Somerset)	Holford; Kilve; Stogursey; Stringston
West Quantock (West Somerset)	Bicknoller; East Quantoxhead; Sampford Brett; West Quantoxhead
Other Adjacent Wards	
Bridgwater Bower, Eastover, Hamp, Quantock, Sydenham & Victoria (Sedgemoor)	Bridgwater Town Council; Bridgwater Without; Durleigh
Huntspill & Pawlett (Sedgemoor)	East Huntspill; Pawlett; West Huntspill
Sandford (Sedgemoor)	Chilton Trinity; Wembdon

Source: Office for National Statistics (ONS)

c) Baseline and Assessment Years

8.4.14 Baseline data for the socio-economic assessment was collected 2008, as such the baseline year for the socio-economic assessment is taken as 2008. It should be noted, however, that whilst the data was collected in 2008, due to time lags in the publication of secondary data, much of the secondary baseline data actually relates to earlier years.

8.4.15 Where available, baseline projections have been made to 2021, although this does vary across the different impact categories (for example, local school roll projections are currently available only up to 2012).

8.4.16 As described in **Chapters 2** and **4** of this volume, the following assessment years have been used in the socio-economic assessment:

- Preliminary works and construction of the Hinkley Point C Development commencing in 2011 and continuing through to 2018; and
- Commissioning and Operation of Unit 1 in 2016 and Unit 2 in 2018.

8.4.17 The prediction of socio-economic effects are based on the peak construction employment with a workforce of approximately 5000 in 2016 allowing for a small contingency; and when the proposed Hinkley Point C Development is fully operational with a workforce of approximately 700 from 2018 onwards. The assessment also considers the anticipated outage periods which would occur every 18 months to two years for period of one month, during this period there would be approximately 1000 additional workers employed for to undertake repairs, refuelling and maintenance during the outage period.

d) Source of Data

8.4.18 Key data sources are set out in **Table 8.4**; these data sources have been used to establish the existing baseline, predict baseline socio-economic characteristics up to 2021, and identify potential socio-economic effects based on extensive studies of many of the existing or ceased UK nuclear power stations.

Table 8.4: Key Data Sources

National Sources:
• Mid-year population estimates (ONS);
• Population estimates for super output areas (ONS);
• Estimates of internal migration flows (ONS);
• Sub-national population projections (ONS);
• Annual estimates of total employment and jobs density (ONS);
• Annual Business Inquiry employee estimates (ONS);
• 2001 Census (ONS);
• Annual Population Survey estimates (ONS);
• Claimant count unemployment data (ONS);
• Annual Survey of Hours & Earnings (ONS);
• New business registration statistics (BIS);
• Employment forecasts for the construction sector (Construction Skills Network);
• Indices of Deprivation 2007 (DCLG);
• Estimates of dwelling stock (DCLG);
• Residential property price and affordability indicators (DCLG/Land Registry);
• GCSE exam attainment data (DCSF);
• Qualifications of young people (DCSF);

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National Sources:

- Working age benefit claimant data (DWP); and
- Recorded crime statistics (Home Office).

Regional and county level sources:

- Avon and Somerset Constabulary:
- Cambridge Econometrics (for SWRA & SWRDA), economic forecasts for the South West Region;
- Experian (for SWRDA), recession scenario forecasts for the Southwest Region;
- Learning and Skills Councils(LSC): Dorset and Somerset/South West of England;
- Other major projects/EISs:
- Regional Spatial Strategy for the south-west (GOSW);
- South West England Regional Assembly (SWRA)/ Development Agency (SWRDA), including RSS/RES/Sustainability Appraisals etc
- South West Observatory, South West economy projections;
- South West Public Health Observatory, health indicator set;
- Fordham Research, Strategic Housing Market Assessment for Taunton and South Somerset housing market areas;
- Somerset County Council, School Organisation Plan;
- Somerset Primary Care Trust, strategic review of primary care infrastructure;
- Somerset Strategic Partnership, local area agreement, sustainable community strategy and economic strategy;
- South West Tourism, accommodation database;
- South West Tourism, accommodation occupancy surveys;
- South West Tourism, Value of Tourism report for Somerset; and
- Socio-Economic Workshops, and meetings of Somerset Nuclear Energy Group.

Local sources (district-level):

- Ekosgen, economic resilience assessment for Sedgemoor;
- GeoEconomics, local economic assessment and economic vision for Taunton Deane borough;
- Gillespies et al, Bridgwater Vision baseline report;
- Sedgemoor District Council, corporate strategy, sustainable community strategy, economic masterplan, employment and skills charter;
- Taunton Deane Borough Council, corporate strategy;
- West Somerset District Council, sustainable community strategy and economic strategy
- Local Parish Councils; and
- Local/regional media.

Power station developments/associated policies sources:

- Hinkley Point A decommissioning project/Magnox South and Nuclear Decommissioning Authority;

National Sources:

- Hinkley Point Site Stakeholder Group;
- Hinkley Point B/ British Energy/EDF Energy Comparative power station studies, especially from construction of Sizewell B and Flamanville 3; and
- Proposed new development/EDF Energy/British Energy/reactor vendors /Generic Design Assessment process / new project EISs/NIA/Cogent.

8.4.19 Studies on existing or decommissioned nuclear power stations have been used to understand and help predict the potential socio-economic effect associated with the construction and operation of the proposed Hinkley Point C Development, these include:

- an eight year longtitudinal study monitoring the socio-economic impacts of building Sizewell B (1987-1995) (Ref. 8.10 and Ref. 8.11);
- socio-economic studies for the proposed Hinkley Point C in the late 1980s;
- socio-economic studies for the Environmental Statement for the decommissioning of several UK nuclear power stations;
- socio-economic impact studies of the first three years (2007-2009) of the construction stage of the EDF Energy EPR project, Flamanville 3 in France;
- a number of other published or semi-published documents;
- various databases; and
- consultation with key local area stakeholders and power station staff as appropriate.

8.4.20 Due to the sensitive nature of these documents relating to other nuclear power stations, only those referenced are publically available.

e) Assessment of likely significant effects

8.4.21 The assessment of likely significant socio-economic effects within the study assessment area has been undertaken by reference to the likely changes from the 2008 baseline conditions and the effects of those changes as a result of the proposed Hinkley Point C Project. The assessment has considered the following potential effects:

- **Demographic change**: changes in the local population level and structure caused by the influx of Hinkley Point C Project staff. For example, there is likely to be a large influx of primarily male population during the construction phase, a proportion of whom could be accompanied by families; there would be smaller numbers but a much longer term presence during the operational phase;
- **Direct and indirect employment change**: as above, changes in direct site employment levels will result in changes to employment levels in the local economy and in the local employment structure. These will depend on both project characteristics, and associated policies, but there is likely to be a major increase in local employment/opportunities. There will also be a multiplier effect with indirect (e.g. local supplier firms) and induced (e.g. local services jobs) effects from the Hinkley Point C Project. There may also be some potential loss of labour from other local employers to the Hinkley Point C Project;
- **Local expenditure effects**: expenditure by the workforce, and from Hinkley Point C Project contracts/payments, will lead to changes in spending in the local economy and possibly in the provision of local outlets. The proposed Hinkley Point C Project could also help to offset the closure of existing stations (i.e. Hinkley Point A and eventually Hinkley Point B).
- **Wider economic effects**: there could be potential effects on key economic sectors (e.g. construction, tourism), and on the development potential or image of the area.

- **Accommodation effects**: increased demand for accommodation in the area, including local accommodation services such as B&Bs, guest houses and caravan sites; and the local housing market. The demand for local accommodation would have implications on residential property values;
- **Pressures on local social conditions and associated services**: Hinkley Point C Project related demographic changes have the potential for impacts on local social conditions and associated services. For example, during construction there could be a change in demand pressure on local health, school and policing services, and with possible issues for the local population (e.g. impact on school places; crime in the community; traffic flows/noise); and
- **Other less tangible socio-cultural change**: changes in the level and structure of employment and demographic changes potential could have the potential to effect the quality of life; community character/cohesion; or distributional effects. Sections of the local community may be differentially affected by the development, or there could be a shift in the character of some communities (especially those close to or on key routes to the Hinkley Point C Project).

8.4.22 Socio-economic impacts do not have recognised standards. There are no easily applicable "state of local society" standards against which the predicted impacts of a development can be assessed. Views on the significance of economic impacts, such as the proportion and types of local employment on a project, are often political and arbitrary. Nevertheless, it is sometimes possible to identify what might be termed threshold or step changes in the socio-economic profile of an area. For example, it may be possible to identify predicted impacts which threaten to swamp the local labour market, and which may produce a "boom-bust" scenario. It may also be possible to identify likely high levels of leakage of anticipated benefits out of a locality, which may be equally unacceptable.

8.4.23 Taking into account the above, and to establish a framework which enables informed discussion of the potential socio-economic impacts of the Hinkley Point C Project, a set of thresholds for key impact types have been developed and applied during the assessment process. The scale of impact magnitude will vary according to the type of socio-economic impacts. **Table 8.5** provides a breakdown of the criteria and thresholds that have been utilised in assessing impact magnitude.

Table 8.5: Assessment Thresholds for Determining the Magnitude of the Socio-Economic Impact

Type of Impact	Local Context	Slight Impact	Moderate Impact	Major Impact
Demographic Impacts				
Change in local population level	**Pop. Growth (01-07) p.a.** Sedgemoor - 1.0% Taunton Deane - 0.9% West Somerset - 0.1% Sub-total - 0.8% Bridgwater/immediate wards - 1.0%	Change in local population of less than + or – 1%	Change in local population of + or – 1-2%	Change in local population of more than + or – 2%
Change in local population structure		To be assessed qualitatively	To be assessed qualitatively	To be assessed qualitatively
Direct and Indirect Employment Impacts				
Change in employment level in local economy	**Employment growth (ABI estimates), 2001-2007:** Sedgemoor - 2.4% Taunton Deane - 1.2% West Somerset - 0% Sub-total - 1.5%	Change of less than + or – 1% on baseline employment levels in the local economy	Change of + or – 1-2% on baseline employment levels in the local economy	Change of more than + or – 2% on baseline employment levels in local economy
Change in employment structure in local economy	**Employment structure See Tables 13 and 14,** Section 2.2	Change in employment of + or – 2-5% in any sector of the local economy	Change in employment of + or – 5-10% in any sector of the local economy	Change in employment of more than + or – 10% in any sector of the local economy
hange in unemployment level in local economy	**Claimant % unemployment rates, June 2009** -Sedgemoor:3.2 -Taunton Deane:2.6 -West Somerset: 2.1	Change of + or – 2-5% in claimant unemployment level	Change of + or – 5-10% in claimant unemployment level	Change of more than + or – 10% in claimant unemployment level
Local Expenditure and Wider Economic Impacts				
Change in levels of local expenditure by local employer/employees		Change of less than + or – 1% on baseline expenditure levels in the local economy	Change of + or – 1-2% on baseline expenditure levels in the local economy	Change of more than + or – 2% on baseline expenditure levels in local economy

Accommodation Pressures and Development				
Change in stock of local housing	**Housing stock growth, pa,2001-2007:** Sedgemoor - 1.1% Taunton Deane - 1.0% West Somerset - 0.8% Sub-total - 1.0% Bridgwater/immediate wards - 1.3%	Change of less than + or – 1% on baseline housing stock	Change of + or – 1-2% on baseline housing stock	Change of more than + or – 2% on baseline housing stock
Changes in annual demand on local housing markets	**See section 2.3**	Change of less than + or – 1% in annual demand	Change of + or – 1-2% in annual demand	Change of more than + or – 2% in annual demand
Pressure on Local Social Conditions and Services				
Change in demands on local services: education and health	See section 2.4 for education, and 2.5 for health	Change of less than + or – 1% on demand on (a) school places, and (b) GP surgery, and PCT hospital, provision	Change of + or – 1-2% on demand on (a) school places, and (b) GP surgery, and PCT hospital, provision	Change of more than + or – 2% demand on (a) school places, and (b) GP surgery, and PCT hospital, provision
Less Tangible Socio-Cultural Changes				
Disturbance to local communities		To be assessed qualitatively	To be assessed qualitatively	To be assessed qualitatively

8.4.24 Some impacts cannot be quantitatively assessed, in such cases a qualitative assessment has been used. In addition, the magnitude of impact does not necessarily correlate with impact significance. In line with the general approach adopted for this Environmental Appraisal (see **Volume 1 Chapter 5**), impacts can be classified as either adverse or beneficial and of Major Significance, Moderate Significance, Minor Significance and Negligible or of No Significance. The key influences on the determination of impact significance include:

- The magnitude of the predicted impact (as discussed above);
- The geographical extent of the impact;
- The duration and reversibility of the impact;
- The capacity of the local area to absorb the impact; and
- Recent rates of change in the locality.

8.4.25 Where there are likely to be potential adverse impacts, mitigation measures have been identified and where appropriate consulted upon with local authorities and other key stakeholders. These include:

- measures to prevent or reduce likely significant impacts during the construction phase; and

- measures to prevent or reduce likely significant impacts as a result of the existence or operation of the Hinkley Point C Development.

8.4.26 In addition, this assessment takes into consideration opportunities to enhance some of the local and regional economic and community impacts. A summary of the likely significant residual effects, following the proposed mitigation and enhancements, on the local and regional socio-economics, is provided in Section 8.10.

f) Limitations and Assumptions

i) Prediction Exercise

8.4.27 Socio-economic prediction is not an exact exercise. Assessments are made on the basis of many assumptions and relate to a simplified model of a complex reality. As the effects of the development are traced through a range of interconnected social and economic variables (such as employment, housing, education or health) the complexity of the model increases. A major change in an underlying assumption could have an important effect on the predicted outcomes. Given the long timescale involved, with Preliminary Works and Main construction expected to run from early 2011 to mid 2019, and an operational life of 60 years, some change in the assumptions made at the outset of the assessment process is likely. This is partly handled by the inclusion of ranges and alternative scenarios in several estimates due to the fact that it is not possible to effectively monitor and readjust assumptions in order to refine an impact assessment. However, the actual socio-economic effects will be monitored and noted as they are manifested during the construction and operation activity.

8.4.28 The predictions of impacts are for primarily peak construction and full operation. The latter should be relevant for much of the operational life of the station. For the former, peak construction may apply to only about three years of a seven to eight year programme. However, predictions for peak construction provide an important indicator of the maximum effects, and are therefore a justifiable precautionary approach.

Data

8.4.29 The twin reactor unit development construction workforce programme is based on current best estimates for the first of a new design of power station in the UK. A precautionary approach for assessment purposes has been taken by building in a contingency for the workforce programme. If, at a later stage during the construction process, these estimates are subsequently revised as knowledge of construction requirements improves further, the predictions will also need revision.

8.4.30 The predictions have also been made at a time of considerable turbulence in the national (and global) economic system. Predictions have been made on the basis of best estimates drawing on several expert sources. Again the use of ranges has been employed to manage this complexity.

8.5 Local Area: Socio-Economic Baseline

a) Introduction

8.5.1 This section briefly summarises key characteristics of the local area socio-economic baseline, including demographics, economy and employment, accommodation, education, health and other community issues.

b) Demographics

i) Population Distribution and Growth

8.5.2 The three immediate districts of Sedgemoor, Taunton Deane and West Somerset have a combined population of almost 256,000 (ONS, mid-2007 population estimates). Sedgemoor (112,200) and Taunton Deane (108,200) are of a roughly similar population size, whilst West Somerset has a much smaller population (35,400) (**Table 8.6**). Sedgemoor and West Somerset are predominantly rural districts, with relatively low population densities. Taunton Deane is also significantly rural in nature, but has a higher proportion of its population in larger urban settlements (the Taunton and Wellington urban areas).

8.5.3 The largest settlements in the area are Bridgwater (mid-2007 population 36,300) and Burnham-on-Sea (12,900) in Sedgemoor, and Taunton (44,500) and Wellington (13,500) in Taunton Deane. The smaller settlements of Minehead (population, 12,200, including Alcombe), Watchet (3,900) and Williton (2,700) are located in West Somerset. Within the wards in the vicinity of the site, the resident population is approximately 53,800. This includes a population of around 39,600 in the Bridgwater area (including Sandford ward). In the three wards closest to the site (Cannington & Quantocks, Quantock Vale and West Quantocks), the population is relatively small at approximately 10,400.

8.5.4 The population of the three immediate districts increased by an estimated 12,200, or 5.0%, during the six year period between mid-2001 and mid-2007. This is a slightly higher rate of population growth to that experienced in Somerset as a whole (4.8%) and the South West region (4.7%), and is significantly above the national average increase (3.3%), (see **Table 8.6**). Within this area, population growth has been concentrated mainly in Sedgemoor (an increase of 6,200 or 5.8%) and Taunton Deane (an increase of 5,600 or 5.5%). The population of West Somerset increased by only c.300, or 0.9%, between 2001 and 2007. Recent population growth in the immediate wards (including Bridgwater) has been similar to the average for Sedgemoor, at 5.9% (an increase of c.3,000 between 2001 and 2007).

8.5.5 The latest sub-national population projections published by ONS in June 2008 indicate that, based on recent trends, both Sedgemoor and Taunton Deane are expected to experience significant future population growth (**Table 8.7**). The population of both districts is expected to increase by 24% between 2006 and 2026. This rate of growth is above the projection for the South West (20%) and England (16%). Future population growth is expected to be much slower in West Somerset, amounting to only 12% between 2006 and 2026. In absolute terms, the overall population growth in the three immediate districts is expected to be 56,000 to 2026, equivalent to a net increase of 2,800 per annum (approximately 1,300 per annum in each of Sedgemoor and Taunton Deane, and 200 in West Somerset).

8.5.6 Population growth will have significant implications for housing, the economy and employment, the environment, public services and critical infrastructure.

Table 8.6: Distribution and Growth of Resident Population in Immediate Districts, 2001-2007

Area	Mid-2001	Mid-2007	% Growth
Sedgemoor	106,000	112,200	5.8
Taunton Deane	102,600	108,200	5.5
West Somerset	35,100	35,400	0.9
Sub-Total	243,700	255,900	5.0
Somerset	498,700	522,800	4.8
South West	4,943,400	5,178,000	4.7
England	49,449,700	51,092,000	3.3

Source: Office for National Statistics, mid-year population estimates.

Table 8.7: ONS Population Projections, 2006-2026 (thousands)

Area	2006	2016	2026	% Growth, 2006-2026
West Somerset	35.3	36.7	39.4	11.6
Sedgemoor	111.0	124.0	137.7	24.1
Taunton Deane	107.4	119.9	132.8	23.6
Sub-Total	253.7	280.6	309.9	22.2
Somerset	518.6	572.9	631.8	21.8
South West	5,124.1	5,620.4	6,138.9	19.8
England	50,762.9	54,724.2	58,682.4	15.6

Source: Office for National Statistics, Revised 2006-Based Sub-National Population Projections, published on 12 June 2008.

Note: Figures are trend-based projections, which mean that assumptions for future levels of births, deaths and migration are based on observed levels over the previous five years. They show what the population will be if recent trends continue.

ii) Population Age Structure

8.5.7 The ONS projections indicate an ageing population, and increasing dependency rate, in the immediate districts in the next two decades (**Table 8.8** and **Table 8.9**). The overall population growth between 2006 and 2026 in these districts is divided by broad age group, with small growth percentages forecast in numbers of children (15%), and those of working age (9%) compared with major growth in those over retirement age (59%). This is most extreme in West Somerset, with a projected absolute decline in the first two categories. Overall, almost two thirds (63%) of the projected population growth in the three districts will be accounted for by the above retirement age group. This compares with 56% in the South West and 53% in England as a whole.

Table 8.8: ONS Population Projections, 2006-2026

Area	2006	2016	2026	% Growth, 2006-2026
Sedgemoor	111,000	124,000	137,700	24.1
Taunton Deane	107,400	119,900	132,800	23.6
West Somerset	35,300	36,700	39,400	11.6
Sub-Total	**253,700**	**280,600**	**309,900**	**22.2**
Somerset	518,600	572,900	631,800	21.8
South West	5,124,100	5,620,400	6,138,900	19.8
England	50,762,900	54,724,200	58,682,400	15.6

Source: Office for National Statistics, Revised 2006-Based Sub-National Population Projections, published on 12 June 2008.

Note: Figures are trend-based projections, which mean that assumptions for future levels of births, deaths and migration are based on observed levels over the previous five years. They show what the population will be if recent trends continue.

Table 8.9: ONS Population Projections by Broad Age Group, 2006-2026

Area	Area	% Growth, Age 0-14	% Growth, Age 15-59/64	% Growth, Age 60/65 +
Sedgemoor	Sedgemoor	+ 16%	+ 11%	+ 64%
Taunton Deane	Taunton Deane	+ 19%	+ 13%	+ 56%
West Somerset	West Somerset	- 4%	- 7%	+ 51%
Sub-Total	**Sub-Total**	**+ 15%**	**+ 9%**	**+ 59%**
Somerset	Somerset	+ 14%	+ 9%	+ 61%
South West	South West	+ 15%	+ 10%	+ 51%
England	England	+ 14%	+ 8%	+ 44%

Source: Office for National Statistics, 2006-Based Sub-National Population Projections (published June 2008). Figures are trend-based projections, which mean that assumptions for future levels of births, deaths and migration are based on observed levels over the previous five years. They show what the population will be if recent trends continue.

iii) Migration

8.5.8 The latest statistics on internal migration flows at local authority area level are for mid-2007 to mid-2008. The migration data for 2007/08 shows an annual net inflow of around 700 persons to Sedgemoor, with smaller inflows to Taunton Deane (c.500) and West Somerset (c.300). However, much of this inward migration is of older people, above working age. Of particular

significance is the net outward migration of people in the 16-24 age group; in 2007/08, this amounted to a net outflow of around 300 persons from Sedgemoor and c.400 persons from Taunton Deane, although inflows and outflows for West Somerset were roughly in balance. This is significant for the retention of a young and future working age population.

c) Economy and Employment

i) Employment: Level, Structure and Change

8.5.9 The latest annual estimates of total employment levels in the immediate districts were released by ONS in July 2009, and relate to the position at the end of 2007. These estimates include all employment in the local economy, including employee jobs, the self employed, government-supported trainees and HM Forces. These updated estimates indicate a total of approximately 124,000 jobs in the three immediate districts (**Table 8.10**). Just over half of these jobs (c.63,000) are located in Taunton Deane district, with most of the remainder (c.48,000) in Sedgemoor. Employment is much smaller in West Somerset district, at an estimated 13,000 jobs. Employment levels in the wider 90 minute commuting zone are in excess of 1.25 million.

Table 8.10: Estimated Growth in Employment, 2001-2007

Area	Employment, Dec 2001	Employment, Dec 2007	% Growth, 2001-2007
Sedgemoor	42,000	48,000	11.8 - 16.9%
Taunton Deane	59,000	63,000	5.0 - 8.5%
West Somerset	15,000	13,000	N/A
Sub-Total	117,000	124,000	5.1 - 6.9%
Somerset	241,000	257,000	6.2 - 7.1%
90 Minute Zone	1,200,000	1,267,000	5.5 - 5.7%
South West	2,543,000	2,685,000	5.5 - 5.6%
England	25,430,000	26,606,000	4.6%

Source: Office for National Statistics, annual estimates of jobs density.

Note: Estimates of total employment include employees, self employed, government-supported trainees and HM Forces personnel. Figures for percentage employment growth should be regarded as approximate, due to rounding of employment estimates to the nearest thousand jobs.

8.5.10 The districts have an employment structure broadly similar to the national average, although with detailed differences in specific sectors. They have above average shares of employment in:

- agriculture;
- utilities;
- wholesale and retail distribution, hotels and catering, public admin, and education, health and social services; and below average in: transport, financial services, real estate and other business services. Details of the construction sector are set out in **Table 8.11**. All of these figures exclude self employed workers, and are therefore likely to greatly underestimate total employment levels. For example, estimates from the Construction Skills

Network South West (2007) including self-employed suggest a South West figure of 210,000 for construction and related technical services employment.

8.5.11 Within this overall picture, there are detailed differences in the importance of specific sectors between the three immediate districts (see **Table 8.12**). Sedgemoor has much higher shares of employment in manufacturing and transport, storage and communications than the other two districts. Taunton Deane's employment base is particularly dependent on public services, including education and health, whilst the West Somerset economy is more dependent on distribution, hotels and catering. The proportion of employment in financial and other business service activities is particularly low in West Somerset.

8.5.12 The significance of employment in tourism-related sectors also shows wide variations across the immediate districts. Tourism-related employment is particularly important to the West Somerset economy, accounting for an estimated 26% of employee jobs in the district; this compares with a national average of only 8%. The figures for Sedgemoor (10%) and Taunton Deane (8%) are much lower.

Table 8.11: Employee Jobs in Construction and Related Sectors, Dec 2006

Area	Construction Sector (SIC 45)	Related Technical Services (SIC 74.2)	Total
West Somerset	400	100	500
Sedgemoor	2,000	500	2,500
Taunton Deane	2,200	1,700	3,900
Sub-Total	4,700	2,300	7,000
Somerset	9,800	3,500	13,300
90 Minute Drive Zone	48,600	17,300	65,900
South West	99,200	28,600	127,800

Source: Office for National Statistics, 2006 Annual Business Inquiry (NOMIS). Construction sector is defined as SIC category 45; related technical services is defined as SIC category 74.2 (architectural/engineering activities and related technical consultancy). All figures exclude self employed workers and are therefore underestimates of total employment in these sectors. Figures are rounded to the nearest hundred jobs, and totals therefore may not sum exactly.

8.5.13 Employment growth in the local economy (2000-2006) exceeded regional and national averages, although job growth was slower in the wider 90 minute commuting zone. Annual Business Inquiry (ABI) estimates indicated an approximate 10% increase in the number of employee jobs in Sedgemoor, Taunton Deane and West Somerset between 2001 and 2006. Job growth over this period appears to have been strongest in Sedgemoor and Taunton Deane, and weakest in West Somerset. Growth was somewhat slower in the 90 minute commuting zone although this was still above the regional and national averages. However this data refers to the period before the more substantial slowing down in the economy from 2007/2008 onwards. There have been particular impacts on house-building and the associated employment in the building trades. Possible future change is discussed later in this chapter.

Table 8.12: Employment Structure by Broad Industry Sector, Immediate Districts, separate, 2007

Industry Sector	Sedgemoor	Taunton Deane	West Somerset
	%	%	%
Manufacturing	15.5	6.4	6.0
Construction	5.1	4.5	4.3
Distribution, hotels & restaurants	29.0	25.2	39.4
Transport, storage & communication	6.1	2.6	2.5
Financial, real estate & other business services	14.9	15.9	7.5
Public admin/defence, education & health	23.0	38.1	23.9
Other service activities	3.9	4.8	5.9
Other sectors ***			
Total: All Industries	100.0	100.0	100.0
Tourism-related sectors	10.0	7.6	26.1

*Source: Office for National Statistics, 2007 Annual Business Inquiry (NOMIS). Totals may not sum exactly due to rounding. Figures exclude the self employed, government-supported trainees and HM Forces. *** "Other sectors" category includes agriculture, forestry & fishing, mining & quarrying, electricity, gas & water supply. Tourism-related sectors are defined as the following 2003 SIC categories: 55.1 to 55.4, 63.3, 92.5 to 92.7.*

8.5.14 An occupational breakdown of residents in employment is provided by the 2001 Census (**Table 8.13**). More up to date, but sample-based, estimates are available from the Annual Population Survey; the latest data is based on individuals surveyed during the 12 months to September 2008. Census data from 2001 for the immediate districts indicates a slightly lower proportion of residents in managerial, professional and technical occupations (36%) relative to the national average (40%). However, the proportion of residents in skilled manual trades, including construction and building trades (14%), is above the national average (11.5%). These differences are also apparent in the more recent APS sample-based estimates (for 2007/08) (could usefully include that table also ie JG Table 18, but less a priority than Table 15).

Table 8.13: Occupations of Residents in Employment, 2001 Census-Based Figures

Occupational Group	Sedgemoor	Taunton Deane	West Somerset	Districts in 90 Minute Commute Zone	National Average (England)
	%	%	%	%	%
Managers/senior officials & professional	23.1	23.9	22.8	28.5	26.5
Associate professional & technical	11.4	14.0	10.3	13.9	13.8
Administrative & secretarial	11.4	13.2	9.5	11.1	13.4
Skilled trades	14.5	13.1	17.2	11.1	11.5
Of which: metal & electrical trades	5.1	3.9	3.6	3.7	4.7
Of which: construction & building trades	5.0	4.0	4.7	4.5	3.5
Personal service; sales & customer service	15.6	17.1	17.5	17.2	14.5
Process, plant & machine operatives	10.2	7.2	6.8	6.4	8.4
Elementary (unskilled) occupations	13.9	11.6	16.0	11.7	11.8
Total	100.0	100.0	100.0	100.0	100.0

Source: Office for National Statistics, 2001 Census.

d) Employment and Unemployment Rates and Earnings

8.5.15 Employment rates in the immediate districts appear to be similar to the South West average and slightly above the national average. Estimates for the 2008 calendar year indicate that, at that time, an estimated 78% of working age residents in the three immediate districts were in employment, although this varied from only c.65% in West Somerset to c.77% in Sedgemoor and c.82% in Taunton Deane. These rates compared with a national average of c.74% and a South West average of c.78%.

8.5.16 Claimant unemployment rates in the local economy have been low and well below the English average. But these rose substantially in 2008/2009 in the face of the global recession, with a more than doubling of rates over the year (**Table 8.14**). A breakdown of the data for June 2009 shows a pool of over 4000 unemployed claimants in the three districts with relevant engineering and construction skills, and almost 42,000 claimants in the commuting zone (**Table 8.15**).

8.5.17 Data on the occupations sought by local unemployed claimants is summarised in **Table 8.15**. The table shows the number of unemployed claimants seeking jobs in key construction sector occupations. This shows that, in June 2009, there were 3,815 unemployed claimants within the 90 minute commuting zone seeking employment in skilled construction/building, mechanical and electrical trades, plus 2,650 seeking other construction employment (in semi-skilled and unskilled occupations).

8.5.18 Average earnings levels in Sedgemoor and Taunton Deane are below the national average. Estimates, for April 2008, indicated mean gross weekly workplace-based earnings for full-time workers of c. £493 in Sedgemoor and c. £496 in Taunton Deane, compared with a South West average of c.£526 and a national average of c.£585. Mean earnings for those working in Sedgemoor are therefore approximately 16% below the English average. In contrast, estimates for West Somerset indicate a relatively high level of average earnings, at c. £572 (April 2008), only 2% below the English average. However, this figure is based on a relatively small sample and may be heavily influenced by the relatively high earnings at the existing Hinkley Point Power Stations. Earnings levels in the remainder of the West Somerset economy are considered likely to be significantly lower.

Table 8.14: Claimant Unemployment Rates, June 2009

Area	No. of Unemployed Claimants	Claimants as % of Working Age Residents
Sedgemoor	2,092	3.2
Taunton Deane	1,679	2.6
West Somerset	402	2.1
Sub-Total	4,173	2.8
Somerset	7,910	2.6
90 Minute Zone	41,951	2.9
South West	94,347	3.0
England	1,298,572	4.1

Table 8.15: Occupational Breakdown of Unemployed Claimants, June 2009

Occupation Sought	Sedgemoor, Taunton Deane & West Somerset	Somerset	90 Minute Commute Zone
Engineering professionals; science & engineering technicians	55	125	765
Skilled mechanical trades (e.g. welding, fitting)	50	110	485
Skilled electrical trades	55	100	575
Skilled construction trades	195	375	1,865
Skilled building trades	100	165	890
Construction operatives (semi-skilled)	40	70	360
Elementary construction occupations (unskilled)	300	550	2,290

Source: Office for National Statistics, monthly claimant count data.

e) Qualifications and Skills

8.5.19 The latest APS-based estimates of qualification levels are for the 2008 calendar year (see **Table 8.16**). The latest estimates for the three immediate districts show that the proportion of working age residents with Level 2 and Level 3 qualifications is slightly below the regional average but above the national average. The proportion with Level 4 qualifications is below both the regional and national averages. This overall picture conceals variations between the individual districts, with a contrast between relatively poor qualifications in Sedgemoor and West Somerset and a stronger performance in Taunton Deane. Within the wider 90 minute commuting zone, the proportions qualified at Levels, 2, 3 and 4 are slightly above the South West and national averages.

8.5.20 Attainment levels are higher for the wider commuting zone. The percentage of those attaining 5 GCSE A*-C is another important national indicator. In 2007/08 53% of students in Sedgemoor, 56% in West Somerset and 65% in Taunton Deane achieved this level. The Sedgemoor and West Somerset levels are well below both regional (63.5%) and national (64.5%) levels.

Table 8.16: Qualifications of Working Age Residents, 2008

Area	% Qualified at Level 2 +	% Qualified at Level 3 +	% Qualified at Level 4 +
Sedgemoor	63.4	44.4	24.8
Taunton Deane	72.2	51.4	31.2
West Somerset	62.6	43.2	22.8
Sub-Total	67.1	47.3	27.3
Somerset	68.4	47.5	24.9
90 Minute Zone	68.5	49.7	29.2
South West	68.1	48.8	28.3
England	64.6	46.5	28.7

Source: Office for National Statistics, Annual Population Survey (based on January to December 2008 survey period). All figures are sample-based estimates and are subject to a margin of error. Estimates for the immediate districts are based on a relatively small sample and should therefore be treated with caution.

f) Worklessness and Deprivation

8.5.21 Worklessness is a wider term which adds to the Job Seekers those who are without work due to ill health or disability and are therefore, involuntarily out of work. In 2007(Dec), Department of Works and Pensions (DWP) figures showed almost 14% of West Somerset working age residents claiming key benefits. For Sedgemoor and Taunton Deane the figures were 12.5% and 11.1 respectively, and 10.9% for the 90-minutes commuting zone. The equivalent South West and England percentage rates were 11.5 and 13.5.

8.5.22 The national Index of Multiple Deprivation (IMD) provides a particularly useful tool for highlighting pockets of deprivation on a spatial basis. Average levels of deprivation across each of the immediate districts are indicated by their rank position relative to all other English local authority districts. On the overall index (IMD 2007), West Somerset is ranked 106th out of the 354 local authority districts in England (where a rank of 1 indicates the most deprived district nationally). Average levels of deprivation are lower in Sedgemoor (ranked 169th) and Taunton Deane (ranked 204th). However, a more detailed analysis of super output areas (SOAs) and particular sectors reveals specific problem pockets. **Table 8.17** shows the distribution of particular types of deprivation; for example 14 of 23 SOAs in West Somerset ranked in the worst 20% in the country in relation to barriers to housing and services. **Figure 8.3** indicates the broad distribution of deprivation across Somerset; **Figure 8.4** and **Table 8.18** highlight specific wards in Sedgemoor with multiple deprivation issues.

Table 8.17: Analysis of Domains and Sub-Domains of the Indices of Deprivation 2007

ID 2007 Domain (or Sub-Domain)	No. of SOA's in Most Deprived 20% in England		
	West Somerset	Sedgemoor	Taunton Deane
	(out of 23 SOA's)	(out of 68 SOA's)	(out of 66 SOA's)
Income	1	8	4
Employment	4	10	6
Health Deprivation & Disability	1	3	4
Education, Skills & Training	1	12	8
Children/Young People	1	11	6
Skills	2	11	9
Barriers to Housing & Services	14	13	13
Geographic Barriers	11	29	21
Wider Barriers	12	0	1
Crime	0	6	5
Living Environment	5	6	3
Indoor Environment	11	14	10
Outdoor Environment	0	2	1
Overall IMD 2007	1	5	3

Source: Department for Communities & Local Government, Indices of Deprivation 2007.

Note: Sub-domains are shown in italics.

Table 8.18: Location of Most Deprived LSOA's in Sedgemoor, Analysed by Type of Deprivation (ID 2007 Domains)

ID 2007 Domain	LSOA's Ranked in Most Deprived 20% in England	Location of Most Deprived LSOA's (2003 CAS Ward)
Income	8	Bridgwater Hamp (2) Bridgwater Quantock (1) Bridgwater Sydenham (3) Bridgwater Victoria (1) Highbridge (1)
Employment	10	Bridgwater Hamp (1) Bridgwater Quantock (1) Bridgwater Sydenham (3) Bridgwater Victoria (2) Burnham North (1) Burnham South (1) Highbridge (1)
Health Deprivation & Disability	3	Bridgwater Quantock (1) Bridgwater Sydenham (1) Highbridge (1)
Education, Skills & Training	12	Bridgwater Eastover (1) Bridgwater Hamp (3) Bridgwater Sydenham (4) Bridgwater Victoria (2) Highbridge (2)
Barriers to Housing & Services	13	Axe Vale (1) Berrow (1) Cannington & Quantocks (2) Cheddar & Shipham (1) East Poldens (1) King's Isle (1) North Petherton (2) Puriton (1) Wedmore & Mark (3)
Crime	6	Berrow (1) Bridgwater Eastover (1) Bridgwater Hamp (1) Bridgwater Quantock (1) Bridgwater Sydenham (1) Bridgwater Victoria (1)
Living Environment	6	Bridgwater Eastover (3) Bridgwater Hamp (1) Bridgwater Sydenham (1) Highbridge (1)

Source: DCLG, Indices of Deprivation 2007.

g) Economic Forecasts

8.5.23 In the context of the 2008/09 recession, there has been a radical rethink of economic forecasts. Revised recession job growth scenarios and projections have been released for the South West region by Experian for SWRDA (Jan 2009) and by the South West Observatory (SWO), (June 2009). The Experian study provides estimates of jobs growth to 2015, under three alternative scenarios: 'baseline', 'worse', and 'adverse' (see **Table 8.19**). The most likely scenarios are considered to be the baseline (slow recovery back), or the worse case (deeper and longer lasting recession). Given that trend growth is expected to resume by 2012 in both these scenarios, the report concludes that 'the recession should not be seen as a reason to radically change the basis of long-term planning projections for the South West economy'.

8.5.24 Projections are not available for the 90 minute commuting zone. However, a crude "best-fit" to this area can be obtained by combining the separate employment projections for Somerset, Devon (including Plymouth and Torbay unitary authorities) and the West of England (Bath & North East Somerset, City of Bristol, North Somerset and South Gloucestershire). These show a slightly better picture than for the region as a whole. Projections for the construction sector for the South West show a worse position than for the region overall, for 2007-2010, and then a better position for 2010-2015.

Table 8.19 Recent Employment Projections for the South West Region (and for Somerset, Devon and West of England Sub-Region—in parentheses)

Projection	Change in FTE Employment	% Change	% Change per annum
2007-2010			
Experian Baseline	-44,000 (-17,000)	-2.0% (-1.5%)	-0.7% (-0.5%)
Experian Worse	-90,000 (-42,000)	-4.2% (-3.6%)	-1.4% (-1.2%)
Experian Adverse	-151,000 (-74,000)	-7.0% (-6.4%)	-2.3% (-2.1%)
SWO Baseline	-219,000 (-111,000)	-9.9% (-9.4%)	-3.3% (-3.1%)
2010-2015			
Experian Baseline	+52,000 (+ 40,000)	+2.5% (+3.5%)	+0.5% (+0.7%)
Experian Worse	+37,000 (+30,000)	+1.8% (+2.7%)	+0.4% (+0.5%)
Experian Adverse	-56,000 (-20,000)	-2.8% (-1.9%)	-0.6% (- 0.4%)
SWO Baseline (2010-14)	+40,000 (+21,000)	+2.0% (+2.0%)	+0.5% (0.5%)

Source: Experian for SWRDA (2009)

h) Accommodation

i) Local Housing Stock and Forecast Growth

8.5.25 The combined housing stock in Sedgemoor, Taunton Deane and West Somerset districts was approximately 113,000 in March 2007. The housing stock in this area increased by an estimated 6,450 dwellings between 2001 and 2007 equivalent to an additional 1,075

dwellings p.a. This represents a 6.0% increase in the area's housing stock over this six year period, which is above the national average increase (4.7%) and similar to the average rate of growth in the South West region (5.9%). In the wards in the immediate vicinity of the site (including the Bridgwater area), the housing stock increased from c.22, 000 to c.23, 600 over the same period (an increase of 7.6%).

8.5.26 Compared with the national average, the local housing stock has a higher proportion of owner occupied property (c 78% in Sedgemoor, and c73% in the other two districts) and a lower proportion of social rented housing. The proportion of privately rented property is similar to the national average, at just under 11% of the total stock, although this is slightly below the South West average. The housing stock in West Somerset includes a relatively high proportion of second homes and holiday homes. West Somerset also has a much higher proportion of pensioner households than the national average, and the districts overall have a much higher proportion of detached housing than the national average. Average house prices are about 10% below the national average in Sedgemoor, and 10% above in West Somerset. Housing affordability is a major issue – with an affordability ratio (median house price/median earnings) of about 8. Unmet housing need (need-available housing units) in the Taunton Housing Market Area (Taunton Deane, West Somerset and Sedgemoor) is estimated at about 1,200 affordable housing units (approximately 1% of all households) (Fordham Research, 2008).

8.5.27 Future rates of housing development will be heavily dependent on planning policies at regional and local levels. The proposed changes to the draft Regional Spatial Strategy (RSS), published in July 2008, set out minimum rates of housing provision for the period to 2026. The relevant allocations for the immediate districts are set out in **Table 8.20** which also illustrates recent housing growth between 2001 and 2007.

Table 8.20: Housing Provision in the Regional Spatial Strategy (RSS), 2006-2026 and Comparison with Recent Rates of Housing Growth

Area	Additional Dwellings, 2006-2026	Dwellings per annum, 2006-2026	Dwellings per annum, 2001-2007
Sedgemoor	10,200	510	511
Taunton Deane	21,800	1,090	440
West Somerset	2,900	145	123
Sub-Total	34,900	1,745	1,074
Other Somerset	28,000	1,400	1,157
Total Somerset	62,900	3,145	2,231
South West	592,460	29,623	21,252

Source: Government Office for the South West, The Draft Revised Regional Spatial Strategy for the South West Incorporating the Secretary of State's Proposed Changes, July 2008.

Note: Total for West Somerset includes provision for 400 dwellings in the Exmoor National Park area.

ii) Tourism and Visitor Accommodation

8.5.28 The area around Hinkley Point, particularly Minehead and the coast at Burnham/Brean/Berrow, has for many years attracted tourists and visitors. The local accommodation and other services developed to provide for such visitors are significant sources of local employment and income.

A Somerset County Council study (2006) estimated a total spend (2006) from over 1 million visitor trips to the combined districts of Sedgemoor and West Somerset, of at least £150 million, supporting over 6000 local jobs. A South West Tourism report (2007) estimated over 6 million visitor nights in the three immediate districts in 2007, with over 50% in Sedgemoor district (of which over 70% was in touring caravans and self-catering accommodation). Total tourism-related spend in Sedgemoor, West Somerset and Taunton Deane is estimated at £452 million in 2007. This figure includes spend associated with both day visitors and staying visitors. Focusing only on the spending associated with staying visitors, total expenditure is an estimated £226 million. Half of this total is in Sedgemoor district (£113 million).

8.5.29 Assessing the structure and trends in the tourism accommodation market is complicated by the (un)reliability of data and fluctuations according to demand. The available stock of serviced visitor accommodation (hotels/guest houses/B&B establishments etc) is difficult to quantify. At a minimum, there are over 300 establishments, with around 2600 rooms, with roughly similar numbers of rooms in each of the three immediate districts (South West Tourism accommodation database, March 2009). Only about 14% of the total rooms identified in the immediate districts are located within an approximate 30 minute drive time of the Hinkley C site. A significant proportion (27%) of available rooms is located over 45 minutes drive from the site. The latest data for Somerset, for 2008, indicates that average occupancy levels for rooms in serviced accommodation varied from only c.33% in January to a peak of c.76-78% during July and August; occupancy levels were also relatively high outside of the peak Summer months, at 64% or above from May to October 2008.

8.5.30 There is also a very substantial supply of non-serviced accommodation (self catering units, caravans etc). Overall, a total of 61 sites with facilities for touring caravans or caravans for hire have been identified in Sedgemoor, Taunton Deane and West Somerset districts (South West Tourism accommodation database, March 2009). These sites provide up to 7,500 touring pitches or caravans for hire. Most of this capacity is located in Sedgemoor district (up to c. 5,600 pitches or units for hire), although there is also significant capacity in West Somerset (up to c.1, 600 pitches or units). The vast majority of the capacity in Sedgemoor is located in the coastal area between Burnham-on-Sea, Berrow and Brean. However, less than 50% of overall capacity in the three immediate districts is within a 45 minute drive of the Hinkley C site. It should also be noted that the availability of some sites will be limited by their seasonal nature, plus occupancy/planning restrictions to holiday use only. Occupancy levels in caravan accommodation reach very high levels during the peak Summer months; data for Somerset suggests peak occupancy for touring caravan pitches of around 89% in August (based on figures for 2006).

8.5.31 Other relevant accommodation includes the now substantial self catering and country cottage market, plus latent accommodation supply. The SWT database identifies a total of just over 500 self catering units in the three immediate districts providing a total of almost 2,500 bedspaces. Over half of this accommodation is located in West Somerset district. A further 3,000 accommodation units, with just over 12,000 bedspaces, are provided by the Butlins and Pontins holiday villages. Again however, much of the self catering and holiday village accommodation in the immediate districts is located beyond a 45 minute drive of the site (around 60 minutes travel time, allowing for P&R transfers to Hinkley Point C). If this accommodation is excluded, self catering capacity is reduced by around 50% to just over 250 units and almost 1,250 bedspaces. In addition, the Butlins and Pontins holiday village accommodation is located just on the edge of this 45/70 minutes zone; this holiday village accommodation capacity comprises just over 1,800 units, providing c. 7,250 bedspaces.

8.6 Education

a) Current Provision for Primary Schools

8.6.1 Table 8.21 provides data on school capacity and pupil numbers for LEA primary schools within an approximate ten mile radius of the Hinkley Point site. This area encompasses Bridgwater and its surrounding rural catchment area, the Burnham-on-Sea/Highbridge area and the Watchet/Williton area in West Somerset.

8.6.2 Primary school capacity in this area is currently around 7,280 places. Just under half of this capacity (3,370 places) is located in Bridgwater, with most of the remainder in the surrounding Bridgwater rural area (1,220), the Burnham/Highbridge area (1,770), and the Watchet/Williton area in West Somerset (440). Pupil numbers in these primary schools totaled an estimated 6,740 in September 2008. There were therefore around 540 surplus primary places in the area at this time, representing 7.5% of existing primary school capacity.

8.6.3 The proportion of surplus places varies widely across the area, and is generally much higher in the rural primary schools, for example at 13.6% in the rural Bridgwater area, 12.1% in other rural parts of Sedgemoor and 16.3% in the Watchet/Williton area. The percentage of surplus capacity is much smaller in Bridgwater (6.4%) and the Burnham/Highbridge area (2.1%).

b) Current Provision for Secondary Schools

8.6.4 Table 8.22 provides capacity and rolls data for the secondary schools within a ten mile radius of the site. This includes the four secondary schools in Bridgwater and the King Alfred School in Burnham-on-Sea. These schools cater for 11-16 year olds. Also included is Danesfield Middle School in Williton, which caters for 9-13 year olds in the three tier system in operation in West Somerset. Also in the immediate area is Brymore School in Cannington, a secondary technical school for boys specialising in rural technology, although this school has a wider than local catchment area.

8.6.5 Excluding Brymore School, total capacity in these secondary schools is currently 5,460 places. Pupil numbers totalled an estimated 5,370 in September 2008. There were therefore just under 100 surplus secondary places in the area at that time (excluding Brymore School), representing 1.6% of existing capacity.

c) Forecast Pupil Numbers

8.6.6 Somerset County Council's latest school roll projections for the schools within a ten mile radius of the site are shown in Tables 8.21 and Table 8.22. The latest projections were published in May 2008, and provide forecasts of school rolls for the period from September 2007 to September 2012.

8.6.7 Pupil numbers in the primary schools within a ten mile radius of the site are expected to experience a very small increase, of less than 1%, between 2008 and 2012. However, this overall figure conceals some variation between individual areas. Primary schools in Bridgwater are expected to experience a 3.0% increase in pupil numbers by 2012, reducing the proportion of surplus places from 6.4% to 3.6%. Primary rolls in most other parts of the area are expected to decline between 2008 and 2012, although a very small increase is forecast for schools in the Watchet/Williton area.

8.6.8 Pupil numbers in the secondary schools in the area are expected to decline by 5.5% between 2008 and 2012. This is expected to increase the proportion of surplus secondary places in the area from 1.6% to 7.0% by 2012. These figures exclude the specialist Brymore School. A slight increase in pupil numbers is forecast at this school, but the current large proportion of surplus places is expected to continue to 2012.

d) Building Schools for the Future Programme

8.6.9 Funding has been obtained using the PFI for 100% rebuild of Bridgwater's secondary schools under the Building Schools for the Future (BSF) programme. Current plans are to rebuild all four secondary schools in Bridgwater by 2012 (Somerset County Council, Building Schools for the Future: Outline Business Case, April 2008). The plans include:

- A 900 place 11-16 Robert Blake Science College, to be rebuilt on its current site (current capacity is 700 places; the planned additional new capacity allows for a projected increase in roll numbers due to significant residential development close to the school);
- A 900 place 11-16 East Bridgwater Community College, to be rebuilt on its current site (current capacity is 870 places; the plans incorporate the potential to increase the school's capacity to 1,050 places in the future if required);
- A 1,050 place 11-16 Haygrove School, to be rebuilt on a new greenfield site at Queenswood Farm (current capacity is 1,070; the plans incorporate the potential to increase the school's capacity to 1,200 in the future if required);
- A 1,050 place 11-16 Chilton Trinity Technology College, to be rebuilt on its current site (current capacity is 1,000 places); and
- The plans also include co-location of specialist provision at Robert Blake Science College (60 places) and Haygrove School (50 places).

8.6.10 Construction of the new buildings at all four schools is scheduled for completion by September 2012. The existing capacity of Bridgwater's secondary schools is 3,640 places. The planned capacity of the rebuilt secondary schools is 3,900 places, representing an increase of 7% compared with existing places. The plans also incorporate the potential to increase capacity by a further 8% to 4,200 places if required, as proposed housing developments in Bridgwater are built.

Table 8.21: Existing Capacity and Forecast Pupil Numbers in Primary Schools Within a 10 Mile Radius of the Hinkley Point Site

Sub-Area	Net Capacity (May 2008)	Forecast Rolls (Sept 2008)	Forecast Rolls (Sept 2012)
Bridgwater	3,370	3,154	3,249
Rural Bridgwater area ***	1,219	1,053	1,004
Burnham-on-Sea area	1,770	1,733	1,722
Other Sedgemoor ***	389	342	327
West Somerset area ***	443	371	377
Other within 10 miles ***	90	85	76
Primary Total	7,281	6,738	6,755

**** only include schools within a 10 mile radius of the site. "Rural Bridgwater area" includes the primary schools in Cannington, Combwich (Otterhampton Primary), Enmore, Nether Stowey, Puriton, Spaxton, Stogursey and Woolavington. "Burnham-on-Sea area" includes the primary schools in Berrow, Brent Knoll, Burnham-on-Sea, East Huntspill, Highbridge, Pawlett and West Huntspill. "Other Sedgemoor" includes the primary schools in Cossington, East Brent, Lympsham and Mark. "West Somerset area" includes the primary schools in Crowcombe, Stogumber, Watchet and Williton (note that Stogursey primary school, although in*

West Somerset, is included in the figures for the "rural Bridgwater area"). "Other within 10 miles" includes the primary school in Lydeard St Lawrence.
Source: Somerset County Council, Revised School Organisation Plan Tables 2008, published on 14 May 2008. Figures for areas marked

Table 8.22: Existing Capacity and Forecast Pupil Numbers in Secondary Schools within a 10 Mile Radius of the Hinkley Point Site

Name of School	Net Capacity (May 2008)	Forecast Rolls (Sept 2008)	Forecast Rolls (Sept 2012)
Robert Blake Science College, Bridgwater	700	652	591
Chilton Trinity Technology College, Bridgwater	1,000	1,005	939
Haygrove School, Bridgwater	1,070	1,072	1,033
East Bridgwater Community School	870	859	809
Sub-Total: Bridgwater	3,640	3,589	3,371
The King Alfred School, Burnham-on-Sea	1,358	1,371	1,367
Danesfield Middle School, Williton (9-13 years)	464	414	343
Brymore School, Cannington (specialist technical school)	352	173	179
Total: Secondary Schools (excluding Brymore School)	5,462	5,374	5,081

Source: Somerset County Council, Revised School Organisation Plan Tables 2008, published on 14 May 2008.

8.7 Health and Health Facilities

a) Health Indicators

8.7.1 On many health indicators Somerset, and Sedgemoor and West Somerset, perform very well. The Index of Deprivation (2007), Health, Deprivation and Disability Domain, which provides a measure of illness and disability, mental health problems and hospital admissions, and data from the South West Public Health Observatory (2009), show that the county and districts are better on overall health indicators than the England average. For example life expectancy for both men and women in Somerset and Sedgemoor exceeds the England average by 1-2 years; levels of physical activity are high; early deaths due to cancer, heart disease and strokes are lower than the national average and have fallen over the last 10 years. On the other hand, the rate of road injury and death is high; around 340 people are killed or seriously injured on the roads in Somerset each year.

8.7.2 The high level of incapacity benefits/issues also needs to be recognised and responded to in relation to skills development/employment opportunities; this is currently a barrier in developing the skills base of the area.There are also particular problem pockets across the county, mainly in towns (e.g. Bridgwater) but also in rural West Somerset. The Somerset Local Area Agreement (LAA) prioritises: healthy life expectancy, teenage pregnancy, early deaths from circulatory disease, childhood obesity, drug and alcohol abuse, road injuries and Child and Adolescent Mental Health Services.

b) Provision of Health Services

8.7.3 Within the immediate vicinity of the Hinkley C site, there are 13 GP Surgeries/Medical Centres, as set out in **Table 8.23**. The nearest Minor Injuries Unit is at Bridgwater Community Hospital, and the nearest accident and emergency facilities are at Musgrove Park Hospital in Taunton. This is 21 miles from the Hinkley C site by road, or an approximate 45 minute drive. A review of primary care provision (Somerset Primary Care Trust (PCT), 2008) identified just three of the ten practices with list sizes currently above the national average (of 1,750 per WTE (whole time equivalent) GP) at New East Quay and Redgate Medical Centres, both in Bridgwater, and at North Petherton. There are also four GP surgeries that are currently too small (i.e. below the size recommended by NHS Estates, based on the practice's list size). The PCT's proposed investment framework to 2015 includes recommendations to replace or extend most of these premises. Proposals for the redevelopment of the existing community hospitals in Somerset were approved by Somerset PCT in early 2007 (Somerset PCT, Somerset Community Hospital Redevelopment Programme: Progress Report, March 2009). Among which is the reprovision (2010-2012) of Bridgwater Community Hospital on a new site on the edge of the town, thereby reducing the need for patients to travel to the acute hospitals in Taunton and Weston-super-Mare.

Table 8.23: Existing NHS Facilities in the Hinkley Point Area

Facility and Location	Other Details	List size per WTE GP (2008)
GP Surgeries:	Practice currently has:	
Quantock Medical Centre (Nether Stowey)	2 WTE GP's, plus 1 WTE nurse practitioner	1586
Cannington Health Centre	3.25 WTE GP's. Regular branch surgeries are held in the villages of Combwich, Spaxton & Stogursey	1650
West Somerset Health (Watchet and Williton)	7 WTE GP's for the two surgeries	1447
Brent House Surgery (Bridgwater)	4.75 WTE GP's	1589
East Quay Medical Centre (Bridgwater)	7 WTE GP's	1954
Redgate Medical Centre (Bridgwater)	3.5 WTE GP's plus 1.5 nurse practitioners	2016
Somerset Bridge Medical	1.75 WTE GP's plus 0.4 nurse practitioners	1379

Facility and Location	Other Details	List size per WTE GP (2008)
Centre (Bridgwater)		
Taunton Road Medical Centre (Bridgwater)	7.8 WTE GP's plus 2.8 nurse practitioners	1762
Victoria Park Medical Centre (Bridgwater)	2.5 WTE GP's	1452
North Petherton Surgery	2.5 WTE GP's	1841
Minor Injuries Units:-		
Bridgwater Community Hospital	Nearest Minor Injuries Unit. 66 beds.	
Williton Community Hospital	45 beds	
(Somerset PCT average)		(1725)
(National Average)		(1750)
A&E Departments:-		
Musgrove Park Hospital (Taunton & Somerset NHS Trust), Taunton	The nearest A&E facilities are at Musgrove Park Hospital in Taunton. This is 21 miles from the Hinkley C site by road (about 45 minutes drive)	

Source: NHS UK website; Somerset PCT.

Somerset PCT, Strategic Review of Primary Care Infrastructure, September 2008 (Annex 3).

8.8 Other Issues/Services

a) Crime and Safety

8.8.1 The Somerset Strategic Partnership (2007) summarises the general situation with regard to crime and safety as follows:

> *'Somerset experiences relatively low levels of crime and disorder compared to the national average. This is an asset to the quality of life enjoyed in Somerset and its attractiveness as an inward investment location. Levels of crime and fear of crime are highest in the larger centres within the county and typically coincide with areas of relative deprivation. Improving economic opportunities in these deprived communities will continue to contribute to addressing the incidence and fear of crime'.*

8.8.2 Local crime levels for Sedgemoor (2007/08) were 40 recorded crimes per 1000 population; West Somerset was lower at 30 per 1000. These are both less than the equivalent rate for England which was 54. However over the period 2004-2007 there was a small increase in the number of local areas in Sedgemoor in the top 20% of areas for crime in England, compared with a fall in the county as a whole.

8.8.3 Local policing in Avon and Somerset is organised with districts and neighbourhoods as part of the Governments neighbourhood policing initiative. The police district of Somerset West covers the three local authority areas of Taunton Deane, Sedgemoor and West Somerset. There are four neighbourhood areas in the district: Bridgwater, Burnham-on-Sea, Minehead and Taunton. Recent Avon and Somerset Constabulary figures show a small fall in crimes in the first three months of 2008/09 (April/May/June) compared with the same period for the previous year. It should also be noted that there is an additional police presence in the vicinity of nuclear facilities, in the form of the Civil Nuclear Constabulary, which provides armed protection of nuclear materials and can patrol within 5km of the site. Its' constables have the same powers as other constables and are able to deal with any criminal activity as appropriate; they would also assist the host constabulary on any matter if requested. Emergency planning is also jointly managed, between West Somerset District Council and the Hinkley Point stations.

8.8.4 Using the construction of Hinkley Point A and B stations as a (now dated) guide, there are indications that some increases above the norm in behavioural offences, such as drunkenness, minor public disorder, and car theft could occur. Increases in traffic could increase road accidents, and the movement of some bulky plant and materials to the site during construction may cause occasional congestion and delay. Few problems are expected during the operational stage; experience has shown that the non-home-based staff are quickly absorbed into the local community. The construction of Sizewell B in East Anglia provides a somewhat more recent case study. During the construction stage, three additional officers were redeployed to the locality. There was an increase in some offences (especially drink-driving offences) during the early years of construction, but measures were quickly introduced to mitigate such impacts (e.g.: free shuttle minibus service from the site hostel to Leiston, provision of site hostel bar, site induction procedures etc.), with the rate of offences falling even with major increases in the construction workforce. The overall consensus was that impacts were well managed.

8.8.5 Representatives of the local police on the Sizewell B local consultative committee consistently expressed the view that, overall, the construction workforce had been relatively trouble–free, with fewer serious incidents than had been anticipated (Glasson and Chadwick, 1995).

b) Local Leisure and Cultural Facilities

8.8.6 Somerset County Council operates a network of Leisure Centres across the County. These are all school-based and operate on a dual use model, combining school and community access. SCC operated Leisure Centres in the three immediate districts include, for example in Bridgwater, the Chilton Trinity Sports & Leisure Centre, and the East Bridgwater Sports Centre. Under the Building Schools for the Future programme in Somerset, it is currently envisaged that both Chilton Trinity and East Bridgwater secondary schools will be rebuilt on their existing sites by 2012. The current plans also include the rebuilding of both leisure centres, with dual school-community use of facilities retained. The proposals include provision of a new dual use swimming pool as part of the rebuilding of Chilton Trinity, although planning permission for this was refused in late 2009.

c) Community and Local Perceptions

8.8.7 The local area socio-economic baseline is also a 'social construct', an amalgam of experiences and perceptions, including many derived from knowledge of previous power station construction impacts (especially Hinkley Point B) and current operational and decommissioning impacts (Hinkley Point A). Such experiences and perceptions are important:

8.8.8 Social constructions are not mere perceptions or emotions, to be distinguished from reality; rather, how we view a social situation determines how we behave. Furthermore, social constructions of reality are characteristic of all social groups, including the agencies that are attempting to implement change as well as the communities that are affected (IOCGP 2003).

8.8.9 Such experiences and perceptions will also vary greatly between groups and individuals, but useful 'barometers' can be gained from the monitoring of previous nuclear power station development impacts, from current Hinkley Point B Site Stakeholder Group concerns, from public meetings and from the coverage in the local press (in this case, in the Bridgwater Mercury). The monitoring of the perceived impacts of building Sizewell B in Suffolk also provides a detailed example of some of the possible perceptions for the construction stage of a new development at Hinkley Point.

8.8.10 The Hinkley Point A & B Site Stakeholder Group is one of a nationwide series of site stakeholder groups covering nuclear sites; it is an independent community body liaising between the industry and its neighbours. The purpose of the Stakeholder Group is to:

- Inform the public of activities on the Hinkley Point sites and of the site operators;
- Act as a conduit for two-way information provision and flow; and
- Act as a 'clearing-house' for community concerns by providing independent interpretation of information.

8.8.11 Its 40+ membership provides a good coverage of local authority, local group and Hinkley Point A and B interests. Meetings are held three times a year; notice of meetings is posted in local newspapers and members of the public and media are welcome to observe meetings and ask questions. A review of the Stakeholder Group's Minutes in 2007-2008 indicates an understandable focus on the decommissioning of Hinkley Point A, including funding and waste issues, and on the performance of the operational Hinkley Point B. There is also regular reporting of employment profiles. Hinkley Point A issues included, inter alia, consideration of the building of a facility at Hinkley to handle low level waste from the decommissioning process. This raised the possibility of a Community Fund, via a S106 agreement linked to planning consent for the disposal of the LLW. Such a fund has been negotiated with Copeland District Council in West Cumbria—in relation to the nuclear waste disposal activity at Drigg. Other A-station issues included: initial outcome of End State/Use consultation which favoured a nature reserve, and the current drop in NDA funding for the decommissioning activity. Hinkley Point B items included operation of the station on reduced loading; a five year extension in the planned life of the station, regular collections for local charities, distribution of potassium iodate tablets etc.

8.8.12 There was very little direct discussion of potential new build, but more general issues of relevance to future development included: comments on the Green Audit health report, NDA ownership of land which may be of interest for new build, and views on a possible Hinkley wind farm. It was also noted that British Energy had commissioned a range of geological, environmental impact, marine and transmission surveys in preparation for any potential new build.

8.8.13 A more specific focus on the potential new build was `provided by a public meeting held at Cannington College in April 2008. A range of issues were raised by the local audience, including:

The role of the independent Infrastructure Planning Commission;

- Nuclear developments in comparison with other energy projects eg tidal power (Severn Barrage), clean coal;
- Contributions to associated infrastructure (eg bridge over the River Parrett; Bridgwater bypass; hostel for workers);
- Provision for nuclear waste disposal; and
- Health issues and nuclear power.

8.8.14 As from September 2009 EDF has now set up a Community Forum with c. 40 interested stakeholders which deals with just the C station issues instead of trying to stretch to the A+B group. The aim is : '*To consider and advise on issues that might affect the local community and key stakeholders as a result of EDF Energy's activities in the vicinity of Hinkley Point, principally those arising from the proposed development of new nuclear power on land adjacent to the existing power stations'.* Meetings in late 2009 focused on: membership/scope of the Forum, the nuclear NPS process, the Stage 1 Consultation, and issues arising from that—including traffic flows and worker accommodation. There was also discussion of the proposed preliminary works, community benefits, and approaches to involving young people in the HPC discussions (PPS, 2009).

8.8.15 The Stage 1 Consultation has provided a subsequent opportunity for the public to raise issues in response to documentation on Initial Proposals and Options. Findings from this exercise have been utilised in developing the project.

8.8.16 Coverage in the weekly Bridgwater Mercury (2008) of the potential new nuclear development at Hinkley Point focused more on the nature of the possible decision and (perhaps understandably at that stage) rather less on the likely local impacts. Much prominence was given to 'Stop Hinkley' advocates, but there was also strong coverage of other views, including those highlighting major local (especially employment) benefits. A Mercury poll of readers recorded very strong local support (over 90% of respondents) for a third nuclear plant at Hinkley Point. More recent press coverage towards the end of 2009 and beginning of 2010 is summarised below:

- Aug 2009 --- 'Williton relief road on hold'---as EDF confirmed it would be undertaking a traffic review across the district as part of its bid to build a third nuclear power station at Hinkley Point;
- Nov 2009 --- 'Hinkley Point: it's time to get serious' --- call by senior councillor for West Somerset to be more proactive in its approach to potential implications of the proposed development;
- Nov 2009 --- 'Hinkley workers' hostel planned for Williton' --- raised concern over proposed accommodation scheme for 200 and Park and Ride scheme for 350;
- Dec 2009 --- 'Power station neighbours fear for their future' --- Shurton, Burton and Knighton demanding compensation for potential blight associated with nuclear new build;
- Dec 2009 --- ' Economic tonic in the pipeline' --- programme aims to boost job opportunities, allowing local businesses to take advantage of some of the economic opportunities Hinkley Point C will bring;
- Dec 2009 --- 'Protest against EDF plans for Williton' --- local protests to development, and organisation of survey to gauge local view;
- Dec 2009 --- 'New village action group to fight EDF' --- villagers in Cannington have added their voice to growing concerns about proposals for off-site developments to support a third nuclear power station at Hinkley Point;
- Dec 2009 --- ' Williton public meeting on Hinkley plans' --- announcing event to allow local people to air their views on possible accommodation and Park and Ride developments;
- Jan 2010 --- 'Minehead traders: we'll have Hinkley hostel here ' --- Minehead Chamber of Commerce welcomes the proposed new power station and jobs it will bring, and suggests town is ideal location for a workers' hostel; and
- Jan 2010 --- 'Stowey takes a cautious line over Hinkley C' --- parish councillors give cautious thumbs up to the prospect of housing some construction workers.

8.9 Summary of Equality and Distributional issues: some spatial issues

8.9.1 Distributional issues can be analysed in various ways, and especially spatially, by age groups and by gender. These are now briefly summarised for the local baseline, in the following sections.

a) Spatial Issues - District Variations

8.9.2 West Somerset has a particularly elderly population; it has the lowest employment activity rate (at about 64%) of the three immediate districts and a high proportion of working age residents claiming out of work benefits (12.2 % in Feb 2009). NVQ qualifications of working age residents, and young people's GCSE attainments are also below the Somerset and national averages. The district ranks the worst of the three districts on the overall Index of Multiple Deprivation. There are particular issues in relation to barriers to housing and services, largely reflecting the geographical remoteness of certain rural communities. It also reflects affordability issues in relation to access to housing; 61% of Super Output Area's (SoAs) in West Somerset are ranked in the most deprived 20% nationally in relation to barriers to housing and services. Housing affordability issues are particularly severe in the district; the net backlog of housing need has been estimated at 1.9% (c. 300 housing units), although statutory homelessness is below the national average. Yet the health of people in the district is generally better than the national average; for example the % of over 65s not in good health is well below the national average, and life expectancy for both males and females is well above the Somerset average.

8.9.3 Sedgemoor has an employment rate above the national average—but below that for Somerset. However the district has higher than Somerset levels of unemployment, and persons on out-of -work benefits. The qualifications of working age residents and exam attainments are low, and similar to those of West Somerset. On the Index of Multiple Deprivation (IMD) 2007 overall, the district ranks better than West Somerset—but there are some serious deprivation issues. For example 16% of SoAs are ranked in the most deprived 20% nationally on the skills domain, and performance is also poor on other domains—such as education. Again housing affordability issues are severe, and the 2008 net backlog of housing need has been estimated at 1.3% (c. 600 housing units), although statutory homelessness is below the national average. Health in the district is generally good on most indicators, compared with the national average, although, as for the County as a whole, road injuries and deaths are above the national average. There appears to be pressure on some GP surgeries (eg: Redgate, New East Quay, and Highbridge). Crime overall is low, with the exception of a few pockets of higher activity (eg Burnham/Berrow).

b) Detailed Spatial Issues (e.g. Ward Level) Variations

8.9.4 West Somerset has several pockets of deprivation. The 2007 IMD scores indicated that the worst affected wards were Quantock Vale, Minehead, Williton, Quarme and Dulverton. Access to housing, employment opportunities, and basic services—especially post-16 education, and hospitals – are key concerns.

8.9.5 Similarly, in Sedgemoor, there are particular problems of multiple deprivation, especially in Bridgwater Sydenham, but also in Bridgwater Hamp, Quantock and Victoria, and Highbridge.

8.10 Planning Context And Policies

a) Introduction

8.10.1 This section takes a look at local economic development potential with regard to the key regional and local plans and strategies of relevance to the Hinkley Point C. This policy/plan/programme discussion is structured by agency level, starting with the regional agency plans and policies, followed by more local level activity (e.g. Somerset Economic Partnership/Strategic Partnership, Community Strategies, Local Development Documents etc.). The activities and programmes of the Dorset and Somerset Learning and Skills Council (LSC), for the important skills and training agenda, are also discussed. A summary is also provided of the range of other likely major project activity in the area over the next decade, before a final overview discussion of key regional and local policy objectives and indicators to be considered as impact assessment criteria.

b) Regional Strategies

i) South West Regional Assembly (SWRA) and the Regional Spatial Strategy (RSS)

8.10.2 The Draft Regional Strategy for the South West, 2006-2026, provides high level guidance for the region (SWRA 2006). It contains targets for housing and jobs to 2026, including sub-regional strategy statements and housing distributions. The South West is the largest, geographically, of the English regions. It is a diverse region, with a population of approximately 5 million and employment of slightly less than 2.4 million employee jobs (2008). The Draft RSS outlines the challenges facing the region, including, for example: substantial population growth (many retirees), low productivity, loss of young people and graduates, partly because of the relatively poor prospects in management and high value added sectors, and significant pockets of deprivation.The key aims of the RSS are summed up in the contents of Table 8.24, which also highlights the RSS Sustainable Communities objectives.

8.10.3 The proposed changes to the draft RSS (published GOSW, July 2008) indicate a target for employment growth in the Taunton housing market area (which includes Sedgemoor, Taunton Deane and West Somerset districts) of 25,800 jobs over the plan period, or an annual average growth of 1,300 jobs. The RSS also identifies a set of 21 Strategically Significant Cities and Towns (SSCTs) as the key places for future regional development; these include both Taunton and Bridgwater. It also identified policies for development of market towns, and for small towns and villages. The RSS EIP panel report (GOSW 2008) has proposed the building of 10,200 houses in Sedgemoor (2006-2021) and 63,000 for Somerset in total.

Table 8.24: RSS Key Aims and Sustainable Communities Objectives (the socio-economic ones of particular relevance to this project are highlighted in italics)

Key Aims
• To harness the benefits of population growth and manage the implications of population change; • To enhance our distinctive environments and the quality of our cultural life; • To enhance our economic prosperity and quality of employment opportunity; • To address deprivation and disadvantage to reduce significant intra-regional inequalities; and • To make sure that people are treated fairly and can participate fully in society.
SD4 Sustainable Communities

Key Aims

Growth and development will be planned for and managed positively to create and maintain Sustainable Communities throughout the region by:

- realising the economic prosperity of the South West and reducing disparity;
- setting a clear vision and strategy to meet the diverse needs of all people in existing and future communities, based on the role and function of cities, towns and villages and their local character and distinctiveness;
- linking the provision of homes, jobs and services based on role and function so that cities, towns and villages and groups of places have the potential to become more self contained and the need to travel is reduced;
- promoting a step change in public transport, taking steps to manage demand for travel, and promoting public transport 'hubs' and access to them;
- encouraging business activity and particularly small businesses and their contribution to theregion's prosperity, including through promoting regional sourcing;
- making adequate and affordable housing available for all residents, including the provision of a range and mixture of different housing types to accommodate the requirements of local communities;
- making the best use of existing infrastructure and ensuring that supporting infrastructure is delivered in step with development;
- investing in and upgrading cultural facilities, including their marketing and management;
- creating healthy, safe and secure places to live, for example by following Lifetime Homes and Secure by Design principles;
- providing homes which are adaptable to the changing needs of individuals and provide an opportunity for live/work space;
- delivering a step change in the quality of urban living;
- providing networks of accessible green space for people to enjoy; and
- supporting social and economic progress by enhancing education, skills development and training.

8.10.4 The RES for South West England (2006-2015) (SWRDA 2006) notes that whilst the South West is a relatively productive and healthy region, with an attractive environment, there are a few persistent pockets of deprivation and some key challenges. The South West Debate exercise, which fed into the RES, raised some of the important challenges for the region:

- Securing economic growth within environmental limits;
- Managing a growing, ageing and more diverse population;
- More self-sufficiency in energy, including more renewables;
- Importance of regional leadership; and
- Competition threats and opportunities from globalisation.

8.10.5 The RDA has an important strategic role to play, and this may be increasingly so given the recommendations in Sub-National Review of Economic Development and Regeneration (DCLG 2007) to put the RDAs at the centre of regional planning and development as from 2010. The current RES has the following vision:

South West England will have an economy where the aspirations and skills of our people combine with the quality of our physical environment to provide a high quality of life and sustainable prosperity for everyone. Our Vision will be realised when the South West has developed an economy where:

- Prosperity is measured by wellbeing as well as by economic wealth;
- Knowledge, service quality and performance are key to business success;
- More people can find jobs which fully utilise and reward their skills; and
- The region respects the environment as the foundation of people's quality of life and as a business opportunity.

8.10.6 Running throughout the Vision, and therefore the RES as a whole, is a commitment to sustainable development and equality of opportunity. The RES strategic objectives are set out below:

- Successful and competitive businesses
  - support business productivity
  - encourage new enterprise
  - deliver skills for the economy
  - compete in the global economy
  - promote innovation
- Strong and inclusive communities
  - improve participation in the economy
  - regenerate the most disadvantaged areas
  - plan sustainable and successful communities
- An effective and confident region
  - improve transport networks
  - promote and enhance what is best in the region
  - improve leadership, influence and partnership

8.10.7 Data from the South West England Economic Profile (South West Regional Observatory 2008) provides an innovative attempt to measure regional performance on sustainable economic wellbeing. While the region performs below average on Gross Value Added (GVA) per head, it performs well on a Regional Index of Sustainable Economic Wellbeing (RI-ISEW) partly because of lower environmental and crime costs, plus strong growth in consumption, increased public expenditure on health and education, and significant reduction in air pollution. More recently, the South West RDA Budget Priorities (2009-2011) included:

- supporting efforts to drive the region towards a low carbon economy;
- retaining, developing and promoting the high value business base (particularly around innovation, research and skills) needed for the region to thrive in the modern market place;
- meeting the challenges of the economic downturn, with a focus on preparing for life after the recession;
- successfully delivering Solutions for Business products and services, consistent with national and regional priorities; and
- successfully delivering ERDF and RDPE programmes, aligned to our priorities for the region.

8.10.8 In relation to the first priority noted above, a South West Low Carbon Summit (June 2009) noted the significance of the potential Hinkley Point new build for the region:

The nuclear industry provides thousands of skilled jobs across the region and across the UK. Each of the new build programmes will need up to 5000 people and we estimate that only 20% of these are available locally. To address the skills gap (which is exacerbated by an ageing population of existing nuclear workers), the RDA and partners have been developing an £8 million investment opportunity to create a Southern Hub for the National Skills Academy (NSA) for Nuclear, to be based at Bridgwater in Somerset. This scheme will train 1,000 skilled nuclear employees per annum and will join the network of other centres of excellence in

Cumbria, Portsmouth and Sizewell. We are well placed to collaborate with local and national partners to maximise the economic benefits from substantial investments in new nuclear. If Hinkley becomes the site of the first Pressurised Water Reactor in the UK, it stands to become a source of international expertise and create a strong high value business cluster in Somerset (SWRDA, June 2009).

c) Somerset - Local Policy, Objectives and Indicators

i) Somerset Local Area Agreement 2008-2011

8.10.9 The latest annual refresh of the Somerset Local Area Agreement (LAA) was published in June 2009. The LAA outlines the indicators that will be used to measure progress in meeting the objectives in the Somerset Sustainable Community Strategy. Annual targets for these indicators are included up to 2010/11. The most relevant LAA indicators for the socio-economic topic area are those for Aim 3: Ensuring Economic Wellbeing. These are shown below (list includes those indicators which are the responsibility of the Economic Leaders Sub Group):

- NI 151 - overall employment rate (resident working age population);
- NI 152 - working age people claiming out of work benefits in a) West Somerset and b) Sedgemoor;
- NI 153 - working age people claiming out of work benefits in the worst performing neighbourhoods;
- NI 163 - working age population qualified to at least Level 2;
- NI 165 - working age population qualified to at least Level 4;
- NI 166 - average earnings of employees (median weekly, gross pay for full time workers);
- NI 171 - VAT registration rate per 10,000 adults;
- NI 172 - VAT registered businesses showing growth; and
- LAA LPI (7) - growth in Somerset's knowledge economy - proportion of businesses in knowledge driven sector.

8.10.10 Other LAA indicators which may potentially be affected by the development (within the scope of the socio-economic topic area) include:

- NI 16 - serious acquisitive crime (offences per 1,000 population);
- NI 117 - proportion of 16 to 18 year olds who are not in education, training or employment (NEET);
- NI 154 - net additional homes provided;
- NI 155 - number of affordable homes delivered (gross).

ii) Somerset Sustainable Community Strategy

8.10.11 The Somerset Sustainable Community Strategy (SCS) sets out overall objectives for the county for the period to 2026. Aim 3 of the Strategy, Ensuring Economic Wellbeing, is particularly relevant to the socio-economic topic area. However, other elements of the Strategy, dealing with provision of affordable housing, educational attainment and community safety/crime, are also potentially relevant. Three key challenges are identified as part of Aim 3 of the Strategy, Ensuring Economic Wellbeing:

- Broaden and strengthen the local economy - progress will be measured by National Indicators 151 (overall employment rate), 166 (average earnings) and 171 (rate of new business formation).
- Plan for new sustainable communities to be built in Somerset - progress will be measured by National Indicators 154 (net additional homes provided), 155 (affordable homes

delivered), 159 (supply of ready to develop housing sites) and 147 (care leavers in suitable accommodation).

- Invest in the Somerset workforce - progress will be measured by National Indicators 163 (Level 2 qualifications), 165 (Level 4 qualifications), 117 (young people not in employment, education or training) and 148 (care leavers in employment, education or training), plus a local indicator on the number of young people completing the full apprenticeship framework.

iii) Somerset Economic Strategy

8.1.1 The Somerset Economic Strategy, which covers the period to 2015, sets outs six key strategic objectives:

- To develop the effectiveness of Somerset's economic voice, partnerships and strategic delivery capacity;
- To maximise the long term investment attractiveness and dynamism of Somerset's economy;
- To increase the competitiveness and productivity of Somerset businesses;
- To realise the potential of Taunton, Yeovil and Bridgwater as economic growth centres for Somerset and the South West region;
- To revitalise the economy of Somerset's market towns and rural communities; and
- To increase access to economic opportunities for all Somerset residents.

8.10.12 Annex 1 of the Economic Strategy identifies ten key strategic indicators to monitor progress in improving Somerset's economic performance. For each indicator, a series of measurable performance targets are listed, with targets for 2010 and 2015.

d) Districts - Local Policy, Objectives and Indicators

i) Priority Issues, Objectives and Indicators for Sedgemoor

8.10.13 Key policy documents for Sedgemoor are the district's Corporate Strategy, Sustainable Community Strategy, Economic Strategy and Masterplan, and the Bridgwater Vision and Strategic Framework. Also of relevance are the district council's Draft Employment and Skills Charter, and working papers setting out the council's approach to workforce development for new nuclear, and place shaping for Sedgemoor.

ii) Sedgemoor Corporate Strategy (2009-2014)

8.10.14 The Corporate Strategy sets out a number of objectives for economic growth and regeneration. These are summarised below:

- To improve the perception of Sedgemoor and Bridgwater, and champion a new era of economic regeneration and job creation;
- To raise the quality of, and improving the choice of, learning opportunities for the district's current and future workforce by equipping them with the skills to access higher quality employment, further and higher education;
- To improve educational attainment and enable the district's schools to plan to meet future employer needs;
- To provide support to those affected by low incomes and worklessness;
- To reconcile the conflicts between growth plans and flood risk to enable appropriate development;
- To maintain the delivery of a range of affordable housing;

- To deliver a vibrant business environment for existing and new businesses, including regenerating key town centres and improving retail facilities;
- To reduce the number of empty properties, bringing them back into business or residential use;
- To encourage appropriate housing and economic development in the district's rural areas, to help address rural under-performance and to sustain local communities and services; and
- To attract external funding to enable the Council to make its priorities a reality.

iii) Sedgemoor Sustainable Community Strategy (Third Edition)

8.10.15 The third edition of the Sedgemoor Sustainable Community Strategy was published in October 2009, and covers the period from 2009 to 2026. Of particular relevance is Aim 3 of the Strategy: Ensuring Economic Wellbeing. Indicators used to measure progress against this aim are the same as the Somerset LAA economic wellbeing indicators.

iv) Sedgemoor Economic Strategy

8.10.16 The Sedgemoor Economic Strategy and Masterplan covers the period to 2026. The Strategy outlines five strategic objectives, and a range of associated commitments and actions. The strategic objectives are:

- To provide economic leadership for the businesses and communities of Sedgemoor in Somerset, ensuring Sedgemoor effectively influences County, regional and national policies and investment programmes;
- To maximise investment attractiveness and dynamism of the economy, through business infrastructure, enterprise and skills, increasing Sedgemoor's contribution to the Somerset and South West economy;
- To realise the potential of Bridgwater as a regionally significant economic growth centre, benefiting businesses and communities in the wider district;
- To support the economic renewal of Sedgemoor's coastal and rural towns and dispersed communities; and
- To ensure that all of Sedgemoor's communities benefit from increased economic prosperity.

8.10.17 The Economic Strategy also includes a number of technical and supporting documents, including an updated baseline report, an assessment of Sedgemoor's economic resilience, and short-term employment projections for the district. Key issues and priorities emerging from these studies are summarised below.

v) Sedgemoor Economic Masterplan: Technical Annex

8.10.18 This document provides a detailed baseline assessment of the Sedgemoor economy, and a key issues paper summarising the issues arising from the baseline assessment. The document concludes with a list of the major priorities for Sedgemoor's economy:

- Securing high quality inward investment - the district needs to continually replace the persistent reduction in manufacturing employment, and secure new employment which can be accessed by local people, including Level 2 and Level 3 employment. Sedgemoor's location makes it competitive for new investment in sectors such as distribution and logistics, and increasing overall employment levels will support population and housing growth and reduce dependence on commuting.
- Delivering high numbers of new houses - Sedgemoor has a fast growing population, an increasing number of elderly people, whose housing needs will change, a growing issue of affordability which will inhibit economic growth and issues relating to the range of housing

available in rural areas. New housing is needed to address a whole range of housing and economic related issues, and a growing population will support this by increasing the viability of key local centres.

- Re-invigorating town centres - vibrant town centres with a range of services underpin both a large part of the economy (and the new economy) and make a major contributio] to quality of life and the attractiveness of Sedgemoor as a place to live. As important, they account for a significant proportion of the employment base, and have the potential to stimulate growth in cultural, creative and digital industries.
- Sustainable rural and coastal economies - Sedgemoor's attractiveness is found in its combination of coastal, urban and rural areas, with the rural environment in particular underpinning the tourism sector and the attractiveness of the district. There are a set of issues and challenges which collectively need to be addressed to increase the economic contribution of the rural economy and provide more opportunities for younger people and families to live and work in smaller towns and settlements. These include issues of environmental management, more and modern workspace, more affordable housing and more effective marketing and promotion.
- Delivering "Big Ticket" items - Sedgemoor has two regionally significant "big ticket" items which have the potential to generate new opportunities. These are the new nuclear development at Hinkley and the potential to establish a university campus at Bridgwater College, which has already developed a number of important specialisms. Taking forward these opportunities, linking new development to local employers and residents, linked to the further development of higher education (and its impact on Bridgwater) is a long term priority which in combination will transform the district.
- Knowledge and higher skilled employment - while Sedgemoor is unable to compete with the larger urban economies for some aspects of knowledge based employment growth, there is considerable scope for home working facilitated by broadband, and niche specialisms and micro enterprise, driven by highly qualified people placing a high value on quality of life. This objective links to vibrant town centres and a strengthened rural economy.
- Worklessness and skills - improving worklessness and skills levels is a long term cross cutting objective for Sedgemoor and key stakeholders. It needs to be linked to the economic and employment growth agenda, with more and better quality employment motivating individuals to up-grade their skills.
- Neighbourhood renewal - one of the more intractable challenges is addressing the issue of multiple deprivation in a number of neighbourhoods, and again this needs to be linked to new opportunities, along with investment in the urban environment and housing.

vi) Sedgemoor Economic Resilience Assessment

8.10.19 A recent report by Ekosgen (2009) concludes that Sedgemoor has one of the lowest levels of economic resilience amongst local authority areas in the South West. Based on a composite measure of economic resilience, Sedgemoor is ranked 34th out of the 37 local authority areas in the region. The district's relative position in the region has deteriorated in the last decade, from a ranking of 24th in 1998. Economic resilience was measured across five domains. Sedgemoor's performance on each domain is summarised below:

- Industry mix - Sedgemoor is ranked 27th out of the 37 South West local authority areas on this domain. The district has a diverse employment base, but it also has a relatively high share of employment in declining or vulnerable sectors and below average public sector employment, especially when compared with neighbouring areas such as Taunton Deane. Sedgemoor, along with neighbouring West Somerset, has one of the lowest proportions of

employment in knowledge intensive sectors in the South West. The district has seen much slower employment growth in these sectors than most other parts of the region.

- Quality of the workforce - Sedgemoor is ranked 30th out of 37 on this domain. This poor ranking is mainly due to the relatively low proportion of the workforce with higher level qualifications (NVQ level 4 or higher).
- Enterprise - Sedgemoor is ranked 25th on this domain. This ranking is largely due to the relatively low levels of self-employment in the district, which may be linked to the area's traditional reliance on a few large employers. Business density and the rate of new business formation are close to the regional average, but these indicators would normally be expected to be above average in a predominantly rural district such as Sedgemoor.
- Labour market - Sedgemoor is ranked 33rd on this domain. The district's poor performance reflects the high numbers of incapacity benefit claimants, and also a relatively high number of long duration unfilled job vacancies. The proportion of the workforce with lower level qualifications (NVQ level 2 or above), although slightly above the national average, compares poorly against most other parts of the South West.
- Economic dynamism - Sedgemoor is ranked 20th out of the 37 South West local authority areas on this domain. This middle-ranking performance reflects the relatively high recent rates of population and employment growth in the district, although this is offset by relatively low earnings levels.

8.10.20 The overall conclusion is that Sedgemoor's economy is less resilient than many other local economies in the South West. As a result, it is likely to experience higher levels of business failure and unemployment in the current recession, and a slower recovery once growth resumes. The decline in Sedgemoor's relative position during the last decade, despite strong population and employment growth, is a concern.

vii) Bridgwater Vision and Strategic Framework: Baseline Report

8.10.21 The Bridgwater Vision identifies a number of key priority issues for the future development of Bridgwater, based on the socio-economic baseline and an analysis of relevant policies:

- High future population growth, based on RSS targets for new housing. This will put pressure on the existing town centre and on community and health care services.
- An ageing population, which will also have implications for social and health care services.
- Sedgemoor and Bridgwater should use the potential employment led growth to attract and retain new families into the area to help sustain longer term economic growth. If the nuclear sector invests in the local area, Bridgwater should aspire to retain some of the key workers involved locally.
- Population growth will put pressure on housing provision, including affordable housing. Increased housing land provision will be required, and brownfield developments are key to ensure that combined employment and housing land provision meets future needs.
- Bridgwater has a lack of higher qualifications in the workforce and a high proportion of residents that are excluded from the labour market. This prevents the development of a knowledge-based economy.
- Bridgwater has a growing employment and business base led by expanding sectors for business services, public services (including education and health), retailing, distribution and tourism. It is an important employment centre for its hinterland and Taunton Deane, with large in-commuting taking place. This has implications for increased provision of employment land, new high quality and flexible workspaces (for micro and small businesses), and improved transport access.

- Manufacturing is strongly represented in Bridgwater, but it is in decline and diversification into new higher value sectors is required for the town to achieve economic prosperity. The nearby nuclear power stations could provide opportunities to further develop the knowledge economy in science and engineering related industries. The Energy Centre being developed at Bridgwater College will be essential to ensure that skills are developed for both nuclear and renewable energy industries.
- Bridgwater has large areas of deprivation, which is reflected in the low level skills base and under-performance of knowledge intensive sectors. Social problems include drug and alcohol abuse and crime.
- Construction of a new power station at Hinkley Point could provide opportunities for higher skilled construction jobs, and support to the sector through training and retaining the workforce during the current economic crisis. The availability of a skilled workforce locally will be critical to Bridgwater's ability to capture the economic benefits from this and future major construction projects, including possible Severn Barrage development.

viii) Sedgemoor Employment and Skills Charter

8.10.22 The District Council adopted as policy the Sedgemoor Employment and Skills Charter in July 2009. The Charter sets outs the Council's approach to local labour agreements that it is expected will be incorporated within planning obligations or agreements, including Section 106 agreements, for major developments in the district. These local labour agreements will provide a written commitment between the Council and employers, investors and developers to "recruit and train local residents as part of the development and construction process of major developments, as well as for longer term job opportunities resulting from the operation of the development thereafter". The Charter was adopted to help ensure that:

- Local people benefit from new job opportunities created in major developments in the district;
- Local people are provided with opportunities to gain the skills needed for employment in growth industries; and
- Local people have access to lifelong learning and the promotion of "learning communities";
- The environmental impact of unnecessary travel is reduced by maximising local employment.

8.10.23 As part of a local labour agreement, developers and investors will be expected to agree to the following actions:

- Signing and implementing a Skills Pledge, with the Learning and Skills Council;
- Signing and implementing a Local Employment Partnership with Job Centre Plus during recruitment, with the aim of providing pre-access training to help local people access new opportunities, and commitment to place local people in new jobs;
- Working with Sector Skills Councils and the wider industry to develop skills both in construction and in new business operations;
- Considering ways of supporting and integrating with the Building Schools for the Future process and longer term curriculum development to meet employer needs and raise local ambition; and
- Considering ways of working with Bridgwater College and other training providers, to increase the skills levels of the workforce and raise ambition.

ix) Priority Issues, Objectives and Indicators for Taunton Deane

8.10.24 Policy objectives and indicators for Taunton Deane's economy are set out in the Borough Council's Corporate Strategy. The Borough's economic development strategy is currently being updated, and a local economic assessment and an economic visioning report were published in 2009.

x) Taunton Deane Corporate Strategy (2009-2012)

8.10.25 Objectives for Taunton Deane's economy are set out in the Borough Council's Corporate Strategy (2009-2012):

- Job creation and business growth - stimulate the creation of 16,500 new jobs in the Borough between 2008 and 2026, creating a balanced economy across business sectors, and between public and private sector employment, increasing GVA output and wage levels to the South West regional average by 2026.
- Deprivation - to reduce deprivation in the most deprived wards in Taunton Deane, with a specific focus on Halcon, Lyngford and Eastgate wards, taking the most deprived sub-areas from these wards out of the 25% most deprived super output areas in the country by 2020.
- Diversification and the rural economy - support the diversification and strengthening of the rural economy of the Borough through facilitating and supporting new business and sector development.
- Culture - develop the cultural offer of the Borough by recognising and supporting the importance of cultural activities and creative industries to the economy of the Borough.
- Skills development - to enable workforce skills development by researching local skills demand, providing capacity and support to disadvantaged areas, providing support to the Taunton Employment Skills Board and providing LDF policy support.

8.10.26 In order to measure progress against these objectives, a number of performance indicators will be used; these indicators are based mainly on the relevant national indicators in the Somerset LAA.

8.10.27 The current review of Taunton Deane's Economic Development Strategy is due to be finalised in Autumn 2009. This will include a range of economy-related local performance indicators which will complement the mainly LAA-related economy performance indicators in the Corporate Strategy.

xi) Priority Issues, Objectives and Indicators for West Somerset

8.10.28 Objectives for West Somerset's economy are set out in the district's Sustainable Community Strategy and Economic Strategy.

xii) West Somerset Sustainable Community Strategy

8.10.29 The Sustainable Community Strategy outlines a vision for West Somerset in 2020. The economic vision for the district is that:

> *"By 2020 there will be a thriving local economy in West Somerset. People will be able to work close to where they live. The economy will benefit from creative and knowledge-based industries, which do not rely on high levels of commuting. People will be suitably skilled to work in these industries and will have access to continuing training to update their skills. As a result they will be well paid."*

8.10.30 The Strategy sets out a number of objectives under three key themes (economic, social and environmental), and a range of indicators/targets that will be used to measure progress against these objectives. Relevant objectives and indicators/targets in the Economic theme are listed below:

- To make West Somerset a quality location for businesses;
- To increase the income from tourism;
- To increase economic equality and social engagement;
- To develop a well-trained, adaptable, local workforce; and
- To widen participation in learning.

8.10.31 There are also a number of objectives and indicators in the Social and Environmental themes that are potentially relevant to the socio-economic topic area. These include reducing levels of crime and the fear of crime, increasing the provision of affordable housing, and reducing levels of homelessness and the use of temporary accommodation.

xiii) West Somerset Economic Strategy

8.10.32 The West Somerset Economic Strategy outlines 12 priority objectives, and a range of associated actions, for the district's economic development:

- To stimulate an aspirational, enterprising and entrepreneurial culture within West Somerset;
- To ensure that the West Somerset workforce has the skills required by business to innovate and improve their competitiveness;
- To tackle pockets of worklessness, meeting LAA targets to reduce claimant numbers;
- To ensure wide community engagement in, and scrutiny of, economic regeneration activity;
- To create a network of sustainable rural enterprise hubs to foster business growth across the district;
- To find imaginative and sustainable solutions to transport and communication challenges, particularly in relation to Taunton/Bridgwater;
- To ensure effective, integrated and industry focused marketing of the tourism offer across Exmoor and West Somerset;
- To ensure that the built environment of West Somerset's primary settlements is of a quality that will attract private sector investment;
- To develop the quality tourism offered within the district, maximising existing assets, and linked to its environmental quality;
- To encourage the growth of small "high value" sectors, appropriate to West Somerset;
- To ensure businesses have access to the support required to enable them to innovate, grow and develop; and
- To encourage business start up and growth, including through provision of mentoring, support and provision of appropriate workspace.

e) Training Agencies

8.10.33 The importance of learning and skills has been clearly flagged in the various regional and local plans and strategies. The Dorset and Somerset LSC and JobCentre Plus have key roles in helping to deliver improved performance in this area. The priorities and some initiatives of the Dorset and Somerset LSC are set out in **Table 8.25**. The Local Area Statement of Need sets out key challenges, actions and measures for LSCs for 2008/09. There are a range of relevant initiatives working with key target groups of: young people, adults, employers and with colleges and providers. A particular emphasis is on targeting 'difficult to reach' employers and employees.

8.10.34 The Construction and Nuclear sectors feature strongly in plans for training provision. Two National Skills Academy (NSA) centres of excellence for construction will be set up in the South West during 2008/09, at Swindon and Taunton. They will initially focus on town centre regeneration and house building programmes, but other projects may be considered. Also during 2008/09 the regional NSA nuclear hub will focus on developing a skills programme for

the employment relating to the decommissioning of nuclear sites along the Severn Estuary and at Devonport. Bridgwater College is leading the South West hub of the Nuclear Skills Academy.

Table 8.25: Dorset and Somerset LSC Priority Areas (2008-09)

Priority	Some relevant actions
1.Creating demand among young people	Roll out Diplomas. Make NEETS a priority area. Engage more young people in apprenticeships; work with colleges to embed Programme-Led Apprenticeships.
2. Creating demand among adults	Promote Train to Gain for providers. Embed Skills for Life in vocational provision. Embed Adult Apprenticeships within the apprenticeship family. Raise Awareness of Adult Learning Grant.
3. Creating demand among employers	Promote Train to Gain. Embed Skills for Life (level 1 literacy; level 3 numeracy); and others as above
4. Transforming the FE sector.	Implement capital strategies for all 5 Somerset colleges, including Nuclear Skills Academy hub at Bridgwater College. Fund 16-19 Vocational Centre at Minehead. Align LSC and local authority investment strategies, taking account inter alia of Building Schools for the Future initiative.
5. Better Skills, Better Jobs, Better Lives	Respond to challenges identified by Leitch. Work in partnership—with Local Authorities, Adult Careers Service, Skills Accounts, Local Employment Partnerships

Source: Adapted from Dorset and Somerset LSC (2007)

8.10.35 In November 2009 (SWRDA/ LSC News Release, 11 Nov 2009), it was announced that Bridgwater College is set to receive more than £4 million in funding to launch the SW Energy Skills Centre, a specialist nuclear skills training centre. The centre: 'will provide specialist training facilities in science, engineering and specialist construction to meet industry standards for a skilled, competent and safe nuclear workforce', and will double the number of training places in trades that can be directly employed by the nuclear industry.

f) Other Major Project Activity

8.10.36 The proposed new nuclear development at Hinkley Point must be seen in the context of an array of other major construction projects in the immediate sub-region and wider region, some of which are already underway and others which will come on-stream in the next few years, and may overlap the Hinkley Point programme. In a report produced in 2006 (CITB-Construction Skills Network), a strong spatial shift was forecast in construction employment growth, from the North to the South and East of the country (with the East of England expected to register the highest rate of growth of 18.6% by 2010—equating to approximately 14,500 new recruits needed into the industry annually over the 2006-2010 period). The figure for the South West was approximately 5000 new construction industry recruits needed annually. Although the current economic downturn suggests that there may be some short term reduction in such estimates, the array of projects (many being public sector-driven) noted in **Table 8.26**, also

suggests that there will be considerable and continuing momentum in construction activity in the region in the medium term.

8.10.37 A more recent set of more short term forecasts for the construction sector in the South West region has recently been prepared by Experian for Construction Skills, the Sector Skills Council for the construction industry (Construction Skills Network, South West Labour Market Intelligence 2009-2013). The latest forecasts show changes in construction sector output and employment in the region between 2009 and 2013.

8.10.38 Construction output in the South West is forecast to decline marginally, by an annual average rate of 0.2%, between 2009 and 2013. This compares with forecast output growth of 0.5% per annum across the UK as a whole. The South West is the only UK region for which a decline in construction output is forecast over this period; all other regions are expected to experience modest output growth (the exception being Yorkshire and Humberside, with no overall change in output levels). The relatively poor outlook for the sector in the South West is due to the fact that the region is not expected to benefit to the same extent as other regions from growth in the infrastructure and public non-housing sectors. This is because there are only a few major civil engineering projects planned for the region within the 2009-2013 forecast period and only a few local authorities feature in the early phases of the Building Schools for the Future programme. The lack of construction output growth in the region is reflected in the employment forecasts for the sector. Total construction employment in the South West is projected to remain static between 2009 and 2013, after a reduction of 3.5% between 2007 and 2009. By contrast, employment in the UK construction sector as a whole is forecast to grow by 2.9% between 2009 and 2013.

8.10.39 However even to meet demand during the 2009-2013 period, after taking into account those entering the industry other than from training and those leaving (e.g. through retirement), there will be a requirement for 1,450 new workers per annum to join the industry in the region.

Table 8.26: Other Major Construction Projects in the Sub-region/ Region—with Indicative Timelines

Project	Time period		
	2008-2012	2013-2016	2017-2020
Other nuclear projects			
Hinkley Point A decommissioning	X	X	X
Hinkley Point B decommissioning			X?
Oldbury new nuclear build		X?	X?
Other major sub-regional projects			
New housing allocations as specified in RSS associated with population growth and higher intensity of housing allocations to the sub-region	X	X	X
NE Bridgwater urban expansion	X	X	X
Taunton urban expansion	X	X	X
New hospitals (Minehead; N. Petherton ; N. Bridgwater); Musgrove Park Hospital —continued evolution	X	X	X?

Project	Time period		
Transport schemes (possible A358 work)*			X
Steart managed realignment/habitat creation project*		X	X
Potential redevelopment of ROF at Puriton	X	X	X
Building Schools for the Future	X	X	
Bridgwater College/University for Somerset projects	X	X	
BAE systems –site redevelopment*		X	X
Renewable energy projects (eg wind farms, wave hub)	X	X	X
Severn barrage*		X	X?
Parrett tidal surge barrier*		X	X?
Further afield			
London Olympics	X	X?	
Bristol Port/Avonmouth developments	X	X	
Swindon outer SE developments	X	X	

** potential only*

8.11 Power Station Socio-Economic Baseline Information

a) Introduction

8.11.1 This section provides details of the socio-economic baseline for the existing power stations (i.e. Hinkley Point A and Hinkley Point B), with a particular emphasis on workforce numbers, and sets out future predictions for Hinkley Point C on the basis of this data and comparative experience from Sizewell B (completed in 1995) and the current construction (2006 to date) of Flamanville 3 in France. The section also focuses on the socio-economic characteristics of the main stages of the proposed Hinkley Point C Project, concluding with a clarification of the socio-economic objectives for the Project.

b) Hinkley Point A — Decommissioning Programme

8.11.2 The Magnox station at Hinkley Point A was in operation for thirty five years until electricity generation ceased at the end of 1999. The site, which is operated by Magnox South, is currently in the early stages of decommissioning. The current strategy for decommissioning Hinkley Point A, as with all UK Magnox nuclear sites, is deferred site clearance. The approximate timetable for the main decommissioning phases under this strategy is as follows:

- 2000-2004 – Defuelling (completed in November 2004);
- 2004-2015 (originally)/2030(now) – Care and maintenance preparations;
- 2015 (originally)/2030 (now)-2095 – Care and maintenance; and
- 2095-2104 – Final site clearance.

(Source: Magnox South, Hinkley Pt A Site, 2007/08 Lifetime Plan, and 2006/07 Lifetime Plan)

8.11.3 Recent reductions in NDA funding allocations to the Magnox sites, including Hinkley Point A, have resulted in the deferral and/or cessation of work on a number of decommissioning projects at the site. The most notable of these are construction of the new ILW store and demolition of the turbine hall. These delays may result in a later entry date to the care and maintenance phase than originally planned (i.e. later than 2015 noted above).

8.11.4 The current workforce at the station comprises approximately 250 full time Magnox South employees, plus fluctuating numbers of agency and sub-contract staff. The geographical distribution of Magnox South staff shows the significance of Bridgwater, Burnham /Highbridge and Taunton as residential locations. Estimates of likely future employment levels at the Hinkley Point A site during each of the main decommissioning phases are summarised below. These estimates are based on the best current information, but they should be regarded as indicative and may be refined as further information becomes available:

- Care and maintenance preparations. This is the first phase of decommissioning, in which all buildings except the Reactor Bio-Shields, a newly constructed ILW store and a newly constructed electrical substation will be removed from the site. This phase is scheduled for completion by 2030 (this is the date quoted in the 2007/08 LTP; date to be confirmed - 2015 in previous version of plan). Numbers will fluctuate during this phase, but annual average numbers on site are not expected to fall below 300 and are not expected to exceed 700. These figures include both Magnox and subcontract employees. Numbers on site will fall rapidly towards the end of this phase.
- Care and maintenance. This phase is currently planned to continue from 2030 until 2095. During this phase the site will remain in a passively safe state during which no significant dismantling work occurs. A national ILW repository is assumed to become available by 2040, for the disposal of ILW from Hinkley Point A and other stations. It is proposed that waste from the ILW store will be transferred to the national repository during 2046 to 2049. The ILW store will then be decommissioned and demolished. During the first five years of this phase, there will be a continuous staffing presence at the site of c.50 personnel. Thereafter, site personnel numbers will be close to zero. For a short period during ILW removal there will be c50 personnel at the site, plus a small number of security personnel.
- Final site clearance. This phase will commence, with a year of preparatory works, in 2094. The site will begin full dismantling and remediation, which will result in the site being delicensed and available for future use by 2104. Magnox is currently exploring options that would allow for an acceleration of final site clearance, i.e. starting significantly earlier than 2094. This phase will see a rapid increase in the site workforce, reaching a peak of between 400 and 500. Again, this figure includes both Magnox and subcontract employees.

c) Current Hinkley Point B - Employment and Economic Characteristics

8.11.5 The Hinkley Point B station has been in operation since 1976. The station employs (2008 numbers) 538 full time British Energy/EDF staff, plus 17 apprentices. There are also around 210 contract personnel based at the station, giving a total of just over 760 site-based personnel. Additional contract personnel are employed at the site during planned refuelling outages. Typically this involves an additional 800 contracting staff for a short duration of 1-2 months. It is currently anticipated by British Energy that the Hinkley Point B Power Station will remain operational until at least 2016.

8.11.6 Almost 70% of the Hinkley Point B BE/EDF employees live in Sedgemoor District. The outage workforce use an array of primarily serviced (e.g. B&B; guest houses) and rented

accommodation. Data from Sizewell B outage activity reinforces this pattern of accommodation, plus some use of the Sizewell B site hostel in the early operational years.

d) Comparative Nuclear Power Station Studies

8.11.7 Two nuclear new build construction projects have been interrogated with regard to exploring which issues would be of socio economic interest and assisting in the shaping the approach taken for this assessment process. These projects are Sizewell B (built between 1988 and 1995) and Flamanville 3 in France. Some of the key findings have been outlined below.

e) Sizewell B – Socio Economic Characteristics

8.11.8 Whilst the proposed nuclear new build at Hinkley Point will be of a later design to Sizewell B PWR, it is worth noting some of the key socio-economic characteristics of that project which may provide some pointers for the proposed new build construction stage (from Glasson and Chadwick, 1995). These are briefly set out below.

- The workforce built up over two years, to then exceed over 4000 for over three years (peaking for a short period at over 5000), before falling back quickly over the next two years;
- The workforce included a mix of civil and mechanical and electrical operatives, project management and site services and security; civil engineering jobs were predominant in the early years, but at peak, 32% of the workforce were salaried staff employed by Nuclear Electric or contractors on site, 45% were predominantly skilled mechanical and electrical operatives, and 23% were semi/unskilled operatives and site services staff;
- The proportion of the construction workforce recruited locally (from within the CDCZ) fell slowly over the Project, from a peak of over 60% in the early years, to around 50% in the middle years, to 40% in the last two years;
- Approximately 60% of local recruitment was into semi-skilled/unskilled and clerical jobs; 30% had skilled jobs and 10% had taken up professional, technical and managerial positions;
- Training initiatives on-site and at the Leiston Training Centre were significant in encouraging a high take-up of local labour; almost 1000 trainees passed through the Centre, and approximately one third were from the local unemployed;
- Additional workforce expenditure in Norfolk and Suffolk topped over £75 million during the Project (at early 1990's prices), generating important additional business for a range of services, including pubs, restaurants, shops, garages and providers of accommodation;
- Further, although by nature of the high-technology Project, most of the £1.6 billion of the so-called hardware contracts for the plant equipment and services went elsewhere, at least £72 million went to approximately 100 Suffolk and Norfolk contractors;
- At peak construction, about 30% (890) of the non-home-based workforce was accommodated on site, in the Sizewell B hostel, 35% (1000) used private rented property and the other 35% (1000) were spread across a range of B&B/guest house, caravan and owner occupied accommodation. The bulk of the accommodation was in the Leiston, Aldeburgh and Saxmundham area;
- About 25% of the non-home-based salary staff brought families with them; the percentage fell to 5% for non-home-based operatives. The total number of non-home-based families was about 350 at peak;
- The non-home-based families had about 250 school age children attending local schools – with 60% attending primary schools. 36% of the pupils attended Leiston schools, but in most cases the increase in the rolls of individual schools was low; and

- A Medical Centre was provided at the Sizewell B site during the construction programme, and this 'internalised' about 20,000 attendances per annum at peak; for accident treatment, sickness-related medical treatment. There was also a significant increase in the workload of local GPs from the local registration of some of the non-home-based workforce.

8.11.9 Subsequent studies also investigated implications for local employment with the rundown of the construction stage and the transition to the operational stage, which can be of considerable concern for a host area (Glasson and Chadwick, 1997). A survey, with response from approximately 500 former Sizewell B construction workers, carried out two years after the start of the construction rundown on the site, provided important insights into both the initial destination of these employees, and their subsequent employment experiences. Some of the main findings are noted below:

- Even in a rural location in a period of recession, there was within 12 months a major adaptation for over two-thirds of the former locally recruited Sizewell B workforce back into local economic activity;
- In general, it was the older and less-skilled employees who tended to experience the greatest difficulties in making an immediate adjustment to redundancy. A small group of respondents had experienced lengthy periods of unemployment after leaving the site, with just over one in 10 out of work for 12 months or more;
- At the time of the survey in 1995 one-fifth of the respondents was self-employed, which mainly took the form of employment on a labour–only sub-contract or freelance basis, rather than the setting up of new businesses;
- The occupational/skill composition of pre-and post-redundancy employment among respondents was almost identical, with no evidence of a downgrading in occupational or skills levels;
- There was little evidence of migration out of the region, although one-fifth of the employment initially obtained by respondents was located outside East Anglia. Most of the affected individuals chose to commute on a weekly basis; and
- The impact of redundancy on the immediate area was cushioned to some extent by the wide geographical distribution of the locally recruited Sizewell B workforce. As a result, only one-third of those initially becoming unemployed were resident in the immediate Suffolk Coastal district.

f) Flamanville 3 Socio Economic Characteristics

8.11.10 The chosen reactor design for the proposed Hinkley Point C new build is the EPR. This is one of three designs which have been subject to a design review process, the Generic Design Assessment, by the UK nuclear regulators (NII, OCNS, Ea and HSE)[2]. The EPR design is currently under construction at Flamanville 3, in Normandy in France. Flamanville 3 (FLA3) is an EDF project, where construction started in 2006, and the socio-economic characteristics of the early years of construction are very timely and relevant for Hinkley Point C. However, it should be

[2] Whilst the Westinghouse AP, one of the alternatives assessed in the Generic Design, has different design characteristics to the Areva EPR, it is interesting to note comments from Florida Power and Light that its plans for two new AP 1000 nuclear power plants would each generate 2,500 good local jobs across a wide range of disciplines, including, but not limited to: the building trades, manufacturing, project management, information technology and the services sector. Additionally Westinghouse and its partners are committed to procuring as much product and material as possible from local, regional and state suppliers. The 'Buy Where We Build' approach would include, but would not be limited, to concrete and other building materials (Nuclear Power Industry News, Jan 19, 2010)

noted that Flamanville 3 is a single reactor development, compared with the two reactor development proposed for Hinkley Point C:

- Peak construction employment is likely to rise to around 3000, to deliver the Project on time. There is a two-shift system. Discussion with the FLA3 project team indicate about 45-50% of local workers at peak and a similar % of non-home-based workers (including, as at August 2009, c. 400 workers from other EU countries—especially from Romania, but also Portugal and Poland). The local recruitment % is helped by the presence of local skills in the Cherbourg arsenal and at the Cap Le Hague nuclear reprocessing plant;
- Training is important: about 400 through schemes to date (Sept 2009) (260 Civils; 130 M&E), of which c. 110 from targeted problem groups. Mainly in 30-35 age range/male. Training courses run for about 14 weeks, plus up to 3 week placement with companies elsewhere to test motivation;
- Worker accommodation: Under the 'Grands Chantiers' scheme the developer has provided 525 places in mobile homes (400 at Les Pieux) and smaller numbers at four other sites—all within 10km of Flamanville. More recently, the developer is converting low cost apartments in Cherbourg for use by workers.The policy of multiple locations is used to avoid 'ghettoisation' in particular locations;
- Also support for construction of new properties, support loans for work by local department to refurbish about 50 old iron workers cottages (and then provide project tenants for them). Also support for provision of social housing in Cherbourg (for 150 people). These all have considerable legacy potential;
- On-site Medical provision for existing site and FLA3—with nursing facilities, and regular medical visits to site. Nearest provision for serious accidents is at Cherbourg;
- Fire—additional vehicle provided at Les Pieux, supported by EDF. Police—little change as already high security associated with existing nuclear facilities in the area. Quick police response is important;
- Worker behaviour: the welcome pack establishes some ground rules. Foreign workers, tend to be in their 30s, have leaders, good peer pressure and few problems;
- For Flamanville 3 procurement, EDF has 130-150 contracts, and planned costs are around four billion euros. The largest contracts are with AREVA (nuclear island equipment) and Alstom (turbine island equipment), with the remainder contracted through a tendering process. The Alstom contract is valued at around 350m euros, and covers all engineering, procurement, construction and commissioning of the complete turbine island (steam turbine, generator, condensor, moisture separator, reheaters and auxiliary equipment). The civil engineering contract is with French company Bouygues Construction, and is valued at around 400 million euros;
- Contractors engage to take 5% employment from difficult to employ group and to be transparent in encouraging local contractors, although becomes more difficult as moves down supply chain;
- Information on local contract expenditure of major civils contractor shows 2% local expenditure out of 400m euros total (2007-2009) (ie: here within 50km of site—especially Cherbourg); and
- Local enhancement measures: the developer tends to underpin local investments, and contribute to provide catalyst for expenditure. Many are via 'Grands Chantier' process. Examples of expenditure include: roads improvement; road safety measures; P&R facilities; schools support (e.g. school restaurants rehabilitation) and social housing.

g) Hinkley C – Construction Stage

i) Workforce Profile

8.11.11 The workforce profile (Table 8.27) for the construction stage draws on several sources of information, including current estimates from EDF, construction stage information from EPR developments elsewhere (especially Flamanville 3 in France), and actual monitoring information on the workforce profile for Sizewell B. Whilst the latter was a different design (PWR) at a different time (1990s), it does provide some valuable comparative information. Table 8.28 provides further detail on the required workforce skill during the construction phase.

8.11.12 The profile is based on a peak workforce estimate of 5000, including a small contingency provision. This provides a precautionary approach which is particularly relevant for the first in a new type of reactor build in the UK. It allows also for some difference in productivity between the UK and France. A further assumption is an 18 month gap between construction start up on the two reactors giving a total construction programme of 8 years. This has the advantage of facilitating the continuity of skills/workers needed over the two reactors programme. The construction workforce can be divided predominantly into civil operatives and mechanical and electrical operatives with the remaining workforce comprising supervisory/ managerial and clerical staff, plus site services and security employees.

Table 8.27: Forecast Composition of the EPR Construction Workforce (at peak employment, with 18 month reactor build gap) (rounded into broad categories)

Workforce category	Numbers	%
• Civil engineering operatives	1300	26
• Mechanical and electrical engineering operatives	2200	44
• Supervisory/managerial [1]	850	17
• Site services, security and clerical staff	350	7
• Operational staff[2]	300	6
Total	**5000**	**100**

Notes: [1]Assumptions are that approximately 15% of total civils, mech/elec and site services/security will be supervisory/ managerial staff; plus 25% of the operational workforce), plus EDF staff.

[2]Operational staff begin to move to the development site several years before the start of operation. At Flamanville 3, these staff are training - on the simulator and on understanding at first hand the construction of the plant.

Table 8.28: More Detailed Construction Workforce Skill Requirements

Civil works stage (operatives)
• Timber/formwork/cement/masons • Drivers/crane operators/labourers • Reinforced steelwork/erectors • Scaffolders • Welders • Civil works labourers/semi-skilled • Others
Mechanical and electrical works stage (operatives)
• M&E labourers /semi-skilled • Welders—special metals • Welders—steel • Boiler makers; pipe fitters • Fitters • Electricians; electro-mechanical fitters • Instrumentation • Cable pullers

Note: A recent report by COGENT, in the first quarter of 2010, on skills for new nuclear build, provides some useful additional data on required skills

ii) Associated Policies and Conditions

8.11.13 Accommodation: it is anticipated that a substantial proportion of the workforce will come from outside the local construction daily commuting zone, and will require accommodation in the locality. A number will be accompanied by their families and those staying for longer periods would require permanent housing. Those staying for shorter periods would use local serviced and non-serviced accommodation. To supplement this supply EDF propose to construct accommodation centres for use by unaccompanied workers. This purpose built accommodation would provide good quality single room accommodation, at a competitive price, with high quality recreational and dining facilities. The 5-day working week policy would enable many residents to return home at weekends, and it is anticipated that a significant proportion would leave the area on Friday afternoon, returning at the end of the weekend. Further details of the proposed new accommodation are outlined in Section 8.10.

8.11.14 Travel: the development will use non-car modes of travel to the site as far as possible. This will involve, amongst other things, the use of Park and Ride facilities to intercept the workforce as it enters the Sedgemoor and West Somerset local areas; plus the integration of a dedicated bus service into off-site based new accommodation provision. See Section 8.10 for further information.

8.11.15 Employment and training: the twin-reactor development will be built by specialist contractors who would be fully responsible for the supply, erection and implementation of their plant. Whilst the responsibility for the employment of the necessary workforce would lie with the contractors, EDF will strongly encourage and assist its contractors in the promotion of training and recruitment methods which would enhance the prospects of home-based workers.

8.11.16 **Supply chain policies**: both Areva (the reactor vendor) and EDF (the developer) have a commitment to seek to maximise local supply chain benefits of the Project. For example, Areva has announced a 'declaration of intent' which focuses on three areas: regeneration of skills; partnership with UK companies to meet global and UK new build needs; and development of industrial activity in the vicinity of new build stations. Although the EDF Energy Supply Chains are not fully known at this stage, EDF is upstream in the supply chain and will have control of the procurement strategy and contracts awarded for the supply of goods and materials. Thus, EDF has the ability to influence the sustainable and local supply of materials and goods required for the development.

iii) Workforce and Earnings

8.11.17 The recent Gibson Report, reviewing productivity and skills in the UK Engineering Construction Industry (Department for Business Innovation and Skills (DBIS) Dec 2009), notes the predominantly male workforce, and the ageing of the UK engineering construction workforce, with about 65% of the current workforce over the age of 40. With regard to earnings, evidence from the latest Annual Survey of Hours and Earnings (ASHE) demonstrates the comparatively high level of earnings in the civil engineering sector as a proxy for likely earnings on site during the construction stage. Average earnings for employees in the civil engineering sector are 32% above the UK economy average, 58% above the Somerset average and 78% above the Sedgemoor average. Average earnings for employees in the electricity and gas supply sector are 34% above the UK economy average, 61% above the Somerset average and 82% above the Sedgemoor average. As such average earnings levels on site, during both construction and operation, are likely to be significantly above the existing local economy average.

h) Hinkley Point C Operational Stage

i) Workforce Profile

8.11.18 The operational workforce is expected to build up from about the middle of the construction programme, and well before the reactors are commissioned. The fully operational station (from year 10 onwards) would provide approximately 700 permanent jobs, comprising various categories as presented in **Figure 8.5** and **Table 8.29**. There will also be up to an additional 200 contract staff.

8.11.19 In addition approximately 1000 other workers will be employed at the site over a period of one month every two years, for the repairs, refuelling and maintenance during the outage period. The phasing of these outages for Hinkley Point C will result in one outage p.a., in addition to any continuing outage activity associated with Hinkley Point B. Approximately 90% of the current Hinkley Point B outage workforce come from outside the three local districts.

Table 8.29: Hinkley Point C EPR Operational Workforce Requirements (fully operational station) (rounded into broad categories)

Workforce Category	Numbers	%
Managerial, group heads, engineers	180	26
Clerical and administrative	60	8
Industrial, of which	460	66
• team leaders	(50)	(7)
• technicians	(300)	(43)
other skilled, semi-and unskilled	(110)	(16)
Total	**700**	**100**

ii) Associated Policies

8.11.20 **Accommodation and travel**: it is EDF/British Energy policy that all operational permanent staff should live within 25 miles (45 minutes) of the station. In contrast, a substantial proportion of the outage workforce will not be local. Sustainable modes of travel to the site will be encouraged and supported for both permanent and outage staff.

8.11.21 **Employment and training:** it is currently assumed that Hinkley Point B will remain operational until at least 2016 (and possibly beyond). There is expected to be some transfer of employees from the 'B' station before closure as workers seek promotion and/or more long term prospects; these positions will then have to be backfilled at the 'B' station. Some internal transfer of personnel to the new development from elsewhere within EDF /BE is considered. There is also potential for employing a small number of HPA staff for HPC if the national decommissioning priorities focus on Sizewell A and Bradwell rather than Hinkley A.

8.11.22 **Working practices:** It is anticipated that a shift system will be implemented similar to that at the current operational system, Hinkley B.

8.11.23 **Supply Chain policies:** Although the EDF Energy Supply Chains are not fully known at this stage, EDF is upstream in the supply chain and will have control of the procurement strategy and contracts awarded for the supply of goods and materials. Thus, EDF has the ability to influence the sustainable and local supply of materials and goods required for the development.

iii) Decommissioning

8.11.24 Before decommissioning can take place, there is a requirement for the operator to obtain consent from the HSE under the Nuclear Reactors (Environmental Impact Assessment for Decommissioning) Regulations 1999 (EIADR 1999). This requires the submission of a new Environmental Impact Assessment (EIA) and a period of public consultation. For the Hinkley Point C EPR this will take place immediately prior to the end of operation and will consider fully the environmental (including socio-economic) impacts of decommissioning. In addition, under the Energy Act 2008, operators of new nuclear power stations will be required to prepare a Funded Decommissioning Plan (FDP) for approval by the Secretary of State. The FDP will set out the technical basis for decommissioning the power station as well as the technical and legal arrangements that will ensure that sufficient funding will be available in the future to discharge the liabilities.

Decommissioning Strategy

8.11.25 In contrast to the decommissioning of Hinkley Point A, for EPRs, EDF Energy will adopt a prompt decommissioning strategy. Under this approach, the power station buildings, including the reactor block, are progressively removed following final shutdown and defuelling. There is no deferral period to allow radioactivity levels to reduce and decommissioning typically takes around 20 – 25 years to final site clearance. Prompt decommissioning is the strategy adopted in the UK for the Sizewell B Pressurised Water Reactor (PWR), for all the EDF PWRs in France and for the majority of PWRs worldwide. PWRs, such as the EPR, are inherently more straightforward to decommission than gas-cooled reactors because of the overall smaller size, improved accessibility and modular nature of the reactor and its associated irradiated primary circuit. Modern PWRs incorporate a range of design features which facilitate decommissioning, including, the use of shielding and barriers to minimise the radioactive activation or contamination of plant and equipment, the design of systems to minimise the creation, transportation and deposition of radioactivity, and the use of materials which minimise the creation of radioactive activation products.

Decommissioning Activities

8.11.26 The principle elements of the EPR prompt decommissioning plan are described below. The activities overlap significantly in time, and are not necessarily sequential.

- Pre-Closure Preparatory Work;
- Defuelling;
- Decommissioning Engineering Preparatory Work;
- Management of Potentially Mobile Wastes;
- Plant Decommissioning; and
- Site Clearance & Release for Re-use.

8.11.27 The detailed employment implications of decommissioning are currently unclear, but the employment profile will be over a shorter period than current nuclear power station decommissioning employment profiles, and may be more uniform over the 20-25 year period.

i) Hinkley Point C -- New Build Socio-Economic Objectives

8.11.28 EDF Energy has developed the following high level and topic specific (e.g. accommodation, procurement) sets of socio-economic objectives:

i) High-Level Objectives of the Development

- To manage the construction in a way that maximises operational efficiency and minimises disruption to the local community.
- To provide positive socio-economic benefits to the local community, e.g. through opportunities for training, employment and participation in the supply chain.
- To make a positive contribution to local place-shaping, e.g. by taking forward development in line with regional and local priorities for regeneration.
- Where possible, to create infrastructure that has a long-term, sustainable legacy benefit for the local community.
- To minimise any negative environmental impacts and seek opportunities for environmental enhancement.
- To be a “good neighbour” and ensure the needs and views of the local community are fully taken into account.

ii) Objectives of the Accommodation Strategy

- To adopt a strategic approach to the location of accommodation campuses, taking account of:
  - the need to minimise travel to work distances;
  - regional and local planning policies, including areas identified for;
  - development, and
  - the need to keep numbers attached to any town or village within a manageable capacity, bearing in mind the nature and characteristics of the placeTo support the achievement of EDF Energy's Transport Strategy, in particular by ensuring their workers have easy access to non-car modes of transport, including park and ride facilities.
- To make use of existing accommodation in the local area and support local businesses (eg owners of B&Bs and caravan parks) but without displacing the local tourist industry.
- To ensure that all purpose-built accommodation is of a high standard, with excellent facilities and amenities (eg bars, sports facilities, laundries, TVs in rooms), and is appropriately priced.
- Where appropriate, to ensure that purpose-built accommodation and associated facilities (eg recreational facilities) have a long-term, sustainable legacy benefit for the local community.
- To ensure that non-home-based workers, in all forms of accommodation, are well supported and maintain high standards of conduct, especially in their interaction with the local community.
- To ensure that the impacts of the development on local communities are assessed and appropriate mitigation measures are put in place, eg support for local health and education facilities.

iii) Objectives of the Travel Plan

- To minimise the need for travel and especially road traffic associated with the development of the new power station, in particular during peak hours.
- To maximise the safe and efficient movement of people and materials to and from the new power station site.
- To promote sustainable modes of transport and minimise carbon dioxide and other emissions, in particular by using marine transport for materials and promoting non-car modes of transport.
- To minimise disruption both for the local community and visitors to the area, and provide appropriate mitigation to offset any negative impacts.
- Where appropriate, to ensure that new infrastructure (eg roads and park and rides) have a long-term, sustainable legacy benefit for the local community and address local needs.
- To take account of local planning policy and make a positive contribution to enhancing the local area.
- To put in place an effective system for ongoing management and monitoring of the Travel Plan and take prompt action to address any issues as required

iv) Objectives of the Training and Recruitment Strategy

- To work with contractors, local authorities, central Government and others to develop a training and recruitment programme that will deliver sufficient numbers of appropriately skilled personnel on time to build and operate the new power station.

- Together with partners, to leave a legacy of enhanced skills and high quality employment in the UK and specifically in the local area
- To promote the training and recruitment of local people and support the provision of training courses and facilities in the local area.
- To encourage the provision of apprenticeships, for both civil and mechanical and electrical jobs, by both the developer and key contractors, targeted at local school leavers.
- To promote training for specific disadvantaged groups in the local area.

v) Objectives of the Procurement Strategy

- To encourage and facilitate the involvement of local businesses in the supply chain for the nuclear power station.
- Where practicable, to stimulate and secure inward investment into Somerset to achieve economic restructuring and meet economic objectives.
- To support the use of the Project to contribute to the economic development of the local region.
- Through support for the local supply chain, to make a positive contribution to the economic development and regeneration of the local area in line with national, regional and local policies.

8.12 Assessment of Effects

a) Construction stage - Employment

i) Employment – the 'Do nothing' Impacts Position

8.12.1 As noted in **Section 8.7**, the South West RDA has raised concern about the lack of SW regional skilled worker capacity to contribute to meeting the anticipated needs of SW regional nuclear construction over the next decade (SWRDA, June 2009). However the SWRDA's local region figure of 20% may be low for Hinkley Point C construction overall, in that the large element of semi-skilled construction jobs in the project is likely to boost the local regional labour input. There may also be a small element of commuting from outside the SW region—in particular from South Wales. The outage demands for Hinkley Point B provide another indicator of the supply of skilled labour; approximately 25% of this predominantly skilled group come from within the South West and South Wales for the periodic outage activity. However, the PWR design at Sizewell B may be more relevant for Hinkley Point C, and has a higher local outage labour supply of about 35% (IAU, 1997).

8.12.2 The determination of the 'do-nothing' position on labour recruitment cannot be a precise exercise, but the above figures suggest that a figure of c. 25-30% for local recruitment, from the wider CDCZ, may not be unreasonable. However, as noted from the EDF Energy objectives in **Section 8.7**, a 'do-nothing' position is not an acceptable option. The following sections now set out a baseline overview and assumptions (for both the construction and operational stages of the Project). This is followed by predictions of local recruitment at peak construction.

ii) Employment - Baseline Overview and Assumptions (for Construction and Operational Stages)

8.12.3 Project construction stage: the site labour requirements, as presented in **Figure 8.5** and **Table 8.26,** will be up to 5,000 employees at peak construction. The interval between the two reactor construction starts will be 18 months; the construction project will involve some shift working systems which will evolve over the life of the Project. Local recruitment and appropriate training will be strongly encouraged.

8.12.4 Project operational stage: there will be a build up of the operational workforce. There will be some transfers from existing Hinkley Point stations, and from within EDF/BE. Some apprenticeships will be provided and local recruitment will be encouraged.

8.12.5 Locality: there will be no major shifts in trends in the local economy from those set out in Section 8.2, apart from those associated with the construction of Hinkley Point C. There is likely to be a competitive future demand for construction labour from other regional and sub-regional projects but power station construction and operational employment will be attractive to the home-based workforce as a result of the traditionally high level of wages in these industries; Local authorities and agencies will be keen to develop the external image of Sedgemoor and West Somerset as advanced economies, diversify the economic base, address some (quite severe) pockets of deprivation, improve the local long term skills base (especially in engineering and construction) and attract more workers to remain in employment within the immediate districts.

iii) Local recruitment at Peak Construction

8.12.6 The local recruitment ratios will vary between different categories of employee. Previous studies have shown that, although such local recruitment ratios vary between developments, it is possible to estimate realistic ranges for local recruitment at peak construction for each main employee category (see **Table 8.30**). The most recent example of UK power station construction at Sizewell B has provided detailed monitoring information on the ranges at peak construction (also **Table 8.31**).

Table 8.30: Ranges for Total Home-based Recruitment at Peak Construction from other Studies

Employee Category	Range from previous studies	Specific case of Sizewell B peak construction – from monitoring data
Site services and security operatives	90 - 100%	96
Clerical staff	90 - 100%	33*
Professional staff	5 - 20%	33*
Civil operatives	45 - 75%	61
Mechanical and electrical operatives	35 - 50%	38

Sources: Power Station Studies, Impact Assessment Unit

**Combined as monitoring category at Sizewell B*

8.12.7 Several factors appear to suggest a relatively good level of local (home-based) recruitment at Hinkley Point C. The wider CDCZ has considerable relevant employment potential in construction and engineering, and the forecast economic conditions indicate that a project of this scale is likely to be particularly attractive to those in the relevant occupation categories. The policy stance adopted especially by the developer (EDF Energy), and by key suppliers (e.g. Areva), has given encouragement to local recruitment. This has been strongly reinforced by the economic development policies and stances of the local authorities (especially Sedgemoor DC) which are keen to maximize the long term employment and wider economic benefits of the Project. Also important is the proposed short interval between the start of work on the two

reactors which is considered likely to facilitate more continuity of employment for particular workforce categories (e.g. civil operatives) making employment on site a more attractive longer term proposition.

8.12.8 Counter factors could include the reverse of some of the points noted above—including limited strategic vision for the development of the local economy, weak partnership arrangements, limited public funding for training programmes (WSC and SDC, 2010). In addition there may be the increasing pressure in the local labour market, with potential skill shortages in some categories, although hopefully these can be anticipated and managed through appropriate local training programmes. Another factor could be the direct competition for labour from another possible nuclear power station project, in the same region, at Oldbury. Whilst it is assumed that, if this development proceeds, it will be at least two years behind the Hinkley Point C project, there may be the possibility of some overlap with the end of each of the main civil and mechanical and electrical phases of the Hinkley Point C project.

8.12.9 For these reasons, and following Workshop and other discussions with key stakeholders, especially with EDF Energy and the Somerset local authorities, it has been considered appropriate to use a range of local employment scenarios, from high to low estimates, as set out in Table 8.30.

Table 8.31: Alternative home-based employment scenarios considered: for peak construction

Scenario - % home-based labour[1] (peak construction home-based: non-home-based employment)	Description
50% home-based (2500:2500)	This scenario assumes a highly targeted, highly innovative and closely managed programme to achieve high levels of local recruitment and training, to support a well articulated vision for the local community. This would involve well developed stakeholder partnerships, substantial project and public funding support, and much advanced planning. There would also be little competition for key CDCZ labour from other major projects. This scenario is referenced as necessary for the purposes of the assessment, but discounted on the basis that it will be unable to achieve such a high home-based workforce, albeit measures will be adopted to strive to achieve as high levels as possible.
40% home-based (2000:3000)	This mid-point scenario involves some clearly targeted and resourced project and public interventions, set in context of some key stakeholder agreement on the important socio-economic objectives for the local community. It assumes that some partnership arrangements, and advanced planning, will be in place, but public funding support will be limited. There would also be some limited competition for key CDCZ labour from other major projects.

30% home-based (1500:3500)	This scenario assumes significant constraints on public funding support for key programmes (eg training) and limited project funding for socio-economic objectives. There will be some partnership arrangements, but most stakeholders will retain independent management of resources. There would also be some competition for key CDCZ labour from other major projects.
20% home-based (1000:4000)	This 'do-nothing', highly 'market-led' scenario assumes little public or project intervention to support programmes to maximise local training and recruitment. It also assumes supply chain activities will operate on narrow and standard commercial terms of references. There is very little partnership work between key stakeholders and negligible advanced planning. There would also be considerable competition for key CDCZ labour from other major projects. This scenario is referenced as necessary for the purposes of the assessment, but discounted on the basis that potential measures could be put in place by the project to ensure that the above scenario does not result.

[1] Percentage home-based labour content from within the CDCZ

Source: Key stakeholder discussions, and WSC and SDC (2010)

8.12.10 It is considered appropriate, for reasons particularly of CDCZ skills supply and constraints, local authority and EDF Energy policy drivers, likelihood of public sector funding support and other factors, such as the evolving EU labour market, to focus on the 40% and 30% home-based CDCZ labour scenarios in more detail; with the 50% scenario seen as unlikely and an over-estimation of potential home-based benefit, and the 20% scenario as an unacceptable do-nothing position. Of the two which are detailed, the clear preference is to seek to achieve the 40% scenario to gain more local employment benefit, to meet key stakeholder objectives and to mitigate, and enhance as appropriate, some of the local socio-economic impacts of a large non-home-based workforce (e.g. on the local housing markets).

8.12.11 For all scenarios, and as demonstrated in Table 8.32 representative of the 40% local scenario, the percentage local recruitment of site services, security and clerical staff is likely to be very high as these jobs require skills which are more widely available (e.g. security guards, secretaries, caterers and cleaners). Conversely the local percentage for professional and managerial staff is likely to be low. For site operatives, the local percentage for mechanical and electrical employees is estimated to be substantially lower than for civil operatives, reflecting that the higher level skills are less likely to be available locally than many of the unskilled/semi-skilled requirements for the civil works. Firm details of the skills structure for HPC are not yet available; however guidance from Sizewell B suggests skills splits at peak construction for operatives are likely be:

- 40 : 60 (skilled : semi-skilled/unskilled) for civil operatives; and
- 75 : 25 (skilled: semi-skilled/unskilled) for the mechanical and electrical operatives.

8.12.12 Site services and security jobs are predominantly semi-skilled/unskilled. It must be stressed however that, as indicated throughout, this cannot be a precise exercise, and the figures for the various employee categories must be taken as only indicative and highly rounded.

Table 8.32: Estimated Home-based CDCZ and Non-home-based Labour at the Proposed Hinkley Point C –Peak Construction - 40% Scenario

Employee category	Total labour requirements	Home-based		Non-home-based	
		%	Number	%	Number
Site services, security and clerical	350	90	315	10	35
Professional staff	850	10	85	90	765
Civil operatives	1300	50	650	50	650
Mechanical and electrical operatives	2200	36	800	64	1400
Operational staff	300	50	150	50	150
Total workforce	5000	40	2000	60	3000

Note: Home-based Labour includes employees already in residence in the CDCZ before being recruited on site. Non-home-based labour includes all other employees.

8.12.13 **Table 8.33** provides an indication of the predicted split of the home-based peak construction employment between the 'local-local' areas, taken here as the local community of the three immediate districts (WSC, SDC, and TDDC), the county of Somerset, and the remainder of the wider CDCZ. It is estimated that, with appropriate training and recruitment policies, about 65%-70% of the CDCZ employment (ie 27/40) could be provided by workers from Somerset, predominantly from the three immediate districts.

Table 8.33: Estimated Somerset (of which Home-based Community)* and Rest of CDCZ Home-based Labour at the Proposed Hinkley Point C – Peak Construction (Draft)—40% Scenario

Employee category	Total labour requirements	Somerset (home-based community element, in brackets)		Rest of CDCZ	
		%	Number	%	Number
Site services, security and clerical	350	80 (70)	280 (245)	10	35
Professional staff	850	5 (4)	45 (35)	5	45
Civil operatives	1300	37 (30)	480 (390)	13	170
Mechanical and electrical operatives	2200	21 (12)	460 (265)	15	330
Operational staff	300	30 (20)	90 (60)	20	60
Total workforce	**5000**	**27 (20)**	**1360 (995)**	**13**	**640**

**Local Community is the immediate districts of West Somerset, Sedgemoor and Taunton Deane.*
Note: Home-based Labour includes employees already in residence in the CDCZ before being recruited on site.

8.12.14 Again, it is probable that a very substantial proportion of this 'local-local' employment is likely to come from the immediate districts (especially Sedgemoor District), by virtue of location, structure of the economic/occupation base, unemployment and deprivation pressures, local policies and access to training provision. These local wider area splits draw, inter alia, on gravity modelling work on construction employment/travel flows for Hinkley Point C, UK (esp. SW region) construction industry daily commuting patterns, the strong local recruitment policy position of the local authorities and EDF, and comparative findings from Sizewell B, where approximately of the peak CDCZ local employment came from the county of Suffolk. The 40% mid-range scenario prediction in **Table 8.33** indicates that about 27% of the peak construction workforce could come from Somerset (c. 1350 jobs), and about 75% of that total (almost 1000 jobs) could come from the immediate districts.

8.12.15 The development could provide a major opportunity for local employment over a period of several years. This could help to keep (primarily young) employees in the immediate districts, and also contribute to an important enhancement of employee skills in the engineering and construction industries which could be used on other projects over time. The Project could also contribute to providing employment opportunities for those who may be locally unemployed, or for example, could be attracted back into employment from their current incapacity situations. The Project may also provide employment opportunities for those living in particular pockets of deprivation in the immediate districts, especially in Sedgemoor District (as identified in local planning and economic development documents).

8.12.16 **Tables 8.34** and **8.35** provide indicative and rounded estimates of the 30% scenario, which provides a lower level of local opportunities, reflecting inter alia a weaker policy position on for example training, less home-based supply of appropriate workforce skills, and more competition for the available labour. In this scenario, about 20% of the peak construction workforce could come from Somerset (c. 1000 jobs), and about 75% of that total (c. 750 jobs) could come from the immediate districts

Table 8.34: Estimated Home-based CDCZ and Non-home-based Labour at the Proposed Hinkley Point C –Peak Construction - 30% Scenario

Employee category	Total labour requirements	Home-based		Non-home-based	
		%	Number	%	Number
Site services, security and clerical	350	80	280	20	70
Professional staff	850	7	60	93	790
Civil operatives	1300	43	560	57	740
Mechanical and electrical operatives	2200	22	480	78	1720
Operational staff	300	40	120	60	180
Total workforce	5000	30	2000	70	3000

Note: Home-based Labour includes employees already in residence in the CDCZ before being recruited on site. Non-home-based labour includes all other employees.

Table 8.35: Estimated Somerset (of which Local Community)* and Rest of CDCZ Home-based Labour at the Proposed Hinkley Point C – Peak Construction (Draft)—30% Scenario

Employee category	Total labour requirements	Somerset (local community element, in brackets)		Rest of CDCZ	
		%	Number	%	Number
Site services, security and clerical	350	65 (50)	230 (175)	15	50
Professional staff	850	4 (3)	35 (25)	3	25
Civil operatives	1300	33 (27)	430 (350)	10	130
Mechanical and electrical operatives	2200	10 (6)	220 (130)	12	260
Operational staff	300	20 (15)	60 (45)	20	60
Total workforce	5000	20 (15)	975 (725)	10	525

**Local Community is the immediate districts of West Somerset, Sedgemoor and Taunton Deane. Note: Home-based Labour includes employees already in residence in the CDCZ before being recruited on site.*

b) Construction Stage - Accommodation

i) Baseline Overview and Assumptions (for Construction and Operational Stages)

8.12.17 **Project construction stage:** as discussed above, taking the 40% home-based CDCZ recruitment scenario, approximately 2000 of the peak construction workers are expected to be recruited locally; the remaining 3000 would be recruited from outside the CDCZ. As such approximately 3000 construction workers would move into the area, the vast majority locating in the immediate districts, and especially in Sedgemoor and West Somerset. This would result in an additional demand for an equivalent number of places in local accommodation. However, taking into account the sensitivity analysis approach noted above, it is proposed to also assess the 30% home-based CDCZ recruitment scenario, and to model the implications of 3500 non-home-based workers at peak as a sensible precautionary approach for the consideration of accommodation impacts.

8.12.18 **Project operational stage:** information from Hinkley Point B shows that 94% of the operational workforce lives within the three immediate districts, with 70% living in Sedgemoor. It is British Energy policy that all operational permanent staff should live within 25 miles of the station, and it is envisaged that all but a very small minority will live in these three districts. It is similarly envisaged that the non-home-based outage workforce will also be accommodated in the same area for the duration of their activities. Sustainable modes of travel to the site will be encouraged and supported for both permanent and outage staff, as well as for the preceding construction stage workforce.

8.12.19 **Locality:** Sedgemoor District and Somerset County have both experienced relatively high rates of house building since 2001. Future rates up to 2026 are very dependent on local and regional policies, but housing affordability seems likely to be a continuing issue in the area and the authorities do not wish to exacerbate local housing market pressures from new developments.

The area is also a very important tourism location and this largely accounts for the additional supply of serviced and non-serviced accommodation. Again, whilst there may be some benefit for this market from the power station construction stage in particular, there is a local concern not to put undue pressure on this important market to the detriment of the important local tourism industry. The local authorities also put a high priority on the long term legacy value of any accommodation associated with power station construction.

ii) Local Accommodation at Peak Construction

8.12.20 At peak construction there might be approximately 3000 non-home-based workers (3500 under the 30% local recruitment scenario) seeking a range of largely temporary accommodation provision in the locality. This would be less for the two shoulder periods of the construction stage, and these points in the construction programme are briefly discussed in a subsequent section of the report. See Appendix 8a.

8.12.21 From previous experience, there are different patterns of accommodation behaviour for the non-home-based workforce between different workforce groups and at different times in the Project. For example, professional staff are more likely than workforce operatives to use owner occupied and privately rented accommodation, although many such longer term staff may initially use temporary accommodation before taking up owner occupied and rented accommodation. However, as above, the focus here is on peak construction to seek to estimate the maximum impact on local accommodation. Particular attention was given to the need for purpose built accommodation centres to supplement the local accommodation markets . Sizewell B again provides a useful comparator. There, at peak construction, about 30% (890) of the non-home-based workforce was accommodated on site, in the Sizewell B hostel. 35% (1000) used private rented property and the other 35% (1000) were spread across a range of B&B/guest houses, caravans and owner occupied accommodation. The bulk of the accommodation was in the local Leiston, Aldeburgh and Saxmundham area. It is anticipated that there may be a similar pattern to the distribution by type of accommodation for Hinkley Point C.

8.12.22 Private rented is likely to be a popular option for the workforce, and there is now a substantial local market in the relevant districts, plus a latent accommodation supply as revealed from a recent search via advertisements in the local press. The outcomes of this advertising campaign are presented below.

8.12.23 In November (between 18 -21) 2009 an advertisement was placed in several local weekly papers (Bridgwater Mercury, West Somerset Free Press, Somerset County Gazetter and Burnham and Highbridge Times). According to data from the Newspaper Society database the circulation of the papers covers all the districts in Somerset and also extends into Dorset, Wiltshire, Devon, Gloucestershire and South Wales. Almost 100 useable responses were generated by 18 December 2010. Summary details are included in Tables 8.36 and 8.37, below.

Table 8.36: Summary of the Accommodation Offered by Respondents to the Survey.

District	Number of responses	Number of places offered	% of places offered	Number of places on existing lists
Sedgemoor	66	434	73	200
Taunton Deane	15	90	15	66
West Somerset	15	54	9	13
Mendip	1	2	0.3	0
North Somerset	2	14	2	0

Source: IAU HPC Latent Accommodation Survey (Dec 2009)

Table 8.37: Spatial Distribution of Accommodation Offered and 'Latent' Accommodation

	Non Latent				Latent			
	Serviced (B+B)		Self catering		Serviced (B+B)		Self catering	
	Places	Av. cost (£ pp/ pcm)	Places	Av. cost (£ pp/ pcm)	Places	Av. cost (£ pp/ pcm)	Places	Av. cost (£ pp/ pcm)
Bridgwater	0	0	0	0	35	559	58	353
Elsewhere in Sedgemoor	174	871	26	549	66	518	75	473
Total for Sedgemoor	174	871	26	549	101	538	133	398
Taunton	0	0	0		0	0	12	neg.
Elsewhere in Taunton D	60	800	6	450	6	1158	6	neg
Total for Taunton Deane	60	800	6	450	6	1158	18	neg.
Minehead	13	1300	0	0	2	440	20	337
Elsewhere in W.Somerset	0	0	0	0	6	833	13	388
Total for West Somerset	13	1300	0	0	8	563	33	369

	Non Latent				Latent			
South Somerset	0	0	0	0	0	0	0	0
North Somerset	0	0	0	0	14	528	0	0
Mendip	0	0	0	0	2	480	0	0
Total spaces	**247**		**32**		**131**		**184**	

Source: IAU HPC Latent Accommodation Survey (Dec 2009)

8.12.24 A comparison of the responses with the list of known accommodation in Somerset, provided by the Tourist Information Office, showed that 24 respondents, representing approximately 279 (47%) of the places offered were already contained on existing lists. This leaves a 'latent' supply of approximately 315 places, of which 131 are in serviced accommodation and 184 in self catering accommodation. In addition to the information from the survey, EDF Energy also provided a list of a further 28 possible accommodation providers who had been in contact with EDF Energy prior to undertaking the survey. None of those on the EDF Energy list responded to the survey and this therefore provides a possible further 53 spaces.

8.12.25 Respondents included those offering tourist accommodation (hotels and self catering cottages), landlords with houses to rent and those with spare bed space or self catering facilities within their own personal property. Of the overall responses 45% offered serviced accommodation (i.e. bed and breakfast) and 55% offered self catering. This is a marked difference to the findings from the accommodation study in 1989 (Glasson et al, 1989) when self catering facilities made up only 10% of the accommodation offered. Focusing on just the 'latent' accommodation, the spatial distribution shows slight variation from the overall pattern with the distribution of places by district being: Sedgemoor 74%, West Somerset 13%, Taunton Deane 8% and 5% elsewhere. The average cost of the accommodation is variable. As expected, serviced accommodation is more expensive then self catering. However, within each of the categories there are variations. Some of the respondents were from starred hotels; a number also stated their accommodation would be more suitable to executive or 'white collar' workers. At current prices the cheapest accommodation was self catering in either Minehead (average of £337 per person per month) or Bridgwater (average of £353 per person per month). A number stated they owned a number of properties which may be available for rent at various times and again only provided information on properties available to rent at the time of the survey. A number stated they were developing properties which would be available for rent in the future. It is therefore likely that the spaces available may be greater than that shown in the survey at the time of construction.

8.12.26 Monitoring information on the use of private rented accommodation during Sizewell B construction showed that much of the accommodation was shared with other Sizewell B employees. The average number of non-home-based workers per rented household was almost 2, meaning that the number of rented houses and flats taken up was considerably lower than the total number of non-home-based employees using such accommodation. This, plus take-up of latent accommodation, will be significant in reducing the impacts of construction workers' demands on the private rented sector.

8.12.27 There is also a considerable supply of serviced accommodation (hotels/guest houses/B&B establishments etc), although only about 14% of the rooms identified in the immediate districts are located within an approximate 30-minutes drive time of the site. There is also a substantial local caravan and camping sites provision, although the availability of some sites will be limited

by their seasonal nature, plus occupancy/planning restrictions to holiday use only; such accommodation may also be less attractive to the workforce.

8.12.28 Table 8.38 indicates predicted owner occupation of about 11% of the total peak workforce, made up of around 25% of the construction staff, 4% of the construction operatives, plus 60% of those non-home-based operational staff coming into the Project at that point. This could be equivalent to about 300-360 housing units which, if spread over a number of years, should be well within the capacity of the local housing market, and may at the same time provide a valuable boost if markets are still flat. The serviced and non-serviced tourism accommodation markets have the potential to fill much of the remaining accommodation needs. However, when factors such as the relative remoteness of the Hinkley Point C site, possible prices of tourist accommodation, and the need to retain some leeway in the tourist accommodation market are entered into the analysis, the outcome becomes less clear.

8.12.29 There is some local concern about the possible mixed blessing for the local tourism industry with, on the one hand a possible displacement effect on the local hospitality sector, with accommodation filled by construction workers with more limited local spend rather than visitors/tourists with larger spend in the local economy, but on the other hand these workers could be filling spaces at seasonal/weekly spare capacity periods. There might also be a possible clash with a potential growth in UK tourism from those not wishing to travel abroad as much (in a more 'carbon-footprint considering' future). However another consideration is that construction workforce accommodation demand may stimulate some additional local small business activity to meet that demand.

8.12.30 As such, the estimates of the possible take-up of tourism accommodation by non-home-based construction workers is based on the use only of the potential spare accommodation capacity, over the average peak capacity, and for that accommodation only within 45 minutes commute of the Hinkley C Point site. This is applied to both serviced and non-serviced accommodation. For example, there are approximately 4200 serviced bedspaces within a 45-minute commute of the site (excluding holiday camps, which are however on the edge of the travel time zone); average peak capacity figures are c. 80%, leaving a potential 20% spare capacity at peak (and obviously much higher spare capacity for the predominant non-peak period) resulting in 840 potential available bed spaces. This capacity, plus a smaller figure for non-serviced accommodation (e.g. caravans etc), should provide an important local supply. However, estimates in Table 8.37 have been reduced below estimated available capacity figures to allow some flexibility, in further response to local concerns about pressure on the important tourism industry.

8.12.31 For reasons such as these, plus the very successful experience of a good site accommodation centre at Sizewell B, the potential worker behaviour management benefits of such accommodation, and from potential legacy opportunities, a clear consensus has developed on the need for the provision of high quality purpose built accommodation campus(es), competitively priced, as a key element in the accommodation mix. It should be noted that the Inspector for the previous consideration of a Hinkley Point C, 20 years ago, also required such provision. It is estimated that such purpose built accommodation, under the mid range 40% home-based recruitment scenario, could provide 33-40% of the total supply at peak construction, with the private rented sector providing about 26% and other serviced and non-serviced guest houses/ B&Bs/ hotels plus an element from caravan sites providing the remaining 27%. It should be stressed that these are all averages of ranges which may vary by at least 10-15% either way.

8.12.32 Under the 30% local recruitment scenario, it is assumed that, although the other accommodation types could probably take more, the additional accommodation demand would be supplied almost wholly by increased purpose built accommodation supply, raising the total

to c. 1500, with some modification of the other accommodation percentages (but few of the numbers) as set out in **Table 8.39.**

8.12.33 The geographical distribution of the construction workforce accommodation depends to a large extent on the location of the construction accommodation centre(s). However it is anticipated that the distribution of other accommodation types (owner occupation, private rented, B&B etc) will be similar to the distribution of the Hinkley Point B operational workforce (i.e.: predominantly in Sedgemoor), with some adjustment (towards West Somerset) for the location of serviced and non-serviced accommodation and accessibility to the Hinkley Point C site. The potential location of the construction accommodation centres is discussed further in the mitigation **Section 8.10**.

Table 8.38: Estimated Composition of Accommodation Types for Non-Local Workers at Peak Construction – under the 40% Local Recruitment Scenario

Accommodation types	Percentage	Number Range	Number Mid Point	
Owner occupation	10-13%	300 – 360	2%	360
Private rented	24-28	720 – 840	26	780
B&B/guest-houses /caravans etc	24-28	720 - 840	26	780
Construction accommodation centre(s)	33-40	990 - 1200	36	1080
Total	**100**		**100**	**3000**

Table 8.39: Estimated Composition of Accommodation Types for Non-Home-Based Workers at Peak Construction – Lower Range under 30% Home-based/Non-home-based Recruitment Scenario

Accommodation types	Percentage	Number Range	Percentage and Number Mid Point	
Owner occupation	9-12%	315 – 420	10.5	360
Private rented	21-25	735 – 875	23	800
B&B/guest-houses /caravans etc	21-25	735 - 875	23	800
Construction accommodation campuses	40-48	1400-1680	44	1540
Total	100		100	3500

c) Construction Stage - Education

8.12.34 The number and distribution of impacts on local schools/colleges is determined by the proportion of non-home-based employees with school age children, their residential location, and by the capacity, location and quality of local supply, as well as the policies of the local education authority. Evidence from other power station construction projects indicates about 60 (Sizewell B) to 80 school age children per 100 non-home-based families. Given the possible attraction to bring families, associated with potentially more continuity of contract for the Hinkley Point C twin reactor project, there might be approximately 300 children associated with the 350-400 non-home-based families (with the upper end of the estimates for the 30% local recruitment scenario). About 60% are likely to be attending primary school, with the remainder in secondary schools and colleges, although demand for secondary schools will increase at later stages of the construction programme.

8.12.35 Somerset County Council's latest school roll projections for the schools in the immediate area, for 2008-2012, at both primary and secondary school levels, indicate both primary and secondary spare capacity of about 7%, although some school accommodation is in temporary accommodation, which may reduce the spare capacity in some cases. The proportion of spare capacity does vary across the area, generally being lower in the Bridgwater area (although still at 3%) and higher in the more rural areas.

8.12.36 Under the 'Building Schools for the Future' investment programme, construction of new buildings at all four Bridgwater secondary schools is scheduled for completion by September 2012. The existing capacity of Bridgwater's secondary schools is 3,640 places. The planned capacity of the rebuilt secondary schools is 3,900 places, representing an increase of 7% compared with existing places. The plans also incorporate the potential to increase capacity by a further 8% to 4,200 places if required, as proposed housing developments in Bridgwater are built.

8.12.37 Overall the education authority can anticipate a maximum increase in forecast school rolls in the vicinity of the site of about 3-4%, associated with the power station construction. Previous experience suggests that although the distribution of additional children is likely to be spread over many schools, the impact will be most felt in a limited number of primary schools, in this case predominantly in the Bridgwater and Minehead (Watchet/Williton) catchment areas. In some circumstances, the LEA may need to provide additional teaching support and provide temporary classrooms. However, in other cases, the additional numbers may be of benefit in offsetting declining rolls and reducing vulnerability to closure over difficult 'trough' periods.

8.12.38 In a comparative survey of headteachers in 120 LEA schools within a 15 mile radius of the Sizewell B site, non-home-based children exceeded 5% of total pupil numbers in only six of the schools. Only three of the headteachers stated that the movement of Sizewell B children into their school had exerted any noticeable effects on the adequacy of available accommodation, staffing or equipment levels. However, it should be noted that there may be occasional issues of an educational rather than physical capacity nature, with problems such as slow reading, and the frequent arrival of, or removal of, children in mid-term.

8.12.39 There is also likely to be an increased demand for crèche / playgroup facilities for preschool age children which, as a provisional estimate, may be in the order of 40-60 children.

d) Construction Stage - Health

8.12.40 Somerset and the Sedgemoor and West Somerset districts perform well on health indicators, although there are some local variations, mainly in towns in Sedgemoor district, but also in rural West Somerset. Perceived health risks and nuclear developments have not been significant issues in the socio-economic workshop meetings or in the October 2008 set of public meetings (Athene Communications, 2008). Local people live with the presence of the

Hinkley Point nuclear stations, and there are many examples of second and third generation employees on the Hinkley Point A and B stations.

8.12.41 As shown for Sizewell B, a large construction project will increase pressure on health services, with workers likely to have a range of workforce injuries and accidents, in addition to the normal lifecycle demands on GPs and hospital services. At peak construction the **on-site** Medical Centre at Sizewell B was handling over 20,000 attendances pa, mainly for minor accident treatment, sickness related medical treatment and re-dressings. The average number of attendances per employee on site declined steadily during the course of the construction programme, from over 6 in the early civil engineering phase to 4 in the later mechanical and electrical phase. Ambulance and emergency callouts similarly peaked in the earlier years at about 150 pa falling to about 70 pa at peak construction. Such an on-site facility will be clearly needed for Hinkley Point C.

8.12.42 Off-site the main impacts will be on the community services, general and acute hospital, and maternity services within the Somerset PCT area. For community services it can be expected that extra patients will register with, and make use of, local GP practices. The non-home-based construction workforce is likely to be predominantly male and in the 35-55 year age group, and will therefore be much less likely than the general population to require GP visits or use of other health. At Sizewell about 30% of the non-home-based workers registered with a local GP at peak construction (850 out of 2900). About half of the registrations were concentrated in the Sizewell, adjacent town of Leiston; the remainder was widely distributed within an approximate 20 mile radius of the site with no particular concentration on any one area or practice. But added to these figures must be the visits by family members (partners and children) brought into the area (for which no information is available on Sizewell), plus a significant group of workers who although not registered also visited a local surgery at some time during their period at Sizewell. Overall it was estimated that, on average, each non-home-based employee appeared to visit the Leiston surgery once every two years (ie an average of 0.5 visits per person year), giving approximately 1,300 visits in the peak construction year.

8.12.43 The comparative implications for Hinkley Point C could be approximately 900-1050 non-local workers registering with local GPs at peak construction (again with the higher number for the 30% scenario), plus a substantial number of other (non-registered) workers visiting local surgeries at some point during their time at Hinkley Point. It can be expected that the extra patients will register with local GP practices, in relation to their residential location, and particularly at the Cannington Health Centre and its branch surgeries in villages such as Spaxton and Stogursey, at the Quantock Medical Centre at Nether Stowey, and at the various Medical Centres in Bridgwater, and at Williton. Overall it is likely that there will be more spread than at Sizewell B, where the major site accommodation was concentrated at Leiston. However, several of the 13 relevant GP practices have list sizes currently below the national average of 1,750 per Whole Time Equivalent (WTE) GP, suggesting some scope to handle what would be at maximum about a 2-2.5 % increase in GP registrations across the 13 practices. It must however be noted that local health officers advocate a lower norm for practices in more rural areas such as Somerset. It is hard to speculate where particular pinch points might occur, but Cannington (and its branches) may be one, plus one or other of the Bridgwater practices. At Sizewell the extra demands on the Leiston practice were largely met through flexible staffing resources, with some increase in nursing and administrative staff hours rather than routine doctor hours; this may also be appropriate for Hinkley Point C.

8.12.44 Similarly in terms of general and acute hospital services, it is considered that the number of extra population will only marginally affect the Somerset PCT beds per 1000 unit provision level. Musgrove Park Hospital in Taunton currently provides general and acute hospital services for the area. The hospital serves a population of over 340,000 and has over 700 beds. An

additional population of around 3,000-3,500+ (non-home-based workers plus families) would therefore represent approximately a 1% increase in the population served by the hospital, and this would be a short-term and not a permanent increase.

8.12.45 In addition, proposals for the redevelopment of four existing community hospitals in Somerset were approved by Somerset PCT in early 2007, including the re-provision of Bridgwater Community Hospital on a new site on the edge of the town. One of the main purposes of the proposed redevelopment is to increase the provision of local services and thereby reduce the need for patients to travel to the acute hospitals in Taunton and Weston-super-Mare. The scheme timetable envisages a start on construction of the new facility during 2011, with the hospital becoming fully operational in 2013. The current plans for the redevelopment of the hospital envisage, amongst others: outpatient services, providing an estimated 60,000 outpatient or treatment appointments a year locally in Bridgwater, compared with 29,000 at present, and a new maternity unit. Because of their age profile, non-home-based power station families may produce about 40 births pa on average over the construction period.

e) Construction Stage - Crime

8.12.46 Somerset and the Sedgemoor and West Somerset districts perform well on safety indicators, and have relatively low levels of crime, although there are some local variations,mainly in towns in Sedgemoor district. Levels and fear of crime are highest in the larger centres within the county and typically coincide with areas of relative deprivation. Over the period 2004-2007 there was a small increase in the number of local areas in Sedgemoor in the top 20% of areas for crime in England, compared with a fall in the county as a whole.

8.12.47 However, using the construction of Hinkley Point A and B stations as a (now very dated) guide, there are indications that some increases above the norm in petty crime and behavioural offences, such as drunkenness, minor public disorder and drink driving, could occur during Hinkley Point C construction. Increases in traffic could also lead to more road accidents. The construction of Sizewell B in East Anglia provides a somewhat more recent case study. There was an increase in some offences (especially drink-driving offences) during the early years of construction, but measures were quickly introduced to mitigate such impacts with the rate of offences falling even with major increases in the construction workforce. The overall consensus was that impacts were well managed.

8.12.48 Current experience from Flamanville 3 also indicates very low levels of non-home-based construction worker behavioural issues, even with a major accommodation centre (c. 400 workers) within the urban envelope of the small town of Les Pieux (c. 3500 population).

8.12.49 A large construction project is likely to put additional pressure on policing services. The area around Hinkley Point already has the benefit of policing both by the civil authority and by the civil nuclear constabulary. During the construction stage at Sizewell B, three additional officers were redeployed to the locality.

f) Construction Stage - Perception of impacts/disturbance

8.12.50 Again, drawing on the example of Sizewell B, local surveys of public opinion during construction revealed a mix of positive and negative impacts. Positive views were very much employment and expenditure related, and there was not too much change in views over the construction period, although the package of ameliorative measures (e.g. village hall improvement projects) was increasingly valued. The negative impacts showed more shifts over time, with the trend away from traffic and accommodation issues, and towards worker-related issues. As noted above there were determined efforts to internalise where possible, and mitigate effectively, many of the negative worker related impacts. Some local residents retained strong views on the negative impacts, but for many in the community there was a process of 'learning to live with the project', which may partly have reflected the inevitability of the project and an adjustment to impacts; it

may also have reflected the better management of the impacts of the project on the community. A shift in perceived socio-economic impacts during the construction programme has been identified also in other major projects. See, for example, Storey and Jones (2003).

8.12.51 Other proxy barometers of local public opinion, for example as reflected in the local press and in the current HPC Complex Stakeholder Group meetings, and in other public meetings, note some, but currently limited, concern about the potential socio-economic impacts associated with the potential Hinkley Point C new build. For example, the Bridgwater Mercury coverage focuses more on the nature of the possible decision and (perhaps understandably at this stage) rather less on the likely local impacts. While prominence is given to 'Stop Hinkley' advocates, there is also strong coverage of other views, including those highlighting major local (esp. employment) benefits. A Mercury poll of readers recorded very strong local support for a third nuclear plant at Hinkley Point.

g) Construction Stage - Wider economic effects

8.12.52 In addition to the direct local employment effects discussed above, power station developments have a range of secondary or indirect effects. The construction work on site and power station operation are likely to create demands for goods and services from local firms, and these demands create additional employment. The construction and operational workforces will demand services locally, which may generate some increases in services-related employment. Other secondary effects may result from the impacts on demand by the workforce for housing and other related infrastructure. On the other hand there can be concern that some existing local firms may suffer, by losing labour to the power station project. Such effects can be analysed and summarised in an economic multiplier approach. Such an approach estimates the extent to which the original injection into an economy will increase income in the local economy (e.g: in the CDCZ) by some multiple of the original injection. The multiplier is a measure of the scale of the increase. The summary analysis here draws on some analytical work on multipliers for a previous incarnation of the Hinkley Point C project (Glasson, van Der Wee and Barrett, 1988), appropriately updated, plus actual findings from Sizewell B monitoring (Glasson and Chadwick, 1995) and from other nuclear stations (see McGuire, 1983 on the Torness nuclear project).

8.12.53 In the less industrialised areas, such as Somerset, most of the specialist requirements of major national/international contractors cannot be supplied from the local industrial base. As such there will be a major leakage out of the local area of potential contracts. Previous studies have attempted to quantify the local proportion of the total construction expenditure, and suggest very low proportions of about 1-2%. Current information on local contract expenditure for the main civils contractor at Flamanville 3 shows about 2% local expenditure out of Euro 400m total (2007-mid-2009), within 50 km of site, and mainly in Cherbourg. At Sizewell B the figure of local contracts with firms in Suffolk and Norfolk was a little higher at about 4% (i.e.: c. £80m out of contract value of about £2bn). The estimated outcome at Sizewell for additional workforce expenditure in the locality (i.e: setting aside some of the expenditure by local recruits which would have been undertaken even if the project had not gone ahead) was a similar figure of c. £80m. Together they gave a total injection into the (wider) local economy of c. £20m pa over the life of the construction project. Crude updating and application of such figures to a £10bn Hinkley Point C twin reactor project would give average construction local expenditure injections of about £100m p.a. over the life of the Project.

8.12.54 A more sophisticated analysis would disaggregate the construction workforce expenditure into various expenditure groups. For example, non-home-based workers with families will spend more locally than un-accompanied non-home-based workers. Previous studies for Hinkley Point C suggest a multiplier range of 1.3 to 1.5 for the first group, compared with 1.05 to 1.11 for the second group, although the latter will still be of most significance in expenditure terms by virtue of the larger workforce numbers involved (Glasson, van Der Wee and Barrett, 1988). Such an

analysis can be used to estimate the wider indirect employment effects generated by the various types of local expenditure. Again the previous studies suggest indirect employment effects in the CDCZ, for example in retailing, plus local suppliers to the main contractors, of around 50% of the main Project employment (i.e: in the case of this Project of about 2500 jobs at peak construction). Set against this positive employment is a concern that major projects may take labour from other local employers. For Sizewell B , such labour take was estimated at approximately 600 pa in the early years of the Project (falling to 200-150 pa in later years); but a survey of 160 local companies found that only 10% thought the power station project made it more difficult to retain or recruit (replacement) staff (Glasson and Chadwick, 1995).

8.12.55 Another concern is the potential impact on both the Somerset economy and tourism from the new build. Arguments may relate to the 'visual' and 'nuclear image' impact on tourism. However other studies (e.g. Travers Morgan, 1988, on Wylfa) have found no evidence that such developments deter tourists. The Hinkley Point C site is also in the least visited part of the Somerset coast, and of course there are already power stations there. Indeed, in terms of image there was a view from some local authority stakeholders that the new development could be very helpful in terms of raising external perception of the area as a high-technology location/knowledge economy. Other concerns may relate to impact on tourism accommodation and traffic; these have been covered elsewhere. The new development also has the potential to be part of a 'regional circuit of tourist attractions' in its own right. The Visitor Centre at Sizewell B attracted over 30,000 visitors a year during the construction period. The Visitor Centre at Flamanville 3 has had about 10, 000 visitors in the first 30 months of construction – with over 80% from France.

h) Operational stage

i) Employment - Local recruitment at full operation

8.12.56 The predictions for the operational station take the workforce at synchronisation (ie: at full operation of both reactors in year 10 after the start of construction), and relate primarily to the more immediate districts, as discussed earlier. They draw on previous studies of operational stations, including Hinkley Point A and B, and Sizewell B. Such studies show that, on average, around 50% of the new workforce comes from within 10 miles of the new development. As for construction stage employment, they also show considerable variations between skill groups. Information from our previous studies suggests a low recruitment ratio, usually from 5-15%, for the managerial and technical category, but much higher ratios for administrative and clerical (55-85%) and the largest category, industrial staff (50-70%). For example, the combined pattern of recruitment at the Hinkley Point A and B stations showed only 5% local recruitment of managerial and technical staff, but around 60% for both administrative and clerical staff, and industrial staff (rising to 80% for the unskilled industrial staff).

8.12.57 Such historical figures provide some guidance for the Hinkley Point C development, but they must be adjusted for the forecast socio-economic conditions, and for the implications of decommissioning of both the Hinkley Point A and B stations. The predictions in Table 8.40 suggest relatively high local recruitment figures, partly because of the likelihood of some transfers from Hinkley Point B (and possibly from the decommissioning activities at Hinkley Point A), and also because of the stances of both developer and local authorities to strongly encourage local recruitment, and the attraction of such jobs in more constrained economic times. In summary, it is estimated that approximately 52%, or 365 of permanent operational employment, could be recruited locally. This is the mid point of a range of 310 to 425 operational employees, estimated to be recruited locally. The number of employees therefore likely to migrate into the area from outside the local area is estimated at 275 to 390.

Table 8.40: Estimated Home-based and Non-home-based Labour at the Proposed Hinkley Point C –Full Operation

Employee category	Total labour requirements	Home-based*		Non-home-based	
		%	Range	%	Range
Managerial and technical	180	15	15 - 35	85	145 - 165
Administrative and clerical	60	70	35 - 50	30	10 - 25
Industrial	460	65	260 - 340	35	120 - 200
Total (permanent)	700	52	310 - 425	48	275 - 390

**Home-based here = the immediate Districts of Sedgemoor, West Somerset and Taunton Deane.*

8.12.58 It is estimated that the majority of the annual temporary outage workforce will be recruited from outside the local area, and that there will be much continuity of employment between the current and future outage teams – thereby minimising any additional new employment, but increasing the frequency for current employees. Approximately 14% of the current Hinkley Point B outage teams come from the SW Region and a further 11% from South Wales.

ii) Accommodation

8.12.59 Of the 700 permanent operational staff, around 365 are likely to be recruited locally, with the remaining 335 to be drawn from the rest of the south west region or from further afield. Studies at a number of power stations show that permanent employees in the electrical supply industry have higher rates of owner occupation than the national average. Ownership rates are particularly high for staff employees. In the absence of any public sector provision, it is anticipated that most of those not buying will rent in the private sector, although some may also take up RSL provision. The approximate tenure mix at full operation is estimated at 80% owner occupation and 20% private rented. The anticipated demand for owner occupation and private rented accommodation is relatively low in comparison with the construction stage. As the demand is likely to be spread over a number of years, coinciding with the rundown of construction (and the release of some accommodation previously used by construction stage workers), it is not expected that there will be any special problems in meeting the accommodation demands associated with operation. Table 8.41 provides an estimate of the geographical distribution; it is estimated that the pattern will be similar to that for the current operational Hinkley Point B. It is envisaged that the temporary outages would be handled in similar ways to the current arrangements for the Hinkley Point B station, primarily via the use of serviced and rented accommodation.

Table 8.41: Estimated Geographical Distribution of the Non-home-based Operational Workforce, by Accommodation Type –at Full Operation

District	Owner Occupied		All Rented		Total	
	(Numbers)	(Percentages)	(Numbers)	(Percentages)	(Numbers)	(Percentages)
Sedgemoor	190	70	40	62	230	68
West Somerset	40	15	20	31	60	18
Taunton Deane	25	10	5	7	30	9
Outside AIA*	15	5			15	5
Total AIA	270	100	65	100	335	100

**AIA= the three local districts*

iii) Education

8.12.60 Again data from studies undertaken by the IAU suggest a school age child yield of about one per non-home-based employee, giving an estimate of about c. 335 children for the operational C-station. The age profile is likely to be more balanced between primary and secondary school age children than for the construction stage and, as the power station 'matures', so the proportion of secondary school children will increase. The distribution of children is likely to be across many schools across the three immediate districts but, reflecting the distribution of non-home-based families, it is likely to be concentrated in the Sedgemoor district.

iv) Health

8.12.61 Most of the estimated 335 non-home-based families will register with local GP surgeries, primarily in Sedgemoor and with smaller numbers in West Somerset, reflecting the distribution of their places of residence. The numbers will build up over several years, will be distributed over a range of Medical/Health Centres, and are likely to be largely absorbed by existing services. In terms of general and acute hospital services, as for the construction stage, it is considered that the number of extra population will only marginally affect the Somerset PCT beds per 1000 provision level.

v) Crime

8.12.62 Few crime problems are expected during the operational stage; experience has shown that the non-home-based staff are quickly absorbed into the local community. The area around Hinkley Point will of course continue to have the benefit of policing both by the civil authority and by the civil nuclear constabulary.

vi) Perceptions

8.12.63 It is anticipated that community perceptions during the operational life of the Hinkley Point C will differ little from those of the current Hinkley Point B station, with the new station being a provider of well paid, high technology and permanent employment, and contributing well to community activities.

vii) Wider economic effects

8.12.64 At full operation, the indirect employment effects and the increase in the level of income in the local economy will be of a more permanent nature. Estimates for the current Hinkley Point B station of the annual addition to local income from c. 700 power workers' and contract staff earnings and local contracts are in the order of £30m. Figures for the new station are likely to be at least this, and may be in the range of £40m pa (at 2010 prices). Previous studies suggest the additional local indirect employment of about 60% of direct employment, which would be in the order of 360 jobs for the proposed operational Hinkley Point C station. There will also be an extra 1000 contract partner workforce during annual planned outages (ie: every two years for each reactor), spread over a one-month period (and with a peak of approximately 500 workers at any one time). They will be likely to have multiplier expenditure and employment impacts, proportionately more akin to those for un-accompanied non-home-based construction workers.

8.12.65 In terms of potential impacts on other local industries, especially tourism, similar points can be made as for the construction stage, but on a smaller basis . Overall the development is likely to contribute to longer term economic stability in the area. It should also provide opportunities for the development of local firms with both nuclear construction and operation supply chain links, which will help to raise the skill level and presence of high-technology activity in the area. This should lead to economic diversification away from declining sectors, offering high quality employment and opportunities for local businesses in the first new nuclear project in the UK, through an intensive construction period of some 7 years and a prospective operating lifetime of 60 years.

viii) Decommissioning

8.12.66 Before decommissioning can take place, the Nuclear Reactors (Environmental Impact Assessment for Decommissioning) Regulations 1999 (EIADR 1999) requires the submission of a new Environmental Impact Assessment (EIA) and a period of public consultation. For the Hinkley Point C EPR this will take place immediately prior to the end of operation and will consider fully the environmental (including socio-economic) impacts of decommissioning. In contrast to the decommissioning of Hinkley Point A, EDF Energy will adopt a prompt decommissioning strategy for EPRs, currently estimated to cover a period of about 20-25 years.

8.12.67 Whilst the detailed characteristics of the decommissioning project, including employment characteristics, are at present unclear, and the relevant local area socio-economic baseline is around 70 years hence, the early years of the decommissioning of Hinkley Point A may provide some relevant pointers.

8.13 Mitigation and Enhancement

a) Construction stage – Skills and Training

8.13.1 The levels of local recruitment estimated in the previous sections could be reduced by a lack of local skilled labour. It is therefore important to have in place a range of measures for increasing local participation through recruitment and training practices. These are important to meet the objectives of both the regional and local authorities and for EDF Energy, especially for the construction stage of the Project.

8.13.2 Over the lifetime of the construction of the proposed Hinkley Point C, it is likely that more than 20,000 jobs will be created on site (as at Sizewell B over the period 1988-1994). All of these workers will need to be recruited and given sufficient training to enable them to work on a nuclear site. This poses significant challenges, but it also offers significant opportunities for raising local skills levels and providing high quality local employment over a period of several

years. EDF Energy's aim is to put in place a strategy for training and recruitment of construction and operational staff that both meets its needs for suitably qualified personnel and makes a substantial contribution to skills and employment in the local area.

8.13.3 There will be significant challenges in meeting the need for suitably skilled personnel. Nuclear construction and engineering requires a level of quality, accuracy and precision that goes beyond what is required on most other construction projects. In order to gain a licence to operate the site, the construction will be subject to a stringent inspection regime and must meet extremely high standards of quality and safety. There has been an erosion of the UK nuclear skills base in recent years; the nuclear workforce is ageing and for many years it has not been seen as an attractive occupation for new recruits. That situation is changing now, as people see the prospects for a new generation of nuclear power stations in the UK. But it remains a challenge to get adequate numbers of suitably qualified nuclear personnel to construct and operate a new generation of nuclear reactors.

8.13.4 These are challenges facing the whole nuclear industry in the UK, and will require concerted action by central and local Government, nuclear operators, those in the nuclear supply chain and others to ensure they are adequately addressed. The establishment of the Nuclear Skills Academy was an important step in recognising the national challenge and having a mechanism for delivering solutions. Most of the construction activities will be undertaken by specialist contractors who will be directly responsible for the recruitment of suitably trained personnel. However, EDF Energy sees itself as having a key role to play, working closely with the contractors, central and local Government and others, to coordinate and facilitate the provision of adequate training courses and recruitment practices. EDF Energy's position at the top of the supply chain will enable it to offer strong encouragement to its suppliers to support local people in accessing training schemes and employment.

8.13.5 The following is an abridged version of the relevant obligations made in the Proposed Planning Requirements and Obligations document that accompanies this submission.

8.13.6 EDF Energy will prepare a Construction Workforce Development Strategy which will set out how the Project will maximise employment and skills opportunities for local people and inspire young people to achieve and seek to follow careers in the energy and utilities sector. The Construction Workforce Development Strategy will contain measures including:

- the development of a programme of works to embed best practice in the employment and skilling of local people;
- appointing a specialist team to deliver these objectives;
- supporting community partners to tackle worklessness by providing opportunities for skilling which lead to sustainable employment;
- encouraging contractors to provide apprenticeship opportunities for local people; and
- encouraging EDF Energy's supply chain partners to recruit local people.

8.13.7 EDF Energy will create a partnership with a local training provider and national skills bodies to establish a construction skills training centre, located in Sedgemoor.

8.13.8 EDF Energy will create a partnership with a local training provider and national skills bodies to create a construction apprenticeship learning hub, located in West Somerset.

8.13.9 EDF Energy will work with its construction supply chain partners to make available apprenticeship opportunities to local people, including an annual apprenticeship fair starting in 2012.

8.13.10 EDF Energy will establish an employment brokerage which will prioritise job vacancies in Somerset and put in place initiatives to ensure employment opportunities are extended to hard-to-reach groups.

8.13.11 EDF Energy will work with its community partners to establish a Job Ready programme which provides a standardised approach to preparing unemployed people for employment on the Project, through training which is designed to achieve the required competency standards that are a pre-requisite for successful employment. EDF Energy will engage with employment outreach organisations at a national and local level to support the development programmes to support people back to work.

8.13.12 EDF Energy will seek to embed a culture of inclusiveness that results in a happy productive workforce through the introduction of equality action plans for contractors.

8.13.13 EDF Energy will encourage the construction supply chain to continue to invest in workers by working with national skills bodies and local training providers to support advanced training of their Hinkley Point C Development Site based workforce.

8.13.14 EDF Energy will use reasonable endeavours to secure funding from relevant regional and national agencies towards the cost of the Construction Workforce Development Strategy.

8.13.15 EDF Energy will (subject to data protection and confidentiality requirements) publish monitoring information related to its construction workforce including equality monitoring data on a quarterly basis.

b) Construction Stage – Education

8.13.16 The Construction Workforce Development Strategy referred to above will contain measures to be undertaken by EDF Energy to support educational provision in Somerset, to invest in education initiatives to raise the aspirations of young people in Somerset and to improve retention and increase participation, including:

- implementing EDF Energy's Science, Technology, Engineering and Mathematics (STEM) Ambassadors Programme at local schools in the vicinity of the Project. The STEM Ambassadors Programme aims to excite young people about STEM, and give teachers a unique perspective on how the STEM curriculum can be brought to life;
- implementing construction education activities which will include team challenges and competitions and a specific project to target and encourage women to follow a career in STEM through the establishment of an annual community construction challenge for girls aged 14-16;
- launching an annual competition across schools in environmental awareness and low carbon called EDF Energy's Somerset Pod Green Community Challenge in 2010. The Pod is an online environmental education programme, which provides free information, resources and activities to help teachers educate young people about the environment and about the sustainable use of resources;
- EDF Energy in partnership with Somerset County Council will monitor the impact on pupil numbers in local schools of the children of new workers moving into the area in connection with the Project; and

- in the event that the children of workers employed on the Project cause the capacity of any local schools in the vicinity of the Project to be exceeded or where support is required to accommodate students where English is not their first language, EDF Energy will contribute towards the cost of employing additional educational staff at those schools in order to increase their pupil numbers or to address language barriers.

c) Construction Stage – Local Business Engagement

8.13.17 EDF Energy will prepare a Local Business Engagement Strategy which will facilitate strong engagement with and development of local businesses and their workforce, to maximise the economic benefit to Somerset. Measures contained will include:

- establishing and publishing performance data based on an agreed set of key performance indicators (KPIs) to measure the involvement and improvement of local businesses and people, including for example: number of local people employed; number of local businesses used; and number of businesses relocating to the area;
- undertaking a review of Somerset businesses which have the relevant or matching skills to participate in the Project and constructing a database independently compiled by Somerset Chamber of Commerce;
- appointing a Local Supply Chain Officer with the mandate to identify and facilitate the engagement of local businesses and people on to the Project. The Supply Chain Officer will also assist local businesses in aligning the various national training and funding agencies; and
- appointing an EDF Energy Procurement Officer to keep local businesses informed of the letting of contracts for the Project.

8.13.18 EDF Energy will provide advice and facilitate relationships between local businesses and training providers.

8.13.19 EDF Energy will work actively with contractors and major suppliers to:

- implement the Construction Workforce Development Strategy;
- facilitate their relationships with the relevant authorities regarding land, office, warehouse and storage facilities; and
- facilitate their relationship with smaller local companies.

8.13.20 EDF Energy will work with the Relevant Authorities to develop a joint strategy and action plan for marketing the area to new businesses and to promote the area as a low carbon business cluster. In particular, EDF Energy will prepare a report, recommendation and strategy setting out how its investment in the Project can be used to maximise the potential for the establishment of a low carbon business cluster. This will take into account the profile which the Project will bring to the area, the potential created by its supply chain and its recruitment and training strategies, as well as the inherent potential of the area.

d) Construction Stage - Health and Welfare

8.13.21 EDF Energy will provide health and welfare facilities at Hinkley Point C and at the On-site Accommodation Campus.

8.13.22 The facilities at Hinkley Point C will only be accessible by security-cleared workers or escorted visitors and will include an occupational health and medical centre staffed by a doctor and nurses and a casualty recovery vehicle. The centre will provide first aid treatment to workers injured on the construction site, advice to workers about occupational health risk reduction and will also undertake random drug and alcohol testing.

8.13.23 EDF Energy will provide temporary occupational health, medical and welfare facilities at the On-site Accommodation Campus which will be available for use from first occupation of the On-site Accommodation Campus until the completion of construction works.

8.13.24 EDF Energy intends to provide a range of leisure facilities at the On-site Accommodation Campus including: a football pitch, basketball court, gym and indoor sports hall. EDF Energy

will liaise with the Relevant Authorities to discuss opportunities for these facilities to be used by local people and/or for workers to make use of existing local sports facilities.

8.13.25 All workers and visitors will undergo a formal induction before they are granted access to any of the Project sites. The level of induction will vary depending on the particular requirements of each Project site and the individual's reason for being on the site (e.g. as a worker or as an escorted visitor). Workers will have a formal site-wide induction which will cover configuration of the Project site, health, safety and environmental requirements and emergency procedures.

8.13.26 EDF Energy will implement a programme of preventative health measures during the construction period to complement initiatives by Somerset Primary Care Trust, such measures to include:

- encouraging the use of sports and recreation facilities;
- promoting healthier lifestyles through healthy eating campaigns and stop smoking campaigns;
- the provision of sexual health care and awareness programmes; and
- local road safety campaigns.

8.13.27 EDF Energy will liaise with Somerset Primary Care Trust throughout the Construction Period with the objective of preventing capacity issues in local healthcare services as a direct result of workers and their families moving to Somerset in connection with the Project, including:

- keeping Somerset Primary Care Trust informed of the number, rate and demographic of workers and their families and the health services that EDF Energy will be providing to them;
- helping Somerset Primary Care Trust to identify GP surgeries that can best accommodate the needs of non-home-based workers and their families (including any language barriers), such surgeries to include the Somerset Bridge Medical Centre, East Quay and Victoria Park; and
- advertising and providing details of the identified GP surgeries to workers living in temporary accommodation in the vicinity of the Project during the construction period.

8.13.28 EDF Energy will make a contribution to Somerset Primary Care Trust towards the cost of additional measures to address capacity issues in local healthcare services as a direct result of workers and their families moving to Somerset in connection with the Project.

8.13.29 Somerset Primary Care Trust will be entitled to apply the contribution towards the provision of staff at GP surgeries in Somerset at their discretion, depending on where workers employed in relation to the Project choose to live and having regard to EDF Energy's other health and welfare obligations as set out above.

e) Construction Stage – Accommodation

8.13.30 EDF Energy will prepare an accommodation strategy which will set out proposals for securing workforce accommodation during the construction period including the proposed phasing and delivery of the On-site Accommodation Campus and the Off-site Accommodation Campus to suit the workforce profile. EDF Energy's analysis carried out to date suggests that the On-site Accommodation Campus and any Off-site Accommodation Campus may need to accommodate between 1,080 and 1,925 workers. EDF Energy will comply with the accommodation strategy during the construction period. Current proposals are for a major centre on site at/or adjacent to Hinkley Point (for short term contracts/workforce), with a capacity of up to 700 units; centres at

sites in the Bridgwater area with up to 1225 units; plus smaller numbers on a number of caravan etc sites as appropriate and available[3]

8.13.31 EDF Energy will monitor the take up of accommodation and submit a six monthly report and update of the accommodation strategy to the relevant authority. The report will contain EDF Energy's recommendations for any changes to the accommodation strategy to be implemented as a result of the take up of accommodation in the period covered by the report.

8.13.32 EDF Energy will prepare a code of conduct for workers employed on the Project setting out standards of behaviour expected of them in order to limit any disruption to the local communities.

8.13.33 EDF Energy will use reasonable endeavours to ensure that all workers employed on the Project are properly inducted as to their responsibilities and comply with the code of conduct during the Construction Period.

8.13.34 EDF Energy will remove an on-site accommodation campus within 12 months following the end of the construction period unless otherwise agreed in a legacy plan for the site approved by the relevant authority.

8.13.35 EDF Energy will submit a legacy plan setting out proposals for the Bridgwater A site to the Relevant Authority for approval 12 months prior to the end of the operation of the facilities on the site. The legacy plan will be implemented as approved.

8.13.36 EDF Energy will submit a legacy plan setting out proposals for the Bridgwater Campus site to the relevant authority prior to the end of the operation of the facilities on the site. The legacy plan will be implemented as approved.

f) Construction Stage – Policing and Security

8.13.37 EDF Energy will pay a contribution to Avon and Somerset Constabulary towards the cost of employing additional police officers during the Construction Period. The figure will be based on EDF Energy's socio-economic assessment.

8.13.38 EDF Energy, Avon and Somerset Constabulary and Somerset County Council will agree a memorandum of understanding which will define the agreed level of service to be provided by Avon and Somerset Constabulary.

8.13.39 EDF Energy will prepare a Police Resourcing Strategy in consultation with Avon and Somerset Constabulary which will cover risk assessment, emergency planning, incident response and a resource analysis. The resource analysis will consider the need for increasing local manpower presence, CCTV, IT services, police vehicles, marine support and protestor lock on removal equipment.

8.13.40 EDF Energy will liaise regularly with Avon and Somerset Constabulary over measures to be adopted by EDF Energy and by Avon and Somerset Constabulary to encourage workers to maintain high standards of law and order during the construction period.

[3] The figures, in total, exceed the estimated need set out in Tables 8.37 and 8.38, thus allowing for some element of choice and flexibility in provision. The socio-economic impacts of the range of proposed offsite associated works, in particular, the employment impacts, are outlined in a separate report. It is estimated that the on-site accommodation campus, will involve about 250-300 person years of construction, peaking at about 200 in 2013, well in advance of peak construction on the main Hinkley Point C project. It is estimated that between 50-70% of the construction workers involved in the campus accommodation projects could be recruited from within daily commuting distance.

8.13.41 EDF Energy will implement security arrangements in accordance with the construction and site security plans as approved by the Office of Civil Nuclear Security (OCNS).

8.13.42 EDF Energy will develop and regularly review an Incident Management Plan which will include procedures for dealing with unplanned incidents on the Hinkley Point C Development Site, liaising with relevant authorities and emergency services as appropriate.

8.13.43 EDF Energy will use reasonable endeavours to ensure that all contractors, sub-contractors and employees are aware of the Incident Management Plan.

8.13.44 EDF Energy will prepare a Fire and Rescue Resourcing Strategy in consultation with the Devon and Somerset Fire and Rescue Service which will cover risk assessment, emergency planning, incident response and a resource analysis. The resource analysis will consider the need for increasing local manpower presence, IT services, fire and rescue vehicles, marine support and protestor lock on removal equipment.

8.13.45 EDF Energy will prepare an Ambulance Resourcing Strategy in consultation with the South Western Ambulance Service which will cover risk assessment, emergency planning, incident response and a resource analysis. The resource analysis will consider the need for increasing local manpower presence, IT services and ambulance vehicles.

8.13.46 EDF Energy will prepare a security management strategy for the Off-site Associated Development sites which will set out the potential security risks, EDF Energy's responsibilities and the agreed level of service to be provided by Avon and Somerset Constabulary in relation to the Off-site Associated Development sites. EDF Energy will comply with the security management strategy during the construction period.

8.13.47 EDF Energy will provide an office for Avon and Somerset Constabulary at the On-site Accommodation Campus.

g) Operational Stage – Employment

8.13.48 EDF Energy will prepare an Operations Workforce Development Strategy to be annexed to the development consent obligation entered into by EDF Energy prior to the grant of development consent. EDF Energy will comply with the strategy throughout the operation period.

h) Monitoring, communication and implementation

8.13.49 Another important mitigation measure which relates to all of the measures in Section 6, but in particular to perceptions and community issues, is the importance of support for a programme of monitoring of impacts during the construction stage. There will always be some surprises during the construction stage. A rigorous programme of monitoring of local impacts, as undertaken for Sizewell B, can provide early warning signals of community issues, and can help to better manage the Project in harmony with the interests of the community (see Glasson, 2005). A very limited form of such initiative is in place at Flamanville 3, via 'Flamanville en bref'—an annual activity report sent out to every home within a 10km radius around the plant. A monthly newsletter, 'Grand Angle', is also sent out to elected representatives, journalists and anyone else who requests it. A regular form of communication between the development and the local area is important to provide timely and accurate information on the project.

8.13.50 The whole programme of mitigation and community enhancement measures requires careful management and implementation during the construction and early operational periods, with for example a partnership arrangement between the socio-economic co-ordinator of EDF Energy and local agencies.

8.14 Summary Assessment And Residual Impacts

a) Assessment Against Regional and Local Objectives

8.14.1 The construction and operational stages of the Project meet many of the RSS socio-economic objectives, including raising economic prosperity, and linking jobs and homes (for example in the operational stage where the workforce will live near to the development). Through procurement policies, and through training and recruitment policies, the Project also seeks to support local businesses and the education, training and skills of local people. The legacy implications of associated infrastructure, including accommodation (e.g. via the various accommodation centres), and transport infrastructure (e.g. Cannington Bypass, and the Park and Ride provision) also strongly support RSS infrastructure objectives. The high technology nature of the Project also contributes well to promoting RDA priorities of supporting a high value, innovative and research oriented business base. The Project will also provide major investment at a time of economic downturn for the region and, fundamentally, supports efforts to drive the region towards a low carbon economy.

8.14.2 It is not possible to be precise on the quantitative performance of the project against the NI/LAA indicators, but it is possible to indicate the following:

- NI 151 – the Project, especially during construction, should give a major boost to employment and employment rates in Somerset, with up to 1300 direct jobs for Somerset resident workers at peak construction (with c. 1000 in the three immediate districts), and at least 300 permanent operational jobs. In addition there will be a substantial amount of additional indirect employment, in the order of 50% of the direct jobs.
- NI 16/45/152/153 – the project will target the unemployed and disadvantaged groups, and this should be of particular benefit to those in the NEETS category. This policy was highly effective at Sizewell B, is being used effectively for Flamanville 3, and is an even higher priority for Hinkley Point. The numbers trained from the unemployed at Sizewell B provide an indication of the numbers possible. Employment has great importance as a catalyst in breaking the cycle of poverty and vulnerability, and improving all dimensions of personal wellbeing.
- NI 163/165 – the skill demands of the Project, and associated training, will have an important effect on the qualifications of the local working age population. All employees will have to meet the skill requirements of the Project. The construction project (civil works) will support training particularly to level 2; there will also be some opportunities for higher level training in more specialist/professional aspects of the construction programme, and in the operational programme in relation to NI 165 - working age population qualified to at least Level 4. Recent research shows the high skill levels of the nuclear generating sector (Cogent, 2009).
- NI 166 – the average earnings of power station employees (both construction and operational) are substantially above the average for the area, and will give a major boost to local average earnings, and to local services.
- NI 171 /172- it is envisaged that the project will provide many opportunities for business growth, both directly associated with project contracts (construction and operational), and also indirectly (e.g.: in encouraging new serviced and non-serviced accommodation provision). It has been estimated that the construction and operational stages may on average put £100 million pa, and £40 million pa, respectively into the local economy, providing substantial business opportunities, which will hopefully raise the rates of VAT business registration in the immediate districts.

- LAA LPI (7) – this high technology project should make an important contribution to the representation of the high technology/ knowledge based element in the Somerset and local district economies. As a minimum HPC will replace the existing complex, and therefore help to sustain the long term future of the existing nuclear industry and its local supply chain in Somerset. There is also the potential to build on this input in terms of further supply chain development.
- NI 117-Measures will also be put in place to avoid any increase in crime and disturbance associated in particular with the construction stage of the Project.
- NI 154/155 it is anticipated that the legacy implications of the construction stage accommodation strategy could contribute to improved accommodation (eg for Bridgwater College in Bridgwater) and support the urban renewal programme in north-east Bridgwater.

8.14.3 The local significance of the Hinkley Point C project can also be assessed in relation to the key priorities and objectives of the three intermediate districts. Each district has a wide array of policy documents and associated objectives. Many of these coalesce around some key themes. For Sedgemoor District, reference is made here to relevant priorities from the Sedgemoor Economic Masterplan: Technical Annex (SDC, 2008). In relation to these themes and priorities, the Project should contribute to:

- A restructuring of the local economy, with the development of a major high technology employer, to offset the eventual end of activity at Hinkley Point A and B, and decline in other traditional industries. With a commitment to local recruitment and training, the Project, in both its construction and operational stages, should help to raise the skill level of the home-based workforce across a range of NVQ levels from 2 to 4. With appropriate targeting, such skill development should improve levels of worklessness and help to improve opportunities in the high deprivation wards in Sedgemoor. As with Sizewell B, local unemployment rates are likely to benefit especially during construction.
- A better balance of work and home, by delivering Somerset – based employment which should be attractive to local people, and should help to counter the current out-migration of young people form the area. Indirect employment associated with the project also has the potential to support the economic base of a range of rural and coastal communities. There is also the potential to support rather than conflict with the important local tourism industry.
- The construction stage of the project will deliver an important legacy supply of improved accommodation, with significant elements in the Sedgemoor towns of Bridgwater and Cannington. For example, accommodation campus development in the wards of NE Bridgwater can make an important contribution to the town's urban regeneration programme. The owner occupation requirements of the project may also help to support the local housing market through a period of limited demand.
- Hinkley Point C is one of the two 'big ticket' items identified by SDC as having the potential to generate new opportunities. This is a major opportunity for the district which also links well with the other 'big ticket' item, a university campus at Bridgwater College. Nuclear development has been instrumental in some recent initiatives for the College, including the National Academy Nuclear and associated investment. With the planned investment in the UK nuclear programme over several decades, this area of strength is likely to be a catalyst for continuing growth in further and higher education in the district, creating a virtuous circle of improving skills and increasing attraction to advanced industries.

8.14.4 For West Somerset, reference to the West Somerset Economic Strategy (WSDC, 2009), and for Taunton Deane, reference to the Taunton Deane Corporate Strategy (TDDC 2009), also indicate a

range of potentially similar impacts in relation to local objectives. For example, for West Somerset the Project should contribute to local employment creation, skill development and the stimulation of local enterprise, which can help to diversify the local economy into innovative and advanced high technology sectors. Also as for Sedgemoor, with appropriate targeting, the development can be used to tackle pockets of worklessness. A Project Visitor Centre can add an important indoor tourism attraction, and accommodation demand from the Project may help some local suppliers to improve their returns across the year and also bring forward some new supply of longer term benefit to local tourism. For Taunton Deane, the employment and supply chain opportunities generated by the Project could be useful in diversifying the borough's economy and offsetting its current high dependence on public sector employment.

b) Assessment Against Developer/EDF Energy Objectives

8.14.5 Table 8.42 provides a summary assessment of impacts, mitigated and enhanced as appropriate against EDF Energy objectives.

Table 8.42: Assessment of Impacts against EDF Energy Objectives

Objectives	Construction Stage Examples	Operational Stage Examples
Overall Strategic	Project will: provide local socio-economic benefits through its training, employment, accommodation, procurement policies; provide legacy benefit – through its accommodation and transport strategies; and will minimise disturbance, and be a good neighbour, through for example workforce management in accommodation campuses.	Project will: provide local socio-economic benefits through its provision of high quality, well paid local employment; local procurement policies; 'new blood' in the community, and legacy of infrastructure/other benefits from the construction stage.
Accommodation	Project will: provide local benefit through use of local tourism accommodation within capacity limits; provide substantial accommodation campuses to take at least one third of non-home-based workforce; provide an accommodation legacy (eg: for improved college and care facilities).	Project will: provide some legacy accommodation benefits from the construction stage, and provide some boost to the local owner occupation market.
Travel	Project will: minimise need for, and impact of, local travel by workforce, through for example use of shift system, proposed Park and Ride facilities, Cannington Bypass and improved rail connections.	Project will: provide considerable legacy benefits from some of the measures introduced for the construction stage of the Project (e.g: improved rail connections; Park and Ride facilities).
Training and Recruitment	Project will: through commitment to local training and recruitment, help to raise the skill profile of the local area, and provide opportunities for local people, including those from disadvantaged groups.	Project will: provide a substantial number of high skilled, well paid and long term local jobs in a major high technology sector.

Objectives	Construction Stage Examples	Operational Stage Examples
Procurement	Project will: provide opportunities for local suppliers of goods and services to participate in the supply chain for the construction process, and will sponsor training and development to build local supply capacity. HPC Visitor Centre will also benefit local tourism industry.	Project will: build on HPB and HPC construction stage local business links to enhance local supply chain links and opportunities. HPC Visitor Centre will also benefit local tourism industry, providing a valuable indoor tourism facility.

c) Overview Significance Assessment with Mitigation and Enhancement Measures

8.14.6 The likely significant impacts will vary between the stages of the Project. The following table/register (Table 8.43) seeks to provide an indicative and simplified overview summary of impacts, mitigated and/or enhanced as appropriate, for the key construction and operational stages, with a focus on impacts in the local area of the three immediate districts.

Table 8.43: Indicative Impacts Assessment Summary - with Mitigation and Enhancement Measures

Impact type	Construction stage	Operational stage
Demographic change: changes in local population level and mix (e.g. age/gender)	• large influx of predominantly male workforce population, 30-50 age range • impacts mitigated through distributed accommodation campuses and other services provision (transport, health etc.) **Moderate (neutral)**	• smaller numbers, but still substantial and with above average skills/ well paid, and long term presence; new blood in ageing communities **Minor (+ve)**
Direct and indirect employment change: changes in employment structure; local unemployment levels etc.	generally very positive, with strong local recruitment and training policies/measures, and associated skill development;some limited loss of labour from other local employers/local wage inflation **Major (+ve)**	• as above—and as for construction, on a smaller scale, but with long term employment stability and high quality employment • local employment benefits from recruitment and training initiatives **Moderate (+ve)**
Expenditure effects use of local contractors; workers expenditure; multiplier effects etc.	• again generally positive, with package of local procurement policies **Moderate (+ve)**	• as for construction, but on a smaller basis, and longer term stability • local procurement benefits from procurement strategy **Minor/Moderate (+ve)**
Wider economic effects: potential effects on key economic sectors (eg construction and tourism, and on the development potential of	• potential boost for some key sectors • support for development of local high /tech and knowledge economy • local benefits from training and procurement/supply chain	• as for construction, but on a smaller basis and longer term stability • local benefits from training and procurement/supply chain strategies

Impact type	Construction stage	Operational stage
the area)	strategies **Moderate (+ve)**	**Moderate/Minor (+ve)**
Accommodation pressures and development: changes in both the temporary and permanent local accommodation market	• pressure on accommodation markets mitigated by associated campus etc. provision • considerable legacy benefits of College and care facilities • mixed issue for tourism, but mitigation measures should reduce any negative impacts **Moderate (+ve); Minor (neutral)—for tourism**	• considerable legacy benefits of improved accommodation from construction stage • boost to local owner occupation market **Minor/Moderate (+ve)**
pressure on local social conditions and associated services; for example on health and local medical services; crime and policing; education and schools	• re health—appropriate measures (e.g. site Medical Centre, plus any GP surgery support) should mitigate health services impacts • re education----may be beneficial in some cases –eg maintaining local school rolls **Minor (neutral)**	• may help to maintain services in local area and in more rural areas **Minor (+ve)**
• **less tangible socio-cultural changes;** for example, quality of life, social cohesion, overall disturbance	• mitigation measures noted above (eg accommodation, transport etc) should help to reduce disruption to the normal small town/village/rural lifestyle of the Somerset coastal area • will help to improve quality of life in some areas, especially through reduction of worklessness in deprived areas • package of community benefits will provide welcome support in identified areas of need **Minor/Moderate (-ve/neutral)**	• likely to be limited, but 'new blood' in community • more opportunities for young people, and for deprived areas • substantial infrastructure • legacy implications **Slight/Moderate (+ve)**

d) Residual Impacts

Table 8.43 shows that there is scope to enhance the substantial local benefits of the project, especially for employment and wider economic impacts, and to mitigate the potential negative impacts of the project on accommodation, local services and local quality of life. There may be some limited residual impacts, for example relating to the potential local disturbance to some communities resulting from the construction stage. But these impacts should be reduced to minor/moderate (-ve/neutral) in terms of significance by appropriate mitigation and enhancement measures, both socio-economic, and transport. The proposed Community Fund facility is particularly significant in this context.

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